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Society of Apothecaries.

PRESENTED BY

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&
John Hunter Junr.

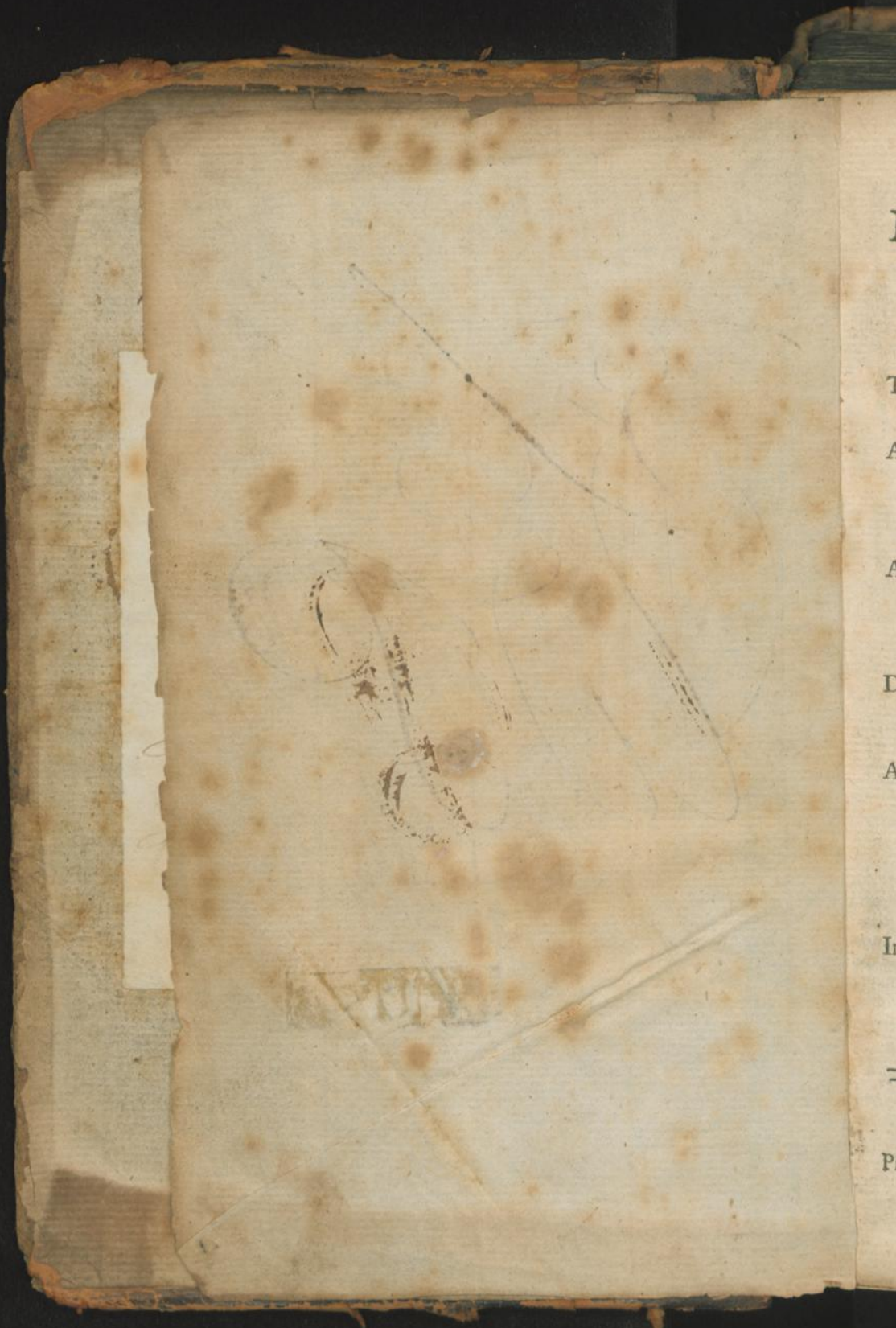
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THE
NEW DISPENSATORY:

CONTAINING

I.

The THEORY and PRACTICE of PHARMACY.

II.

A Distribution of MEDICINAL SIMPLES, according to their Virtues and sensible Qualities; the *Description*, *Use*, and *Dose* of each Article.

III.

A full Translation of the LONDON and EDINBURGH PHARMACOPOEIAS; with the *Use*, *Dose*, &c. of the several Medicines.

IV.

Directions for EXTEMPORANEOUS PRESCRIPTION; with a select Number of elegant FORMS.

V.

A Collection of CHEAP REMEDIES for the Use of the POOR.

The Whole intersperfed

With Practical Cautions and Observations.

Intended as a CORRECTION, and IMPROVEMENT of

Q U I N C Y.

L O N D O N,

Printed for J. N O U R S E, opposite *Catharine Street* in the *Strand*.

MDCCLIII.

1753

agement of the simple in its sensible qualities with others
 of known kind, in which part the medicinal vir-
 tues have likewise shewn, in which part the medicinal vir-
 tue of the respective instances resides, by what means it
 may be extracted and how it is to be used: what form the
 simple themselves, or their preparations, are most com-
 modiously and advantageously exhibited. Some instan-
 ces cannot admit of these things, and are very well adapted
 to others: a power of holding their roots, and an insinua-
 tion of that of nature, are also very important; whilst an in-
 fusion of the water, and a power of the second, are very
 parts, are medicines of great efficacy. We have supplied
 the principal remedies in the important part of medicinal
 knowledge, from actual experiment; for this of the kind
 is to be met with in books; and hope that this will be
 still prove sufficient recommendation to the present work.

The second part receives the preparations and compo-
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 founded, and two articles mistaken for one.

To the several medicines is assigned, where remaining,
 an account of the principles on which they are built, to-
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 more difficult or dangerous operations is added a full de-
 scription of the most advantageous method of performing
 them; and to such medicines as are liable to be abused,

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P R E F A C E.

Notwithstanding pharmacy is of that importance to the health of mankind, as to engage the favourable reception of the public for books written to improve the art; yet the great number which have lately appeared makes a preface to this undertaking necessary.

The reformation which the pharmacopœia of London has undergone, has not been equally followed by those who have built upon it. Many obsolete and absurd compositions are still retained by them all: the weights and measures, made use of in the several formulæ, are not reduced to one standard: the directions to the apothecary not sufficiently full or plain: the articles of the materia medica not described with that accuracy and precision necessary where mistakes may be of fatal consequence: virtues ascribed to medicines, which have no foundation in nature, but owe their origin to superstition and ignorance: and so much foreign matter, and ridiculous stories, interwove, as if the compilers endeavoured to recommend their books by their bulk, rather than by any new and useful matter.

It were easy to make the justness of this criticism appear, by instances drawn from the several dispensatories. But as this could answer no useful purpose, either to the reader or the author; we shall pass on to say what we have done, to deserve the favour of the public.

We have prefixed, by way of introduction to the work, a general theory of pharmacy, and a practical account of the pharmaceutical instruments and operations. In the theoretical part, care has been taken, to avoid all hypothetical reasonings, and to deliver only the direct result of experiment and observation. Hence, the properties, qualities, and mutual relations of medicinal substances, here laid down, are to be looked upon as general principles of the art; from which the effect of any assignable preparation or combination of the several simples may be judged.

This introduction is followed by an account of the weights and measures made use of in the book; accompanied with several new and accurate tables, the usefulness of which will sufficiently appear upon bare inspection.

The first part of the work itself contains what is called the *Materia medica*, or the substances received for medicinal purposes, in two books; one treats of simples in general, and the distribution of them under general heads; the other of the several articles in particular.

The simples are distributed, both according to their medicinal virtues, into cardiacs, stomachics, detergents, &c. and according to their more sensible qualities, into bitters, acrids, sweets, &c. The first of these arrangements is adopted by Quincy: the second, which is formed chiefly upon the plan of Cartheuser, is much more satisfactory, and of far greater real use.

In treating of the several simples themselves, we have given, where necessary, a description of the drug, with the marks of its genuineness and goodness; and fully set down the distinguishing characters of such as, from a similitude in their external appearance, are apt to be confounded with others of different qualities.

With regard to the virtues of medicines, particular care has all along been taken, to reject the fabulous ones retained in other works of this kind; and to give only those which have been either confirmed by repeated experience, or may be rationally inferred from the perfect

agree

P R E F A C E.

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agreement of the simple in its sensible qualities with others of known virtue.

We have likewise shewn, in what part the medicinal virtue of the respective substances reside; by what means it may be extracted and preserved; and under what form the simples themselves, or their preparations, are most commodiously and advantagiously exhibited. Some substances entirely unfit for certain forms, are very well adapted to others: a powder of horse-radish root, and an infusion of that of arum, are altogether insignificant; whilst an infusion of the first, and a powder of the second, newly prepared, are medicines of great efficacy. We have supplied the principal desiderata in this important part of medicinal knowledge, from actual experiment; for little of this kind is to be met with in books: and hope that this will of itself prove sufficient recommendation to the present work.

The second part receives the preparations and compositions of the new pharmacopœias of London and Edinburgh; with such of the old ones as still continue to be kept in the shops, and some others which have lately come into esteem, either in this kingdom or abroad.

In translating the prescriptions, where the original appeared too concise or obscure, the liberty is taken of expressing the directions in a more full and clear manner; but care has been had never to carry this liberty so far, as to vary the sense of the original. The ingredients in the several compositions are, for greater distinctness (a point which has, throughout the whole, been particularly aimed at) ranged in different lines: from a want of some method of this kind, there are instances of ingredients being confounded, and two articles mistaken for one.

To the several medicines is subjoined, where requisite, an account of the principles on which they are built; together with their virtues, use, dose, and the cautions necessary to be observed in the exhibition of them. To the more difficult or dangerous operations is added a full description of the most advantageous method of performing them: and to such medicines as are liable to sophistication,

the means of distinguishing the genuine from the adulterated.

In the third part, directions are given for extemporaneous prescription; together with a collection of elegant and efficacious medicines made use of in the present practice; a collection, not indeed very numerous, but containing a sufficient variety of compositions, in different forms, for answering most intentions of cure. This part is followed by a number of efficacious and cheap medicines designed for the use of the poor.

To the whole are subjoined three copious and useful indexes; the first of diseases, with the principal remedies adapted to each in their different stages and circumstances; the second of the English, and the third of the Latin names of the simple and compound medicines. In the two latter, the synonymous names, made use of by authors, are inserted, in a different character; an addition, which was not made without considerable trouble to the author, and which he hopes will be of equal utility to the reader.

The author is sufficiently sensible of many imperfections in this performance; nevertheless presumes to hope that it will appear he has every where consulted the dignity of the art, the ease and advantage of the operator, and the safety of the patient.

It were easy to make the subjects of this criticism appear
 drawn from the several dissertations. But
 as this could answer no useful purpose, either to the
 reader or the author, we shall pass on to say what we have
 done, to deserve the favour of the public.

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INTRO-

INTRODUCTION.

A GENERAL

THEORY of PHARMACY.

PHARMACY is the art of preparing and compounding natural substances for medicinal purposes; in a manner suitable to their respective properties, and the intentions of cure.

This art consists of two branches: one which teaches the knowledge of medicinal substances themselves, their distinguishing characteristics, the marks of their goodness, genuineness and purity, their several properties and qualities, their relations to one another with regard to miscibility, their fitness or unfitness for different treatments, and their general effects upon the human body: the other, the skilful performance of the several processes, or operations, by which they are fitted for particular purposes.

A perfect acquaintance with pharmacy, considered in this light, is essentially necessary to the due exercise of the art of physic: for if this is neglected, bodies that nearly resemble one another in appearance will not only be confounded; but likewise substances of known efficacy will be subjected to operations which destroy their virtue, infused in improper menstrua, added to bodies with which they refuse a due degree of union, or which alter and impair their virtues.

Pharmacy has been usually distinguished into **GALENICAL** and **CHEMICAL**. By the first, medicinal substances are barely reduced into a convenient form for being exhibited, whether singly or in composition: by the other, their efficacious parts are extracted from the useless and inactive; mixt bodies are resolved into more simple ones of different qualities from the original subject; and new artificial compounds produced, possessing properties which neither of the ingredients had before. The reduction of bodies into powder in the common manner, the forming of pills, troches, lozenges, electaries, conferves, plasters, belong to the galenical; essential oils, spirits, extracts, resins, volatile and fixt salts, the artificial neutral salts, the preparations of metallic and other mineral substances, to the chemical pharmacy.

CHAPTER I.

A general view of the properties and relations of medicinal substances.

SECT. I.

VEGETABLES.

VEGETABLES are organized bodies, containing, in certain vessels, OILY, RESINOUS, GUMMY, and SALINE juices. These are found to differ greatly, not only in quantity, but likewise in their quality, according to the age of the plant, the season of the year, and the soil in which it is produced. Thus some herbs in their infancy are found to abound most with oil; whilst others yield little or none, till they have attained to a more advanced age. The common grain, and sundry other seeds, when beginning to vegetate, are in taste remarkably sweet; yet the kernels of certain fruits prove, at the same period, extremely acrid. The roots of some of our indigenous plants, whose juice is, during the summer, thin and watery; if wounded early in the spring, yield rich, balsamic juices, which, exposed to a gentle warmth, soon concreate into solid gummy-resins, superior to many of those brought from abroad. In open exposures, dry soils, and fair warm seasons, aromatic plants prove stronger and more fragrant, and fetid ones weaker in smell, than in the opposite circumstances. To these particulars, therefore, due regard ought to be had in the collecting of plants for medicinal use.

Vegetable OILS are of two kinds: one, gross, insipid, and inodorous; called, from the manner in which it is usually extracted, *expressed oil*: the other more subtle and volatile, possessing the whole of the smell, and not unfrequently the taste of the subject, and hence named *essential*.

EXPRESSED OILS, in their pure state, do not unite with either aqueous or spirituous liquors: a skillful addition of sugar renders them miscible with the former, into lochoch and oily draughts: alkaline salts change them into a soap, miscible with both, and perfectly dissoluble in the latter into an uniform transparent liquor. In the cold, they lose greatly of their fluidity: some, in a small degree of cold, congeal. Exposed to a warm air, they soon become thin, and highly rancid; their soft, lubricating and relaxing quality

quality is changed into a sharp acrimonious one: in this state, instead of allaying, they occasion irritation; instead of obtunding corrosive humors, they corrode and inflame. These oils are liable to the same noxious alteration while contained in the original subject: hence the oily seeds and kernels, as almonds and the cold seeds so called, are frequently met with rancid. Nevertheless, on triturating these kinds of substances with water, the oil, by the interposition of the other matter, unites with that fluid into an emulsion or milky liquor, which tends rather to grow sour than rancid.

ESSENTIAL OILS unite with rectified spirit of wine, but not with water; though this last may be made to take up some portion of them, so as to become considerably impregnated with their flavour: the admixture of sugar, the yolk of an egg, or alkaline salts, renders them totally dissoluble in water. Digested with volatile alkaline spirits, they undergo various changes of colour, and some of the less odorous acquire considerable degrees of fragrancy: whilst fixt alcalies universally impair their odour, and hence prove injurious additions in the extraction of tinctures from aromatic vegetables. These oils, exposed for a length of time, to a warm air, suffer an alteration very different from the foregoing, gradually becoming thick, and at length hardening into a solid brittle concrete, with a remarkable diminution of their volatility, fragrancy, pungency, and warm stimulating quality; though they are still found to yield, upon proper treatment, a portion of fluid oil, little different from what it was at first. The admixture of an acid instantly produces a change similar to that which time effects. The expressed oils likewise are coagulated by acids.

Oils thus thickened, or indurated, from BALSAMS and RESINS, some of which, like the oils in their fluid state, prove insipid and inodorous; whilst others possess a greater or less degree of smell, pungency and warmth. The latter and most of the former, are dissolved by rectified spirit, and by watery solutions of fixt alkaline salts. They all dissolve in the fluid oils; and, when liquefied by heat, mingle with one another.

GUMS and MUCILAGES are glutinous substances, of no particular smell or taste, readily dissoluble in water, but not in spirits, or in oils; they are nevertheless easily miscible, when softened with a little water, both with the fluid oils and the thicker balsams; which, by this means, become in good measure soluble in aqueous liquors, and are thus excellently fitted for medicinal purposes.

This elegant method of uniting oils with aqueous liquors, which has been kept a secret in a few hands, seems to have been known to Dr. Grew. "I took, says he, oil of aniseeds, and pouring it upon *another body*, I so ordered it, that it was thereby turned into a perfect milk white balsam or butter; by which

“ means the oil became mingleable with any vinous or watery liquor; easily and instantaneously dissolving therein, in the form of a milk. And note, this is done without the least alteration of the smell, taste, nature, or operation of the said oil. By somewhat the like means, any other stillatitious oil may be transformed into a milk-white butter, and in like manner be mingled with water, or any other liquor; which is of various use in medicine, and what I find oftentimes very convenient and advantageous to be done*.”

The native SALTS of vegetables are not only soluble in water, like other salts, but many of them in rectified spirit also: they likewise render a part of the gross oil miscible with each of these menstrua, the largest quantity with aqueous ones. Hence essential salts, obtained from the aqueous and oily juices of vegetables, are found to partake largely of oil; whilst those extracted by spirit of wine prove far more pure. By means of this menstruum, certain productions of this kind may be excellently purified, acidulous salts prepared from some vegetables of that class, and perfect saccharine concretions from many of our indigenous sweets.

The insipid oils and gums, and the sweet and acid salts, in all the substances which contain them, agree among themselves in quality: vegetables abounding with the three first are emollient or nutritious; with the latter, cooling. Essential oils and resins, on the other hand, differ greatly in different subjects: in these the virtues of aromatic, fetid, and most of the acrid plants reside: the purgative, emetic, bitter and astringent qualities of vegetables, are likewise generally contained in particular species's of resinous matter either pure, or blended with the other principles; the astringent, the simple bitter, and the purgative bitter parts, dissolve almost equally in water and in rectified spirit; tasteless purgative and emetic substances are soluble in spirit only. The aromatic and odorous resins contain an essential oil which exhales by the heat of boiling water: the other resinous matters, the insipid oils, the gums, mucilages and sweets, contain nothing that is capable of exhaling without such a degree of fire, as changes or destroys their original qualities.

Vegetable substances, exposed, in close vessels, to the action of a strong fire, are resolved into acrimonious OILS, of an EMPYREUMATIC, or burnt fetid smell; ACID spirits; and a black COAL, void of taste or smell, and not dissoluble in any kind of liquors. Burnt, in the open air, they are changed partly into a nauseous bitter SOOT; whose active parts are dissoluble both in water and in spirit of wine; and partly into ashes: these are composed of an

* Grew of mixture, chap. v. inf. i. § 7.

I N T R O D U C T I O N .

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EARTH soluble only in acids, and of a **FIXT ALCALINE SALT** separable from it by water. Some vegetable substances, as mustard seed, yield no fixt alkaline salt, but a considerable quantity of a **VOLATILE** one. Soot, and all vegetable matters when putrified, yield likewise a volatile alkali.

Some have endeavoured to investigate the virtues of plants from the principles into which they are, by this treatment, resolvable: and in this view, the chemists of the French academy analysed almost all those made use of in medicine. The result of their experiments shewed, that the labour was fruitless; that the substances thus obtained have no resemblance, in quality, to the original vegetable; and that plants, the most remote in virtue, purgative and astringent, poisonous and salutary, are changed by fire into similar principles.

Sweet vegetable juices, or solutions made in water, exposed to a gentle warmth, ferment, lose their sweetness; and are converted into a **VINOUS** liquor, which yields in distillation an inflammable **SPIRIT**; productions extremely different in quality from the liquor employed at first. The native juices of fruits, high-boiled worts, &c. attenuate the animal fluids, and relax the solids; and hence have sometimes proved serviceable as aperient medicines, and when imprudently taken, occasioned dangerous fluxes: whilst the vinous and spirituous liquors, produced from them by fermentation, tend in proportion to their degree of spirituousity, to thicken the fluids, to strengthen and constringe the solids, and thus prevent or restrain immoderate evacuations.

Wines are changed, by a continuation of the process which produced them, into an unflammable, cooling, acid liquor, **VINEGAR**: the more spirituous the wine, the more acid is the vinegar. This, if the operation is farther continued, becomes almost insipid, and is at length converted into a **PUTRID** matter.

S E C T. II.

A N I M A L S .

THE general principles of animals are, a **GELATINOUS** substance, soluble in water; and a gross oil or **FAT**, not miscible, of itself, with either aqueous or spirituous liquors, but reducible by fixt alkaline salts, like the vegetable oils, into soap. Some insects, the ant in particular, are found to contain an **ACID** juice; and the strong-scented animal matters, as castor and musk, an **ESSENTIAL OIL**, containing the whole smell and flavour of the subject, and, like the essential oils of vegetables, volatile in the heat of boiling water, and dissoluble in spirit of wine.

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The soft and fluid parts of animals are strongly disposed to run into PUTREFACTION *: they putrefy much sooner than vegetable matters; and when corrupted prove more offensive.

The putrefaction of animal substances is prevented or retarded by all saline matters; even by the fixed and volatile alkaline salts, which have been generally supposed to produce a contrary effect: of all the salts that have been made trial of, sea salt resists putrefaction the least; and in small quantities, is found to hasten it.

* This process takes place, in some degree, even in the bodies of living animals, as often as the juices stagnate long, or are prevented, by an obstruction of the natural excretories, from throwing off their more volatile and corruptible parts.

Dr. Pringle has lately communicated some excellent observations and experiments on this subject; and given great light into the nature of animal putrefaction, and putrid diseases. He observes, that if the corruption is great and sudden, a fever or a flux ensue; but that if the accumulation of acrimonious putrid matter is so slow, that the body becomes habituated to the putrefaction, a scurvy prevails. Hence the frequency of this last distemper in long voyages, on board unventilated ships, from corrupted air and provisions; in marshy countries, from similar causes; and in a lesser degree, in all northern climates, in moist situations, from a want of due perspiration.

During putrefaction, a quantity of air is generated; all the humors become gradually thinner, and the fibrous parts more lax and tender. Hence the tympany which succeeds the corruption of any of the viscera, or the imprudent suppression of dysenteries by astringents; and the weakness and laxity of the vessels observable in scurvies, &c.

The crassamentum of human blood changes by putrefaction into a dark livid coloured liquor: a few drops of which tinge the serum of a tawny hue; like that of the ichor of sores and dysenteric fluxes; of the white of the eye, the saliva, the serum of the blood drawn from a vein, and that which oozes from a blister, in deep scurvies, and in the advanced state of malignant fevers.

The putrid crassamentum changes a large quantity of recent urine into a flame coloured water, so common in fevers and in the scurvy. This mixture, after standing an hour or two, gathers a cloud resembling what is seen in the crude water of acute distempers; with some oily matter on the surface, like the scum which floats on scorbutic urine.

The serum of blood deposits, in putrefaction, a sediment resembling well digested pus, and changes to a faint olive green. A serum so far purified as to become green, is perhaps never to be seen in the vessels of living animals: but in dead bodies, this serum is to be distinguished by the green colour which the flesh acquires in corrupting. In salted meats, this is commonly ascribed to the brine, but erroneously; for that has no power of giving this colour, but only of qualifying the taste, and in some degree the ill effects of corrupted aliments. In foul ulcers, and other sores, where the serum is left to stagnate long, the matter is likewise found of this colour, and it is then always acrimonious.

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I N T R O D U C T I O N .

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The vegetable bitters are much stronger antiseptics; not only preserving flesh uncorrupted for a great length of time; but likewise in some degree recovering it, when putrid, to its original firmness and sweetness. Vinous spirits, aromatic and warm substances, most of the diaphoretic drugs, and the acrid plants falsely called *alcalescent*, are also found to resist putrefaction; and the absorbent earths, to promote it.

All animal substances, excluded from the air, and exposed to a strong fire, are resolved into fetid OILS, VOLATILE ALKALINE SALTS, and a black COAL, which on the admission of air, burns into white ashes, perfectly void of saline matter. The gelatinous parts yield a large quantity of volatile salt; the oily, only a small one. The salts produced, by this treatment, from different animal matters, are, when perfectly purified, in all their sensible qualities the same; and agree in many respects with the fixt salts of vegetables; their principal difference from which is their volatility.

S E C T. III.

M I N E R A L S.

THE products of the mineral kingdom may be divided into *earths, metals, oils and bitumen, salts and sulphur.*

There are five kinds of mineral EARTHS, distinct from one another; *alkaline, argillaceous, crystalline, gypseous, and talky.*

The ALKALINE, ABSORBENT, or CALCAREOUS earths are easily distinguishable by their solubility in acid liquors: they dissolve even in the weakest acids, and, in a proper quantity, destroy the acidity of the strongest; the other earths are not acted on by any kind of humid menstruum. Fire makes a remarkable alteration in the quality of these earths; not only reducing them, however hard and compact in their natural state, into a calx, or friable substance; but at the same time rendering them extremely acrimonious and caustic. Water, poured on this calx, greatly abates its acrimony, dissolves a part of it, and becomes impregnated with astringent and lithontriptic virtues, erroneously ascribed to some of these earths in their natural state.

The most obvious character of the ARGILLACEOUS earths is, that when moistened with water, they prove viscid and ductile. They are affected by fire in a very different manner from every other kind of earth; acquiring from a moderate one a degree of

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hardness, which becomes greater and greater, in proportion to the vehemence and continuance of the heat.

The CRYSTALLINE earths are the hardest of all: they readily strike fire with steel, and by this mark specks or veins of them may be discovered in masses of any of the others. In a strong fire, they become friable; but do not, like the alkaline earths, acquire any degree of acrimony.

The GYPSEOUS earths are reduced by a moderate fire into a soft powder, which readily mingles with water into an uniform mass, somewhat ductile while moist, but quickly drying, and becoming brittle. A stronger fire deprives the powder of this property, without occasioning any other alteration.

The TALKY earths are generally of a fibrous or leafy texture; more or less pellucid, bright or glittering; smooth and unctuous to the touch: too flexible and elastic to be pulverised; so soft as to be easily cut with a knife. The most intense degree of fire makes no farther alteration in them, than somewhat diminishing their flexibility, brightness, and unctuousity.

The particular bodies belonging to each of these classes differ among themselves in external appearance, degree of hardness, &c. but not, as has been generally supposed, in their intrinsic qualities. However different the laminated or crystalliform *Jelenita*, the fibrous earths improperly called *English talc*, and the granulated *gypsa*, or common *plaster of Paris stones*, appear to the eye; proper experiments evince their similarity. The fine soft *chalk*, the coarser *lime-stones*, the hard *marbles*, the transparent *spars*, the petrified *sea shells* of various figures, the earthy matter contained in waters, which separating from them incrustates the sides of caverns, or hangs in icicles from the top, receiving from its different appearances different appellations; however strongly some of them have been recommended for particular medicinal purposes; are only different forms of the alkaline earth, simple pulverisation depriving them of the superficial characters by which they were distinguished in the mass. All the alkaline earths absorb acidities in the first passages; the argillaceous soften acrimonious humors; whilst the others discover none of the virtues which many have ascribed to them, and prove injurious to the body rather than beneficial.

METALLIC substances melt in the fire, without suffering any alteration in their qualities if the air is perfectly excluded. If the air is admitted, they are all, except gold and silver, gradually converted into a powdery or friable *calx*; which urged with a stronger heat, proves either volatile, unfusible, or runs into a vitreous mass. This change of their obvious properties is generally accompanied with a notable alteration in their medicinal virtues: thus quick-
silver,

silver, which taken into the body in its crude state, and undivided, seems inactive; when calcined by fire proves a strong emetic and cathartic, though taken even in small doses, and in smaller ones a powerful alterative in chronical disorders; whilst the regulus of antimony, on the other hand, is changed, by the same treatment, from a high degree of virulence to a state of inactivity.

The calces and glasses of metals recover their metallic form and qualities again, from the addition of any inflammable substance that does not contain mineral acid.

All metallic bodies dissolve in acids; some only in particular acids, or compositions of them, others in all. Some likewise dissolve in alkaline liquors, as copper; and others, as lead, in expressed oils. Fused with a composition of sulphur and fixt alkaline salt, they all (except zinc, a substance little made use of) become soluble in water: Hence the preparation of the sulphur so called, of antimony, and the kermes mineral, to be described in their place.

All metallic substances, dissolved in saline liquors, have powerful effects on the human body; though many of them are in their natural state inactive: their activity is generally in proportion to the quantity of saline matter combined with them. Thus *lead*, which in its crude form has no sensible effect; when united with a small portion of vegetable acid into *cerusse*, discover a low degree of the styptic and malignant quality, which it so strongly exerts when blended with a larger quantity of the same acid, into what is called *jaccharum saturni*.

The mineral OILS, as petroleum, are not miscible of themselves either with aqueous or spirituous liquors; nor are they so easily united therewith, by the mediation of other bodies, as the vegetable and animal oils. The coagulated mineral oils, or BITUMENS, prove either totally dissoluble in pure spirit, or give out to it their more fertile parts. The fluid oils are coagulated into the consistence and appearance of bitumen by the admixture of acid liquors.

There are three kinds of ACIDS peculiar to the mineral kingdom: the vitriolic, nitrous, and marine. All these are highly corrosive; inasmuch as not to be safely touched, unless largely diluted, or mixed with such substances as abate their corrosiveness. Mixed hastily with vinous spirits, they raise a violent ebullition, attended with a copious discharge of noxious fumes: by this addition, the acid is dulcified or obtunded. They effervesce strongly with alkaline salts, and form with them NEUTRAL ones, that is, such as discover no marks either of an acid, or alkaline quality.

The VITRIOLIC is the strongest of all the acids, the most ponderous of all known liquors. The skillful addition of a minute

nute portion of inflammable matter, destroys its acidity, and changes it into a solid, insipid concrete, the common SULPHUR of the shops. Combined with the mineral alkaline earths, it forms an insipid and scarce dissoluble crystalline mass; with fixt alkaline salts, a neutral salt likewise very difficultly soluble. With alkaline salts and earths duly prepared, it composes salts of easy solution; the cathartic salt of Glauber, the bitter purging salt of mineral waters, the austere astringent salt alum.

The NITROUS acid is next in strength to the vitriolic. Inflammable matters mixed with this acid, on being heated red, deflagrate. With fixt alkaline salts, it composes nitre; with volatile alkalies, a volatile nitre, soluble in spirit of wine; with alkaline earths, a bitterish or acrid concrete, which deliquesces in the air.

The MARINE is the weakest of the mineral acids, but stronger than any of the vegetable. It unites with vinous spirits more difficultly than any other acid. With fixt alkaline salts, it forms a neutral one, similar to sea salt; with alkaline earths, an highly pungent saline liquor, which either does not crystallize, or whose crystals deliquesce in the air.

It is remarkable of this acid, that though so much weaker than the two foregoing as to be easily expelled by either from alkaline salts and earths, it nevertheless dislodges them from metallic substances; with which it has a much greater AFFINITY than any other acid. Hence corrosive sublimate, though supposed to participate of all the three acids employed in its preparation, is found upon experiment to contain only the marine; which not only precludes the action of the other two upon the mercury, but likewise expells them after they have been combined with it.

The doctrine of the affinity of bodies is of very extensive use in the chemical pharmacy: many of the officinal processes are founded on it; and several of the preparations turn out very different from what one unacquainted with this property of bodies would expect from the ingredients. We shall here therefore subjoin a table of the principal affinities observed in the pharmaceutical operations, formed chiefly upon that of Geoffroy.

A TABLE

*A TABLE of the relations or affinities observed between different
SUBSTANCES.*

INFLAM- MABLE SPIRITS	Water	Oils and refins					
WATER	Inflammable spirits	Neutral salts, composed of mineral acids and fixt alcalies ; and metallic salts					
	fixt alcaline salts	inflammable spirits					
ACIDS in general	fixt alcaline salts	volatile alcaline salt and alcaline earths	metallic substances				
The VITRIOLIC acid	the inflam- mable prin- ciple of bodies	alcalies	zinc	iron	the earth of alum	copper	mercury
The NITROUS acid	zinc	iron	copper	tin, lead,	mercury	silver	camphor
The MARINE acid	iron	regulus of antimony	copper	silver	mercury		
FIXED ALCALINE SALTS	the vitriolic acid	the nitrous acid	the marine acid	vegetable acids	oils, fulphur		
VOLATILE ALCALINE SALTS	the vitriolic acid	the nitrous acid	the marine acid				
ALCALINE EARTHS	the vitriolic acid	the nitrous acid	the marine acid				
METALIC SUBSTANCES	the marine acid	the vitriolic acid	the nitrous acid	vegetabl acids	oils		
SULPHUR	fixt salts, quicklime	iron	copper	lead	silver	regulus of antimony	mercury
REGULUS of ANTIMONY	iron	copper					

If the first substance in any of the foregoing series's be combined with another in the same series, the addition of any of the intermediate bodies will disunite them. Thus, if any acid is combined with a metallic substance, it will let go the metal to take up an alkaline earth, or volatile salt; and these again it will forsake, to unite with fixed alcalies. The uses of this table, in many of the capital operations of the present pharmacy, will sufficiently appear hereafter.

CHAP-

CHAPTER II.

Of the pharmaceutical instruments.

FURNACES, or instruments, for containing and applying fire, and regulating its power, are of different sorts, according to the particular purposes which they are intended to answer. The parts common to them all are, a cavity for receiving the ashes; and another above this, for the fuel, furnished with a grate.

The most simple furnace is that for **DECOCTION** and **INFUSION**, otherwise called the furnace for **OPEN FIRE**. This is usually made of an iron hoop five or six inches deep, with a grate at the bottom like the common stoves, and either supported on feet, so as to be easily moveable, or fixed in brickwork.

The **SAND FURNACE** is deeper than the foregoing, and has an iron pot let into it at top: this is filled with sand, in which the vessel containing the subject is placed. A door is made in the forepart, above the grate, for admitting the fuel; and an aperture in the back part, near the top, by which the smoke is discharged into a flew or chimney.

The ordinary **MELTING FURNACE** is likewise a hollow cylinder, with a flew in the back part, like the preceding: but without a door: the fuel and vessels are put in at the top, which is occasionally covered with a tile or iron plate. There is also another sort of melting furnace, with a door in the front, and a flew, or chimney on the top.

The furnace for a copper **STILL** differs considerably from the foregoing. In *this*, the smoke, with the flame, goes off at the farther end of a long narrow grate, in a spiral flew round the sides of the still; at the uppermost part of which, it is discharged into a common chimney. The narrowness of the bottom of the still renders this conveyance of heat round its sides necessary.

The **ATHANOR** furnace, besides a door for inspecting the fire, &c. has another, in the opposite side, opening into a large flew, the heat

heat conveyed through which is applied to warm a sand bath, &c. The body of the furnace is made of considerable height, for receiving a large quantity of fuel at once: the top being closely covered, the fuel burns only in proportion as it falls down to the level of the flew. By this means, a nearly equal heat may be kept up for a length of time without attendance.

All the foregoing furnaces have a sufficient supply of air, so necessary to the support of fire, through the door of the ash-pit, without artificial impulse. They are built upon this principle; that the air which has served to animate the fuel, being greatly heated and rarified by it, ascends through the chimney, with a velocity proportionable to its perpendicular height, and is replaced by a constant succession of fresh air from without. As the vehemence with which the fuel burns, and the degree of heat which it produces, are in proportion to the quantity and velocity of this current of air, it is evident, that the heat may be increased or diminished at pleasure, by increasing or diminishing the height of the chimney, or its width by means of REGISTERS made in it for that purpose, or the apertures by which the air is admitted beneath the grate. Those furnaces, in which the stream of air, and consequently the degree of heat, is very considerable, are called WIND furnaces.

Where a strong degree of heat is requisite, as in the fusion of metals, &c. the vessel containing the subject is placed in immediate contact with the burning fuel: this is called operating in a NAKED FIRE. Where a lesser heat is sufficient, and the vessel employed is either glass, or the more tender kinds of earthen ware, certain media are interposed, to prevent the fire from acting with too great violence, and to render the heat less fluctuating: these are called BALNEA or BATHS.

Baths of dry substances, as SAND, are in general far less convenient than those of WATER, or other liquids: for the heat is equal in every part of the latter; whilst in the former it is very unequal, being considerably greatest at the bottom, and diminishing from thence to the top. Nevertheless, as water is impatient of any great degree of heat, the use of the sand furnace becomes in many cases necessary: the sand made choice of, should be a large coarse-grained sand, separated from the finer parts by washing, and from little stones by the sieve.

Some processes require to be performed with glass vessels in a naked fire. For these purposes, vessels made of the thinnest glass should be chosen; these bearing the fire, without cracking, much better than such as are thicker and in appearance stronger. All glasses, or other vessels that are apt to crack, must be cautiously

NEALED, that is, slowly heated; and when the process is finished, as slowly cooled*.

As a defence from the violence of fire, and to prevent the sudden contact of cold air on supplying fresh fuel, &c. the glass is to be COATED over to the thickness of about half a crown, with Windsor loam softened with water into a proper consistence, and beat up with a little cut tow, hair, horse-dung, or the like. Where Windsor loam is not procurable, white clay, mixed with as much well washed sand as will prevent its sticking to the fingers, will supply its place.

The same LUTE serves for lining the inside of iron or copper furnaces; which, without a defence of this kind, would soon be preyed upon, and scorified by the heat; as also, for securing the junctures of the vessels in the distillation of the volatile salts and spirits of animals: in the distillation of acid spirits, the matter may be moistened with a solution of fixt alkaline salt, instead of water. For most other purposes, a piece of wet bladder, or a paste of flower and water, or of linseed meal (that is, the cake, left after the expression of oil of linseed, ground into powder) are sufficient lutes. The few simple lutes, here described, will be found to answer all the purposes of the various compositions recommended by authors.

It would be needless to enter, here, into a particular detail of the pharmaceutical apparatus; as we shall have occasion to mention the principal instruments, in speaking of the several operations to which they are subservient. In this place, we shall only give the operator a few general cautions, with regard to the *matter* of the vessels designed for containing the subject.

The common EARTHEN vessels are of a porous texture; and hence are apt to imbibe a considerable quantity of certain liquors, particularly those of the saline kind; some of which soon discover their penetrating the vessel, by saline efflorescences on the outside. Such as are GLAZED, are liable to have their glazing corroded, especially by the stronger acids. Those made of pure clay, without any admixture of sand, &c. and called from their hardness and compactness STONE WARE, are, in good measure, free from both these inconveniencies.

IRON and COPPER vessels are corroded by all acids; the latter, by volatile alcalies also: hence burnt sponge, whose virtues depend

* Unless where the vessel is to be broken to get out the preparation, as in some sublimations: in this case, it is more convenient to expose the hot glass suddenly to the cold air, which will soon occasion it to crack; than to endanger throwing down the sublimed part among the feces by a blow.

upon a small portion of volatile alkaline salt, contracts a nauseous taste, and sometimes an emetic quality, by being barely pulverized in a copper or brass mortar.

GLASS vessels give no taint, and are not corroded or acted upon by any known substance; these therefore, in such operations, as will admit their use, are always to be preferred.

CHAPTER III.

Of the pharmaceutical operations.

SECT. I.

SOLUTION.

SOLUTION is an intimate commixture of solid bodies with fluids into one seemingly homogeneous liquor. The dissolving fluid is called a MENSTRUUM or SOLVENT.

The principal menstrua made use of in pharmacy, are, *water, vinous spirits, oils, acid, and alkaline liquors.*

WATER is the menstruum of all salts, of vegetable gums, and of animal gellies. Of the first, it dissolves only a determinate quantity, though of one kind of salt more than of another*; and being thus SATURATED, leaves any additional quantity of the same salt † untouched. It is never saturated with the two latter, but unites readily with any proportions of them, forming with different quan-

* Two ounces of water, assisted by agitation, in moderately warm weather, dissolve, of loaf sugar, three ounces; salt of tartar, above two ounces; of green vitriol, one ounce and one dram; of common salt, six drams and a scruple; of nitre, five drams, two scruples, and a half; of sal ammoniac, five drams and two scruples; of alum, two drams and a scruple; of borax, one dram and half a scruple. *Grew's experiments on the solution of salts in water, chap. i.*

† Water fully impregnated with one salt, so as to be able to bear no more of that kind, will still take up a considerable portion of another. Thus two ounces of water, fully saturated with nitre, will still dissolve five drams of sal ammoniac, without depositing any of the nitre. The same quantity of water saturated with common salt, will take up five drams of nitre; and when it can bear no more of either of these, will still dissolve a dram of sal ammoniac. See *Grew's experiments on the solution of salts.*

tities,

ties, liquors of different consistencies. It takes up likewise, when assisted by trituration, the vegetable gummy-resins, as ammoniacum and myrrh; the solutions of which, though IMPERFECT, that is, not transparent, but turbid, and of a milky hue, are nevertheless applicable to valuable purposes in medicine.

Rectified SPIRIT OF WINE is the menstruum of the essential oils and resins of vegetables; of the pure distilled oils of animals; and of soaps, though it does not act upon the expressed oil and fixt alkaline salt, of which soap is composed. Hence, if soap contains any superfluous quantity of either the oil or salt, it may, by means of this menstruum, be excellently purified therefrom. It dissolves, by the assistance of heat, volatile alkaline salts; and, more readily, the neutral ones, composed either of fixed alkali and the acetous acid, as the sal diureticus, or of volatile alkali and the nitrous acid.

OILS dissolve vegetable resins and balsams, wax, animal fats, mineral bitumens, sulphur, and certain metallic substances, particularly lead. The expressed oils are, for most of these bodies, more powerful menstrua, than those obtained by distillation; as the former are more capable of sustaining without injury, a strong heat, which is, in most cases, necessary to enable them to act.

All ACIDS dissolve alkaline salts, alkaline earths, and metallic substances. The different acids differ greatly in their action upon these last; one dissolving only some particular metals; and another, others.

The *vegetable* acids dissolve a considerable quantity of zinc, iron copper, and tin; and extract so much from the metallic part of antimony, as to become powerfully emetic: they likewise dissolve lead, if previously calcined by fire; but more copiously, if corroded by their steam.

The *marine* acid dissolves zinc, iron, and copper; and, though it scarce acts on any other metallic substance in the common way of making solutions, may nevertheless be artfully combined with them all except gold: the corrosive sublimate and antimonial caustic of the shops, are combinations of it with mercury and the metallic part of antimony, effected by applying the acid in the form of fume, to the subjects at the same time also strongly heated.

The *nitrous* acid is the common menstruum of all metallic substances, except gold and the antimonial semimetal; which are soluble only in a mixture of the nitrous and marine.

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INTRODUCTION. 17

The *vitriolic* acid easily dissolves zinc, iron, and copper; and may be made to corrode, or imperfectly dissolve, most of the other metals.

ALCALINE *lixivia* dissolve oils, resinous substances, and sulphur. Their power is greatly promoted by the addition of *quicklime*; instances of which occur in the preparation of soap, and in the common caustic. Thus acuated, they reduce the flesh, bones, and other solid parts of animals, into a gelatinous matter.

Solutions made in water, and in spirit of wine, possess the virtues of the body dissolved; whilst oils generally shew its activity; and acids and alcalies vary its quality. Hence watery and spirituous liquors are the proper menstrua of the native virtues of vegetable and animal matters.

Most of the foregoing solutions are easily effected, by pouring the menstruum on the body to be dissolved, and suffering them to stand together, for some time, exposed to a suitable warmth. A strong heat is generally requisite to enable oils and alkaline liquors to perform their office: nor will acids act on some metallic bodies without its assistance. The action of watery and spirituous menstrua is likewise expedited by a moderate heat; though the quantity, which they afterwards keep dissolved, is not, as some suppose, by this means increased: all that heat occasions these to take up, more than they would do in a longer time in the cold, will, when the heat ceases, subside again.

The action of acids on the bodies which they dissolve, is generally accompanied with heat, effervescence, and a copious discharge of fumes. The fumes which arise during the dissolution of some metals in the vitriolic acid, prove inflammable: hence in the preparation of the artificial vitriols of iron and zinc, the operator ought to be careful, especially where the solution is made in a narrow-mouthed vessel, lest by the imprudent approach of a candle, the exhaling vapour be set on fire.

There is another species of solution, in which the moisture of the air is the menstruum. Fixt alkaline salts, and those of the neutral kind, composed of alkaline salts and the vegetable acids, or of alkaline earths and any acid except the vitriolic, and some metallic salts; on being exposed, for some time, to a moist air; gradually attract its humidity, and, at length, become liquid. Some substances, not dissoluble by the application of water in its grosser form, as the butter of antimony, are easily liquefied by this slow action of the aereal moisture. This process is termed DELIQUATION.

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SECT.

S E C T. II.

E X T R A C T I O N.

THE liquors which dissolve certain substances in their pure state, serve likewise to *extract* them from admixtures of other matter. Thus rectified spirit of wine, the menstruum of essential oils and resins takes up the virtues of the resinous and oily vegetables; as water does those of the mucilaginous and saline; the inactive earthy parts remaining untouched by both. Water extracts likewise from many plants, substances which by themselves it has little effect upon; even essential oils being, as we have formerly observed, rendered soluble in that fluid, by the admixture of gummy and saline matter, of which all vegetables participate in a greater or less degree. Thus many of the aromatic plants, and all the bitters and astringents, yield their virtues to this menstruum.

Extraction is performed, by **MACERATING** the subject in its appropriated menstruum, in the cold; or **DIGESTING** or **CIRCULATING** them, in a moderate warmth; or **INFUSING** the plant in the boiling liquor, and suffering them to stand till grown cold; or actually **BOILING** them together for some time.

The term *digestion* is sometimes used for maceration, and in this case the process is directed to be performed *without heat*: where this circumstance is not expressed, it always implies the use of heat. Circulation differs from digestion only in this; that the steam, into which a part of the liquor is resolved by the heat, is by means of a proper disposition of the vessels, condensed and conveyed back again upon the subject. Digestion is usually performed in a *matras* (or *bolt head*) Florence flask, or the like; either of which may be converted into a *circulatory vessel*, by inverting another into the mouth, and securing the juncture with a piece of wet bladder. A single matras, if its neck is very long and narrow, will answer the purpose as effectually; the vapour cooling and condensing before it can arise to the top: In a vessel of this kind, even spirit of wine, the most volatile liquor we know of, may be boiled without any considerable loss: the use of this instrument is likewise free from an inconvenience, which may, in some cases, attend the other, of the uppermost vessel being burst or thrown off. As the long necked matrasles, here recommended, are difficultly filled or emptied, and likewise very dear; a long glass pipe may be occasionally luted to shorter ones.

Heat

Heat greatly expedites extraction; but by this means proves as injurious to some substances, by occasioning the menstruum to take up their grosser and more ungrateful parts; as it is necessary for enabling it to extract the virtues of others. Thus Peruvian bark, for instance, imparts little to aqueous liquors, without a boiling heat; whilst even a small degree of warmth proves greatly prejudicial to the fine bitter of *carduus benedictus*: this plant, which infused in boiling, or digested in sensibly hot water, gives out a nauseous taste, so offensive to the stomach as to promote vomiting; yields to the cold element a grateful balsamic bitter, the most elegant stomachic of the shops.

As heat promotes the dissolving power of liquids; so cold, on the other hand, diminishes it. Hence tinctures or extractions made by a considerable heat, deposite in cold weather a part of their contents, and thus become proportionably weaker; a circumstance which deserves particular regard.

SECT. III.

DEPURATION.

THERE are different methods of *depurating* or purifying liquors from their feculencies, according as the liquor itself is more or less tenacious, or the feculent matter of greater or less gravity.

Thin fluids readily deposite their more ponderous impurities, upon standing at rest for some time, in a cool place; and may then be DECANTED, or poured off clear, by inclining the vessel.

Glutinous, unctuous, or thick substances, are to be liquefied by a suitable heat; when the grosser feculencies will fall to the bottom; the lighter arising to the surface, to be DESPUMATED or scummed off.

Where the impurities are neither so ponderous as to subside freely to the bottom, nor so light as to arise readily to the surface; they may be separated in great measure by COLATURE through strainers of linen, woollen, or other cloth; and more perfectly by FILTRATION through a soft bibulous kind of paper made for this use.

The grey paper which covers pill boxes as they come from abroad, is one of the best for this purpose: it does not easily break when wetted, or tinge the liquor which passes through it, which the reddish sort, called *blossom* paper, frequently does. The paper is supported by a funnel, or piece of canvas fixed in a frame. When the funnel is used, it is convenient to put some straws or small

sticks between the paper and its sides, to prevent the weight of the liquor from pressing the paper so close to it, as not to allow room for the fluid to transude. In some cases a funnel made of wire is put betwixt the paper and the glass funnel.

Glutinous and unctuous liquors, which do not easily pass through the pores of a filtre or a strainer, are CLARIFIED by beating them up with the whites of eggs, which entangling the impure matter, arises with it to the surface: the mixture is to be gently boiled, till the scum begins to break, when the vessel is to be removed from the fire, the crust taken off, and the liquor passed through a flannel bag.

Decantation, colature, and filtration, are applicable to most of the medicated liquors that stand in need of purification. Despumation and clarification very rarely have place; since these, along with the impurities of the liquor, frequently separate its medicinal parts. Thus, if the decoction of poppy heads, for making diacodium, be solicitously scummed or clarified (as some have been accustomed to do) the medicine will lose almost all that the poppies communicated, and instead of a mild opiate, turn out little other than a plain syrup of sugar.

It may be proper to observe, that the common sorts of filtering paper are apt to communicate a disagreeable flavour: and hence in filtering fine bitters, or other liquors, whose gratefulness is of primary consequence, the part which passes through first ought to be kept apart for inferior purposes.

SECT. IV.

CRYSTALLIZATION.

WATER, assisted by heat, dissolves a larger proportion of saline substances, than it can retain when grown cold: hence, on the abatement of the heat, a part of the salt separates from the menstruum, and concretes at the sides and bottom of the vessel. These concretions, unless too hastily formed by the sudden cooling of the liquor or disturbed in their coalescence by agitation, or other like causes, prove transparent and of regular figures, resembling in appearance the natural spring-CRYSTALS.

Salts, dissolved in a large quantity of water, may in like manner be recovered from it in their crystalline form, by boiling down the solution, till so much of the fluid has exhales as that the remainder will be too little to keep the salt dissolved when grown perfectly

perfectly cold. It is customary to continue the evaporation, till the salt shews a disposition to concrete even from the hot water, by forming a pellicle on that part which is least hot, viz. on the surface. If large, beautiful and perfectly figured crystals are required, this point is somewhat too late: for if the salt thus begins to coalesce whilst considerably hot, on being removed into a cold place, its particles will run too hastily and irregularly together; the pellicle at the same time falling down through the liquor, and thus proving a farther disturbance to the regularity of the crystallization.

In order to perform this process in perfection, the evaporation must be gentle, and continued no longer than some drops of the liquor, let fall on a cold glass plate, discover crystalline filaments. When this mark of sufficient exhalation appears, the vessel is to be immediately removed from the fire into a less warm, but not cold place, and covered with a cloth, to prevent the access of cold air, and consequently the formation of a pellicle.

All the alkaline salts are excluded from this operation; fixt alkalies never assuming a crystalline form; and the volatile ones escaping before the menstruum exhales. Some even of the neutral kind, particularly those of which certain metallic bodies are the basis, are so strongly retained by the aqueous fluid, as not to exhibit any appearance of crystallization, unless some other substance be added with which the water has a greater affinity. The table of affinity shews, that such a substance is spirit of wine; by the prudent addition of which, these kinds of salts separate freely from the menstruum, and form large and beautiful crystals, scarce obtainable by any other means.

The operator must be careful not to add too much of the spirit; lest, instead of a gradual and regular crystallization, the basis of the salt be hastily precipitated in a powdery form. One twentieth part of the weight of the liquor will in most cases be a sufficient, and in some too large a quantity.

Different salts require different quantities of water to keep them dissolved: and hence, if a mixture of two or more be dissolved in this fluid, they will begin to separate and crystallize at different periods of the evaporation. Upon this foundation, salts are freed, not only from such impurities, as water is not capable of dissolving and carrying through the pores of a filter, but likewise from admixtures of one another.

S E C T. V.

P R E C I P I T A T I O N.

BY this operation, bodies are recovered from their solutions, not in a crystalline, but in a powdery form. The separation is effected by the addition of some other substance, with which either the menstruum, or the body dissolved, have a greater affinity than they have with one another.

Precipitation, therefore, is of two kinds; one, where the substance superadded unites with the menstruum, and occasions that before dissolved to be thrown down; the other, in which it unites with the dissolved body, and falls along with it to the bottom. Of the first we have an example in the precipitation of sulphur from alkaline lixivia by the means of acids; of the second, in the precipitation of mercury from aqua fortis by sea salt, or its acid.

The subjects of this operation, as well those which are capable of being precipitated, as those which precipitate them, will readily appear from inspection of the table of affinity. The manner of performing it is so simple, as not to stand in need of any particular directions; no more being required, than to add the precipitate by degrees, as long as it continues to occasion any precipitation. When the whole of the powder has fallen, it is to be well EDULCORATED, that is, washed in several fresh parcels of water, and afterwards dried for use.

Where metals are employed as precipitants, as in the purification of martial vitriol from copper by the addition of fresh iron, they ought to be perfectly clean, and free from any rusty or greasy matter; otherwise they will not readily, if at all, dissolve, and consequently the precipitation will not succeed; for the substance to be precipitated separates only by the additional one dissolving and taking its place. The separated powder, oftentimes, instead of falling to the bottom, lodges upon the precipitant; from which it must be occasionally shaken off, for reasons sufficiently obvious.

S E C T.

S E C T. VI.

E V A P O R A T I O N.

THIS is a third method of recovering solid bodies from their solutions, effected by the means of heat; which *evaporating* the fluid part, that is, forcing it off in steam, the matter which was dissolved therein is left behind in its solid form.

This process is applicable to the solutions of all those substances which are less volatile than the menstruum, or which will not exhale by the heat requisite for the evaporation of the fluid; as the solutions of fixt alkaline salts; of the gummy, gelatinous, and other inodorous parts of vegetables and animals in water; and of many resinous and odorous substances in spirit of wine.

Water extracts the virtues of sundry fragrant aromatic herbs, almost as perfectly as rectified spirit of wine; but the aqueous infusions are far from being equally suited to this process, with those made in spirit; water carrying off the whole odour and flavour of the subject, which that lighter liquor leaves entire behind it. Thus a watery infusion of mint, for instance, loses in evaporation the smell, taste, and virtues of the herb; whilst a tincture drawn with pure spirit, yields, on the same treatment, a thick balsamic liquid, or solid gummy-resin, extremely rich in the peculiar qualities of the mint.

In evaporating these kinds of liquors, particular care must be had, towards the end of the process, that the heat be very gentle; otherwise the matter, as it grows thick, will burn to the vessel, and contract a disagreeable smell and taste: this burnt flavour is called an *empyreuma*. The liquor ought to be kept stirring during the evaporation; otherwise a part of the matter concretes on the surface exposed to the air, and forms a pellicle which impedes the farther evaporation*.

* Farther directions for performing this operation to the greatest advantage, will be given hereafter in the second part.

the distilled spirit by keeping all that it does elevate perfectly dissolved, may in some cases be as strong as the distilled water.

S E C T. VII.

D I S T I L L A T I O N.

IN the foregoing operation, fluids are rarified by heat into steam or vapour which is suffered to exhale in the air, but which the business of this is to collect and preserve. For this purpose, the steam is received in proper vessels, luted to that in which the subject is contained, and being there cooled, condenses into a fluid form again.

There are two kinds of distillation: by the one, the more subtle and volatile parts of liquors are elevated from the grosser; by the other, liquids, incorporated with solid bodies are forced out from them by vehemence of fire.

To the first belong, the distillation of the pure inflammable spirit from vinous liquors; and of such of the active parts of vegetables as are capable of being extracted by boiling water or spirit, and at the same time of arising along with their steam.

As boiling water extracts or dissolves the essential oils of vegetables, whilst blended with the other principles of the subject, without saturation; but imbibes only a determinate, and that in small proportion of them, in their pure state; as these oils are the only substances, naturally contained in vegetables, that prove totally volatile in that degree of heat; and as it is in them, that the virtues of aromatics, and the peculiar odour and flavour of all plants reside; it is evident, that water may be impregnated, by distillation, with the more valuable parts of many vegetables: that this impregnation is limited, the oil arising in this process pure from those parts of the plant which before rendered it soluble in water without limitation; hence greatest part of the oil separates from the distilled aqueous liquor, and according to its greater or less gravity, either sinks to the bottom, or swims on the surface: that consequently infusions and distilled waters are greatly different from one another: that the first may be rendered of any assignable degree of strength by pouring the liquor on fresh parcels of the subject; but that the latter cannot be in like manner improved by *cohobating*, or redistilling them from fresh ingredients.

As the oils of many vegetables do not freely distil with a less heat, than that in which water boils; as rectified spirit of wine is not susceptible of this degree of heat; and as this menstruum totally dissolves these oils in their pure state: it follows, that spirits are elevated far less from vegetables than water; but that nevertheless the

the distilled spirit, by keeping all that it does elevate, perfectly dissolved, may, in some cases, prove almost as strong of the subject as the distilled water.

The apparatus made use of for distilling spirits, waters and oils, consists of a *still*, or copper vessel, for containing the subject, on which is luted a large *head* with a *swan neck*. The vapour, arising into the head, is thence conveyed through a *worm*, or long spiral pipe, placed in a vessel of cold water, called a *refrigeratory*; and being there condensed, runs down into a *receiver*. In the second part of this work, we shall give some improvements in this apparatus for particular purposes; with directions for performing the several processes to the greatest advantage.

The subjects of the second kind of distillation are, the gross oils of vegetables and animals, the mineral acid spirits, and the metallic fluid quicksilver, which as they require a much strong degree of heat to elevate them than the foregoing liquors can sustain; so they likewise condense without arising so far from the action of the fire. The distillation of these is performed in low glass vessels, called from their neck being bent to one side, *retorts*: to the farther end of the neck a *receiver* is luted, which standing without the furnace, the vapours soon condense in it, without the use of a refrigeratory: nevertheless to promote this effect, some are accustomed, especially in warm weather, to cool the receiver by occasionally applying wet cloths to it, or keeping it partly immersed in a vessel of cold water.

The vapours of some substances are so sluggish, or strongly retained by a fixt matter, as scarce to arise even over the low neck of the retort. These are most commodiously distilled in straight-necked earthen vessels called *long-necks*, laid on their sides, so that the vapour passes off laterally with little or no ascent: a receiver is luted to the end of the neck without the furnace: in this manner, the acid spirit of vitriol is distilled. The matter which remains in the retort or long neck, after the distillation, is vulgarly called *caput mortuum*.

In these distillations, a quantity of elastic air is frequently generated; which, unless an exit is allowed it, blows off, or bursts the receiver. The danger of this may in good measure be prevented by slowly raising the fire; but more effectually by leaving a small hole in the luting, to be occasionally opened or stopt with a wooden plug; or inserting at the juncture an upright pipe of such a height, that none of the vapours of the distilling liquor may escape.

SECT. VIII.

SUBLIMATION.

AS all fluids are volatile by heat, and consequently capable of being separated, in most cases, from fixed matters, by the foregoing process; so various solid bodies are subjected to a similar treatment. Fluids are said to *distil*, and solids to *sublime*; tho' sometimes both are obtained in one and the same operation. If the subliming matter concretes into a mass, it is commonly called a *sublimate*; if into a powdery form, *flowers*.

The fumes of solid bodies generally arise but a little way, and adhere to that part of the vessel where they concrete. Hence a receiver or condenser is less necessary here than in the preceding operation; a single vessel, as a *matras*, or tall *vial*, or the like, being frequently sufficient. The most commodious apparatus for the sublimation of particular substances, and the most advantageous method of conducting the several processes, will be delivered in the second part.

SECT. IX.

EXPRESSION.

THE *press* is chiefly made use of for forcing out the juices of succulent herbs and fruits; and the insipid oils of the unctuous seeds and kernels.

The harder fruits, as quinces, require to be previously well beat or ground; but herbs are to be only moderately bruised. The subject is then included in a hair bag, and pressed betwixt wooden plates, in the common screw-press, as long as any juice runs from it.

The juicy fruits in general, and most of the acrid plants, give out their virtues in tolerable perfection to this process: but aromatic herbs yield little, and sometimes nothing, of their peculiar smell or taste; and the more tender flowers have their fragrance totally destroyed by the violence of this operation.

The juices, thus forcibly pressed out from plants, differ from those which flow spontaneously, or from incisions. Thus the poppy heads, on being slightly wounded, yield a thick milky liquor, which dries, by a moderate warmth, into opium; whilst the juice obtained

obtained by pressure is of a dark green colour, and far weaker virtues.

The expression of oils is performed nearly in the same manner as that of juices; only here, iron plates are substituted to the wooden ones there made use of. The subject is well pounded, and included in a strong canvas bag, betwixt which and the plates of the press a hair cloth is interposed.

The insipid oils of all the unctuous seeds are obtained, uninjured, by this operation, if performed without the use of heat; which though it greatly promotes the extraction of the oil, at the same time impresses an ungrateful flavour, and increases its disposition to grow rancid. Hence, though the preparers of these oils, for mechanical purposes, are accustomed to facilitate the process, by warming the plates of the press; yet this expedient must never be had recourse to, where the product is intended for medicinal use.

The oils expressed from aromatic substances generally carry with them a portion of their essential oil: hence the smell and flavour of the expressed oils of nutmegs and mace. They are never found impregnated with any of the other qualities of the subject: oil of mustard seed, for instance, is as soft and void of acrimony, as that of almonds, the pungency of the mustard remaining entire in the cake left after the expression.

S E C T. X.

E X S I C C A T I O N.

THERE are two general methods of *exsiccating* or drying moist bodies: in the one, their humid parts are exhaled by heat; in the other, they are imbibed or absorbed by substances, whose soft and spongy texture adapts them to that use. Bodies intimately combined with, or dissolved in a fluid, as recent vegetables and their juices, require the first: such as are only superficially mixed, as when earthy or indissoluble powders are ground with water, are commodiously separated from it by the second.

Vegetables and their parts are usually exsiccated by the natural warmth of the air: the assistance of a gentle artificial heat may, nevertheless, in general, be not only safely, but advantageously had recourse to. By a moderate fire, even the more tender flowers may be dried, in a little time, without any considerable loss, either of their odour or lively colour; which would, both, be greatly injured or destroyed, by a more slow exsiccation

in the air. Some plants indeed, particularly those of the acrid kind, as horle-radish, scurvy-grafs, and arum, lose their virtues by this process, however carefully performed: but far the greater number retain them unimpaired, and oftentimes improved.

The thicker vegetable juices may be exsiccated by the heat of the sun; or, where this is not sufficient, by that of a water-bath, or an oven moderately warm. The thinner juices may be gently boiled till they begin to thicken, and then treated as the foregoing; this process, termed *INSPISSATION* or *EVAPORATION*, has been spoken of already. The juices of some plants, as arum root, bryony root, orris root, wild cucumbers, &c. separate, upon standing for some time, into a thick part which falls to the bottom: and a thin aqueous one, which swims above it: this last is to be poured off, and the first exsiccated by a gentle warmth: preparations of this kind have been usually called *FÆCULÆ*; that of the wild cucumber, to be spoken of in its place, is the only one which practice now retains.

Indissoluble bodies, mixed with water into a thick consistence, may be easily freed from the greatest part of it, by dropping them on a *chalk stone*, or some powdered chalk pressed into a smooth mass, which readily imbibes their humidity. Where the quantity of fluid is large, as in the edulcoration of precipitates, it may be separated by decantation or filtration.

SECT. XI.

COMMINUTION.

COMMINUTION is the bare reduction of solid coherent bodies into small particles or powder. The methods of effecting this are various, according to the texture of the subject.

Dry friable bodies, or such as are brittle and not very hard, and mixtures of these with somewhat moist ones, are easily **PULVERIZED** in a *mortar*.

Very light, dry substances, resins, and the roots of a tenacious texture, as gentian, require the mortar to be previously rubbed with a little sweet oil, or a few drops of oil to be occasionally added: this prevents the finer powder of the first from flying off, and the others from cohering under the pestle. Camphor is most commodiously powdered by rubbing it with a little rectified spirit of wine.

Tough substances, as woods, the peels of oranges and lemons, &c. are most conveniently *rasped*; and very oily bodies, as nutmegs, *grated*.

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The comminution of the harder minerals, as calamine, crystal, flint, &c. is greatly facilitated by **EXTINCTION**; that is, by heating them red hot, and quenching them in water; by repeating this process a few times, most of the hard stones become easily pulverable. This process, however, is not to be applied to any of the alkaline or calcareous stones; lest, instead of an insipid powder, we produce an acrimonious calx or lime.

Metallic bodies, which resist the strokes of the pestle, may be reduced into powders of a great degree of fineness, by **ATTRITION** upon a whetstone: the stony matter is readily washed off by water, from the more ponderous metallic powder.

Some metals, as tin, though strongly cohering in their natural state, prove extremely brittle when heated, inasmuch as to be easily divided into small particles by dextrous agitation. Hence the official method of pulverizing tin, by melting it, and, at the instant of its beginning to return into a state of solidity, briskly shaking it in a wooden box. The comminution of metals, in this manner, is termed by the metallurgists **GRANULATION**.

On a similar principle, certain salts, as nitre, may be reduced into powder in large quantity, by dissolving them in boiling water, setting the solution over a moderate fire, and keeping the salt constantly stirring during its exsiccation, so as to prevent its particles disjoined by the fluid, from reuniting together into larger masses.

Powders are reduced to a great degree of fineness by **TRITURATING** or rubbing them, for a length of time, in a mortar. Such as are not dissoluble in water, or injured by the admixture of that fluid, are moistened with it into the consistence of a paste, and **LEVIGATED**, or ground, on a flat, smooth *marble* or *iron plate*; or where a large quantity is to be prepared at a time, in *mills* made for that use.

Comminution, though one of the most simple operations of pharmacy, has, in many cases, very considerable effects. The resinous purgatives, when finely triturated, are more easily soluble in the animal fluids, and consequently prove more cathartic and less irritating, than in their grosser state. Crude antimony, which when reduced to a tolerably fine powder, discovers little medicinal virtue, if levigated to a great degree of subtilty, proves a powerful alterative in many chronical disorders.

By comminution, the heaviest bodies may be made to float in the lightest fluids*, for a longer or shorter time, according to

* Some attribute this effect to a diminution of the specific gravity of the body; and, at the same time, suppose the peculiar virtues of certain their

their greater or less degree of tenuity. Hence we are furnished with an excellent criterion of the fineness of certain powders, and a method of separating the more subtil parts from the grosser, distinguished by the name of ELUTRIATION, or *washing over*. See Part II. Chap. I.

S E C T. XII.

F U S I O N.

FUSION is the reduction of solid bodies into a state of fluidity by fire. Almost all natural substances, the pure earths, and the solid parts of animals and vegetables excepted, melt in proper degrees of fire; some in a very gentle heat, whilst others require its utmost violence.

Turpentine, and other soft resinous substances, LIQUEFY in a gentle warmth; wax, pitch, sulphur, and the mineral bitumens, require a heat too great for the hand to support; fixt alkaline salts, common salt, nitre, require a red, or almost white heat to MELT them; and glass, a full white heat.

Among metallic substances, tin, bismuth, and lead, flow long before ignition: antimony likewise melts before it is visibly red hot, but not before the vessel is considerably so: the regulus of antimony demands a much stronger fire. Zinc begins to melt in a red heat; gold and silver require a low white heat; copper, a bright white heat; and iron, an extreme white heat.

One body, rendered fluid by heat, becomes sometimes a menstruum for another, not fusible of itself in the same degree of fire. Thus red hot silver melts, on being thrown into melted lead less hot than itself: and thus, if steel heated to whiteness, be taken out of the furnace, and applied to a roll of sulphur; the sulphur,

medicines, particularly mercury, to be in great measure owing to their gravity. If these hypotheses were just, it should follow, that the mercurial preparations, by being finely comminuted, would lose proportionably of their efficacy; and so indeed mercurius dulcis, for instance, has been supposed to do. But experience shews, that this is far from being the case; and that comminution by no means lessens, but rather increases its power: when reduced to a great degree of subtilty, it passes readily into the habit, and operates, according to its quantity, as an alterative or a sialagogue; whilst in a grosser form, it is apt to irritate the stomach and bowels, and run off by the intestines, without being conveyed into the blood.

instantly

instantly liquefying, occasions the steel to melt with it; hence the chalybs cum sulphure of the shops. This concrete, nevertheless, remarkably impedes the fusion of some other metals, as lead, which when united with sulphur, is scarce to be perfectly melted by the most intense degree of culinary fire: hence the method, described in its place, of purifying zinc, a semimetal which sulphur has no effect upon, from the lead so frequently mixed with it.

Sulphur is the only unmetallic substance which mingles in fusion with any metal. Earthy, saline, and other like matters, even the calces and glasses prepared from metals themselves, float distinct upon the surface, and form what is called SCORIA or dross. Where the quantity of this is large in proportion to the metal, it is most commodiously separated by pouring the whole into a conical mould: the pure metal, or REGULUS, though small in quantity, occupies a considerable weight in the lower narrow part of the cone, and when congealed, may be easily freed from the scorize by a hammer. The mould should be previously greased, or rather smoked, to make the metal come freely out; and thoroughly dried and heated, to prevent the explosion which sometimes happens from the sudden contact of melted metals with moist bodies.

SECT. XIII.

CALCINATION.

BY calcination is understood, the reduction of solid bodies, by the means of fire, from a coherent to a powdery state, accompanied with a change of their quality: in which last respect, this process differs from comminution.

To this head belong, the burning of vegetable and animal matters, otherwise called USTION, INCINERATION, or CONCREMATION; and the change of metals into a powder, which in the fire either does not melt, or VITRIFIES, that is, runs into glass.

The metals which melt before ignition, are calcined by keeping them in fusion for some time. The free admission of air is essentially necessary to the success of this operation; and hence, when the surface of the metal appears covered with calx, this must be taken off, or raked to one side; otherwise, the remainder, excluded from the air, will not undergo the change intended. If any coal, or other inflammable matter that does not contain a mineral acid, be suffered to fall into the vessel, the effect

ex-

expected from this operation will not be produced, and such part of the metal as is already calcined, will be REVIVED or REDUCED, that is, it will return into its metallic form again.

Those metals which require a strong fire to melt in, calcine with a much less heat, than is sufficient to make them flow. Hence the burning or SCORIFICATION of such iron or copper vessels, as are long exposed to a considerable fire without defence from the air. Gold and silver are not calcinable by any degree of fire.

In calcination, the metals visibly emit fumes; nevertheless, the weight of the calx proves greater than that of the metal employed. The antimonial regulus gains about one eleventh part of its weight; zinc, sometimes one tenth; tin, above one sixth; and lead, in its conversion into minium, oftentimes one fourth.

The calcination of metallic bodies (gold, silver, and mercury excepted) is greatly promoted by nitre. This salt, exposed to the fire in conjunction with any inflammable substances, extricates their inflammable matter, and bursts with it into flame, accompanied with a hissing noise: this process is usually termed DEFLAGRATION or DETONATION.



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of the mind as a direct object, will be necessary to be used

THE
English Dispensatory
IMPROVED.

WEIGHTS.

TWO different kinds of weights are made use of in this country; one in the merchandize of gold and silver; the other for almost all goods besides. The first we call Troy, the latter Averdupois weight.

The goldsmiths divide the Troy pound into twelve ounces; the ounce into twenty pennyweights;

and the pennyweight into twenty-four grains. The Averdupois pound is divided into sixteen ounces; and the ounce into sixteen parts, called drams.

The pound of the London and Edinburgh dispensatories (which is the only one made use of in this work) is that of the goldsmiths, divided in the following manner:

The Pound	}	contains	}	twelve ounces.
The Ounce				eight drams.
The Dram				three scruples.
The Scruple				twenty grains.
The Grain is equal to the goldsmiths grain.				

The medical or Troy pound is less than the Averdupois, but the ounce and the dram greater. The Troy pound contains 5760 grains; the Averdupois 7000 grains: The Troy ounce contains 480 grains; the Averdupois only 437: The Troy dram 60; the Averdupois dram somewhat less than 28.

These differences in our weights

have occasioned great confusion in the practice of pharmacy. As the druggists and grocers sell by the Averdupois weight, the apothecaries have not in general kept any weights adjusted to the Troy pound greater than two drams, using for all above Averdupois. By this means, it is apparent that in all compositions, where the ingredients

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2 *The English Dispensatory improved.*

are prescribed some by pounds and others by ounces, they are taken in a wrong proportion to each other; and the same happens when any are directed in lesser denominations than the ounce, as these subdivisions, used by the apothecaries, are made to a different ounce. The mercurial plaister of the late Pharmacopœia, and the mercurial cerate of the present, if compounded by the averdupois weight, contain about one sixth less quicksilver than if made, as they ought to be, by the Troy. This error prevailed so far as to be received in some former editions of the London Pharmacopœia itself; but is now happily removed.

M E A S U R E S.

The measures employed with us in pharmacy are the common wine measures.

A gallon } contains { eight pints (*libræ.*)
The pint } { sixteen ounces.
The ounce } { eight drams.

By a spoonful is understood in the London dispensatory the measure of half an ounce; in the Edinburgh, half an ounce weight in syrups, and three drams in distilled waters.

Table of the weight of different liquids.

Of	A pint weighs				ounce	dram
	ounces	drams	grains	grains	measure weighs	measure weighs
Oil of Vitriol	28	6	27	13727	8:8+	107+
Spirit of Nitre	20	3	1	9781	611+	77+
Aqua fortis	19	6	23	9503	594-	74+
Spirit of Salt	17	4	36	846	527+	66-
Distilled Vinegar	15	5	30	7530	471-	59-
Common Vinegar	15	3	11	7391	462-	58-
Fixt Salts deliquated in the air	21	0	0	10080	680	85
Soap Leys of the <i>London Dispens.</i>	16	0	0	7680	480	60
Spirit of Sal Ammoniac	14	3	59	6959	435-	54+
Highly dephlegmated Spirit of Wine	12	4	30	6030	377-	45-
Common rectified Spirit of Wine	13	1	31	6331	396-	49+
Proof Spirit	13	6	55	6655	416-	52-
Honey	15	7	19	7639	477+	60-
Linseed Oil	14	1	33	6813	426-	53+
Oil Olive	13	7	13	6673	417+	52+
Rain Water	15	1	50	7310	456+	57+

A Table

A Table of the specific gravity of different solids.

Aloes wood	1,177	Mercury sublimate corrosive	8,000
Alum	1,738	Yellow emetic	8,235
Amber, pellucid	1,065	Merc.dulcis, sublimed twice	12,353
Ambergris	1,400	thrice	9,882
Antimony	4,000	four times	8,234
Crocus of	4,500	Mother of Pearl	2,480
Glafs	5,280	Myrrh	1,250
Regulus	6,622	Nephritic Stone	2,894
Balsam of Tolu	,896	Wood	1,200
Bezoar, Occidental	1,500	Nitre	1,900
Oriental	1,530	alcalized	2,745
Bismuth	9,700	Opium	1,363
Borax	1,720	Peruvian bark	7,784
Box wood	1,031	Potash	3,112
Calamine	5,000	Rhodium wood	1,125
Campeachy wood	,913	Sal Ammoniac	1,453
Camphor	,996	Enixum	2,148
Ceruffe	3,156	Gemmæ	2,143
China root	1,071	Mirabilis Glauberi	2,246
Cinnabar of Antimony	6,044	Polychrestus	2,148
Facitious	8,100	Prunellæ	2,148
Copper	9,000	Salt of Steel	1,830
calcined	5,453	Common	2,125
Coral, red	2,689	Volatile of hartshorn	1,496
white	2,500	Sassafras	,482
Crabs eyes	1,890	Saunders, Red	1,128
Fir	1,550	White	1,041
Frankincense	1,071	Yellow	,809
Gold	19,640	Scammony, refin of	1,200
Guaiacum Wood	1,333	Silver	10,500
Bark	1,250	Sugar thrice refined	1,606
Refin	1,224	Sulphur	1,800
Gum Arabic	1,375	Tartar crude	1,849
Tragacanth	1,333	crystallized	1,900
Hæmatites	4,360	emetic	2,246
Ithyocolla	1,111	vitriolated	2,298
Iron	7,632	Tin	7,156
Lapis Lazuli	3,054	Tutty	4,615
Lead	11,310	Vitriol, Green	1,764
Litharge of Gold	6,000	White	1,900
Silver	6,044	Englisch	1,880
Mastich wood	,849	Dantzick	1,715
Mercury	14,000	Calcined red	1,900

Table of the specific gravity of liquids.

Antimonial caustic	2,470	Oil expressed of Olives	,913
Aqua fortis	1,300	Oil of Vitriol	1,877
Aqua regis	1,234	Spirit, acid, of Nitre	1,338
Honey	1,450	dulcified	1,000
Milk Cows	1,039	of common Salt	1,154
Goats	1,009	dulcified	,951
Oil, distilled of Caraway Seeds,	940	of Vitriol	1,203
Cinnamon	1,035	Spirit of Hartshorn	1,073
Cloves	1,034	Honey	,895
Cummin Seed	,975	Sal Ammoniac	,952
Dill Seed	,994	Silk	1,145
Fennel Seed	,997	Tartar	1,073
Hyssop	,986	Urine	1,120
Juniper berries	,911	Wine, proof	,927
Mint	,975	common rectified	,866
Nutmegs	,948	very highly rectified	,825
Orange peel,	,888	Vinegar, of Beer	1,034
Origanum	,940	of Wine	1,011
Pennyroyal	,978	distilled	1,030
Rosemary	,934	Water, distilled	,993
Sassafras	1,094	Rain	1,000
Savin	,986	River	1,009
Spike	,936	Sea	1,030
Tanfy	,946	Wine, Burgundy	,953
Turpentine	,792	Canary	1,033
Oil, expressed of Linseed	,932	Red Pontack	,993

Table of the quantity of fixt alkaline salt necessary to saturate different acids.

64 parts of	{ Oil of Vitriol Spirit of Nitre Spirit of Salt Concentrated Spirit of Vinegar Distilled Vinegar Vinegar	} saturate	83	} parts of Alkali.
			51	
			25	
			26	
			3	
			from 1 to 2	

Table

*Table of the quantity of acid destroyed by different
absorbents.*

Ten grains of	}	Some kinds of Limestones	} destroyed the acidity of	160	} Drops of Spirit of Salt,
		Oystershells		120	
		Chalk		100	
		Shells of Garden Snails		100	
		Calcined Cray Fish		100	
		Pearl		80	
		Tooth of the Sea Horse		80	
		Volatile Salts		80	
		Fixt Salts		60	
		Coral, red and white		60	
		Crabs eyes		50	
		Eggshells		50	
Mother of Pearl	50				
Crabs claws	40				
Jawbone of the Pike fish	30				

Table of the quantity of absorbent earths soluble in acids.

		grains	
576 grains of Spirit of Salt dissolved of	}	Crabs eyes	216
		Mother of Pearl	144
		Pearls	128
		Oystershells	156
		Hartshorn	165
		Coral	180
		Oriental Bezoar	118
		Occidental Bezoar	123
		Quick Lime	199
Slaked Lime	193		
576 grains of Spir. of Nitre dissolved of	}	Crabs eyes	297
		Mother of Pearl	202
		Pearls	219
		Oystershells	236
		Hartshorn	234
		Coral	233
		Oriental Bezoar	108
		Occidental Bezoar	144
Quick Lime	180		
Slaked Lime	216		

*Table of the quantity of essential oil obtainable from
different aromatics.*

1. Exotic Spices.

	from	to
Agallochum	2	
Canella alba	1	
Cardamom seeds	25	30
Cascarilla	4	
Casia lignea	$4\frac{1}{2}$	
Cinnamon	8	10
Cloves	90	100
Dictamnus Creticus	$\frac{3}{4}$	$\frac{1}{2}$
Galangal	4	5
Ginger	5	6
Mace	25	30
Nutmegs	25	40
Pepper	6	10
Pimento	4	
Rhodium	3	20
Saffrafrs	12	15
Saunders, yellow	10	
Zedoary		5

640 parts of < yield of oil >

2. Aromatics of our own growth.

	from	to
Angelica root	2	5
Calamus aromaticus	3	5
Caraway seeds	30	
Chervil seeds	$\frac{1}{2}$	
Elecampane root	3	
Fennel feed		14
Juniper berries	16	
Lavender, flowers of the broad leaved	25	30
flowers of the narrow leaved		10
Lovage root	5	6
Marjoram leaves		10
Masterwort roots		3
Mint leaves		16
Parsley seed		4
Rosemary leaves	3	5
tops in flower		40
Damask roses		$\frac{1}{4}$
Saffron		$2\frac{1}{8}$
Sage leaves	4	
Smallage seeds	5	
Thyme	5	

640 parts of < yield of oil >

PART

P A R T I.
T H E
M A T E R I A M E D I C A.

B O O K I.

Of the Materia Medica in general.

C H A P T E R I.

Distribution of Simples according to their medical virtues.

THE whole materia medica is reducible under the three distinctions of alteratives, evacuants, and restoratives. The first comprehends all that has any power to alter the constitution, without sensibly increasing or diminishing any of the natural evacuations. The second, whatever visibly promotes those discharges. And the last, all that contributes to lessen them, and make the increase greater than the waste. But as these denominations are somewhat too general, we have broke them into subdivisions; although, for the

greater convenience upon other accounts, best suiting our own scheme, such subdivisions fall not exactly under those respective heads. The first, third, fourth, and eleventh sections, include what belongs to alteratives: The fifth, sixth, seventh, eighth, and ninth, what comes under evacuants: And to the last belong the second and tenth. And as even these divisions are some of them too general, we have found it convenient to distinguish them farther into different classes, under more restrained denominations.

In this part, some authors seem

B 4 to

to have taken a great deal of pains though not to any great purpose. The method here made use of, is the nearest to that of Ludovici of any that have gone before; as to the general denominations the simples are ranged under: Although in his division of alteratives into primary and secondary, wherein he imitates Schroder, and is afterwards copied by Etmuller, we have not followed his example; because the grounds of such a distinction are too trifling to deserve the trouble. Too contracted a distribution occasions the same simple, in some respects, to be placed under every head; and too large a one multiplies hard terms, and occasions so many breaks, as are both tedious

and troublesome: for there is almost no end in the subdivisions some make; and were all the appellations, continued in medicine, to have some share in the distribution of the materia medica, there would hardly be a simple for each. In this matter therefore a mean is here endeavoured, between the obscurity of too great a conciseness, and the perplexity of too many subdivisions: so that though a simple in many places might, upon some account or other, be reckoned in another section or class; yet it is expected it will be commonly found, that where it stands it has the most right, by reason of its most predominant quality.

Method of simples.

- I. Vegetables.
II. Animals.
III. Minerals.

S E C T.

I. Nervous simples. —

II. Strengtheners. —

III. Stomachics. —

IV. Balsamics. —

V. Diuretics. —

VI. Diaphoretics. —

VII. Emetics. —

VIII. Cathartics. —

IX. Sternutatories. —

X. Narcotics. —

XI. Coolers. —

XII. Topics. —

Class

- { 1. Cardiacs and Cephalics.
2. Carminatives.
3. Hysterics.

- { 1. Agglutinants.
2. Astringents.
3. Absorbents.

- { 1. Emollients.
2. Restoratives.
3. Vulneraries.
4. Detergents.

- { 1. Laxatives, or milder.
2. Draughts, or stronger.

- { 1. Repellents.
2. Suppuratives.
3. Detergents.
4. Caustics.

XIII. Simples

S E C T.

XIII. Simples omitted, or not reducible under the foregoing heads.

XIV. Of Waters.

XV. Of Metals.

XVI. Of Salts.

S E C T. I.

Of Nervous Simples.

THIS term is very comprehensive, and may take in all those parts of the materia medica by which the nerves are affected: but here it is used in a more restrained sense, and is to be understood only of those things which have an immediate effect upon the spirits, or which contribute to accelerate and enliven the motion of the solids; so that the sensations

at the head, stomach, or heart, become forthwith much more light-some and agreeable than before. Whatsoever answers this end, passes commonly under the appellations of cephalic and cardiac; and therefore we shall join those together, in explaining the manner by which such simples operate, as come under these general terms.

Class 1. Of Cardiacs and Cephalics.

The reason why these are placed together, is both from the difficulty of making any material distinction, and from the affinity of those simples which are generally ranged under these two denominations. What in a proper sense is a cordial, must be also a cephalic, as the head hath the principal share in agreeable sensations. And indeed in some respects, whatsoever is grateful and serviceable to the nerves in any part, may be termed cephalic, since in the head is their origin; whereby, as it partakes of their uneasinesses at a distance, so it also very agreeably sympathizes in their releasement therefrom.

There are medicines indeed, both simple and compound, prescribed properly for distempers of the head, from the operation of which nothing arises strictly to denominate them cordial, but they rather have the contrary effect; since, for the pre-

sent especially, they depress the spirits: such are cathartics and other evacnants. As the head is the better from them only secondarily, or by accident; they cannot come under the denomination of cephalics, as we here use the word. And as the same difference may occur in other things, the whole class of detergent balsamics being accidentally diuretics; so it is most proper to keep to those general terms, according to their first and chief intention.

Whatsoever raises the spirits, and gives sudden strength and cheerfulness, is termed cardiac or cordial, as comforting the heart. To understand the operation of which upon an human body, it is necessary first to consider, that a languor or faintness must either be the consequence of too much exercise, too long watching, or too great a hurry of the animal functions, as in many distem-

distempers; all which so far waste or dissipate the nervous fluid, or animal spirits, that the solids cannot repeat, with wonted vigour, their necessary motions. Or such depression must arise from an obstruction of some natural evacuation; and this is generally that of perspiration, from external cold; which lays a load upon the constitution, and produces the same sensation, as a diminution of strength would do when the usual weight remained.

In both these cases, the manner by which a cordial acts, is the same; since it must produce its effects by adding to the springiness and force of the fibres. This change is most remarkably occasioned by spirits or spirituous liquors; the more spirituous any thing is, which enters into the stomach, the sooner a person feels its cordial effects. For that increase of vigour which a man obtains from common food, although it is the most natural and durable, is not sudden enough to procure the instruments thereof the appellation of cordials; since they must pass through several comminutions or digestions, and be a long time ere they arrive to such a fineness, as renders them dispensible to the nerves: whereas a spirituous substance is so fine and subtile in all its parts before it is taken, that it seems to enter or soak into the nerves as soon as it touches them; whereupon their vibrations are invigorated, and all sense of faintness is removed. And upon the same account it is, that volatiles affect the nose; being so extremely subtile, as to penetrate the olfactory nerves as soon as they come at them. And thus it is, that the effluvia or steams of flowers, fruits, and all things deemed cordial, operate upon the organs of smelling.

By the same means we may easily

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conceive how all those things affect the body, which are ranged in the following class. For by the pungency of such substances, both upon the taste and smell, it is manifest they are stocked with many subtile parts, which by their fineness, when dissolved by digestion, and mixed with the animal fluids, are most fit to enter into the slenderest fibres, and recruit that waste their continual motions make of their necessary moisture. Thus all aromatics and sweet-flavoured ingredients have a title to this rank; and more or less conduce to this end, in proportion to the subtilty and volatility of their component parts. And thus when we say, such a thing comforts the heart, strengthens the brain, or is a cephalic; we understand, that it is suitable to make a part of the nervous fluid, and maintain the due vigour and motion of the solids. As a constitution becomes weak by age, artificial helps (by which we understand all that is used as medicine) are more and more needful: for when the digestive faculties grow languid, and are not able to furnish a due supply from usual diet, for the wastes that are daily made in the animal economy, then these auxiliaries are the more wanted. And whatsoever means, at any time, occasion a distemperature in this fluid, such assistances as come under this denomination are necessary; they being fitted by degrees to wear out such undue mixtures, and invigorate the whole nervous system, by a new supply of spirits.

Upon another account likewise it is, that several substances come into this class, besides those that supply the deficiency of the animal spirits; and these are such as have a deterfivè quality, joined with such a stimulus, that although they are too fine to be perceptible any where else,

else, yet when they enter into the small fibres, by their little vellications, they excite their vibrations, and prevent any useless matter from lodging in their interstices, and clogging their motions. This quality, when it is in grosser bodies, passes under other denominations; and may prove a vulnerary, diuretic, or the like; according to the different texture of the substances

wherein it resides. There are likewise under this head, dryers, or absorbents; by reason they prevent those superfluous moistures, which the nerves are frequently overcharged with, and occasion rheums, with many other inconveniences attending the glands; particularly about the head, where they are large and numerous, and very apt to be affected.

<i>Folia</i>	Herbs or Leaves of	<i>Cubebe</i>	Cubebs
<i>Asclepiadis</i>	Swallow-wort	<i>Nuces Moschatæ</i>	Nutmegs
<i>Betonica</i>	Betony	<i>Piper nigrum</i>	Black Pepper
<i>Campboratæ</i>	Stinking Ground-pine	<i>Pimenta</i>	Jamaica Pepper.
<i>Cheiri</i>	Wall-flower	<i>Balsama</i>	Balfams
<i>Euphrasia</i>	Eyebright	<i>Peruvianum</i>	Peruvian
<i>Majorana</i>	Morjoram	<i>Labdanum</i>	Labdanum.
<i>Malabathri</i>	Indian Leaf	<i>Ligna</i>	Wood
<i>Mari Syriaci</i>	Marum Syriacum	<i>Aloes</i>	Aloes
<i>Origani</i>	Origanum	<i>Rhodii</i>	Rhodium.
<i>Roris Solis</i>	Sun-dew	<i>Cortices</i>	Barks
<i>Salvia</i>	Sage	<i>Macis</i>	Mace
<i>Scænantibi</i>	Camels Hay	<i>Winteranus</i>	Winter's.
<i>Serpilli</i>	Mother thyme		
<i>Thymi</i>	Thyme.		
<i>Flores</i>	Flowers of	<i>Radices</i>	Roots of
<i>Anthos</i>	Rosemary	<i>Acori</i>	Acorus
<i>Aurantiorum</i>	Oranges	<i>Galangæ</i>	Galangal
<i>Caryophyllorum</i>	Cloves	<i>Ginseng</i>	Ginseng
<i>Jasmini</i>	Jeffamy	<i>Pæoniæ</i>	Piony
<i>Lavendulæ</i>	Lavender	<i>Satyrii</i>	Satyriion
<i>Lilii convallium</i>	Lilies of the Valley	<i>Zedoariæ</i>	Zedoary
<i>Pæoniæ</i>	Piony	<i>Zinziberis</i>	Ginger.
<i>Rosarum Damas-</i>	Damask Roses	<i>Animalia</i>	Animals
<i>cenarum</i>		<i>Cranium huma-</i>	Human Skull
<i>Stæchados</i>	French Lavender	<i>num</i>	
<i>Tiliæ</i>	Lime.	<i>Kermes</i>	Kermes
<i>Semina</i>	Seeds of	<i>Moschus</i>	Musk
<i>Sinapios</i>	Mustard	<i>Stercus anseris</i>	Goose dung
<i>Thlaspios</i>	Treacle-mustard.	<i>Stercus pavonis</i>	Peacocks dung
<i>Fructus</i>	Fruits	<i>Ungula aleis</i>	Elks hoof.
<i>Anacardia</i>	Anacardium	<i>Mineralia</i>	Minerals
<i>Banilia</i>	Vanelloes	<i>Ambragrisea</i>	Ambergris
<i>Cerisa nigra</i>	Black Cherries	<i>Succinum</i>	Amber
<i>Coffee</i>	Coffee	<i>Cinnabar. nativ.</i>	Native Cinnabar.

These

Class 2. *Of Carminatives.*

These have a place among the nervous simples, by reason the nervous parts are frequently under great disorders from flatuſ's, or wind pent up: and therefore what dissipates and expels such vapours must be reckoned of great service to those parts.

This term does not appear to carry in it any thing expressive of the medicinal efficacies of those simples which pass under its denomination. It probably had its rise, as thus applied, when medicine was too much in the hands of those jugglers, who, for want of a true knowledge in their profession, brought religion into their party; and what through their ignorance they were not able to do by rational prescription, and the use of proper medicines, they pretended to effect by invocation and their interest with heaven. Which cant being generally, for the surprize sake, couch'd in some short verses; the word *carmen*, which signifies a verse, was made also to mean an enchantment: which as it was a very good cover for their ignorance, as well as their knavery, was frequently made use of to satisfy the people of the operation of a medicine they could not account for. And as those medicines, now under this name, are of quick efficacy; and the consequences thereof, in many instances, very great and surprizing; and the most violent pains, sometimes arising from pent-up wind, immediately ceasing upon its dispersion: for these reasons, I say, such medicines as give relief in this case, are more particularly termed carminatives, as if they cured by enchantment; the complaint removed by them being

so sudden, that the ordinary means of the operation of a natural cause, were not easily imagined to take place so soon.

But howsoever this term came into the profession, common use has sufficiently determined its meaning; so that every one understands by it such things as conduce to expel wind. How they do so, may be conceived, when we consider that all the parts of the body are perspirable. Sanctorius, in his *Medicina Statica*, determines all we call wind in the bowels, to be such perspirable matter as makes its escape through the coats of the stomach and intestines. Between the several membranes, likewise, of the muscular parts may such matter break out, and lodge for some time. Now whatsoever will rarify and render such collections of vapours thinner, must conduce to their utter discharge out of the body; and consequently remove those uneasinesses, which arise from their detention. And as all those things in medicine which pass under this denomination, are warm, and consist of very light subtile parts, it is easy to conceive how a mixture of such particles may agitate and rarify those flatulencies, so as to facilitate their expulsion: and especially when we consider what a help to promote this end those grateful sensations may be, which such medicines give to the fibres; which cannot but invigorate their tonic undulations so much, that, by degrees, the obstructed wind is dislodged, and at last quite expelled. But if the obstruction is not great, as it seldom is in the bowels, by reason of the large vent both upwards and downwards, the rarefaction and discharge of

of the wind upon taking such a medicine is often extremely quick and sudden.

All the things under this class, being warm and discussive, are much used in the compositions of cathartics, of the rougher sort especially. For the irritation occa-

sioned by those, would be scarce tolerable without the mitigation of such grateful ingredients. Many likewise of this sortment are in the compositions of discussive topics, as they warm, rarify, and attenuate the obstructed humours.

<i>Folia</i>	Leaves of	<i>Dauci sylvestris</i>	Wild Carrot
<i>Angelicæ</i>	Angelica	<i>Feniculi</i>	Fennel
<i>Chamæmeli</i>	Camomile	<i>Grana Paradisi</i>	Grains of Paradise
<i>Feniculi</i>	Fennel	<i>Cardamomum</i>	Cardamoms
<i>Levistici</i>	Lovage.	<i>Lauri baccæ</i>	Bay-berries.
<i>Semina</i>	Seeds of	<i>Radix</i>	Root of
<i>Anethi</i>	Dill	<i>Angelicæ</i>	Angelica.
<i>Anisi</i>	Anise	<i>Animalia</i>	Animals
<i>Carui</i>	Caraway	<i>Castoreum</i>	Castor.
<i>Coriandri</i>	Coriander		
<i>Cymini</i>	Cummin		

Class 3. Of Hysterics.

What we reduce under this head, may perhaps be more properly styled Uterines; for we shall here include, not only all that are called Hysterics by the writers in physic; but also such simples as are accounted serviceable in menstrual obstructions: for such disorders bring on a great many symptoms which are always reckoned hysterical; and consequently, the means of removing them justly come into this class.

All of this kind are very remarkable for their strong scent; and have been by some distinguished into odoriferous and fetid medicines. But of the former, such as musk, ambergrease, and the like, there are so extremely few constitutions with which they will agree, that we have refused most of them a place here; and ranked them in the first class of this section.

Disorders of the womb, all which come under the name of hysterical affections, arise from too titillating

or from too uneasy sensations. The former proceed from that irritation of the nerves, which the make and secretion of those parts have naturally subjected them to: this in some sort of constitutions arises to that degree, as to draw the whole system into disorder, and occasion a surprizing variety of symptoms, as several sorts of convulsions, and species of madness; which therefore are by some termed furores uterini. Now these disorders seem to be most effectually allayed by such things as are, in a manner, the reverse of cordials; and both in smell and taste very offensive and disagreeable. And they seem to answer this end, by suffocating, as it were, the spirits, and damping their inordinate sallies; so that such stimulation ceases, and the fibres return to their natural tone and motions. For, as what is grateful to the senses gives an inexpressible emotion to the fine nervous

vous filaments; so does what is fetid and disagreeable quite destroy that emotion, and deaden it. And as the former kind consists chiefly of fine, subtil, volatile parts, by which, as was before explained, they are fitter to penetrate the nerves; so these are generally of a clammy viscous contexture; and therefore fitter to envelope and entangle that subtil juice; whereby its motion is much retarded, and consequently the fibres rendered less springy.

In the latter case, the uneasiness of the burden in gestation, and often the disorders of the fetus itself, brings the womb, and by degrees the whole nervous system, into convulsive disorders; which admit of little or nothing to be done by way of medicine; but are best remedied by contributing to the ease, and gratifications of all the desires and cravings of the mother. But the worst mischief to these parts, is from a lodgment of

some disagreeable matter upon their glands, whereby they are frequently apt to grow cancerous; or from an obstruction of the discharges, which at certain times nature (that is, the constitution) requires to be made from those parts. In the first of these, all such things come to be deemed hysterics, which by their deterfive qualities open those glands, and by degrees wear away the obstructed humours. In the latter are employed such as either give a greater force to the circulating blood, whereby it is enabled to break through the capillaries; or which so attenuate it, as to fit it, upon that account, the easier to flow through, and make the discharge required. And thus whatsoever in medicine, either simple or compound, contributes to any of these ends, though very different in their operations (as the original cause of the disorder may differ) they all come under this general appellation of hysterics or uterines.

<i>Folia</i>	Herbs or Leaves of	<i>Gummi</i>	Gums
<i>Artemisia</i>	Mugwort	<i>Asafœtida</i>	Asafœtida
<i>Atriplicis olivæ</i>	Stinking Orache	<i>Galbanum</i>	Galbanum
<i>Basilici</i>	Basil	<i>Myrrha</i>	Myrrh.
<i>Baphthalmi</i>	Ox eye		
<i>Cardiacæ</i>	Motherwort	<i>Radices</i>	Roots of
<i>Cyperii</i>	Cyprus	<i>Aristolochiæ</i>	Long Birthwort.
<i>Diclammi Cretici</i>	Dittany of Crete	<i>longæ</i>	
<i>Lupini</i>	Lupines	<i>rotundæ</i>	Round Birthwort
<i>Matricariæ</i>	Feverfew	<i>Bryoniæ</i>	Briony
<i>Nepetæ</i>	Cats-mint	<i>Bellidii</i>	Daisy
<i>Pulegii</i>	Pennyroyal	<i>Casumunar</i>	Casumunar.
<i>Sabinae</i>	Savine		
<i>Rutæ</i>	Rue.	<i>Animalia</i>	Animals
		<i>Castoreum</i>	Castor.
<i>Semina</i>	Seeds of		
<i>Pœoniæ</i>	Piony.		

S E C T.

S E C T. II.

Of Strengtheners.

BY Strengtheners, we would be understood to mean such things as add to the bulk and firmness of the solids; and these differ from what has been ranged under the preceding section, as a bandage does from a flesh-brush. The former are such as facilitate and drive on the vital actions; but these such as confirm the stamina, and maintain the solids in a condition to exert themselves into action on all proper occasions, with the greatest force and vigour

The continual waste which constant motion makes in the constitution, were it not for frequent and proper supplies, would soon wear the body quite out. The attritions and abrasions of the circulating fluids would quickly carry away the canals in which they circulate, were not somewhat furnished and conveyed to them, which is suited to fall into and adhere with them, and so recruit what is washed off. And those particles must be much more disposed to do so, whose adhesions are greatest when once they come into contact; such are those of the bodies we call glutinous; and which easily form themselves into jellies, and such like consistences: for the parts of such bodies are very light, by reason of the over-proportion of their surfaces to their solidities: whereby their motions are both more languid when in circulation; and when once they stop, their cohesions will be so much the stronger with whatsoever they happen to fall into contact. Medicines of this tribe are, therefore, of great service in hectic; where the swift motion of a thin sharp blood wears

away the substance of the body, instead of nourishing it; for they not only retard the inordinate motion, but give such a weight and consistence to the juices, as fits them also for nourishment.

There are likewise other causes, which may weaken the solids, by admitting or occasioning them to relax too much. Whatsoever therefore acts as a stimulus, and crisps and corrugates the fibres into a more compacted tone (which most austere bodies do) will remove such weakness and increase strength; and as too much moisture may also contribute to such relaxation, what has no other quality but absorbing and drying up such superfluous humidity, may deserve, though accidentally, to come under this denomination.

And thus we have a clear notion of the three subdivisions made under this head, and the manner by which they severally operate in bringing about the main intention. This therefore, it is hoped, may serve for an explication of the three subsequent classes; observing that under the last do very naturally fall all those things which usually pass for sweetners; for that term can have no other meaning, than that the animal fluids are by them rendered less sharp; and this cannot be done but either by breaking off the points or asperities of their particles, or by so absorbing them, by soft and porous bodies, that they cannot be perceived. Increase of motion conduces to the former; and what comes under the third class of this division, will do the latter.

Class

Class 1. Of Agglutinants.

<i>Folia</i>	Herbs or Leaves of	<i>Pisi</i>	Pease
<i>Amaranthi</i>	Flower-gentle	<i>Tritici</i>	Wheat
<i>Aparines</i>	Clivers	<i>Vermicelli</i>	Vermicelli
<i>Argentinae</i>	Silver-weed	<i>Sago</i>	Sago.
<i>Auriculæ muris</i>	Moufe-ear		
<i>Bursæ pastoris</i>	Shepherd's Purse	<i>Cortex</i>	Bark
<i>Caudæ equinae</i>	Horse-tail	<i>Cassia</i>	Cassia Bark.
<i>Centinodii</i>	Knot-grass		
<i>Cinari</i>	Artichoke	<i>Radix</i>	Root of
<i>Corni</i>	Cornelian-tree	<i>Consolida majoris</i>	Comfrey.
<i>Coronopi</i>	Buckshorn Plantane		
<i>Cotyledonis</i>	Navel-wort	<i>Gummi</i>	Gums
<i>Cynoglossi</i>	Hound's-tongue	<i>Arabicum</i>	Arabic
<i>Gallii</i>	Ladies Bed-straw	<i>Olibanum</i>	Olibanum
<i>Galeosylis</i>	Archangel	<i>Sanguis Draconis</i>	Dragons Blood
<i>Geranni</i>	Herb Robert	<i>Tragacantha</i>	Tragacanth.
<i>Hormini</i>	Clary		
<i>Musci pixidati</i>	Cup-moss	<i>Animalia</i>	Animals
<i>Plantaginis</i>	Plantain	<i>Rasura cornu cervi</i>	Shavings of Hartf-horn.
<i>Scolopendrii</i>	Spleenwort.	<i>Eboris</i>	of Ivory
<i>Flores</i>	Flowers	<i>Sanguis</i>	Goats Blood
<i>Consolidæ majoris</i>	Comfrey.	<i>Icthyocolla</i>	Ising-glass.
<i>Semina</i>	Seeds	<i>Mineralia</i>	Minerals
<i>Avenæ</i>	Oats	<i>Lapis Hematites</i>	Bloodstone
<i>Fabæ</i>	Peas	<i>Alumen</i>	Alum.
<i>Oryzæ</i>	Rice		

Class 2. Of Agglutinants.

<i>Folia</i>	Herbs or Leaves of	<i>Fructus</i>	Fruits
<i>Glabi</i>	Wood	<i>Berberes</i>	Barberries
<i>Gnaphalii</i>	Cutweed	<i>Castaneæ</i>	Chestnuts
<i>Herniariæ</i>	Rupture-wort	<i>Cydonia</i>	Quinces
<i>Menthae</i>	Mint	<i>Cypressi nuce</i>	Cypress Nuts
<i>Millefolii</i>	Yarrow	<i>Gallæ</i>	Galls
<i>Napi dulcis</i>	Sweet Navew	<i>Glandes</i>	Acorns
<i>Pimpinellæ</i>	Burnet	<i>Granata</i>	Pomegranates
<i>Quercus</i>	Oak	<i>Mespila</i>	Medlars
<i>Saniculæ</i>	Sanicle	<i>Mori</i>	Mulberries
<i>Urticæ</i>	Nettle.	<i>Myrti Baccæ</i>	Myrtle-berries
		<i>Myrtilli</i>	Hurdle-berries
<i>Flores</i>	Flowers	<i>Prunel. sylv.</i>	Sloes
<i>Balaustiorum</i>	Balaustines	<i>Rubi Idæi fruct.</i>	Rasberries
<i>Rosarum rubra- rum</i>	Red Roses.	<i>Sorbi fruct.</i>	Services
		<i>Pini nuce</i>	Fine-apples

Succi

<i>Succi inspissati</i>	Juices	<i>Margaritæ</i>	Pearls
<i>Acacia</i>	Acacia	<i>cum omnib. testaceis</i>	with all the testacea.
<i>Hypocistis</i>	Hypocistis		
<i>Terra Japonica</i>	Japan earth.		
		<i>Mineralia</i>	Minerals
<i>Cortices</i>	Barks	<i>Creta</i>	Chalk
<i>Cinnamomi</i>	Cinnamon	<i>Bolus Armen.</i>	Bole armenic
<i>Granatorum</i>	Pomegranate-peel	<i>Terra Lemnia</i>	Earth of Lemnos
<i>Quercus</i>	Oak-bark	<i>Samia</i>	of Samos
<i>Suberis</i>	Cork.	<i>Sigillat.</i>	Sealed earth
		<i>Granatus</i>	Garnet stone
<i>Radices</i>	Roots of	<i>Rubinus</i>	Ruby
<i>Bistortæ</i>	Bistort	<i>Smaragdus</i>	Emerald
<i>Tormentillæ</i>	Tormentil	<i>Hyacinthus</i>	Hyacinth
<i>Osmundæ reg.</i>	Osmund royal.	<i>Sapphirus</i>	Sapphire
		<i>Corallinum</i>	Coral
<i>Animalia</i>	Animals	<i>Lapis Lazuli</i>	Lapis Lazuli
<i>Oculi cancr.</i>	Crabs eyes	<i>Calaminaris</i>	Calamine
<i>Chelæ cancr.</i>	Crabs claws.	<i>Tutia</i>	Tutty.

Class 3. Of Absorbents.

<i>Ligna</i>	Woods	<i>Cortices</i>	Barks of
<i>Santala omnia</i>	Sauanders	<i>Guaiaci</i>	Guaiacum
<i>Brasiliense lign.</i>	Brasil	<i>Sassafras</i>	Sassafras.
<i>Ebenus</i>	Ebony		
<i>Lentiscus</i>	Mastich	<i>Radices</i>	Roots
<i>Guaiacum</i>	Guaiacum	<i>Chinæ</i>	China
<i>Sassafras</i>	Sassafras.	<i>Sarsaparillæ</i>	Sarsaparilla.

S E C T. III.

Of Stomachics.

IT is not at all difficult to apprehend the operations of those things which come under this denomination. All nervous medicines indeed have some claim to this division; as whatsoever is good for the nerves; cannot but be serviceable to the stomach; both upon account of its being such a nervous part, and as it has generally the first effects of such medicines. But as for superior reasons, they are distributed under other denominations; we shall rank under this only

such simples as are either seldom used in other intentions, or hardly ever omitted in this. These are such as, by a peculiar warmth, give both a grateful sensation, and a suitable tenacity to the fibrous coats of the stomach; whereby the sense of hunger is not only excited, but also the stomach rendered more able to break and digest what is taken in to nourish the body. And as most bitters are of this tribe, and also as by that quality they contribute frequently to the destroying

C

of

of worms, we have likewise given for any other purposes, a place
some simples, prescribed scarce here.

<i>Folia</i>	Leaves of	<i>Cortices</i>	Barks or peels of
<i>Absinthii Rom.</i>	Roman wormwood	<i>Aurantiorum</i>	Oranges
<i>Acanthi</i>	Bears breech	<i>Citreorum</i>	Citrons
<i>Cardui ben.</i>	Carduus	<i>Limonum</i>	Lemons.
<i>Centaurii minoris</i>	Lesser centory		
<i>Corallinae</i>	Coralline.	<i>Radix</i>	Root of
		<i>Gentian</i>	Gentian.
<i>Semen</i>	Seed		
<i>Santonicum</i>	Worm-feed.		

S E C T. IV.

Of Balsamics.

WHAT passes under this denomination, has a great share in the materia medica. But the term is so general and lax, that we have brought this tribe into four subdivisions.

Under balsamics seem to be comprehended all that is meant by softening, restoring, healing, and cleansing: to all which intentions there seems this necessary requisite, in the parts of all bodies which are used therein, viz. That they be soft, yielding, adhesive; and by their smallness have a ready disposition to motion. It is not difficult to foresee how many ends are to be answered by a medicine with all these properties; as likewise what a vast progress they must take in many instances, before they can arrive at the intended scene of action.

For in these intentions, the seat of the complaint is most commonly in the viscera. Now it is certain, a medicine cannot come at any of these, but by the common conveyance of the blood: and how long from its being taken into the stomach, it must be before it can be prepared for, and goes its circuit that way, every one knows, who is but indifferently acquainted with the animal œconomy. And therefore tho' the lungs are by their situation so near the stomach, yet it must be

many hours before a medicine can arrive at them, after it is taken in by the stomach; because it must pass the usual course into the lacteals, through all the meanders of the mesentery, and go up with the chyle into the subclavian vein, and there fall into the blood, before it can come near the place it is intended for: and even then it has but the chance of coming thither, in such a quantity as bears a proportion to the whole which comes into the blood, equal to that which the pulmonary artery bears to all the other arteries, into which the heart throws the blood in every pulsation.

But as to any particular subdivision of this general term; a medicine given inwardly must pass thro' considerable alterations before it can answer its end, even in the stomach and bowels; and therefore nothing of this kind can be depended upon in a single or few doses; but must be followed and repeated until the animal juices are sufficiently charged therewith to afford a continual supply, whether to any particular part, or to the whole. We shall the better understand the operations of these medicines from proper explanations under the several branches we have divided them into.

Class

Class 1. Of Emollients.

Emollients are such things as sheathe and soften the asperity of the humours, and relax and supple the solids at the same time: It is very easy to conceive how both these are brought about by the same medicine.

By what means soever, whether in the stomach or any other parts, the juices have obtained a sharpness and asperity, so as to vellicate and render uneasy the fibres and nervous parts; which often happens; those things which are smooth, soft, and yielding, cannot but wrap up

their points; and render them imperceptible: whence they may gradually, by the proper course of circulation, be brought to some convenient emunctory, without doing any injury by the way. Such parts likewise draw the fibres into spasms, keep them too tense, and frequently thereby occasion obstructions of the worst kind. In all such cases, emollients lubricate and moisten the fibres: so as to relax them into their proper dimensions, whereupon such disorders cease.

<i>Folia</i>	Herbs or Leaves of	<i>Lini</i>	Flax
<i>Althææ</i>	Marshmallows	<i>Citrulli</i>	Citrus
<i>Betæ</i>	Beets	<i>Cucumeris</i>	Cucumber
<i>Betulæ</i>	Birch	<i>Cucurbitæ</i>	Cucurbits
<i>Malvæ</i>	Mallows	<i>Melonum</i>	Melons
<i>Mercurialis</i>	Mercury	<i>Peponum</i>	Pumpkin
<i>Parietariæ</i>	Pellitory of the wall	<i>Sejami</i>	The oily grain.
<i>Tapsi barbati</i>	Mullein.	<i>Fructus</i>	Fruits
<i>Flores</i>	Flowers of	<i>Amygd. dulces</i>	Sweet almonds
<i>Lamii</i>	Archangel	<i>Avellanae</i>	Hazel nuts
<i>Liliorum alborum</i>	White lilies.	<i>Ben nuce</i>	Ben nut
<i>Semina</i>	Seeds of	<i>Castaneæ</i>	Chestnuts
<i>Fœnugræcia</i>	Fenugreek	<i>Juglandes, aliæ- que nuce</i> ejus- <i>modi</i>	Walnuts, with others of like nature.

Class 2. Of Restoratives.

These are not greatly different from those of the first class in the second section. And therefore their manner of operation may be accounted for much in the same way; only these are of a more subtle and adhesive nature, whereby they pass the finest strainers, or secretories, and enter into the nourishment of the remotest parts. All under this class are rather nutrimental than medicinal; and are more admini-

stered to repair the wastes of the constitution, than to alter and rectify its disorders. Whatsoever can answer this end, must be both endued with a disposition to enter into and mix with the most subtle of the animal fluids, and to fall into and adhere with such interstices of the solids, as have been wore away by action, and stand in need of recruit.

<i>Folia</i>	Herbs or Leaves of	<i>Balsama</i>	Balsams
<i>Adianthi albi</i>	White maidenhair	<i>Tolutanum bals.</i>	Balsam of Tolu
<i>Adianthi nigri</i>	Black maidenhair	<i>Bdellium</i>	Bdellium
<i>Erucae</i>	Rocket	<i>Benzoinum</i>	Benjamin
<i>Panici</i>	Panic	<i>Styrax</i>	Storox.
<i>Scabiosae</i>	Scabious		
<i>Trichomanis</i>	Englisch maidenhair	<i>Radices</i>	Roots of
<i>Tussilaginis</i>	Colt's foot	<i>Eryngii</i>	Eryngo
<i>Virgæ aureæ</i>	Golden rod	<i>Iridis</i>	Orris
<i>Theæ Boheæ</i>	Bohea tea.	<i>Pastinacæ</i>	Parfnips
		<i>Satyrii</i>	Orchis.
<i>Semina</i>	Seeds	<i>Animalia</i>	Animals
<i>Cicerum</i>	Chiches	<i>Viperæ</i>	Vipers
<i>Hordei, cum omnibus frumentis</i>	Barley, and other Bread-corn	<i>Limacæ</i>	Snails
<i>Lupuli</i>	Hops	<i>Lac Vaccinum</i>	Milk of Cows
<i>Orobi</i>	Bitter vetch.	<i>Asinum</i>	Asses
		<i>Ovinum</i>	Sheep
		<i>Caprinum</i>	Goats
<i>Fructus</i>	Fruits	<i>Pulmon. vulp.</i>	Fox lungs.
<i>Cacao nuce</i>	Chocolate		
<i>Cynobati fruct.</i>	Hips		
<i>Pistachiæ nuce</i>	Pistachio nuts.		

Class 3. *Vulneraries.*

What is collected under this denomination, is of that sort of balsamics, which are not only softning and adhesive, but also, by a peculiar activity or disposition to motion, joined with a suitable configuration of parts, are apt to abrade and carry along with them such particles as they lay hold on in their passage: so that they differ from the next class, of detergents, only in degree.

All medicines of this intention are supposed both to cleanse and heal; that is, incarnate, or fill up with new flesh, all ulcerations, and foulnesses occasioned thereby, both internally and externally. Now to do this, in all internal cases especially, the medicine must preserve its primary properties, until it arrive at the place of action; as was before observed under the general term of balsamics; and there it does what entitles it to this appellation;

first by its adhesive quality, which consists in the comparative largeness of surface, and flexibility of its component parts. For by this it very readily falls into contact with, and adheres to, the slough of ulcerous exudations; which by reason of their situation are easily carried along with the medicine. And when such matter is so carried away, which is the cleansing or deterring part, what was instrumental in this office, will afterwards stick to, and adhere with the carneous filaments, until, by their addition, and the protrusion of proper nourishment *ab interno* to the same place, the waste is made up; that is, the ulcer is healed.

After the same manner the operation of such substances is to be accounted for in external application. By the warmth of their parts they rarify; and by their adhesive quality they join with, and take off along

along with them, in every dressing, what is thrown upon the place to which they are applied, until a more convenient matter is supplied; which it forwards, in adhering to, and incarning the eroded cavities. Only this may be taken notice of, that internally, whatsoever of this kind is mixed with the animal fluids, by the known laws of circulation, they will be first separated and left behind. For all those parts

which are specifically heaviest, will move nearest the axis of the canals; because the momenta are the greatest: and will therefore carry them as near as can be in straight lines; but the lighter parts will always be jostled to the sides, where they soonest meet with outlets to give them vent, or are struck into such cavities as we are here speaking of; in which they adhere, and make part of the substance.

<i>Folia</i>	Leaves or Herbs of	<i>Gummi et nativa</i>	Gums and natural
<i>Abrotani</i>	Southernwood	<i>Balsama</i>	Balsams
<i>Acetosellæ</i>	Wood-sorrel	<i>Caranna</i>	Caranna
<i>Agrimoniæ</i>	Agrimony	<i>Juniperi gum.</i>	Gum juniper
<i>Alchimillæ</i>	Ladies mantle	<i>Opopanax</i>	Opopanax
<i>Brassicæ</i>	Colewort	<i>Sagapenum</i>	Sagapenum
<i>Chamaepityos</i>	Ground-pine	<i>Sarcocolla</i>	Sarchocol
<i>Chelidonii</i>	Celandine	<i>Terebinthina è</i>	Chio turpentine
<i>Delphinii</i>	Lark-spur	<i>Chio</i>	
<i>Dentariæ</i>	Toothwort	<i>è Cypro</i>	Cyprus turpentine
<i>Digitalis</i>	Fox-glove	<i>Veneta</i>	Venice turpentine.
<i>Dipsaci</i>	Teasel		
<i>Epithymi</i>	Dodder of thyme	<i>Cortex</i>	Bark of
<i>Hed. terrestris</i>	Ground ivy	<i>Ulni</i>	Elm-tree.
<i>Hypereci</i>	St. John's-wort		
<i>Marubii</i>	Horehound	<i>Fungus</i>	Fungus
<i>Melilotii</i>	Melilot	<i>Sambucinus</i>	Jews-ear.
<i>Ophioglossi</i>	Adder's tongue	<i>Animalia</i>	Animals
<i>Perfoliatæ</i>	Thorow-wax	<i>Spermaceti</i>	Spermaceti
<i>Pini</i>	Pine	<i>Mumia</i>	Mummy.
<i>Polii montani</i>	Mountain poley		
<i>Pulmonariæ</i>	Lung-wort	<i>Mineralia</i>	Minerals
<i>Pyrolæ</i>	Winter-green	<i>Lapis Hibernicus</i>	Irish slate
<i>Visci quercini</i>	Mistletoe	<i>Sulphur caballinum</i>	Common brimstone.

Class 4. Of Detergents.

These differ only in degree of efficacy from the former class; they are of more subtile parts, and therefore fitter to mix with, attenuate, and wear away the contents of

abscesses and ulcerations, and those mucous and viscid collections of humours, which are apt to adhere to and obstruct the vessels.

<i>Folia</i>	Herbs or Leaves of	<i>Allii</i>	Garlick
<i>Abietis</i>	Fir	<i>Ammi veri</i>	Bishops-weed
<i>Absinthii vulg.</i>	Common worm-wood	<i>Anagal. aqu.</i>	Brook-lime
		<i>Anonis</i>	Rest-harrow
		C 3	<i>Apii</i>

<i>Apii</i>	Smallage	<i>Passule</i>	Raisins
<i>Aquilegiæ</i>	Columbine	<i>Pini nuce</i>	Pine-apples
<i>Artanitiæ</i>	Sow-bread	<i>Sebesten.</i>	Sebestens
<i>Asperulæ</i>	Wood-roof	<i>Dactyli</i>	Dates
<i>Asplenii</i>	Spleen-wort	<i>Juniperi baccæ</i>	Juniper-berries.
<i>Botryos</i>	Jerusalem oak		
<i>Capparis</i>	Caper-bush	<i>Gummi et Bal-</i>	Gums and Bal-
<i>Caprifolii</i>	Woodbine	<i>sama</i>	sams
<i>Chamædryos</i>	Germander	<i>Ammoniac. gum.</i>	Gum Ammoniac
<i>Cardamines</i>	Cuckow-flower	<i>Capivi bals.</i>	Balsam of Capiva
<i>Cochlear. bor.</i>	Gar. Scurvy-grafs	<i>Masticæ</i>	Mastic
<i>Cochl. mar.</i>	Sea Scurvy-grafs	<i>Tacamachacca</i>	Tacamachac
<i>Critthmi</i>	Sampire	<i>Opobalsamum</i>	Opobalsam
<i>Eryfini</i>	Hedge mustard	<i>Sapo Venetus</i>	Venice soap
<i>Eupatorii</i>	Maudlin	<i>Terebinth. omnes</i>	All the turpen-
<i>Fumariæ</i>	Fumitory		tines.
<i>Genistæ</i>	Broom		
<i>Gratiolæ</i>	Hedge-hyssop	<i>Cortices</i>	Barks of
<i>Hepaticæ</i>	Liver-wort	<i>Berberis</i>	Barberry-tree
<i>Hyssopi</i>	Hyssop	<i>Capparis</i>	Caperbush
<i>Hippocistini</i>	Alexanders	<i>Ebuli</i>	Dwarf elder
<i>Iberidis</i>	Sciatica-crefs	<i>Sambuci</i>	Elder
<i>Ligustri</i>	Privet	<i>Tamarisci</i>	Tamarisk.
<i>Menthastrii</i>	Horfe-mint		
<i>Nasturtii</i>	Water-creffes	<i>Radices</i>	Roots of
<i>Panacis</i>	All-heal	<i>Ari</i>	Cuckow-pint
<i>Porri</i>	Leeks	<i>Ceparum</i>	Onions
<i>Rufci</i>	Butchers broom	<i>Curcumæ</i>	Turmeric
<i>Sambuci</i>	Elder	<i>Filicis</i>	Fern
<i>Saturciæ</i>	Savory	<i>Glycyrrhizæ</i>	Liquorice
<i>Scrophulariæ</i>	Figwort	<i>Enulæ camp.</i>	Elecampane
<i>Secalis</i>	Rye	<i>Lapatbi acuti</i>	Sharp-pointed
<i>Tanaceti</i>	Tanfy		dock
<i>Trifol. palud.</i>	Buck-bean	<i>Pentaphyllii</i>	Cinquefoil
<i>Verbenæ</i>	Vervain	<i>Polypodii</i>	Polypody
<i>Veronicæ</i>	Paul's beton.	<i>Porri</i>	Leek
		<i>Rhapontici</i>	Rhapontic
<i>Flores</i>	Flowers of	<i>Rubiæ Tinct.</i>	Madder
<i>Sambuci</i>	Elder.	<i>Saponariæ</i>	Soap wort.
<i>Semina</i>	Seeds of	<i>Animalia</i>	Animals
<i>Anneos</i>	Bishops-weed	<i>Lumbrici terr.</i>	Earth-worms
<i>Erucae</i>	Rocket	<i>Stercus canis</i>	White dogs dung
<i>Fraxini</i>	Ash	<i>equinum</i>	Horfe-dung.
<i>Nasturtii</i>	Creffes.		
		<i>Mineralia</i>	Minerals
<i>Fructus</i>	Fruits	<i>Pissellæum Indic.</i>	Barbadoes tar
<i>Amygd. am.</i>	Bitter almonds	<i>Sal commune mar.</i>	Sea salt
<i>Ficus com.</i>	Figs	<i>Sal gemmæ</i>	Salgem.
<i>Jujubæ</i>	Jujebs	<i>Hydargyrus</i>	Quicksilver.
<i>Sambuci bac.</i>	Elder-berries		

S E C T. V.

Of Diuretics.

UNDER this head are included those simples, whose most remarkable properties appear in their increasing the discharge by urine; or which are supposed to have any power in removing obstructions in the urinary passages, from what cause soever, whether humours or gravel.

The best way to understand how a medicine operates to answer this intention, will be first to consider by what means it comes to be wanted. This must happen either from a fault of the passages, or of the liquid which ought to make its way through them. The passages may be in fault from any cause which contracts them; and draws them up too strait; which of course lessens their diameters, and will not let particles through of the same bulk as they would before: and they may also, in their natural capacities, be obstructed by the casual intrusion of particles too big to go forward; or by the concretion of particles attracting one another in their progress. The fluid also which ought to go off this way, may be prevented by the grossness; and by being united with other particles too bulky for those outlets.

In this view, diuretics come under these following kinds. They are either such as soften and lubricate the fibres that compose the urinary glands and canals; by which means they yield and relax into their due dimensions and capacities; and of these kinds are many of the emollients, sect. 4. class 1. already explained: or they are such as, by their attenuating and deterfive properties, rarify and thin viscous hu-

mours, and adhere to and carry them along with them in their passages; which those of the fourth class of the same section have been shewn to do, and upon that account prove diuretic: or again, they must be such as have a power of altering the crasis of the humours; so as to fit those to pass, which could not get through before; and this remains yet to be explained, and has particular regard to most of the simples collected under this section.

Without venturing out too far, for the compass here allotted, into the nature of secretion; it may be proper to take notice, that the thinner separations increase in proportion to the blood's velocity; for the swiftness of its motion not only keeps the parts more divided, but also brings them oftner to the secretory orifice; which every where takes off the thinnest of the blood at that part; some of the viscid and thicker secretions requiring, for the same reason, a vast check of the blood's motion, before they can be performed; that is, before the blood has obtained such a consistence, by the slowness of its motion, that what is to be separated is the thinnest at that part; for no other will go off any where. If therefore from any cause the blood does not move with its due velocity, its parts will attract one another, and make the whole too thick to part with any thing by the kidneys, or so much as it ought. Nature indeed seems particularly to have provided against this inconvenience, by so near a situation of the kidneys to the heart, that the blood's motion cannot be

retarded when it comes to them, unless it moves slower through the heart itself. In this case such things prove diuretic, which not only forward the blood's motion by their irritation of the solids, and quickening their vibrations; but are so subtle as to keep the blood in as fluid a state as possible. Many things therefore under the first class of the first section come into this rank; because their volatility gives them such properties. But besides the smallness and aptitude to motion of some parts which keep the blood fluid, there are others which do it by their roughness and rigidity; for thereby they hinder such particles of blood from coming into contact, which would make them cohere; and such are of the nature of alkaline and lixivious salts; which for this very reason, in all sluggish and viscid habits of blood, prove diuretic; and procure sometimes very large discharges by urine.

Another way of forcing urine, is to increase the quantity of such salts in the blood, as seem fitted, by their specific gravities, to pass more easily by the kidneys than any where else; for the largeness and swiftness of the stream in which the blood comes to them, cannot admit of the separation of any particles but such as are small and heavy; of which kind are all nitrous and acid salts. For these joining with the serum, cause it more plentifully to attract and unite the salts dispersed in the blood, and help the sooner upon that account, viz. by adding to their gravities; to determine them through the kidneys into the bladder.

But such seem to be the most natural and safest medicines for this intention, which have in their compositions salts near of this kind, and somewhat at the same time so emollient, as to guard them against

vellicating the membranes, and to lubricate and facilitate their passages with what they take with them into their proper emunctories. Thus all of the mallow kind, and most of the ingredients in the Syrupus de Althæa, have a great deal of a penetrating salt wrapt up in a soft mucilaginous juice. Dr. Grew, an able physician, and a most faithful recorder of experiments of this nature, observes more salts to be in plants of this kind, than many others which seem to discover more of them to the taste. If then nature be allowed to be the best compounder, those of her productions which have these two properties so well blended together, must be the best that can be contrived for the purposes under consideration. For such plants or simples seem fitted to answer both these important intentions at once, of lubricating and relaxing the passages, and of precipitating at the same time the proper fluids through those passages. And this may serve as a good hint, to conduct us in the use of those means which art contrives to answer the same end, not to be too busy with such things as stimulate much, and are forcing that way, lest, instead of making a passage, those irritations should contract and straiten what was too strait before; and therefore that we always join them with such things, as are at the same time softening and emollient; that the vessels may be enlarged, when a greater quantity of fluid is intended to be protruded through them.

It has been a long dispute how some things, which manifestly pass off by urine, can do it in so short a time as they are often observed; especially those of the turpentine kind; which will very soon discover themselves by their smell, (wherein no body can be deceived) in the urine: but this would take
up

up too much room in this place; and it does not seem greatly to our purpose to determine such difficulties. Some hints this way, and especially how large quantities of liquors drank suddenly, will soon make their way through these parts, may be met with in the explications of Sanctorius's *Medicina Statica*.

<i>Folia</i>	Herbs or Leaves of	<i>Radices</i>	Roots of
<i>Charesfolii</i>	Chervil	<i>Altbææ</i>	Marshmallows
<i>Fragariæ</i>	Straw-berries	<i>Asparagi</i>	Asparagus
<i>Kali</i>	Glass-wort	<i>Fœniculi</i>	Fennel
<i>Oxyacanthæ</i>	Barberry-tree	<i>Filipendulæ</i>	Drop-wort
<i>Perficariæ</i>	Arsmart	<i>Graminis</i>	Grass
<i>Petroselinii</i>	Parsley	<i>Petroselinii</i>	Parsley
<i>Tibæ viridis</i>	Green-tea	<i>Raparam</i>	Turneps
<i>Saxifragiæ</i>	Saxifrage.	<i>Raphani hort.</i>	Radishes
		<i>Raphani rust.</i>	Horfe radish.
<i>Semina</i>	Seeds of	<i>Animalia</i>	Animals
<i>Ekuli</i>	Dwarf elder	<i>Millepedes</i>	Hog-lice
<i>Lithospermi</i>	Gromwell	<i>Cantharides</i>	Spanish flies
<i>Bardanæ</i>	Burdock.	<i>Stercus porcinum</i>	Hogs dung.
<i>Fruetus</i>	Fruits of	<i>Minerale</i>	Mineral
<i>Alkekengi</i>	Winter cherry	<i>Nitrum</i>	Salt Petre.
<i>Spinæ albæ</i>	White thorn.		
<i>Lignum</i>	Wood		
<i>Nephriticum</i>	Nephritic.		

S E C T. VI.

Of Diaphoretics.

UNDER this name of diaphoretics are included what also are understood by Alexipharmacs and febrifuges, because all under those denominations, whose operations we have any notice of, exert themselves that way, by more or less increasing a diaphoresis; which is a sensible discharge by the skin, and shews itself like a dew upon it.

All those medicines which answer this intention, must do it either by their subtilty, whereby they divide and attenuate the humours to such a degree, that they become fine enough to escape through such small passages, as those of the cutaneous

glands; or else by their contracting and squeezing the solids, which force out of the extremities what lay before in readiness for expulsion. Of the former sort are many simples, which for their other more manifest qualities, we have placed under other heads, and chiefly amongst the cephalics: for all aromatic, warm and subtle bodies, have a natural tendency this way, because they cannot but divide and attenuate the fluids, which make them fitter to go off by the smaller passages. What we have collected under this section, are mostly determined to the same intention, by a like texture and disposition of parts;

parts; but then they are generally such as are seldom met with in composition or prescription for any other purpose. And, without transgressing the rules laid down for determining things of this kind, it may be conjectured, that there is a difference between these and the common aromatics; that the latter act as soon as ever they come into the stomach, and by the volatility of their parts divide and thin the juices in the primæ viæ, but go off in a great measure by some of the larger discharges; whereas the former seem not to have any thing in their composition so active as to render them sensible, until they have passed the last comminution or digestion in the circulating blood: and there to obtain such a resolution, as suits them not only for the cutaneous secretion themselves; but also to break, and as it were fuse the blood itself, thereby causing its thinner and ferous parts to flow through the pores in great plenty. And this will not perhaps appear so strange, when we consider a manifest difference in our food, not unlike what we here assign to medicine. For some parts of our aliments are sooner than others broke and digested in the stomach and first offices; and such always furnish the greatest supply to the larger emunctories, and go off mostly by urine; whereas others, which have subtility enough not only to pass the lacteals, and get into the blood, but are too solid to undergo the last comminution, except by a long circulation, bestow more matter both for nourishment and the finer

secretions. Those substances, or bodies, therefore, which obtain this appellation of diaphoretic, are such as are capable of being divided into very small and fine parts; which do not sensibly operate until they are brought into the minutest vessels, where their smallness and activity fit them both to pass themselves; and besides make way for many other particles to go off with them.

But the other case of a diaphoresis, or raising a sweat, is most extensive and efficacious; and that is by squeezing and contracting the fibres, and so forcing thro' what is in readiness to pass; of which matter there often is a great deal in the capillaries, or just at the surface, that sometimes almost stagnates for want of such shocks. All acids do this, and whatsoever vellicates and contracts the fibres powerfully. Thus you shall see people presently sweat upon eating vinegar or lemon juice. Upon the same account does fear, or any sudden passion, produce the like effect; as likewise all kinds of exercise. But these are not so directly our business to account for; nor likewise how sweating most commonly terminates fevers, and throws off poisons or contagious infections; by which they come to be termed alexipharmacs and febrifuges; because this would take up more room than we have here to spare; as requiring the whole theory of fevers to be treated of, in order to arrive at a perfect knowledge of it.

<i>Folia</i>	Herbs or Leaves of	<i>Dracontii</i>	Dragons
<i>Antboræ</i>	Helmet flower	<i>Galegæ</i>	Goats rue
<i>Calaminthæ</i>	Calamint	<i>Melissæ</i>	Baum
<i>Carlinæ</i>	Carline thistle	<i>Scordii</i>	Water germander
<i>Doronici</i>	Wolf's bane	<i>Ulmariæ</i>	Meadow-sweet.
<i>Dracunculi</i>	Taragon		

Flores

<i>Flores</i>	Flowers of	<i>Petasitidis</i>	Butter-bur
<i>Calendulæ</i>	Marygold	<i>Pyrethri</i>	Pellitory of Spain
<i>Croci</i>	Saffron.	<i>Scorzoneræ</i>	Viper-grafs
		<i>Serpentariæ</i>	Snake-weed
<i>Semen</i>	Seed of	<i>Succisæ</i>	Devils-bits
<i>Seseli</i>	Hart-wort.	<i>Valerianæ</i>	Valerian.
<i>Gummi</i>	Gums	<i>Animalia</i>	Animals
<i>Campbora</i>	Camphire	<i>Coccinella</i>	Cochineal
<i>Guaiacum</i>	Guaiacum.	<i>Scinci</i>	Skins
		<i>Corn. Unicorn.</i>	Unicorns horn
<i>Cortex</i>	Bark of	<i>Os de corde cervi</i>	Bone of the stag's heart
<i>Peruvianus</i>	Peru.	<i>Bezoar orient.</i>	Oriental Bezoar
		<i>Bezoar occid.</i>	Occidental Bezoar.
<i>Radices</i>	Roots of	<i>Minerale</i>	Mineral
<i>Contrageryvæ</i>	Counter poison	<i>Lapis ætites</i>	Eagle stone.
<i>Imperatoris</i>	Mafter-wort		
<i>Mei</i>	Spignel		
<i>Nardi</i>	Spikenard		

S E C T. VII.

Of Emetics.

THAT part of the materia medica which comes under this head, altho' it is not so extensive as some of the precedent divisions; yet it is of that efficacy, as to require the utmost skill and caution in the management. For a vomit cannot be given without doing either good or harm: it is not therefore to be indifferently regarded as the operation of some alteratives, which are frequently prescribed only to keep the patient easy under some expectation, until a physician more clearly sees what nature indicates to be done.

Vomits and purges are so much alike in their operations, that one cannot be well apprehended without the other. Thus much therefore is common to them both, that any medicine which so far vellicates the membranes and coats of the stomach and bowels, as to draw them into convulsive twitches, or much accelerate their natural mo-

tions, will be emetic or cathartic, and sometimes both. But the action of vomiting is more properly a convulsive motion in the stomach, than any which can happen in the bowels; unless their peristaltic undulations are inverted, as it happens in the passio iliaca. Whatsoever therefore comes into the stomach, which so irritates its fibres, as to make them contract or draw up with force, will throw its contents upwards; the vent being much larger that way than through the pylorus; which would send them by stool. The difference therefore between an emetic and a cathartic, lies only in this, that the latter consists of such particles as pass the stomach without any violent vellications of the fibres; and the former of such as have that effect almost as soon as they come there; so that a vomit seems stronger than a cathartic: and this is the reason why a cathartic in an increased

creased dose, will prove emetic.

Some are of opinion, that the substance itself, which procured a vomit, is thrown up again in the first or second ejection; and that the following sollicitations are caused by the acrimony of the juices; which the first motions pumped as it were, and occasioned to drain into the stomach. It is of no great importance whether it be thus or not; but 'tis certain, that the action of vomiting gives the strongest shake to all the muscles and solids of the body, that any motion is capable of; and therefore in all medicinal intentions it may be considered as an exercise. And the last reachings do generally discover a drain of humours derived into the stomach from some considerable distance; their colour shewing them to come from the liver, or parts more remote. But service is not so much to be expected from what these medicines discharge upwards, as from what their violent emotions and concussions fit for separation, and force thro' other outlets; and even that by the skin is prodigiously increased by these means, as is manifest from the profuse

sweats which a person naturally falls into afterwards, upon the least encouragement thereto.

Tinctures and resins, are always observed to operate rougher this way than more simple preparations; and the reason seems to be, that such management of an ingredient makes its active parts too intimately come into contact with the fibres; whence they are not so soon shook off by their convulsive twitches or throws, as more gross parts might be. Upon this account therefore, most of the simples which come under this head, are best ordered in their natural forms; and the elaborate preparations, of the chemical pharmacy especially, produce no vomit so good as we find among nature's own productions. And this opinion the present practice fully supports; for all the antimonial and mercurial emetics, are almost quite laid aside, unless in very obstinate cases; and some simple generally is now prescribed, only in power, as the ipecacoanha. The emetic tartar likewise, which used to be so much in vogue, is at present to be found only in such hands as are strangers to milder and safer medicines.

<i>Folia</i>	Leaves of	<i>Radices</i>	Roots of
<i>Erigeri</i>	Groundsel.	<i>Scuilla</i>	Squills
<i>Flores</i>	Flowers of	<i>Ipecacoanha</i>	Ipecacoanha.
<i>Persicae</i>	Peach tree.	<i>Minerale</i>	Mineral
<i>Semina</i>	Seeds of	<i>Borax</i>	Borax.
<i>Carthami</i>	Bastard saffron.		

S E C T. VIII.

Of Cathartics.

Somewhat may be understood concerning the operation of cathartics, from what has been al-

ready said about emetics; the vellication or irritation of the fibres and membranes being the same in both.

both. But as the difference of the parts, in which their scenes of action are, makes a great deal of difference in the consequences of their operations on many accounts; therefore it may be farther necessary to know what a stimulus will do, in the intestines particularly.

The peristaltic or vermicular motion of the guts, is such as continually propels forwards their contents, from the pylorus down to the rectum. Now every irritation either quickens the motion in its natural order, or occasions some little inversions of it. In both, what but slightly adhered to the coats, or inner membranes, will be loosened and shook off, and carried forward with their contents; and they will also be more agitated, and thus rendered more fluid. By this only it is manifest, how a cathartic hastens and increases the discharges by stool; but the same manner of operation also carries its effects much farther, in proportion to the force of the stimulus. For where it is great, all the appendices of the bowels, and even all the viscera in the abdomen, will by a consent of parts, that is, a communication of nerves, be pulled or twitched, so as to affect their respective juices in the same manner as the intestines themselves affect their contents. The consequences of which must be, that a great deal will be drained back into the intestines, and made a part of what they discharge. And when we consider the vast number of glands in the intestines, with the outlets of those viscera opening thereto, and particularly of the pancreas and liver; it will be no wonder what vast quantities, especially in full constitutions, may be carried off by one smart purge.

It has been a prevailing notion, that there is some specific, or elective quality in cathartics, by which

some are suited to draw off, and expel such particular humours, and will not meddle with, or affect any other; and upon this notion it is, that they have been constantly distinguished in physical writers, by peculiar names expressive of their respective properties. Hence such an one is called a cholagogue, or purger of choler; this an hydragogue, or purger of water; and another a phlegmagogue, or purger of phlegm. But we cannot admit of any such conclusion; because no medicine under this denomination, how efficacious and surprizing soever in its operation, can act but mechanically; according to those laws of motion, which all other bodies are subject to: And therefore when the discharges by stool discover an over-proportion of any particular humours; the purge, to whose efficacy it is ascribed, is not to be supposed to have done it by any such election; but that there was either a redundancy of such a humour, whose discharge any common irritation would occasion; or that there was some peculiar aptitude from the fibres and bulks of the medicine, to deterge those parts where they were lodged, and set them in fusion. Thus in proportion to the proximity of some humours to the intestinal tube, and the disposition of the passages to convey them that way, they require greater or lesser vibrations, or shakes of the fibres, from a cathartic, to fetch them out. For this reason, the brisker cathartics, which vellicate the membranes most of all, pump out, as it were, from all the mesenteriac glands, and neighbouring parts, their contents; which parts, because they abound so much with lymphatics, and viscid watry humours, make the discharges thin and watry. Those which act in a somewhat lower degree, yet irritate enough

enough to deterge and draw out a great deal of mucous and viscid matter; which sometimes by lodgment, and want of due motion, changing into various colours, occasions the different names of phlegm, or choler. As the former therefore pass for hydragogues; so do the latter for purgers of phlegm and choler.

Dr. Keil, in his account of animal secretion, seems to favour this opinion of the ancients about elective purges, because it appeared to him solvable by his theory of attraction: but it is to be feared he transgressed his own laws when he makes the particles of jalap attract the aqueous particles out of the blood as it washes thro' the intestinal glands, by any other power than the particles of any other medicine would do it, in the like circumstances, that is endued with the same mechanical properties. Whatsoever therefore has the same properties, as by the effects it appears several medicines have, as jalap, it will purge water as much as jalap; and consequently deserve as much the name of a specific. But if it can be explained, as here it is hoped to be done, how such medicines are fitted by their manifest and mechanical properties to produce such an effect; then it must be much more instructive to rely upon such procedure, than to have recourse to an imaginary agency, which puts the understanding in confusion.

Upon another account also, besides that of a stimulus, a cathartic answers its intention; and that is by fusing the humours, or rendering them more fluid than they were before; whereby they are better fitted to pass off at their proper emunctories. And how this is done, may be understood from many hints already interspersed in

this work. Those which consist of very subtle and active parts, are not so sensible in the larger passages; because of the great quantities of matter which lay too great a load upon them, and make them unheeded; but when they are got into the blood in any considerable number, they divide and fuse those cohesions which obstruct, or move heavily in the capillaries, and scour the glands; insomuch, that every pulsation throws something thro' the intestinal glands; which goes off by stool, and which the reflux blood washed away, and brought back from all parts of the body. Of this kind are all those cathartics which are prescribed in rheumatism and are said to purge the joints, and arthritic pains; as the radix turpethi, and all the aloetics. It may not be amiss here to observe, that the reason why cathartics of this sort are so easily changed into the most efficacious alteratives, is because an alterative is a cathartic, in this sense, in a lower degree, or of a more remiss operation. Whatsoever brings such particles to a secretory office, as are fitted for passing it, oftner than usual, either by accelerating the blood's motion, or breaking it into more particles of that particular size and inclination, will increase that secretion. According therefore to the difference of the parts, where such secretions are enlarged, as in the glands of the intestines, kidneys, or skin, are the medicines which are instrumental therein, termed either cathartics, diuretics, or diaphoretics.

Farther, another way of promoting the discharges by stool from fusion, or rendering the humours more fluid, is to mix such particles with them, as prevent their running into viscid cohesions; and by degrees divide and break them when

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in contact; whence they are rendered fitter to run off by the most convenient outlets. This is done by substances which have parts rigid, gross, and full of asperities; and these are many kinds of salts, and tartarous medicines. For by experiments easy to be tried, those bodies being mixed with any thing tenacious and adhesive, will destroy such properties. Thus, let any one mix a few grains of salt of tartar with the extractum rudii, which of itself is so tenacious as to draw out into any figure; and it will immediately run into almost a dry powder; and crumble so as not to be capable of being made into pills. To the quantity of this salt also in Matthews's pill, as it is commonly called, is owing, that the

mass is so difficultly made up into pills. Likewise all tenacious and mucilaginous bodies of much thinner consistence, will by the like means be rendered much less adhesive, and more disposed to fluidity. Cathartics of this sort are generally too gross to pass the lacteals; and therefore their influence extends no farther than the primæ viæ; that is, the stomach and bowels. After this manner cream of tartar, with its crystals, which differ not much from the former, manna and all the milder purgers, operate; that is, by separating and keeping from contact and cohesion, the several contents of those parts, which render them so fluid, as to run off sooner, and in larger quantities by stool, than otherwise they would do.

Class 1. *The Milder Purgers.*

<i>Folia</i>	Leaves of	<i>Pruna</i>	Prunes
<i>Senaë</i>	Sena.	<i>Tamarindi</i>	Tamarinds.
<i>Fungus</i>	Excrecence	<i>Succi</i>	Juices
<i>Agarici</i>	Agaric.	<i>Aloes</i>	Aloes
		<i>Manna</i>	Manna.
<i>Flores</i>	Flowers of	<i>Radices</i>	Roots
<i>Rosar. Dam.</i>	Damask roses	<i>Hermodyctyli</i>	Hermodyctyls
<i>Violarum</i>	Violets.	<i>Mechoacannæ</i>	White Jalap
<i>Fructus</i>	Fruits	<i>Rhabarbari</i>	Rhubarb
<i>Casia fist.</i>	Casia	<i>Turpetbi</i>	Turbith.
<i>Myrobalani</i>	Myrobalans.		

Class 2. *Rougher Purgers.*

<i>Folia</i>	Herbs of	<i>Elaterium</i>	Elaterium
<i>Chamædaphnes</i>	Spurge laurel	<i>Scammonium</i>	Scammony.
<i>Lini cathartici</i>	Mountain flax.	<i>Cortex</i>	Bark of
<i>Semina</i>	Seeds of	<i>Alni nigræ</i>	Black alder.
<i>Cataputiæ</i>	Spurge.	<i>Radices</i>	Roots of
<i>Fructus</i>	Fruits	<i>Ellebori nigri</i>	Black hellebore
<i>Colocynthis</i>	Bitter Apple	<i>Jalapii</i>	Jalap
<i>Rhamni Bac.</i>	Buckthorn berry.	<i>Thapsiæ</i>	Deadly carrot.
<i>Gummi</i>	Gums		
<i>Gambogia</i>	Gamboge		

S E C T.

S E C T. IX.

Of Sternutories.

THIS is a way of application in medicine seldom made use of, but to loosen and drain away such humours by the nose, as are not well to be come at by other means. A very little part therefore of the *materia medica* falls under this division; altho' many volatiles and aromatics are used for this intention; which, by reason of other more important properties, are ranked under other heads: what we have subjoined here, being hardly made use of in medicine for any other purpose.

How a medicine occasions sneezing, is not at all difficult to understand, to one who has considered well the manner by which emetics draw the stomach, and its appendices, into that motion which is observed in vomiting. The fibres and membranes withinside the nostrils are extremely sensible; whatsoever therefore stimulates them, makes them contract, and thereby twitches those parts they have any communication with; which by degrees brings on that general convulsive shake, that throws off the irritating matter. Every one's own experience demonstrates, and best explains to himself how this is produced; and likewise manifests the great influences which may be communicated over the whole body, by the communication of fibres from an almost unheeded sensation upon the least part.

The salutary effects of this forcible concussion of the whole body, are very considerable. There are many glands about the head, designed for the separation of very viscid and mucous substances; by

which means many sinus's or cavities, of service in the oeconomy, are frequently stuffed so with such matter, as not to give that room to some of the vessels, which it is their office to do; whereby the circulating fluid in some parts makes them too turgid: which upon many accounts will occasion uneasy sensations, pain, giddiness, and other distempers, frequently experienced in the head. By a particular conformation, the nose receives and discharges many such superfluous viscidities. Therefore a stimulus, from what we call sternutories, or common snuff, will provoke those parts to increase those discharges; whereby a troublesome load is drawn off, and the head rendered brisk and lightsome.

But, besides the benefit which the head immediately receives from such a discharge, the whole constitution is likewise so sensibly affected, that in many cases it is of use as an exercise. There is no motion whatsoever, not even that of vomiting, which so suddenly and forcibly shakes the whole nervous system; so that in all obstructions of the finer passages, and particularly of the nervous fluid, whatsoever produces sneezing must be of great advantage. And common experience in practice confirms this in many instances of paralytic, apoplectic, and lethargic cases; where this motion rouses and enlivens, as it were, the spirits; and by shaking the most remote fibres, assists their proper juices in circulation, which before seemed to stagnate, or not to irritate the fibres enough to maintain their natural elasticity,

elasticity. And of such great efficacy is this convulsion, that it is sometimes procured on purpose to assist the expulsion of the fetus; and with good success.

How far the custom of taking snuff, as it now prevails, is serviceable or detrimental, is not directly to our purpose to determine; but thus far it may not be amiss to inform those who comply so much with it as a fashion, that they put it out of their power to receive any benefit from it as a medicine; whensoever there may be occasion for such helps: for continually stimulating those parts with hot pungent snuffs, makes them by degrees grow as it were callous, and much less sensible; which all snuff-takers experience, being not provoked to sneezing, if they take ever so much; when one pinch of the same would immediately ope-

rate upon a stranger to it. There is another inconvenience also from this practice; and that is spoiling their appetite: for most of the common snuffs are tobacco, of one kind or other; wherefore some will pass down the throat into the stomach; especially in those who take much; which destroys the natural appetite, as many confess they find by experience, altho' they cannot be prevailed with to leave it off. For such who imagine the continual taking of snuff to be necessary, or beneficial, to them, many things in liquid forms would much more properly answer their intention; such as sal volatile oleosum, diluted with something proper, where it is too strong by itself. But 'tis to be feared no salutary regard can obtain such a reformation, unless that idol, fashion, would vouchsafe its sanction.

<i>Folia</i>	Leaves of	<i>Nicotiana</i>	Tobacco.
<i>Primula veris</i>	Prim rose		
<i>Asari</i>	Afarabacca	<i>Gummi</i>	Gum
<i>Ellebori albi</i>	White hellebore	<i>Euphorbium</i>	Euphorbium,

S E C T. X.

Of Narcotics.

UNDER this head we include all that part of the materia medica which any way produces sleep, whether called by this name, hypnotics, or opiates. These substances produce their effects by relaxing the vessels, allaying spasms and irritations, and rightly rarifying the juices of the stomach. Hence they give ease in pains occasioned by irritation, and restrain immoderate evacuations proceeding from the same cause.

By not understanding the manner in which these medicines act when they check immoderate secretions,

physicians have been led into wrong methods, and given opiates to stop those discharges, in which there are no spasms or painful irritations; as particularly in the colliquative diarrhœas, attending hectic fevers: whereas it is manifest, opiates must in such cases (without the desired effect) do real mischief, by relaxing the fibres, and heating and rarifying the fluids, already too thin and broken in their texture.

On the other hand, these medicines by this same property (whereby they take off cramps in the nerves, and thus cure excretions depending

depending upon them) will very often happily promote those discharges which are natural, when they are unseasonably interrupted by violent contractions. Thus opiates in nephritic pains, move the urine stopped by gravel and stones; and, in uterine cases, assist nature in propelling the menses,

the fetus, and the lochia.

From the rarefaction which opium occasions of the juices, proceeds that difficulty of breathing, which they for a time experience who take this kind of medicine; this symptom being inseparable from the rarefaction of the blood in the lungs.

<i>Folia</i>	Herbs of	<i>Fructus</i>	Fruits
<i>Cicutæ</i>	Hemlock	<i>Nux vomica</i>	Vomit nut
<i>Mandragoræ</i>	Mandrake	<i>Cap. Pap. alb.</i>	White poppys
<i>Nicotiana</i>	Tobacco	<i>nigr.</i>	Black } heads.
<i>Solani</i>	Nightshade		
<i>Stramonii</i>	Thorn-apple.		
<i>Flores</i>	Flowers of	<i>Succi</i>	Juices
<i>Papav. errat.</i>	Wild poppies	<i>Meconium</i>	Meconium
<i>Paralyseos</i>	Cowslips	<i>Opium</i>	Opium.

S E C T. XI.

Of Coolers.

THESE are as little regarded in medicine as any class of simples; being of slight efficacy, and used for no important intention; and seldom prescribed any otherwise than as palliatives, or to mitigate the uneasy sensation of some particular symptoms, more than to cure the disease whence they arise.

All of this rank may be considered under the two following divisions: the first are such as immediately produce a present sense of cold. These are chiefly fruits and acid juices; and are most commonly ordered to cool the mouth and stomach, and allay that extreme thirst, which an inflammatory fever is apt to occasion. What comes under this intention, seldom has any farther effect, than giving a grateful sensation to those parts, (which were before uneasy with

heat and drought) unless they are taken down in large quantities; and then they may, from a sudden chillness, make such an alteration in the pulsation of the fibres, as will shock the whole constitution. And this is in effect so much in the experience of every body from such things one time or another, that it needs no larger explications; only these two consequences are most likely to happen; viz. such convulsive contractions of the vessels may either obstruct their contents, and thence cause stitches and inflammations; or may so suddenly retard the circulating juices, as will dispose them to undue cohesions and consistencies.

The other kind of coolers are such, as by their viscidty are disposed to communicate the same quality to the animal fluids, with which they are mixed. These can be pre-

prescribed in no salutary intention, unless to check the inordinate celerity of the blood, which arises from a debauch with spirituous liquors; or to give a thicker consistence to that of hectic constitutions; whereby it may be restrained from flowing too fast. But in both cases there is a great deal of hazard from the same means; because the diminution of the blood's velocity cannot so exactly be restrained, but it may be carried too far, and prove

too great: whereupon such substances, for want of due motion from circulation, will fall into one which is fermentative; and so by allaying one heat, raise another of much worse consequence. Thro' this error, coolers in the hands of injudicious persons, frequently change simple inflammatory fevers, which would perhaps soon go off by a critical diaphoresis, into putrid and malignant ones, which often terminate in death.

<i>Folia</i>	Leaves of	<i>Sem. Cannabis</i>	Hemp-feed.
<i>Acetosæ</i>	Sorrel		
<i>Agni casti</i>	Agnus castus	<i>Fructus</i>	Fruits
<i>Alfines</i>	Chickweed	<i>Agrestæ</i>	Wild grapes
<i>Anchusæ</i>	Alkanet	<i>Aurantia</i>	Oranges
<i>Cicboræi</i>	Succory	<i>Limones</i>	Lemons
<i>Cuscutæ</i>	Dodder	<i>Citrea</i>	Citrons
<i>Endiviciæ</i>	Endive	<i>Cucumeres</i>	Cucumbers
<i>Lujulæ</i>	Wood-forrel	<i>Cucurbitæ</i>	Gourds
<i>Lentis palustris</i>	Ducks-meat	<i>Grossulariæ fruct.</i>	Gooseberries
<i>Populi</i>	Poplar	<i>Mala Armeniacæ</i>	Apricots
<i>Portulacæ</i>	Purslain	<i>Persica</i>	Peaches
<i>Lactucæ</i>	Lettice	<i>Hort. omm.</i>	All orchard apples
<i>Salicis</i>	Willow	<i>Sylv.</i>	Crabs
<i>Sedi</i>	House-leek	<i>Melones</i>	Melons
<i>Sonchi lœvis</i>	Sow-thistle	<i>Mori fruct.</i>	Mulberries
<i>Spinachiæ</i>	Spinach	<i>Olivæ</i>	Olives
<i>Taraxaci</i>	Dandelion	<i>Ribesiæ</i>	Currants
<i>Umbilici mur.</i>	Wall navel-wort.		

S E C T. XII.

Of Topics.

IN this division the reader will meet with several of the simples, which have been placed under the foregoing heads for some internal intentions; but the great share they have in external applications, may justify such repetition. The materials which necessarily come into this rank, are so few, without such as for more important efficacies have been already taken notice of in some other, that we have made the number of subdivisions expressive of the intentions of what they contain, as small as possible.

Class I. Of Repellents.

To understand rightly the operation of such simples as will occur under this head, it may be necessary to observe, that by repelling is meant those means which prevent such an afflux of a fluid to any particular part, as would raise it into a tumour: But to know how this may be effected, it will be convenient to attend to the several causes which can produce a swelling, or force out of the vessels any of their fluid contents by some unnatural discharge.

All tumours have necessarily one of these in their cause; either an increase in the velocity or quantity of the fluids; or a weakness in some particular part; and sometimes both concur. An increase in the velocity of the fluids makes them more forcibly push against, and distend all the parts in their circuit: if therefore any part be unequally pressed, or relaxed, by external injuries, that will be more elevated than any other; and for want of equal resistance with the rest of the body, will at length receive such a quantity of fluid, as will raise it into a tumour; especially if any of its vessels be obstructed: Because the protrusion of fresh matter *à tergo* will continue to add thereto, until the part is upon the utmost stretch, and can hold no more. In this case all those means are said to be repellent, which check the growth of the tumour; and assist the resfluent blood in taking up the obstructed matter, and washing it again into the common stream. This intention is chiefly favoured by evacuation and revulsion; for whatsoever lessens the quantity of the fluid, will diminish the force upon the tumefied part:

But it concerns us most here to know, how external application to the part itself, helps in this affair.

Now a medicine comes to be a repellent in this case, by consisting of such subtile parts, as may transmit some of them thro' the pores, and help to render the obstructed matter more fluid; so that it becomes the more easy to be loosened and fall again into the circulating current. But in this case there is a hazard of such things, likewise putting the obstructed humour into a ferment; whereby it sooner turns into pus, and then they come under the denomination of suppuratives or ripeners. What therefore, in the most strict sense, is to be reputed a repeller, is that which astringes and strengthens the part, so as to make it resist such lodgements. These are such, whose virtues reside in their coldness, and drying properties. But there are so very few instances wherein bandage is not better than such application, that very little comes to be used for that purpose. In hæmorrhages and ouzings out of serum, so as to deform the skin, simples of this nature mostly take place; which answer their ends by astringing the fibres; whence those apertures are so closed, as not afterwards to admit thro' them any such fluid.

Some things also answer this end, only by stimulating the fibres of the tumefied parts; so as to give them sudden and forcible twitches, whereby the obstruction is sometimes loosened and shook, as it were, away into the resfluent current. Such a sort of motion will be occasioned by the sudden application of any thing extremely gold,

cold, as common water: But the practice is seldom safe; because, if the first efforts, which the fibres are put upon by those means, do not succeed in breaking away the inclosed matter, they will be strained, and not able afterwards to repeat their natural vibrations; the consequence of which is

weakening the part, which will render the tumour more obstinate. There are many other means and accidental circumstances, which contribute to favour or retard this intention: But these hints may be sufficient; especially for a part which cannot be allowed any great length in this work.

<i>Albumen Ovi</i>	White of an egg	<i>Minium</i>	Red lead
<i>Lapis Calam.</i>	Calamine	<i>Tutia</i>	Tutty
<i>Cerussa</i>	White lead	<i>Pompholyx</i>	Pompholyx
<i>Litharg. aur.</i>	Litharge of gold	<i>Sedum</i>	House-leek
<i>Manus hominis</i>	A dead man's hand	<i>Spodium</i>	Putty
<i>mortui</i>		<i>Tela Araneæ.</i>	Cobweb.
<i>Manus regalis</i>	The royal touch		

Class 2. Of Ripeners and Drawers.

This intention is frequently of mighty importance in chirurgery, but there are very few who well weigh the consequences of the operation in those medicines which are prescribed to answer it, nor the accidents to which they are liable. For a ripener or drawer is what, by the activity and warmth of its parts, is able to penetrate the pores, and mix with and rarify any obstructed matter, so that it may be rendered fit for discharge upon laying open the part by a caustic or incision. Now in many instances, as the matter by this means rarifies and grows more fluid, the reflux blood is apt to wash it back into the common mass; which some-

times is of that nature, as to do a great deal of mischief; or by making it take up more room upon its rarefaction, occasions it more to distend the parts in which it is contained, whereon a sense of pain is excited, and thereby a greater concurrence of fluid, and consequently a needless increase of the tumor. So that medicines, under this denomination, require to be in the hands only of such, who are so well acquainted with the mechanism of the animal œconomy as to be able to apply them to the best advantage, and know how to avoid the hazards which may arise from their abuse.

<i>Adeps Anseris</i>	Fat of a goose	<i>Melilotus</i>	Melilot
<i>Canis</i>	a dog	<i>Nicotiana</i>	Tobacco
<i>Hominis</i>	a man	<i>Oleum</i>	Oil
<i>Viperæ</i>	a viper	<i>Pix Burgund.</i>	Burgundy pitch
<i>Ursi</i>	a bear	<i>Navalis</i>	Common pitch
<i>Fimus Columbæ</i>	Pigeon's dung	<i>Resina</i>	Resin
<i>Vaccæ</i>	Cow's dung	<i>Serum Cerv.</i>	Deer's suet
<i>Furfur</i>	Bran	<i>Bovinum</i>	Ox's suet
<i>Flos Cerevisiæ</i>	Yeast	<i>Ovin.</i>	Sheep's suet
<i>Halec</i>	An herring	<i>Thus</i>	Frankincense.
<i>Hirudo</i>	A leech		

Class 3. Of Detergents.

The operation of all topics of this denomination, may be understood by what has been said in explanation of the third class of the fourth section, concerning vulne-

ries, page 20, and the following of detergents, page 21. The reader is therefore desired to turn back thither, for what concerns this class.

<i>Aerugo Aëris</i>	Verdegrease	<i>Vitellum Ovi</i>	Yolk of an egg
<i>Album Græcum</i>	White dog's dung	<i>Terebintina</i>	All turpentine
<i>Gum. Elemi</i>	Elemi	<i>Bals. omnia</i>	and balsams.
<i>Os Sepiæ</i>	Cuttle fish bone		

Class 4. Of Caustics.

These are such things as by their violent activity, and heat thence occasioned, destroy the texture of the part itself to which they are applied; and eat it away, as we commonly express it, or burn it into an eschar. And they differ from the former pretty much, as the piperine volatiles do from those of the garlick or onion kind; as was before observ'd. Ripeners and detergers have something soft and smooth in their composition, which guards them against wounding the fibres themselves, tho' it does not hinder their volatility; but in those we call caustics, the volatile parts are altogether unguarded by any thing of that kind; and by their extreme minuteness, asperity, and quantity of motion, like those of fire itself, tear asunder all obstacles, destroy the texture of the

very solids themselves, and change what they are applied to, into a substance like burnt flesh; which, in a little time, with detergent dressings, falls quite off, and leaves a vacuity in the substance of the part. These are of use generally in abscesses and imposthumations, to eat thro' to the suppurated matter, and give it vent; and also to make issues in parts where cutting is difficult or inconvenient. We have ranked some things under this head, which do not come up to so great a degree of efficacy as to make an eschar; but because they are able to raise the flesh into blisters, and make considerable changes by the same manner of operation, in a more remiss degree, we thought it most proper to give them a place here.

<i>Calx viva</i>	Quick-lime	<i>Moxa</i>	Moxa, burnt on the part
<i>Cantharides</i>	Spanish flies	<i>Silqua hirsuta</i>	Cow-itch
<i>Cataputia</i>	Spurge	<i>Tithymalus</i>	Spurge
<i>Lepidium</i>	Dittander	<i>Sapo</i>	Soap
<i>Euphorbium</i>	Euphorbium	<i>Spongia</i>	Sponge.
<i>Gelisy. us.</i>	Cotton, burnt on the part		

S. E. C. T.

t I.

S E C T. XIII.

Simples omitted, or not reducible under the foregoing Heads.

<i>Anonum</i>	Amomum	<i>Balsamita mas</i>	Costmary
<i>Amoris pomum</i>	Love apple	<i>Bamia moschata</i>	Musk mallow
<i>Amylum</i>	Starch	<i>Beben radix</i>	Behen root
<i>Arbor vitæ</i>	Tree of life	<i>Butyrum</i>	Butter
<i>Alcea</i>	Vervain mallow	<i>Caseus</i>	Cheese
<i>Areca</i>	Indian nut	<i>Conyza</i>	Flea-bane
<i>Arfenicum</i>	Arsenic	<i>Copal</i>	Gum copal so called
<i>Arundo</i>	The reed	<i>Cyamus</i>	Blue bottle.
<i>Asphaltus</i>	Jews pitch		
<i>Asphodelus albus</i>	White asphodel		

Cerevisia, Ale. Under this article is intended all that belongs to potable malt liquors: And these may be considered under the following divisions; 1. Hopped and unhopped drinks. 2. Small or strong. 3. Pale or brown. And, 4. New and old.

1. The difference made by hops is best discovered from the nature of the hops themselves. These are known to be a subtle grateful bitter. In their composition therefore, with this liquor, they add somewhat of an alkaline nature, that is, particles which are subtle, active and rigid. By this means the ramous viscid parts of the malt are more divided and spiritualized, if we may use that term; and therefore not only more easy of digestion and secretion in the body, but also, while in the liquor, prevent it from running into such cohesions, as would make it ropy, vapid, and sour. But for want of this in unhopped drinks, that clammy sweetness which they retain after working, soon turns them acid and unfit for use; which is sooner or later, in proportion to the strength they receive from the

malt, and the comminution it has undergone by fermentation. It is much in the opinion of some that ale is more diuretic than beer; that is, unhopped liquor more than that which has hops in it. In some particular constitutions it may so happen, because ale is more smooth, softening, and relaxing; and therefore where urine is to be promoted by enlarging the passage, that is most likely to do it: And this is mostly the case of thin dry constitutions. But where the promotion of urine is to be made, by attenuating and breaking the juices, and rendering them more fluid, it is certainly best answered by those drinks which are well hopped. As to the controversy whether hops tend to breed the stone, it is too long here to enter into, and seems to have little foundation on the affirmative side: But thus far we may venture to say, where one instance can be produced, of any probability for such an effect from this cause, there may many more be brought, which can admit of no doubt, where constitutions have been spoiled by ale on the contrary extreme. For that manifestly fouls

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the glands, stuffs the vessels with slime and viscosity, makes the body unweildy and corpulent, and paves the way for cachexies, the jaundice, asthma's, and at last incurable dropies. The urinary passages, which likewise it is imagined to clear, it will by degrees fill with slough, and matter of as bad consequence as gravel.

2. The strength of these liquors, makes them of different efficacies, as to any medicinal regards. The stronger they are, the more viscid parts they carry into the blood; and although the spirituous parts make these imperceptible at first, yet when they are evaporated or gone off, which will be in a few hours, the other will be sensibly enough felt by pains in the head, nauicousness at the stomach, and lassitude, or litlefness to motion. This those are much the best judges of, who have experienced the extremes of drinking of these liquors, and of wines: for a debauch of wine they find much sooner wear off: And they are more lively and brisk afterwards, than upon over-ripling malt liquors, whose viscid remains will be long before they can be shook away. These liquors therefore are much the more wholesome for being small, that is, of such a strength as to carry some small degree of warmth into the stomach; but not so as to prevent their being proper diluters of our necessary food. People of robust constitutions, who labour very hard, may dispense with reasonable quantities of the strongest, especially as their food is frequently poor and slender enough, the deficiencies of which this supplies; and their continual exercise and strength of body, digests and breaks the viscidities of the drink into convenient nourishment: Altho' in persons of another habit, and way

of living, they would only produce obstructions and ill humours.

3. Malt drinks are distinguished into pale or brown, from the malt they are brewed with. That which is slenderest dried, makes it less tinge the liquor in brewing, and therefore is called pale; whereas that which is higher dry'd, or roasted as it were in comparison of the other, makes it of an higher colour; and a mixture of both, of an amber, which name likewise several of those liquors bear. The pale malt has certainly most of the grain in it, and is therefore most nourishing; but also for that very reason requires a strong constitution, sufficiently to digest it. Those who drink much of it are generally sleek and fat in the bloom of their age: But if they are not suddenly cut off by fevers, as they generally are, they fall very early into a distempered old age, and hardly support the burden of life, with a retinue of diseases. The brown makes a drink much less viscid, and fitter to pass the several strainers of the body; but what is very strong of it may be used in excess enough to bring on the inconveniences of the former, tho' a single debauch with it much more easily wears off. How far it may be an useful hint to those who find their accounts only in the profits of brewing, I cannot be a judge; but for the health of the consumer, I can venture to assure him, that the pale malt brewed with hard waters, such as those of springs and wells, is the best: Because the mineral particles, with which they are impregnated, will help to prevent the cohesions of those drawn from the grain, and enable them to pass the proper secretions the better; as the viscid particles of the grain will likewise defend them from doing the mischief, which

which otherwise they might occasion. But softer waters, as river and rain waters, seem most suited to draw out the substance of high dry'd malts, which retain many igneous particles in their texture, and are therefore best in a smooth vehicle.

4. The age of these liquors is the last thing we are to consider, by which they become more or less wholesome. And this seems to do somewhat the same as hops: For those liquors which are longest kept, are certainly least viscid; age by degrees breaking the viscid parts, and rendering them smaller, makes them fitter for secretion. But this is always to be determined by their strength; because in proportion to that, they will sooner or later come to their full perfection, and likewise to their decay. But when ale or beer is kept until its particles are broke and comminuted, as far as they are capable, then it is always the best; but beyond that it will continually be upon the decay, unless the finer spirits quite make their escape, and the remainder becomes vapid and sour. By what therefore has been already said, it will appear that the older drinks are the most wholesome, so they be kept up to this standard, but not beyond it.

There is so much of use might be said upon this head, because these liquors have the greatest share in our way of living, that it would

exceed the bounds we have set ourselves. We shall therefore only make this farther observation, that those whose fortunes permit them to intermix wine with their common drink are not so subject to coughs, with other distempers of the breast, and dropfies; yet they are more afflicted with gravel and arthritic pains.

We have not here given wine a distinct article, because it is a foreign liquor; and this work is professedly calculated for our own country: However, as it is so much in our common drink, amongst the higher order of people especially; it may not be amiss to observe, that the stronger wines seem much the more agreeable to English constitutions; but where they are too strong when neat, they may be diluted with water. These by their spirituousness conduce to the digestion of the gross food of our country, especially the great quantities of flesh we eat; and are the more necessary by reason we eat but little herbs. But the thinner wines, tho' they are most grateful to the stomach; and less disorder the head, yet they carry a tartar with them into the blood, which they leave behind in the mucilaginous glands of the joints; where it occasions those racking pains of the gout, and sometimes, by degrees, takes away the use of the limbs, so far as to reduce persons to the state of cripples.

Mel	Honey	Sperma ranarum	Frogs spawn
Ova	Eggs	Succinum	Amber
Palma oleosa	Palm-oil tree	Tartarum	Tartar
Panis	Bread	Vinum	Wine
Petroleum, et oleum terræ	Rock oil	Urina hominis vacce	Urine of a man of a cow
Saccharum	Sugar	Tribulus aquati- cus	Water caltrops
Salep	Salep	Zibethum	Civet.
Spiritus vini	Spirit of wine		
Serum	Whey		

S E C T.

S E C T. XIV.

Of Waters.

WATER is so useful and necessary an article, with regard to diet and medicine, that we cannot be too inquisitive into its nature and difference; or too solicitous in our choice of it. It is the main diluter of our food, and is the better for that purpose, the freer it is from the mixture of any foreign particles. But as it is not to be met with unmixed with some heterogeneous particles, we shall be better instructed how to use and chuse it for the purposes of life, by inquiring how it is altered and affected by the mixtures it receives of such foreign matter, in the several conditions, we meet with it.

In this search we find the best helps from some short hints (and such only we have room for) of Dr. Mead's, in his last Essay on Poisons.

Water is of so constant a service, not only for our drinks, but also in preparing our flesh and bread, that it may justly be said to be the vehicle of all our nourishment: So that whenever this happens to put on other properties than are necessary to fit it for that purpose, it is no wonder if in its passage thro' the body these do make suitable impressions there.

Whatever nature, the gross particles with which the water is saturated, are of, metallic, earthy, saline, &c. these according to their various gravity, the capacity of the canals, and such like circumstances, will, when they come to circulate in the animal body, be by the laws of motion deposited in one part or other.

These foreign matters, mixed with the fluid, very sensible increase its specific gravity: And for this reason, the choice of water for drink amongst the ancients was made by weight; the lightest being preferred, as most free from all heterogeneous bodies.

A late author, Dr. J. H. in a book called, *Scelera Aquarium*, or a supplement to Mr. Graunt on the bills of mortality, by searching into the first accounts of the distemper we call the scurvy, described by Pliny and Strabo under the promiscuous names of stomachace and sceloturbe: and examining the authentic histories of it in later years, made by the most observing physicians in those countries where it was unhappily revived, as Olaus Magnus, Balduinus, Ronseus, J. Wierius, Solomon Albertus, &c. finds that the origin of it was in all times and places charged upon the use of unwholesome stagnating waters. Then by comparing together the clayey strata of the earth about the cities of London, Paris, and Amsterdam, he shews, that where the water is worst, there this malady is most rife. So that he has made it probable, that most of the perplexed and complicated symptoms which are ranged under this one general name, if they do not entirely owe their birth to the malignity of this element, do however acknowledge it to be their main and principal cause.

And indeed Hippocrates himself, as he has very plainly described this disease by the title of *σπληνις μεγάλη*, or great milts; so he does very

very particularly in another treatise take notice, that drinking of stagnating well-waters must necessarily induce an ill disposition both of the milt and belly.

If we enquire into the reason of such ill effects, we must consider that clay is a mineral glebe, and that the gross particles and metallic salts with which waters passing thro' such a bottom do abound, are not to be mastered; that is, they are indigestible in the human body. Not only therefore will these cause, as he very well argues, calculous concretions in the kidneys, bladder, and joints; and, as Hippocrates experienced, hard swellings in the spleen; but they must necessarily oftentimes by their corrosive quality twitch and irritate the sensible membranes of the stomach and bowels. Nay, besides all this, when they come into the blood, it is no wonder if the small canals of insensible transpiration are frequently stop't up and obstructed by them: For it is upon this score that Sanctorius teaches us, in his *Medicina Statica*, Sect. ii. Aphor. 2. that heavy water converts the matter of transpiration into an ichor, which being retained, induces a cachexy.

What mischiefs will ensue hereupon, every one sees; not only pains in the limbs, livid spots in the surface of the body, ulcers, &c. from the acrimony of the undischarged moisture; but many also of those perplexing symptoms, which go by the name of hysterical and hypocondriacal, may take their rise from the same source: For the before cited Sanctorius has remarked, in Sect. iii. Aphor. 13. that the flatus or wind, so inseparable from those cases, is no other than the fluid of perspiration, rude and unfinished. If the inconveniencies are oftentimes not felt, at

least not till towards a declining age, in strong and active habits of body; yet they deserve consideration in weaker constitutions and a sedentary life, especially of the more tender sex.

For these reasons Pliny tells us, that those waters are condemned in the first place, which when boiled do incrust the sides of the vessels: And that our well waters do this, nobody can be ignorant. The ancients were remarkably curious in their choice of waters, holding it an article of the greatest moment; this we may easily be convinced of from Hippocrates, who not only endeavours to account for the diseases, but even for the temper and disposition of the people of several countries, from the difference in the waters with which nature hath supplied them.

AQUA FONTANA, spring-water. By the course of this, we are liable to a mixture, in one sort or other, of all the metalline or mineral particles which lie concealed in the earth. For the water of all springs, that is, all waters which are circulated or strained, thro' the earth, (and which we call springs when they break out upon the surface) wash off and carry along with them some particles of the soil they travel through; so that they become salubrious or mischievous, according to the nature of the mineral matter which they have taken up and joined with in their course. So far as this answers any medicinal purposes, and makes the water in any respect purgative, will come under inquiry in the article of *acidula*. Here therefore we have only occasion to be satisfied what are best, as they must necessarily make a part of our diet; and these are the lightest, as the precedent reasonings demonstrate, and such

as are free from mineral mixtures.

That spring-waters are thus loaded in their current, cannot be doubted by those who have ever experienced the taste and efficacy of our ordinary medicinal springs: And tho' our own country furnishes us not with any such instances, unquestionable authority informs us of some springs which bring along with them poisonous and deadly companions; which must be corrosive corpuscles mixed with the water, that cannot fail (when forsaken, in the canals of the body, by their vehicle) to do the same mischief as they would if taken by themselves undiluted; Only with this difference, that they may in this form be carried sometimes farther into the animal frame, and so discover their malignity in some of the inmost recesses. Thus the fons ruber in *Æthiopia*, mentioned by *Pliny*, about which abundance of native minium or cinnabar was found, shewed its ill effects chiefly on the brain: Which gave occasion for *Ovid* to say of it,

— Si quis faucibus hausit,
Aut furit, aut patitur mirum
gravitate soporem.

But there is no need of enlarging farther on this head, since any mineral poison may impart its deadly quality to perfluent streams. And accordingly there are instances of arsenical, mercurial, and other fountains, of which the histories may be seen in the collection of *Baccius de Thermis*, lib. vi. and a very remarkable one in the *Philosophical Transactions*, N^o. 8.

We are taught many curious ways of trying what are the principal mixtures in these waters, which must be of great use to such as travel in unfrequented countries, and

where necessity often forces them to unexperienced springs: But that would be too long for us here; We shall therefore only drop this general rule, that those waters are best for use which are lightest; and this may be determined with the utmost exactness, by weighing other convenient bodies in them, which we are taught by the common hydrostatical scales, now any where to be had in the shops. The common experiment of trying them with soap is also useful; for the more remote they are from lathering with that, the more unfit they are for use. Those springs which arise from a chalky earth, are generally accounted best, which may be either for its not giving to the waters any thing unwholesome, or its absorbing many mineral particles from them in their percolation.

There may circumstances happen, where spring-waters shall be found of good service drank alone. In some stomachs, relaxed from intemperance, these drank in a morning, not only help to wash off a great deal of slimy filth, the remains of a debauch, but also to astringe the fibres, and draw up the membranes to a due tensify. And the more loaded such waters are with some mineral particles, especially of the aluminous or nitrous kind; the more absterfivè and more restringing will they be, and the better answer those intentions.

AQUA FLUVIALIS, river-water, this likewise has its various qualities from the different soils it travels through, tho' not so much as that of springs. The river-waters may be reckoned a composition of spring and rain waters together: Near the head therefore of any considerable spring, they may partake much of the mineral, which that spring washes along with it; but at a greater distance may be affected

affected and charged with its proper soil. For in its progress the mineral particles will fall, or be entangled and lost in the ouzy and clayey mixtures they pass through. As the spring-waters take up in their meanders many heavy mineral particles, so these either wash up from ouzy bottoms, or have so much filth drained into them, especially near large towns, that they abound with a foreign matter of a very different nature, and which sometimes will ferment: As is manifest in that of the Thames, tho' some travellers affirm no other waters do the same. Of this kind therefore, those which come into use with such mixtures may be more or less convenient in particular cases and constitutions, according to the nature of what they have got so mixed. But in the general, these waters are much softer than such as run underground; and therefore are fitter for use, where hard waters are condemned.

AQUA PLUVIALIS, rain-water. This is reckon'd the most simple of all, and to come nearest to a homogeneous fluid: and therefore, as a diluter, is to be preferred. Quercetan, and many others, lay stress upon the circumstances of these falling, whether suddenly or more slow, and from what quarter of the heavens the clouds bring them: But this seems to be as little to the purpose, as under the former articles, what parts, springs or rivers run from, as to the divisions of the globe, and their position to the sun. Some are of opinion, that rain-water brings somewhat of a nitrous volatile salt along with it, and think, by that means, it gives fertility to the earth; if it does so, these particles must be too fine to injure any of the secretory strainers, by obstructing them, and too active or susceptible of motion to draw

into contact, and form hurtful concretions; and indeed in many instances such a mixture might be of service: Therefore whatsoever rain-water brings along with it, it is notwithstanding certainly the most simple and elementary of any, and the properest diluter or vehicle that we can be supplied with.

AQUA PUTEALIS, well-water. This is subject to all the inconveniencies of spring-water, with this additional mischief, that stagnating so long in the well, it may there take up from the bed it lies upon, such particles, farther than what it brought along with it thither, as to render it still more unwholesome: Whereas that which breaks out in springs, is preserved higher than such heavy matter is usually lodged. Of all waters therefore whatsoever the well-waters are most to be distrusted; and of those, such as come out of the deepest wells.

AQUA PALUSTRIS, pond-water. This may include all stagnant waters, which are generally from rain only, for here we do not suppose any springs concerned. To this therefore no more can be said than, that where it is upon a clean bottom, it comes so near to the rain-water, as not to be distinguished from it: But generally even the motions of wind, or some other causes, as the treading of cattle, so disturb these, as to force up with them such filth, as there corrupts and ferments, which makes such waters the most uncleanly and disagreeable of any.

AQUA NIVEALIS, snow-water. This is supposed to bring a considerable portion of nitre along with it, so as to make it detersive and diuretic. But it comes so little, either into our diet or medicine, that we need not be very solicitous about it. As for what washes into the rivers, and accidentally comes

comes to us that way, after the fall of great snows, it is lost so much, that it can hardly be imagined to communicate any efficacy to the share we have of it.

AQUA MARINA, sea-water. The saltness of this is sufficiently known, and how upon that account it is both disagreeable and unwholesome in our food; and therefore never experienced but in extremities.

— **ROS MAIALIS**, May-dew. This is what falls in the night, and hangs upon the grass next morning in small drops. It is extremely subtle and penetrating, from a volatile nitre of the air, with which it abounds. Etmuller says, in digestion it will, as it were, ferment; and in distillation afford a spirit of a sulphureous empyreumatical smell, and that the residue will swell and ferment of itself. Several people have strange notions of the subtilty of this, and have flattered themselves with obtaining from it an universal dissolvent. Johannes Faber seems to take great pleasure in contriving an inflammable spirit to be drawn from rain-water; and as this is yet of a more volatile nature, expectations have been raised of doing strange feats with it. But all that these great promisers have hitherto done, is not worth our notice; since they have not been able to preserve to us one medicine out of all their pretensions. Some country people have learnt a way of mixing it with powder of brimstone, for the itch, to be used outwardly; and many instances they give of its success in such cases. It has the repute too, amongst the women, of being a cosmetic.

ACIDULÆ, medicinal waters.

These have been taken notice of in all ages and countries, and have gone thro' various opinions, in accounting for their virtues and ef-

ficacies, according as the humour of philosophizing has happened to run. Helmont, and his disciples, have strangely spiritualized upon this head, as on most others; and talk much of a gas and a porrea of the earth in their composition. But we must content ourselves to keep within the compass of sensible qualities, and pretend to know no farther than they will conduct us: And these we are pretty well informed of, from the visible mixture of mineral matter, which medicinal waters discover. Some are very needlessly elaborate in the distinctions of such; we shall therefore consider them under these two divisions only, of purging and chalybeate.

There is scarce one county in England, but discovers the purging springs. Those about London are chiefly Epsom, Dulwich, Acton, and North-hall, and a very famous one at Kilburn. This last is almost as pleasant as spring-water, yet sufficiently efficacious, and peculiarly adapted, by means of the fine alkaline earth it holds, to remove such disorders as proceed from acidities in the first passages: This intention it more effectually answers, than the common absorbents of the shops. There are many others of inferior note. They all agree in this, that they abound with a salt of a neutral nature, which they take up, and wash along with them in their passages. This is not only manifest to the taste, but upon evaporation they leave it in considerable quantities behind. It is not of moment enough to distinguish the several kinds of these salts, which some persons of great leisure have done. By this saline mixture, these waters greatly deterge the stomach and bowels, and carry along with them by stool a great deal which it may

be

be beneficial to have well gotten rid of. They do often therefore good service where the primæ viæ want cleansing; but this is to be done with a few repetitions: If persons go on longer, (as it is too customary, some thinking the more they purge, the farther they are from being sick) the salts will too much get into the blood; which by their grossness will gradually be collected in quantity enough in the capillaries and glands, to obstruct them, and occasion fevers pessimi moris. For all those fevers which come after long purging, especially after the waters, are of the worst kind, and often fatal. Some soften these waters by boiling up enough of milk with them to make a kind of whey, which is agreeable to some tender persons, who might be too much chilled with the water raw. These do great service sometimes in such colics as invert the peristaltic motion of the intestines, and, as people commonly express it, twist the guts; where the patient can walk about, or be kept conveniently in an erect posture: For their weight pressing downwards, and their moisture softening and relaxing the fibres, concur to promote their passage quite through, wherein consists the cure in such cases. But it is supposed here, that they are boiled with some milk; a quart of water with half a pint, is the usual quantity: For that much contributes to its relaxing quality.

The salt obtained from these is of service in cathartic infusions; a dram in an infusion of sena, rhubarb, and such-like things, helps to extract the purgative virtues the better, and assist their operation; but this, tartar, does as well.

Of those waters above-named, the strength is much the same; if

there be any difference, those of Dulwich seem to be the quickest in operation. They are all of them best at the well-head, tho' they are used in town some days after they are taken up. For by standing they let fall some mineral particles, which seem necessary in their operation.

AQUÆ FERRUGINEÆ, steel-waters. These are likewise in many parts of England. Those of most note are of Tunbridge, Scarborough, Hampstead, and Islington. The small differences of mineral mixture, are here also not worth our while to take up room about: It sufficeth, that it is out of all doubt that that quality, to which they owe their use in medicine, is received from iron; for of this their taste, and what they let fall upon standing, as well as the rust they fur the borders of their springs with, besides the known experiment of the galls, put out of all dispute. In considering therefore the medicinal efficacy of these waters, we are to regard them as iron dissolved in an aqueous menstruum; and because that mineral, with the many preparations made of it, will presently come in our way to examine in this light, we shall say the less here, only observing what is necessary of a chalybeate medicine in this form.

There is perhaps not any one alterative of greater efficacy, than those from this mineral; and yet with how little care, or due consideration, do many run into a course of the waters impregnated with them? for they are not of the number of such things which may be used in wantennels or diversion; for it may be depended on, whosoever meddles with these, is much the better or worse for them afterwards. Whosoever takes iron in medicine, if it passes the first

first digestions, and mixes with the blood, will find it to warm them, and make their veins full and turgid. In plethoric habits therefore, these waters are to be forbid; and how many fevers are observed after drinking them, which are manifest from that extreme, as also vertiges, epilepsies, and apoplexies? For raising the blood too high, crouds the vessels, and makes those in the brain press upon the conveyances of the nervous fluid; whereby they put the whole system into disorder and occasion the foregoing mischiefs. In most young persons proper evacuations ought to be made while they are drinking, and especially, if, as with many, they render them more collicive.

To such as by long illness, or any other cause have their blood rendered thin, poor, cold and watry, these waters will give wonderful assistance. In a chlorosis, which is commonly called the green-sickness, and in all obstructions of the viscera, especially of the kidneys and uterus, they do great service. In a relaxed tone of the stomach likewise, from crapula's, or any other cause, they greatly astringe the fibres, and bring them to a due tenstity, altho' at first their roughness occasions them to be thrown up again by vomit.

BALNEA, baths.

Of these we have two kinds, the hot and cold.

BALNEA CALIDA, OF THERMAE, hot-baths. The chief we have of this kind in our country, is that famous one near Wells in Somersethire; another there is of inferior note at Buxton. We shall leave it to naturalists and philosophers to account for the production of these waters, and content ourselves with observing, that they greatly abound with a mineral sulphur; which appears beyond

all doubt, from its turning silver or copper blackish. The Bath mud, rubbed upon silver, is what the gilders use to gild it with of a gold colour. And some, who have been so curious as to boil it in oil, affirm it to have made a good balsam of sulphur.

From the principal mineral ingredients then, with which this water is impregnated, we may pronounce it a soft healing subastringent balsamic. We add subastringent, because we never meet with sulphur, even in the sublimed flowers, which had not some portion of salt in its composition; which when boiled in oil, as in making the balsamum sulphuris, shoots like needles, or the branches of sal ammoniac: So that it is very improbable these waters should take up any sulphur in their subterraneous current, without bringing also some of that saline part along with them, which it is never found without above ground; and especially when we consider, how much more it is in the nature of water to attract and join with such particles, than those which are purely sulphurous.

From these premises, we are very naturally directed to the cases wherein these waters, and bathing in them, must be of service. And first of all in languors, debility, and any waste of the constitution, that is not out of possibility of repair, they are like a fomentation, which both supplies and strengthens the parts all over the body at once, and by gently shaking and undulating the fibres, helps forward those animal motions, which are ready to be at a stand. In old pains and aches, which have been the remains of nervous distempers: And where some particular part continues contracted, or has any humours fixed upon it, which it cannot

cannot dislodge; these waters pumped upon such parts hot from the spring, do more towards a cure, than all the compositions of pharmacy. General bathing in these springs cannot but wonderfully open that most infinite number of secretory orifices upon the surface of the skin, and clear the cutaneous ducts of matter which is apt to stick in them: By the aperture of which spiracula, the fluids of the whole body have more room to flow, and proper vents given them to reek out a great deal, which it is of service to the œconomy to get rid of. Thus are rheumatisms of many kinds, arthritic pains, contracted and paralytic limbs, with all the deplorable attendance of aches and lameness, cured by what is more a pleasure and enjoyment than a medicine.

These sulphur fountains, likewise inwardly used, to amazement warm and strengthen a decayed stomach, especially if relaxed, and almost worn out with luxury and debauch. The most grievous nausea and vomiting, from these causes, have been removed by them. For they both soften again with proper moisture the fibres which have been rendered incapable to vibrate by the use of hot burning spirituous liquors, and at the same time draw them into a greater tenity; as a cord which relaxes with over-drying, fills up and straitens upon the contact and attraction of a convenient moisture. The small share of a fine salt, which likewise attends, and is as it were wrapped up in the particles of sulphur, cannot but contribute somewhat in restoring the tone of such decayed parts. But besides the benefit these particularly do to the stomach, they also carry along with them into the most remote recesses, a balsamic of nature's own prepa-

ration; whereby such decays, as we have been speaking of, in the stomach, or in any of the viscera, from abscesses, ulcerations, or any the like causes, are with great success relieved. And particularly, if they be of the kidneys or urinary passages; because they wash thro' them in greater plenty, than where they come only by the ordinary course of circulation. Indeed the excellencies of these springs deserve a volume to do them justice, but we have room here only for short hints. Such as desire more, may consult Guidott, Pierce's Bath-memoirs, and Oliver on bath-waters.

BALNEA FRIGIDA, cold-baths. These have been long banished out of medicine, and hardly heard of during the usurpation of monkish philosophy and enthusiastic chemistry. The ancients had them in the greatest esteem; and by good luck some improvements of reasoning in physic, from geometry and mechanics, have brought them into tolerable good countenance again: And the present age can furnish us with abundance of noble cures performed by cold-bathing, which were long, in vain, attempted by the most efficacious medicines. What a delightful sight is it to a person of humanity and tenderness towards his fellow-creatures, to see the number of crutches, and other artificial aids of a cripple, hang up, as certificates of the benefit so many poor wretches have had from the bathing only in cold-water, in the apartments, where these springs are maintained?

This branch of the means of cure comes under demonstration, both as to the manner and quantity of its efficacy, as much as any thing in the whole compass of physic. The gravitation of fluids, the pressure of its atmosphere, and its differences; and that of water, with

its different weights upon any given surface; come into calculation with as much ease and plainness, as any thing that can be stated in common arithmetic. And the alterations the animal fluids are subjected to, under such different weights, is as easy to apprehend. For the theory of this affair, the reader may study Dr. Mead de imperio solis ac luna, Wainwright of the non naturals, and a late edition of Sanctorius's *medicina statica*, with explanations.

There are hardly any chronic diseases but the cold bath may be made use of to advantage, if the constitution has not somewhat particular that forbids its use; which are chiefly corpulency, and unsound viscera. In very fat persons, the fibres are so stuffed round, and as it were bolstered up, that they have not room to vibrate or contract with the sudden squeeze of the bath; Instead therefore of enforcing their springs, and shaking off any unnecessary incumbrances, they will only be strained to no purpose, and consequently weakened; for wheresoever an effort is made to remove any thing by an elastic body, if the first exertion fails, every impetus afterwards languishes, and the spring is spoiled. And in unsound viscera, or where any part is much weaker than the rest, such an additional force, as the sudden contraction the bath gives to the solids, will press the fluids on that part, very much to its damage; which may occasion either the swelling of the vessels, or promoting the discharge of some ill humours upon that part, which otherwise might drain off elsewhere.

But where nothing of this nature forbids the use of the cold bath, whatsoever is to be effected by bracing the solids, invigorating their vibrations, and accelerating the blood's motion, is with certainty to be had from hence. All diseases therefore from a sly blood, and a lentor in the animal juices, if the elasticity of the vessels is not worn out with age or debauches, will find relief from the cold bath. As rheumatism of the most obstinate kind, hypochondriacal affections, and debility, from too tender, indulgent, and inactive ways of life. Whatsoever inconveniences likewise proceed from a bad transpiration, or when humours are thrown upon the surface, which cannot get through, but ulcerate, blotch and deform the skin, this remedy will be of service in. For upon immersion, the whole nervous system is so shook, that the very capillaries feel the influence, and the minutest passages are forced open by an increased velocity of the circulating fluids; whereby the skin will be cleared, and instead of entertaining gross acrimonious humours, transmit only the imperceptible matter of perspiration. But in a work designed to improve and recommend medicine, it may not be well perhaps to launch out too far in commendation of cold water; we shall therefore refer for more information upon this head to the learned letters of sir John Floyer upon the cold bath; and what in late editions is annexed thereto by Dr. Baynard.

S E C T.

S E C T. XV.

Metals.

<i>Aurum</i>	Gold	<i>Stannum</i>	Tin
<i>Argentum</i>	Silver	<i>Mercurius</i>	Quicksilver
<i>Ferrum</i>	Iron	<i>Cinnabaris nativa</i>	Native cinnabar
<i>Cuprum</i>	Copper	<i>Antimonium</i>	Antimony
<i>Plumbum</i>	Lead	<i>Bismuthum</i>	Bismuth.

S E C T. XVI.

Salts.

<i>Sal commune</i>	Common salt	<i>Alumen</i>	Alum
<i>Sal gemma</i>	Sal gem	<i>Sal ammoniacus</i>	Sal ammoniac
<i>Nitrum</i>	Salt petre	<i>Vitriolum</i>	Vitriol.



CHAPTER II.

Distribution of medicinal simples, according to their sensible qualities.

SECT.

- I. ACIDS.
- II. INSIPID EARTHY *substances, capable of* ABSORBING ACIDS.
- III. INDISSOLUBLE EARTHS.
- IV. GLUTINOUS, *vegetable, and animal substances.*
- V. UNCTUOUS, *vegetable, and animal substances.*
- VI. ASTRINGENTS.
- VII. SWEETS.
- VIII. ACRIDS.
- IX. AROMATICS.
- X. BITTERS.
- XI. *Substances of* COMPOUND QUALITIES.
- XII. *Simples not reducible under the foregoing heads.*

S E C T. I.

ACIDS.

- Class 1. *Vegetable* { *native*; as sorrel, juice of lemons, berries, and other fruits.
 { *produced by fermentation*; as vinegar and tartar.
- Class 2. *Mineral*: the acids of vitriol, nitre, and common salt.

THE medical effects of acids, duly diluted and exhibited in proper doses, are, to cool, quench thirst, and allay inordinate motions of the blood. By these qualities, in hot bilious-temperaments and inflammatory disorders, they frequently restrain immoderate hæ-

morrhagies, and promote the natural secretions; in some kinds of fevers, they excite a copious diaphoresis, where the warm medicines called alexipharmac, tend rather to prevent this salutary discharge.

Vegetable

Vegetable acids, particularly the native juices of certain plants and fruits, have some degree of a saponaceous quality; by means of which they attenuate or dissolve viscid phlegm, and deterge the vessels; and thus prove serviceable in sundry chronical disorders. In veterate scurvies have sometimes yielded to their continued use, especially when given in conjunction with medicines of the acrid or pungent kind: Experience has shewn that the acrid antiscorbutics have much better effects when thus managed, than when exhibited by themselves; hence in the *Jucci scorbutici* of our dispensatory, seville orange juice is usefully joined to that of the *coclearia* and *nasurtium*.

The mineral acids instantly coagulate blood: The vegetable dilute it, even when inspissated or thickened by heat; in which state, wa-

tery liquors will not mingle with it. Hence in some fevers, where water runs off by the kidneys almost as pale and inspid as it was drunk, vegetable acids soon render the urine of the due colour and quality. The mineral acids (the spirit of nitre in particular) combined with vinous spirits, have the same effect.

Acids of every kind are prejudicial in cold, pale, phlegmatic habits, where the vessels are lax, the circulation languid, bile deficient, and the power of digestion weak. In these cases, an acid is often generated in the stomach, from milk and most vegetable foods, which, whilst it continues in the first passages, occasions uneasiness about the stomach, flatulencies, sometimes griping pains of the bowels, vomiting, or the cholera morbus.

S E C T. II.

INSIPID EARTHS *capable of* ABSORBING ACIDS.

Oystershells,
Crabs claws, and eyes so called,
Coral, red and white,
Pearls,
Bezoar, &c.

Chalk,
All the marles,
Lime-stones,
Marbles,
Spars.

THE virtues of these substances are, to absorb or destroy acidities in the first passages, and consequently to remove such disorders as proceed from that cause. The cordial alexipharmac, antifebrile, and other like virtues attributed to these medicines, appear to have little foundation; or at best, are only secondary ones. When united with the acid, they form a neutral saline compound, possessing some degree of an aperient and detergent quality, tho'

too inconsiderable to be in general regarded.

The absorbent earths were strangers to medicine till the time of Helmont; and their use does not seem to have been established before the last century; when some practitioners, from an opinion that most kinds of diseases proceeded from a preternatural acid, introduced a great variety of antacid bodies, both of the earthy and saline kind; and very liberally exhibited them on almost every occasion.

It is certain that in children, and adults of a weak constitution, and whose food is chiefly of the vegetable acefcent kind, sundry disorders are occasioned by acidities; these readily discover themselves by four eructations, the pale colour of the face, and in children by the four smell and green colour of the alvine fæces, which are sometimes so manifestly acid as to raise a strong effervescence with alkaline salts. In these cases, and these only, the use of absorbent earths is indicated.

If there are really no acid juices in the ventricle, these earths are apt to concrete with the mucous matter usually lodged there, into hard indissoluble masses; which have sometimes been thrown up by vomit (*V. Zwelf. Animadv. in Ph. Aug. p. 66. Miscell. N. C. dec. 2. Ann. 6. Obs. 24. Act. N. C. vol. ii. Obs. 139.*) or found in the stomach upon dissection (*V. Hoffm. de benign. remed. abusu.*) Hence indigestion, loss of appetite, nausea, vomiting, obstructions of the bowels, and other disorders. Sometimes the stomach and intestines have been found lined with a crust, as it were, of these earthy bodies, (*V. Albert. Diff. de Atrophia, scilicet. 10.*) which must not only have prevented the separation of the gastric liquor, but likewise closed the orifices of the lacteal vessels, so as to obstruct the passage of the chyle into the mass of blood.

Some suppose the earthy powders capable (without the concurrence of any acid) of passing the lacteals along with the chyle; and alledge, in support of this opinion, that when triturated with water, they are in part taken up, and carried with it through a filter of paper; the filtrated liquor leaving, upon evaporation, a portion of whitish earthy matter. This ex-

periment, (allowing the consequences drawn from it to be just) is itself erroneous: The residuum proceeds from the earth naturally contained in the water, not from that employed in the experiment; for if pure distilled water be made use of, it will leave no residuum though long triturated, or digested with the earth.

All these bodies, particularly those of the animal kind, contain, besides their purely alkaline earth, a portion of glutinous matter. An instance of this we have in crabs eyes, which if macerated in the weaker acids, or the stronger, sufficiently diluted with water; the earthy part will be dissolved, and the animal glue remain in form of a soft transparent mucilage. The glutinous substance increases their tendency to concrete in the stomach; and hence those which contain least thereof should be preferred to the others. The mineral earths contain the least of this kind of matter, and some of them are very easy of solution; chalk for instance; which may therefore be given more liberally, and with greater safety than the animal absorbents. These substances divested of their conglutinating matter by means of fire, are reduced into acrimonious calces or limes, and thus become medicines of a different class.

The teeth, bones, hoofs and horns of animals, consist of the same principles with the animal absorbents above-mentioned, but combined in different proportions: The quantity of gelatinous matter is so large as to defend the earthy part from the action of weak acids; whilst the earth, in its turn, protects the gluten from being dissolved by watery liquors. Hence these bodies in their crude state, though recommended as possessing singular virtues,

virtues, are not found to have any virtue at all.

Experiments have been made for determining the degree of solubility, or comparative strength of these earths; the principal of which may be seen in page 5, reduced into the form of tables. These experiments do not sufficiently ascertain the point intended by them: In the first sett, the quantity of acid is too vague and undetermined: In the second, we are not told whether the acid was perfectly saturated: And in both, the acids made use

of were so very different from any that can be supposed ever to exist in the human body, that little can be concluded from them with regard to the medical effects of these absorbents. Trial should have been made with the mild vegetable acids, as the juices of certain fruits, sour fermented liquors; or rather with sour milk. Nevertheless these tables, though not so perfect as could be wished, have their real use in the hands of such as can make proper allowances.

S E C T. III.

EARTHS NOT DISSOLUBLE *in acids, or other liquors.*

The earths of this kind may be ranged in three classes:

Class I. *Hard crystalline earths*: As the ruby, granate, emerald, sapphire, hyacinth, and other precious stones; crystal, flint, &c.

THESE kinds of substances were introduced into medicine, and many fabulous virtues attributed to them, by the superstition of the earlier ages. Some of them are still preserved in foreign pharmacopœias, but at length very justly expunged from ours, notwithstanding what some late writers of repute speak of their medical virtue. These indissoluble hard bodies are not capable of producing any other effect, than by their rigid angular particles, (which tho' levigated with the utmost care, the microscope still discovers in them) to offend or wound the intestines. In levigation, they wear off so much from the hardest *marble* instruments, as will equal or exceed their own weight: From this circumstance we may account for their having sometimes appeared to act

as *absorbents*. Some of these stones, exposed to a vehement fire, become in some measure friable; but nevertheless remain indissoluble. Most of the coloured ones by this treatment lose their colour; and in this state, prove nearly of the same quality with common crystal; such are the sapphire, emerald, amethyst, and cornelian. Others melt into a blackish vitreous matter, from which a portion of iron is obtainable by proper fluxes; as the hyacinth and granate. Geoffroy concludes from hence, that these stones really possess some medical virtues, depending upon their metallic part; but the quantity of metallic matter, sufficient to give them a considerable tinct, is almost infinitely small, and so inclosed in a stony matter not at all soluble

by any of the known menstua, sibility of its acting in the human as scarce to admit of any pos- body.

Class 2. *Softer earths.*

Of these there are two kinds :

1. Tough and flexible : not alterable in quality by fire : As the talcs and amianthus.
2. Brittle ; reducible by fire into a state of ductility with water : as gypsum, and the stones from which plaster of Paris is made.

These earths have rarely been made use of as medicines. Some of the talky ones, from their unctuous softness and silver hue, stand recommended externally as cosmetics ; and some of the gypseous, on little better foundation, internally as astringents. But they have long been deservedly rejected by the judicious practitioners. They seem to possess the ill qualities of the alkaline earths, (concreting with the mucus of the stomach, &c.) without any of their good ones.

Class 3. *Tenacious adhesive earths.*

Clays, boles, and the terræ sigillatæ.

Substances of this class were highly celebrated by the ancients as astringents and alexipharmacs, and some of them still continue in esteem ; though it is certain they have no great claim to the virtues that have been attributed to them. Their real effects are, to give a greater degree of consistency to the fluids in the first passages, and in some measure defend the solids from their acrimony.

Most of these bodies contain, besides the tenacious indissoluble earth, which is their principal characteristic, (1) a portion of an earth soluble in acids, similar to those of the first section ; (2) of acid, separable by distillation in a strong fire : This acid is always of the same nature with that obtained from vitriol, sulphur, and alum ; (3) The coloured ones contain likewise small quantities of iron, reducible, by inflammable fluxes, into its metallic form. In consequence of the first of these ingredients, these earths may be looked upon in some measure as absorbent : The acid appears to be united with a part of the absorbent earth, into a saline compound approaching to an aluminous nature ; whence they have some degree of astringency : Whether they receive any peculiar virtue from the iron, is greatly to be doubted ; since it is in a very crude state, and in quantity extremely small.

These earths unite with water into a turbid liquor, slippery and smooth to the touch, and remain for some time suspended ; the sand, grit, or other grosser matters which are often found naturally mingled with them, subsiding. They may be freed by means of acids from their alkaline earth ; by coction in water, from their saline matter ; and the coloured ones from their iron by digestion in aqua regis, the only menstruum

we

we are acquainted with that will extract the ferrugineous matter of argillaceous and solar earths. Thus purified, they have all nearly the same appearance and qualities.

Exposed to a strong fire, they lose their soft glutinous quality, and are reduced into hard masses indissoluble as at first.

S E C T. IV.

GLUTINOUS, *vegetable, and animal substances.*

Class 1. *Vegetable.*

<p>Pure gums: Tragacanth, Senica, The gums of cherry, plum, and other European trees.</p>	<p>Vegetables abounding with mucilage: Orchis roots, Althæa root, Quince seeds, &c.</p>
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GUMS and mucilages are glutinous vegetable productions, of no particular taste or smell, soluble in water, but not in vinous spirits, acids, or in oils. They differ from one another, only in degree of tenacity: The more tenacious are called gums; those which are less so, mucilages. The first naturally exude from certain trees and shrubs; the latter are extracted by art. Almost all vegetable substances contain some por-

tion of these, which after the refinous part has been extracted by spirit, may be separated from the remaining matter by means of water.

The general virtues of these kinds of substances are, to thicken the fluids, and defend the solids from them, when grown sharp or corrosive. Hence their use in a thin acrimonious state of the juices, and where the natural mucus of the intestines is abraded.

Class 2. *Animal.*

Most animal substances (the fat excepted) contain a viscous matter in many respects similar to the foregoing, and capable of being extracted by strong coction in water.

Animal glues and gellies have the general qualities of the vegetable gums and mucilages; with this difference, that the former are more nutrimental, and apt to run into a

putrid state. Considered as the subjects of chemistry, the difference betwixt them is very great: Those of the animal kind are changed by fire into a volatile alkaline salt, and a fetid oil; the vegetable into an acid liquor, and a very minute portion of oily matter, considerably less fetid than the former.

S E C T.

S E C T. V.

Soft UNCTUOUS substances.

Class 1. *Inspid vegetable oils; and substances abounding with them, as almonds, and the kernels of most fruits; linseed, and the medullary part of sundry other seeds.*

Class 2. *Animal fats; as spermaceti.*

UNctuous vegetables unite with water by trituration, into a milky liquor: and give out their oil upon expression.—These kinds of oils, and animal fats, dissolve not in any menstruum except alkaline ones; which change their quality, and reduce them into a soap, dissoluble in water, but more perfectly in vinous spirits: From this compound, the oil may, by a skilful addition of acids, be recovered in a purer state than before, and rendered soluble, like essential oils, in spirit of wine.

The medical virtues of these substances are, to obtund acrimonious humours, and to soften and relax

the solids: Hence their use internally, in tickling coughs, heat of urine, pains and inflammations; and externally in tension and rigidity of particular parts. The milky solutions, commonly called emulsions, though much less emollient than the oils themselves, or animal fats, have this advantage, that they may be given in acute or inflammatory distempers, without danger of the ill consequences which the others might sometimes produce: Fats and oils, kept in a degree of heat no greater than that of the human body, soon become rancid and acrimonious; whilst emulsions tend rather to grow sour.

S E C T. VI.

A S T R I N G E N T S.

Galls,
Tormentil root,
Bistort root,

Balauſines,
Terra japonica,
Acacia, &c.

Astringent substances are distinguished by a rough austere taste; and changing solutions of iron, especially those made in the vitriolic acid, of a dark purple or black colour.

Astringents yield their virtues by infusion both to water and vinous spirits, generally in greatest perfection to the former. Oils extract

nothing from them. Nor do they give over any of their virtue in distillation: Nevertheless their astringency is considerably abated by evaporating decoctions of them to the consistence of an extract; and totally destroyed by long keeping.

The medical effects of these kinds of substances are, to constringe the fibres, and incoarsate, or lightly

lightly thicken the juices. Their more experienced use is in disorders proceeding from a debility, or flaccid state, of the solids; in hæmorrhagies, from a thinness of the blood, laxity or rupture of the vessels; in preternatural discharges of other kinds, after the offending matter has been duly corrected or evacuated; and externally, in solutions of continuity. In some cases, they produce the effects of aperients; the vessels, constricted and strengthened by them, being enabled to protrude the circulating juices with greater force.

A good deal of caution is requi-

sited in the exhibition of these medicines, especially those of the more powerful kind. In plethoric habits, inveterate obstructions, critical evacuations, and in all kinds of fluxes in general before the morbid matter has been expelled, or where there is any stricture or spasmodic contraction of the vessels; astringents prove eminently hurtful. Where critical dysenteries or diarrhoeas are restrained by styptics, the acrimonious matter, now confined in the intestines, corrodes or inflames them; and sometimes occasions a gangrene of the parts.

S E C T. VII.

S W E E T S.

Sugar,
Honey,

Raisins,
Liquorice, &c.

THE vegetable sweets are a very numerous tribe; almost every plant that has been examined, discovering in some of its parts, a saccharine juice. The bottoms of flowers, and most kinds of seeds and grain when they begin to vegetate, are remarkably sweet.

Vegetable sweets are extracted both by water and vinous spirits, most readily by the first, but in greatest perfection by the latter. Nothing of their taste arises in distillation with either of these liquors: Nevertheless, by long boiling with water they become somewhat less agreeable; but are not much injured by being treated in the same manner with rectified spirit.

The purer sweets, as sugar, promote the union of distilled oils with watery liquors, and prevent the separation of the butyraceous part from milk: From this quality,

they are supposed to unite the unctuous part of the food with the animal juices. Hence some have concluded, that they increase fat: Others, that they have a contrary effect, by preventing the separation of the unctuous matter which forms the fat, from the blood: And others, that they render the juices thicker and more sluggish, retard the circulation and cuticular excretion, and thus bring on a variety of disorders. But sweets have not been found to produce any of these effects, in any remarkable degree: Common experience shews, that their moderate, and even liberal, use is at least innocent; that they reconcile, not only to the palate, but the stomach also, substances of themselves disgusting to both; and thus render salutary what would otherwise be injurious to the body.

The unctuous and mucilaginous sweets,

sweets, as the impure sugars, liquorice, &c. have a considerable degree of emollient and lubricating virtue.—Those accompanied with a manifest acid, as in the

juices of most sweet fruits, are remarkably relaxing; and if taken immoderately, occasion diarrhoea and dysenteries, which sometimes have proved fatal.

S E C T. VIII.

ACRIDS.

ACrids are substances of a penetrating pungency, without any peculiar flavour. Applied to the skin, they inflame or exulcerate it: Chewed, they occasion a copious discharge of saliva: And snuffed up the nose, provoke sneezing.

These substances, considered as the subjects of pharmacy, may be divided into three classes,

- yielding their acrimony
1. In distillation with water: As horse radish, mustard, scurvy grass, &c.
 2. By infusion only: As the greatercelandine.
 3. Neither to infusion, or distillation: As arum and dracunculus.

The general effects of acrid medicines are, to stimulate the vessels, and dissolve tenacious juices. In cold leucophlegmatic habits, stagnations of the fluids, and where the contractile power of the solids is weak; they prove powerful expectorants, deobstruents, diuretics and emmenagogues; and if the patient is kept warm, sudorifics. In hot bilious constitutions, plethoric habits, inflammatory distempers, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the viscera unbound; these stimulating medicines prove highly prejudicial, and never fail to aggravate the disease.

Certain acrid substances have been lately recommended in dry convulsive asthma: Of the efficacy

of the squill in particular, for the cure of this disorder, several instances are related in the commercium literarium of Norimberg for the years 1737 and 1739. It seems probable, that not the asthma itself, but a particular effect of it was removed by this medicine. In all asthmas, the free circulation of the blood through the pulmonary vessels, is impeded; and hence, during every paroxysm, the lungs are in a kind of œdematous state. If this œdema, becoming habitual, remains after the fit is over, it is either perpetually occasioning fresh ones, or gives rise to a dropsy of the breast. Acrid medicines, by removing the œdema, remove what was originally an effect of the asthma, and in time a cause of its aggravation.

S E C T.

S E C T. IX.

A R O M A T I C S.

Aromatics are substances of a warm pungent taste, accompanied with a strong odour; as cloves, cardamom seeds, cinnamon, nutmegs, &c. Their peculiar qualities reside in a volatile oil, usually called *essential*, and a grosser resinous substance capable of being extracted by spirit of wine. The oil possesses the odour of the subject, and often its pungency and taste: The resin contains the whole of this latter, but has the former in a less degree.

The essential oils and resins of vegetables, at first intimately mingled with the aqueous and mucilaginous juices, separate by degrees, and are collected in little membranous vesicles. These are readily discovered by the microscope, in the rind of oranges and lemons, in juniper berries, nutmegs, the roots of elecampane, masterwort, spignel, angelica, fennel, florence orris, and others; and by the naked eye, in the flowers of St. John's-wort, and the leaves of the orange-tree. In the bark of the pine, fir, larch, and some other tree, these vesicles are extremely numerous and turgid with oil, in so much as (in the warmer climates) frequently to burst, and discharge their contents in notable quantity.

These oils consist of a subtile and of a grosser part. The unctuous liquors which spontaneously exude from different trees and shrubs, and the purer oils extracted from aromatic plants by art, indurate in a warm air into a solid resin, with remarkable loss of their fragrance. Distilled with pure spirit, the more subtile part arises,

impregnating the liquid with the pungency and odour of the oil; the grosser matter, whose quantity is much the largest, remaining behind: This residuum, by repeating the operation with fresh spirit becomes at length insipid and inodorous. The separation may also be effected, though more difficultly, by a like procedure with water. Water, even by agitation, imbibes some of the more fragrant matter, leaving the oil weaker and less fragrant than before.

The quantity of this subtile matter varies in different oils: as does likewise that of the compound contained in different subjects. In general, the less oil any aromatic vegetable affords, the oil proves proportionably the stronger; and the more, the weaker. From cinnamon, for instance, we obtain an oil very small in quantity, but extremely pungent: Whilst cloves, a spice much more pungent than the other, yields a much larger quantity of oil, which proves in taste remarkably milder.—The greater pungency, as Neuman observes, of the oil of cloves usually met with, is adventitious: The oil genuinely distilled from this spice, is very mild: A tincture made in rectified spirit is extremely acrid, and probably is the substance employed for giving this quality to the oil.

The virtues of all aromatic vegetables are extracted by vinous spirits; very imperfectly by watery liquors. In distillation, they arise with water more perfectly than with spirit: Some give over exceeding little to pure spirit:

Hence

hence the spirituous extract possesses their taste and flavour in an eminent degree: whilst the watery ones have nothing of either.

Aromatics, considered as medicines, warm the stomach, and by

degrees the whole habit, raise the pulse and quicken the circulation: Hence in cold languid cases, they increase strength, and promote the natural secretions.

S E C T. X.

B I T T E R S.

Gentian root,
Hops,

Lesser centaury,
Carduus, &c.

Bitters yield their virtue both to watery and spirituous menstrua; some more perfectly to one, and others to the other. None of the substances of this class give over any thing considerable of their taste in distillation, either to water or to spirit; their bitterness remaining entire, and frequently improved, in the extracts. Such as are accompanied with flavour, as wormwood, may by this process be reduced into simple flavourless bitters.

These substances participate of the virtues of astringents and aromatics. Their general effects are, to constrict the fibres of the stomach and intestines, to warm the habit, attenuate the fluids, supply the deficiency of bile, and promote the natural evacuations, particularly of sweat and urine. In weakness of the stomach, loss of appe-

tite, indigestion, and the like disorders, proceeding from a laxity of the solids, or cold sluggish indigestion of the juices, these kinds of medicines do good service. Where the fibres are already too tense and rigid, where there is any immoderate heat or inflammation, bitters very sensibly increase the distemper; and if their use is continued, communicate it to the kidneys: Hence the urine becomes high coloured, small in quantity, and at length suppressed; a dropical soon succeeding: If the kidneys were before so lax as to remain now uninjured, yet the other viscera become gradually more and more rigid, and a tabes is at length brought on.

Bitter substances destroy insects, and prevent putrefaction. Hence they are recommended as anthelmintic: and externally as antiseptics.

S E C T.

S E C T. XI.

Substances in which two, three, or more of the foregoing qualities are conjoined :

As { Aromatic and bitter
Aromatic and astringent
Aromatic, bitter and astringent } in { lemon peel
cinnamon
peruvian bark.

THE several tastes (and medical virtues depending thereon) of the bodies which come under this head, are extracted by the same means as from those in which they are less compounded. Thus the aromatic part of lemon peel arises in distillation with water, whilst the bitter remains behind in the extract: The aromatic part of bark is dissipated by long coction in water, the bitter remaining in the extract entire, and the astringency (as a simple astringent would be by the same treatment) considerably impaired.

S E C T. XII.

Substances not reducible under the foregoing heads.

Class 1. *Metallic and mineral bodies.*

Class 2. *Neutral salts, as nitre, common salt, &c.*

Class 3. *Opium, hemlock, &c.*

For an account of the bodies of these three classes, we refer to the several articles themselves in the second book.

Class 4. *Acrid and bitter substances, which generally act as emetic or cathartic.*

Hellebore,
Jalap,
Ipecacoanha, &c.

Colocynth,
Scammony,
Gamboge, &c.

These substances consist of a resinous part, in which the purgative or emetic quality reside; and a gummy-saline one, which acts chiefly as a diuretic. The first is extracted or dissolved by vinous spirits; the latter by water. Nothing arises in distillation from either.

The acrid resins, exhibited by themselves, tenaciously adhere to

the coats of the intestines, by their stimulating power irritate and inflame them, and thus produce sundry violent disorders. Hoffman relates, that he has sometimes observed convulsions, and a paralysis of both sides, from their use.

These inconveniencies may be prevented, by previously triturating them with substances capable of dividing their tenacious texture, and

and preventing their adhesion: By this means, they become mild and safe, operate without disturbance, and at the same time more effectually answer the purposes intended by them.

Some have endeavoured to correct the ill quality of the resinous purgatives, by the addition of acids and aromatic oils. Acids weaken their power, but have no other effect than what a diminution of the dose would equally answer. The pungent essential oils may serve to warm the stomach, make the medicine sit easier, and thus prevent the nausea, which sometimes happens; but as soon as the resin begins to exert itself in the intestines, these oils, instead of correcting, increase its virulence; being themselves apt to occasion the inconveniencies which they are here intended to prevent, an irritation and inflammation of the bowels. Alkaline salts or soaps have a better effect; as they dispose the resin to solution, and promote its operation.

The medicines of this class seem to act by liquefying the juices, and stimulating the coats of the stomach and intestines. If the irritation is

strong and sudden, their action is quick and upwards: If slower, downwards: Cathartics given in a liquid form, or in very sensible habits, often prove emetic; and emetics, where mucus abounds, cathartic. They operate more violently in robust constitutions, than in those of a contrary temperament; the vessels being in the former more tense and rigid, and consequently less capable of bearing an equal degree of irritation.

The action of these medicines is extended beyond the *primæ viæ*: This appears evident from the increase of the pulse which always accompanies their operation; and from the common observation of children being purged by the milk, if the nurse has taken a cathartic: Some of them, particularly hellebore, are said to purge, if only applied externally in issues.—Purgatives, even of the more powerful kind, exhibited in suitable small doses, in conjunction with the milder aperients, may be introduced into the habit, so as to prove notable deobstruents, diuretics, and diaphoretics, without acting sensibly by stool.



BOOK II.

Of the several articles of the materia medica.

ABIES [E] *abies conis sursum spectantibus sive mas, C. B.*
 The silver fir — *Abies tenuiore folio fructu deorsum spectante, Tourn.*
 The red fir: Their wood, tops, and resin. These are large evergreen trees, frequent in the northern climates: The first is said to be found wild in some parts of England, and the second on the hills of Scotland. From these trees, in different parts of Germany, the Strasburgh turpentine is extracted, of which hereafter. The wood, and the fruit or cones gathered about the end of autumn, abound with resinous matter; and yield, in distillation with water, an essential oil not different from that obtained by the same means from turpentine. — The wood and tops of the fir trees, on account of their resinous juice, are sometimes employed in decoctions for promoting urine and sweat, purifying the blood and juices, cleansing and healing internal ulcerations, particularly those of the urinary passages. See the article TEREBINTHINA.

ABROTANUM MAS — [E.] *abrotanum mas angustifolium majus, C. B.* Southernwood; the leaves. — This is a shrubby plant, clothed with very finely divided leaves, of a greyish green colour: The flowers, which are very small and yellowish, hang downwards, several together, from the middle of

the branches to the top. It is a native of the warmer countries; in this it is cultivated in gardens: The leaves fall off every winter; the roots and stalks abide many years.

Southernwood has a strong, not very disagreeable smell; and a nauseous, pungent, bitter taste; which is totally extracted by rectified spirit, less perfectly by watery liquors. It is recommended as an anthelmintic; and, in cold leucophlegmatic habits, as a stimulating, detergent, aperient, and sudorific. The present practice has almost entirely confined its use to external applications: The leaves are frequently employed in discutient and antiseptic fomentations: and sometimes in lotions and unguents for cutaneous eruptions and the falling off of the hair.

ABROTANUM FOEMINA — [E.] *abrotanum foemina foliis terebinthibus, C. B.* Lavender cotton; the leaves. This plant is all over white and hoary: The leaves are composed of small knobs set in rows along a middle rib; the flowers stand upright on the tops of the stalks. It is raised in gardens, flowers in June and July, and holds its leaves all the winter.

The *abrotanum foemina* is supposed to possess the same virtues with the *mas*; but in a less degree. For external purposes, the medical difference betwixt them is not very

F

great

great: Hence in fomentations (which is the principal intention they are usually applied to) the college allow either to be taken instead of the other.—The *abrotanum femina* is recommended by some in hysteric and other female complaints: it has been customary among the common people to use a decoction of it in milk against worms.

ABSINTHIUM VULGARE

[L. E.]—*absinthium vulgare majus*, J. B. Common wormwood: the leaves.—The leaves of this sort of wormwood are divided into roundish segments, of a dull green colour above, and whitish underneath. It grows wild in several parts of England; about London, large quantities are cultivated for medicinal use: It flowers in June and July; and after having ripened its seed, dies down to the ground, excepting a tuft of the lower leaves, which generally abides the winter.

Wormwood is a strong bitter; and was formerly much used as such, against weakness of the stomach, and the like, in medicated wines and ales. At present it is rarely employed in these intentions, on account of the ill relish and offensive smell which it is accompanied with. These it may be in part freed from by keeping, and totally by long coction, the bitter remaining entire: An extract made by boiling the leaves in a large quantity of water, and evaporating the liquor with a strong fire, proves a bitter sufficiently grateful, without any disgustful flavour.—An oil distilled from this plant is kept in the shops.

ABSINTHIUM MARITIMUM

[L.] *absinthium maritimum album*, Gerard. Sea wormwood, commonly, but falsely, called Roman wormwood; the leaves and tops.

The leaves of sea wormwood are much smaller than those of the common, and hoary on the upper side, as well as the lower; the stalks also are hoary all over. It grows wild about our salt marshes, and in several parts about the sea coasts.—In taste and smell, it is weaker and less unpleasant than the common wormwood: The virtues of both are supposed to be of the same kind, and to differ only in degree.—The tops enter three of our distilled waters, and give name to a conserve.

ABSINTHIUM ROMANUM

[E.] *absinthium ponticum, tenuifolium, incanum* C. B. Roman wormwood; the leaves and tops.

This species is very different in appearance from the two foregoing: It is in all its parts smaller than either; the leaves are divided into fine filaments, and hoary all over; the stalks, either entirely or in part, of a purplish hue. It is a native of the warmer countries, and at present difficultly procurable in this, though as hardy and easily raised as any of the other sorts. Sea wormwood has long supplied its place in the markets, and been in general mistaken for it.—Roman wormwood is less ungrateful than either of the others: Its smell is tolerably pleasant; the taste, tho' manifestly bitter, scarce disagreeable. It appears to be the most eligible of the three as a stomachic; and is likewise recommended by some in dropries.

The roots of all the wormwoods have a durable warm aromatic taste, without any thing of the nauseous bitterness of the other parts; and hence might probably be employed for answering some useful purposes.

ACACIA [L. E.] the inspissated juice of the unripe fruit of a large prickly tree, called by Caspar Bauhine,

hine, *Acacia foliis scorpioidis leguminosæ.*

This juice is brought to us from Egypt, in roundish masses, wrapt up in thin bladders. It is outwardly of a deep brown colour, inclining to black: inwardly of a reddish or yellowish brown; of a firm consistence, but not very dry. It soon softens in the mouth, and discovers a rough, not disagreeable taste, which is followed by a sweetish relish. This inspissated juice entirely dissolves in watery liquors; but is scarce sensibly acted on by rectified spirit.

Acacia is a mild astringent medicine. The Egyptians exhibit it in spitting of blood, in the quantity of a dram, dissolved in any convenient liquor; and repeat this dose occasionally: They likewise employ it in collyria for strengthening the eyes, and in gargarisms for quinsseys. Among us, it is of little other use than as an ingredient in mithridate and theriaca, and is rarely met with in the shops. What is usually sold for the Egyptian acacia is the inspissated juice of unripe sloes: This is harder, heavier, of a darker colour, and somewhat sharper taste, than the true sort.

ACANTHUS — *acanthus sativus* vel *mollis* Virgilii, C. B. Brankursine; the leaves. — This is a beautiful plant, growing naturally in Italy, and other warm climates: From its leaves, the ancients took the patterns of their foliage works. All the parts of it have a soft sweetish taste, and abound with a mucilaginous juice: Its virtues do not seem to differ from those of mucilaginous substances in general.

ACETOSA [E.] *acetosa arvensis*, C. B. *Oxalis vulgaris folio longo*, J. B. Common sorrel; the

roots, leaves, and seeds. Sorrel grows wild in fields and meadows throughout England. The leaves have a restringent acid taste, without any smell or particular flavour: Their medical effects are, to cool, quench thirst, and promote the urinary discharge: A decoction of them in whey affords an useful and agreeable drink in febrile or inflammatory disorders; and is strongly recommended by Boerhaave to be used in the spring as one of the most efficacious aperients and detergents. Some kinds of scurvy have yielded to the continued use of this medicine: The Greenlanders, who are very subject to this distemper, are said to employ, with good success, a mixture of the juices of sorrel and of scurvy gras. — The roots of this plant have a bitter astringent taste, without any acidity: They are said to be deobstruent and diuretic; and have sometimes had a place in aperient apozems, to which they impart a reddish colour. — The seeds are somewhat astringent, without acidity or bitterness: They are recommended in diarrhoeas and dysenteries, but have long been strangers to the shops.

ACETOSELLA, vide LUVULA.

ACETUM [L. E.] Vinegar is an acid produced from fermented vinous liquors by a second fermentation. Wine vinegar is considerably purer than that prepared from malt liquors; the latter, however acid and fine, contains a large portion of a viscous mucilaginous substance; as is evident from the royness and slimyness which this kind of vinegar is very much subject to: the stronger and more spirituous the wine, the better and stronger vinegar it yields. The French vinegars saturate above

thirty-fifth their weight of fixt salt; and some of them one twelfth; the best of the German vinegars little more than one fortieth.

Vinegar is a medicine of excellent use in all kinds of inflammatory and putrid disorders, either internal or external: In ardent, bilious fevers, pestilential, and other malignant distempers, it is recommended by Boerhaave as one of the most certain sudorifics: (see the section of acids, page 52.) Weakness, fainting, vomiting, hysterical, and hypochondriacal complaints, have been frequently relieved by vinegar applied to the mouth and nose, or received into the stomach.

ACORUS, vide CALAMUS AROMATICUS.

ADIANTHUM VERUM —

[E.] *Adiantum folio coriandri*, C. B. True maidenhair; the leaves. This is a low evergreen herb, and one of those which, from the slenderness of their stalks, are called capillary. It is a native of Italy, and the southern parts of France; from whence the leaves are brought to us. These have an agreeable, but very weak, smell; and a mucilaginous somewhat roughish taste, which they readily impart to boiling water. Maidenhair has been greatly celebrated in disorders of the breast, proceeding from a thinness and acrimony of the juices; and likewise for opening obstructions of the viscera, and promoting the expectoration of tough phlegm. But modern practice pays little regard to it; nor is it often to be met with in the shops; the TRICHOMANES, or *English-maiden-hair*, which is of the same quality, generally supplying its place.

AERUGO [L. E.] Verdegris. This is a preparation of copper,

made by stratifying copper plates with the marc or pressings of grapes: In a few days, the plates are found covered with a pale green downy matter, which is scraped off from the copper, and the process again repeated. Verdegris, as it comes to us, is generally mingled with stalks and seeds of the grape: These may be separated, in pulverization, by discontinuing the operation as soon as what remains seems to be almost entirely composed of them. Verdegris is rarely or never used internally. Some writers greatly extol it as an emetic and say, that a grain or two being taken, acts as soon as received into the stomach: But its use has been too often followed by dangerous consequences. (See the article CUPRUM)—Verdegris applied externally, proves a gentle escharotic, and serves to take down fungous flesh arising in wounds.

AGALLOCHUM [E.] *sen lignum aloes*. Aloes wood. There have been different conjectures concerning this plant, but no satisfactory account of it has hitherto appeared. Authors distinguish several sorts of agallochum, most of which are strangers to Europe. That which comes to us is in little hard ponderous pieces, of a yellowish brown colour, with several black or purplish veins. It has a bitterish aromatic taste; and a fragrant smell, especially if reduced to powder, or set on fire. Distilled with water, it affords a very fragrant essential oil, but in small quantity: Digested in rectified spirit, it yields an elegant tincture, which loses nothing valuable in being evaporated to the consistence of an extract. Agallochum is at present of very little use in medicine, and rarely to be met with in the shops: If it could

could be easily procured, it bids fair to be a very useful cordial; Hoffman greatly recommends in this intention the distilled oil and spirituous tincture; and esteems a mixture of this last with tincture of steel an excellent corroborant.

AGARICUS [L. E.] *agaricus* five fungus *laricis*, C. B. Agaric; a fungus growing on old larch trees. This fungus is an irregular spongy substance, extremely light, and of an uniform snowy whiteness (except the cortical part, which is usually taken off before the agaric is brought into the shops.) It cuts freely, without discovering any hardness or gritiness, and readily crumbles betwixt the fingers into a powder. Agaric has no remarkable smell: Its taste is at first sweetish, but on chewing for a little while, proves acrid, bitter and nauseous. It was formerly in great esteem as a cathartic, but the present practice has almost entirely rejected its use. It operates exceeding slowly, inasmuch that some have denied it to have any purgative virtue at all: Given in substance, it almost always occasions a nausea, not unfrequently vomiting, and sometimes excessive tormina of the bowels; these effects are attributed to its light farinaceous matter adhering to the coats of the intestines, and producing a constant irritation. The best preparation of agaric seems to be an extract made with water acuated with fixt alkaline salt; or with vinegar or wine: The first is said by Bolduc, and the two latter by Neuman, to prove effectual and safe purgatives. Nevertheless this is at best a precarious medicine, which we stand in no manner of need of; hence the college have justly rejected it from all the compositions which it for-

merly had a place in, except the mithridate and theriaca.

AGARICUS *pedis equini facie*, Tourn. Female agaric, called, from its being very easily inflammable, touchwood, or spunk. This fungus is frequently met with, on different kinds of trees in England; and has been sometimes brought into the shops mixt with the true agaric of the larch: From this it is easily distinguishable by its greater weight, dusky colour, and mucilaginous taste, void of bitterness. The medullary part of this fungus, beat soft, and applied externally, has been of late greatly celebrated as a styptic, and said to restrain not only venal but arterial hæmorrhages, without the use of ligature.

AGERATUM — [E.] *ageratum foliis serratis*, C. B. *ptarmica lutea suaveolens*, Tourn. Maudlin; the leaves. This is a slender plant, clothed all over with narrow serrated leaves. It is a native of Italy, and other warm countries: with us, it is raised in gardens, and flowers in July and August — Maudlin has a light agreeable smell; and a roughish, somewhat warm and bitter taste. These qualities point out its use in cold pituitous disorders, and for strengthening the tone of the intestines: Boerhaave recommends it as a sudorific, and in cold scurvies. It has long been a stranger to practice.

AGNUS CASTUS [E.] *agnus folio non serrato*, J. B. The chaste tree; its seeds.—This is a small tree, or rather shrub, growing spontaneously in Italy, &c. and raised with us in gardens. Its fruit, which is about the size of a pepper corn, contains four longish seeds, of an aromatic smell, and

an acrid, bitterish taste. These seeds have been celebrated as antaphrodisiacs; but experience does not warrant their having any such virtues. The opinion of their possessing this quality seems to have no other foundation than the ceremony observed by the Grecian matrons of old, of strewing the leaves in the temples at the celebration of the feasts of Ceres, during which a strict continency was enjoined.

AGRIMONIA [E.] *eupatorium veterum seu agrimonia, C. B.* Agrimony; the leaves — This is a common plant in hedges, and the borders of fields. The leaves have an herbaceous, somewhat acrid, roughish taste, accompanied with an aromatic flavour. Agrimony is aperient, detergent, and strengthens the tone of the viscera: Hence it proves serviceable in scorbutic disorders, in debility and laxity of the intestines, &c. Digested in whey, it affords an useful diet-drink for the spring season, not ungrateful to the palate or stomach.

ALCANNA, vide **ANCHUSA**.

ALCEA; *alcea vulgaris major, C. B. malva verbenaca Gerardii*. Verbain mallow. This is easily distinguishable from the common and marsh mallow, by its leaves being jagged or cut in about the edges: It grows in hedges, and flowers greatest part of the summer. *Alcea* agrees in quality with the **ALTHEA** and **MALVA VULGARIS**; but appears to be less mucilaginous than either.

ALCHIMILLA — [E.] *alchimilla vulgaris, C. B.* Ladies mantle; the leaves. This grows wild in many parts of England, but is rarely met with about London: The leaves seem as if plaited or

folded together, so as to have given occasion to the English name of the plant. All the parts of *alchimilla* discover to the taste a rough glutinous quality; and hence may be of service in disorders proceeding from a laxity of the solids, and a thin acrimonious state of the fluids. This herb was formerly much esteemed in some female weaknesses, and in fluxes of the belly; as also for conglutinating wounds and ulcers; at present it is very rarely made use of.

ALCIS UNGULA [E.] Elks hoof. The elk is a large animal of the stag kind, met with in Muscovy, and other cold countries. The hoof of one of the hinder feet has been celebrated against epilepsies, from a ridiculous opinion that the elk is himself subject to disorders of this kind, and prevents or removes them by scratching his ear with his hoof.

ALSIMA, vide **DORONICUM**.

ALKEKENGII [E.] *solanum vesicarium, C. B.* Winter cherry; the fruit. This is a low, branched shrub, bearing leaves like those of nightshade; with white flowers, which stand single at the joints. The flower cup changes into a membranous cover, which at length bursts and discovers a fruit of a fine red colour, about the size of a common cherry: The fruit ripens in October, and continues frequently to the middle of December. This plant grows wild in some parts of France, Germany, &c. the elegance and lateness of its fruit has gained it a place in our gardens. — Winter cherries are said by most writers to be extremely bitter; but, as Haller justly observes, the cherry itself, if carefully freed from the cover

cover (which is intensely bitter, has merely a subacid taste. They stand highly recommended as detergent, aperient, diuretic, and for expelling gravel: Four, five, or more of the cherries are directed for a dose, or an ounce of the expressed juice. Mr. Ray tells us of a gouty person who was cured and kept free from returns of his disorder, by taking eight of these cherries at each change of the moon; these occasioned a copious discharge of extremely fetid urine.

ALLIARIA [*E.*] *hesperis allium redolens*, *Tworn*. Sauce alone, or jack by the hedge; the leaves. This is frequent in hedges and shady waste places, flowering in May and June. The leaves have a bitter acrid taste, and, when rubbed betwixt the fingers, a strong smell, approaching to that of garlic. They are esteemed aperient and diuretic. Borhaave directs the use of this plant in diseases where acidities abound, in cold scurvies where there is no tendency to putrefaction, and in pleurifies where there is danger of a gangrene. Externally, it is recommended by Hildanus in mortifications; by Chomel, in cancerous ulcers; and by Boerhaave, in both: The latter reports, that in these cases he has frequently experienced its good effects. Hildanus used to gather the herb for these purposes in the spring, and expose it for a day to the action of a dry air in a shady place: Being then committed to the press, it yielded a juice possessing the smell and taste of the alliarium: this, he informs us, with a little oil on the surface, keeps in perfection for years.

ALLIUM; [*L. E.*] *allium sativum*, *C. B.* Garlic; the roots. These roots are of the bulbous

kind, of an irregularly roundish shape, with several fibres at the bottom: Each root is composed of a number of lesser bulbs called cloves of garlic, inclosed in one common membranous coat, and easily separable from one another. All the parts of this plant, but more especially the roots, have a strong offensive smell, and an acrimonious almost caustic taste. The root applied to the skin inflames and often exulcerates the part: The smell is extremely penetrating and diffusive; when applied to the feet, the scent is soon discoverable in the breath; taken internally, its smell is communicated to the urine, or the matter of an issue, and perspires thro' the pores of the skin.

Garlic has been celebrated by many practical writers in a great variety of disorders; whilst others condemn it not only as an offensive, but likewise as a noxious plant. It is certain there are many cases in which garlic proves highly prejudicial; but there are also several in which it is of great utility. Its real effects are, to warm and stimulate the solids, and to dissolve tenacious juices. Hence in cold leucophlegmatic habits, it proves a powerful expectorant, deobstruent, diuretic and emmenagogue; and, if the patient is kept warm, a notable sudorific. In humoral asthmas, and catarrhus disorders of the breast, in cold scurvies, flatulent colics, hysterical and other diseases proceeding from a laxity of the solids, and cold sluggish indisposition of the fluids, this medicine has generally good effects: It has likewise been found serviceable in sundry hydropic cases: Sydenham relates, that he has known the dropsy cured by the use of garlic alone; he recommends it chiefly as a warm strengthening medicine in the beginning of the disease.

The liberal use of garlic, is apt to occasion headachs, flatulencies, thirst, febrile heats, inflammatory distempers, and sometimes discharges of blood from the hæmorrhoidal vessels. In hot bilious constitutions, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the viscera unsound; this stimulating medicine is manifestly improper, and never fails to aggravate the distemper.

The most commodious form for the exhibition of garlic, a medicine to most sufficiently unpleasant, is that of a bolus or pill. Infusions in spirit, wine, vinegar, and water, although containing the whole of its virtues, are so acrimonious as to be unfit for general use. An extract made from the tincture in pure spirit, loses nothing of the virtues of the garlic by the treatment necessary to reduce it into this form; whilst the watery infusions, treated in the same manner, are almost entirely deprived of smell and taste.

In distillation with water, an essential oil arises of an extremely strong smell and pungent taste.—A syrup and oxymel of garlic are kept in the shops.

Garlic made into an unguent with oils, &c. and applied externally, resolves and discusses cold tumors, and has been by some greatly esteemed in cutaneous diseases. It has likewise sometimes been employed as a repellent: Sydenham assures us, that among all the substances which occasion a derivation or revulsion from the head, none operate more powerfully than garlic applied to the soles of the feet: Hence he was led to make use of it in the confluent small pox; about the eighth day after the face began to swell, the root cut in pieces, and tied in a linen cloth, was applied to the soles, and re-

newed once a day till all danger was over.

ALNUS VULGARIS; *almus rotundifolia glutinosa viridis*, C. B. The leaves and bark of the alder tree. These have a bitter styptic disagreeable taste. The bark is recommended by some in intermittent fevers; and a decoction of it, in gargarisms for inflammations of the tonsils.

ALNUS NIGRA; [E.] *almus nigra baccifera*, J. B. The black or berry-bearing alder, is common in most woods in divers parts of England. The internal bark of the trunc or root of the tree, given to the quantity of a dram, purges violently, occasioning gripes, nausea, and vomiting. These may be in good measure prevented by the addition of aromatics; but as we have plenty of safer and less precarious purgatives, practitioners have deservedly rejected this.

ALOE [L. E.] Aloes is the inspissated juice of certain plants of the same name. The ancients distinguished two sorts of aloes; the one was pure and of a yellowish colour, inclining to red, resembling the colour of a liver, and thence named hepatic; the other was full of impurities, and hence supposed to be only the dross of the better kind. At present, various sorts are met with in the shops; which are distinguished either from the places, from the species of the plants, or from some differences in the juices themselves. These may be all ranged in three classes:

(1) ALOE SOCOTORINA. Socotorine aloes, brought from the island Socotora in the Indian ocean, wrapt in skins; it is obtained from the *aloe succotorina angustifolia spinosa, flore purpureo*, Breyn. & Commelin. — This sort is the purest

purest of the three: it is of a glossy surface, clear, and in some degree pellucid; in the lump, of a yellowish red colour, with a purple cast; when reduced to powder, of a bright golden colour. It is hard and friable in the winter, somewhat pliable in summer, and grows soft betwixt the fingers. Its taste is bitter, accompanied with an aromatic flavour, but insufficient to prevent its being disagreeable: The smell is not very unpleasant, and somewhat resembles that of myrrh.

(2) ALOE HEPATICA. Hepatic, Barbadoes, China, or common aloes; the juice of the *aloe C. B. aloe vera vulgaris, Munting*. —Hepatic aloes is not so clear and bright as the foregoing sort: It is also of a darker colour, more compact texture, and for the most part dryer. Its smell is much stronger and more disagreeable: The taste intensely bitter and nauseous, with little or nothing of the fine aromatic flavour of the Socotorine. —The best hepatic aloes comes from Barbadoes in large gourd shells; an inferior sort of it (which is generally soft and clammy) is brought over in casks.

(3) ALOE CABALLINA. Guinea, fetid, caballine, or horse aloes; the produce of the *aloe Guinensis caballina vulgaris similis, sed tota maculata, Commelin*. —This sort is easily distinguished from both the foregoing, by its strong rank smell; although, in other respects, it agrees pretty much with the hepatic, and is not unfrequently sold in its stead. Sometimes the caballine aloes is prepared so pure and bright, as not to be distinguishable by the eye even from the Socotorine; but its offensive smell, which it cannot be divested of, readily betrays it.

All the sorts of aloes dissolve in pure spirit, proof spirit, and proof

spirit diluted with half its weight of water; the impurities only being left. They dissolve also by the assistance of heat in water alone; but as the liquor grows cold, the resinous part subsides, the gummy remaining united with the water. The hepatic aloes is found to contain more resin, and less gum than the socotorine, and this than the caballine. The resins of all the sorts, purified by spirit of wine, have little smell: That obtained from the socotorine has scarce any perceptible taste; that of the hepatic, a slight bitterish relish, and the resin of the caballine, a little more of the aloetic flavour. The gummy extracts of all the sorts are less disagreeable than the crude aloes: The extract of socotorine aloes has very little smell, and is in taste not unpleasant; that of the hepatic has a somewhat stronger smell, but is rather more agreeable in taste than the extract of the socotorine: The gum of the caballine retains a considerable share of the peculiar rank smell of this sort of aloes, but its taste is not much more unpleasant than that of the extracts made from the two other sorts.

Aloes is a stimulating cathartic bitter: If given in so large a dose as to purge effectually, it often occasions an irritation about the anus, and sometimes a discharge of blood. Small doses of it frequently repeated, not only cleanse the primæ viæ, but likewise attenuate and dissolve viscid juices in the remoter parts, warm the habit, quicken the circulation, and promote the uterine and hæmorrhoidal fluxes. This medicine is particularly serviceable in persons of a phlegmatic temperament and sedentary life, and where the stomach is oppressed and weakened: In dry bilious habits, aloes proves injurious,

injurious, immoderately heating the blood, and inflaming the bowels.—This juice is likewise, on account of its bitterness, supposed to kill worms, either taken internally, or applied in plaisters to the umbilical region. It is also celebrated for restraining external hæmorrhagies, cleansing and healing wounds and ulcers.

The ancients exhibited aloes in much larger doses than is customary at present. Dioscorides orders half a dram or a dram for gently loosening the belly; and three drams when intended to have the full effect of a cathartic. But modern practice rarely exceeds a scruple, and limits the greatest dose to two scruples: For the common purposes of this medicine, ten or twelve grains are sufficient; taken in these quantities, it acts as a gentle stimulating ecoprotic, capable of removing, if duly continued, very obstinate obstructions.

Some are of opinion, that the purgative virtue of aloes resides entirely in its resin; but experience has shewn, that the pure resin has little or no purgative quality; and that the gummy part separated from the resinous, acts more powerfully than crude aloes. If the aloes indeed be made to undergo long coction in the preparation of the gummy extract, its cathartic power will be considerably lessened, not from the separation of the resin, but from an alteration made in the juice itself by the heat. The strongest vegetable cathartics become mild by a like treatment, without any remarkable separation of their parts.—Socotorine aloes, as formerly observed, contains more gummy matter than the hepatic; and hence it is likewise found to purge more, and with greater irritation. The first sort therefore is most proper where a stimulus is required, as for pro-

moting or exciting the menstrual flux; whilst the latter is better calculated to act as a common purge. The vulnerary and balsamic virtues of this juice reside chiefly in the resin; and hence the hepatic aloes, which is most resinous, is found most serviceable in external applications.

ALSINE [E.] *affine vulgaris* *seve marfus gallinæ*, J. B. Chickweed. This plant was employed by the ancients externally against erysipelatous, and other inflammatory disorders. Later times have given it internally in hæmoptoes, as a restorative in atrophies and consumptions, and likewise as an antepileptic. Some recommend for these purposes the expressed juice to be taken to the quantity of an ounce; others the dried leaves, in the dose of a dram; and others a water distilled from them. But if any real benefit is expected from *alsine*, it ought to be used liberally as food; though even then, its effects would not be superior to those of more approved culinary herbs.

ALTHÆA [L. E.] *althæa Dioscoridis et Plinii*, C. B. Marshmallows grows wild in marshes and other moist places, in several parts of England; though frequently cultivated for medicinal use in gardens.—All the parts have a mucilaginous taste, and abound with a soft glutinous substance, which is readily extracted by water: The mucilage of the roots is strongest, and has the greatest body: and hence this part is generally made use of in preference to the others. This plant has the general virtues of an emollient medicine; and proves serviceable in a thin acrimonious state of the juices, and where the natural mucus

mucus of the intestines is abraded. It is chiefly recommended in sharp defluxions upon the lungs, hoarseness, dysenteries, and likewise in nephritic and calculous complaints; not, as some have supposed, that this medicine has any peculiar power of dissolving or expelling the calculus: but as, by lubricating and relaxing the vessels, it procures a more free and easy passage. Althæa root is sometimes employed externally for softening and maturing hard tumours: chewed, it is said to give ease in difficult dentition of children.

ALUMEN. [L. E.] Alum is a salt artificially produced from certain minerals, by calcining and exposing them to the air; after which the alum is elixated by means of water. The largest quantities are prepared in England, Germany, and Italy.—This salt is of a white or pale red colour, of an austere styptic taste, accompanied with a nauseous sweetishness. It dissolves in about fourteen times its weight of water; and concretes again, upon duly evaporating the solution, into semitransparent crystals, of an octogon figure. Exposed to the fire, it easily melts, bubbles up in blisters, emits a copious phlegm, and then turns into a light spongy white mass, considerably more acrid than the alum was at first: This urged with a stronger fire, yields a small quantity of acid spirit, similar to that obtained by the same means from vitriol; the part which remains, if the heat has been sufficiently intense and long continued, is an insipid white earth, readily soluble in every kind of acid. Solutions of alum coagulate milk, change the blue colour of vegetable juices into a red or purple, and turn an infusion of galls turbid and whitish. Upon

adding fixt alkaline salts to these solutions, the earth of the alum is precipitated, its acid uniting with the alkali into a neutral saline concrete similar to vitriolated tartar.—Alum considered as a medicine is a very powerful astringent; and as such is common in external applications, and likewise not unfrequently exhibited internally from one grain to fifteen or twenty, and sometimes more. It may be commodiously exhibited in conjunction with resinous substances, which it readily unites with, if the powdered salt be stirred into the resin liquefied: The refine usually made choice of for this purpose is dragons blood. Dr. Thomson, in the Edinburgh essays, vouches for the good effects of a powder composed of equal parts of these; and assures us, that he had never found any medicine, though he had tried several, so much to be depended on in uterine hemorrhagies, whether to correct the too frequent return of the menses, or their too great abundance, to stop the floodings which women with child are subject to, or moderate the flow of the lochia. In violent bleeding, he gave half a dram every half hour, and seldom failed to stop the discharge before three or four drams had been taken. The success of this medicine in these disorders induced him to prescribe it in the fluor albus; and in this likewise it had excellent effects.—Alum is best exhibited in small doses frequently repeated: In large ones it nauseates the stomach; proves on first taking it, purgative; and leaves afterwards violent constipations of the bowels.

AMARACUS, vide MAJORANA.

AMBRAGRISEA. [L. E.] Ambergis is a bituminous substance of a greyish

a greyish or ash colour, intermingled with yellowish and blackish specks or veins: it is usually met with in little opaque rugged masses, very light, of a loose texture, friable in a certain degree like wax; they break rough and uneven, and not unfrequently contain pieces of shells, bones of fishes, and other like matters. This concrete is found floating on the surface of the sea, or thrown out upon the shores: the greatest quantities are met with in the Indian ocean; pieces have likewise been now and then discovered in our own and other northern seas. Pure ambergris softens betwixt the fingers; melts in a small degree of heat into the appearance of oil, and in a stronger proves almost totally volatile. Warmed a little, it emits a peculiar fragrant smell; set on fire, it smells like burning amber. It totally dissolves in spirit of wine, and essential oils; but not in expressed oils or in water. Ambergris is in general the most agreeable of the perfumes, and rarely accompanied with the inconveniences which other substances of this class frequently occasion. It is looked upon as an high cordial, and esteemed of great service in all disorders of the head, and in nervous complaints: a solution of it in a spirit distilled from roses, stands recommended by Hoffman as one of the most efficacious corroborants of the nervous system. The orientals entertain an high opinion of the aphrodisiac virtues of this concrete; and likewise suppose that the frequent use of it conduces to long life.

AMMEOS VERI [E] semen; *ammeos odore origani*, J. B. The seeds of the true ammi or bishops weed, brought from Egypt. These are small striated seeds, of a reddish brown colour, a warm-pungent

taste, and a pleasant smell approaching to that of origanum. They are recommended as stomachic, carminative, and diuretic, but have long been strangers to the shops: their place has been generally supplied by the seeds of a plant common in our own country, though not a native of it, viz.

AMMI VULGARE, [L. E.] *ammi vulgare majus, latioribus foliis semine minus odorato*, J. B. Common bishops weed. The seeds of this plant are somewhat larger and paler coloured than the foregoing: their smell and taste is weaker, and without any thing of the origanum flavour of the true ammi. They are ranked among the four lesser hot seeds, but are scarce otherwise made use of than as an ingredient in the theriaca.

AMMONIACUM GUMMI, [L. E.] Ammoniacum is a concrete gummy resinous juice, brought from the East Indies, usually in large masses, composed of little lumps or tears, of a milky colour, but soon changing, upon being exposed to the air, of a yellowish hue. We have no certain account of the plant which affords this juice; the seeds usually found among the tears, resemble those of the umbelliferous class. Such tears as are large, dry, free from little stones, seeds, or other impurities, should be picked out and preferred for internal use: the coarser kind is purified by solution and colature, and then carefully inspissating it; unless this be artfully managed, the gum will lose a considerable deal of its essential oil: the strained gum of the shops is a grievous abuse, being a composition of ingredients much inferior in virtue. Ammoniacum has a nauseous sweet taste, followed by a bitter one; and a peculiar smell somewhat like that of galbanum, but

but more grateful; it softens in the mouth, and grows of a whiter colour upon being chewed. Thrown upon live coals, it burns away in flame: it is in some measure soluble in water and in vinegar, with which it assumes the appearance of milk; but the resinous part, amounting to about one half, subsides on standing. Ammoniacum is an useful deobstruent; and frequently prescribed for opening obstructions of the abdominal viscera, and in hysterical disorders occasioned by a deficiency of the menstrual evacuations. It likewise deterges the pulmonary vessels, and proves of considerable service in some kinds of asthma, where the lungs are oppressed by viscid phlegm: in this intention, a solution of gum ammoniac in vinegar of squills proves a medicine of great efficacy. In long and obstinate colics proceeding from viscid matter lodged in the intestines, this gummy resin has often produced happy effects, after purges and the common carminatives had been used in vain. Ammoniacum is most commodiously exhibited in the form of pills: about a scruple may be given every night or oftner. Externally it softens and ripens hard tumours: a solution of it in vinegar stands recommended by some for resolving even schirrhous swellings.

AMOMI VERI semen [L. E.]
amomi racemosi, C. B. The seeds of the true amomum brought from the East Indies. The true amomum is a round fruit, about the size of a middling grape; containing under a membranous cover, a number of small rough angular seeds, of a blackish brown colour on the outside, and whitish within: the seeds are lodged in three distinct cells; those in each cell are joined closely together, so as that the fruit upon being opened, appears to contain

only three seeds. Ten or twelve of these fruits grow together in a cluster, and adhere, without any pedicle, to a woody stalk about an inch long: each single fruit is surrounded by six leaves, in form of a cup; and the part of the stalk void of fruit is clothed with leafy scales. The husks, leaves, and stems have a light grateful smell, and a moderately warm aromatic taste: the seeds freed from the husks, are in both respects much stronger; their smell is quick and penetrating, their taste pungent, approaching to that of camphor. Notwithstanding amomum is an elegant aromatic, it has long been a stranger to the shops: it is directed as an ingredient in the theriaca: the college of Edinburgh, substitute to it cloves; that of London, the seeds of a plant of our own growth, called

AMOMUM VULGARE [L. E.]
siſon quod amomum officinis nostris, C. B. Sium aromaticum, Tourne.
 The seeds of the common amomum (or bastard stone parsley) are very different in their appearance and manner of growth from the foregoing: they stand in form of umbels, and are joined two together without any common covering; they are small, striated, of an oval figure, and brown colour. Their taste is warm and aromatic, but considerably different from that of the amomum verum, and much weaker. Water extracts little of their flavour by infusion, but elevates the whole in distillation; rectified spirit extracts the whole, but elevates very little: hence the watery extract has no taste or smell of the seeds; whilst the spirituous possesses their flavour in great perfection. It is observable that the tincture drawn from them with pure spirit is of a beautiful green colour. These seeds have been recom-

commended as carminative, aperient, diuretic and emmenagogue: but they are at present little regarded in practice.

AMYGDALÆ AMARÆ et DULCES; [L. E.] Sweet and bitter almonds. The almond is a flattish kernel, of a white colour, covered with a thin brownish skin; of a soft sweet taste; or a disagreeable bitter one. The skins of both sorts are unpleasant, and covered with an acrid powdery substance: they are very apt to become rancid on keeping, and to be preyed on by a kind of insect, which eats out the internal part, leaving the almond to appearance entire. The fruit which affords these kernels, is the produce of a tree greatly resembling the peach, called by C. B. *amygdalus fativa*. The eye distinguishes no difference betwixt the trees which produce the sweet and bitter almonds, or betwixt the kernels themselves: one and the same tree has by a difference in the culture afforded sometimes one sort and sometimes the other.

Both sorts of almonds yield on expression, a large quantity of oil, which has no smell or any particular taste: this oil separates likewise upon boiling the almonds in water, and is gradually collected on the surface: on trituration with water, it unites therewith, by the mediation of the other matter of the almond, and forms an unctuous milky liquor. Sweet almonds are of greater use in food than as medicines; but they do not seem to afford much nourishment, and when eaten in substance are not easy of digestion, unless thoroughly comminuted. They are supposed, on account of their soft unctuous quality, to obtund acrimonious juices in the primæ viæ: peeled sweet almonds, eaten six or eight at a time,

sometimes give present relief in the suda. Bitter almonds have been found poisonous to dogs, and sundry other animals; and a water distilled from them, when made of a certain degree of strength, has had like effects. Nevertheless, eaten, they appear innocent to men, and have been not unfrequently exhibited as medicines: Boerhaave recommends them in substance as diuretics which heat moderately, and which may therefore be ventured upon in acute diseases. The oils obtained by expression from both sorts of almonds are in their sensible qualities the same. The general virtues of these oils are, to blunt acrimonious humours, and to soften and relax the solids: hence their use internally, in tickling coughs, heat of urine, pains and inflammations; and externally in tension and rigidity of particular parts. The milky solutions of almonds in watery liquors, commonly called emulsions, contain the oil of the subject, and participate in some degree of the emollient virtue thereof; but have this advantage above the pure oil, that they may be given in acute or inflammatory disorders, without danger of the ill effects which the oil might sometimes produce; since emulsions do not turn rancid or acrimonious by heat, as all the oils of this kind in a little time do. Several unctuous and resinous substances, of themselves not miscible with water, may by trituration with almonds be easily mixed with it into the form of an emulsion; and are thus excellently fitted for exhibition. In this form, camphor and the resinous purgatives may be commodiously exhibited.

ANACARDIA. [E.] Anacardium or malaca bean. This is the fruit of a tree growing in Malabar, and

and other parts of the East Indies. It is of a shining black colour, of the shape of a heart flattened, about an inch long, terminating at one end in an obtuse point, and adhering by the other to a wrinkled stalk. It contains, within two shells, a kernel of a sweetish taste: betwixt the shells is lodged a thick acrid juice. The medical virtues of anacardium have been greatly disputed: many have attributed to them the faculty of comforting the brain and nerves, fortifying the memory, quickening the intellect; and hence a confection made from them has been dignified with the title of *confectio sapientum*: others think it better deserves the name of *confectio stultorum*, and mention instances of its continued use having rendered people maniacal. But the kernel of anacardium is not different in quality from that of almonds. The ill effects attributed to this fruit belong only to the juice contained betwixt the kernels, whose acrimony is so great, that it is employed by the Indians as a caustic. This juice is recommended externally for tetter, freckles, and other cutaneous deformities; which it effectually removes by exulcerating the part, so that a new skin comes underneath. Geoffroy cautions women to abstain from this cosmetic during menstruation; and assures us, that he has seen erysipelas break out over the whole face, from making use of it at that period.

ANAGALLIS; [E.] *anagallis phæniceo flore, C. B. et anagallis flore cæruleo, C. B.* Common, male, and female pimpernel. Pimpernel is a low plant, in appearance resembling chickweed; but easily distinguishable by its leaves being spotted underneath, and joined immediately to the stalk. The male and female

pimpernels differ no otherwise than in the colour of their flowers: they are both found wild in the fields, but the male or red flowered sort is most common. Both the pimpernels have an herbaceous, roughish taste, with little or no smell. Many extraordinary virtues have been attributed to them. Geoffroy esteems them cephalic, sudorific, vulnerary, antimaniacal, antepileptic, and alexeterial. Tragus, Caspar Hoffman, Michaeli, and others, are also very liberal in their praises; one of these gentlemen declares, that he has known a thousand instances of the singular efficacy of a decoction and tincture of pimpernel, in maniacal and melancholic deliria. But later practitioners have not been so happy as to meet with the like success. Pimpernel is not unfrequently taken as food: it makes no unpleasent salad; and in some parts of this kingdom, is a common pot-herb. A spirituous tincture of it contains nothing valuable; the only preparation that promises any utility is an extract made with water.

ANAGALLIS AQUATICA,
vide BECABUNGA.

ANCHUSÆ RADIX; [E.] *buglossæ radice rubra, Town.* Alkanet root. Alkanet is a rough hairy plant, much resembling the vipers bugloss; its chief difference from the common buglosses consists in the colour of its roots; the cortical part of which is of a dusky red, and imparts an elegant deep red to oils, wax, and all unctuous substances, but not to watery liquors. This plant is a native of the warmer parts of Europe: it is sometimes cultivated in our gardens; but the greatest quantities are raised in Germany and France, particularly about Montpellier, from whence, the dried roots

roots are usually imported to us. The alkanet root produced in England is much inferior in colour to that brought from abroad; the English being only lightly reddish, the others of a deep purplish red: this has induced some to suspect that the foreign roots owe part of their colour to art, but we think without foundation. Alkanet root has little or no smell: when recent, it has a bitterish astringent taste, but dried scarce any. As to its virtues, the present practice expects not any from it. Its chief use is for colouring oils, unguents and plasters. As the colour is confined to the cortical part, the smallest roots should be made choice of, these containing proportionably more bark than the larger.

ANETHI SEMEN; [*L. E.*] *anethi hortenst.*, *C. B.* Dill seed. Dill is an umbelliferous plant, cultivated in gardens, as well for culinary as medical use. The seeds are of a pale yellowish colour, in shape nearly oval, convex on one side, flat on the other. Their taste is moderately warm and pungent; their smell aromatic, but not of the most agreeable kind. These seeds are recommended as a carminative, in flatulent colics proceeding from a cold cause or a viscosity of the juices. The most efficacious preparations of them are, the distilled oil, and a tincture or extract made with rectified spirit.

ANGELICA [*L. E.*] *angelica sativa*, *C. B.* *imperatoria sativa*, *Tourn.* Garden angelica; the roots, leaves and seeds. This is a large umbelliferous plant, growing spontaneously in the northern climates: for the use of the shops, it is cultivated in gardens, in the different parts of Europe: Bohemia and Spain are said to produce the best; the

college direct the roots brought from Spain to be alone made use of. Angelica roots are apt to grow mouldy, and be preyed upon by insects, unless thoroughly dried, kept in a dry place, and frequently aired: we apprehend that the roots which are subject to this inconvenience might be preserved by dipping them in boiling spirit, or exposing them to its steam, after they are dried.

All the parts of angelica, especially the root, have a fragrant sweet smell; and a pleasant bitterish warm taste, glowing upon the lips and palate for a long time after they have been chewed. The flavour of the seeds and leaves is very perishable, particularly that of the latter, which on being barely dried, lose the greatest part of their taste and smell: the roots are more tenacious of their flavour, though even these lose part of it upon keeping. The fresh root, wounded early in the spring, weeps an unctuous, odorous, yellow juice, which slowly exsiccated, proves an elegant aromatic gummy resin, very rich in the virtues of the angelica. On drying the root, this juice concretes into distinct moleculæ, which on cutting it longitudinally, appear distributed in little veins: in this state, they are readily extracted by pure spirit, but not by watery liquors. Angelica is one of the most elegant aromatics of European growth, though little regarded in the present practice. The root, which is the most efficacious part, is rarely met with in prescription, and does not enter any officinal composition. Some of the distilled waters owe their pleasantness to the leaves and seeds. The stalks make an agreeable sweet meat.

ANGUILLÆ HEPAR. The liver of the eel. The liver and gall

gall of the eel are extremely acrid. They have been held a specific in difficult births; and enter the principal compositions for that intention in foreign pharmacopœias; though it is certain, that in most cases of this kind, acrid irritating medicines are really injurious.

ANIME; [E.] a resin exuding from the trunk of a large American tree, called by Piso jetaiba, by the Indians courbaril. This resin is of a transparent amber colour, a light agreeable smell, and little or no taste. It dissolves intirely, but not very readily, in rectified spirit; the impurities, which are often in large quantity, remaining behind. The Brazilians are said to employ anime in fumigations for pains and aches proceeding from a cold cause: with us, it is rarely, if ever, made use of for medicinal purposes.

ANISUM; [L. E.] *apium anisum dictum semine suaveolente, Tourne.* Anise; the seed. Anise is an annual umbelliferous plant, growing naturally in Crete, Syria, and other places of the East. It is cultivated in some parts of France, Germany, and Spain: the seeds brought from Spain, which are smaller than the others, are preferred. Aniseeds have an aromatic smell, and a pleasant warm taste, accompanied with a degree of sweetness. Water extracts very little of their flavour; rectified spirit the whole. These seeds are in the number of the four greater hot seeds: their principal use is in cold stultent disorders, where tenacious phlegm abounds, and in the gripes to which young children are subject. Frederic Hoffman strongly recommends them in weakness of the stomach, diarrhœas, and for strengthening the tone of the viscera in general; and thinks they well deserve the appellation

given them by Helmont, intestinorum solamen.

ANONIS, vide ONONIS.

ANSERINA, vide ARGENTINA.

ANTIMONIUM, [L. E.] *Stibium.* Antimony is a ponderous brittle mineral, composed of long shining streaks like needles, intermingled with a dark lead coloured substance; of no manifest taste or smell. There are several mines of it in Germany, Hungary, and France; and some likewise in England. The English seems to be of all the others the least proper for medicinal use, as frequently containing a portion of lead, which is not separable by any of the common methods of purification. The substances found mixed with the foreign sorts are generally of the unfusible stony kind, from which the antimony is melted out in vessels, whose bottom is perforated with small holes, and received in conical moulds: in these, the lighter and more droffy matter arises to the surface; whilst the more pure and ponderous subsides to the bottom: hence the upper broad part of the loaves is considerably less pure than the lower. The goodness of antimony is judged of from its weight; from the loaves not being spongy or blebby; from the largeness of the striæ; and from the antimony totally evaporating in a strong fire.

Antimony was employed by the ancients in collyria against inflammations of the eyes; and for staining the eye-brows black. Its internal use does not seem to have been established till towards the end of the fifteenth century; and even at this time it was by many looked upon as poisonous. But experience has now fully evinced, that pure antimony, in its crude state, has no obnoxious quality; that some of the

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preparations of it are medicines of great efficacy; and that though many of them are most violently emetic and cathartic, yet even these, by a slight alteration or addition, lose their virulence, and become mild in their operation.

This mineral appears from chemical experiments to consist of a semi-metal united with common sulphur, and reducible into its metallic form by the same means whereby other metallic bodies are extracted from their ores. The pure semi-metal operates in a very minute dose with extreme vehemence, as a purgative and emetic: when combined with sulphur, as in the crude mineral, its power is restrained: divested of the inflammable principle which it has in common with all perfectly metallic bodies, it becomes an indolent calx. See part ii. chap. x. sect. 8.

ANTITHORA, [E] *five anthora: aconitum salutiferum, C. B. Aconitum foliorum laciniis linearibus, ubique ejusdem latitudinis, Linnæi.* Wholesome wolfsbane, the roots. This plant may be distinguished from the poisonous aconites by its leaves being more finely divided, and not all bright or shining: it grows wild on the Alps. The root has been supposed useful against poisons, particularly that of the thora, (whence its name.) Some nevertheless look upon this pretended antidote itself as unsafe: Fred. Hoffman says it is violently cathartic, and has produced dangerous disorders of the stomach, accompanied with heat, thirst, and anxiety. On the other hand Geoffroy relates, that he has never observed any purgative quality in this root, or any ill consequence from its use; that he has frequently exhibited it, and always with good success, against worms, and in ma-

lignant fevers, especially such as were occasioned by viscidities in the stomach and intestines: the dose from a scruple to a dram. A competency of experiments to fully determine this point, is as yet wanting, the root never having come into general practice: its taste is acrid and bitter.

ANTITHORA, vide ANTHORA.

APARINE [E.] *vulgaris C. B.* Goosegrafs or clivers; the leaves. This is a slender, rough plant, common in hedges, &c. It is recommended as an aperient, but practice has no regard to it.

APES, [E.] Bees; their bodies, honey, wax, and the gluey substance called bee-bread. This last, applied externally, is said to draw and heal; the body of the bee, dried and pulverized, to cure the alopecia, and, given internally, to promote urine; but they have both been for a long time strangers to the shops. The honey and wax we shall speak of under the respective heads.

APIUM HORTENSE, vide PETROSELINUM.

APIUM [E] *palustre Cam. apium foliis caulinis cuneiformibus, Linnæi.* Smallage, the roots and seeds. This plant is larger than the garden *apium* (parsley,) of a darker green colour, and of a stronger and more unpleasant flavour. The roots are in the number of the five called opening roots; and the seeds, of the four lesser hot seeds: the latter have been sometimes prescribed as a carminative and the former in aperient apozems and diet drinks; but both are at present disregarded.

AQUI-

AQUILEGIA [E] *flore simplici*, *Raii Syn.* Columbines; the leaves and seed. This grows wild in woods, but is not very common. It has been looked upon as aperient; and was formerly in great esteem among the common people for throwing out the small-pox and measles. A distilled water, medicated vinegar, and conserve were prepared from the flowers; but they have long given place to medicines of greater efficacy.

ARANEARUM TELÆ [E.] Cobwebs. These are never met with in prescription; but sometimes applied by the common people to stop the bleeding of slight wounds: this they seem to affect by adhering to the part, so as to close the orifices of the vessels, and prevent the effusion of their contents.

ARESTA BOVIS, vide **ONONIS**.

ARGENTINA: *pentaphylloides minus supinum, seu procumbens, foliis alatis argenteis & serratis, flore luteo, Mor. hist. Ox.* Silverweed or wild tansey, the leaves. This plant grows wild about the sides of rivulets and other moist places: it has no stalk; the leaves lie flat on the ground. The writers on the materia medica in general look upon argentina as a very strong astringent; Boerhaave relates, that it equals in virtue the Peruvian bark; Hoffman, that it powerfully restrains alvine and other fluxes; Geoffroy, that it effectually stops hæmorrhagies of every kind. These virtues seem to have been attributed to this plant from its agreement in botanic characters with tormentil, which is known to be a powerful styptic. The sensible qualities of *argentina* do not promise any such virtues: the leaves have a merely

herbaceous taste; the roots, a pleasant sweetish one, like that of parsnips, but not so strong.

ARGENTUM. [L. E.] Silver. Abundance of virtues have been attributed to crude silver by the Arabians, and by some also of later times, but on very little foundation. This metal, exhibited in its crude state, has no effect in the body; combined with a small quantity of the nitrous acid, it proves a powerful, though not always a safe, hydragogue; with a larger, a strong caustic. The nitrous acid is the only one that perfectly dissolves this metal: on adding to this solution a minute portion of marine acid, or substances containing it, the liquor turns milky, and the silver falls to the bottom in form of a white calx: hence we are furnished with a method of discovering marine salt in waters, &c.

ARGENTUM VIVUM; [L. E.] *Hydrargyrius; Mercurius.* Mercury or quicksilver. Mercury is an opaque silver-coloured mineral fluid; appearing to the eye like tin or lead when melted: it is heavier than any other fluid, and than most of the metallic bodies; it does not congeal by any degree of cold hitherto known; in the fire it proves totally volatile. This mineral is either met with in its fluid form, in the earth; or extracted by art from certain ores. There are considerable mines of it in Hungary and Spain; but the greatest quantities come from the East Indies.

The use of mercury in medicine seems to have been little known before the fifteenth century. The ancients looked upon it as a corrosive poison; though of itself perfectly void of acrimony, taste, and smell; there are numerous examples of its having been lodged for many years

in cavities both of bones and fleshy parts, without its having injured or affected them. Taken into the body in its crude state, and undivided, it passes through the intestines unchanged, and has not been found to produce any considerable effect. It has indeed been exhibited in asthmas and disorders of the lungs; but the virtues attributed to it in these cases have not been warranted by experience.

Notwithstanding the mildness and inactivity of crude quicksilver undivided; when resolved by fire into the form of fume, or otherwise divided into very minute particles and prevented from re-uniting by the interposition of proper substances; or combined with mineral acids; it has very powerful effects; affording the most violent poisons, and the most excellent remedies that we are acquainted with.

The mercurial preparations, either exhibited internally or applied externally, seem to liquefy all the juices of the body, even those in the minutest and most remote vessels; and may be so managed as to promote excretion through all the emunctories. Hence their common use in inveterate chronic disorders proceeding from a thickness and sluggishness of the humours, and obstinate obstructions of the excretory glands; in scrophulous and cutaneous diseases; and in the venereal lues. If their power is not restrained by proper additions to certain emunctories, they tend chiefly to affect the mouth; and after having fused the juices in the remoter parts, occasion a plentiful evacuation of them from the salival glands.

The salutary effects of mercurials have no dependance on the quantity of sensible evacuation. This medicine may be gradually introduced into the habit, so as, without occasioning any remarkable dis-

charge, to be productive of very happy effects. To answer this purpose, it should be exhibited in very small doses, in conjunction with sudorifics, or such substances as determine its action to the pores of the skin. By this method inveterate cutaneous and venereal distempers have been cured, without any other sensible excretion than a gentle increase of perspiration. Where there are ulcers in any part of the body, they discharge for some time an extremely fetid matter, the quantity of which becomes gradually less, and at length the ulcer kindly heals. If the mercury should at any time, from cold or the like, affect the mouth (which we have very rarely found to happen) it may be restrained by omitting a dose, and by warmth or suitable medicines promoting the perspiration.

ARISTOLOCHIA. Birthwort. Three roots of this name are directed for medicinal use:

(1) **ARISTOLOCHIA LONGA** [L. E.] This is a tuberous root, sometimes about the size of the finger, sometimes as thick as a man's arm, and a foot in length: it is nearly of an equal thickness all over, or a little thicker in the middle than at the ends: the outside is of a brownish colour; the inside yellowish.

(2) **ARISTOLOCHIA ROTUNDA** [E.] has scarce any other visible difference from the foregoing than its roundish shape.

(3) **ARISTOLOCHIA TENUIS** [L.] is a long and slender root, rarely exceeding the thickness of a goose quill.

These roots are the produce of Spain, Italy, and the southern parts of France. Their smell is somewhat aromatic; their taste warm and bitterish. Authors in general represent

represent them as extremely hot and pungent: some say they are the hottest of all the aromatic plants; but as usually met with in the shops, they have no great pungency. The long and round sorts, on being first chewed, scarce discover any taste, but in a little time prove nauseously bitterish; the long somewhat the least so. The other sort instantly fills the mouth with an aromatic bitterness which is not ungrateful. Their medical virtues are, to heat, stimulate, attenuate viscid phlegm, and promote the fluid secretions in general: they are principally celebrated in suppressions of female evacuations. The dose in substance is from a scruple to two drams. The long sort is recommended externally for cleansing and drying wounds and ulcers, and in cutaneous diseases.

ARMORACIA, vide RAPHA-
NUS RUSTICANUS.

ARSENICUM [E.] Arsenic is contained, in greater or less quantity, in most kinds of ores, particularly in those of tin and bismuth, in the white pyrites, and the mineral called *cobalt*; from which last greatest part of the arsenic brought to us is extracted by a kind of sublimation; the arsenic arises at first in form of greyish *meal*, which more carefully re-sublimed, concretes into transparent masses, the *white arsenic* of the shops.

Arsenic sublimed with one tenth its weight of sulphur, unites therewith into a bright yellow mass, in some degree transparent; the common *yellow arsenic*. On doubling the quantity of sulphur, the compound proves more opaque and compact, of a deep red colour, resembling that of cinnabar, but with this difference, that it loses of its beauty upon being reduced into powder;

whilst that of cinnabar is improved by this means: this is the common *red arsenic*. By varying the proportions of arsenic and sulphur, sublimes may be obtained of a great variety of shades of yellow and red.

Natural mixtures of arsenic and sulphur resembling the foregoing preparations, are not unfrequently met with in the earth. The fossil red arsenic is the *sandaracha* of the Greeks, the *realgar* and *risgal* of the Arabians. Both the red and yellow, when of a smooth uniform texture, are named *zarnichs*; and when composed of small scales or leaves, *auripigmenta*, or *orpiments*: these last are the only substances to which the Greeks gave the name *ἀρσενικόν*. That the *zarnichs* and *orpiments* really contain arsenic (contrary to the opinion of the latest writers) is evident from sundry experiments whereby a perfect arsenic, and in notable quantity, is obtainable from them. The compilers of the Edinburgh dispensatory therefore have very justly given *sandaracha Græcorum* as a synonymon to *red arsenic*; and *auripigmentum* to the *yellow*.

The pure or white arsenic has a penetrating corrosive taste; and taken into the body proves a most violent poison. Besides the effects which it has in common with other corrosives, it remarkably attenuates the coats of the stomach, occasions a swelling and sphacelation of the whole body, and a sudden putrefaction after death, particularly, as Geoffrey observes, of the the genitals in men. Where the quantity is so very small as not to prove fatal, tremors, palsies, and lingering hecetics succeed. The remedies recommended against this poison are milk and oily liquors immediately and liberally drank.

The red and yellow arsenics,
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both native and factitious, have little taste, and are much less virulent in their effects than the foregoing. Sulphur, which restrains the power of mercury and the antimonial semimetal, remarkably abates the virulence of this poisonous mineral also. Such of these substances as participate more largely of sulphur, seem to be almost innocent: the factitious red arsenic, and the native orpiments, have been given to dogs in considerable quantity, without their being productive of any ill consequences.

ARTEMISIA [L. E.] *artemisia vulgaris major*, C. B. Mugwort; the leaves. This plant grows plentifully in fields, hedges, and waste places, throughout England; and flowers in June. In appearance it somewhat resembles the common wormwood: the difference most obvious to the eye is in the flowers, those of wormwood hanging downwards, whilst the flowers of mugwort stand erect. The leaves of this plant have a light aromatic smell, and an herbaceous bitterish taste. They are principally celebrated as uterine and antihysterical: an infusion of them is sometimes drank, either alone or in conjunction with other substances, in suppressions of the menstrual evacuations. This medicine is certainly a very mild one, and considerably less hot than most others to which these virtues are attributed: in some parts of this kingdom, mugwort is of common use as a pot-herb.

ARTHANITA [E.] *cyclamen orbiculato folio inferno purpurascens*, C. B. Sow-bread; the root. This plant is met with only in the gardens of the curious. The root has, when fresh, an extremely acrimonious burning taste, which it almost

entirely loses on being dried. It is recommended as an errhine; in cataplasms for schirrhous and scrophulous tumours; and internally as a cathartic, detergent, and aperient: it operates very slowly, but with great virulence, inflaming the fauces and intestines; and hence is deservedly rejected from our dispensatory.

ARUM [L. E.] *arum maculatum maculis nigris*, C. B. Wake robin; the root. This grows wild under hedges, and by the sides of banks, in most parts of England. It sends forth in March, three or four triangular leaves, which are followed by a naked stalk, bearing a purplish pistil inclosed in a long sheath: this is succeeded, in July, by a bunch of reddish berries. In some plants, the leaves are spotted with black, in others with white spots, and in others not spotted at all: the black spotted sort is supposed to be the most efficacious, and hence is expressly directed by the college. All the parts of arum, particularly the root, have an extremely pungent, acrimonious taste: if the root be but lightly chewed in the spring (at which time it is strongest) it continues to burn and vellicate the tongue for a considerable while, occasioning at the same time an intense thirst: these symptoms are removed by butter, milk, or oily liquors. Dried and kept for some time, it loses its acrimony, and becomes an almost insipid farinaceous substance. This root is an irritating, attenuating medicine. It does good service in cold sluggish habits: and in disorders proceeding from thick tenacious phlegm; which it powerfully dissolves, and at the same time, by stimulating the solids, promotes its expulsion either through the cuticular pores, or the grosser emunctories. The most convenient method

method of preparing it for exhibition, seems to be by beating the fresh root with gummy-resins, and making the mixture into pills; in this form it will retain its virtue longer than in that of powder. Juncker particularly observes of this root, that if given to the quantity of a dram along with a spirituous vehicle, it occasions a plentiful sweat, even in persons otherwise little disposed to this evacuation; but that if exhibited barely in the form of powder, it has not this effect. Some recommend a tincture of it drawn with wine; but neither vinous, spirituous, nor aqueous liquors extract its virtues; nor do they arise in distillation.

ASAFŒTIDA: [*L. E.*] the concrete juice of a large unbelliferous plant growing in Persia.—This juice exudes (from wounds made in the root of the plant) liquid and white like milk; on being exposed to the air, it turns of a brownish colour, and gradually acquires different degrees of consistency. It is brought to us in large irregular masses, composed of various little shining lumps or grains, which are partly of a whitish colour, partly reddish, and partly of a violet hue. Those masses are accounted the best which are clear, of a palish red, and variegated with a great number of elegant white tears. This juice has a strong fetid smell, somewhat like that of garlic; and a bitter, acrid, biting taste. It loses with age of its smell and strength, a circumstance to be particularly regarded in its exhibition.—This juice consists of about one third pure resin, and two thirds of gummy matter; the former is soluble in rectified spirit, the other in water: Proof spirit dissolves almost the whole into a turbid liquor: the tincture in rectified

spirit is transparent—Asafœtida is the strongest of the fetid gums, and of frequent use in hysteric complaints. It is likewise of considerable efficacy in flatulent colics; and for promoting all the fluid secretions in either sex. The ancients attributed to this medicine many other virtues, which are at present not expected from it.

ASARUM [*L. E.*] Asarabacca; the roots and leaves.—This is a very low ever-green plant, growing naturally in France, Italy, and other warm countries: The dried roots have been generally brought from the Levant; those of our own growth being supposed weaker. The roots and leaves of asarum have a nauseous, bitter, acrimonious, hot taste; their smell is strong and not very disagreeable. Given in substance, from half a dram to a dram, they evacuate powerfully both upwards and downwards. It is said, that tinctures made in spirituous menstrua, possess both the emetic and cathartic virtues of the plant: That the extract obtained by inspissating these tinctures, acts only by vomit, and with great mildness: That an infusion in water proves cathartic, rarely emetic: That aqueous decoctions made by long boiling, and the watery extract, have no purgative or emetic quality, but prove notable diaphoretics, diuretics, and emmenagogues. The principal use of this plant among us is, as a sternutatory. The root of asarum is perhaps the strongest of all the vegetable errhines, white hellebore itself not excepted. Snuffed up the nose, in the quantity of a grain or two, it occasions a large evacuation of mucus, and raises a ptyalism. The leaves, the only part retained in our dispensatory, are considerably milder, and may be given to

the quantity of three, four, or five grains. Geoffrey relates, that after giving a dose of this errhine at night, he has frequently observed the discharge from the nose to continue for three days together; and that he has known a paralysis of the mouth and tongue cured by one dose. He recommends this medicine in stubborn disorders of the head, proceeding from viscid tenacious matter, in palsies, and in soporific distempers. The leaves are an ingredient in the pulvis sternutatorius of the shops.

ASCLEPIAS, vide VINCETOXICUM.

ASELLI, vide MILLEPEDÆ.

ASPALATHUS, vide RHODIUM.

ASPARAGUS [E.] — *sativus*, C. B. This plant is cultivated in gardens for culinary use. The roots have a bitterish glutinous taste inclining to sweetness: The fruit has much the same kind of taste: The young shoots are more agreeable than either. Asparagus promotes appetite, but affords little nourishment. It gives a strong ill smell to the urine in a little time after eating it, and for this reason chiefly is supposed to be diuretic: It is likewise esteemed aperient and deobstruent; the root is one of the five called opening roots. Some suppose the shoots to be most efficacious; others the root; and others the bark of the root. Stahl is of opinion, that none of them have any great share of the virtues usually ascribed to them: Asparagus appears from experience to contribute very little either to the exciting of urine when suppressed, or increasing its discharge; and in cases where aperient medicines ge-

nerally do service, this has little or no effect.

ASPERULA: *asperula aut aspergula odorata nostras*, Lob. Woodroof; the flowers. This is a low umbelliferous plant, growing wild in woods and copses, and flowering in May. It has an exceeding pleasant smell, which is improved by moderate exsiccation; the taste is subfaline, and somewhat austere. It imparts its flavour to vinous liquors. Asperula is supposed to attenuate viscid humours, and strengthen the tone of the bowels: It is recommended in obstructions of the liver and biliary ducts, and by some in epilepsies and palsies: Modern practice has nevertheless rejected it.

ASPHALTUS, vide BITUMEN JUDAICUM.

ASPENIUM, vide CETERRABH.

ATRIPLEX FOETIDA [L.E.] *blitum foetidum, vulvaria dictum Raii*. Stinking orach or arrach; the leaves. This is a low plant, sprinkled all over with a kind of whitish clammy meal: It grows about dunghills, and other waste places. The leaves have a strong fetid smell, which the hand, by a light touch, becomes so impregnated with, as not to be easily freed from. Its smell has gained it the character of an excellent antihysteric; and this is the only use it is applied to. Tournefort recommends a spirituous tincture; others a decoction in water, and others a conserve of the leaves, as of wonderful efficacy in uterine disorders.

ATRIPLEX SATIVA [E.] The garden araches (which are either

either of a pale, greenish, or purplish red colour, and hence named *atriplex alba* and *rubra*) are chiefly employed for culinary purposes. They are cooling, and gently laxative: a decoction of the leaves is of good use in costiveness, where the patient is of a hot bilious disposition.

AVENA [E.] Oats.—This grain is an article rather of food than of medicine. It is sufficiently nutritive, and easy of digestion. The gruels made from it have likewise a kind of soft mucilaginous quality; by which they obtund acrimonious humours, and prove useful in inflammatory disorders, coughs, hoarseness, roughness and exulcerations of the fauces.

AURANTIA MALUS [L. E.]
—*major*, C. B. *fructu acido* Pb. Lond. The orange tree bearing acid fruit; its flowers; the fruit, called *aurantia Hispanica*, Seville oranges; and the yellow rind of the fruit.—This is a beautiful evergreen tree, or rather shrub, bearing flowers and fruit all the year: It is a native of the warmer climates, and does not well bear the winters of this.—The flowers are highly odoriferous, and have been for some time past of great esteem as a perfume: Their taste is warm, accompanied with a degree of bitterness. They yield their flavour by infusion to rectified spirit, and in distillation both to spirit and water. The distilled water was formerly kept in the shops, but on account of the scarcity of the flowers is now laid aside; it is called by foreign writers *aqua naphæ*. An oil distilled from these flowers is brought from Italy under the name of *oleum*, or *essentia neroli*.—The outer yellow

rind of the fruit is a grateful aromatic bitter, and in cold phlegmatic constitutions, proves an excellent stomachic and carminative, promoting appetite, warming the habit, and strengthening the tone of the viscera. Orange peel appears to be considerably warmer than that of lemons, and to abound more with essential oil: To this circumstance therefore due regard ought to be had in the exhibition of these medicines. The flavour of the first is likewise supposed to be less perishable than that of the other: Hence the college employ orange peel in the spirituous bitter tincture, which is designed for keeping, whilst in the bitter watery infusion, lemon peel is preferred. A syrup, and two distilled waters are for the same reason prepared from the rind of oranges in preference to that of lemons.—The juice of oranges is a grateful acid liquor, of considerable use in febrile or inflammatory distempers, for allaying heat, abating exorbitant commotions of the blood, quenching thirst, and promoting the salutary excretions: It is likewise of service in some kinds of scurvies, especially when exhibited in conjunction with the cochlearia, nasturtium, or other acrid antiscorbutics, as in the *succi scorbutici* of the shops.

AURICULA JUDE: [E]
fungus auricula Jude, coloris ex cineraceo nigricantis, perniciosus, in sambuci caudice nascens, J. B. Jews ear, a fungus growing on old elder trees. This fungus is said by some to be a strong purgative; by others an astringent. The more judicious medical writers have declared its internal use dangerous.

AURICULA MURIS: [E.]
pilefella major repens hirsuta, C. B. Moufe-

Mouſe-ear; the leaves. This is a low creeping plant, covered with a kind of blackiſh hairs: It grows wild in dry paſture grounds, and flowers in June and July. The leaves have a rough ſubacrid taſte: They are recommended as aſtringents, but practice pays no regard to them.

AURIPIGMENTUM, Orpiment; a mineral, compoſed of ſulphur and arſenic. See **ARSENICUM.**

AURUM. [*E.*] Gold was introduced into medicine by the Arabians, who eſteemed it one of the greateſt cordials and comforters of the nerves. From them Europe received it without any diminution of its character: In foreign pharmacopœias it is ſtill retained, and even mixed with the ingredients from which ſimple waters are to be diſtilled. But no one, it is preſumed; at this time, expects any ſingular virtues from it, ſince it certainly is not alterable in the human body. Mr Geoffroy, though unwilling to reject it from the cordial preparations, honeſtly acknowledges, that he has no other reaſon for retaining it, than complaiſance to the Arabian ſchools. The chemiſts have endeavoured, by many elaborate proceſſes, to extract what they call a ſulphur or anima of gold: But no method is as yet known of ſeparating the component parts of this metal: All the tinctures of it, and aurum potable's, which have hitherto appeared, are real ſolutions of it in aqua regia, diluted with ſpirit of wine, or other liquors, and prove injurious to the body rather than beneficial.

AXUNGIA. A great variety of fats were introduced by the Arabians, and recommended as poſſeſ-

ſing diſtinct virtues. The college of Wirtemberg, in the laſt edition of their diſpenſatory, published in 1741, direct no leſs than twenty-eight different fats to be kept in the ſhops: Some of theſe, they inform us, are attenuating and reſolvent; ſuch are thoſe of the heron, wild cat, ſtork, partridge, coney, hare, fox, Alpine mouſe, the badger, boar, wolf, ſerpents and vipers: Others are heating, detergent, and ſeptic; thoſe of the eel, the pike, and the umber. A third claſs is emollient; the fat of the ox, the deer, and the goat; and a fourth, emollient, digeſtent, and lenient; this laſt comprehends the fats of the duck, gooſe, dog, capon, beaver, horſe, hen, and human fat. The Edinburgh diſpenſatory has made a conſiderable reduction of theſe articles, and retains only the fats of the duck, gooſe, hen, viper, and human fat, with beef, mutton, and goats ſuet, boar and hogs lard, and the marrow of the ſtag. Our college has expunged them all, except the hogs lard and mutton ſuet, and the fat of the viper; which are certainly ſufficient to answer all the purpoſes that ſubſtances of this claſs are uſually employed for. They have all one common emollient quality, relax the part to which they are applied, and prevent perſpiration: Theſe effects, with the conſequences of them, may be expected in a greater or leſs degree, from fats of every kind.

BALAUſTIA. [*L. E.*] Balaufines; the flowers of the *balaufſtia flore pleno majore*, *C. B.* double flowered pomegranate tree. This is a low tree, or rather ſhrub, growing wild in Italy, &c. The flowers are of an elegant red colour, in appearance reſembling a dried red roſe. Their taſte is bitteriſh and aſtringent. Balaufines are

are recommended in diarrhoeas, dysenteries, and other cases where astringent medicines are proper. They are rarely directed in extemporaneous prescription, and enter only one officinal composition, pulvis e succino compositus.

BALSAMITA MAS [E.] *mentha hortensis corymbifera*, C. B. Costmary; the leaves. This was formerly a very common garden plant, and of frequent use both for culinary and medicinal purposes; but is at present very little regarded for either; though it should seem, from its sensible qualities, to be equal or superior, as a medicine, to some aromatic herbs, which practice has retained. The leaves have a bitterish warm aromatic taste; and a very pleasant smell, approaching to that of mint, or a mixture of mint and maudlin. Water elevates their flavour in distillation; and rectified spirit extracts it by infusion.

BALSAMUM COPAIBA [L.E.] a liquid resinous juice, flowing from incisions made in the trunk of a large tree which grows in the Spanish West Indies.—This juice is clear and transparent, of a whitish or pale yellowish colour, an agreeable smell, and a bitterish pungent taste. It is usually about the consistence of oil, or a little thicker: Long kept, it becomes nearly as thick as honey, retaining its clearness; but has not been observed to grow dry or solid, as most of the other resinous juices do. We sometimes meet with a thick sort of balsam of copaiba, which is not at all transparent, or much less so than the foregoing, and generally has a portion of turbid watery liquor at the bottom. This sort is probably either adulterated by the mixture of other

substances, or has been extracted by coction from the bark and branches of the tree: Its smell and taste are much less pleasant than those of the genuine balsam. Pure balsam of copaiba dissolves entirely in rectified spirit, especially if the menstruum be previously alcoholized: The solution has a very fragrant smell. Distilled with water, it yields a large quantity of a limpid essential oil; and in a strong heat, without addition, a blue oil.

The balsam of copaiba is an useful corroborating detergent medicine, accompanied with a degree of irritation. It strengthens the nervous system; tends to loosen the belly, and in large doses proves purgative, promotes urine, and sometimes the expulsion of gravel; cleanses and heals ulcerations in the urinary passages, which it is supposed to perform more effectually than any of the other balsams. Fuller observes, that it gives the urine an intensely bitter taste, but not a violet smell as the turpentes do.—This balsam has been principally celebrated in gleans and the fluor albus, and externally as a vulnerary. The author above-mentioned recommends it likewise in dysenteries, in scorbutic cachexies, in diseases of the breast and lungs, and in an acrimonious or putrescent state of the juices: He says he has known very dangerous coughs, which manifestly threatened a consumption, cured by the use of this balsam alone; and that notwithstanding its being hot and bitter, it has good effects even in hectic cases.—The dose of this medicine rarely exceeds twenty or thirty drops, though some direct sixty or more. It may be conveniently exhibited in the form of an elæosaccharum; or triturated with almonds into an emulsion; or agitated with milk, which it thus readily

readily unites with : It imperfectly mingles, by agitation, with water also.

BALSAMUM GILEADENSE,
vide OPOBALSAMUM.

BALSAMUM PERUVIANUM
[L. E.] The common Peruvian balsam is said to be extracted by coction in water, from an odoriferous shrub growing in Peru, and the warmer parts of America. This balsam, as brought to us, is nearly of the consistence of thin honey, of a reddish brown colour inclining to black, an agreeable aromatic smell, and a very hot biting taste. Distilled with water, it yields a small quantity of a fragrant essential oil of a reddish colour; and in a strong fire, without addition, a yellowish red one. — Balsam of Peru is a very warm aromatic medicine, considerably hotter, and more acrid than copaiba. Its principal effects are, to warm the habit, to strengthen the nervous system, promote the circulation, and attenuate viscid humours. Hence its use in some kinds of asthma, gonorrhœas, dysenteries, suppressions of the uterine discharges, obstructions of the viscera, and other disorders proceeding from a debility of the solids, or a sluggishness and inactivity of the juices. It is also employed externally, for cleansing and healing wounds and ulcers; and sometimes against palsies and rheumatic pains. — This balsam does not unite with water, milk, expressed oils, animal fats, or wax: It may be mingled in the cold with this last, as also with the sebaceous substance called expressed oil of mace; but if the mixture be afterwards liquefied by heat, the balsam separates and falls to the bottom. Alcaline

lixivia dissolve great part of it; and and rectified spirit the whole.

There is another sort of balsam of Peru, of a *white* colour, and considerably more fragrant than the former. This is very rarely brought to us. It is said to be the produce of the same plant which yields the common or *black* balsam; and to exude from incisions made in the trunk.

BALSAMUM TOLUTANUM
[L. E.] Balsam of Tolu. — This flows from a tree of the pine kind, growing in Tolu in the Spanish West Indies; from whence the balsam is brought to us in little gourd shells. It is of a yellowish brown colour, inclining to red; in consistence thick and tenacious: By age it grows hard and brittle, without suffering any great loss of its more valuable parts. The smell of this balsam is extremely fragrant, somewhat resembling that of lemons; its taste warm and sweetish, with little of the pungency, and nothing of the nauseous relish, which accompany the other balsams. It has the same general virtues with the foregoing; but for some purposes, particularly as a corroborant in gleets and seminal weaknesses, is supposed to be more efficacious.

BARDANA MAJOR [E.] *lap-
pa major, arrium Dioscoridis, C. B.*
Burdock; the roots and seeds. This is a common plant about way sides, sufficiently known from its scaly heads, or burs, which stick to the clothes. — The seeds have a bitter, subacid, and somewhat aromatic taste: they are recommended as very efficacious diuretics, given either in the form of emulsion, or in powder, to the quantity of a dram. — The roots taste

taste sweetish, and lightly austere; these are esteemed aperient, diuretic, and sudorific; and said to act without irritation, so as to be safely ventured upon in acute disorders. Geoffroy prefers a decoction of these roots to that of scorzonera, in malignant diseases, and the small pox; and Simon Paulli to the exotic woods in venereal distempers, especially in an emaciated habit, and delicate constitutions.

BDELLIUM [E.] Bdellium is a gummy resinous concrete juice, brought from Arabia and the East Indies, in glebes of different figures and magnitudes. It is of a dark reddish brown colour, and in appearance somewhat resembles myrrh. Upon cutting a piece, it looks somewhat transparent, and as Geoffrey justly observes, like glue. It grows soft and tenacious in the mouth, sticks to the teeth, has a bitterish taste, and a hot disagreeable smell. Bdellium is recommended as a sudorific, diuretic, and uterine; and in external applications for maturing tumors, &c. In the present practice, it is scarce otherwise made use of than as an ingredient in theriaca.

BECABUNGA [L. E.] *veronica aquatica folio subrotundo, Moris. hist.* Brooklime; the leaves. This is a low plant, common in little rivulets and ditches of standing water: the leaves remain all the winter, but are in greatest perfection in the spring. Their prevailing taste is an herbaceous one, accompanied with a very light bitterishness.—Becabunga is supposed to have a saponaceous detergent virtue, and to attenuate viscid humours without pungency or irritation: Hence it is directed in the species of scurvy called hot, where the cochleariæ, and other acrid an-

tiscorbutics are less proper. In this disease, and where the animal juices are disposed to a putrid alealescent state, it may be given along with the sorrels, orange juice, or other vegetable acids; or employed for abating the acrimony of the scurvy grasses and nasturtia.

BELLIS MAJOR—[E.] *bellis major sylvestris caule folioso C. B.* Greater or ox-eye daisy; the leaves. This is frequent in fields, and among corn, flowering in May and June. The leaves have a glutinous, subsaline roughish taste. They are said to be detergent, resolvent, aperient, and also moderately astringent. Geoffroy relates, that the herb, gathered before the flowers have come forth, and boiled in water, imparts an acrid taste, penetrating and subtle like pepper; that this decoction is an excellent vulnerary and diuretic.

BELLIS MINOR [E.] *bellis minor sylvestris C. B.* Common daisy; the leaves. This is common almost every where, and flowers in the spring.—The leaves have a mild subastringent (according to some, acrid) taste; and abound with a glutinous juice. They are principally recommended as vulneraries; and in asthmas and hectic fevers, and such disorders as are occasioned by drinking cold liquors when the body has been much heated. Ludovici prefers the bellis minor to the plants commonly used as antiscorbutics, and resolvents of coagulated blood in hypochondriacal disorders.

BENZOINUM [L.] Benzoin is a concrete resinous juice, obtained from a large tree growing naturally in both the Indies, and hardy enough to bear the severest winters of this climate. The re-

fin

fin is brought from the East Indies only, in large masses, composed of white and light brown pieces, or yellowish specks, breaking very easily betwixt the hands; such as is whitest, and free from impurities, is most esteemed.—This resin has very little taste, impressing only a light sweetness on the tongue: its smell is extremely fragrant and agreeable, especially when set on fire. Committed to the fire in proper vessels, it yields a considerable quantity of a white saline concrete, of an acidulous taste and grateful odour, soluble in rectified spirit, and by the assistance of heat in water.—The principal use of benzoine is in perfumes, and as a cosmetic: It is rarely met with in extemporaneous prescription, and enters in substance only one officinal composition, the balsamum traumaticum, which is designed for external use. It should nevertheless seem applicable to other purposes, and to have no ill title to the virtues of storax and balsam of Tolu, at least in a subordinated degree.

BERBERIS [E.] *berberis dumetorum* C. B. Barberry; the bark, fruit, and seeds.—The barberry is a small tree, or rather a large bush, covered with an ash coloured bark, under which is contained another of a deep yellow: the berries are of an elegant red colour, and contain each two hard brown seeds. It grows wild in chalky hills in several parts of England; and is frequently planted in hedges and in gardens.—The outward bark of the branches, and the leaves, have an astringent acid taste; the inner yellow bark, a bitter one; this last is said to be serviceable in the jaundice; and by some, to be an useful purgative.—The berries, which to the

taste are gratefully acid, and moderately restraining, have been given with good success in bilious fluxes, and diseases proceeding from heat, acrimony, or thinness of the juices. Among the Egyptians, barberries are frequently employed in fluxes, and in malignant fevers, for abating heat, quenching thirst, raising the strength, and preventing putrefaction: the fruit is macerated for a day and night, in about twelve times its quantity of water, with the addition of a little fennel seed, or the like, to prevent offence to the stomach; the liquor strained off, and sweetened with sugar, or syrup of citrons, is given the patient liberally to drink. Prosper Alpinus (from whose treatise *De medicina Ægyptiorum*, we have extracted this account) informs us, that he took this medicine himself, with happy success, in a pestilential fever, accompanied with an immoderate bilious diarrhoea.

BETA—[E.] *Beta alba vel pallescens quæ ficula et cicla officinarum* Hist. Oxon.—Et, *Beta rubra vulgari* C. B.—Et, *Beta rubra radice rapæ* C. B.—White and red beets; and the turnep rooted red beet, or beetrave.—These plants are cultivated in gardens, chiefly for culinary use. The eye distinguishes little other difference betwixt them than that expressed in their titles. Decoctions of beets gently loosen the belly; hence they have been ranked among the emollient herbs: the plants remaining after the boiling are supposed to have rather a contrary effect. They afford little nourishment, and are said by some to be prejudicial to the stomach. The juice expressed from the leaves is a powerful sternutatory.

BETO-

BETONICA — [E.] *betonica purpurea* C. B. Common or wood betony; the leaves, tops, and flowers. This is a low plant, growing in woods and shady places, in several parts of England: the flowers come forth in June and July; they are of a purplish colour, and stand in spikes on the tops of the stalks. The leaves and flowers have an herbaceous, roughish, somewhat bitterish taste, accompanied with a very weak aromatic flavour. — This herb has long been a favourite among writers on the materia medica, who have not been wanting to attribute to it abundance of good qualities. Experience does not discover any other virtue in betony than that of a mild corroborant: as such, an infusion, or light decoction of it, may be drank as tea, or a saturated tincture in rectified spirit, exhibited in suitable doses, in laxity and debility of the viscera, and disorders proceeding from thence. The powder of the leaves, snuffed up the nose, provokes sneezing; and hence betony is sometimes made an ingredient in sternutatory powders: this effect is not owing, as is generally supposed, to any peculiar stimulating quality in the herb, but to the rough hairs which the leaves are covered with. The roots of this plant differ greatly in quality from the other parts: their taste is bitter and very nauseous: taken in a small dose, they vomit and purge violently, and seem to have somewhat in common with the roots of hellebore. It is pretty singular, if true, that betony affects those who gather any considerable quantity of it, with a disorder resembling drunkenness; Simon Paulli and Bartholinus are the vouchers.

BETONICA AQUATICA,
vide **SCROPHULARIA AQUATICA**
MAJOR.

BETONICA PAULI, vide **VERONICA MAS**.

BETULA [E.] The birch tree; the bark and sap. This tree grows wild in moist woods: it is covered with a number of barks, the outermost of which is thick, rough, and full of chaps; the inner ones very thin, smooth, of a white colour, transparent like parchment. All these barks are very readily inflammable, and seem to abound with resinous matter: they are said to be aperient and detergent, and serviceable in cutaneous disorders. Upon deeply wounding or boring the trunk of the tree in the beginning of spring, a sweetish juice issues forth, sometimes in so large a quantity as to equal in weight the whole tree and root: one branch will bleed a gallon or more in a day. This juice is chiefly recommended in scorbutic disorders, and other foulnesses of the blood: its most sensible effect is to promote the urinary discharge.

BEZOAR [E.] The bezoar stone is a calculous concretion found in the stomach of certain animals which are said to be of the goat kind. It is composed of concentrical coats surrounding one another, with a little cavity in the middle, containing a bit of wood, straw, hair, or the like substances. The shops distinguish two sorts of bezoar, one brought from Persia and the East Indies, the other from the Spanish West Indies. The first or best sort, called oriental bezoar, is of a shining dark green or olive colour, and an even smooth surface; on removing the outward coat, that which lies underneath it appears likewise smooth and shining. The occidental has a rough surface, and less of a green colour than

than the foregoing: it is likewise much heavier, more brittle, and of a looser texture; the coats are thicker, and on breaking exhibit a number of striæ curiously interwoven. The oriental is generally less than a walnut; the occidental for the most part larger, and sometimes as big as a goose egg. The first is universally most esteemed, and is the only sort now retained by the London college; the Edinburgh direct both. Kämpfer (in whose *Amœnitates exoticæ*, a full account of the bezoar animal may be seen) informs us, that this stone is in high esteem among the Persians, and even of greater value than in Europe: this, with sundry other circumstances needless to relate here, has given occasion to many to suspect that the true bezoar is never brought to us. Some authors relate with great confidence that all the stones commonly sold under this name are artificial compositions. That some of them are so is evident; hence the great differences in the accounts which different persons have given of their qualities; the stones examined by Slare as oriental bezoar did not dissolve in acids; those which Grew and Boyle made trial of did: those employed by Geoffroy (in some experiments related in the French memoirs 1710) did not seem to be acted on by rectified spirit; whilst the best that Neuman could procure at Berlin almost totally dissolved therein. The common mark of the goodness of this stone is its striking a deep green colour on white paper that has been rubbed with chalk. Bezoar was not known to the ancient Greeks, and is first taken notice of by the Arabians, who extol it in a great variety of disorders, particularly against poisons. Later writers also bestow extraordinary commendations on it as

a sudorific and alexipharmac; virtues to which it certainly has no pretence. It is a morbid concretion, much of the same nature with the human calculus, of no smell or taste, not digestible in the stomach of the animal which it is found in, and scarce capable of being acted on by any of the juices of the human body. It cannot be considered in any other light than as an absorbent; and is much the weakest of all the substances of that class. It has been given to half a dram, and sometimes a whole dram, without any sensible effect; though the general dose (on account of its great price) is only a few grains.

BISMALVA, vide ALTHÆA.

BISMUTHUM [E.] Bismuth is a ponderous semimetal, resembling in appearance the antimonial regulus and zinc, but greatly differing from them in quality. It dissolves with vehemence in the nitrous acid, which only corrodes the regulus of antimony; and is scarce at all soluble in the marine acid which acts violently on zinc. A calx and flowers of this semimetal have been recommended as similar in virtue to certain antimonial preparations; but are at present of no other use than as a pigment or cosmetic.

BISTORTA [L. E.] *bistorta major radice minus interta*, C. B. Bistort or Snakeweed; the root. This plant grows wild in moist meadows, in several parts of England; but is not very common about London. The root is about the thickness of the little finger, of a blackish brown colour on the outside, and reddish within: it is writhed or bent vermicularly (whence the name of the plant) with a joint at each bending, and full of bushy fibres, the root of the species here intended, has for
the

the most part only one or two bendings; others have three or more.— All the parts of bitort have a rough austere taste, particularly the root, which is one of the strongest of the vegetable astringents. It is employed in all kinds of immoderate hæmorrhagies and other fluxes, both internally and externally, where astringency is the only indication. It is certainly a very powerful styptic, and is to be looked on simply as such: the sudorific, antipestilential, and other like virtues attributed to it, have no foundation. The largest dose of the root in powder is one dram.

BITUMEN JUDAICUM; [L. E.] *asphaltus*. Jews pitch. This is a light, solid bitumen, of a dusky colour on the outside, and a deep shining black within; of very little taste, and scarce any smell unless heated, when it emits a strong pitchy one. It is found plentifully in the earth, in several parts of Egypt, and on the surface of the Dead sea; but is very rarely brought to us. In its room, the shops employ other bituminous substances found in France, Germany, and Switzerland: these have a much stronger pitchy smell; but in other respects agree pretty much with the true asphaltus. Sometimes pitch itself, or the *caput mortuum* remaining after the distillation of amber, are substituted. Abundance of virtues are attributed to this bitumen, as resolvent, discutient, glutinant, sudorific, emollient, emmenagogue, &c. but it has not for a long time been any otherwise used, than as an ingredient in theriaca.

BOLI. Boles are viscid earths, less coherent, and more friable than clay, more readily uniting with water and more freely subsiding from it. They are soft and un-

ctuous to the touch, adhere to the tongue, and by degrees melt in the mouth, impressing a light sense of astringency. A great variety of these kinds of earths have been introduced into medicine; the principal of which are the following.

(1) **BOLUS ARMENA** [L. E.] Pure Armenian bole is of a bright red colour, with a tinge of yellow: it is one of the hardest and most compact of all the bodies of this class, and not smooth or glossy like the others, but generally of a rough dusty surface. It raises no effervescence with acids.

(2) **BOLUS GALLICA;** [L.] The common French bole is of a pale red colour, variegated with irregular specks or veins of white and yellow. It is much softer than the foregoing; and slightly effervesces with acids.

(3) **BOLUS BLESENSIS.** Bole of Blois. This is a yellow bole, remarkably lighter than the former, and than most of the other yellow earths. It effervesces violently with acids.

(4) **BOLUS BOHEMICA** [E.] Bohemian bole. This is of a yellow colour, with a cast of red, generally of a flaky texture. It is not acted on by acids.

(5) **TERRA LEMNIA** [E.] Is a pale red earth; slightly effervesces with acids.

(6) **TERRA SILESIACA;** [E.] Silesian earth is of a brownish yellow colour: acids have no sensible effect upon it. These and other earths, made into little masses, and stamped with certain impressions, are called *terre sigillatæ*.

The boles of Armenia and Blois, and the Lemnian earth, are rarely met with genuine in the shops; the coarser boles, or white clay coloured with ochre, *caput mortuum* of vitriol, &c. frequently supply their place. The genuine may be

distinguished by their subsiding uniformly from water, without any separation of their parts: the genuine yellow boles retain their colour, or have it deepened in the fire; whilst the counterfeit forts burn red. These earths are recommended as astringent, sudorific and alexipharmac; and said to have excellent effects in diarrhœas, dysenteries and hæmorrhagies, and in malignant and pestilential distempers. Whether they have really any virtues of this kind, (unless in diarrhœas) is very doubtful. See page 56.

BOMBYX, vide **SERICUM**.

BONUS HENRICUS; [E.] *lappathum unguosum, olidum perenne spinaciæ facie Moris*. English herb mercury; the leaves. This is met with by road sides, and in uncultivated places. It is ranked among the five emollient herbs, but rarely made use of in practise. The leaves are employed by the common people for healing flesh wounds, cleansing old ulcers, and other like purposes.

BORAGO [E.] *borago flore cæruleo, J. B.* Borage; the flowers. This is a rough plant, clothed with small prickly hairs: it grows wild in waste places, and upon old walls. An exhilarating virtue has been attributed to the flowers of borage, which are hence ranked among the so called cordial flowers.

BORAX [L. E.] This is a saline substance, brought from the East Indies in great masses composed partly of large crystals, but chiefly of smaller ones, partly white and partly green, joined together as it were by a greasy yellow substance, intermingled with sand, small stones, and other impurities: the purer crystals, exposed to the fire, melt

into a kind of glass, which is nevertheless soluble in water. This salt dissolved and crystallized, forms small transparent masses: the refiners have a method of shooting it into larger crystals; but these differ in several respects from the genuine salt, inasmuch that Cramer calls them not a purified but adulterated borax. The origin and composition of this salt are as yet unknown; nor are its medical virtues very certain. Some look upon it as an aperient neutral salt, others as an alkaline absorbent, and others as a styptic earth. It is principally celebrated as an emmenagogue and promoter of delivery: but practitioners complain, that though in these cases it has sometimes seemed to have good effects, it has very often failed. And indeed borax manifests no sensible quality that promises any considerable virtue of this kind: it is usually exhibited in conjunction with aromatics and other substances, to which perhaps the medicine owes its virtue more than to the borax.

BOTRYS; [E.] *chenopodium ambrasioides folio sinuato Tourn. Atriplex odora seu suarveolens Moris*. Jerusalem oak; the leaves. This is cultivated in gardens. It has a strong not disagreeable smell; and a warm somewhat pungent taste. It is recommended as a carminative and aperient, for promoting expectation and female evacuations.

BRASSICA SATIVA [E.] *brassica capitata alba, C. B. Et brassica capitata rubra, C. B. Et brassica rubra, C. B. Et brassica alba capite oblongo non penitus clauso, C. B. Brassica Sabauda Ger. & Park. Et brassica cauliflora, C. B.* White and red cabbages, coleworts, Savoy cabbages, and cauliflower. These

These are cultivated in gardens rather for culinary than medicinal use. They are all hard of digestion, afford little nourishment, and produce flatulencies. They tend strongly to putrefaction, and run into this state sooner than almost any other vegetable; when putrefied, their smell is likewise the most offensive. A decoction of them is said to loosen the belly. Of all these plants, cauliflower seems to be the easiest of digestion. The white is the most fetid; and the red most emollient or laxative: a decoction of this last is recommended for softening acrimonious humours, in some disorders of the breast, and in hoarseness.

BRASSICA MARINA; [E.] *convolvulus maritimus soldanella dictus Raii.* Sea coleworts. Scotch scurvygrafs or soldanella; the leaves. This is a trailing plant, growing on the sea beach in many parts of the north of England. The root, leaves, and stalks yield a milky juice. Soldanella is a strong cathartic, operating very churlishly, and hence deservedly rejected from practice. Those who recommend its use differ considerably with regard to the dose; some direct half a dram, others three drams, and others a whole handful.

BRUNELLA, vide PRUNELLA.

BRUSCUS, vide RUSCUS.

BRYONIA ALBA; [E.] *bryonia aspera sive alba baccis rubris, C. B.* White bryony or wild vine; the roots. This is a rough plant, growing on dry banks under hedges, and climbing upon the bushes. The roots are large, sometimes as thick as a man's thigh: their smell, when fresh is strong and disagreeable; the taste nauseously bitter, acrid, and

biting; the juice is so sharp as in a little time to exulcerate the skin: in drying, they lose great part of their acrimony, and almost the whole of their scent. Bryony root is a strong irritating cathartic; and as such has been sometimes successfully exhibited in maniacal cases, in some kinds of dropsies, and in several chronical disorders where a quick solution of viscid juices, and a sudden stimulus on the solids, were required. An extract prepared by waters act more mildly, and with greater safety than the root in substance: given from half a dram to a dram, it proves a gentle purgative, and likewise operates powerfully by urine.

BUFO. [E.] The toad. This animal has been generally looked upon as poisonous, particularly its saliva, and a certain acrid liquor, supposed to be the urine, which it throws out when irritated to a considerable distance. It was first introduced into medicine upon occasion of a cure performed on an hydropic person, who having taken powdered toads in order to dispatch himself, voided a large quantity of urine, and soon after recovered of his disorder: since this time, the toad dried by a gentle heat and pulverized, has been greatly esteemed as a diuretic. This preparation is said likewise, applied externally to the navel, to restrain hæmorrhagies, particularly those from the uterus.

BUGLOSSUM; [E.] *buglossum angustifolium majus, C. B.* Garden bugloss; the roots, leaves and flowers. This is a rough, hairy plant, resembling borage, but less prickly: a wild sort is commonly met with in hedges and among corn, which differs from the garden only in being smaller. Bugloss

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has a glutinous sweetish taste, accompanied with a sense of coolness: the roots are the most glutinous, and the flowers the least so. These qualities point out its use in hot bilious or inflammatory distempers, and a thin acrimonious state of the fluids. The flowers are one of the four called cordial flowers: the only quality they have that can entitle them to this appellation, is, that they moderately cool and soften, without offending the palate or stomach; and thus in warm climates, or in hot diseases, in some measure refresh the patient.

BUGULA; [*E.*] *bugula sylvatica vulgaris caerulea, Morison.* Bugle or middle confound; the leaves. This grows wild in woods, hedges, and moist meadows. The leaves have at first a sweetish taste, which gradually becomes bitterish and styptic. They are recommended as vulnerary medicines, and in all cases where mild astringents are proper.

BUNIAS, vide **NAPUS**.

BURSA PASTORIS; [*E.*] *thlaspi sativum, bursa pastoris dictum Raii.* Shepherds purse: the leaves. This is common in waste places; and is found in flower all the summer. Shepherds purse has long been celebrated as an astringent, and strongly recommended in diarrhoeas, dysenteries, uterine fluors, and in general in all diseases where astringents of any kind can avail. Juncker esteems it so powerful a styptic as scarce to be safely exhibited internally. Boerhaave is also extremely cautious in the use of this herb; but from a different principle: he thinks it has not any very great degree of astringency, but that it is of a hot fiery nature, and stops fluxes and hæmorrhagies by coagulating the juices like alcohol,

and burning or searing the orifices of the vessels. The sensible qualities of shepherds purse discover little foundation for either of these opinions; it has no perceptible heat, acrimony, pungency, or astringency: the taste is merely herbaceous, so as sufficiently to warrant the epithet given this plant by Mr. Ray, *Fatuum*.

BUXUS; [*L. E.*] *buxus arborescens, C. B.* The box tree; the leaves and wood. This is a small tree, growing wild in some part of Kent and Surry. The wood is of a yellow colour, more solid, compact, and ponderous than any other of the European woods: both the wood and leaves have a bitter nauseous taste, and when fresh a fetid smell. The leaves are said to purge violently, in the dose of a dram; a decoction of the wood to be a powerful sudorific, preferable even to guaiacum: this may probably be an efficacious medicine, but it is certainly a very nauseous one.

CACAO, [*E.*] chocolate nuts, the fruit of an American tree resembling the almond. The principal use of these nuts is for the preparation of the dietetic liquor chocolate. This is a mild, unctuous, nutritious fluid capable of softening acrimonious humours, and of great service in consumptive disorders; especially if made with milk, and with only a small proportion of aromatics.

CALAMINARIS LAPIS, [*L. E.*] calamine. This mineral is found plentifully in England, Germany, and other countries, either in distinct mines, or intermingled with the ores of different metals. It is usually of a greyish, brownish, yellowish, or pale reddish colour; considerably hard, though not sufficiently

ently so to strike fire with steel. It has been looked upon by some as a simple earth, by others as an iron ore: later experiments have discovered it to be an ore of zinc. Calamine is generally roasted or calcined before it comes into the shops, in order to separate some sulphureous or arsenical matter which the crude mineral is supposed to contain, and to render it more easily reducible into a fine powder. In this state, it is employed in collyria against defluxions of thin acrid humours upon the eyes; for drying up moist, running ulcers; and healing excoriations. It is the basis of an officinal epulotic cerate.

CALAMINTHA, [L.] *pulegii odore seu nepeta*, C. B. *Calamintha foliis ovatis, obtusis caule procumbente Halleri*. Field calamint; the leaves. This is a low plant, growing wild about hedges and highways, and in dry sandy soils. The leaves have a quick warm taste, and smell strong of pennyroyal: as medicines, they differ little otherwise from spearmint than in being somewhat hotter, and of a less pleasant odour; which last circumstance has procured calamint the preference in hysterical cases.

CALAMINTHA MONTANA, [E.] *calamintha flore magno vulgaris*, J. B. Common calamint; the leaves. This plant, notwithstanding its name, is much less common than the former, which has generally supplied its place in the markets: hence the college have now dropt this *montana*, and received the other. The *calamintha montana* is also less efficacious than the foregoing sort: the taste is weaker; the smell approaches to that of the wild mints, without any thing of the strong pennyroyal flavour of the other.

CALAMUS AROMATICUS; [L.E.] *acorus verus*. Sweet scented flag; the roots. This flag resembles, as to its leaves, the common *iris*, but in other respects differs greatly from it: the stalk grows at a little distance from the leaves; the lower half, up to where the flowers come forth, is roundish; the part above this, broad like the other leaves: the flowers are very small, whitish, and stand in a kind of head about the size of the finger. This plant grows plentifully in rivulets and marshy places, about Norwich and other parts of this island; in the canals of Holland; in Switzerland; and in other countries of Europe. The shops have been usually supplied from the Levant with dried roots, which are not superior, if equal, to those of our own growth.

The root of *acorus* is full of joints, crooked, somewhat flattened on the sides, internally of a white colour, and loose spongy texture: its smell is strong; the taste warm, acrid, bitterish, and aromatic; both the smell and taste are improved by exsiccation. This root is generally looked upon as a carminative and stomachic medicine, and as such is sometimes made use of in practice. It is said by Haller to be superior in aromatic flavour to any other vegetable that is produced in these northern climates: such as we have had an opportunity of examining, fell far short in this respect, of many of our common plants. There is something manifestly unpleasant in its flavour, inclining, as Geoffroy justly observes, to that of leeks or garlic: nor have our experiments discovered any preparation of it that was truly grateful: the most agreeable is a preserve made after the manner directed in our dispensatory for candying

dying eryngo root. In this form it is said to be employed at Constantinople as a preservative against epidemic diseases. The leaves of this plant have a sweet fragrant smell, more agreeable, though weaker, than that of the roots.

CALENDULA; [E.] *calendula sativa Raii — flore simplici, J. B.* Garden marigold; the flower. This herb is common in gardens, where it is found in flower greatest part of the summer. Marigold flowers are supposed to be aperient and attenuating; as also cardiac, alexipharmac, and sudorific: they are principally celebrated in uterine obstructions, the jaundice, and for throwing out the small pox. Their sensible qualities give no foundation for any of these virtues: they have no taste and very little smell. The leaves discover a viscid sweetness accompanied with a more durable saponaceous pungency and warmth: these seem capable of answering some useful purposes, as a stimulating, aperient, antiscorbutic medicine.

CALX VIVA; [L. E.] Quicklime. Quicklime is usually prepared among us by calcining certain stones of the chalky kind. All chalks and marbles, and in general all the earths that dissolve in acids, burn into quicklime; with this difference, that the more compact the stone, generally the stronger is the lime. In maritime countries, in defect of the proper stones, sea shells are made use of, which afford a calx agreeing in most respects with the stone limes. All these limes are, when fresh burnt, highly acrimonious and corrosive. In this state they are employed in some external applications as a depilatory; and for encreasing the power of fixt alkaline salts either

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for the purposes of a caustic, or to enable them more readily to dissolve oils. If the lime be exposed for a length of time to the air, it falls by degrees into a powder, and loses greatly of its acrimony. Water poured directly upon quicklime takes up a considerable portion of it: the solution has a somewhat styptic taste, drying the mouth, without any acrimony; nevertheless the remaining calx proves almost insipid. This liquor does not effervesce either with acids or alkalies, but is rendered turbid and milky by both: it prevents the coagulation of milk, and hence is sometimes made use of along with milk diets: agitated with expressed oils, it unites with them into a thick compound recommended by Dr. Slare against burns and inflammations. Lime water, drank to the quantity of a quarter of a pint three or four times a day, and continued for a length of time, has been found serviceable in scrophulous cases, and other obstinate chronic disorders. It generally promotes urine, and not unfrequently the cuticular discharge: for the most part it binds the belly, and sometimes occasions troublesome costiveness unless this effect be occasionally provided against, by the interposition of proper medicines. It does good service in debility and laxity of the viscera in general; in those of the uterine and seminal vessels it is particularly recommended. Care must be had not to exhibit this medicine too liberally in hot bilious constitutions, or where the patient is much emaciated, or the appetite weak, or at the time of any critical or periodical evacuations. Its principal use is in cold, moist, sluggish, and corpulent habits. This liquor has lately been found an efficacious dissolvent of the human calculus: the lime water
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prepared from calcined oystershells proves, for this purpose, a more powerful menstruum than that prepared from the stone limes, the dissolving power of the former being more than double to that of the latter. See a paper on this subject in the Edinburgh essays, vol. v. art. 69. Abridg. vol. i. p. 471.

CAMPECHENSE LIGNUM,
vide LIGNUM CAMPECHENSE.

CAMPHORA; [L. E.] Camphor is a solid concreate, extracted from the wood and roots of a tree growing in Japan, by a process similar to that whereby essential oils are obtained. As it first sublimes from the wood, it appears brownish, composed of semipellucid grains mixed with dirt: In this state it is exported by the Dutch, and purified by a second sublimation; after which, it is reduced into loaves (in which it is brought to us) probably by fusion in close vessels; for it does not assume this form in sublimation. Pure camphor is very white, pellucid, somewhat unctuous to the touch; of a bitterish, aromatic, acrid taste, yet accompanied with a sense of coolness; of a very fragrant smell, somewhat like that of rosemary, but much stronger. It is totally volatile, and inflammable; soluble in vinous spirits, oils, and the mineral acids; not in water, alkaline liquors, or the acids of the vegetable kingdom. This concreate is esteemed one of the most efficacious diaphoretics; and has long been celebrated in fevers, malignant and epidemical distempers; in deliria, where opiates fail of procuring sleep, and oftentimes aggravate the symptoms, this medicine frequently succeeds. Frederic Hoffman has wrote an express dissertation, *De camphoræ usu interno securissimo & præstantissimo*: the sub-

stance of his observation is, that camphor seems to penetrate very quickly through the whole body, and notably increase perspiration: that though given to the quantity of half a dram, dissolved in spirit of wine and duly diluted, it does not raise the pulse, or occasion any heat, but rather causes a sense of coolness about the præcordia: that it gives motion to stagnant humours in the most distant parts, or promotes their expulsion through the common emunctories: that on continuing its use for some time, the blood became sensibly more fluid, and the quantity of watery serum which the habit before abounded with, was notably diminished: that in malignant fevers, and all disorders whether acute or chronical, proceeding from an acrid or putrescent state of the juices, camphor has most excellent effects, correcting the acrimony, expelling the putrid morbid matter through the cutaneous pores, and preventing an inflammation or sphacelus where there is previously any disposition thereto: that, by strengthening the vessels, it restrains hæmorrhagies happening in acute fevers; and promotes critical and periodical evacuations: that it expels even the venereal virus; and that he has known many examples of the lues being cured by camphor alone, a purgative only being premised: and that in recent claps he has not found any one medicine equal to it in efficacy. In continual fevers, pleurisies, and all inflammatory cases, where there is a tendency to mortification, intense heat, thirst, or where the skin is dry and parched, whether before or after a delirium has come on, camphor joined with nitre produced most happy effects, almost immediately relieving all the symptoms, occasioning a calm sleep and plentiful sweat, without fatiguing

fatiguing the patient. He farther observes, that this simple, by its antiphlogistic quality, prevents the ill effects of the more irritating medicines; that cantharides, and the acrid stimulating cathartics and diuretics, by the admixture of a small proportion of a camphor, become much more mild and safe in operation. The dose of camphor is from two or three grains to ten or twelve, sometimes twenty.

CANCORUM CHELÆ [L.E.] Crabs claws: the black tips of the claws of the common sea crab, or *cancer marinus*.

CANCORUM OCULI *dicti* [L.E.] Crabs eyes so called: stony concretions found in the head, or rather stomach, of the *astacus fluviatilis*, or craw fish.

The only virtue of these simples is to absorb acidities in the primæ viæ, see page 52. The claws enter an officinal lozenge, and give name to a powder, for this intention.

Crabs eyes are said by most writers on the materia medica to be frequently counterfeited with tobacco pipe clay, or compositions of chalk, with mucilaginous substances. This piece of fraud, if really practised, may be very easily discovered; the counterfeits wanting the leafy texture which is observed upon breaking the genuine; more readily imbibing water; adhering to the tongue; and dissolving in vinegar, or the stronger acids diluted with water, either entirely, or not at all, or by piece meal, whilst the true crabs eyes, digested in these liquors, become soft and transparent, their original form remaining the same: this change is owing to the earthy part, on which depended their opacity and hardness, being dissolved by the gentle action of the acid, which

leaves the conglutinating matter unhurt.

CANELLA ALBA [L.E.] *cinnamomum sive canella tubis minoribus alba*, C. B. This is a bark rolled up into long quills, thicker than cinnamon, and both outwardly and inwardly of a whitish colour, lightly inclining to yellow. It is the produce of a tall tree growing in great plenty in the lowlands in Jamaica, and other American islands, called by sir Hans Sloane, *arbor baccifera laurifolia aromatica*, fructu viridi calyculato racemoso. The canella is the interior bark, freed from an outward thin rough one, and dried in the shade. The shops distinguish two sorts of canella, differing from one another in the length and thickness of the quills: they are both the bark of the same tree, the thicker being taken from the trunk, and the thinner from the branches. This bark is a warm pungent aromatic, not of the most agreeable kind: nor are any of the preparations of it very grateful. It is lately sometimes met with in extemporaneous prescription.

CANNABIS—[E.] *cannabis sativa*, C. B. Hemp, the feed. This plant, when fresh, has a rank narcotic smell: the water in which the stalks are soaked, in order to facilitate the separation of the line, or tough rind, for mechanic uses, is said to be violently poisonous, and to produce its effect almost as soon as drunk. The seeds also have some smell of the herb; their taste is unctuous and sweetish; on expression they yield a considerable quantity of insipid oil: hence they are recommended (boiled in milk, or triturated with water into an emulsion) against coughs, heat of urine,

urine, and the like. They are also said to be useful in incontinence of urine, and for restraining venereal appetites; but experience does not warrant their having any virtues of this kind.

CANTHARIDES [*L. E.*] Spanish flies. These insects are of a shining green colour, intermingled with more or less of a blue and a gold yellow. They are found adhering to different kinds of trees and herbs, in Spain, Italy, and France; the largest and most esteemed come from Italy.

Cantharides are extremely acrimonious: applied to the skin, they first inflame, and afterwards exulcerate the part, raising a more perfect blister than any of the vegetable acids, and occasioning a more plentiful discharge of serum: hence their common use as a vesicatory. Blisters are chiefly employed as a stimulus in languid cases, low fevers, lethargic disorders, and sluggish, phlegmatic corpulent habits: in these cases, they generally raise the spirits, quicken the circulation, and increase the pulse: they occasion least pain, and consequently irritate least, when applied to the head; to the legs most. Blisters are also applied to the head in epileptic and maniacal disorders, inveterate and periodical headaches, and defluxions upon the eyes: in this last distemper, Hoffman relates, that he has observed a blister applied to the nape of the neck as usual, increase the pain of the eyes, whilst one applied to the feet, gave relief as soon as the discharge from the operation of the blister began to take place. The same author strongly recommends blistering in rheumatic and gouty pains. A strangury frequently follows the external use of cantharides, accompanied with thirst and

feverish heat: this inconvenience may be remedied by soft, unctuous or mucilaginous liquors liberally drank.

Cantharides taken internally, often occasion a discharge of blood by urine, with exquisite pain: if the dose is considerable, they seem to inflame and exulcerate the whole intestinal canal; the stools become mucous and purulent; the breath fetid and cadaverous; intense pains are felt in the lower belly; the patient faints, grows giddy, raving mad, and dies. All these terrible consequences have sometimes happened from a few grains: Herman relates, that he has known a quarter of a grain inflame the kidneys, and occasion bloody urine with violent pain. There are nevertheless cases in which this stimulating fly, given in larger doses, proves not only safe, but of singular efficacy for the cure of diseases that yield little to medicines of a milder class. In cold phlegmatic sluggish habits, where the viscera are overloaded, and the kidneys and ureters obstructed with thick viscid mucous matter, cantharides have excellent effects; here the abounding mucus defends the solids from the acrimony of the fly, till it is itself expelled; when the medicine ought to be immediately discontinued. Groenvelt employed cantharides with great success in dropsies, obstinate suppressions of urine, and ulcerations of the bladder; giving very considerable doses made into boluses with camphor; and interposing large draughts of emulsions, milks, and the like: by this means, the excessive irritation which they would otherwise have occasioned, was in great measure prevented. The camphor did not perhaps contribute so much to this effect as is generally imagined: since it has no sensible quality that promotes

mises any considerable abatement of the acrimony of cantharides: nitre would answer effectually all that the camphor is supposed to perform: this with milk, or emollient mucilaginous liquors, drank in large quantity, are the best correctors. If the liberal use of these be complied with, cantharides, in the circumstances above related, proves a medicine of excellent service: but no corrector can render it safe in bilious habits, where there is any tendency to inflammation, where the natural mucus of the intestines is abraded, or the viscera unsound.

The virtues of cantharides are equally extracted by rectified spirit of wine, proof spirit and water; but do not arise in distillation. The watery and spirituous extracts blister as freely as the fly in substance; whilst the fly remaining after the several menstrua have performed their office, is to the taste insipid, and does not in the least blister, or inflame the skin.

CAPILLUS VENERIS, vide ADIANTHUM.

CAPPARIS—[E.] *capparis spinosa fructu minore, folio rotundo* C. B. Caper bush; the bark of the root, and buds of the flowers. This is a low prickly bush, found wild in Italy, and other countries: it is raised with us by sowing the seeds upon old walls, where they take root betwixt the bricks, and endure for many years. The bark of the root (*cortex capparis*) is pretty thick, of an ash colour, with several transverse wrinkles on the surface: cut in slices and laid to dry, it rolls up into quills. This bark has a bitterish acrid taste: it is reckoned aperient and diuretic; and recommended in several chronic disorders, for opening obstruc-

tions of the viscera. The buds, pickled with vinegar, &c. are used at table. They are supposed to excite appetite, and promote digestion; and to be particularly useful, as detergents and aperients, in obstructions of the liver and spleen. Their taste and virtues depend more upon the saline matter introduced into them, than on the caper buds.

CAPRIFOLIUM [E.] *periclymenum non perfoliatum Germanicum* C. B. Woodbind or honey suckle; the leaves and flowers. This is a climbing shrub, common in hedges; the beauty of its flowers has gained it a place also in gardens. The leaves have a disagreeable smell; the flowers a very pleasant sweet one; the taste of both is herbaceous and roughish. They are said to be diuretic and aperient.

CAPSICUM, vide PIPER INDICUM.

CARABE, vide SUCCINUM.

CARANNA [E.] This is a resinous substance brought from New Spain, and other parts of America, in little masses, rolled up in leaves of flags: it is said to exude from a species of palm tree. This resin is very rarely made use of in medicine, or met with in the shops; whence the college have rejected it from their catalogue.

CARDAMOMUM MAJUS [E.] Greater cardamom. This is a dried fruit or pod, about an inch long, containing under a thick skin two rows of small triangular seeds of a warm aromatic flavour.

CARDAMOMUM MINUS [L. E.] Lesser cardamom. This fruit is scarce half the length of the fore-

foregoing: the seeds are considerably stronger both in smell and taste. Hence this sort has long supplied the place of the other in the shops, and is the only one now directed by the college

Cardamom seeds are a very warm, grateful, pungent aromatic, and frequently employed as such in practice: they have this peculiar advantage, that notwithstanding their pungency, they do not, like those of the pepper kind, immoderately heat or inflame the bowels. Both water and rectified spirit extract their virtues by infusion, and elevate them in distillation; with this difference, that the tincture and distilled spirit, are considerably more grateful than the infusion and distilled water: the watery infusion appears turbid and mucilaginous; the tincture made in spirit limpid and transparent. The husks of these seeds, which have very little smell or taste, may be commodiously separated, by committing the whole to the mortar, when the seed will readily pulverize, so as to be freed from the shell by the sieve: this should not be done till just before using them; for if kept without the husks, they soon lose considerably of their flavour.

CARDIACA [E.] *marrubium cardiaca dictum, forte primum Theophrasti* C. B. Motherwort; the leaves. This is common in waste places, and found in flower greatest part of the summer. The leaves have a bitterish taste, and a strong disagreeable smell: they are supposed to be useful in hysteric disorders, and likewise to promote urine.

CARDUUS BENEDICTUS [L. E.] *carduus luteus procumbens, sudorificus et amarus Morison.* Blessed thistle; the leaves and seed.

This is an annual plant, cultivated in gardens: it flowers in June and July, and perfects its seeds in the autumn. The herb should be gathered when in flower, dried in the shade, and kept in a very dry airy place, to prevent its rotting or growing mouldy, which it is very apt to do. The leaves have a penetrating bitter taste, not very strong, or very durable; accompanied with an ungrateful flavour, which they are in great measure freed from by keeping. Water extracts, in a few minutes, even without heat, the lighter and more grateful parts of this plant: if the digestion is continued for some hours, the disagreeable parts are taken up: a strong decoction is very nauseous and offensive to the stomach. Rectified spirit gains a very pleasant bitter taste, which remains uninjured in the extract. The virtues of this plant seem to be little known in the present practice. The nauseous decoction is sometimes used to provoke vomiting; and a strong infusion to promote the operation of other emetics. But this elegant bitter, when freed from the offensive parts of the herb, may be advantageously applied to other purposes. I have frequently experienced excellent effects from a light infusion of *carduus* in loss of appetite, where the stomach was injured by irregularities. A stronger infusion made in cold or warm water, if drank freely, and the patient kept warm, occasions a plentiful sweat, and promotes all the secretions in general. The seeds of this plant are also considerably bitter, and have been sometimes used in the same intention as the leaves.

CARICÆ [L. E.] Figs; the dried fruit of the *ficus communis* C. B. The principal use of these

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is as a soft, emollient sweet; in this intention they enter the pectoral decoction and lenitive electuary of the shops. They are also esteemed by some as suppuratives, and hence have a place in the maturing captafiam.

CARLINA [E.] *carlina aculeos magno flore albo* C. B. Carline thistle; the root. This is a very prickly sort of thistle, growing spontaneously in the southern parts of France, Spain, Italy, and the mountains of Swisserland; from whence the dried roots are brought to us. This root is about an inch thick, externally of a dark reddish brown colour, corroded as it were on the surface, and perforated with numerous small holes, appearing when cut as if worm-eaten. It has a strong smell, and an acrid, bitter, aromatic taste. Carlina is looked on as a warm diaphoretic and alexipharmac; and has been for some time greatly esteemed by foreign physicians, but never came much into use among us: the present practice has entirely rejected it; nor is it often to be met with in the shops. Frederic Hoffmann, the elder, relates, that he has several times observed a decoction of it in broth occasion vomiting.

CARPOBALSAMUM [L.] This is the fruit of the tree that yields the balm of Gilead. It is about the size of a pea, of a whitish colour, inclosed in a dark brown wrinkled bark. This fruit, when in perfection, has a pleasant warm glowing taste, and a fragrant smell, resembling that of the opobalsamum itself. It is very rarely found in the shops; and such as we now and then do meet with, has almost entirely lost its smell and taste. It is of no other use in this country than as an ingredient in the mithridate and theriaca, in both which the

college directs cubebs as a substitute to it.

CARTHAMUS [E.] *cartamus officinarum flore croceo* Tourn. Bastard saffron; the seeds. This is a soft kind of thistle, with only a few prickles about the edges of the leaves. It is cultivated in large quantity in some places of Germany; from whence the other parts of Europe are supplied with the flowers as a colouring drug, and the seeds as a medicinal one. The flowers, well cured, are not easily distinguishable by the eye from saffron; but their want of smell readily discovers them. The seeds are white, smooth, of an oblong roundish shape, yet with four sensible corners, about a quarter of an inch in length, so heavy as to sink water; of a viscid sweetish taste, which in a little time becomes acrid and nauseous. These seeds have been celebrated as a cathartic: they operate very slowly, and for the most part disorder the bowels, especially when given in substance: triturated with aromatic distilled waters, they form an emulsion less offensive, yet inferior in efficacy to more common purgatives.

CARUI [L. E.] *cuminum pratense carui officinarum* C. B. Caraway; the seeds. This is an umbelliferous plant, cultivated with us in gardens, both for culinary and medicinal use. The seeds have an aromatic smell, and a warm pungent taste. These are in the number of the four greater hot seeds; and frequently employed as a stomachic and carminative in flatulent colics, and the like.

CARYOPHYLLA AROMATICA [L. E.] Cloves are the flower cups (not as is generally supposed the

the fruit) of a bay-like tree, growing in the East Indies. In shape, they somewhat resemble a short thick nail: in the inside of each clove are found a stylus and stamina with their apices, as in other flower cups: at the larger end shoot out from the four angles four little points like a star, in the middle of which is a round ball, composed of four little leaves, which are the unexpanded petals of the flower. Cloves have a very strong agreeable aromatic smell, and a bitterish pungent taste, almost burning the mouth and fauces. The Dutch, from whom we have this spice, frequently mix with it cloves which have been robbed of their oil: these, tho' in time they regain from the others a considerable share both of taste and smell, are easily distinguishable by their weaker flavour and lighter colour. Cloves, considered as medicines, are very hot stimulating aromatics, and possess in an eminent degree the general virtues of substances of this class. An extract made from them with rectified spirit is excessively hot and pungent; the distilled oil has no great pungency; an extract made with water is nauseous and somewhat styptic.

CARYOPHYLLA RUBRA
[L. E.] *caryophyllus altissimus major*, C. B. Clove july flowers. A great variety of these flowers are met with in our gardens: those made use of in medicine ought to be of a deep crimson colour, and a pleasant aromatic smell, somewhat like that of cloves; many sorts have scarce any smell at all. The *caryophylla rubra* are said to be cardiac and alexipharmac: Simon Paulli relates, that he has cured many malignant fevers by the use of a decoction of them; which he says powerfully promotes sweat and

urine, without greatly irritating nature, and also raises the spirits, and quenches thirst. At present these flowers are chiefly valued for their pleasant flavour, which is entirely lost even by light coction: hence the college direct the syrup, which is the only officinal preparation of them, to be made by infusion.

CARYOPHYLLATA; [E.]
caryophyllata vulgaris flore parvo luteo F. B. Avens, or herb benet; the root. Avens is a rough plant found wild in woods and hedges. The root has a warm, bitterish, astringent taste, and a pleasant smell, somewhat of the clove kind, especially in the spring, and when produced in dry warm soils; Parkinson observes, that such as is the growth of moist soils has nothing of this flavour. This root has been employed as a stomachic, and for strengthening the tone of the viscera in general: it is still in some esteem in foreign countries, though not taken notice of among us. It yields on distillation an elegant odoriferous essential oil, which concretes into a flaky form.

CASIA FISTULARIS [L. E.]
the fruit of an oriental tree, resembling the walnut. This fruit is a cylindrical pod, scarce an inch in diameter, a foot or more in length: the outside is a hard brown bark: the inside is divided by thin transverse woody plates, covered with a soft black pulp of a sweetish taste with some degree of acrimony. There are two sorts of this drug in the shops; one brought from the East Indies, the other from the West: the canes or pods of the latter are generally large, rough, thick rinded; and the pulp nauseous: those of the former are less, smoother, the pulp blacker, and of a sweeter taste; this

this sort is preferred to the other. Such pods should be chosen as are weighty, new, and do not make a rattling noise (from the seeds being loose within them) when shaken. The pulp should be of a bright, shining black colour, and a sweet taste, not harsh (which happens from the fruit being gathered before it has grown fully ripe) or sourish (which it is apt to turn upon keeping :) it should neither be too dry, nor too moist, nor at all mouldy, which from its being kept in damp cellars, or moistened in order to increase its weight, it is very subject to be. Greatest part of the pulp dissolves both in water and in rectified spirit; and may be extracted from the cane by either. The shops employ water, boiling the bruised pod therein, and afterwards evaporating the solution to a due consistence. The pulp of casia is a gentle laxative medicine, and frequently exhibited in a dose of some drams, in costive habits. Some direct a dose of two ounces or more as a cathartic, in inflammatory cases, where the more acrid purgatives have no place: but in these large quantities it generally nauseates the stomach, produces flatulencies, and sometimes gripings of the bowels, especially if the casia is not of a very good kind; these effects may be prevented by the addition of aromatics, and exhibiting it in a liquid form. Geoffroy says it does excellent service in the painful tension of the belly which sometimes follows the imprudent use of antimonials; and that it may be advantageously acuated with the more acrid purgatives or antimonial emetics, or employed to abate their force. Vallinieri relates that the purgative virtue of this medicine is remarkably promoted by manna; that a mixture of four drams of casia, and two of

manna, purges as much as twelve drams of casia, or thirty-two of manna alone. Sennertus observes, that the urine is apt to be turned of a green colour by the use of casia; and sometimes, where a large quantity has been taken, blackish.

CASIA LIGNEA; [L. E.] the bark of an Indian tree called by Breynius *arbor canellifera Indica, cortice acerrimo viscido seu mucilaginoso, qui cassia lignea officinarum.* This bark, in appearance and aromatic flavour approaches to cinnamon; from which it is easily distinguishable by its remarkable visciduity: chewed, it seems to dissolve in the mouth into a slimy substance; boiled in water, it gives out a strong mucilage, the aromatic part exhaling; the water obtained by distillation has an unpleasent smell, somewhat of the empyreumatic kind: nevertheless the distilled oil proves nearly of the same quality with that of cinnamon. Casia possesses the aromatic virtues of cinnamon; but in an inferior degree; and its effects are less durable. Its glutinous quality renders it useful in some cases where simple aromatics are less proper.

CASTOREUM; [L. E.] Castor is the inguinal glands of the beaver, a four-footed amphibious animal, frequent in several parts of Europe and America. The best comes from Russia: this is in large round hard cods, which appear, when cut, full of a brittle red liver-coloured substance, interspersed with membranes and fibres exquisitely interwoven. An inferior sort is brought from Dantzick; this is generally fat and moist. The worst of all is that of New England, which is in longish thin cods. Russia castor has a strong not agreeable smell, and an acrid, biting, bitterish nauseous taste.

taste. Water extracts the nauseous part, with little of the finer bitter; rectified spirit extracts this last, without much of the nauseous; proof spirit both: water elevates the whole of its flavour in distillation; rectified spirit brings over nothing. Castor is looked upon as one of the capital nervine and anti-hysterical medicines: some celebrated practitioners have nevertheless doubted its virtues; and Neuman and Stahl declared it insignificant. For our own part, we never could find it answer the character which has been usually given of it.

CASUMUNAR; [L. E.] This is a tuberous root, an inch or more in thickness, marked on the surface with circles or joints like galangal, of a brownish or ash colour on the outside, and a dusky yellowish within: it is brought from the East Indies, cut into transverse slices; what kind of plant it produces, is not known. Casumunar has a warm bitterish taste, and an aromatic smell somewhat resembling that of ginger. It has been celebrated in hysterical cases, epilepsies, palsies, loss of memory, and other disorders: the present practice sometimes employs it as a stomachic and carminative.

CAUDA EQUINA; [E.] *equisetum palustre longioribus fetis* C. B. Horsetail; the herb. This is common in watery places. It is said to be a very strong astringent: Geoffroy tell us that not only the herb itself in form of powder, but likewise water distilled from it, are very efficacious medicines against fluxes and hæmorrhagies: they are both equally insipid, and probably of equal efficacy.

CENTAURIUM MAJUS, [E.]

folio in laciniis plures diviso C. B. Greater centaury; the root. This is a large plant, cultivated in gardens. The root has a rough somewhat acrid taste, and abounds with a red viscid juice: its rough taste has gained it some esteem as an astringent; its acrimony as an aperient; and its glutinous quality as a vulnerary: the present practice takes little notice of it in any intention.

CENTAURIUM MINUS [L. E.] *flore purpureo* J. B. Lesser centaury; the leaves and tops. This grows wild in many parts of England, in dry pasture grounds, and amongst corn. The leaves are an useful aperient bitter, void of acrimony: they stand recommended as sudorific and emmenagogue; and by some in the jaundice, intermittent fevers, and dropsies.

CENTINODIUM; [E.] *polygonum latifolium* C. B. Knotgrass; the herb. This is said to be vulnerary and astringent, but on no very good foundation.

CEPA; [L. E.] *cepa vulgaris* C. B. Onions differ from all the other bulbous rooted plants, in having single roots, or such as cannot be parted so as to encrease the plant; whence they were formerly called *uniones*. Onions are frequently employed in food: they afford little or no nourishment, and when eaten liberally produce flatulencies, occasion thirst, headachs, and turbulent dreams: in cold phlegmatic habits, where viscid mucus abounds, they doubtless have their use; as by their stimulating quality they tend to excite appetite, attenuate thick juices, and promote their expulsion; by some they are strongly recommended in suppressions of urine, and in dropsies. The chief medicinal use of onions
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in the present practice is in external applications, as a cataplasm for suppurating tumors, &c.

CERA FLAVA, [*L. E.*] yellow bees wax. This is a solid concrete obtained from the honey combs after the honey is got out, by heating and pressing them betwixt iron plates. The best sort is of a lively yellow colour, and an agreeable smell, somewhat like that of honey: when new, it is toughish, yet easy to break; by age it becomes harder and more brittle, loses its fine colour, and in great measure its smell.

CERA ALBA: [*L. E.*] White wax is prepared from the yellow, by reducing it into thin flakes, and exposing it for a length of time to the air; when sufficiently bleached, it is melted, and cast into cakes. The best sort is of a clear and almost transparent whiteness, a light agreeable smell like that of the yellow wax, but much weaker.

The chief medical use of wax is in cerates, plasters, unguents, &c. as an emollient, for promoting suppuration, &c. It readily unites with oils and animal fats, but not with watery or spirituous liquors.

CERASUS; [*E.*] *cerasus major* & *sylvestris. fructu subdulci, nigro colore inficiente C. B. Et cerasus sativa, fructu rotundo rubro* & *acido Fourr. Et cerasa acidissima sanguineo succo C. B.* The sweet cherry with a black juice; the pleasantly sourish cherry, with a colourless juice; and the very sour cherry, with a blood red juice; commonly called black, red, and morrello cherries. These fruits, especially the acid sorts, are very useful and agreeable coolers and quenchers of thirst; and are sometimes directed in this intention, in hot, bilious, or febrile distempers.

Boerhaave was extremely fond of these and the other fruits, called *boraci*, as aperients, in some chronic cases: and declares himself persuaded, that there is no kind of obstruction of the viscera capable of being removed by medicine, which will not yield to the continued use of these; no viscid juices which will not be attenuated by them.

CERUSSA; [*L. E.*] cerusse, or white lead, prepared by exposing lead to the steam of vegetable acids till corroded into a white powdery substance. It is sometimes adulterated with a mixture of common whiting; this, if in any considerable quantity, may be easily discovered by the specific lightness of the compound: the sort called flake lead is not subject to abuse. See the article **PLUMBUM**; and *Cerussa* in the second part.

CETERACH; [*E.*] spleenwort or miltwast. This is a small bushy plant growing upon rocks and old walls. It has an herbaceous, somewhat mucilaginous, roughish taste; and hence is recommended for obtunding acrimonious juices, strengthening the tone of the intestines, as also for promoting expectation. The virtue which it has been most celebrated for, is that which it has the least title to, diminishing the spleen.

CHÆREFOLIUM; [*E.*] *chærophyllum sativum C. B.* Chervil; the leaves. This is a low annual plant, somewhat like parsley, commonly cultivated in gardens for culinary purposes. This plant is grateful both to the palate and stomach, gently aperient and diuretic. Geoffroy assures us, that he has found it from experience to be of excellent service in dropsies; that
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in this disorder, it promotes the discharge of urine when suppressed, renders it clear when feculent and turbid, and when high and fiery of a paler colour; that it acts mildly without irritation, and tends rather to allay than excite inflammation; and that dropies which do not yield to this medicine, are scarce capable of being cured by any other. He directs the juice to be given in the dose of three or four ounces every fourth hour, and continued for some time, either alone, or in conjunction with nitre and syrup of the five opening roots.

CHALYBS, vide FERRUM.

CHAMÆCYPARISSUS, vide ABROTANUM FOEMINA.

CHAMÆDRYS; [L. E.] *chamædris minor repens* C. B. Germander; the tops with the seed. This is a low shrubby plant, met with only in gardens. The leaves, tops, and seeds have a bitter taste, with some degree of astringency and aromatic flavour. They are recommended as sudorific, diuretic, and emmenagogue, and for strengthening the stomach and viscera in general. With some they have been in great esteem in intermitting fevers; as also in scrophulous and other chronic disorders.

CHAMÆLEON ALBUS, vide CARLINA.

CHAMÆMELUM; [L. E.] *chamæmelum nobile seu leucanthemum odoratus*, C. B. Single flowered chamæmele (the trailing sort, with larger leaves and flowers, and the disc of the flower not very convex) the flowers. These have a strong, not ungrateful, aromatic smell, and a very bitter, nauseous taste. They are accounted stimulating, carmi-

native, aperient, emollient, and in some measure anodyne: and stand recommended in flatulent colics, for promoting the uterine purgations, in tension and rigidity of particular parts, in spasmodic pains, and the pains of childbed women: sometimes they have been employed in scrophulous cases, intermitting fevers, and the nephritis. These flowers are frequently also used externally in discutient and antiseptic fomentations, and in emollient clysters: they enter the *fotus communis* and *decoctum commune pro chylere* of our dispensatory.

CHAMÆMELUM *flore multiplici*, C. B. Double flowered chamæmele; the flowers. These differ from the foregoing in having several rows of the white petals set thick together about the middle disc, which is smaller. In this disc the medicinal qualities of the flower chiefly reside; and hence the double or small disked sort are esteemed inferior to the single.

CHAMÆPITYS; [L. E.] *chamæpitys lutea vulgaris sive folio trifido* C. B. Groundpine; the leaves. This is a low hairy plant, clammy to the touch, of a strong aromatic resinous smell, and a bitter roughish taste. It is recommended as an aperient and vulnerary, as also in gouty and rheumatic pains.

CHEIRI; [E.] *leucium luteum vulgare*, C. B. Wallflower. This grows upon old walls and among rubbish, in several parts of England. The flowers have a pleasant smell, and a subacid, bitterish, not agreeable taste; they are said to be cordial, anodyne, aperient, and emmenagogue.

CHELIDONIUM MAJUS; [E.] *chelidonium majus vulgare*, C. B. Celandine; the leaves and root.

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This plant grows on old walls, among rubbish, and in waste shady places. The herb is of a blueish green colour; the root of a deep red; both contain a gold coloured juice: their smell is disagreeable; the taste somewhat bitterish, very acrid, biting and burning the mouth; the root is the most acrid. Juice of celandine has long been celebrated in disorders of the eyes; but it is greatly too sharp, unless plentifully diluted, to be applied with safety to that tender organ. It has been sometimes used, and it is said with good success, for extirpating warts, cleansing old ulcers, and in cataplasms for the herpes miliaris. This acrimonious plant is rarely exhibited internally: the virtues attributed to it are those of a stimulating aperient, diuretic, and sudorific: it is particularly recommended in the slow kind of jaundice, where there are no symptoms of inflammation, and in dropsies; some suppose the root to have been Helmont's specific in the hydrops ascites. Half a dram or a dram of the dry root is directed for a dose; or an infusion in wine of an ounce of the fresh root.

CHELIDONIUM MINUS; [*E.*] *chelidonia rotundifolia minor* C. B. Pilewort; the leaves and root. This is a very small plant, found in moist meadows and by hedge sides: the roots consist of slender fibres, with some little tubercles among them, which are supposed to resemble the hæmorrhoids; from whence it has been concluded, that this root must needs be of wonderful efficacy for the cure of that distemper.

CHERMES, vide **KERMES.**

CHINA; [*E.*] china root. There are two sorts of this root in the shops, one brought from the East

Indies, the other from the West. They are both longish, full of joints, of a pale reddish colour, of no smell, and very little taste: the oriental, which is the most esteemed, is considerably harder and paler coloured than the other. Such should be chosen as is fresh, close, heavy, and upon being chewed appears full of a fat unctuous juice. China root was either unknown or disregarded by the ancient physicians. It was first introduced into Europe about the year 1535, with the character of a specific against venereal and cutaneous disorders, and as such was made use of for some time, but at length gave place to medicines of a more powerful kind. It is generally supposed to promote insensible perspiration and the urinary discharge; and by its unctuous quality to obtund acrimonious juices.

CHINACHINÆ, vide **PERUVIANUS CORTEX.**

CICER RUBRUM; [*E.*] *cicer floribus & seminibus ex purpura rubescentibus* C. B. Red chiches or chick peas. This is a sort of pulse cultivated in the warmer climates, where our finer peas do not thrive so well. They are a strong, flatulent food, hard of digestion. Lithontriptic and diuretic virtues are attributed to them, on no very good foundation.

CICHOUREUM; [*E.*] *cichorium sylvestris sive officinarum* C. B. Wild succory; the roots, leaves, flowers and seeds. The root has a moderately bitter taste, with some degree of astringency; the leaves are somewhat less bitter, and the flowers least of all; the roots, stalks, and leaves yield on being wounded a milky saponaceous juice. By culture, this plant loses its green colour,

colour, and its bitterness, and in this state is employed in salads: the darker coloured and more deeply jagged the leaves, the bitterer is their taste. Wild succory is an useful detergent, aperient, and attenuating medicine; acting without irritation, tending rather to cool than to heat the body, and at the same time corroborating the tone of the intestines. The juice taken in large quantities, so as to keep up a gentle diarrhoea, and continued for some weeks, has been found to produce excellent effects in scorbutic and other chronic disorders. The seeds are ranked among the lesser cold seeds.

CICUTA; [E.] *cicuta major* C. B. Hemlock; the leaves. This is a large umbelliferous plant, common about the sides of fields, under hedges, and in moist shady places: the leaves are winged, divided into a great number of small fern-like sections, of a dark or blackish green colour, and appearing as it were rough: the stalk is hollow (as is likewise great part of the root after the stalk has arisen) and spotted with several blackish or purplish spots. Hemlock is sometimes applied externally to hard and serophulous tumours; to womens breasts for preventing their immoderate growth, the generation or coagulation of milk, &c. Received internally, it is accounted poisonous: nevertheless there are examples of several ounces having been taken without inconvenience. But in most of the histories of the good or ill effects of the cicuta, it is uncertain what the plant employed really was. See Trew. Com. Nor. 1740. Hebd. 47.

CINERES RUSSICI; [L.] Russia potash. Potash is an impure alkaline salt, produced from vegeta-

ble matters by burning. The strongest is brought from Russia, in dark coloured very hard masses, which nevertheless soon deliquesce in the air. This sort is prepared by burning wood with a close smothering heat, and making the ashes, with a ley drawn from the coarser part of them, into a paste, which is afterwards stratified with some of the more inflammable kinds of wood, and burnt a second time: by this means the salt melts, and concretes with the earthy matter of the ashes, into hard cakes. A purer and whiter salt is brought to us from Germany, under the name of pearl ashes: this is extracted from wood ashes by means of water, and afterwards reduced into a dry form by evaporation. The method of preparing potash in our own country, may be seen in *Practical Chemistry*, page 273. These salts are liable to great abuses from sundry admixtures, and therefore should never be employed for medicinal purposes, without due purification: this may be effected by solution in cold water, filtration, and excitation.

CINNABARIS NATIVA; [E.] native cinnabar. This is a ponderous mineral of a red colour, found in Spain, Hungary, and several other parts of the world. The finest sort is in pretty large masses, both externally and internally of an elegant deep red colour, which greatly improves upon grinding the mass into fine powder; this is imported by the Dutch from the East Indies: There is another sort, of a good colour, in roundish drops, smooth without, and striated within. This mineral appears from chemical experiments to be composed of mercury and sulphur, in such a manner that the quantity of the former is commonly above six times

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greater than that of the latter, the finer the colour of the cinnabar, the more mercury it is found to hold. Native cinnabar has been by many preferred as a medicine to that made by art: but there does not appear to be any just foundation for this preference. The native has sometimes been observed to occasion nausea, vomiting, and anxiety: these probably proceeded from an admixture of some arsenical particles which it could not be freed from by repeated ablution. When pure it has no quality or medical virtue distinct from those of the artificial cinnabar, like which it is indissoluble in the animal fluids, or in any of the known acid, alkaline, or other menstrua.

CINNAMOMUM; [*L. E.*] cinnamon. This is a light, thin bark, of a reddish colour, rolled up in long quills or canes; of a fragrant, delightful smell, and an aromatic, sweet, pungent taste, with some degree of astringency. It is generally mixed with the casia bark: this last is easily distinguishable by its breaking over smooth, whilst cinnamon splinters; and by its slimy mucilaginous taste, without any thing of the roughness of the true cinnamon. Cinnamon is a very elegant and useful aromatic, more grateful both to the palate and stomach, than most other substances of this class: by its astringent quality it likewise corroborates the viscera, and proves of great service in several kinds of alvine fluxes, and immoderate discharges from the uterus. An essential oil, a simple and spirituous distilled water, and a tincture of it, are kept in the shops.

CITREA MALUS; [*E.*] the citron tree; the fruit, rind of the fruit, and seeds. This is an ever-

green tree or shrub, of the same genus with the orange and lemon: it was first brought from Assyria and Media (whence the fruit is called *mala Assyria, mala Medica*) into Greece, and thence into the southern parts of Europe, where it is now cultivated. Citrons are rarely made use of among us: they are of the same quality with lemons, except that their juice is somewhat less acid.

CITRULLUS; [*E.*] *anguria citrullus dicta, C. B.* Citruls; the seed. This plant is rarely met with among us, unless in botanic gardens. The seeds are in the number of the four greater cold seeds, and agree in quality with the others of that class.

CNICUS, vide **CARTHAMUS**.

COCCINELLA: [*L. E.*] cochineal. This is a small grain, of an irregular figure, a dark red colour on the outside, and a deep bright red within: it is brought from Mexico and New Spain. This substance has long been supposed to be the seed of a plant: it appears from chemical experiments to be an animal, and from the accounts of the more celebrated naturalists, an insect, which breeds on the American prickly pear-tree, and adheres thereto without changing its place. Cochineal has been strongly recommended as a sudorific, cardiac and alexipharmac: but practitioners have never observed any considerable effects from it. Its greatest consumption is among the scarlet dyers; and in medicine its principal use is as a colouring drug; both watery and spirituous liquors extract its colour.

COCHLEÆ TERRESTRES, vide **LIMACES TERRESTRES**.

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COCHLEARIA HORTENSIS; [L. E.] *cochlearia folio subrotundo* C. B. Garden scurvygrafs; the leaves.

COCHLEARIA MARINA; [E.] *cochlearia folio sinuato* C. B. Sea scurvygrafs; the leaves. These plants have little other difference as to their external appearance than that expressed in their titles: in taste and medical virtue, the first is considerably strongest; and hence is alone retained by the college. Scurvygrafs is a pungent stimulating medicine; capable of dissolving viscid juices, opening obstructions of the viscera, and the more distant glands, and promoting the fluid secretions: it is particularly celebrated in scurvy, and is the principal herb employed in these kinds of disorders in the northern countries.

COFFEE; [E.] the fruit of an oriental shrub called by Jussieu *jasminum Arabicum lauri folio, cujus semen apud nos caffè dicitur*. This fruit is employed rather as food than as a medicine. The medical effects expected from it, are to assist digestion, promote the natural secretions, and prevent or remove a disposition to sleepiness.

COLOCYNTHIS; [L. E.] *colocynthis* or bitter apple. This is the produce of a plant of the gourd kind growing in Turkey. The fruit is about the size of an orange; its medullary part, freed from the rind and seeds, is alone made use of in medicine: this is very light, white, spongy, composed of membranous leaves; of an extremely bitter, nauseous, acrimonious taste. Colocynth is one of the most powerful and most violent cathartics. Many eminent physicians condemn it as dangerous and even deleterious: others recommend it not only as an efficacious purgative, but like-

wise as an alterative in obstinate chronic disorders. Thus much is certain, that colocynth in the dose of a few grains, acts with great vehemence, disorders the body, and sometimes occasions a discharge of blood. Many attempts have been made to correct its virulence by the addition of acids, astringents, and the like: these may lessen the force of the colocynth, but no otherwife than might be equally done by the reduction of the dose. The only method of abating its virulence, without diminishing its purgative virtue, is to enlarge its volume, by triturating it with sugar, testaceous substances, or the like, which without making any alteration in the colocynth itself, prevent its resinous particles from cohering, and sticking upon the membranes of the intestines so as to irritate, inflame, or corrode them.

CONSOLIDA MAJOR; [E.] comfrey; the root. This is a rough hairy plant, growing wild by river sides, and in watery places. The roots are very large, black on the outside, white within, full of a viscid glutinous juice, of no particular taste. They agree in quality with the roots of althæa; with this difference, that the mucilage of *consolida* is somewhat stronger bodied. Many ridiculous histories of the *consolidating* virtues of this plant are related by authors.

CONSOLIDA MEDIA, vide BUGULA.

CONSOLIDA MINIMA, vide BELLIS MINOR.

CONTRAYERVA; [L. E.] this is a knotty root, an inch or two in length, about half an inch thick, of a reddish brown colour externally, and pale within; long, tough

tough, slender fibres shoot out from all sides of it; these are generally loaded with knotty excrescences. This root is of a peculiar kind of aromatic smell, and a somewhat astringent, warm, bitterish taste, with a light and sweetish kind of acrimony when long chewed: the fibres have little taste or smell; the tuberous part therefore should be only chosen. Contrayerva is one of the mildest of those substances called alexipharmacs: it is indisputably a good and useful diaphoretic, and may be safely given in much larger doses than the common practice is accustomed to exhibit it in. Its virtues are extracted both by water and rectified spirit, and do not arise in evaporation with either: the spirituous tincture and extract taste stronger of the root than the aqueous ones.

COPAL; [E.] a resin obtained from several sorts of large trees growing in New Spain. This resin is brought to us in irregular lumps, some transparent, of a yellowish or brown colour, others semitransparent and whitish. It has never come into use as a medicine, and is rarely met with in the shops.

CORALLINA; [E.] *muscus maritimus sive corallina officinarum* C. B. Sea moss. This is a branched stony substance of a white colour, growing on rocks and sometimes on the shells of fishes. It is celebrated as a vermifuge, on what foundation we know not: to the taste it is intirely insipid.

CORALLIUM ALBUM, [E.] *et RUBRUM*; [L. E.] white and red coral. These also are marine productions, of the same nature with the foregoing. They cannot reasonably be looked upon in any other light than as mere absorbents: as such, the red coral enters the

official crabs claw powder, and is sometimes in practice directed by itself. Both sorts are nearly of equal strength; they saturate less acid than chalk, oyster shells, or pearls; but more than the other powders called testaceous.

CORIANDRUM; [L. E.] *coriandrum majus* C. B. Coriander; the seed. Coriander is an umbelliferous plant, differing from all the others of that class in producing spherical seeds. These, when fresh, have a strong disagreeable smell, which improves by drying, and becomes sufficiently grateful: they are recommended as carminative and stomachic.

CORNU CERVI; [L. E.] the stag or harts horns. Many extraordinary virtues have been attributed to these horns, and to all the parts of the animal in general: but experience gives no countenance to them; nor do they seem to have any other foundation than the great timidity of the hart, the annual renewal of his horns, and an opinion of his extraordinary longevity; from these circumstances it was inferred, that all the parts of him must be proper for intimidating the enraged archæus, renewing health and strength, and prolonging life.

CORNUS; [E.] *cornus hortensis* C. B. The cornel tree; its fruit. This fruit is moderately cooling and astringent, but not regarded as an article of the materia medica.

COSTUS [L. E.] a root brought from the East Indies. Authors mention two sorts of costus, sweet and bitter: in the shops we seldom meet with any more than one, the *costus dulcis officinarum* C. B. This root is about the size of the finger; and

and consists of a yellowish woody part, inclosed within a whitish bark: the former is very tough, of no smell, and very little taste; the cortical part brittle, of a warm, bitterish, aromatic taste, and an agreeable smell, somewhat resembling that of violets or Florentine orris. Costus is said to attenuate viscid humours, to promote expectoration, perspiration, and urine. At present it is rarely met with in prescription, and not often in the shops; in mithridate and theriaca, the only officinal compositions it is directed in, zedoary supplies its place.

COSTUS HORTORUM, vide
BALSAMITA MAS.

COTULA FOETIDA [E.]
chamamelum fetidum C. B. Mayweed, or wild chamæmele; the leaves. This plant is common among corn, and in waste places. In appearance it resembles some of the garden chamæmels, but is easily distinguishable from them by its strong fetid scent. It is never used in medicine.

CRASSULA; [E.] *telephium vulgare* C. B. Orpine; the leaves. This is a very thick-leaved juicy plant, not unlike the houseleeks. It has a mucilaginous roughish taste, and hence is recommended as emollient and astringent, but has never been much regarded in practice.

CRETA [L. E.] White chalk is a pure alkaline earth, totally soluble in vinegar, and the lighter acids, so as to destroy every sensible mark of their acidity. This earth is one of the most useful of the absorbents, and is to be looked upon simply as such: the astringent virtues which some attribute to it, have no foundation.

CRITHMUM; [E.] *crithmum* *seve fasciculum maritimum minus* C. B. Samphire; the leaves. This plant grows wild on rocks, and in maritime places: the leaves are somewhat like those of fennel, but the segments much thicker and shorter: their smell resembles that of smallage; the taste is warm, bitterish, not agreeable. They are said to be stomachic, aperient, and diuretic.

CROCUS; [L. E.] *crocus sativus* C. B. Saffron; the chieves or fleshy capillaments growing at the end of the pistil of the flower, carefully picked and pressed together into cakes. There are three sorts of saffron met with in the shops, two of which are brought from abroad, the other is the produce of our own country: this last is greatly superior to the two former, from which it may be distinguished by its blades being broader. When in perfection, it is of a fiery orange red colour, and yields a deep yellow tincture: it should be chosen fresh, not above a year old, in close cakes, neither dry, nor yet very moist, tough and firm in tearing, of the same colour within as without, and of a strong, acrid, diffusive smell.

Saffron is a very elegant and useful aromatic: besides the virtues which it has in common with all the bodies of that class, it remarkably exhilarates, raises the spirits, and is deservedly accounted one of the highest cordials; taken in large doses, it is said to occasion immoderate mirth, involuntary laughter, and the ill effects which follow from the abuse of spirituous liquors. This medicine is particularly serviceable in hysteric depressions proceeding from a cold cause or obstruction of the uterine secretions, where other aromatics, even those

those of the more generous kind, have little effect. Saffron imparts the whole of its virtue and colour, to rectified spirit, proof spirit, wine, vinegar, and water: a tincture drawn with vinegar, loses greatly of its colour in keeping: the watery and vinous tinctures are apt to grow sour, and then lose their colour also: that made in pure spirit keeps in perfection for many years.

CUBEBÆ [*L. E.*] Cubebs; a fruit brought from the East Indies. This fruit has a great affinity with pepper. The principal difference, distinguishable by the eye, is, that each cubeb is furnished with a long slender stalk (whence they are called by some *piper caudatum*.) In aromatic warmth and pungency, cubebs are far inferior to pepper.

CUCUMIS HORTENSIS [*E.*] Garden cucumbers; the seeds. These are in the number of the four greater cold seeds; they are less apt to grow rancid in keeping than the others of that class.

CUCUMIS AGRESTIS [*L. E.*] *cucumis sylvestris aspinus dicitur C. B.* Wild cucumber; the fruit. This plant found wild in foreign countries, is with us cultivated in gardens. Its principal botanic difference from the former is the smallness of its fruit, which is no bigger than a Spanish olive: when ripe, it bursts on a light touch, and sheds its seeds with violence, and hence was named by the Greeks *elaterium*. This name was applied likewise to the inspissated juice of the fruit, the only preparation of the plant made use of in medicine. *Elaterium* is a strong cathartic, and very often operates also upwards. Two or three grains are accounted in most cases a sufficient dose. Simon Paulli relates some instances of the good effects of this purgative in

dropsies; but cautions practitioners not to have recourse to it till after milder medicines have proved ineffectual; to which caution we heartily subscribe. Medicines indeed in general, which act with violence in a small dose, require the utmost skill to manage them with any tolerable degree of safety: to which may be added, that the various manners of making these kinds of preparations, as practised by different hands, must needs vary their power.

CUCURBITA; [*E.*] *cucurbita oblonga, flos albo, folio molli C. B.* The gourd; its seeds. These are in the number of the four greater cold seeds. They unite with water by trituration into an emulsion, yield to the press a soft insipid oil, and possess the general virtues of the substances of sect. 5. page 58.

CUMINUM, vide **CYMINUM**.

CUPRESSUS [*E.*] The cypress tree; its fruit. This is a tall tree growing wild in the warmer climates. The fruit is a strong astringent; and in some places frequently used as such; among us it is very rarely employed, and not often met with in the shops.

CUPRUM [*L. E.*] The preparations of copper are violently emetic, and therefore very rarely exhibited internally. Some have ventured upon a solution of a grain or two of the metal in vegetable acids, and observe, that it acts almost as soon as received into the stomach, so as to be of good use for occasioning poisonous substances that have been swallowed, to be immediately thrown up again. Boerhaave recommends a saturated solution of this metal in volatile alkaline spirits, as a medicine of great service

service in disorders, proceeding from an acid, weak, cold phlegmatic cause: if three drops of this tincture be taken every morning with a glass of mead, and the dose doubled every day, to twenty-four drops, it proves (he says) aperient, attenuating, warming, and diuretic: he assures us, that by this means he cured a confirmed ascites; and that the urine run out as from an open pipe; but at the same time acknowledges, that upon trying the same medicine on others it failed him. He likewise recommends other preparations of copper, as of wonderful efficacy in certain kinds of ill habits, weakness of the stomach, &c. but we cannot think the internal use of this metal commendable or even safe. Physicians in general seem to be agreed, that it has really a virulent quality; and too many examples are met with of fatal consequences ensuing upon eating food that had been dressed in copper vessels not well cleaned from the rust they had contracted by lying in the air.

Great care ought to be had, that acid liquors, or even water, designed for internal use, be not suffered to stand long in vessels made of copper; otherwise they will dissolve so much of the metal as will give them disagreeable qualities. Hence, in the distillation of simple waters with copper stills, the last runnings, which are manifestly acid, have frequently proved emetic. It is remarkable, that whilst weak acids liquors are kept boiling in copper vessels, they do not seem to dissolve any of the metal; but if suffered to remain in them for the same length of time without boiling, they become notably impregnated with the copper. Hence the confectioners, by skilful management, prepare the most acid syrups in copper vessels, without

giving them any ill taste from the metal.

CURCUMA [E.] Turmeric; a root brought from the East Indies. This root is internally of a deep lively yellow, or saffron colour, which it readily imparts to watery liquors. It has an agreeable, weak smell, and a bitterish somewhat warm taste. Turmeric is esteemed aperient and emmenagogue, and of singular efficacy in the jaundice. It tinges the urine of a saffron colour.

CUSCUTA [E.] Dodder. This is of the class of plants called parasitical, or which grow out from the body of others: it has no leaves, consisting only of a number of juicy filaments matted together. There are two sorts of it, *cuscuta major* C. B. which grows commonly in heaths on furzes, nettles, &c. and likewise in fields of flax, and other manured plants; and the *cuscuta minor*, or *epithymum* of the same author, so called from its being found only upon thyme. This last is preferred for medicinal use, and is usually brought from Leghorn and Turkey, with tops and stalks of thyme amongst it. *Epithymum* has a pretty strong smell, and a roughish somewhat pungent taste. Its virtues remain as yet to be determined: the ancients ranked it among cathartics; but those who have given it in that intention have been generally disappointed.

CYANUS; *cyanus segetum* C. B. Blue bottle; the flowers. This is a common weed among corn. The flowers are of an elegant blue colour, which, if carefully and hastily dried, they retain for a considerable time. As to their virtues, the present practice expects not any from

from them; notwithstanding they have been formerly celebrated against the bites of poisonous animals, contagious diseases, palpitations of the heart, and many other distempers.

CYCLAMEN, vide ARTHANITA.

CYDONIA MALUS; [L. E.] *cydonia malus* J. B. The quince tree; the fruit, and its seeds. Quinces have a very austere acid taste: taken in small quantity, they are supposed to restrain vomiting, and alvine fluxes; and more liberally, to loosen the belly. The seeds abound with a mucilaginous substance of no particular taste, which they readily impart to watery liquors: an ounce will render three pints of water thick and ropy like the white of an egg.

CYMINUM; [L. E.] *cyminum femine longiore* C. B. *faniculum orientale* *cuminum dictum* Tourne. Cummin; the seeds. This is an umbelliferous plant, in appearance resembling fennel, but much smaller: the seeds are brought from Sicily and Malta. Cummin seeds have a bitterish warm taste, accompanied with an aromatic flavour, not of the most agreeable kind. They are accounted good carminatives, but not very often made use of.

CYNOGLOSSUM [E.] *majus vulgare* C. B. Hounds tongue; the root. The leaves of this plant are in shape thought to resemble a tongue, whence its name; they are clothed with a whitish down: it grows wild in shady lanes. The roots have a rank disagreeable smell, and rough bitterish taste, covered with a glutinous sweetness. The virtues of this root are

very doubtful: it is generally supposed to be narcotic, and by some to be virulently so: others declare, that it has no virtue of this kind, and look upon it as a mere glutinous astringent. The present practice take no notice of it in any intention.

CYNOSBATUS; [L. E.] *rosa sylvestris vulgaris flore odorato incarnato*, C. B. The wild briar, dog rose, or hip tree; its fruit, and the little spongy balls found sometimes on the stalks. This bush grows wild in hedges throughout England. The flowers have a pleasant smell; but so weak, that Parkinson, and others, have named the plant *rosa sylvestris inodora*: a water distilled from them smells agreeably. The fruit or hips contain a sourish-sweetish pulp; with a rough prickly matter inclosing the seeds, from which the pulp ought to be carefully separated before it is taken internally: the Wirtemberg college observes, that from a neglect of this caution, the pulp of hips sometimes occasions a pruritus, and uneasiness about the anus; and I have known the conserve of it to excite a violent vomiting.

CYPERUS LONGUS; [E.] *cyperus odoratus radice longa, sive cyperus officinarum* C. B. Long cyperus; the root. This is a plant of the graminifolious kind; it is sometimes found wild, in marshy places in England; the roots have been generally brought to us from Italy. This root is long, slender, crooked, and full of knots: outwardly of a dark brown, or blackish colour, inwardly whitish; of an aromatic smell, and an agreeable warm taste; both the taste and smell are improved by moderate exsiccation. Cyperus is accounted a good stomachic and carminative, but

but at present very little regard-
ed.

DAUCUS CRETICUS; [L.E.]
Daucus foliis fœniculi tenuissimis C. B.
Candy carrot, or carrot of Crete;
the seeds. This is an unbellife-
rous plant growing wild in the
Levant, and the warmer parts of
Europe. The seeds, which are
generally brought from Crete,
have a warm biting taste, and a
not disagreeable aromatic smell.
They are carminative, and said
to be diuretic, but at present little
otherwise used than as ingredients
in the mithridate and theriaca.

DAUCUS SYLVESTRIS; [E.]
pastinaca sylvestris tenuifolia Diosco-
ridis, *vel daucus officinarum* C. B.
Wild carrot; the seed. This is
common in pasture grounds and
fallow fields throughout England.
The seeds possess the virtues of
those of the *daucus Creticus*, in an
inferior degree; and have often
supplied their place in the shops;
and been themselves supplied by
the seeds of the garden carrot:
these last are, in warmth and fla-
vour, the weakest of the three;
the seeds of the Candy carrot are
much the strongest.

DENS LEONIS; [E.] *dens leo-
nis latiore folio, et angustiore folio*
C. B. Dandelion; the root and
herb. This plant is common in
fields, and uncultivated places: it
has several narrow, dentated leaves
lying on the ground, with a slender
naked stalk sustaining a yellow
flower. The root, leaves, and stalk,
contain a bitter milky juice: they
promise to be of use as aperient
and detergent medicines; and have
sometimes been directed in this in-
tention with good success. Boer-
haave esteems them capable, if
duly continued, of resolving almost
all kinds of coagulations, and open-

ing very obstinate obstructions of
the viscera.

DIAPENSIA, vide **SANICULA.**

DICTAMNUS ALBUS, vide
FRAXINELLA.

DICTAMNUS CRETICUS
[L.E.] Dittany of Crete. This is
a kind of origanum, said to grow
plentifully in the island of Candy,
in Dalmatia, and in the Morea: it
has been found hardy enough to
bear the ordinary winters of our
own climate. The leaves, which
are the only part in use with us,
come from Italy. The best sort
are well covered over with a thick
white down, and now and then
intermixt with purplish flowers. In
smell and taste, they somewhat re-
semble lemon thyme, but have
more of an aromatic flavour, as
well as a greater degree of pungency:
when fresh, they yield a con-
siderable quantity of an excellent
essential oil.

DIGITALIS; [E.] *digitalis pur-
purea folio aspero*, C. B. Foxglove;
the leaves. This grows wild in
woods, and on uncultivated heaths:
the elegant appearance of its purple
flowers, (which hang in spikes
along one side of the stalk) has
gained it a place in some of our
gardens. The leaves have been
strongly recommended externally,
against scrophulous tumours; and
likewise internally, in epileptic dis-
orders: what service they may be
capable of doing in these cases
we have no experience. Several
examples are mentioned by medi-
cal writers of their occasioning vio-
lent vomiting, hypercatharses, and
disordering the whole constitution;
inasmuch that Boerhaave accounts
them poisonous. Their taste is
bitter and very nauseous.

DORO-

DORONICUM ROMANUM; [*E.*] *doronicum radice scorpii C. B.* Roman wolf's bane: the root. This grows spontaneously on the Alps, and in sundry places of Germany. It has been greatly disputed whether this plant is to be ranked among the poisonous or salutary ones: we shall not here enter into this controversy; observing only, that all the intentions it has been recommended for, may certainly be answered by other medicines of no less efficacy, and known to be innocent; and that therefore the use of *doronicum* may be very reasonably laid aside: in this we are warranted by common practice, which has not for a long time paid any regard to it.

DRACONTIUM; [*E.*] *dracunculus polyphyllus C. B. arum polyphyllum Rivini.* Dragons, or the many-leaved arum; the leaves. This is cultivated in gardens. It has scarce any other medical difference from the common *arum*, than being in all its parts somewhat more pungent and acrimonious.

DRAKENA, vide **CONTRA-TERVA.**

DULCAMARA, vide **SOLANUM LIGNOSUM.**

EBULUS; [*E.*] *sambucus humilis sive ebulus C. B.* Dwarf elder, or danewort; the root, bark, and leaves. This plant grows wild in some counties of England; but about London is rarely met with, unless in gardens: the eye distinguishes little difference betwixt it and the alder tree, except in the size, the alder being a pretty large tree, and the dwarf alder only an herb tree of four feet high. The leaves, roots, and bark of *ebulus* have a nauseous, sharp, bitter taste,

and a kind of acrid ungrateful smell: they are all strong cathartics, and as such are recommended in dropsies, and other cases, where medicines of that kind are indicated. The bark of the root is said to be strongest; the leaves the weakest. But they are all too churlish medicines for general use: they sometimes evacuate violently upwards, almost always nauseate the stomach, and occasion great uneasiness of the bowels. By boiling, they become (like the other drastics) milder, and more safe in operation: *Fernelius* relates, that by long coction they entirely lose their purgative virtue. The berries of this plant are likewise purgative, but less virulent than the other parts. A rob prepared from them may be given to the quantity of an ounce as a cathartic; and in smaller ones as an aperient, and deobstruent in chronic disorders: in this last intention, it is said to be frequently used in Switzerland, in the dose of a dram.

ELATINE; [*L. E.*] *linaria segetum nummulariæ folio non villoso Tourm.* Fluellin, or female speedwell; the leaves. This is a low creeping plant, growing wild in corn fields. The leaves have a very bitter, roughish taste. They were formerly accounted excellent vulneraries, and of great use for cleansing and healing old ulcers, and spreading cancerous sores: some have recommended them internally in leprous and scrophulous disorders; as also in hydropic cases. It gives name to one of the officinal honeys; but the plant itself is never used in the present practice, and this preparation of it is in no great esteem.

ELEMI [*L. E.*] a resin brought from the Spanish West Indies, and some-

sometimes from the East Indies, in long roundish cakes, generally wrapt up in flag leaves. The best sort is softish, somewhat transparent, of a pale whitish yellow colour, inclining a little to greenish, of a strong, not unpleasant smell. It almost totally dissolves in pure spirit, and sends over some part of its fragrance along with this menstruum in distillation: distilled with water, it yields a considerable quantity of a pale coloured, thin, fragrant essential oil. This resin gives name to one of the officinal unguents, and is at present scarce any otherways made use of; though it is certainly preferable for internal purposes, to some others which are held in greater esteem.

ELEOSELINUM, vide APIUM.

ELEUTHERIÆ CORTEX [L.] *cascarilla*; a bark imported into Europe from one of the Bahama islands called *Elathéria*, in curled pieces, or rolled up into short quills, about an inch in width, pretty much resembling in appearance the *Peruvianus cortex*, but of a paler brown colour on the inside, less compact, and more friable. Its taste is bitterer, yet less disagreeable, and less rough than that of the Peruvian bark; with a considerably greater share of aromatic pungency and heat: the thin outward skin, which is of a whitish colour, has no taste. It is easily inflammable, and yields whilst burning a very fragrant smell: this peculiar property distinguishes the *eleutheria* from all other known barks.

Stisserus was the first that employed the *cortex eleutheriæ* as a medicine, in Europe; he relates (in his *Art. laborat. chym.* published in the year 1693) that he received this aromatic bark from England;

and that some time after, it was sold at Brunswick for Peruvian bark: that a tincture of it in alcalized vinous spirits, or dulcified alkaline ones, proved carminative and diuretic, and did considerable service in arthritic, scorbutic and calculous cases; and that if taken immediately after meals, it affected the head a little. *Eleutheria* was soon after employed by Apinus in an epidemic fever which raged in some in parts of Norway in 1694 and 1695; this disease, which at first had the appearance of an ordinary intermittent, at length was accompanied with petechial spots. The common alexipharmacs and sudorifics were found ineffectual: but the powder or extract of this bark, joined with them, proved successful, even after petechiæ had come forth: dysenteries, succeeding the fever, were removed by the same medicine. During the use of the *eleutheria*, the patient generally sweated plentifully, without loss of strength, or other inconvenience: the belly was likewise kept open; those who did not sweat, had three or four stools a day: where the menstrual or hæmorrhoidal fluxes were suppressed at the beginning of the disorder, they generally, upon the use of this medicine, reappeared. Among the Germans, the *eleutheria* is at present in very great esteem, and frequently exhibited against common intermittents, in preference to the Peruvian bark, as being less subject to some inconveniencies which the latter, on account of its greater astringency, is apt to occasion: it is also given, with good success, in flatulent colics, internal hæmorrhagies, dysenteries, the diarrhœæ of acute fevers, and other like disorders. The gentlemen of the French academy found this bark of excellent service

service in an epidemic dysentery in the year 1719; in which ipeaca-coanha proved ineffectual: Mr. Boulduc observed, that this last left a lowness, and weakness of stomach, which continued for a long time, whilst cleutheria soon raised the strength, and promoted appetite. From the experience which we have ourselves had of this bark, we are apt to think, that it deserves to be more regarded than it is at present.

ENDIVIA; [E.] *intybus sativa latifolia* C. B. Endive; the roots, leaves, and seeds. Endive is raised in gardens for culinary use. It is a gentle cooler and aperient, nearly of the same quality with the *cichoreum*. The seeds are ranked among the four lesser cold seeds.

ENULA CAMPANA; [L. E.] *aster omnium maximus* Tourne Elecampane; the root. This is a very large downy plant, sometimes found wild in moist rich soils. The root, especially when dry, has an agreeable aromatic smell; its taste, on first chewing, is glutinous, and as it were somewhat rancid; in a little time it discovers an aromatic bitterness, which by degrees becomes considerably acrid and pungent. Elecampane root possesses the general virtues of alexipharmacs: it is principally recommended for promoting expectoration in humoural asthmas and coughs: liberally taken, it is said to excite urine, and loosen the belly. In some parts of Germany, large quantities of this root are candied, and used as a stomachic, for strengthening the tone of the viscera in general, and for attenuating tenacious juices. Spirituous liquors extract its virtues in greater perfection than watery ones: the former scarce elevate any thing in distillation:

with the latter an essential oil arises, which concretes into white flakes: this possesses at first the flavour of the elecampane, but is very apt to lose it in keeping. An extract made with water (a preparation now kept in the shops) possesses the bitterness and pungency of the root, but in a less degree than one made with spirit.

EQUISETUM, vide CAUDA EQUINA.

ERIGERUM; [E.] *senecio minor vulgaris* C. B. Groundsel; the leaves. This is a common weed, which notwithstanding its being annual, is met with at all times of the year. The juice, or an infusion of it in ale, is generally said to be a mild and safe emetic; but unless taken in very large quantity, it has no effect this way. The fresh herb, beat into a very coarse pulp, and applied externally, cold, to the pit of the stomach, is said by some to occasion strong vomiting: but we, with Haller, think that this notion is founded on an erroneous experiment.

ERUCA; [E.] *eruca latifolia alba, sativa* Dioscoridis, C. B. Rocket; the seeds. This was formerly much cultivated in gardens for medicinal use, and for salads; but is at present less common. In appearance, it resembles mustard, but is easily distinguishable by the smoothness of its leaves, and its disagreeable smell. The seeds have a pungent taste, of the mustard-kind, but weaker: they have long been celebrated as aphrodisiacs, and undoubtedly have in some cases a tite to this virtue, in common with other acrid plants.

ERVUM, vide ORBUS.

ERYN-

ERYNGIUM; [L. E.] *eryngium maritimum* C. B. Eryngo or sea holly; the root. This plant grows plentifully on some of our sandy and gravelly shores: the roots are slender, and very long; of a pleasant sweetish taste, which on chewing them for some time, is followed by a light degree of aromatic warmth and acrimony. They are accounted aperient and diuretic, and have also been celebrated as aphrodisiac; their virtues however are too weak to admit them under the head of medicines.

ERYSIMUM; [E] *erysimum vulgare* C. B. Hedge mustard; the leaves. This is a low hairy plant, common in waste places, and by way sides. The leaves are said to promote expectoration, excite urine, and the other fluid secretions, attenuate and dissolve viscid juices, &c. This they are supposed to perform by an acrimonious stimulating quality; but the taste discovers in them only an herbaceous softness, entirely void of acrimony: the seeds indeed are considerably pungent, and the roots in some small degree.

ESULA MAJOR et MINOR, vide TITHYMALUS.

EUPATORIUM CANNABINUM; [E.] Hemp agrimony, water agrimony, or water hemp; the leaves. This is found wild by the sides of rivers and ditches. It has an acrid smell, and a very bitter taste, with a considerable share of pungency. The leaves are greatly recommended for strengthening the tone of the viscera, and as an aperient; and said to have excellent effects in the the dropfy, jaundice, cachexies, and scorbutic disorders. Boerhaave informs us, that this is the constant medicine of the turf-

diggers in Holland, against scurvy, foul ulcers, and swellings in the feet, which they are subject to. The root of this plant is said to operate as a strong cathartic.

EUPATORIUM MESUES, vide AGERATUM.

EUPATORIUM GRÆCORUM, vide AGRIMONIA.

EUPHORBIIUM; [E.] a gummy resin exuding from a large oriental shrub. It is brought to us immediately from Barbary; in drops of an irregular form; some of which, upon being broken, are found to contain little thorns, small twigs, flowers, and other vegetable matters; others are hollow, without any thing in their cavity: the tears in general are of a pale yellow colour externally, somewhat white within-side; they easily break betwixt the fingers. Lightly applied to the tongue, they affect it with a very sharp biting taste; and upon being held for some time in the mouth, prove vehemently acrimonious, inflaming and exulcerating the fauces, &c. Euphorbium is extremely troublesome to pulverize; the finer part of the powder, which flies off, affecting the head in a violent manner. The acrimony is so great as to render it absolutely unfit for any internal use: several correctors have been contrived to abate its virulence; but the best of them are not to be trusted to; and as there seems to be no real occasion for it, unless for some external purposes, we think, with Hoffman and others, that it ought to be expunged from the catalogue of internal medicines.

EUPHRASIA; [E.] *euphrasia officinarum* C. B. Eyebright; the leaves. This is a very low plant, growing

growing wild in moist fields. It has for some time been celebrated as an ophthalmic, both taken internally, and applied externally. Hildanus says, he has known old men of seventy, who had lost their sight, recover it again by the use of this herb: later practitioners, however, have not been so happy as to observe any such good effects from it. At present it is totally and justly disregarded.

FABA; [E.] *fabæ flore candido litoris nigri conspicuo* Tournef. Garden beans; the flowers and seed. Beans are of greater use for culinary than medicinal purposes: they are a strong flatulent food, sufficiently nutritious, but not easy of digestion; especially when growing old. A water distilled from the flowers has been celebrated as a cosmetic, and still retains its character among some female artists.

FARFARA, vide TUSSILAGO.

FERRUM et CHALYBS; [L.E.] iron and steel. Steel is accounted less proper for medicinal use than the softer iron, as being more difficultly acted upon by the animal juices and the common menstrua: iron dissolves readily in all acids, and rusts freely in the air, especially if occasionally moistened with water; steel requires a longer time for its solution, and does not rust so easily. The general virtues of these metals, and the several preparations of them, are, to constrict the fibres, to quicken the circulation, to promote the deficient secretions in the remoter parts, and at the same time repress inordinate discharges into the intestinal tube. After the exhibition of them, if they take effect, the pulse is very sensibly raised; the colour of the face, though before pale, changes

to a florid red; the alvine, urinary, and cuticular excretions, are increased. Nidorous eruptions, and the feces voided of a black colour, are marks of their taking due effect.

An aperient virtue is usually attributed to some of the preparations of iron, and an astringent to others; but in reality, they all produce the effects both of aperients and astringents, and seem to differ only in degree. Those distinguished by the name of astringent sometimes occasion a very copious discharge of urine, or a diarrhœa; whilst those called aperient frequently stop these evacuations.

Where either a praternatural discharge, or suppression of natural secretions, proceed from a languor and sluggishness of the fluids, and weakness of the solids; this metal, by increasing the motion of the former, and the strength of the latter, will suppress the flux, or remove the suppression; but where the circulation is already too quick the solids too tense and rigid, where there is any stricture or spasmodic contraction of the vessels; iron, and all the preparations of it, will aggravate equally both distempers.

Though the different preparations of iron act all in the same manner, yet they are not equally proper in all constitutions. Where acidities abound in the first passages, the crude filings, reduced into a fine powder, prove more serviceable than the most elaborate preparation of them. On the other hand, where there is no acid in the primæ viæ, the metal requires to be previously opened by saline menstrua: hence a solution of iron in acid liquors has in many cases excellent effects, where (as Boerhaave observes) the more indigestible preparations, as the calces made by fire, have scarce any effect at all.

If alcallescent juices are lodged in the stomach, this metal, though exhibited in a liquid form, proves at least useless; for here the acid solvent is absorbed by the alkaline matters which it meets with in the body, so as to leave the iron reduced to an inactive calx. Chalybeate medicines are likewise supposed to differ, independent of differences in the constitution, according to the nature of the acid united with the metal: vegetable acids superadd a detergency and aperient virtue; combined with the vitriolic, it acts in the first passages powerfully as an aperient; whilst the nitrous renders it extremely styptic; and the marine, still more so.

FICUS [L. E.] *communis* C. B. The common figtree; its fruit, called *carica* or figs. Figs, both fresh, and dried, are sufficiently nutritious, grateful to the stomach, and easier of digestion than most of the other sweet fruits. They have also an emollient or lubricating virtue, on account of which they are frequently employed in pectoral decoctions, in preference to the purer sweets.

FILIPENDULA; [E.] *filipendula vulgaris*, an *Molon* Plinii C. B. Dropwort; the root. This plant grows wild in fields and chalky grounds: the root consists of a number of tubercles, fastened together by slender strings; their taste is rough and bitterish, with a slight degree of pungency. These qualities point out its use in a flaccid state of the vessels; and a sluggishness of the juices: the natural evacuations are in some measure restrained or promoted by it, where the excess or deficiency proceed from this cause. Hence some have recommended it as an astringent

in dysenteries, immoderate uterine fluors, &c. others as a diuretic; and others as an aperient and deobstruent in scrophulous habits.

FILIX MAS; [E.] *flix non ramosa, dentata*, C. B. Common male fern.

FILIX FEMINA; [E.] *flix ramosa major pinnuli, obtusis non dentatis* C. B. Female fern, or brakes.

FILIX FLORIDA: [E.] *flix ramosa non dentata, florida* C. B. Osmund royal, or the flowering fern.

The roots of these plants (which are the only part directed for medicinal use) have, when first chewed, somewhat of a sweetish glutinous taste, which soon becomes bitterish, subastringent, and nauseous. They are said to be aperient and anthelmintic: Simon Paulli tells us, that they have been the grand secret of some empirics against the broad kind of worms called *tenia*; and that the dose is one, two, or three drams of the powder. The third sort is supposed to be the weakest, and the second the strongest; this therefore has been generally made choice of; practice has, however, at length expunged them all.

FENICULUM DULCE [L. E.] Sweet fennel; the seeds.

FENICULUM VULGARE [E.] Common fennel; the seeds, roots, and leaves.

The sweet fennel is smaller in all its parts than the common, except the seeds, which are considerably larger. The seeds of the two sorts differ likewise in shape and colour; those of the common are roundish, oblong, flattish on one side, and protuberant on the other, of a dark almost blackish colour; those of the sweet are longer, narrower,

not so flat, generally crooked, and of a whitish or pale yellowish colour. Both sorts are cultivated in our gardens: the common is a perennial plant: the sweet perishes after it has given seed; nor do its seeds come to such perfection in this climate as those which we receive from Germany.

The seeds of both the fennels have an aromatic smell, and a moderately warm, pungent taste: those of the *fœniculum dulce* are in flavour most agreeable, and have also a considerable degree of sweetishness: hence our college have directed the use of these only. They are ranked among the four greater hot seeds; and not undeservedly looked upon as good stomachics and carminatives. The root is considerably less warm, but has more of a sweetish taste, than the seeds: it is one of the five roots called openers; and has sometimes been directed in aperient apozems: Boerhaave observes, that this root exactly agrees in taste, smell, and medical qualities, with the celebrated *ginseng* of the Chinese; and therefore thinks it may very justly supply its place. The leaves of fennel are weaker than either the roots or seeds, and have very rarely been employed for any medicinal use.

FŒNUM GRÆCUM [L. E.]

fœnum græcum sativum C. B. Fenugreek; the seeds. This plant is cultivated chiefly in the southern parts of France, Germany, and in Italy; from whence the seeds are brought to us. They are of a yellow colour, a rhomboidal figure; a disagreeable strong smell, and a mucilaginous taste. Their principal use is in cataplasms, fomentations, and the like, and in emollient glisters. They enter the oleum e mucilagibus of the shops; to

which they communicate a considerable share of their smell.

FOLIUM INDUM, vide MALBATHRUM.

FORMICÆ [E.] Ants; their bodies and eggs. These insects are at present of no use with us in medicine, though formerly much celebrated for aphrodisiac virtues, and still employed in the *agua magnanimitatis* and other like compositions of foreign dispensatories. It is remarkable, that these animals contain a truly acid juice, which they shed in small drops upon being irritated: by infusing a quantity of live and vigorous ants in water, an acid liquor is obtained nearly as strong as good vinegar. Neuman observes, that on distilling them either with water or pure spirit, a clear limpid oil arises, which has scarce any taste, or at least is not hot or pungent like the essential oils of vegetables.

FRAGARIA [E.] *fragaria ferens fraga rubra* J. B. The strawberry bush; its leaves and fruit. The leaves are somewhat styptic, and bitterish; and hence may be of some service in debility and laxity of the viscera; and immoderate secretions, or a suppression of the natural evacuations, depending thereon: they are recommended in hæmorrhagies and fluxes; and likewise as aperients in suppressions of urine, obstructions of the viscera, in the jaundice, &c. The fruit is in general very grateful both to the palate and stomach: like other fruits of the dulco-acid kind, they abate heat, quench thirst, loosen the belly, and promote urine; but do not afford much nourishment. Geoffroy observes, that the urine of those who eat liberally of this fruit, becomes

becomes impregnated with its fragrant smell.

FRANGULA, vide ALNUS NIGRA.

FRAXINELLA [E.] *diclammus vulgo, sive fraxinella C. B.* White or bastard dittany; the root. This plant grows wild in the mountainous parts of France, Italy, and Germany; from whence the cortical part of the root, dried and rolled up in quills, is sometimes brought to us. This is of a white colour, a weak, not very agreeable smell; and a durable bitter, lightly pungent taste. It is recommended as an alexipharmac; but not regarded by common practice, or often kept in the shops.

FRAXINUS [E.] *fraxinus excelsior C. B. fraxinus vulgarior J. B.* The ash tree; its bark and seeds. The bark of this tree is a moderately strong astringent, and as such has sometimes been made use of: the seeds, which are somewhat acrid, have been employed as aperients. There are for many other medicines more agreeable, and more efficacious for these intentions, that all the parts of the ash tree have long been neglected.

FULIGO LIGNI [L. E.] Wood foot. This concrete is of a shining black colour, a disagreeable smell, and an acrid bitter nauseous taste. Its chief use is in hysterical cases, in which it is sometimes exhibited in conjunction with the fetid gums: it gives name to a tincture of this kind in the shops. Its virtues are extracted both by watery and spirituous liquors, each of which, if the foot is of a good kind, dissolve about one sixth of it. Soot differs greatly in quality according to the wood it was produced from: the

more resinous the wood, the more the foot abounds with oily matter.

FUMARIA [E.] *fumaria officinarum & Dioscoridis C. B.* Fumitory; the leaves. This is a common weed in shady cultivated grounds, producing spikes of purplish flowers in May and June. It is very juicy, of a bitter taste, without any remarkable smell. The medical effects of this herb are, to strengthen the tone of the bowels, gently loosen the belly, and promote the urinary and other natural secretions. It is principally recommended in melancholic, scorbutic, and cutaneous disorders; for opening obstructions of the viscera, attenuating, and promoting the evacuation of viscid juices. Frederic Hoffman had a very great opinion of it as a purifier of the blood; and assures us, that in this intention scarce any plant exceeds it. Both watery and spirituous menstrua extract its virtues.

GALANGA MINOR [E.] Galangal; a root, brought from China. This root comes to us in pieces scarce an inch long, and not half so thick, full of joints, with several circular rings on the outside; of an aromatic smell, and a bitterish, hot, biting taste. Galangal is a warm, stomachic bitter: it has been frequently prescribed in bitter infusions, but the flavour it gives is disagreeable; nor are the spirituous tincture or extract less nauseous.

GALBANUM [L. E.] the concrete juice of an African plant of the ferulaceous kind. This juice as brought to us, is semipellucid, soft, tenacious; of a strong and to some unpleasant smell; and a bitterish warm taste: the better sort is in pale coloured masses, which, on

being opened, appear compos'd of clear white tears. Geoffroy relates that a dark greenish oil is to be obtained from this simple by distillation, which, upon repeated rectifications, becomes of an elegant sky blue colour. The purer sorts of galbanum are said by some to dissolve entirely in wine, vinegar or water; but these liquors are only partial menstrua with regard to this juice; nor do spirit of wine, or oil, prove more effectual in this respect: the best dissolvent is a mixture of two parts spirit of wine, and one of water. Galbanum agrees in virtue with gum ammoniacum; but is generally accounted less efficacious in asthma's, and more so in hysterical complaints.

GALEGA [*E.*] *galega vulgaris floribus caeruleis* C. B. Goats rue; the herb. This is celebrated as an alexipharmac; but its sensible qualities discover no foundation for any virtues of this kind: the taste is merely leguminous; and in Italy (where it grows wild) it is said to be frequently used as food.

GALLÆ; [*L. E.*] galls. These are excrescences found, in the warmer countries, upon the oak tree: they are produced by a kind of insect (which wounds the young buds or branches) and afterwards serve as a lodgment for its eggs: the animal within the gall, eats its way through; those which have no hole are found to have the insect remaining in them. The best galls come from Aleppo: these are not quite round and smooth, like the other sorts, and have several tubercles on the surface. Galls have a very austere styptic taste, without any smell: they are very strong astringents, and as such have been sometimes made use of both internally and externally, but are not

much taken notice of, by the present practice.

GALLIUM; [*E.*] *gallium luteum* C. B. Ladies' bedstraw, or cheese rennet; the herb. This has a slight subsaline taste, with a very faint, not disagreeable smell: the juice changes blue vegetable infusions of a reddish colour, and coagulates milk, and thus discovers some marks of acidity. It stands recommended as a mild styptic; but has never been much in use.

GAMBOGIA; [*L. E.*] Gamboge; a solid concrete juice, brought from the East Indies, in large cakes or rolls. The best sort is of a deep yellow or orange colour, breaks shining and free from dross: it has no smell, and very little taste, unless kept in the mouth for some time, when it impresses a slight sense of acrimony. It immediately communicates to spirit of wine a bright golden colour, and almost entirely dissolves in it, Geoffroy says, except the sixth part: alkaline salts enable water to act upon this substance powerfully as a menstruum: the solution made by their means is somewhat transparent, of a deep blood colour, and passes the filtre: the dulcified spirit of sal ammoniac readily and entirely dissolves it, and takes up a considerable quantity; and what is pretty remarkable, this solution mixes either with water or spirit, without growing turbid. Gamboge evacuates powerfully both upwards and downwards: Hoffman and some others condemn it as acting with too great violence, and occasioning dangerous hypercathartes; whilst others are of a contrary opinion, Geoffroy seems particularly fond of this medicine, and informs us, that he has frequently given it, from two to four grains, without its proving

proving at all emetic; that from four to eight grains, it both vomits and purges, without violence; that its operation is soon over; and that if exhibited in a liquid form, and sufficiently diluted, it stands not in need of any corrector; that in the form of a bolus or pill, it is most apt to prove emetic, but very rarely has this effect if joined along with *mercurius dulcis*. He nevertheless cautions against its use where the patient cannot easily bear vomiting.

GENISTA [E.] *cytis-genista scoparia vulgaris flore luteo* Tourn. Broom; the leaves, flowers, and seeds. The leaves of this shrub have a nauseous bitter taste: they are said to purge both by stool and urine, and hence stand recommended in hydropic cases. The flowers are also said to prove cathartic in decoction, and emetic in substance, though in some places, as Lobel informs us, they are commonly used, and in large quantity, in salads, without producing any effect of this kind. The qualities of the seeds are little better determined: some report, that they purge almost as strongly as hellebore, in the dose of a dram and half; whilst the author above-mentioned relates that he has given a decoction of two ounces of them as a gentle emetic.

GENTIANA; [L. E.] *gentiana major lutea* C. B. Gentian; the root. This plant is found wild in some parts of England: but the dried roots are most commonly brought from Germany, &c. they should be chosen fresh, and of a yellow or bright gold colour within. This root is a strong bitter, and as such, very frequently made use of in practice: in taste it is less exceptionable than most of the other substances of this class: infusions of

it, flavoured with orange peel, are sufficiently grateful. It is the capital ingredient in the bitter wine, tincture, and infusion of the shops.

A poisonous root has been lately discovered among some of the Gentian brought to London; the use of which occasioned violent disorders, and sometimes death. This is easily distinguishable by its being internally of a white colour, and void of bitterness. This poisonous simple seems to be the root of the *Thora Valdensis* of Ray, the *aconitum primum pardalianches* of Gesner; a plant which Lobel informs us the inhabitants of some parts of the Alps used formerly toempoison darts with.

GERANIUM BATRACHOIDES; [E.] Crowfoot cranebill; the leaves:

GERANIUM ROBERTIANUM; [E.] Herb Robert; the leaves.

These plants are found wild, the first in hedges, the second in moist meadows. The leaves have an herbaceous austere taste, and have hence been recommended as astringents.

GITH, vide **NIGELLA**.

GLASTUM; [E.] *isatis sativa vel latifolia* C. B. Woad; the leaves. This plant is cultivated for the use of the dyers; but is never employed for any medicinal purposes. The virtues attributed to it are those of an astringent.

GLADIOLUS LUTEUS [L.] *iris palustris lutea, sive acorus adulterinus* J. B. *Acorus vulgaris* pharm. *August. et Wirt.* Yellow water-flag, bastard acorus, or water flower-de-luce; the roots. This grows common by the brinks of rivers and in other watery places. The

root has a very acrid taste, and proves when fresh, a strong cathartic: its expressed juice, given to the quantity of eighty drops every hour or two, and occasionally increased, has occasioned a most plentiful evacuation, after jalap, gamboge, &c. had proved ineffectual. (See the Edinburgh essays, vol. v. art. 8. abridg. vol. i. page 202.) By drying, it loses great part of its acrimony and purgative virtue. The *pulvis avi* of our dispensatory, contains about one fifth of the dry root; the Edinburgh uses in its place the *acorus verus* or *calamus aromaticus*.

GLYCYRRHIZA; [L. E.] *glycyrrhiza siliqua vel Germanica C. B.* Liquorice; the root. This is produced plentifully in all the countries of Europe: that which is the growth of our own is preferable to such as comes from abroad; this last being generally mouldy, which this root is very apt to become unless kept in a dry place. The powder of liquorice usually sold is often mingled with flower, and I fear too often with substances not quite so wholesome: the best sort is of a brownish yellow colour (the fine pale yellow being generally sophisticated) and of a very rich sweet taste, much more agreeable than that of the fresh root. Liquorice is almost the only sweet that quenches thirst; whence it was called by the Greeks *adipson*: Galen takes notice, that it was employed in this intention in hydropic cases, to prevent the necessity of drinking. Mr. Fuller, in his *medicina gymnastica*, recommends this root as a very useful pectoral, and says it excellently softens acrimonious humours, at the same time that it proves gently detergent: and this account is warranted by experience.

GRAMEN CANINUM; [L.] *gramen caninum arvense; sive graminen Dioscoridi C. B.* Quick-grass; the roots. Grass roots have a sweet roughish taste. They are principally recommended in aperient spring drinks, for what is called purifying and sweetening the blood.

GRANA PARADISI [L.] *cardamomum majus semine piperato Geoffroi.* Grains of paradise; a fruit, brought from the east Indies. This fruit is about the size of a fig, divided internally into three cells, in each of which are contained two rows of small seeds like cardamoms. These seeds are somewhat more grateful, and considerably more pungent, than the common cardamoms, approaching in this respect to pepper, with which they agree also in their pharmaceutical properties; their pungency residing, not in the distilled oil as that of cardamom seeds does, but in the resin extracted by spirit of wine.

GRANATA MALUS; [L.] *malus punica sativa C. B.* Pomegranate tree; the fruit, and its rind [L.] called *malicorium*. This tree is sometimes met with in our gardens, but the fruit, for which it is chiefly valued, rarely comes to such perfection as in the warmer climates. This fruit has the general qualities of the other sweet summer fruits, allaying heat, quenching thirst, and gently loosening the belly. The rind is a strong astringent, and as such is occasionally made use of.

GRATIOLA; [L.] *gratiola ventriculoides C. B.* Hedge-hyssop; the leaves. This is a small plant, met with, among us, only in gardens. The leaves have a very bitter, disagreeable taste; an infusion

of a handful of them when fresh, or a dram when dried, is said to operate strongly as a cathartic, greatly disordering the constitution. Kramer reports (*Tentam. botanic. p. 18.*) that he has found the root of this plant a medicine similar in virtue to ipecacoanha.

GUAIAACUM; [*L. E.*] *guaiacum Americanum primum fructu acerris, sive legitimum Breyn. prod.* Guaiacum, a tree growing in the warmer parts of the Spanish West Indies; its wood, bark, and resin called gum guaiacum. The wood is very ponderous, of a close compact texture; the outer part is of a yellow colour, the heart of a deep blackish green, or variegated with black, green, pale, and brown colours: the bark is thin, smooth, externally of a dark greyish hue: both have a lightly aromatic, bitterish, pungent taste; the bark is most acrid and ungrateful. The resin (which exudes from incisions made in the trunk of the tree) is brought to us in irregular masses, usually friable, of a dusky greenish, and sometimes of a reddish cast, with pieces of the wood among them: its taste is more acrid and pungent than that of the wood or bark. Their general virtues are those of a warm, stimulating medicine: they strengthen the stomach and other viscera; and remarkably promote the urinary and cuticular discharge; hence in scorbutic, cutaneous, and other disorders proceeding from obstructions of the excretory glands, and where sluggish ferrous humours abound, they are eminently useful: rheumatic and other pains have often been relieved by them. The resin is the most active of these drugs; and the efficacy of the others depends upon the quantity of this part contained in them: the resin is extracted from

the wood in part by watery liquors, but much more perfectly by spirituous ones; the latter elevate nothing in distillation; with the former a ponderous essential oil arises, possessing the odour and flavour of the guaiacum: hence the watery extract of this wood, kept in the shops, proves not only less in quantity, but considerably weaker than one made with spirit. This last extract is of the same quality with the native resin, and differs from that brought to us only in being purer.

GUMMI AMMONIACUM,
vide AMMONIACUM.

GUMMI ARABICUM; [*L. E.*] gum Arabic; a concrete gum, exuding from the Egyptian acacia tree. This is brought to us from Turkey, in small irregular masses or strings, of a pale yellowish colour. The true gum arabic is rarely to be met with in the shops; gum senega or fenica, which comes from the coasts of Guinea, being usually sold for it: this greatly resembles the other, and perhaps, as Dale conjectures, exudes from a tree of the same kind: it is generally in large pieces, rough on the outside; and in these circumstances possibly consists the only difference betwixt the two; although the former is held to be the purer and finer gum, and therefore preferred for medicine; and the latter, the strongest, most substantial, and cheapest, and consequently more employed for mechanic uses. The virtues of this gum are the same with those of gummy and mucilaginous substances in general: it is given, from a scruple to two drams, in hoarsenesses, a thin acrimonious state of the juices, and where the natural mucus of the intestines is abraded.

GUMMI CERASORUM [E.]

Cherry-tree gum. There is not any medical difference betwixt this and the preceding. Some have supposed that all the gum brought to us from the East, under the name of *Arabic*, is no other than the gum of cherry, plum, and other trees common among ourselves. This opinion is nevertheless erroneous; for these trees, as Geofroy observes, do not grow in the countries from whence gum Arabic is brought; whilst the *acaciæ* are very common there.

GUMMI ELEMI, vide ELEMI.

GUMMI TRAGACANTHÆ

[L. E.] The gum of the tragacanth, a thorny bush growing in Crete, Asia, and Greece. This gum is of a much stronger body than either of the foregoing, and does not so perfectly dissolve in water. A dram will give a pint of water the consistence of a syrup, which a whole ounce of gum Arabic is scarce sufficient to do. Hence its use for forming troches, and the like purposes, in preference to the other gums.

GUTTA GAMBA, vide GAMBOGIA.

HÆMATITES lapis [L. E.]

Bloodstone. This is an elegant iron ore, extremely hard, of a dark reddish or yellowish colour: it is found either along with other ores of iron, or in distinct mines by itself. With regard to its medical virtues, we conceive they do not vary from those experienced from rust, and the common croci of iron, notwithstanding the extraordinary opinion which many, even of the late practitioners, have entertained of it; as of its curing ulcers of the lungs, which Geofroy says the hæmatites dries and heals.

HALICACABUM, vide ALKEREKENGII.

HEDERA ARBOREA [E.]

hedera communis major Raii. Ivy; the leaves, berries, and resin called gum hedera. This is a climbing shrubby plant, growing commonly from the trunks of trees, or on old walls. The leaves have very rarely been exhibited internally, notwithstanding they are recommended (in the *Ephem. natur. curios.* vol. ii. obs. 120.) against the atrophy of children: their taste is nauseous, acrid, and bitter. Externally they have sometimes been employed for drying and healing ichorous sores, and likewise for keeping issues open. The berries were supposed by the ancients to have a purgative and emetic quality: later writers have recommended them in small doses, as diaphoretics and alexipharmacs; and Mr Boyle tells us, that in the London plague the powder of them was given with vinegar, with good success, as a sudorific: we apprehend that the virtue of the composition was rather owing to the vinegar than to the powder. The resin was ranked by the ancients (if their *δακρυον ην κισσοῦ*, was the same with our *gummi hederae*) among the depilatories; from this class, which it certainly had no title to, it has since been removed to that of conglutinators of wounds, to which it has no very just one.

HEDERA TERRESTRIS [L. E.]

hedera terrestris vulgaris, C. B. Ground-ivy; the leaves. Ground-ivy is a low plant, frequent in hedges and shady places. It has an aromatic, though not very agreeable smell; and a quick, bitterish, warm taste. This herb is an useful corroborant, aperient, and detergent; and hence stands recom-

recommended against laxity, debility, and obstructions of the viscera: some have had a great opinion of it for cleansing and healing ulcers of the internal parts, even of the lungs; and for purifying the blood. It is customary to infuse the dried leaves in malt liquors (under the name of gill-ale) which it readily communicates its virtue to, and likewise helps to fine them down: scarce any other herb has this effect more remarkable than ground-ivy.

HELENIMUM, vide ENULA CAMPANA.

HELLEBORUS ALBUS [L. E.]
helleborus albus flore subviridi, C. B.
White hellebore; the root. This plant grows spontaneously in Swisserland, and the mountainous parts of Germany. The root has a nauseous, bitterish, acrid taste, burning the mouth and fauces: wounded when fresh, it emits an extremely acrimonious juice, which mixed with the blood, even by a slight wound, is said to prove mortal: the powder of the dry root, applied to an issue, occasions violent purging: snuffed up the nose, it proves a strong, but not always a safe sternutatory. This root, taken internally, acts with extreme violence as an emetic, and has been observed, even in a small dose, to occasion convulsions, and other terrible disorders. The ancients sometimes employed it in very obstinate cases, but always made this their last resort. Modern practice seems to have almost entirely rejected its internal use, tho' I am informed that some have lately ventured upon so large a dose as a scruple, in maniacal cases, and found good effects from it after the stronger antimonial preparations had been given in vain.

HELLEBORUS NIGER [L. E.]
helleborus niger flore roseo, C. B.

Black hellebore; the roots. This grows wild in the mountainous parts of Swisserland, Austria, and Stiria: the earliness of its flowers, which sometimes appear in the latter end of December, has gained it a place in our gardens.

In some parts of Germany, a species of black hellebore has been made use of, which not unfrequently produced violent, and sometimes deleterious effects: this the Wirtemberg college particularly caution against, though without mentioning any marks by which it may be distinguished, or even giving the precise name of the plant. It appears to be the fetid black hellebore of C. B. called in England, where it grows wild, fetterwort, settlewort, or bastard hellebore: the roots of this may be distinguished from the officinal sort by their being less black. The roots of the poisonous aconites resemble in appearance those of the black hellebore; and in the Breslaw collections we find some instances of fatal effects occasioned by mistaking the former for the latter: these also are happily discoverable by their colour; the *aconitum* being lighter coloured than even the palest of the black hellebores. The faculty of Paris, by allowing the use of one of the paler hellebores (the green-flowered, which grows wild in England, and is called by our farriers, peg-root) have in some measure deprived the shops of the benefit of this criterion: but our college have directed the darkest coloured of all the roots of this class. Since therefore the two noxious roots which the buyer is most apt to mistake for this, are distinguishable from it by their colour, but have no other external mark by which they may be with certainty known; particular regard ought to be had to this circumstance; only

only the deepeſt black being choſen, and all the paler roots reject- ed.

The taſte of hellebore is acrid and bitter. Its acrimony, as Dr. Grew obſerves, is firſt felt on the tip of the tongue, and then ſpreads immediately to the middle, with- out being much perceived on the intermediate part: on chewing it for a few minutes, the tongue ſeems benumbed, and affected with a kind of paralytic ſtupor, as when burnt by eating any thing too hot: the fibres are more acrimonious than the head of the root which they iſſue from. Black hellebore is a powerful and vehement cathar- tic; and as ſuch has been celebrated for the cure of maniacal, and other diſorders, proceeding from what the ancients called *atra bilis*: but it is now ſeldom made uſe of in theſe intentions; practitioners having introduced, in its place, ſome other ſubſtances, no leſs effi- cacious, though perhaps more ſafe. It does not however appear, that our black hellebore acts with ſo much violence as that of the an- cients: whence many have ſuppoſed it to be a different plant: and indeed the deſcriptions which the ancients have left us of their helle- bore, do not agree to any of the ſorts uſually taken notice of by mo- dern botaniſts. Another ſpecies has been diſcovered in the eaſtern countries, which Tournefort di- ſtinguiſhes by the name of *hellebo- rus niger orientalis, ampliffimo folio; caule proſtrato, flore purpureſcente*, and ſuppoſes to be the true ancient hellebore, from its growing in plenty about mount Olympus, and in the iſland Anticyra, celebrated of old for the production of this antimaniacal drug: he relates, that a ſcruple of this ſort, given for a doſe, occaſioned convulſions. Our hellebore is at preſent looked upon

principally as an alterative, and in this light is frequently employed, in ſmall doſes, for attenuating vi- cid humours, promoting the ute- rine and urinary diſcharges, and opening inveterate obſtructions of the remoter glands: it often proves a very powerful emmenagogue in plethoric habits, where ſteel is ineffectual or improper. An extract made from this root with water, is one of the mildeſt, and for the pur- poſes of a cathartic the moſt effect- ual preparation of it; this operates ſufficiently, without occaſioning the irritation which the pure reſin is accompanied with. A tincture drawn with proof ſpirit, contains the whole virtue of the hellebore, and ſeems to be one of the beſt pre- parations of it when deſigned for an alterative: this tincture, and the extract, are kept in the ſhops.

HELXINE, vide PARIETA-
RIA.

HEPATIC A NOBILIS [E.]
ranunculus tridentatus vermis, flore ſimplici ceruleo Tour. Noble liver- wort; the leaves. This has a place in our gardens on account of the beauty and early appearance of its flowers. It is a cooling, gently reſtringent herb; and hence recom- mended in a lax ſtate of the fibres as a corroborant.

HEPATIC A TERRESTRIS,
vide LICHEN.

HERBA PARIS [E.] *ſolanum quadrifolium bacciferum C. B.* Herb Paris, truelove, or one berry; the leaves and fruit. This is a low plant growing wild in ſhady woods. It is ſaid, but on no good grounds, to be alexipharmac. Geſner re- lates, that its juice has killed poul- try; and its ſmell and taſte manifeſtly agree with thoſe of the more virulent narcotic herbs.

HER-

HERMODACTYLUS [E.] *Hermodactylus*; a root brought from Turkey. It is of the shape of a heart flattened, of a white colour, compact, yet easy to cut or powder; of a viscous sweetish taste, with a light degree of acrimony. *Hermodactylus* were of great repute among the ancients as a cathartic; but those we now meet with in the shops have very little purgative virtue: Neuman declares he never found them have any effect at all.

HERNIARIA [E.] *polygonum minus sive millegrana major glabra* C. B. Rupture wort; the leaves. This is a low herb, growing wild in sandy and gravelly grounds. It is a very mild restraining, and may, in some degree, be serviceable in disorders proceeding from a weak flaccid state of the viscera; the virtue which it has been most celebrated for, it has little title to, that of curing hernias.

HIPPOGLOSSUM [E.] *ruscus angustifolius, fructu folio innaescente* Journ. Double tongue; the leaves. This is met with only in gardens, where plants are cultivated for curiosity. It has rarely been taken notice of by medicinal writers.

HIPPOSELINUM [E.] *hipposelinum Theophrasti, vel Smyrniacum Dioscoridis* C. B. Alexanders; the leaves, roots, and seeds. This is an umbelliferous plant, differing from the others of that class, in bearing a large tumid black seed: it grows by the sea side, upon rocks. In medical qualities it agrees with *apium* (in allage) except that the *hipposelinum* is somewhat stronger.

HIRUNDINARIA, vide **VIRGATOXICUM**.

HORDEUM [E.] **HORDEUM DISTICHUM** [L.] *hordeum distichon, quod spica binas ordines habet* Plinio C. B. Common barley.

HORDEUM GALLICUM sive MUNDATUM. French barley; or the common barley freed from the shell.

HORDEUM PERLATUM *dictum* [L.] Pearl barley; prepared in Germany and Holland, by grinding the shelled barley into little round granules, which appear of a kind of pearly whiteness.

Barley, in its several states, is more cooling, less glutinous, and less nutritious than wheat or oats: among the ancients, decoctions of it were the principal aliment, and medicine, in acute diseases.

HORMINUM SATIVUM [E.] Garden clary; the leaves and seeds. These have a warm, bitterish pungent taste; and a strong, not very agreeable smell: the touch discovers in the leaves a large quantity of glutinous or resinous matter: They are principally recommended in the fluor albus, and other female weaknesses, in hysteric disorders, and in flatulent colics.

HYDRARGYRUS, vide **ARGENTUM VIVUM**.

HYOSCYAMUS ALBUS [E.] *hyoscyamus albus major vel tertius Dioscoridis, et quartus Plinii* C. B. White henbane; the seeds: this is met with only in botanic gardens.

HYOSCYAMUS NIGER [E.] *hyoscyamus vulgaris, vel niger* C. B. The common wild, or black henbane; the leaves. These plants stand recommended for sundry external purposes, and by some likewise internally against dysenteries and hæmorrhagies; but

there are so many examples of their pernicious effects, that common practice has very deservedly rejected them. They are strong and virulent narcotics, greatly disorder the senses, occasioning deliria and madness, either deadly, or of long duration. Haller tells us of one who eat of all the poisons of the physic garden, the napelli, apocyna, bella donna, without injury, but was mangled by this; that after its common effects as a narcotic had abated, a paralysis of one of the legs remained; and that Boerhaave had his senses disordered by only making a plaister from this plant. There are other examples also, tho' from less unexceptionable authorities, of henbane proving narcotic, though none of it was received into the body.

HYPERICUM [L. E.] *hypericum vulgare*, C. B. St. John's wort; the leaves, flowers, and seeds. This grows wild in woods and uncultivated places throughout England. Its taste is rough and bitterish; the smell disagreeable. Hypericum has long been celebrated as a corroborant, diuretic, and vulnerary; but more particularly in hysterical and maniacal disorders: it has been reckoned of such efficacy in these last, as to have thence received the name of *fuga demonum*. It is observable, that the flowery tops tinge expressed oils of a red colour (which very few vegetable substances will do) and communicate a blood red to rectified spirit. The oil tinged by them is kept in the shops.

HYPOCISTIS [L. E.] *hypocistis sub ciste*, C. B. A fleshy production, growing in the warmer climates from the roots of different kinds of cisti; its inspissated juice. This juice is an astringent,

similar to acacia, but somewhat stronger. At present it is scarce otherwise made use of, than as an ingredient in some of the old compositions.

HYSSOPUS [L. E.] *hyssopus officinarum, carulea sive spicata*, C. B. Hyssop; the leaves. These have an aromatic smell, and a warm pungent taste. Besides the general virtues of aromatics, they are particularly recommended in humoral asthmas, coughs, and other disorders of the breast and lungs; and said to notably promote expectoration.

JACOBÆA [E.] *jacobæa vulgaris laciniata*, C. B. Ragwort, or seggum; the leaves. This ragged-leaved plant grows wild by roadsides, and uncultivated places. Its taste is roughish, bitter, pungent, and extremely unpleasant: it stands strongly recommended by Simon Paulli against dysenteries; but its forbidding taste has prevented its coming into practice.

JALAPIUM; [L. E.] Jalap; the root of an American convolvulus, brought to us in thin transverse slices, from Xalapa, a province of New Spain. Such pieces should be chosen as are most compact, hard, weighty, dark coloured, and abound most with black circular stræ. Slices of bryony root are said to be sometimes mixed with those of jalap: these may be easily distinguished by their whiter colour, and less compact texture. This root has no smell, and very little taste upon the tongue; but, when swallowed, affects the throat with a sense of heat, and occasions a plentiful discharge of saliva.

Jalap, in substance, taken in a dose of about half a dram (less or more, according to the circumstances

stances of the patient) in plethoric, or cold phlegmatic habits, proves an effectual, and in general a safe purgative, performing its office mildly, seldom occasioning nausea or gripes, which too frequently accompany the other strong cathartics. In hypochondriacal disorders, and hot bilious temperaments, it gripes violently, if the jalap was good; but rarely takes due effect as a purge. An extract made by water purges almost universally, but weakly; and at the same time, has a considerable effect by urine: the root remaining after this process, gripes violently. The pure resin prepared by spirit of wine, occasions most violent gripings, and other terrible symptoms, but scarce proves at all cathartic: triturated with sugar, or with almonds into the form of an emulsion, or dissolved in spirit, and mixed with syrups, it purges plentifully in a small dose, without occasioning much disorder: the part of the jalap remaining after the separation of the resin, yields to water an extract, which has no effect as a cathartic, but operates powerfully by urine.

Frederic Hoffman particularly cautions against exhibiting this medicine to children, and assures us, that it will destroy appetite, weaken the body, and perhaps occasion even death. In this point, this celebrated practitioner was probably deceived: children, whose vessels are lax, and the food soft and lubricating, bear these kinds of medicines, as Geoffroy observes, better than adults.

JAPONICA TERRA [L. E.]
Japan earth, improperly so called, as being neither an earth, nor the produce of Japan; but an inspissated vegetable juice, prepared in the East Indies from the fruit, as is

supposed, of the areca palm tree. It is dry and pulverable, outwardly of a reddish colour, inwardly of a shining dark brown, almost black, with some cast of red. When pure, it dissolves totally in water, and almost totally in rectified spirit: as we usually meet with it, a considerable quantity of sandy matter is left by both these menstrua. This medicine is a mild astringent, and frequently employed as such in alvine fluxes, uterine profluvia, in laxity and debility of the viscera in general, and in coughs proceeding from thin acrid defluxions. Its taste is more agreeable than that of most other substances of this class; chewed for some time, it leaves a kind of sweetness in the mouth. The troches and tincture kept in the shops, are very elegant preparations of it.

JASMINUM [E.] *jasminum vulgatum flore albo*, C. B. Jasmine; the flowers. This is a small tree, commonly planted in our gardens. The flowers have a strong smell, which is liked by most people, though to some disagreeable: expressed oils extract their fragrance by infusion; and water elevates somewhat of it in distillation, but no essential oil has hitherto been obtained from them: the distilled water, kept for a little time, loses its odour. As to their medical virtues, the present practice expects not any from them, notwithstanding they have been recommended for promoting delivery, curing ulcerations of the uterus, &c.

IBERIS; [E.] *lepidium gramineo folio sive iberis Tourn.* Sciatica crests; the herb. This is met with only in botanic gardens: in taste, smell, and medical virtues, it agrees with the nasturtium. It has been particularly recommended
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in external applications against the sciatica, whence the English name of the plant.

ICHTHYOCOLLA [E.] Fish-glue, or ising-glass; a solid glutinous substance, obtained from a large kind of fish, caught in the seas of Moscovy. The skin, and some other parts of the animal are boiled in water, the decoction inspissated to a proper consistence, and then poured out so as to form thin cakes; these are either farther exsiccated till perfectly dry, or cut whilst soft into slices, which are afterwards bent, or rolled up into spiral, horse-shoe, and other shapes. This glue is more employed for mechanic purposes than in medicine. It may be given in a thin acrimonious state of the juices, after the same manner as the vegetable gums and mucilages; regard being had to their different disposition to putrescence. See page 57.

IMPERATORIA [E.] *imperatoria major* C. B. Masterwort; the root. This is a native of the Alps and Pyrenean mountains, and some parts of Germany, from whence we are supplied with roots superior in aromatic flavour to those raised in our gardens. The smell of this root is very fragrant; its taste, bitterish, warm, and pungent, glowing in the mouth for a long time after it has been chewed. This simple, though undoubtedly an elegant aromatic, is not regarded in the present practice. Its flavour is similar to that of angelica, but stronger.

IPECACOANHA; [L. E.] a root brought from the Spanish West Indies. It is divided into two sorts, Peruvian and Brazilian: but the eye distinguishes three, ash coloured or grey, brown, and white. The ash coloured, or Peruvian ipe-

cacoanha of the shops, is a small wrinkled root, bent and contorted into a great variety of figures, brought over in short pieces, full of wrinkles, and deep circular fissures, quite down to a small white woody fibre that runs in the middle of each piece; the cortical part is compact, brittle, looks smooth and resinous upon breaking: it has very little smell; the taste is bitterish and subacid, covering the tongue, as it were, with a kind of mucilage. The brown is small, and somewhat more wrinkled than the foregoing, of a brown or blackish colour without, and white within; this is brought from Brazil. The white sort is woody, has no wrinkles, and no perceptible bitterness in taste. The first sort (the ash coloured; or grey ipecacoanha) is that usually preferred for medicinal use. The brown has been sometimes observed, even in a small dose, to produce violent effects. The white, though taken in a large one, has scarce any effect at all: Mr. Geoffroy calls this sort bastard ipecacoanha, and complains that it is an imposition upon the public. To what species of plant the ipecacoanha belongs, has not as yet been determined. Geoffroy, Neuman, Dale, and Sir Hans Sloane, inform us, that the roots of a kind of apocynum (dogsbane) are too frequently brought over instead of it: and instances are given of ill consequences following from the use of these roots: if the marks above laid down, particularly the ash colour, brittleness, deep wrinkles, and bitterish taste, be carefully attended to, all mistakes of this kind may be prevented.

Ipecacoanha was first brought into Europe about the middle of last century, and an account of it published about the same time by Piso;

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but it did not come into general use till about the year 1686, when Helvetius, under the patronage of Lewis XIV, introduced it into practice. This root is one of the mildest and safest emetics we are acquainted with; and has this peculiar advantage, that if it should not operate by vomit, it passes off by the other emunctories. It was first introduced among us with the character of an almost infallible remedy in dysenteries, and other inveterate fluxes; as also in disorders proceeding from obstructions of long standing; nor has it lost much of its reputation by time. In dysenteries, it almost always produces happy effects, and often performs a cure in a very short space of time. In other fluxes of the belly, in beginning dysenteries, and such as are of a malignant kind, or where the patient breaths a tainted air, it has not been found equally successful: in these cases it is necessary to continue the use of this medicine for several days, and to join with it opiates, diaphoretics, and the like. This root, given in substance, is as effectual, if not more so than any of the preparations of it: the pure resin acts as a strong irritating emetic, but is of little service in dysenteries; whilst an extract prepared with water is almost of equal service in these cases with the root itself, though it has little effect as an emetic. Geoffroy concludes from hence, that the chief virtue of ipecacoanha in dysenteries depends upon its gummy substance, which lining the intestines with a soft mucilage, when their own mucus has been abraded, occasions their exulcerations to heal, and defends them from the acrimony of the juices; and that the resinous part, in which the emetic quality resides, is required where the morbid matter is lodged

in the glands of the stomach and intestines. But if the virtues of this root were entirely owing to its mucilaginous, or gummy part, pure gums, or mucilages, might be employed to equal advantage. Water, assisted by a boiling heat, takes up from all vegetables a considerable portion of resinous along with the gummy matter: if the ipecacoanha remaining after the action of water be digested with pure spirit, it will not yield half so much resin as at first: so that the aqueous extract differs from the crude root only in degree, being proportionably less resinous, and having less effect, both as an emetic, and in the cure of dysenteries. The virtues of ipecacoanha, in this disorder, depend upon its promoting perspiration, the freedom of which is here of the utmost importance, and an increase of which, even in healthful persons, is generally observed to suppress the evacuation by stool. In dysenteries, the skin is for the most part dry and tense, and perspiration obstructed: the common diaphoretics pass off without effect through the intestinal canal: but ipecacoanha, if the patient, after a puke or two, be covered up warm, brings on a plentiful sweat. After the removal of the dysentery, it is necessary to continue the use of the medicine for some time longer, in order to prevent a relapse: for this purpose, a few grains, divided into several doses, so as not to occasion any sensible evacuation, may be exhibited every day; by this means the cure is effectually established. And indeed small doses given, even from the beginning, have been often found to have better effects in the cure of this disease than larger ones. Geoffroy informs us, from his own experience, that he has observed ten grains of the powder to act

as effectually as a scruple or two; and therefore confines the dose betwixt six and ten grains.

IRIS FLORENTINA [L. E.] *iris Florentina alba*, C. B. Florentine orris; the root.

IRIS PURPUREA NOSTRAS [E.] *iris vulgaris Germanica sive sylvestris*, C. B. Flower-de luce; the root.

Both these are the same species of plant: several varieties of it are cultivated in our gardens on account of the elegance of their flowers. The roots, when recent, have a bitter, acrid, nauseous taste, and taken into the body prove strongly cathartic; and hence the juice is recommended in dropsies, in the dose of three or four scruples. By drying they lose this quality, yet still retain a somewhat pungent, bitterish taste: their smell in this state is of the aromatic kind; those produced in the warmer climates have a very grateful flavour, approaching to that of March violets: hence the use of the Florentine iris in perfumes, and for flavouring liquors: the shops employ it in the white *pectorals* troches, and as an ingredient in the theriaca.

IVA ARTHRITICA vide, **CHAMÆPITYS**.

JUGLANS [E.] The walnut-tree; the fruit, and its shell. The kernel of the fruit is similar in quality to almonds: the shell is astringent, and as such is made use of by the dyers; but neither are employed in medicine.

JUJUBÆ [E.] Jujubes; a half-dried fruit brought from France. Jujubes have a pleasant sweet taste. They are recommended in an acrimonious state of the juices; in coughs from thin sharp desfluxions;

and in heat of urine: but they are at present, among us, a stranger to medicinal practice, and to the shops.

JUNCUS ODORATUS [L. E.] *juncus odoratus sive aromaticus*, C. B. Sweet rush, or camels hay.

This is a dry smooth stalk, brought to us along with the leaves, and sometimes the flowers, from Turkey and Arabia, tied up in bundles about a foot long. The stalk, in shape and colour, somewhat resembles a barley straw: it is full of a fungous pith, like those of our common rushes: the leaves are like those of wheat, and surround the stalk with several coats, as in the reed: the flowers are of a carnation colour, striped with a lighter purple. The whole plant, when in perfection, has a hot bitterish, not unpleasent, aromatic taste, and a very fragrant smell; by long keeping, it loses greatly of its aromatic flavour. Distilled with water, it yields a considerable quantity of essential oil. It was formerly often used as an aromatic, and in obstructions of the viscera, &c. but at present is scarce otherwise employed than as an ingredient in mithridate and theriaca.

JUNIPERUS [L. E.] *juniperus vulgaris fruticosa* C. B. Juniper: the berries, wood, and the resin (improperly called gum) which exudes from it in the warmer climates. This is an ever-green shrub, growing upon heaths and hilly grounds in all the parts of Europe: the wood and resin are not at present made use of for medicinal purposes: the berries are brought from Holland, where this shrub is very plentiful. Juniper berries have a strong, not disagreeable smell; and a warm, pungent sweet taste, which if they are long chewed, or previously well bruised,

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is followed by a bitterish one. The pungency seems to reside in the bark; the sweet in the juice; the aromatic flavour in oily vesicles, spread through the substance of the pulp, and distinguishable even by the eye; and the bitter, in an oil lodged in the seeds: the fresh berries yield, on expression, a rich, sweet, honey-like, aromatic juice; if previously pounded so as to break the seeds, the juice proves tart and bitter. These berries are useful carminatives and stomachics: for these purposes, a spirituous water, and essential oil distilled from them, are kept in the shops. The liquor remaining after the distillation of the oil, passed through a strainer, and gently exhaled to the consistence of a rob, proves likewise a medicine of great utility, and in many cases is perhaps preferable to the oil, or berry itself: Hoffinan is expressly of this opinion, and strongly recommends it in debility of the stomach and intestines, and says it is particularly of service to old people who are subject to these disorders, or labour under a difficulty with regard to the urinary excretion: this rob is of a dark, brownish yellow colour, a balsamic sweet taste, with a little of the bitter, more or less according as the seeds in the berry have been more or less bruised.

KALI [E.] *kali majus coebaleo femine C. B.* Glaswort; its leaves, and the alkaline salt called *cineres clavellati*, or potash, which used formerly to be prepared from this plant only, but now from sundry sorts of woods, and other vegetable matters indifferently (see the article CINERES RUSSICI.) Several sorts of these salts, differing in degree of purity and strength, are to be met with in the shops of the druggist: they are rarely found under

this denomination in those of the apothecary or druggist.

KERMES; [L. E.] a round grain about the bulk of a pea, found (in Spain, Italy, and in the southern parts of France) adhering to the branches of the *ilex aculeata cocciglandifera C. B.* These grains appear, when fresh, full of small reddish ovula, or animalcules, of which they are the nidus. On expression, they yield a red juice, of a bitterish, somewhat rough and pungent taste, and a not unpleasent smell: this is brought to us from the south of France. The grains themselves are cured by sprinkling with vinegar before exiccation: this prevents the exclusion of the ova, and kills such of the animals as are already hatched; otherwise, they change into a winged insect, leaving the grain an empty husk.

Kermes, considered as a medicine, is a grateful, very mild restringent, and corroborant. In this light it was looked upon by the Greeks: the Arabians added a cordial virtue: European writers also have in general recommended it for exhilarating the spirits, and against palpitations of the heart, but more particularly for promoting birth, and preventing abortion. I have known, says Geoffroy, many women, who had never reached the end of pregnancy, made joyful mothers by the use of pills composed of kermes, *germin. ovor. exsiccat.* and *confectio de hyacintbo* (a composition, containing some vegetable astringents and aromatics, together with gold and silver leaf, four precious stones, and other ingredients of less value:) three of these pills must be taken for the first dose, and this repeated three times, at the interval of twice three hours; after which three pills more are to be taken every morning on

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the three last days of the moon in every month till delivery. Notwithstanding this assertion, we conceive our readers will with us believe, that neither the kermes, nor its auxiliaries, are to be much depended on.

LABDANUM; [L. E.] a resinous substance exuding upon the leaves of the *cistus ladanifera Cretica flore purpureo Tournef.* This resin is said to have been formerly collected from the beards of goats, who brouzed the leaves of the cistus: at present a kind of rake, with several straps or thongs of skins fixed to it, is drawn lightly over the shrub, so as to take up the unctuous juice, which is afterwards scraped off with knives. It is rarely met with pure, even in the places which produce it; the dust blown upon the plant by the wind, mingling with the tenacious juice: the inhabitants are also said to mix with it a certain black sand. In the shops two sorts are met with: the best (which is very rare) is in dark coloured, almost black masses, of the consistence of a soft plaister, which grows still softer upon being handled; of a very agreeable smell, and of a light pungent bitterish taste: the other sort is harder, not so dark coloured, in long rolls coiled up: this is of a much weaker smell than the first, and has a large admixture of a fine sand, which in the labdanum examined by the French academy, made up three fourths of the mass. Rectified spirit of wine almost entirely dissolves pure labdanum, leaving only a small portion of gummy matter, which has no taste or smell: and hence this resin may be thus excellently purified for

internal purposes. It is an useful ingredient in the stomachic and cephalic plasters of the shops.

LAC [E.] Milk appears to be a vegetable juice, with little or nothing of an animal nature. The quality and uses of this soft nutritious liquor are in general well known: we shall therefore, in this place, only give an account of some experiments, pointing out the alterations it undergoes from different admixtures, and the difference in quality of the milk of different animals.

New milk mixes uniformly with common water, the mineral chalybeate waters, wines, and malt liquors that are not acid, weak vinous spirits, solutions of sugar, soaps, and neutral salts; but not with oils expressed or distilled. Acids both mineral and vegetable coagulate it; as also do fixt and volatile alcalies, and highly rectified spirit of wine: the curd made by acids is resolved again by alkaline liquors; as that made by alcalies likewise is by acids. Neutral salts, nitre in particular, preserve it from coagulating spontaneously; and likewise render it less easily coagulable by acids.

The human milk is the sweetest of these liquors, and that of asses next to it: this last is the most dilute of them all: on suffering it to coagulate spontaneously, the curd scarce amounted to two drams from twelve ounces, whilst that of cows milk was five times as much: the coagulum of asses milk, even when made by acids, forms only into fine light flakes which swim in the serum; that of goats milk concretes into more compact masses which sink.

Upon

Upon evapo- rating twelve ounces of	There remained of dry matter drams	From which water extracted a sweet saline substance, amounting, when exsiccated, to drams
Cows milk	13	1 $\frac{1}{2}$
Goats milk	12 $\frac{3}{4}$	1 $\frac{1}{2}$
Human milk	8	6
Asses milk	8	6

The saline substance obtained from asses milk was white, and sweet as sugar; those of the others, brown or yellow, and considerably less sweet; that of cows milk, the least sweet of all. It appears therefore, that asses milk contains more serum, and much more of a saccharine saline matter, than those of cows and goats; and that the two latter abound most with unctuous gross matter: hence these are found to be most nutritious, whilst the first proves most effectual as an aperient and detergent.

The inspissated residuum of milk, digested with about as much water as was wasted in the evaporation, yields an elegant kind of whey, more agreeable in taste, and which keeps better, than that made in the common manner. This liquor promotes the natural secretions in general, and if its use is duly continued, does good service in scorbutic, and other disorders, proceeding from thick phlegm and obstructions of the viscera.

There are considerable differences in the milk of the same animal, according to its different aliment. Dioscorides relates, that the milk of goats, who fed on the scammony plant and spurge, proved cathartic: and examples are given in the Acta Hafniensia of bitter milk from the animal having eat wormwood. It is a common observation, that cathartics and spirituous liquors given to a nurse affect the child: and that the milk of animals feeding on

green herbs, is much more dilute than when they are fed with dry ones. Hoffman carries this point so far as to direct the ass (the animal, whose milk he in all cases prefers) to be dieted according to the disease which its milk is to be drank for.

LACCA [E.] Lac, improperly called gum lac; a sort of wax of a red colour, collected in the East Indies, by certain insects, and deposited on sticks fastened for this purpose in the earth. It is brought over, either adhering to the sticks, or in small transparent grains, or in semitransparent flat cakes: the first is called stick lac, the second seed lac, and the third shell lac. On breaking a piece of stick lac, it appears composed of regular cells like the honey-comb, with small corpuscles of a deep red colour lodged in them: these are the young insects, and to these the lac owes its tincture, for when freed from them its colour is very dilute. The shell and seed lacs, which do not exhibit any insects or cellular appearance upon breaking, are supposed to be artificial preparations of the other: the seed sort is said to be the stick lac bruised and robbed of its more soluble parts; and the shell to be the seed lac, melted and formed into cakes. The stick lac therefore is the genuine sort, and ought alone to be employed for medicinal purposes. This concrete is of great esteem in Germany,

many, and other countries for laxity and sponginess of the gums, proceeding from cold, or a scorbutic habit: for this use the lac is boiled in water, with the addition of a little alum; which promotes its solution; or a tincture made from it with rectified spirit. This tincture is recommended also internally in the fluor albus, and in rheumatic and scorbutic disorders: it has a grateful smell, and a not unpleasant, bitterish, astringent taste. The principal use of lac among us is in certain mechanic arts as a colouring drug, and for making sealing wax.

LACTUCA; [E.] *lactuca sativa* C. B. Garden lettuce; the leaves and seeds. The several sorts of garden lettuces are very wholesome, emollient, cooling salad herbs, easy of digestion, and somewhat loosening the belly. Most writers suppose that they have a narcotic quality; and indeed in many cases they contribute to procure rest; this they effect by abating heat, and relaxing the fibres. The seeds are in the number of the four lesser cold seeds.

There are two wild sorts of lettuce, not unfrequently met with under hedges, &c. These differ greatly in quality from the foregoing; as may be judged from their strong soporific smell. One of them is called by Morison, *lactuca sylvestris opii odore vehementi soporifero et viroso*. The upper leaves of this are jagged about the edges, the lower ones not. All the leaves of the other wild sort are very deeply jagged: hence this is by the same author distinguished by the name *lactuca sylvestris laciniata*.

LAMIUM ALBUM [L. E.] *laminum album non-factum, folio oblongo* C. B. White archangel, or dead

nettle; the leaves and flowers. This grows wild in hedges, and flowers in April and May. The flowers have been particularly celebrated in uterine fluors, and other female weaknesses; as also in disorders of the lungs.

LAPATHUM, Dock; the roots. We have ten or eleven docks growing wild in England, the roots of most of which are brought to market promiscuously; tho' two have been generally directed by physicians in preference to the others: these are

OXYLAPATHUM, [E.] *lapathum folio acute plano* C. B. The dock with long, narrow, sharp-pointed leaves, not curled up about the edges.

HYDROLAPATHUM; [E.] *lapathum aquaticum folio cubitali* C. B. The great water dock.

The roots of these plants gently loosen the belly, and have sometimes been useful ingredients in decoctions for removing a costive habit. They are also celebrated for the cure of scorbutic and cutaneous disorders, both exhibited internally, and applied externally in ointments, cataplasms, and fomentations. Muntingius published a treatise on these plants in the year 1681, in which he endeavours to prove, that our great water dock is the *herba Britannica* of the ancients: and indeed the description which Dioscorides gives of the latter does not ill agree to the former. This author therefore attributes to the *hydrolapathum* all the virtues ascribed of old to the *Britannica*, particularly recommending it in the scurvy, and all its symptoms. Where this disorder is of very long standing, so as not to yield to the *hydrolapathum* alone, he directs a composition, by the use of which, he says, even the venereal lues, will

will, in a short time, be effectually cured. Six ounces of the roots of the water dock, with two of saffron; and of mace, cinnamon, gentian root, liquorice root, and black pepper, each three ounces, (or, where the pepper is improper, six ounces of liquorice) are to be reduced into coarse powder, and put into a mixture of two gallons of wine, with half a gallon of strong vinegar, and the yolks of three eggs; and the whole digested, with a moderate warmth, for three days, in a glazed vessel, close stopt: from three to six ounces of this liquor are to be taken every morning on an empty stomach, for fourteen or twenty days, or longer.

LAPATHUM UNCTUOSUM,
vide BONUS HENRICUS.

LAPIS BEZOAR, CALAMINARIS, HÆMATITES, LAZULI; vide BEZOAR, CALAMINARIS, &c.

LAPPA MAJOR, vide BARDANA MAJOR.

LAVENDULA [L. E.] *lavendula angustifolia* C. B. Common, or narrow-leaved lavender, or spike; the flowers.

LAVENDULA [E.] *lavendula latifolia* C. B. Greater, or broad leaved lavender; the leaves and flowers. These plants have a fragrant smell, to most people agreeable; and a warm, pungent, bitterish taste: the broad leaved sort is the strongest in both respects, and yields in distillation thrice as much essential oil as the other; its oil is also hotter, and specifically heavier: hence, in the southern parts of France, where both kinds grow wild, this only is made use of for the distillation of what is called oil of spike. The narrow-leaved is

the sort commonly met with in our gardens, and therefore alone directed by the college.

Lavender is a warm stimulating aromatic. It is principally recommended in vertigo's, palsies, tremors, suppression of the menstrual evacuations; and in general in all disorders of the head, nerves, and uterus, proceeding from a weakness of the solids, and lentor or sluggishness of the juices. It is sometimes also used externally in fomentations for paralytic limbs. The distilled oil is particularly celebrated for destroying the *pediculi inguinales*, and other cutaneous insects; if soft spongy paper, dipt in this oil, either alone, or mixed with that of almonds, be applied at night to the parts infested by insects, they will certainly, says Geoffroy, be all found dead in the morning.

LAUREOLA [E.] *laureola semper-virens, flore viridi, quibusdam laureola mas* C. B. Spurge-laurel; the leaves and berries. This is a small shrub, growing wild in some of our woods. The leaves, berries, and bark, both of the stalks and roots, have an extremely acrid, hot taste, which lasts for a long time, burning and inflaming the mouth and fauces. Taken internally, they operate with great violence by stool, and sometimes by vomit; so as scarce to be exhibited with any tolerable degree of safety, unless their virulence be previously abated by boiling.

LAURUS [L. E.] *laurus vulgaris* C. B. The bay tree; its leaves and berries. These are generally brought from the Streights, though the tree bears the colds of our own climate. They have a moderately strong aromatic smell, and a warm, bitterish, pungent taste;

taste: the berries are stronger in both respects than the leaves, and afford in distillation a larger quantity of aromatic essential oil: they yield also an almost insipid oil to the press, in consequence of which they prove unctuous in the mouth. These simples are warm carminative medicines, and sometimes exhibited in this intention against flatulent colics; and likewise in hysterical disorders. Their principal use in the present practice is in clysters, and some external applications. The leaves enter our common fomentation: and the berries, the plaster and cataplasin of cummin; they also give name to an electary, which is little otherwise used than in clysters.

LAZULI lapis; [E.] a compact ponderous fossil, of an opaque blue colour, met with in the eastern countries, and in some parts of Germany. It owes its colour to copper, and hence, like the common preparations of that metal, proves emetic; with this disadvantage, that the quantity of copper it contains is uncertain.

LENS VULGARIS [E.] *lens vulgaris semine subrufo* C. B. Lentile; the seed. This is a strong, flatulent food, very hard of digestion: it is never, at least with us, used for any medicinal purpose.

LENTISCUS [E.] *lentiscus verus ex insula Chio, cortice et foliis fuscis, Commelin.* The lentise, or massich tree; the wood. This tree or shrub is a native of the warm climates, but bears the common winters of our own. The wood is brought to us in thick knotty pieces, covered with an ash coloured bark, and white within, of a rough, somewhat pungent taste, and an agreeable, tho' faint smell;

the smaller tough sprigs, are both in taste and smell the strongest. This wood is accounted a mild balsamic restringent: a decoction of it is in the German ephemerides, dignified with the title of vegetable *aurum potabile*, and strongly recommended in catarrhs, nauxæ, and weakness of the stomach; for strengthening the tone of the viscera in general, and promoting the urinary secretion.

* This is the tree, which, in the island Chio, affords the resin, called massiche. See the article **MAS-TICHE**.

LEPIDIUM [E.] *lepidium latifolium* C. B. Common broad ditander, pepperwort, or poor man's pepper; the leaves. This plant is sometimes found wild by the sides of rivers, and in other moist places. The leaves have an aromatic, pungent biting taste, somewhat approaching to that of pepper, but going off sooner than that of most other substances of this class. They are very rarely employed in medicine, though strongly recommended as antiscorbutics, and for promoting the urinary and cuticular secretions; virtues, which they have undoubtedly a good title to.

LEUCOIUM LUTEUM, vide **CHEIRI**.

LEVISTICUM; [E.] *angelica montana perennis, paludarii folio, Tourne.* Lovage the root and seed. This is a large umbelliferous plant, cultivated with us in gardens. The root nearly agrees in quality with that of angelica: the principal difference is, that the lovage root has a stronger smell, and a somewhat less pungent taste, accompanied with a more durable sweetness: the seeds are rather warmer, and more agreeable than the root. These

• simples,

simples, though certainly capable of being applied to useful purposes, are not at present regarded. The root, wounded early in the spring, bleeds an unctuous odorous juice, which slowly exsiccated, proves an elegant aromatic gummy resin.

LICHEN; [E.] *lichen petraeus cauliculo pileolum sustinente* C. B. Liverwort; the herb. This grows wild in moist shady places, and by the sides of rivers. It has a faint, not disagreeable smell; and an herbaceous, roughish, and somewhat bitterish taste. Great virtues have been attributed to this simple, in obstructions of the liver, jaundice, &c. which practitioners do not now expect from it.

LICHEN CINEREUS TERRESTRIS; [L. E.] *lichen terrestris cinereus Raii*. Ash coloured ground liverwort. This consists of pretty thick digitated leaves, flat above, of a reticular texture underneath, and fastened to the earth by small fibres: the leaves when in perfection are of an ash colour; by age they become darker coloured or reddish. It is met with on commons and open heaths, where it quickly spreads on the ground. Dr. Mead informs us, that this plant grows in all countries, and has been brought over from America along with the Peruvian bark: that it is found at all times, but ought to be gathered from autumn to winter, as being then in its freshest vigour.

This simple is said to be a warm diuretic; to the taste it is not a little nauseous. It is chiefly celebrated for its virtue in the cure of the disorders, occasioned by the bite of a mad dog. An account of the remarkable effects in these cases of a powder composed of the dried leaves and pepper, was communicated to the Royal Society by

Mr. Dampier, and published in the Philosophical transactions, N^o. 237. This powder was afterwards inserted (in the year 1721) into the London Pharmacopœia, under the title of *pulvis antilyssus*, at the desire of an eminent physician, who had great experience of its good effects. Some years after, the same gentleman published and dispersed a paper containing the method of cure, which he had in a great number of instances constantly found successful. In this paper, the directions were to the following effect: "Let the patient be blooded nine or ten ounces; and afterwards take a dram and a half of the powder every morning fasting, for four mornings successively, in half a pint of cows milk warm. After these four doses are taken, the patient must go into the cold bath, or a cold spring, or river, every morning fasting for a month; he must be kept all over, but not stay in (with his head above water) longer than half a minute, if the water be very cold; after this, he must go in three times a week for a fortnight longer." In the year 1745, the world was favoured with a new edition of the mechanical account of poisons, in which we find the same method of cure again recommended, as having, in a course of thirty years experience, never failed of success, where it had been followed before the hydrophobia begun. It is greatly to be wished, that the efficacy of this medicine in preventing these terrible disorders, was absolutely certain, and proved by incontestable facts. Instances have been produced of its proving unsuccessful; and the many examples of the fatality of the disease which continually occur, seem arguments either of the

L 4

inefficacy

inefficacy of the medicine, or a strange negligence in applying it. We shall only farther observe, that Boerhaave, who is in general sufficiently liberal in the commendation of remedies, ranks this among those insignificant trifles, which whoever depends upon will find himself deceived.

LIGNUM ALOES, vide AGALLOCHUM.

LIGNUM RHODIUM [L. E.] et ASPALATHUS [E.] Rosewood, a wood or root, brought from the Canary Islands: and aspalathus, a simple of considerable esteem among the ancients, but which has not come to the knowledge of later times.

The writers on botany, and the materia medica, are much divided about the lignum rhodium, not only with regard to the plant which affords it, but likewise in their accounts of the drug itself, and have described, under this name, simples manifestly different. This confusion seems to have arisen from an opinion, that the rhodium and aspalathus are the same; whence different woods brought into Europe for the unknown aspalathus, were sold again by the name of rhodium.

As to aspalathus, the ancients themselves disagree; Dioscorides requiring by this appellation the wood of a certain shrub freed from the bark, and Galen the bark of a root. At present, we have nothing under this name in the shops. What was heretofore sold among us as aspalathus, were pieces of a pale coloured wood brought from the East Indies, and more commonly called calambac.

The lignum rhodium of the shops is usually in long crooked pieces, full of knots, which when

cut, appear of a yellow-colour like box, with a reddish cast: the largest, smoothest, most compact, and deepest coloured pieces should be chosen: and the small, thin, or pale ones, rejected. The taste of this wood is lightly bitterish, and somewhat pungent; its smell very fragrant, resembling that of roses: long kept, it seems to lose its smell; but on cutting, or rubbing one piece against another, it smells as well as at first. Distilled with water, it yields an odoriferous essential oil, in very small quantity. Rhodium is at present in esteem only upon account of its oil, which is employed as an high and agreeable perfume, in scenting pomatums, and the like. But if we may reason from analogy, this odoriferous simple might be advantageously applied to nobler purposes: a tincture of it in rectified spirit of wine, which contains in a small volume the virtue of a considerable deal of the wood, bids fair to prove a serviceable cordial, not inferior perhaps to any thing of this kind.

LIGNUM TINCTILI CAMPECHENSE; [L. E.] *lignum Brasiliae simile, caruleo tingens* J. B. Campeachy or logwood; a wood brought from Campeachy in the bay of Honduras. This is usually met with in large logs, very compact and hard, of a red colour, and an astringent sweet taste. It has been for a long time used by the dyers; but not till very lately as a medicine: a decoction of it, and the extract, are in use in our hospitals, and said to have proved very serviceable in diarrhoeas.

LILIUM ALBUM; [E.] *lilium album flore erecto & vulgare* C. B. White lily; the roots and flowers. This is cultivated in gardens, more
for

for the beauty of its flowers than medicinal use.

LILIUM CONVALLIUM; [*E.*] *lilium convallium album* C. B. Lily of the valley, or May lily; the roots and flowers. This grows wild in woods and shady places, flowering in May.

The flowers of these plants are said to be cephalic and nervine. They have a pleasant sweet smell, which they impart by infusion to expressed oils, and give over in distillation both to water and spirit; but no essential oil has been hitherto obtained from them. Ettmuller says, that the distilled spirit is more fragrant than the water. The roots of the garden lily abound with a soft mucilage, and hence they have been used externally in emollient and maturating cataplasms. Those of the wild lily are very bitter: dried, they are said to prove a gentle errhine; as also are the flowers.

LIMONES; [*L. E.*] Lemons; the fruit of the *malus limonia acida* C. B. Their juice, yellow rind, and its essential oil called essence of lemons. The juice of lemons, is similar in quality to that of the *aurantia mala*; (oranges) from which it differs only in being more acid. The yellow peel is an elegant aromatic bitter, and as such is frequently employed in stomachic tinctures and infusions: it is considerably hotter than orange peel, and yields in distillation with water a larger quantity of essential oil: its flavour is nevertheless more perishable, yet does not arise so readily with spirit of wine; for a spirituous extract made from lemon peel possesses the aromatic taste and smell of the subject in much greater perfection than an extract prepared in the same manner from the peels of oranges.

LINARIA; [*E.*] *linaria vulgaris lutea flore majore* C. B. Toad flax; the leaves. This grows wild upon banks and about the sides of fields. It is said by some to be a powerful diuretic; whence it is named by *Tragus herba urinialis*; by others, to be a strong cathartic; infomuch that Brunfelsius has called it by a German name expressing this quality, *scheißkraut*. Experience scarcely warrants either of these appellations; nor does common practice take any notice of the plant.

LINGUA CERVINA; [*E.*] *lingua cervina officinarum* C. B. Harts-tongue; the leaves. This plant consists of a number of long narrow leaves, without any stalk: it grows upon rocks and old walls, and remains green all the year. The leaves have a roughish, somewhat glutinous taste, like that of maidenhair, but more disagreeable. They are recommended in obstructions of the viscera, and for strengthening their tone; and have sometimes been made use of for these intentions, either alone, or in conjunction with maidenhair, or the other plants called capillary.

LINUM CATHARTICUM; [*E.*] *linum pratense flosculis exiguis* C. B. Purging-flux, or mill-mountain; the leaves. This is a very small plant, not above four or five inches high, found wild upon chalky hills, and in dry pasture grounds. Its virtue is expressed in its title: an infusion in water or whey of a handful of the fresh leaves, or a dram of them in substance when dried, are said to purge without inconvenience.

LINUM VULGARE; [*L. E.*] *linum sativum* C. B. Common flax; the seed. Linseed yields to the press

press a considerable quantity of oil; and boiled in water, a strong mucilage: these are occasionally made use of for the same purpose as other substances of that class; and sometimes the seeds themselves in emollient and maturing cataplasms. They have also been employed in Asia, and, in times of scarcity, in Europe, as food; but are not agreeable, or in general wholesome: Tragus relates that those who fed on these seeds, in Zealand, had the hypochondres much distended, and the face and other parts swelled, in a very short time; and that not a few died of these complaints.

LIQUIDAMBRA; [E.] Liquidambar; a resinous juice which flows from a large tree growing in New Spain, Virginia, and other provinces of South America. This juice is at first about the consistence of turpentine, but by long keeping hardens in a resin: it is of a yellow colour inclining to red, a warm taste, and a fragrant smell not unlike that of storax heightened with a little ambergris. It was formerly of great use as a perfume, but is at present a stranger to the shops.

LITHARGYRUS; [L. E.] Litharge; a preparation of lead, usually in form of soft flakes, of a yellowish-reddish colour. If calcined lead be urged with a hasty fire, it melts into the appearance of oil, and on cooling concretes into litharge. Greatest part of the litharge met with in the shops, is produced in the purification of silver from lead, and the refining of gold and silver by means of this metal: according to the degree of fire and other circumstances, it proves of a pale or deep colour; the first is called litharge of silver, the other

litharge of gold. See the article **PLUMBUM**.

LITHOSPERMUM; [E.] *lithospermum majus erectum* C. B. Gromwell; the seed. This is found wild in dry fields and hedges. Its seeds are roundish, hard, of a whitish colour, like little pearls; and from these circumstances have been supposed peculiarly serviceable in calculous disorders. Their taste is merely farinaceous.

LOTUS URBANA; [E.] *lotus hortensis odora* C. B. Sweet trefoil; the leaves and seeds. The flowers of this plant are stronger in smell than the other parts: these have been recommended for diaphoretic, alexipharmac, anodyne, and other virtues; but their effects have not been found considerable enough to continue them in practice.

LUJULA; [L. E.] *oxy alba* Gerard. Wood sorrel; the leaves. This is a small plant, growing wild in woods. In taste and medical qualities, it is similar to the common sorrel (see the article *acetosa*) but considerably more grateful, and hence is preferred by the college. Boiled with milk, it forms an agreeable whey; and beat with sugar, a very elegant conserve, which has been for some time kept in the shops, and is now received in the dispensatory.

LUMBRICI et LIMACES TERRESTRES; [E.] Earth-worms and snails. Both these are supposed to cool and cleanse the viscera. The latter, from their abounding with a viscid glutinous juice, are recommended as a restorative in consumptions: for this purpose, they are directed to be boiled in milk; and thus

thus managed, they may possibly be of some service. They give over nothing in distillation either with water or spirit; and hence the distilled waters of them, though formerly in great esteem, are not found to have any of the virtues which the animals themselves are supposed to possess.

LUPINUS; [E.] *lupinus vulgaris, semine & flore albo, sativus* F. B. White lupines; the seeds. These have a leguminous taste, accompanied with a disagreeable bitter one. They are said to be anthelmintic, both internally taken, and applied externally. Caspar Hoffman cautions against their internal use, and tells us (from one of the Arabian writers) that they have sometimes occasioned death. Simon Paulli also says, that he saw a boy of eight or ten years of age, after taking a dram of these seeds in powder, seized with exquisite pains of the abdomen, a difficulty of respiration, and almost total loss of voice; and that he was relieved from these complaints by a glyster of milk and sugar, which brought away a vast quantity of worms. We would observe, with Mr. Geoffroy, that either these symptoms were owing to the worms, and not to the medicine; or that these seeds, if they have any noxious quality, lose it, with their bitterness, in boiling; since they were commonly used among the Greeks as food, and recommended by Galen as very wholesome.

LUPULUS; [E.] *convolvulus perennis, heteroclitus, floribus herbaceis, capsulis foliaceis strobili instar Moris*. Hops; the loose leafy heads which grow on the tops of the stalks. These are one of the most agreeable of the strong bitters, though rarely employed for

any medicinal purposes. Their principal consumption is in malt liquors, which they render less glutinous, and dispose to pass off more freely by urine.

MACIS; [L. E.] Mace; one of the coverings of the nutmeg (see the article *nux moschata*.) This spice, considered as the subject both of medicine and of pharmacy, agrees nearly with the nutmeg. The principal difference is, that mace is somewhat less astringent, yields to the press a more fluid oil, and in distillation a more volatile one: what is called in the shops expressed oil of mace, is prepared not from this spice, but from the nutmeg.

MAGISTRANTIA, vide **IMPE-RATORIA**.

MAJORANA; [L. E.] *majorana vulgaris* C. B. Sweet marjoram; the leaves. Marjoram is raised annually in our gardens for culinary, as well as medicinal uses; the seeds are usually procured from the southern parts of France, where the plant grows wild. It is a moderately warm aromatic, yielding its virtues both to aqueous and spirituous liquors by infusion, and to water in distillation. It is principally celebrated in disorders of the head and nerves, and in the humoral asthmas and catarrhs of old people. The powder of the leaves proves an agreeable errhine, and hence enters the sternutatory powder of the shops.

MALABATHRUM; [L. E.] *folium cinamomi sive canella Malabarica & Javanensis* C. B. Indian leaf. This leaf is of a green colour, firm texture, very smooth on one side, less so on the other, on which run three remarkable ribs through its whole length. Lemery and

and Pomet affirm, that these leaves have no perceptible smell or taste; Herman and others, that they have a very great share of both: those met with in our shops have little or no smell till they are well rubbed, when they emit an agreeable spicy odour: on chewing, they are found to have a faint taste, somewhat of the clove kind. This drug is of no farther use in medicine, than as an ingredient in the mithridate and theriaca; and is, when in its greatest perfection, much inferior to the mace, which our college direct as a succedaneum to it.

MALVA; [L. E.] *malva sylvestris folio sinuato* C. B. Mallow; the leaves, flowers, and seeds. These have a somewhat mucilaginous sweetish taste. The leaves are ranked the first of the four emollient herbs: they were formerly of some esteem, in food, for loosening the belly; at present decoctions of them are sometimes employed in dysenteries, heat and sharpness of urine, and in general for obtunding acrimonious humours: their principal use is in emollient glysters, cataplasms, and fomentations.

MALA; [E.] *fructus mali sativæ Raii*. Apples. All the sorts of apples have the common quality of cooling and abating thirst: the more acid kinds loosen the belly; the austere have rather a contrary effect.

MALA SYLVESTRIA; [E.] *fructus mali sylvestris acido fructu Tourn.* Crab apples or wildings. These are so acid as not to be eatable: their juice called verjuice, has sometimes supplied the place of vinegar, and has been made an ingredient in cooling and restraining gargarisms. At present they are

scarce ever employed for any medicinal use.

MANDRAGORA; [E.] *mandragora fructu rotundo* C. B. Mandrake; the leaves. The qualities of this plant are very doubtful: it has a strong disagreeable smell resembling that of the narcotic herbs, to which class it is usually referred. It has rarely been any otherwise made use of in medicine, than as an ingredient in one of the old officinal unguents.

MANNA; [L. E.] the juice of certain trees of the ash kind (growing in Italy and Sicily) either naturally concreted on the plants, or exciccated and purified by art. There are several sorts of manna in the shops. The larger pieces, called flake manna, are usually preferred; though the smaller grains are equally as good, provided they are white, or of a pale yellow colour, very light, of a sweet not unpleasant taste, and free from any visible impurities. Some people injudiciously prefer the fat honey-like manna to the foregoing: this has either been exposed to a moist air, or damaged by sea or other water. This kind of manna is said to be sometimes counterfeited by a composition of sugar and honey, mixed with a little scammony: there is also a factitious manna, which is white and dry, said to be composed of sugar, manna, and some purgative ingredient, boiled to a proper consistence; this may be distinguished by its weight, solidity, untransparent whiteness, and by its taste, which is different from that of manna.

Manna is a mild, agreeable laxative, and may be given with safety to children and pregnant women: nevertheless, in some particular constitutions,

stitutions, it acts very unkindly, producing flatulencies and distension of the viscera; these inconveniences may be prevented by the addition of any grateful warm aromatic. Manna operates so weakly as not to produce the full effect of a cathartic, unless taken in large doses, and hence it is rarely exhibited in this intention by itself. It may be commodiously dissolved in the purging mineral waters, or joined to the cathartic salts, fena, rhubarb, or the like. Geoffroy recommends acuating it with a few grains of emetic tartar; the mixture is to be divided into several doses, each containing one grain of the emetic tartar: by this management, he says, bilious serum will be plentifully evacuated, without any nausea, gripes, or other inconvenience. It is remarkable, that the efficacy of this drug is greatly promoted, (if the account of Vallisneri is to be relied on) by a substance which is itself very slow of operation, casia. (See the article *CASIA*.)

MARGARITÆ; [L. E.] Pearls; small concretions, of a transparent whiteness, found on the inside of the shell of the *concha margaritifera* or mother-of-pearl fish, as also of certain oysters, mussels, and other shell fishes. The pearls most esteemed are brought from the East and West Indies, and distinguished by the names of oriental and occidental; the oriental, which are valued most, have a more shining silver hue than the occidental; these last are somewhat milky: a sort inferior to both these is sometimes met with in our own seas, particularly on the coasts of Scotland. The coarse, rough pearls, and the very small ones which are unfit for other uses, are those generally employed in medicine. They have been greatly celebrated as cor-

dial, alexipharmac, and comforting the nerves: but the only virtue that can be reasonably expected from them is that of absorbing acidities in the primæ viæ, in which intention they enter three of the official powders. Their comparative strength, with regard to the other absorbents, may be seen in page 5.

MARRUBIUM; [L. E.] *marrubium album vulgare C. B.* White horehound; the leaves. These have a very strong, not disagreeable smell, and a roughish very bitter taste. Besides the virtues which they possess in common with other strong bitters, they are supposed to be peculiarly serviceable in humoral asthmas and coughs, the yellow jaundice proceeding from a viscosity of the bile, and other chronic disorders. They are certainly a powerful aperient and deobstruent, promote the fluid secretions in general, and liberally taken, loosen the belly.

MARUM SYRIACUM; [L. E.] *marum cortusi J. B. Chamædrys maritima incana frutescens foliis lanceolatis Tourn.* Syrian herb marsh; the leaves. This is a small shrubby plant, growing spontaneously in Syria, Candy, and other warm climates, and cultivated with us in gardens. The leaves have an aromatic bitterish taste; and, when rubbed betwixt the fingers, a quick pungent smell, which soon affects the head, and occasions sneezing: distilled with water, they yield a very acrid, penetrating essential oil, resembling one obtained by the same means from scurvygrass. These qualities sufficiently point out the uses to which this plant might be applied; at present, it is little otherwise employed than in cephalic snuffs.

MARUM

MARUM VULGARE; [L. E.] *sampfucus sive marum mastichen redolens* C. B. *Thymbra Hispanica majoranae folio* Tourne. Herb mastich; the leaves. This pungent aromatic plant also is become almost a stranger to practice.

MASTICHE; [L. E.] Mastich; a resin exuding from the lentisc tree (see *lentiscus*) and brought from Chio, in small, yellowish, transparent grains or tears, of an agreeable smell, especially when heated or set on fire. This resin is recommended in old coughs, dysenteries, hæmoptoes, weakness of the stomach, and in general in all debilities and laxity of the fibres. Geoffroy directs an aqueous decoction of it to be used for these purposes: but water extracts little or nothing from this resin; rectified spirit almost entirely dissolves it: the solution tastes very warm and pungent.

MATRICARIA; [L. E.] *matricaria vulgaris seu sativa* C. B. Common wild featherfew or feverfew; the leaves and flowers. This is a celebrated antihysterical: Simon Paulli relates, that he has experienced most happy effects from it in obstructions of the uterine evacuations; I have often seen, says he, from the use of a decoction of matricaria and chamæmel flowers with a little mugwort, hysterical complaints instantly relieved, the discharge succeed plentifully, and the patient, from a lethargic state, return as it were into life again. Matricaria is likewise recommended in sundry other disorders, as a warm stimulating bitter: all that bitters and carminatives can do, says Geoffroy, may be expected from this. It is undoubtedly a medicine of some use in these cases, though not equal to chamæmel flowers alone,

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with which the matricaria agrees in sensible qualities except in being weaker.

MECHOACANNA; [E.] the root of an American convolvulus, brought chiefly from Mechoacan, a province of Mexico, in thin slices like jalap, but larger, and of a whitish colour. It was first introduced among us (about the year 1524) as a purgative universally safe, and capable of evacuating all morbid humours from the most remote parts of the body. Soon as jalap became known, mechoacan gradually lost its reputation, which it has never since been able to retrieve. It is nevertheless by some still deemed an useful cathartic: it has very little smell or taste, and is not apt to offend the stomach; its operation is slow, but effectual and safe; Geoffroy affirms, that there is scarce any purgative accompanied with fewer inconveniences. It seems to differ from jalap only in being weaker; the resins obtained from both have nearly the same qualities, but jalap yields five or six times as much as mechoacan; hence it is found necessary to exhibit the latter in six times the dose of the former, to produce the same effects.

MEL; [L. E.] Honey is a vegetable juice, obtained from the honey-comb, either by separating the combs, and laying them flat upon a sieve, through which the honey spontaneously percolates; or by including the comb in canvas bags, and forcing the honey out by a press: the first sort is the purest; the latter is found to contain a good deal of the matter of which the comb is formed, and sundry other impurities: there is another sort still inferior to the two foregoing, obtained by heating the combs before

fore they are put into the press. The best sort is thick, of a whitish colour, an agreeable smell, and a very pleasant taste: both the colour and flavour differ according to the plants which the bees collect it from: that of Narbonne in France, where rosemary abounds, is said to have a very manifest flavour of that plant, and to be imitable by adding to other honey an infusion of rosemary flowers. Honey, considered as a medicine, is a very useful detergent and aperient, powerfully dissolving viscid juices, and promoting the expectoration of tough phlegm: in some particular constitutions it has an inconvenience of griping or proving purgative; this is said to be in some measure prevented, by previously boiling the honey.

MELAMPIDIUM, vide HELLEBORUS NIGER.

MELILOTUS; [E.] *trifolium odoratum seu melilotus vulgaris* J. B. Melilot; the leaves and flowers. This grows wild in hedges and among corn; and has likewise, for medicinal uses, been cultivated in gardens. The green herb has no remarkable smell; when dry, a pretty strong one: the taste is roughish, bitter, and if long chewed, nauseous. A decoction of this herb has been recommended in inflammations of the abdomen; and a decoction of the flowers in the fluor albus. But modern practice rarely employs it any otherwise than in emollient and carminative glysters, and in fomentations, cataplasms, and the like; and in these not often. It formerly gave name to one of the officinal plasters, which received from the melilot a green colour, but no particular virtue.

MELISSA; [L. E.] *melissa hortensis* C. B. Balm; the leaves. This plant, when in perfection, has a pleasant smell, somewhat of the lemon kind; and a moderately aromatic subacid taste. The young shoots have the strongest flavour: the flowers, the herb itself when old, or produced in very moist rich soils or rainy seasons, are much weaker both in smell and taste. Balm is appropriated, by the writers on the materia medica, to the head, stomach, and uterus; and in all disorders of these parts is supposed to do extraordinary service. So high an opinion have some of the chemists entertained of balm, that they have expected to find in it a medicine which should prolong life beyond the usual period. The present practice however holds it in no great esteem, and ranks it (where it certainly deserves to be) among the weaker aromatics: in distillation, it yields an elegant essential oil, but in exceeding small quantity; the remaining decoction tastes roughish. Strong infusions of the herb, drank as tea, and continued for some time, have done service in a weak lax state of the viscera: these liquors, lightly acidulated with juice of lemons, turn of a fine reddish colour, and prove an useful, and to many a very grateful drink, in dry parching fevers.

MELO; [E.] Melon; the seeds. These stand among the four greater cold seeds. They have been sometimes used, with the others of that class, as cooling and emollient; but are at present little taken notice of.

MENTHA CATARIA; vide NEPETA.

MENTHA

MENTHA VULGARIS; [L.E.] *mentha angustifolia spicata* C. B. Garden or spearmint; the leaves. The leaves of mint have a warm, roughish, somewhat bitterish taste; and a strong, not unpleasant, aromatic smell. Their virtues are those of a warm, stomachic and carminative: in loss of appetite, nausea, continual retchings to vomit, and (as Boerhaave expresses it) almost paralytic weakness of the stomach, there are few simples perhaps of equal efficacy. In colicky pains, the gripes to which children are subject, lenteries and other kinds of immoderate fluxes, this plant frequently does good service. It likewise proves beneficial to sundry hysteric cases, and affords an useful cordial in languors and other weaknesses consequent upon delivery. The best preparations for these purposes are, a strong infusion made from the dry leaves in water (which is much superior to one from the green herb) or rather a tincture or extract prepared with rectified spirit. These possess the whole virtues of the mint: the essential oil and distilled water contain only the aromatic part; the expressed juice only the astringency and bitterishness, together with the mucilaginous substance common to all vegetables.

MENTASTRUM; [E.] *mentastrum spicatum folio longiore candicanti* J. B. Horse mint; the leaves. This and several other sorts of mint are found wild in moist meadows, marshes, and on the brinks of rivers. They are much less agreeable in smell than spearmint, and have more of a hot unpleasant bitterness.

MENTHA PIPERITIS; [L.] *mentha spiciis brevioribus & habitioribus, foliis menthae fusca, sapore*

feruido piperis Raii *Synops.* Peppermint; the leaves. This species has been lately introduced into practice, and received for the first time in our present pharmacopœia: very few of the botanical or medical writers make mention of it; it grows wild in some parts of England, in moist watery places, but is much less common than the other sorts. The leaves have a more penetrating smell than any of the other mints, and a much warmer, pungent, glowing taste like pepper, sinking as it were into the tongue. The principal use of this herb is in flatulent colics, languors, and other like disorders: it seems to act as soon as taken, and extend its effects through the whole system, instantly communicating a glowing warmth. Water extracts the whole of the pungency of this herb by infusion, and elevates it in distillation.

MERCURIALIS; [E.] *mercurialis testiculata sive mas, & spicata sive femina, Dioscoridis & Plinii* C. B. Male and female French mercury; the leaves. These stand among the five emollient herbs; and in this intention are sometimes made use of in glysters. A syrup made from the leaves, given in the dose of two ounces, is said to prove a mild and useful laxative.

There is another sort of mercurialis growing in woods and hedges, which though recommended by some botanic writers, as having the same virtues with the foregoing, and as more palatable, has been lately found possessed of noxious qualities. (See *Raii Synops.* edit. 3. page 138. *Phil. Trans. abr. Lowthorp*, ii. 640.) This may be distinguished from the foregoing by its being a perennial plant, larger, having its leaves rough, and the stalk not at all branched. The official

official sort is named by Linnaeus *mercurialis caule brachiato, foliis glabris*; the poisonous *mercurialis caule simplicissimo, foliis scabris*; it is commonly called dogs mercury.

MERCURIUS, vide ARGENTUM VIVUM.

MESPILUS; [E.] *mespilus vulgaris* J. B. The medlar tree; its fruit. Medlars are scarce ever made use of for any medicinal purposes. They have a very austere astringent taste, inſomuch as not to be eatable until mellowed by keeping.

MEUM ATHAMANTICUM; [L. E.] *meum foliis anſibi* C. B. Spignel; the root. Spignel is an umbelliferous plant, found wild in Italy, and the warmer parts of Europe, and ſometimes alſo in England. The roots have a pleaſant aromatic ſmell, and a warm, pungent, bitteriſh taſte: in virtue, they are ſimilar to the *leviſticum*, from which this root ſeems to differ only in being weaker, and ſomewhat more agreeable. It is an uſeful aromatic and carminative, though at preſent little regarded.

MEZEREON; [E.] *laureola folio deciduo, flore purpureo, officiis laureola ſtemina* C. B. Mezereon or ſpurge-olive; the root, bark and berries. Theſe are ſtrong purgatives, ſimilar in quality to the *laureola* or ſpurge laurel, of which in its place.

MILIUM; [E.] *milium ſemine luteo* C. B. Millet; the ſeed. Theſe ſeeds are frequently employed in food, but hardly ever as medicines: they are ſufficiently nutritious, and not difficult of digeſtion.

MILIUM SOLIS, vide LI-
THOSPERMUM.

MILLEFOLIUM; [E.] *millefolium vulgare album, & millefolium purpureum* C. B. Milfoil or yarrow; the leaves. This grows plentifully about the ſides of fields, and on dry commons, flowering greateſt part of the ſummer. The leaves have a rough bitteriſh taſte, and a faint aromatic ſmell. Their virtues are thoſe of a very mild aſtringent, and as ſuch they ſtand recommended in hæmorrhagies both internal and external, diarrhœas, debility and laxity of the fibres; and likewiſe in ſpaſmodic hyletical affections. In theſe caſes, ſome of the Germans have a very high opinion of this herb, particularly Stahl, who eſteems it a very effectual aſtringent, and in his language, one of the moſt certain tonics and ſedatives. Its virtues are extracted in greateſt perfection by proof ſpirit: water takes up its aſtringency and bitterneſs, but little of its aromatic flavour; tinctures made in rectified ſpirit contain the latter, with little of the former.

The flowers of milfoil are conſiderably ſtronger in aromatic flavour than the leaves; in diſtillation, they yield a ſmall quantity of eſſential oil, of an elegant blue colour.

The roots, taken up in the ſpring, have an agreeable, warm, pungent taſte: Dr. Grew reſembles them to contrayerva, and imagines they might in ſome meaſure ſupply its place; this, however, is greatly to be doubted, ſince there is ſuch a remarkable difference betwixt the two, that whiſt one retains its taſte for a length of time after it has been brought to us from America, the taſte of the other is in great meaſure loſt by drying.

MILLEPEDÆ; [L. E.] Woodlice, hoglice, flaters. Theſe inſects are found in cellars, under ſtones,

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and

and in cold moist places: in the warmer countries they are rarely met with. Millepedes have a faint disagreeable smell, and a somewhat pungent, sweetish, nauseous taste. They have been highly celebrated in suppressions of urine, in all kinds of obstructions of the bowels, in the jaundice, weakness of sight, and a variety of other disorders. Whether they have any just title to these virtues, is greatly to be doubted: thus much is certain, that their real effects come far short of the character usually given of them.

MINIUM; [L. E.] Red lead; lead calcined to redness. See the article **PLUMBUM**.

MORSUS DIABOLI; [E.] *scabiosa pratensis nostras præmorfa radice Morison*. Devils bit; the leaves and roots. These stand recommended as alexipharmacs, but they have long given place to medicines of greatly efficacy.

MORUS; [L. E.] *morus fructu nigro C. B.* The mulberry tree; its fruit [L. E.] and the bark of the roots [E.] This tree is commonly cultivated on account of its fruit, which is rather eaten for pleasure than used as a medicine: it has the common qualities of the other sweet fruits, abating heat, quenching thirst, and promoting the grosser secretions; an agreeable syrup made from the juice, is kept in the shops. The bark of the roots has been in considerable esteem as a vermifuge; its taste is bitter, and somewhat astringent.

MOSCHUS; [L. E.] Musk: a grumous substance like clotted blood, found in a little bag situated near the umbilical region of a particular kind of animal met with in China, Tartary, and the East In-

dies: the best musk is brought from Tonquin, an inferior sort from A-gria and Bengal, and a still worse from Russia.

Fine musk comes to us in round, thin bladders; which are generally about the size of a pigeon's egg, covered with short brown hairs, well filled, and without any appearance of having been opened. The musk itself is dry, with a kind of unctuousity, of a dark reddish brown, or rusty blackish colour, in small round grains, with very few hard black clots, and perfectly free from any sandy or other visible foreign matter. If chewed, and rubbed with a knife on paper, it looks smooth, bright, yellowish, and free from grittiness. Laid on a red hot iron, it catches flame, and burns almost entirely away, leaving only an exceeding small quantity of light greyish ashes: if any earthy substances have been mixed with the musk, the quantity of the residuum will readily discover them.

Musk has a bitterish subacid taste; a fragrant smell, agreeable, at a distance, but when smelt near to, so strong as to be disagreeable, unless weakened by the admixture of other substances. If a small quantity be infused in spirit of wine in the cold for a few days, it imparts a deep, but not red tincture: this, though it discovers no great smell of the musk, is nevertheless strongly impregnated with its virtues; a single drop of it communicates to a whole quart of wine a rich musky flavour. The degree of flavour which a tincture drawn from a known quantity of musk, communicates to vinous liquors, is perhaps one of the best criteria for judging of the goodness of this commodity. Neuman informs us, that spirit of wine dissolves ten parts out of thirty of musk, and that wa-
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ter takes up twelve; that water elevates its smell in distillation, whilst pure spirit brings over nothing.

Musk is a medicine of great esteem in the eastern countries; among us, it has been for some time pretty much out of use, even as a perfume, on a supposition of its occasioning vapours, &c. in weak females, and persons of a sedentary life. It appears, however, from late experience, to be, when properly managed, a remedy of good service even against those disorders which it has been supposed to produce. Dr. Wall has communicated (in the philosophical transactions, no. 474.) an account of some extraordinary effects of musk in convulsive and other diseases which have too often baffled the force of medicine. The doctor observes, that the smell of perfumes is often of disservice, where the substance taken inwardly, and in considerable quantity, produces the happiest effects: that two persons, labouring under a subsultus tendinum, extreme anxiety, and want of sleep, from the bite of a mad dog, by taking two doses of musk, each of which was sixteen grains, were perfectly relieved from their complaints. He likewise observes, that convulsive hiccups, attended with the worst symptoms, were removed by a dose or two, of ten grains: and that in some cases, where this medicine could not, on account of strong convulsions, be administered to the patient by the mouth, it proved of service when injected as a glyster. He likewise adds, that under the quantity of six grains, he never found much effect from it; but that given to ten grains and upwards, it never fails to produce a mild diaphoresis, without at all heating or giving any uneasiness; that on the contrary, it eases pain, raises the spirits, and that after the

sweat breaks out, the patient usually falls into a refreshing sleep; that he never met with any hysterical person, how averse soever to perfumes, but could take it, in the form of a bolus, without inconvenience. To this paper is annexed an account of some farther extraordinary effects of musk, observed by another gentleman. Repeated experience has since confirmed its efficacy in these disorders. I have myself frequently exhibited it with remarkable success; and sometimes increased the dose as far as twenty grains every four hours, with two or three spoonfuls of the musk juleps between. There are not perhaps many examples of its proving ineffectual, unless where the musk (which too frequently happens) was of a bad kind.

MYROBALANI; [E.] Myrobalans, dried fruits brought from the East Indies; their outward part freed from the stone. There are five kinds of myrobalans met with in the shops; (1) the yellow, *myrobalani teretes citrini* C. B. (2) the chebule, *myrobalani maxime oblongæ angulosæ* C. B. (3) The Indian or black, *myrobalani nigriæ octangulares* C. B. (4) The belliric, *myrobalani rotundæ belliricæ* C. B. (5) The emblic, *myrobalani emblicæ in segmentis nucleum habentes, angulosæ* J. B.

All the myrobalans have a low degree of purgative virtue. They have also an astringent quality, discoverable by the taste, from their use among the Indians for tanning leather, and from their striking a black colour with chalybeate solutions: in consequence of this, they are supposed to strengthen the bowels after their operation as a cathartic is over. Nevertheless their purgative virtue is so inconsiderable, that practitioners have for a long

time laid them entirely aside in that intention.

MYRRHA; [L. E.] Myrrh; a concrete gummy resinous juice brought from the East Indies, in glebes or drops, of various colours and magnitudes. The best sort is of a brown or reddish yellow colour, somewhat transparent; of a lightly pungent, bitter taste, with an aromatic flavour though not sufficient to prevent its proving nauseous to the palate; and a strong not disagreeable smell. The medical effects of this aromatic bitter are, to warm and strengthen the viscera, and dissolve thick tenacious juices: it frequently occasions a mild diaphoresis, and promotes the fluid secretions in general. Hence it proves serviceable, in languid cases, diseases arising from a simple inactivity, those female disorders which proceed from a cold, mucous, sluggish indisposition of the humours, suppressions of the uterine discharges, cachectic disorders, and where the lungs and thorax are oppressed by viscid phlegm. Myrrh is likewise supposed in a peculiar manner to resist putrefaction in all parts of the body; and in this light stands recommended in malignant, putrid, and pestilential fevers, and in the small-pox, in which last it is said to accelerate the eruption. Rectified spirit extracts the fine aromatic flavour and bitterness of this drug, and does not elevate any thing of either in evaporation: the gummy substance left by this menstruum has a disagreeable taste, with scarce any thing of the peculiar flavour of the myrrh; this part dissolves in water, except some impurities which remain. In distillation with water, a considerable quantity of a ponderous essential oil arises, resembling in flavour the original drug.

MYRRHIS; [E.] *myrrhis magno semine, longo, sulcato*, J. B. Sweet cicely; the leaves and seeds. This plant is cultivated in gardens: it agrees in quality with the *chæresolum*, of which in its place.

MYRTUS; [E.] *myrtus communis Italica* C. B. Myrtle; the berries. This is an ever green shrub, growing in Italy, and cultivated in our botanic gardens. The leaves and berries have been sometimes made use of as astringents, but are not at present regarded.

NAPUS DULCIS officinarum; [L. E.] *napus sativa* C. B. Sweet navew, or navew gentle; the seeds. This is a sort of turnep, sown in some of our gardens for culinary use: the roots are warmer than the common turnep. The seeds have a bitterish taste accompanied with a faint aromatic flavour: abundance of virtues have been ascribed to them, as attenuating, detergent, alexipharmac, and others; at present, they are of no farther use in medicine, than as an ingredient in the theriaca.

NAPUS SYLVESTRIS; [E.] Rape; the seeds. This has little other external difference from the foregoing than being smaller: it grows wild upon dry banks and among corn. The seeds of this are warmer and more pungent than those of the garden sort: the only use however they are applied to, is the preparation of the oil called rape oil, which is obtained by bruising and pressing the seeds: large quantities of the plant are cultivated for this purpose in the isle of Ely.

NARDUS CELTICA; [L. E.] *nardus Celtica Dioscoridis* C. B. *Valeriana Celtica* Tourn. Celtic nard; the root, brought from the Alps, &c.

&c. This root consists of a number of fibres, with the lower part of the stalks adhering; these last are covered with thin yellowish scales, the remains of the withered leaves.

NARDUS INDICA; [L. E.] *nardus Indica, quæ spica, spica nardii, & spica Indica officinarum* C. B. Indian nard, or spikenard, brought from the East Indies. This is a congeries of small fibres issuing from one head, and matted close together, so as to form a bunch about the size of the finger, with some small strings at the opposite end of the head. The matted fibres, (which are the part chosen for medicinal purposes) are supposed by some to be the head or spike of the plant, by others the root: they seem rather to be the remains of the withered stalks, or the ribs of the leaves; sometimes entire leaves and pieces of stalks are found among them; we likewise now and then meet with a number of these bunches issuing from one root.

Both the nards have a warm, pungent; bitterish taste; and a strong, not very agreeable smell. They are stomachic and carminative; and said to be alexipharmac, diuretic, and emmenagogue: their only use at present is as ingredients in the mithridate and theriaca.

NASTURTIIUM AQUATICUM; [L. E.] *nasturtium aquaticum supinum* C. B. Water-crelles; the leaves. This plant grows wild in rivulets, and the clearer standing waters; its leaves remain green all the year, but are in greatest perfection in the spring. They have a quick pungent smell (when rubbed betwixt the fingers) and an acrid taste, similar to that of *cochlearia*, but weaker. As to their virtues, they are among the milder aperient antiscorbutics: Hoffman

has a mighty opinion of this plant, and recommends it as of singular efficacy for accelerating the circulation, strengthening the viscera, opening obstructions of the glands, promoting the fluid secretions, and purifying the blood and humours: For these purposes, the expressed juice, which contains the peculiar taste and pungency of the herb, may be taken in doses of an ounce or two, and continued for a considerable time.

NASTURTIIUM HORTENSE; [E.] *nasturtium vulgare seu hortense, tenuiter divisum, Morison.* Garden cresses; the leaves and seeds. The leaves of garden cresses make an useful salad in scorbutic habits: in taste and medical virtues, they are similar to the foregoing, but much weaker. The seeds also are said to be nearly of the same quality.

NEPETA; [L. E.] *mentha cataria vulgaris & major* C. B. Nep, or cat mint; the leaves. Cat mint (so called from its being often destroyed by that animal) is met with in our gardens, and sometimes growing wild in hedges and on dry banks. It is a moderately aromatic plant, of a strong smell, not ill resembling a mixture of mint and pennyroyal; of the virtue of which it likewise participates.

NEPHRITICUM LIGNUM; [E.] *lignum peregrinum, aquam caeruleam reddens* C. B. An American wood, brought to us in large, compact, ponderous pieces, without knots, of a whitish or pale yellow colour on the outside, and dark coloured or reddish within: the bark is usually rejected. This wood imparts to water or rectified spirit a deep tincture, appearing, when placed betwixt the eye and the light, of a golden colour, in

other situations blue: pieces of another wood are sometimes mixed with it, which give only a yellow colour to water. The nephritic wood has scarce any smell, and very little taste. It stands recommended in difficulty of urine, nephritic complaints, and all disorders of the kidneys and urinary passages; and is said to have this peculiar advantage, that it does not, like the warmer diuretics, heat or offend the parts. Practitioners however have not found these virtues warranted by experience.

NICOTIANA; [*L. E.*] *nicotiana latifolia major* C. B. Tobacco; the leaves. This plant was first brought into Europe, about the year 1560, from the island Tobago in America; and is now cultivated for medicinal use in our gardens: the leaves are about two feet long, of a pale green colour whilst fresh, and when carefully dried of a lively yellowish. They have a strong, disagreeable smell, like that of the narcotic plant; and a very acrid burning taste. Taken internally, they prove virulently cathartic and emetic, occasioning almost intolerable cardiac anxieties. By boiling in water, their virulence is abated, and at length destroyed: an extract made by long coction is recommended by Stahl and other German physicians, as a safe and most effectual aperient, expectorant, detergent, &c. but this medicine, which is extremely precarious and uncertain in strength, has never come into esteem among us. Tobacco is sometimes used externally in unguents, for destroying cutaneous insects, cleansing old ulcers, &c. Beat into a mash with vinegar or brandy, it has sometimes proved serviceable for removing hard tumours of the hypochondres; an account is given

in the Edinburgh essays of two cases of this kind cured by it. Some of the more common uses of the prepared leaves of the plant, brought from America, have been already spoken of in page 32.

There is another sort of tobacco found wild on dunghills, in several parts of England: this is called by C. Bauhine *nicotiana minor*, by Gerard *hyoscyamus luteus*. It seems to agree in quality with the *hyoscyamus* formerly mentioned, though (as Dale informs us) often substituted in our markets to the true tobacco; from which it may be distinguished by the leaves being much smaller, and the flowers not reddish as those of the officinal sort, but of a yellowish green colour.

NIGELLA; [*E.*] *nigella flore minore simpliciter candido* C. B. Fennel flower; the seeds. This plant is sown annually in some of our gardens; the seeds most esteemed are brought from Italy. They have a strong, not unpleasant smell; and a subacid, somewhat unctuous, disagreeable taste. They stand recommended as aperient, diuretic, &c. but have long been strangers to practice, and are by some suspected to have noxious qualities.

NITRUM; [*L. E.*] Nitre or saltpetre; a salt, extracted, in Persia and the East Indies, from certain earths that lie on the sides of hills; and artificially produced in some parts of Europe, from animal and vegetable matters rotted together (with the addition of lime and ashes) and exposed for a length of time to the air, without the access of which, nitre is never generated: the salt extracted from the earths, &c. by means of water, is purified by colature and crystallization. Pure nitre dissolves in about six times its weight of water, and concretes again

gain into colourless transparent crystals; their figure is that of an hexagonal prism, terminated by a pyramid of an equal number of sides. It readily melts in the fire; and in contact with fuel deflagrates, with a bright flame and considerable noise; after the detonation is over, a large quantity of alkaline salt is found remaining. The taste of nitre is sharp, penetrating, and bitterish, accompanied with a certain sensation of cold.

Nitre is a medicine of celebrated use in many disorders. Besides the aperient quality of neutral salts in general, it has a manifestly cooling one, by which it quenches thirst, and abates febrile heats and commotions of the blood: it has one great advantage above the refrigerating medicines of the acid kind, that it does not coagulate the animal juices; blood, which is coagulated by all the mineral acids, and milk, &c. by acids of every kind, are by nitre rendered more dilute, and preserved from coagulation; it nevertheless somewhat thickens the thin, serous, acrimonious humours, and occasions an uniform mixture of them with such as are more thick and viscid; by this means preventing the ill consequences which would otherwise ensue from the former, though it has not, as Juncker supposes, any property of really obtunding acrimony. This medicine for the most part promotes urine; sometimes gently loosens the belly; but in cold phlegmatic habits, very rarely has this effect, though given in large doses: alvine fluxes, proceeding from too great acrimony of the bile or inflammation of the intestines, are suppressed by it: in choleric and febrile disorders, it generally excites sweat; but in malignant cases, where the pulse is low, and the strength lost, it retards this

salutary evacuation and the eruption of the exanthemata.

Dr. Stahl has written an express treatise upon the medical virtues of nitre; in which he informs us, from his own experience, that this salt added to gargarisms employed in inflammations of the fauces in acute fevers, thickens the salival moisture upon the palate and fauces into the consistence of a mucus, which keeps them moist for a considerable time, whereas if nitre is not added, a sudden dryness of the mouth immediately ensues: that in spitting of blood, nitre given from half a dram to a dram, at proper intervals of time, never failed to put a stop to the hæmorrhagy; and in other hæmorrhagies likewise, it was always found to have the best effects, provided it was skilfully dosed: that in nephritic complaints, the prudent use of nitre is of more service than any of the numerous medicines usually recommended in that disease. This celebrated author likewise affirms, from a large number of experiments, that nitre gives great relief in suppression and heat of urine, whether simple or occasioned by a venereal taint; that it is of great service in acute and inflammatory pains of the head, eyes, ears, teeth, &c. in all erysipelatous affections, whether particular or universal, and likewise in chronic deliriums; that in diarrhœæ happening in petechial fevers, nitre mixed with absorbents and diaphoretics, had the best effects, always putting a stop to the flux, or rendering the evacuation salutary; that in diarrhœæ happening in the small-pox, it had been employed with the like success, two doses or three at most (consisting of two, three or four grains each, according to the age, &c. of the patient) given at the interval of two or three hours, putting a stop to the flux, after the

bezoardic powders, both with and without opium, had been given without success. The same author recommends this salt likewise as a medicine of singular service in choleras attended with great anxieties and heat of the blood; in the flatulent spasmodic heart-burns familiar to hypochondriacal people; and the loss of appetite, nausea, vomiting, &c. which gouty persons are sometimes seized with upon the pains of the feet, &c. suddenly remitting. In short, this great physician looks upon nitre as an almost universal medicine; and assures us, that no bad consequences are to be feared from the internal use of it: nevertheless he observes, that in a phthisis and ulcerous affections, it has been found to be of no service; and that therefore its use may be superseded in these complaints.

The usual dose of this medicine among us is from two or three grains to a scruple; though it may be exhibited with great safety, and generally to better advantage, in larger quantities: the only inconvenience is its being apt to set uneasy on the stomach. Some have affirmed, that this salt loses half its weight of aqueous moisture by fusion, and consequently that one part of melted nitre is equivalent to two of the crystals; but it did not appear, upon several careful trials, to lose so much as one twentieth of its weight.

NUMMULARIA; [E.] *Hyssanchia humifusa, folio rotundiore, flore luteo Tourne.* Moneywort, or herb two-pence; the leaves. This grows spontaneously in moist watery places, and creeps on the ground, with two little roundish leaves at each joint. Their taste is subastringent, and very lightly acid: hence they stand recommended by Boerhaave in the hot scurvy, and in uterine and o-

ther hæmorrhagies. But their effects are so inconsiderable, that common practice takes no notice of them.

NUX MOSCHATA; [L. E.]
nux moschata fructu rotundo C. B.
Nutmegs; the kernel of a roundish nut which grows in the East Indies. The outside covering of this fruit is soft and fleshy like that of a walnut, and spontaneously opens when the nut grows ripe; immediately under this lies the mace, (see the article **MACEIS**) which forms a kind of reticular covering, through the fissures whereof appears a hard woody shell that includes the nutmeg. These kernels have long been made use of both for medicinal and culinary purposes, and deservedly looked upon as a warm agreeable aromatic. They are supposed likewise to have an astringent virtue; and are employed in that intention in diarrhæas and dysenteries. Their astringency is said to be increased by torrefaction, but this does not appear to the taste: this treatment certainly deprives the spice of some of its finer oil, and therefore renders it less efficacious to any good purpose; and if we may reason from analogy, probably abates of its astringency. Nutmegs distilled with water, afford a large quantity of essential oil, resembling in flavour the spice itself; after the distillation, an insipid sebaceous matter is found swimming on the water: the decoction, inspissated, gives an extract of an unctuous, very lightly bitterish taste, without any sensible astringency. Rectified spirit extracts the whole virtue of nutmegs by infusion, and elevates very little of it in distillation: hence the spirituous extract possesses the flavour of the spice in an eminent degree.

Nutmegs yield to the press (heated) a considerable quantity of limpid

pid yellow oil, which in cooling concretes into a sebaceous consistence. In the shops we meet with three sorts of unctuous substances, called oil of mace, though really expressed from the nutmeg. The best is brought from the East Indies, in stone jars; this is of a thick consistence, of the colour of mace, and an agreeable fragrant smell: the second sort, which is paler coloured and much inferior in quality, comes from Holland in solid masses, generally flat and of a square figure: the third, which is the worst of all, and usually called common oil of mace, is an artificial composition of sebum, palm oil, and the like, flavoured with a little genuine oil of the nutmeg. These oils yield all that part in which their aromatic flavour resides, in distillation to water, and to pure spirit by infusion: the distilled liquor and spirituous tincture nearly resemble in quality those prepared immediately from the nutmeg.

NUX PISTACHIA; [E.] *nucleus e fructu pistaciae Raii*. Pistachio, a moderately large nut, containing a kernel of a pale greenish colour, covered with a reddish skin. The tree which produces it, grows spontaneously in Persia, Arabia, and several islands of the Archipelago: it bears likewise the colds of our own climate, so as to have produced fruit not inferior to that which we receive from abroad. Pistachio nuts have a pleasant, sweet, unctuous taste resembling that of almonds. They are ranked amongst the analeptics, and are by some much esteemed in certain weaknesses, and in emaciated habits.

NYMPHÆA ALBA; [E.] *nymphaea alba major C. B.* White water lily; the root and flowers.

This grows in rivers and large lakes, flowering usually in June. The roots and flowers have a rough, bitterish glutinous taste; (the flowers are the least rough;) and when fresh, a disagreeable smell, which is in great measure lost by drying: they are recommended in alvine fluxes, gleet, and the like. The roots are supposed by some to be in an eminent degree narcotic, but on no very good foundation: Lindestolpe informs us, that in some parts of Sweden, they were in times of scarcity used as food, and did not prove unwholesome.

OCHRA; [E.] Yellow ochre. A soft friable ore of iron, of a yellow colour, dug in several parts of England. It possesses the virtues of the calces of iron and hæmatites; but in so low a degree that the shops have deservedly rejected it: its principal use is as a pigment.

OCIMUM; [E.] *ocimum vulgatum C. B.* Basil; the leaves. This is a small plant, raised annually in our gardens: it flowers in June and July, and produces its seeds in August, but rarely perfects them in this country. The leaves have a soft, somewhat warm taste; and when rubbed, a strong unpleasent smell, which by moderate drying becomes more agreeable. They are said to attenuate viscid phlegm, promote expectoration, and the uterine secretions; but have not for a long time been regarded by practice.

OLEA; *olea sativa C. B.* The olive tree; the fruit [E.]; its oil [L. E.]; and the dregs thereof [E.] This tree grows in the southern parts of France, in Spain, Italy, and other warm countries: with us it is usually preserved in the

the green houses of the curious, though it will bear our ordinary winters in the open air, and produce very good fruit. Olives have an acrid bitter, extremely disagreeable taste: pickled (as we receive them from abroad) they prove less disagreeable; the Lucca olives, which are smaller than the others, have the weakest taste; the Spanish; or larger, the strongest; the Provence, which are of a middling size, are generally the most esteemed.

The oil obtained from this fruit has no particular taste or smell, and does not greatly differ in quality from oil of almonds. Authors make mention of two sorts of this oil, one expressed from the olives when fully ripe, which is our common oil olive; the other, before it has grown ripe; this is called *oleum immaturum*, and *omphacinum* [E.] Nothing is met with in the shops under this name; and Lemeray affirms, that there is no such oil; unripe olives, yielding only a viscid juice to the press. From the ripe fruit, two or three sorts are obtained, differing in degree of purity: the purest runs by light pressure: the remaining magma, heated and pressed more strongly, yields an inferior sort, with some dregs at the bottom called *amurca*. All these oils contain a considerable portion of aqueous moisture, and a mucilaginous substance; which subject them to run into a putrid state: to prevent this, the preparers add some sea salt, which imbibing the aqueous and mucilaginous parts, sinks with them to the bottom; by this means, the oil becomes more homogeneous, and consequently less susceptible of alteration. In its passage to us, some of the salt, thrown up from the bottom by the shaking of the vessel, is sometimes detained in the oil,

which, in our colder climate, congeals and becomes too thick to suffer it freely to subside; and hence the oil is sometimes met with of a manifestly saline taste.

OLIBANUM; [L. E.] a gummy-resin, brought from Turkey and the East Indies, usually in drops or tears, like those of mastich, but larger, of a pale yellowish, and sometimes reddish colour; a moderately warm pungent taste, and a strong, not very agreeable smell. This drug has received many different appellations, according to its different appearances: the single tears are called simply *olibanum* or *thus*: when two are joined together, *thus masculum*, or *testiculatum*: if the two are very large, *thus femininum*, or *mammosum*: sometimes four or five, about the bigness of filberds, are found adhering to a piece of the bark of the tree which they exuded from; these have been named *thus corticosum*: the finer powder which rubs off from the tears in the carriage, *mica thuris*, and the coarser powder, *manna thuris*. This drug is not however in any of its states what is now called *thus*, or frankincense in the shops (see the article *THUS*.)

Olibanum consists of about equal parts of a gummy and resinous substance, the first soluble in water, the other in rectified spirit. With regard to its virtues, abundance have been attributed to it, particularly in disorders of the head and breast, in hæmoptoes, and in alvine and uterine fluxes: but its real effects in these cases are far from answering the promises of the recommenders. Riverius is said to have had large experience of the good effects of this drug in pleurifies, especially epidemic ones: he directs a scooped apple to be filled with

with a dram of olibanum, then covered and roasted under the ashes; this is to be taken for a dose, three ounces of carduus water drank after it, and the patient covered up warm in bed: in a short time, he says, either a plentiful sweat, or a gentle diarrhoea ensue, which carry off the disease. Geoffroy informs us, that he has frequently made use of this medicine, after venesection, with good success; but acknowledges that it has sometimes failed.

ONONIS; [E.] *ononis spinosa flore purpureo* C. B. Rest-harrow, cammock, or petty whin; the root. It grows wild in waste grounds, and dry fields. The root has a disagreeable smell, and a nauseous sweetish taste: it stands recommended as an aperient and diuretic; but has never been much regarded among us.

OPHIOGLOSSUM; [E.] *opbioglossum vulgatum* C. B. Adders tongue; the leaf. This plant has only one leaf, with a slender stalk arising from the bottom of it, dented about the edges, and supposed to resemble the tongue of a serpent: it grows wild in moist meadows. Scarce any other virtues are attributed to it than those of a vulnerary.

OPIUM; [L. E.] the concrete milky juice of the poppy (see the article PAPAVER.) This juice has not yet been collected in quantity in Europe. Egypt, Persia, and some other provinces of Asia have hitherto supplied us with this commodity: in these countries, large quantities of poppies are cultivated for this use. The opium prepared about Thebes in Egypt, hence named Thebaic opium, has been usually esteemed the best; but this is not

now distinguished from that collected in other places. This juice is brought to us in cakes or loaves, covered with leaves, and other vegetable matters, to prevent their sticking together: it is of a solid consistence, yet somewhat softish and tenacious, of a dark reddish brown colour in the mass, and when reduced into powder, yellow; of a faint disagreeable smell, and a bitterish taste, accompanied with a pungent heat and acrimony.

The general effects of this medicine are, to relax the solids, and render them less sensible of irritation, to cheer the spirits, ease pain, procure sleep, promote perspiration and sweat, but restrain all other evacuations. When its operation is over, the pain, and other symptoms which it had for a time abated, return; and generally with greater violence than before, unless the cause has been removed by the diaphoresis, or relaxation which it occasioned.

The operation of opium is generally attended with a slow, but strong and full pulse, a dryness of the mouth, a redness and light itching of the skin; and followed by a degree of nausea, a difficulty of respiration, lowness of the spirits, and a weak languid pulse.

The principal indications of opium are, great watchfulness, immoderate evacuations proceeding from acrimony and irritation, cramps or spasmodic contractions of the nerves, and violent pains of almost every kind. In these cases, opiates procure, at least, a temporary relief, and an opportunity for other medicines, properly interposed, to take effect.

Opium sometimes defeats the intention of the physician, and instead of producing rest, occasions great anxiety, vomiting, &c. Taken on a full stomach, it often proves emetic

emetic; where the patient is exhausted by excessive evacuations, it occasions, at least, extreme lowness. It has been observed to operate more powerfully in persons of a lax habit, than in the opposite circumstances; whilst it usefully restrains preternatural discharges proceeding from irritation, it proves injurious in those that arise from a contrary cause, as in the colliquative diarrhoea attending hectic fevers. By relaxing, taking off strictures, and occasioning a paralysis of particular parts, it often promotes such evacuations as those parts are concerned in. Boerhaave observes, that it sometimes enables the ureters to allow an easy passage even to the calculus; but this effect is by no means constant.

With regard to the dose of opium, one grain is generally a sufficient, and often too large a one; maniacal persons, and those who have been long accustomed to take it, require three or more grains to have the due effect. Among the eastern nations, who are habituated to opium, a dram is but a moderate dose: Garcias relates, that he knew one who every day took ten drams: those who have been long accustomed to its use, upon leaving it off, are seized with great lowness, languor, and anxiety; which are relieved by having again recourse to opium, and, in some measure, by wine or spirituous liquors.

Opium is partially soluble in water, and rectified spirit: proof spirit, wine, and vinegar totally dissolve it; the impurities only being left. The solutions in proof spirit and wine, have the same effects with the juice in substance; with this difference, that they exert themselves sooner in the body, and are less apt to leave a nausea on the stomach. A tincture made in rectified spirit is supposed to operate,

in an equal dose, more powerfully than the foregoing liquors: Geoffroy informs us, from his own experience, that whilst the watery and vinous solutions occasioned pleasant quiet sleep, a tincture drawn with pure spirit brought on a phrensy for a time. Alkaline salts diminish the soporific virtue of this medicine: fixt alcalies render it diuretic, whilst volatile ones determine its action chiefly to the cutaneous pores. Acids almost entirely destroy its power. Many have endeavoured to correct some imaginary ill qualities of this drug, by toasting it, by fermentation, by long continued digestions, by repeated dissolutions and distillations. These processes, though recommended by many late writers, do not promise any singular advantage: they may indeed weaken the opium; but by this very means become prejudicial, rendering the medicine more uncertain in its operation, and the dose more undetermined.

Opium applied externally, gives ease in sundry pains, but does not, as some have supposed, stupify the part, or render it insensible of pain: used immoderately, it is said to produce the same ill effects, as when taken to excess internally.

OPOBALSAMUM [L. E.] Opobalsam, or balm of Gilead; a resinous juice, obtained from an ever green tree, or shrub, growing spontaneously in Arabia. The best sort, which naturally exudes from the plant, is scarce known to Europe; and the inferior kinds, said to be extracted by lightly boiling the leaves and branches in water, are very rarely seen among us. The true opobalsam, according to Alpinus, is at first turbid and white, of a very strong pungent smell; like that of turpentine, but much sweeter, and of a bitter, acid, astringent

tringent taste: upon being kept for some time, it becomes thin, limpid, light, of a greenish hue; then of a gold yellow; and at length of the colour of honey: after this, it grows thick like turpentine, and loses much of its fragrance. This balsam is of great esteem in the eastern countries, both as a medicine, and as an odoriferous unguent, and cosmetic. Its great scarcity has prevented its coming into use among us: in the mithridate and theriaca, which it is directed as an ingredient in, the college allow the expressed oil of nutmegs as a succedaneum to it.

OPOPANAX; [L. E.] a concrete gummy resinous juice, obtained from the roots of an umbelliferous plant, *panax pastinacæ folio* C. B. which grows spontaneously in the warmer countries, and bears the colds of this. The juice is brought from Turkey and the East Indies, sometimes in round drops or tears, but more commonly in irregular lumps, of a reddish yellow colour on the outside, with specks of white, inwardly of a paler colour, and frequently variegated with large white pieces. It has a peculiar strong smell, and a bitter, acrid, somewhat nauseous taste. Its virtues are those of an attenuating and aperient medicine: Boerhaave frequently employed it, along with ammoniacum and galbanum, in hypochondriacal disorders, obstructions of the abdominal viscera, and suppressions of the menstrual evacuations from a sluggishness of mucous humours, and a want of due elasticity of the solids: in these intentions it is an useful ingredient in the *pilule gummose* of the shops. It may be given by itself in the dose of a scruple, or half a dram: a whole dram proves, in

many constitutions, gently purgative.

ORCHIS, vide SATYRION.

ORIGANUM; [L. E.] *origanum sylvestre, cumila bubula Plinii* C. B. Wild marjoram; the leaves. This is met with upon dry chalky hills; and in gravelly soils, in several parts of England. It has a pleasant sweet smell, and a pungent taste, warmer than that of the garden marjoram, and much resembling thyme, which it seems to agree with in virtue. An essential oil distilled from it, is kept in the shops.

There is another sort of *origanum* called *Creticum*, whose flowers, or rather flowery tops, are sometimes brought to us from Candy: these have an agreeable aromatic flavour, somewhat stronger than the common sort.

OROBUS; [E.] *orobus filiquis articulatis, semine majore* C. B. Bitter vetch; the seeds. This plant is met with, though not very often, in our gardens. The seeds have a farinaceous, bitterish, disagreeable taste: they stand recommended in nephritic complaints, but have long been strangers to practice.

ORYZA [E.] Rice; the seeds freed from the outward skin: these are brought chiefly from Carolina, where the plant is cultivated in large quantities. They are sufficiently nutritious, and afford an useful food in diarrhoeas, dysenteries, and other disorders from a thin acrimonious state of the juices.

OSTEOCOLLA [E] This is a fossil substance, found in many parts of Germany, as also in England, and

and other countries. It is generally met with in loose sandy grounds, spreading, from near the surface to a considerable depth, into a number of branches, like the roots of a tree: it is of a whitish colour, rough on the surface, and for the most part either hollow within, or filled with solid wood, or a powdery woody matter. Sometimes the roots of living trees are found changed into this kind of substance (see *Neuman. Prælect. chym. pag. 1592*, and the *Berlin Memoires* for the year 1748.)

Powdered *osteo-colla* separates, on ablu-tion with water, into two distinct substances; the finer matter washed over, burns into quick-lime, and agrees on all trials with powdered limestone: the grosser part which remains is mere sand: the sand and calcareous earth are for the most part nearly in an equal proportion. From this analysis we may easily judge of the virtue which this fossil is celebrated for, that of bringing on a callus in fractured bones.

OXALIS, vide ACETOSA.

OXYACANTHA GALENI, vide BERBERIS.

OXYACANTHA VULGARIS, vide SPINA ALBA.

OXYLAPATHUM, vide LAPATHUM.

PÆONIA; [*L. E.*] *pæonia foliis nigricante splendida, quæ mas C. B.* Male peony—*pæonia femina flore pleno rubro majore C. B.* female peony. These plants are cultivated in our gardens on account of the beauty of their flowers: the female, which is the largest and most elegant, and for this reason the most common, is the only one

which the shops are supplied with. In quality they are scarce sensibly different; and hence the college allow them to be taken promiscuously. The roots and seeds of peony, have, when recent, an unpleasant scent, approaching to that of the narcotic plants; and a somewhat glutinous subacid taste, with a light degree of bitterness and astringency: the leaves also discover an astrigent quality both to the taste, and by changing chalybeate solutions of a purple colour: the flowers have little taste, and a very faint, not agreeable smell. The parts that have been chiefly employed for medicinal purposes are the roots and seeds. These are looked upon as emollient, corroborant, and lightly anodyne; and supposed to be of service in some kinds of obstructions, erosions of the viscera, heat of urine, pains in the kidneys, and the like. The virtue they are chiefly celebrated for is, that of curing spasmodic and epileptic complaints; which many have been absurd enough to believe that the root of this plant would do by being only worn about the neck.

PALMA: [*E.*] *palma foliorum pediculis spinosis, fructu prunisiformi, luteo, oleoso Sloan.* The palm-oil tree; the oil obtained from the kernels of the fruit. This tree is a native of the coast of Guinea and Cape Verd islands: from these places it has been transplanted into Jamaica and Barbadoes. The oil, as brought to us, is about the consistence of an ointment, and of an orange colour; a strong, not disagreeable smell, but very little taste: by long keeping, it loses its high colour, and becomes white; when it ought to be rejected, as no longer fit for use. The inhabitants of the Guinea coast are said to make

make this oil part of their food, and to employ it for the same purposes as we do butter. With us, it is rarely given inwardly, and used only in some external applications, for pains and weakness of the nerves, cramps, sprains, and the like. The common people apply it to the cure of chilblains, and when early made use of, not without success.

PANICUM; [E.] *panicum Germanicum, sive panicula minore* C. B. Panic; the seeds. This plant is cultivated in some parts of Germany: the seeds have been made use of in food, but are not regarded as medicines.

PAPAVER ALBUM; [L. E.] *papaver hortense semine albo* C. B. The large garden poppy, with white flowers and seeds; or the white poppy.

PAPAVER NIGRUM; [E.] *papaver hortense nigro semine* C. B. The lesser garden poppy, with purple flowers and black seeds; or the black poppy.

PAPAVER RHÆAS; [L. E.] *papaver erraticum majus* C. B. The greater of the hairy wild poppies, with deep red flowers, and dark coloured seeds; or the red poppy, or corn-rose.

The heads and stalks of these plants contain a milky juice; which may be collected in considerable quantity, by lightly wounding them when almost ripe: this juice, exposed for a few days to the air, thickens into a stiff tenacious mass, agreeing in quality with the opium brought from abroad (see the article **OPIMUM**.) The juices of all the poppies are similar to one another; the only difference is in the quantity afforded, which is generally in proportion to the size of the plants: the larger, or white

poppy is the sort cultivated by the preparers of opium in the eastern countries, and for medicinal uses in this.

Poppy heads, boiled in water, impart to the menstruum their narcotic juice, together with the other juices, which they have in common with vegetable matters in general. The liquor strongly pressed out, suffered to settle, clarified with whites of eggs, and evaporated to a due consistence, yields about one fifth, or one sixth the weight of the heads, of extract. This possesses the virtues of opium; but requires to be given in double its dose to answer the same intention, which it is said to perform without occasioning a nausea and giddiness, the usual consequences of the other. (see the *Edinburgh essays abridg.* vol. i. pag. 158 and 132.) A strong decoction of the heads, mixed with as much sugar as is sufficient to reduce it into the consistence of a syrup, becomes fit for keeping in a liquid form. Both these preparations are very useful ones, tho' liable to variation in point of strength: nor does this inconvenience seem avoidable by any care in the prescriber, or the operator; since the poppy heads themselves (according to their degree of maturity, and the soil and season of which they are the produce) contain different proportions of the narcotic matter to the other juices of the plant; as the author of the *pharmacopœia reformata* has already observed.

The flowers of the corn poppy yield upon expression a deep red juice, and impart the same colour to aqueous liquors. A syrup of them is kept in the shops: this is valued chiefly for its colour; tho' some expect from it a lightly anodyne virtue.

The seeds of the poppy are by many

many reckoned soporific; Juncker says, they have the same quality with those of hyoscyamus, and Herman looks upon them as a good substitute to opium; missed probably by an observation which holds in many plants, that the seeds are more efficacious than the vessels in which they are contained. The seeds of the poppy have nothing of the narcotic juice which is lodged in their covering, and in the stalks; an oil expressed from them has been used for the same purposes as oil olive; and the seeds themselves taken as food: their taste is sweetish and farinaceous.

PARALYSIS; [L. E.] *verbasculum pratense odoratum C. B. primula veris major Raii.* Cowslips; the flowers. This plant grows wild in marshes and moist meadows. The flowers appear in April; they have a pleasant sweet smell; a subacid, bitterish, somewhat astringent taste. An infusion of them, used as tea, is recommended as a mild corroborant, in nervous complaints, and in some female disorders proceeding from a deficiency of the menstrual purgations. A strong infusion of them, forms with a proper quantity of sugar, an agreeable syrup, which has long maintained a place in the shops; by boiling, even for a little time, their fine flavour is destroyed.

PAREIRA BRAVA; [E.] the root of an American convolvulus, brought to us from Brazil, in pieces of different sizes, some no bigger than ones finger, others as large as a child's arm: it is crooked, and variously wrinkled on the surface; outwardly of a dark colour, internally of a dull yellowish, and interwoven with woody fibres, so that upon a transverse section, a number of concentric circles ap-

pear, crossed with fibres, which run from the centre to the circumference: it has no smell; the taste is a little bitterish, blended with a sweetness, like that of liquorice. This root is highly extolled by the Brazilians and Portuguese, in a great variety of diseases, particularly against suppressions of urine, nephritic pains, and the calculus. In the two first, Geoffroy says he has given it with good success, and that the patient was almost instantly relieved by it, a copious discharge of urine succeeding. He likewise observed large quantities of gravel, and even small stones, voided after its use: this effect he attributes not to any lithontriptic power, but to its dissolving the viscid mucus, by which the fabulous matter had been detained. He likewise relates, that he has had frequent experience of the good effects of this root in deterring and healing ulcers of the kidneys and bladder, where the urine came away purulent and mucous, and could not be voided at all without extreme pain: by the use of the *pareira*, the urine soon become clear, and of a due consistence, and was evacuated freely; and by joining to this medicine balsam of copaiba, the ulcer perfectly healed. The attenuating quality, which he has discovered in this root, induced him to make trial of it in other diseases, proceeding from tenacious juices, and in these likewise it fully answered his expectations: in humoral asthmas, where the lungs were stuffed up, and the patient almost suffocated by thick phlegm, an infusion of *pareira*, after many other medicines had proved ineffectual, occasioned a plentiful expectoration, and soon completed a cure: in the jaundice, proceeding from thick bile, it did excellent service; but in an icterical case where the liver

was

was swelled, hard, and schirrhous, this medicine did no good. His dose of the root in substance is from twelve grains to half a dram, and in decoction two or three drams.

PARIETARIA; [*L. E.*] *parietaria officinarum* C. B. Pellitory of the wall; the leaves. This is a small plant, growing upon old walls; of an herbaceous, subsaline taste, without any smell. It is one of the five emollient herbs, and in this intention is occasionally made use of. The expressed juice has been given in the dose of three ounces as a diuretic.

PARTHENIUM, vide **MATRICARIA**.

PASTINACA HORTENSIS; [*E.*] *pastinaca latifolia sativa* Raii. Garden parsnips.

PASTINACA SYLVESTRIS [*E.*] *pastinaca sylvestris latifolia* Raii, Wild parsnips. The roots of the garden parsnip are used as food, and prove sufficiently nutritious. The seeds of both sorts are lightly aromatic; those of the wild are strongest.

PENTAPHYLLUM; [*L. E.*] *quinquefolium majus repens* C. B. Cinquefoil; the root. This grows plentifully in hedges, and by road sides. The root is moderately astringent; and as such is sometimes exhibited internally against diarrhœas, and other fluxes; and employed in gargarisms for strengthening the gums, &c. The cortical part of the root may be given, in substance, to the quantity of a dram; the internal is considerably weaker, and requires to be given in double this dose to produce the same effect.

PEPO; [*E.*] *pepo oblongus* C. B.

The pumpkin; its seeds. These are very rarely met with in the shops: in quality they are not different from those of cucumbers, melons, and the others called cold seeds.

PERICLYMENUM, vide **CAPRIFOLIUM**.

PERSICARIA MITIS; [*E.*] *persicaria maculosa* Raii. Spotted arsmart; the leaves. This grows wild in moist watery places: the leaves somewhat resemble those of the *persica malus*, and have generally a blackish spot in the middle: their taste is roughish and subsaline. This herb is recommended chiefly for external purposes: Tournefort assures us (in the memoirs of the French academy, 1703) that it is one of the best vulneraries and antiseptics he knows, and that a decoction of it in wine stops gangrenes in a surprizing manner. The present practice however has no dependence on it.

PERSICARIA URENS; [*E.*] *persicaria vulgaris acris, sive hydropiper* Raii. Biting arsmart, lake-weed, or water pepper; the leaves. This sort is readily distinguishable from the former, by its pungent, biting, pepper-like taste. Its virtues are those of an acrid stimulating medicine: in phlegmatic habits, it promotes the urinary discharge, and has frequently done good service in scorbutic complaints. The fresh leaves are sometimes applied externally for cleansing old fistulous ulcers, and consuming fungous flesh: for these purposes they are said to be employed by the farmers, among whom they are at present principally made use of.

PERSICA MALUS; [*E.*] *persica molli carne, &c.* C. B. The peach tree; its flowers and fruit.

N

Peach

Peach flowers have an agreeable smell, and a bitterish taste: distilled without any addition, by the heat of a water-bath, they yield one sixth their weight or more, of a whitish liquor, which, as Mr. Boulduc observes, communicates to a large quantity of other liquids, a flavour like that of the kernels of fruits. An infusion in water of half an ounce of the fresh gathered flowers, or a dram of them when dried, sweetened with sugar, proves for children an useful laxative and anthelmintic: the leaves of the tree are in this intention somewhat more efficacious, though less agreeable. The fruit has the same quality with the other dulco-acid fruits, that of abating heat, quenching thirst, and gently loosening the belly.

PERUVIANUS CORTEX;

[*L. E.*] Peruvian bark; the bark of a tall slender tree, growing in Peru. It is brought to us in pieces of different sizes, sometimes rolled up into short thick quills, and sometimes flat: the outside is brownish, and generally covered in part with a whitish moss; the inside is of a yellowish, reddish, or rusty iron colour. It has a lightly aromatic smell, somewhat muity, yet not disagreeable; a bitterish, astringent taste, which dwells long upon the tongue, accompanied with a degree of aromatic warmth. The small, thin, flat pieces are by some accounted the best; by others, the quill sort, with the roughest coat, especially if of a bright cinnamon colour on the inside; tho' the large flat pieces, whether rough or smooth, of a lighter or darker colour, are often of equal goodness. The best bark is that which is strongest in smell and taste: this likewise proves friable betwixt the teeth, and doth not separate into

fibres; it breaks not shivery, but close and smooth.

The virtues of this bark, as a febrifuge, were discovered by the Indians about the year 1500: Europe did not become acquainted with it till 1649: nor was it received into general practice till several years after this: some ill consequences, ensuing from its imprudent use, having brought it for a time into disrepute. At present, it is looked upon as the most effectual remedy in intermitten fevers of almost every kind, and safe in all ages and constitutions; provided it be judiciously and seasonably administered, and due regard be had to the circumstances of the disease. The modern practice, previous to the exhibition of this medicine, usually gives an emetic at the beginning of a paroxysm; in some cases a cathartic, and in plethoric habits venesection, are promised: these render the bark not only more safe, but likewise more certain and speedy in its operation: where these evacuations are neglected, or not sufficiently plentiful, the disease, if of long standing, scarce yields to the *cortex*; or if it appears at length subdued, yet the patient does not recover his strength, and soon suffers a relapse. The use of the bark is begun at the end of a paroxysm, and repeated, in the quantity of half a dram (more or less, according to the circumstances of the patient) every third or fourth hour during the intermission: where the fever is of the bilious kind, and accompanied with great heat, a little nitre is joined: in all cases, moderate exercise generally promotes its effect. At first, it usually loosens the belly, and sometimes operates as if a cathartic had been taken; and by this means supplies the omission of

evacu-

evacuations before its exhibition: if the purging continues, the medicine does not answer the purposes intended by it: in such case, a little opium is added, which effectually suppresses the flux: if after this, the patient continues too costive, recourse is had to glysters. The looseness, however, ought not to be stopt too soon: on the contrary, where the bark does not itself produce this effect, it is necessary, as Dr. Mead informs us, to join to it a little rhubarb, so as to occasion for a time two stools a day; by this means the disease is more effectually cured, and less subject to be followed by a dropsy, or ill habit of body: after a dram or two of rhubarb have been taken, it is to be discontinued, and the bark exhibited by itself. During the use of the bark, the pulse (which, betwixt the paroxysms, is generally weak and slow) becomes stronger and quicker, the appetite mends, the patient becomes more chearful, and perspiration increases; these may be looked upon as certain prefaces of its success. These effects of the bark have been too frequently overlooked in the cure of agues, though it is certain, that perspiration, for instance, contributes greatly to it: hence in warm weather, fevers yield more easily than in cold: those which have continued all the winter frequently go off spontaneously on the return of summer; and exercise alone has sometimes performed a cure. After the fever has been removed, the medicine is continued for some time longer, to prevent a relapse; and evacuations, unless absolutely necessary, abstained from. The disease is nevertheless seldom completely cured before some very considerable evacuation, either by stool, urine, or perspiration, ensues: if this does not succeed spontaneously,

cathartics, diuretics, or diaphoretics, are given in conjunction with the bark, otherwise the patient continues weak, and without appetite, till either the disease returns, or changes into one of a different kind.

In symptomatic agues, hectic, and purulent fevers, cacochymic habits, and where the hypochondres are swelled and distended, this medicine is improper, and for the most part prejudicial. Its manifest astringency forbids its use in obstructions of the abdominal viscera, or suppression of any critical evacuation; until the obstruction is first removed, or the evacuation had its due course.

In acute, inflammatory, or malignant fevers, the bark does not seem to have any good effect. Nevertheless, in the decline of long nervous fevers, or after a remission, when from bad habit, old age, fatigue, or the like, the patient is extremely weak, and the pulse low, the *cortex* proves a medicine of excellent service; provided that there is no extravasation, that the vessels remain entire, and pus is not already formed.

Peruvian bark has likewise been found eminently serviceable in gangrenes and mortifications, proceeding either from an internal or external cause. In all the cases of this kind, where it proved successful, it occasioned a kind suppuration, which degenerated when the use of the medicine was discontinued, and again turned kindly upon resuming it. Some have been hence induced to exhibit the *cortex* in variolous cases, where either the pustules did not rightly suppurate, or petechiæ shewed a disposition to a gangrene; and here likewise it answered expectation: the empty vesicles filled with matter, the watery sanies changed into thick white pus, the petechiæ became gradually of a pale colour,

and at length disappeared, and the pox began to turn sooner than was expected. See the *Edinburgh medical essays*.

The bark has been applied likewise, and not without success, to the cure of periodic head-achs, hysteric and hypochondriac fits, and other disorders, which have regular intermissions. By its astringency and aromatic quality, it strengthens the whole nervous system, and proves useful in weakness of the stomach, and sundry chronic disorders, proceeding from too great laxity of the fibres. In obstinate uterine fluxes, and old gleans, bark joined with chalybeates has notable effects.

The virtues of Peruvian bark reside chiefly in a resinous substance, and hence are extracted in perfection by rectified spirit. Aqueous liquors gain little from it, without strong coction, by which the resin is melted out, and mingled with the water; which whilst hot appears transparent, but in cooling grows turbid, and deposits great part of the resin to the bottom. Water elevates in distillation the aromatic part of the bark; pure spirit brings over nothing. Hence an aqueous extract proves not only less in quantity, but likewise inferior in quality to one made with rectified spirit. Proof spirit extracts the virtues of this drug in tolerable perfection, in the cold; heat enables it to take up more than it can retain when cold. Spirit of sal ammoniac, prepared with fixt alkaline salts, gains very little from the *cortex*, either with or without heat: the spirit prepared with quicklime, and the dulcified spirit, in a few hours become strongly impregnated with its smell and taste.

The substances usually joined with bark in prescription seem cal-

culated either to promote its efficacy, or merely for reducing it into the intended form; without much regard to its agreeableness, and the conveniency of taking it: this is nevertheless a point of great consequence, as its taste and the quantity which is necessary, make the patient too frequently loath it before enough has been taken to produce the desired effect. If designed to be exhibited in the solid form of a bolus, electary, &c. it should be made up, not, as is customary, with syrups, but with mucilages: with the former, it sticks about the mouth and fauces, whence its taste remains for a considerable time; with the latter it passes freely, scarce leaving any taste in the mouth. Aromatics do not prevent the taste of the bark discovering itself; extract of liquorice very effectually conceals it. The extract of logwood also, joined to that of bark, and a proper quantity of mucilage, form a very elegant and agreeable composition.

PETASITIS; [E.] *petasitis major et vulgaris* C. B. Butter bur; the root. This grows wild by the sides of ditches, and in meadows: it sends forth short scaly stalks in the spring, bearing spikes of purplish flowers; after this the leaves appear, which are very large, and hollowed in about the middle, so as to resemble a bonnet, or what the Greeks called *πτερον*, whence the name of the plant. The roots have a strong smell; a bitterish, aromatic, not very agreeable taste; they have been given in the dose of a dram or more, as an aromatic, and likewise as an aperient and deobstruent; these virtues, however, they possess in so low a degree, as to have lost their reputation in the shops.

PETRO-

PETROLEUM [E.] Rock oil. This is a general name for sundry liquid bitumens, or mineral oils, which spontaneously exude from the earth, or from clefts of rocks. These oils are found in almost all countries, but in greatest quantities in the warmer ones: some are met with in different parts of England; and many of our common bituminous minerals, as pitcoal, &c. afford on distillation oils not greatly different from them. The finest sort of this commodity comes from the duchy of Modena in Italy, where three different kinds are found: the best is almost as clear, fluid, and transparent as water, of a highly penetrating, yet not disagreeable smell, somewhat like that of rectified oil of amber: the second sort is of a clear yellow colour, not so fluid as the former, less penetrating, and partaking more of the oil of amber smell: the third, or worst, is of a blackish red colour, of a thicker consistence, and more disagreeable, than the two foregoing. The first of these is very rarely met with in the shops; the second, mixed with a little of the third, and some subtle oil, is usually sent us instead of it. Petroleum readily catches fire, and, if pure, burns entirely away: distilled, it becomes somewhat more pellucid than before (a small quantity of yellowish matter remaining) and loses greatly of its natural smell: it unites with the essential oils of vegetables, nor at all with vinous spirits: the finer sorts are so light as to swim upon the most highly rectified spirit. Petroleum is at present very rarely employed as a medicine, though if the finer kinds could be procured genuine, they should seem to deserve some notice: they are more agreeable than the oil of amber, and milder than that of turpentine; the vir-

tues of both which they participate of. They are principally recommended by authors for external purposes, against pains and aches, in paralytic complaints, and for preventing chilblains. For these intentions, some of the more common mineral oils have been made use of with good success: an oil extracted from a kind of stone coal has been cried up among the common people, under the name of British oil, for rheumatic pains, &c. even this is often counterfeited by a small portion of oil of amber added to the common expressed oils.

PETROLEUM BARBADENSE [L.] Barbadoes tar. This is thicker than the foregoing petrolea, and nearly of the consistence of common tar: it is of a reddish black colour, a disagreeable smell, less pungent than the other sorts. This bitumen is found in several of our American islands, where it is esteemed by the inhabitants of great service as a sudorific, and in disorders of the breast and lungs, though, in cases of this kind, attended with inflammation, it is certainly improper; they likewise apply it externally as a discutient, and for preventing paralytic disorders. Among us it is rarely used, and not often to be met with genuine. The college employ it as a menstruum for sulphur in the *balsamum sulphuris Barbadosense*, and direct an oil to be distilled from it.

PETROSELINUM MACEDONICUM; [L. E.] *apium Macedonicum* C. B. Macedonian parsley; the seeds.

PETROSELINUM VULGARE; [L. E.] *apium hortense seu petroselinum vulgo* C. B. Common parsley; the roots, leaves, and seeds.

The first of these plants is sometimes

times met with in our gardens ; the second is commonly cultivated for culinary purposes. The seeds of both have an aromatic flavour, and are occasionally made use of as carminatives, &c. Those of the Macedonian parsley are the strongest, though generally supplied by the other. The root of parsley is one of the five aperient roots, and in this intention is sometimes made an ingredient in apozems and diet drinks: if liberally used, it is apt to occasion flatulencies, and thus, by distending the viscera, produces a contrary effect to that intended by it: the taste of this root is somewhat sweetish, with a light degree of warmth and aromatic flavour.

PEUCEDANUM; [E.] *peucedanum Germanicum* C. B. Hogs fennel, or sulphur wort; the root. This plant grows wild by the sea shores, and in moist shady places. The roots have a strong disagreeable smell, somewhat resembling that of sulphureous solutions; and an unctuous, subacid, bitterish taste. They are looked upon as stimulating and attenuating, and supposed to promote expectoration and urine: the expressed juice was employed by the ancients as an errhine in lethargic disorders. The present practice pays no regard to them in any intention.

PHU, vide **VALERIANA SYLVESTRIS**.

PILOSELLA, vide **AURICULA MURIS**.

PIMENTA, vide **PIPER JA-MAICENSE**.

PIMPINELLA SANGUISOR-BA; [E.] *pimpinella sanguisorba minor hirsuta et laevis* C. B. Burnet; the leaves: this grows wild upon dry chalky hills: such as is cultivated in gardens, though pre-

ferred by some, is inferior in quality to the wild sort. The leaves are mildly astringent, and sometimes employed in this intention, in dysenteries and hæmorrhagies.

PIMPINELLA SAXIFRAGA [L. E.] Burnet saxifrage; the root. Three sorts of this plant are taken notice of by medical writers:

1. *Pimpinella saxifraga major, umbella candida* C. B. This is the species celebrated by the German writers under the name of *pimpinella alba*: it is not very common in this country, and therefore our markets have been generally supplied with the following.

2. *Pimpinella saxifraga minor foliis sanguisorbæ* Raii. *Tragelellum alterum majus* Tournef. This is not unfrequently met with in dry pasture grounds.

3. *Pimpinella saxifraga minor C. B. — foliis dissectis* Hist. Oxon. This sort is the most common in the fields about London: it grows taller than the others, but the leaves are less.

All these plants seem to be possessed of the same qualities, and to differ only in external appearance; and even in this their difference is so inconsiderable, that Linnæus has joined them into one, under the general name of *pimpinella*. Our college, instead of the first, which has been generally understood as the officinal sort, allow either of the other (which are more common) to be used promiscuously.

The roots of *pimpinella* have a grateful, warm, very pungent taste, which is entirely extracted by rectified spirits: in distillation, the menstruum arises, leaving all that it had taken up from the root, united into an elegant, aromatic resin. This root promises, from its sensible qualities, to be a medicine of considerable utility; tho' little regarded in common practice.

Stahl.

Stahl, Hoffman, and other German physicians, are extremely fond of it, and recommend it as an excellent stomachic, resolvent, detergent, diuretic, diaphoretic, and alexipharmac. They frequently exhibited it, and not without success, in scorbutic and cutaneous disorders, foulness of the blood and juices, tumours and obstructions of the glands, and diseases proceeding from a deficiency of the fluid secretions in general. Boerhaave directs the use of this medicine in asthmatic and hydropic cases, where the strongest resolvents are indicated: the form he prefers is a watery infusion; but the spirituous tincture possesses the virtues of the root in much greater perfection.

There is another species of *pimpinella* called *nigra*, from its root being externally of a bright black colour, whilst those of the foregoing *forms* are whitish: this is remarkable for its yielding an essential oil of a blue colour. It grows wild in some parts of Germany, Swisserland, &c. and is now and then met with in our gardens.

PIPER NIGRUM; [L. E.] Black pepper; the fruit of a plant growing in Java, Malabar, &c. gathered probably before it is fully ripe, and exsiccated in the sun. This is the only spice which we import directly from the East Indies, all the others coming through the hands of the Dutch.

PIPER ALBUM; [L. E.] White pepper; the fruit of the black pepper plant, gathered when ripe, and decorticated by maceration in water. The grains, as brought to us, have sometimes pieces of a dark coloured skin still upon them.

PIPER LONGUM; [L. E.] Long pepper. This is the fruit of a different plant, growing also in the East Indies. It is of a cylin-

dric figure, about an inch and a half in length; the external surface appears composed of numerous minute grains disposed round the fruit in a kind of spiral direction.

All these spices have a pungent smell, and a very hot biting taste. The long sort, which is the hottest and strongest, is most frequently made use of for medicinal purposes; the black, as being more grateful, for culinary ones; the white, which is the weakest of the three, is rarely employed for either. The warmth and pungency of these spices resides chiefly in their resinous part; their aromatic odour in an essential oil. The genuine distilled oil smells strong of the pepper, but has very little acrimony; the remaining decoction inspissated, yields an extract considerably pungent. A tincture made in rectified spirit is extremely hot and fiery; a few drops of it set the mouth as it were in a flame.

PIPER JAMAICENSE; [L. E.] Pimento or Jamaica pepper; the *animum* of many of the German writers. This is the produce of our own plantations; it is the fruit of a large tree, growing spontaneously in the mountainous parts of Jamaica, called by Sir Hans Sloane *myrtus arborea, aromatica, foliis laurinis*. The smell of this spice resembles a mixture of cinnamon, cloves, and nutmegs; its taste approaches to that of cloves, or a mixture of the three foregoing: whence it has received the name of all-spice. The shops have been for some time accustomed to employ this aromatic as a succedaneum to the more costly spices, and from them it has been introduced into our hospitals: the college have given it a place in their late dispensatory, and direct a simple water to be distilled from it, which

which possesses the flavour of the pimento in great perfection. It yields a large quantity of a pleasant essential oil, which, like that obtained from the eastern spices, sinks in water. Rectified spirit extracts its pungency and flavour, and elevates nothing in distillation.

PIPER INDICUM; *capsicum* [E.] *capsicum filiquis longis propendontibus* *Tern.* Guinea pepper; the fruit. This is an annual plant met with in our gardens; it ripens its red pods in September or October. The taste of capsicum is extremely pungent and acrimonious, setting the mouth as it were on fire. It is rarely made use of in medicine, being chiefly employed for culinary purposes: a species of it, called in the West Indies bird pepper, is the basis of a powder brought us from thence under the name of Cayan pepper.

PISUM; [E.] *pisum arvense flore candido, fructu rotundo albo* C. B. Peas; the seeds. These are commonly used in food, but very rarely for any medicinal purposes.

PIX LIQUIDA; [L. E.] Tar; a thick, black, unctuous substance; obtained from old pines and fir-trees, by burning them with a close smothering heat. It differs from the native resinous juice of the trees (see *terebinthina*) in having received a disagreeable impression from the fire, and containing a portion of the saline and other juices united with the resinous and oily: by the mediation of these, a part of the terebinthinate oil proves dissoluble in aqueous liquors, which extract little or nothing from the purer turpentines. Water impregnated with the more soluble parts of tar, proves in consequence of this hot pungent oil, warm and sti-

mulating: it sensibly raises the pulse and quickens the circulation: by these qualities, in cold languid phlegmatic habits, it strengthens the solids, attenuates viscid juices, opens obstructions of the minuter vessels, and promotes perspiration and the fluid secretions in general; whilst in hot bilious temperaments, it disposes to inflammation, and aggravates the complaints which it has been employed to remove.

PIX ARIDA; [L.] Dry or stone pitch. This is the *pix liquida* exsiccated by heat: in this process, a part of the acid and the more volatile oil are dissipated along with the aqueous moisture; and hence the product proves considerably less active. It is made use of only in external applications, as a warm adhesive, resinous substance.

PIX SICCA NAVALIS; [E.] This is generally allowed to be the same with the foregoing dry pitch or inspissated tar. According to Geoffroy, it is compounded of a strange mixture of tallow, and tar, and palimpissa, and an artificial black pitch; which artificial pitch is itself composed of tar and palimpissa; and this palimpissa is no other than an inspissated tar: so that notwithstanding this shew of composition, the result is only a mixture of pitch with a little tallow.

PIX BURGUNDICA; [L. E.] Burgundy pitch. This is of a solid consistence, yet somewhat soft, of a reddish brown colour, and more agreeable in smell than either of the foregoing. Geoffroy relates that it is composed of gallipot (a solid whitish resin which separates from some of the *terebinthina* as they run from the tree) melted with common turpentine and a little of its distilled oil. Dale informs us, from the relation of a gentleman who saw the preparation of this commodity in Saxony (from
whence

whence we are chiefly supplied with it) that it is no more than the common turpentine boiled a little.

PLANTAGO LATIFOLIA; [E.] Common broad-leaved plantane, called *septineruia*, from its having seven large nerves or ribs running along each leaf; the narrow leaved sort has only five ribs, and hence is named *quinqueruia*: they are both common in fields, and by road sides. The leaves are lightly astringent, and the seeds said to be so; and hence they stand recommended in hæmorrhagies, and other cases where medicines of this kind are proper. The leaves, bruised a little, are the usual application of the common people to slight flesh wounds.

PLUMBUM; [L. E.] Lead. This is the heaviest of the metals except gold: it melts in a moderate heat, and if kept in fusion, is soon converted partly into fume and partly into an ash coloured calx (*plumbum usum*;) this exposed to a stronger fire, in such a manner that the flame may play upon its surface, becomes first yellow, and afterwards of a deep red, (*minium* or red lead;) if in this process the fire be suddenly raised to a considerable height, the calx melts, assumes the appearance of oil, and on cooling forms a soft leafy substance of a yellowish or reddish colour (*litharge*.) The proper menstruum of this metal is aquafortis: the vegetable acids likewise dissolve it, but in very small quantity: a quart of distilled vinegar will not take up a dram; exposed to the steam of vinegar, it is by degrees corroded into a white powder (*cerussa*) which is considerably more easily of solution. The calces of lead dissolve, by heat, in expressed oils; these mixtures are

the basis of several officinal plasters and unguents. Crystals of this metal made with distilled vinegar (called from their sweetish taste, *sugar of lead*) and a tincture drawn from these and green vitriol, are likewise kept in the shops.

Preparations of lead, given internally, are supposed to incrassate the fluids, abate inflammations, and restrain venereal desires. The sugar is a strong astringent, and has been exhibited as such with good success, in hæmorrhagies, the fluor albus, seminal gleets, &c. The tincture is recommended for the like purposes; and for checking immoderate sweats in phthical cases, whence it has been usually called *tinctura antiphthifica*. The internal use of this metal is nevertheless full of danger, and ought never to be ventured upon unless in desperate cases, after other medicines have been employed without taking effect: it often occasions violent colics; and though it should not prove immediately hurtful, its ill consequences are sure though slow: tremors, spasms, or lingering tabes too frequently follow.

POLIUM MONTANUM; [L. E.] Poley mountain; the tops. It has been disputed among botanic writers, what species of poley ought to be employed in medicine. The college allow the promiscuous use of two, the *polium maritimum erectum Monspeliacum* C. B. and the *polium angustifolium Creticum* C. B. The first is sometimes met with in our gardens, and is the sort which the shops have been generally supplied with. They have both a light aromatic smell, and a bitterish taste; that brought from Crete is the most agreeable. They stand recommended in catarrhs, uterine disorders, &c. but at present are scarce

scarce otherwise made use of than as an ingredient in the mithridate and theriaca.

POLYGONATUM, vide **SIGILLUM SALOMONIS**.

POLYGONUM, vide **CENTINODIUM**.

POLYPODIUM QUERNUM; [E.] *filix polypodium dicta Herm.* Polypody of the oak; the root. Polypody is a capillary plant, growing upon old walls, the trunc of decayed trees, &c. that found upon the oak is generally preferred, though not sensibly different from the others. The roots are long and slender, of a reddish brown colour on the outside, greenish within, full of small tubercles which are resembled to the feet of an insect; whence the name of the plant: the taste of these roots is sweetish and nauseous.

Polypody has been employed in medicine for many ages; nevertheless its virtues remain as yet to be determined. The ancients held it to be a powerful purger of melancholic humours; by degrees, it came to be looked upon as an evacuator of all humours in general: at length, it was supposed only to gently loosen the belly; and afterwards even this quality was denied it: succeeding physicians declared it to be astringent; of this number is Boerhaave, who esteems it moderately styptic and antiscorbutic. For our own part, we have had no direct experience of it; nor is it employed in practice: it is probable that (as Juncker supposes) the fresh root may loosen the belly, and that it has not this effect when dry.

POLYTRICHUM, vide **TRICHOMANES**.

POMPHOLYX; [E.] a calx, or flowers, of zinc, produced in the furnaces where copper is made into brass by calamine, the ore of zinc. It is found adhering to the covers of the crucibles, &c. either in form of thin crusts, or of a light downy matter, generally of a pure white colour, though sometimes yellowish. See the article **ZINCUM**.

POPULUS NIGRA; [E.] the black poplar; its buds. The black poplar is a large tree, growing wild in watery places: it is easily raised, and very quick of growth. The young buds, or rudiments of the leaves, which appear in the beginning of spring, abound with a yellow, unctuous, odorous juice. They have hitherto been employed chiefly in an ointment, which received its name from them; though they are certainly capable of being applied to other purposes: a tincture of them made in rectified spirit, yields, upon being inspissated, a fragrant resin superior to many of those brought from abroad.

PORRUM; [E.] *porrum commune capitatum C. B.* Leeks; the root. This participates of the virtues of garlic, from which it differs chiefly in being weaker. See the article **ALLIUM**.

PORTULACA; [E.] *portulaca hortenfis latifolia J. B.* Purslane; the seeds. This herb is cultivated in gardens for culinary uses. The seeds are ranked among the lesser cold seeds, and have sometimes been employed in emulsions, and the like, along with the others of that class.

POTENTILLA, vide **ARGENTINA**.

PRASIMUM, vide **MARRUBIUM**.

PRI-

PRIMULA VERIS; [E.] *primula veris pallido fore humilis* Tourn. Primrose; the herb and root. This is a low plant, growing wild in woods and hedges, and producing pale yellow flowers in the spring. The leaves have an herbaceous taste. The roots are lightly bitter, with a kind of aromatic flavour, which some resemble to that of aniseeds; their expressed juice, purified by settling, is sometimes used as a sternutatory. The flowers have an agreeable flavour, but very weak: an infusion of them in wine, and a spirit distilled from them, are employed in some places as cordial and nerve.

PRUNELLA; [E.] *prunella major foliis non dissectis* C. B. Self-heal; the leaves. This plant grows wild in meadows and pasture grounds, and produces thick spikes of purplish flowers during the latter part of the summer. It has an herbaceous, glutinous rough taste; and hence stands recommended in hæmorrhagies and alvine fluxes: it has been principally celebrated as a vulnerary, whence its name; and in gargarisms for apthæ and inflammations of the fauces.

PRUNUS HORTENSIS. The plum tree. Three sorts of plums are looked upon as articles of the materia medica. They are all met with in our gardens, but the shops are supplied with the fruit moderately dried from abroad.

PRUNA BRIGNOLENSIA: *pruna ex flavo rufescentia mixti saporis, gratissima* C. B. The Brignole plum, brought from Provence, under the name of prunelloes.

PRUNA GALLICA; [L. E.] *fructus pruni fructu parvo, dulci, atro-cæruleo* Tourn. French or common prunes. This is the plum

called by our gardeners the little black damask.

PRUNA DAMASCENA; [E.] *fructus pruni fructu magno, dulci, atro-cæruleo* Tourn. Damascene plums, or damsons. This is the sort called the great damask violet of Tours. It is seldom met with dry in the shops, and is generally supplied by the common prune.

The medical effects of the damsons and common prunes are, to abate heat, and gently loosen the belly; which they perform by lubricating the passage and softening the excrement. They are of considerable service in costiveness accompanied with heat or irritation, which the more stimulating cathartics would tend to aggravate: where prunes are not of themselves sufficient, their effects may be promoted by joining with them a little rhubarb or the like; to which may be added some carminative ingredient, to prevent their occasioning flatulencies. Prunelloes have scarce any laxative quality: these are mild grateful refrigerants, and by being occasionally kept in the mouth, usefully beguile the thirst of hydroptic persons.

PRUNA SYLVESTRICA; [L. E.] Sloes; the fruit of the common black thorn or sloe bush. These have a very rough austere taste, especially before they have been mellowed by frosts. The juice of the unripe fruit, inspissated to a proper consistence, is called *Acacia Germanica*, and usually sold in the shops for the true Egyptian acacia: it is equally astringent with the Egyptian sort, but has more of a sharp or tartish taste, without any thing of the sweetish relish of the other.

PSYLLIUM; [E.] *psyllium majus*

jus erectum C. B. Fleawort; the seeds. This is a sort of plantane, growing wild in the warmer climates; and sometimes met with in our gardens: it differs from the common plantanes in having its stalks branched, with leaves upon them; hence it is named by Ray *plantago caulifera*. These seeds have been usually brought from the south of France; they are small, and supposed to resemble in shape a flea, whence the English name of the plant. These seeds have a nauseous, glutinous taste: boiled in water, they yield a considerable quantity of mucilage, which is sometimes made use of in emollient glysters and the like. Alpinus relates, that among the Egyptians this mucilage is exhibited in ardent fevers, and that it generally either loosens the belly or promotes sweat.

PTARMICA; [*E.*] *dracunculus pratensis, serrato folio* C. B. Sneezewort, or bastard pellitory; the root. This grows wild upon heaths, and in moist shady places; the flowers, which are of a white colour, come forth in June and July. The roots have an acrid smell, and a hot biting taste: chewed, they occasion a plentiful discharge of saliva; and when powdered and snuffed up the nose, provoke sneezing. These are the only intentions to which they have been usually applied.

PULEGIIUM; [*L. E.*] *pulegium latifolium* C. B. *mentha aquatica seu pulegium vulgare* Tourn. Pennyroyal; the leaves. This plant grows spontaneously in several parts of England, upon moist commons, and in watery places; trailing upon the ground, and striking roots at the joints. Our markets have been for some time supplied with a garden sort, which is larger than the other, and grows upright: this

is called by Mr. Dale *pulegium erectum*. Pennyroyal is a warm, pungent herb, of the aromatic kind, similar to mint, but more acrid and less agreeable: it has long been held in great esteem, and not undeservedly, as an aperient and deobstruent, particularly in hysteric complaints, and suppressions of the uterine purgations. For these purposes, the distilled water is generally made use of, or, what is of equal efficacy, an infusion of the leaves. It is observable, that both water and rectified spirit extract the virtues of this herb by infusion, and likewise elevate them in distillation.

PULEGIIUM CERVINUM; [*E.*] *pulegium angustifolium* C. B. Harts pennyroyal; the leaves. This species is met with, though not very often, in our gardens. It is somewhat stronger, yet rather more agreeable, than the foregoing, both in taste and smell.

PULMONARIA MACULOSA; [*E.*] *pulmonaria Italarum ad buglossam accedens* J. B. Spotted lungwort, or sage of Jerusalem; the leaves. This is met with in gardens: the leaves are of a green colour spotted with white; of an herbaceous glutinous taste, without any smell. They stand recommended against ulcers of the lungs, phthises, and other like disorders: nevertheless experience gives little countenance to these virtues, nor does the present practice expect them.

PYRETHRUM; [*L. E.*] *pyrethrum flore bellidis* C. B. Pellitory of Spain; the root. This plant, though a native of the warm climates, bears the ordinary winters of this; and often flowers successively, from Christmas to May; the roots also grow larger with us than those which

which the shops are usually supplied with from abroad. Pellitory root has no sensible smell; its taste is very hot and acrid, but less so than that of arum or dracunculus: the juice expressed from it has scarce any acrimony, nor is the root itself so pungent when fresh as after it has been dried. Water, assisted by heat, extracts some share of its taste, rectified spirit the whole; neither of them elevate any thing in distillation. The principal use of pyrethrum in the present practice is as a masticatory, and for promoting the salival flux, and evacuating viscid humours from the head and neighbouring parts; by this means it often relieves the tooth-ach, some kinds of pains of the head, and lethargic complaints.

QUERCUS; [E.] *quercus cum longis pediculis* C. B. Oak tree; the buds, bark, acorns and cups. All these have more or less of a manifest astringent quality; and hence stand recommended in hæmorrhagies, alvine fluxes, and other præternatural or immoderate secretions.

RANARUM SPERMA; [E.] Frogs spawn. This has been celebrated as an excellent cooler for external purposes; but practitioners have not experienced from it any peculiar effects that could deserve its being continued in use.

RAPHANUS RUSTICANUS; [L. E.] *C. B. cochlearia folio cubitali* Tourn. Horse radish; the root. This plant is sometimes found wild about river sides, and other moist places; for medicinal and culinary uses, it is cultivated in gardens; it flowers in June, but rarely perfects its seeds in this country. Horse-radish root has a quick pungent smell, and a penetrating acrid taste;

it nevertheless contains in certain vessels a sweet juice, which sometimes exudes upon the surface. By drying, it loses all its acrimony, becoming first sweetish, and afterwards almost insipid: if kept in a cool place, covered with sand, it retains its qualities for a considerable time. The medical effects of this root, are to stimulate the solids, attenuate the juices, and promote the fluid secretions: it seems to extend its action through the whole habit, and affect the minutest glands. It has frequently done good service in some kinds of scurvies and other chronic disorders proceeding from a viscosity of the juices, or obstructions of the excretory ducts. Sydenham recommends it likewise in dropics, particularly those which sometimes follow intermittent fevers. Both water and rectified spirit extract the virtues of this root by infusion, and elevate them in distillation: along with the aqueous fluid, an essential oil arises, possessing the whole taste and pungency of the horse-radish. The college have given us a very elegant compound water which takes its name from this root.

RAPUM; [E.] *rapa sativa rotunda* C. B. Turneps. These are accounted a wholesome aperient food: the liquor pressed out from them after boiling has been sometimes used medicinally as a deobstruent and diuretic.

REALGAR. a fossil composed of arsenic and sulphur, vide **ARSENICUM**.

REGINA PRATI, vide **ULMARIA**.

RHABBARBARUM; [L. E.] Rhubarb; the root of a plant of the dock kind, which grows spontaneously

taneously in China, and endures the colds of our own climate. Two sorts of rhubarb are met with in the shops. The first is imported from Turkey and Russia, in roundish pieces, freed from the bark, with a hole through the middle of each; they are externally of a yellow colour, and on cutting appear variegated with lively reddish streaks. The other, which is less esteemed, comes immediately from the East Indies, in longish pieces, harder, heavier, and more compact than the foregoing. The first sort, unless kept very dry, is apt to grow mouldy and worm eaten; the second is less subject to these inconveniencies. Some of the more industrious artists are said to fill up the worm holes with certain mixtures, and to colour the outside of the damaged pieces with powder of the finer sorts of rhubarb, and sometimes with cheaper materials: this is often so nicely done, as effectually to impose upon the buyer, unless he very carefully examines each piece. The marks of good rhubarb are, that it be firm and solid, but not stinty; that it be easily pulverable, and appear, when powdered, of a fine bright yellow colour; that upon being chewed, it impart to the spittle a saffron tinge, without proving slimy or mucilaginous in the mouth. Its taste is subacid, bitterish, and somewhat astringent; the smell, lightly aromatic.

Rhubarb is a mild cathartic, which operates without violence or irritation, and may be exhibited with safety even to pregnant women and children. Besides its purgative quality, it is celebrated for an astringent one, by which it strengthens the tone of the stomach and intestines, and proves useful in diarrhœa and disorders proceeding from a laxity of the fibres. Rhu-

barb in substance operates more powerfully as a cathartic than any of the preparations of it. Watery tinctures purge more than the spirituous ones; whilst the latter contain in greater perfection the aromatic, astringent, and corroborating virtues of the rhubarb. The dose, when intended as a purgative, is from a scruple to a dram or more.

The Turkey rhubarb is, among us, universally preferred to the East India sort, though this last is, for some purposes at least, equal to the other; it is manifestly more astringent, but has somewhat less of an aromatic flavour. Tinctures drawn from both with rectified spirit, have nearly the same taste: on distilling off the menstruum, the extract left from the tincture of the East India rhubarb proved considerably the strongest. They are both the produce of the same climate, and probably the roots of the same plant, taken up at different seasons, or cured in a different manner.

RHAMNUS CATHARTICUS,
vide SPINA CERVINA.

RHAPONTICUM; [*E.*] *rhabarbarum Dioscoridis & antiquorum Tourn.* Rhapontic; the root of a large roundish-leaved dock, growing wild on the mountain Rhodope in Thrace, from whence it was brought into Europe, about the year 1610, by Alpinus: it bears the hardest winters of this climate, and is not unfrequent in our botanic gardens. The root of this plant (which appears evidently to have been the rhubarb, of the ancients) is by many confounded with the modern rhubarb, though considerably different both in appearance and quality. The rhapontic is of a dusky colour on the surface, of a loose spongy texture; considerably more astringent but less purgative than

than rhubarb; in this last intention, two or three drams are required for a dose.

RHUS OBSONIORUM, vide **SUMACH**.

RIBESIA; [E.] *ribes vulgaris fructu rubro* Raii. Red currant bush; the berries. These have a cool dulco-acid taste, sufficiently agreeable both to the palate and stomach: their expressed juice, inspissated to the consistence of a rob, was formerly kept in the shops; at present, they are rather looked upon as a dietetic than a medicinal article.

ROSA DAMASCENA; [L. E.] *rosa purpurea* C. B. The damask rose. This elegant flower is frequent in our gardens. Its smell is very pleasant, and almost universally admired; its taste bitterish and subacid. In distillation with water, it yields a small portion of a butyraceous oil, whose flavour exactly resembles that of the roses. This oil, and the distilled water, are very useful and agreeable cordials: Hoffman strongly recommends them as of singular efficacy for raising the strength, clearing and recruiting the spirits, and allaying pain; which they perform without raising any heat in the constitution, rather abating it when inordinate. Damask roses, besides their cordial aromatic virtue, which resides in their volatile parts, have a mildly purgative one, which remains entire in the decoction left after the distillation: this, with a proper quantity of sugar, forms an agreeable laxative syrup, which has long kept its place in the shops.

ROSA RUBRA; [L. E.] *rosa rubra multiplex* C. B. The red rose has very little of the fragrance of the foregoing pale sort; and,

instead of its purgative quality, a mild gratefully astringent one, especially before the flower has opened: this is considerably improved by a hasty exsiccation; but both the astringency and colour are impaired by slow drying.

ROSMARINUS; [L. E.] *rosmarinus bortenensis angustifolius* C. B. Rosemary; the leaves, tops and flowers. This is a native of Spain, Italy, and the southern parts of France, where it grows in great abundance upon dry gravelly grounds; in the like soils it thrives best with us, and likewise proves stronger in smell than when produced in moist rich ones: this observation obtains in almost all the aromatic plants. Rosemary has a fragrant smell, and a warm pungent bitterish taste, approaching to those of lavender: the leaves and tender tops are strongest; next to these the cup of the flower; the flowers themselves are considerably the weakest, but most pleasant. Aqueous liquors extract great share of the virtues of rosemary leaves by infusion, and elevate them in distillation; along with the water arises a considerable quantity of essential oil, of an agreeable, strong penetrating smell: Pure spirit extracts in great perfection the whole aromatic flavour of the rosemary, and elevates very little of it in distillation; hence the resinous mass left upon abstracting the spirit, proves an elegant aromatic, very rich in the peculiar qualities of the plant. The flowers of rosemary give over great part of their flavour in distillation with pure spirit; by watery liquors, their fragrance is much injured; by beating, destroyed.

RUBIA TINCTORUM [L. E.] *rubia tinctorum sativa* C. B. Madder; the root. Madder is raised in

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in some of our gardens for medicinal purposes: it was formerly cultivated among us, in quantity, for the use of the dyers, who are at present supplied from Holland and Zealand. It has little or no smell; a sweetish taste, mixed with a little bitterness. The virtues attributed to it are those of a detergent and aperient, whence it has been usually ranked among the opening roots, and recommended in obstructions of the viscera, particularly of the kidneys, in coagulations of the blood from falls or bruises, in the jaundice, and beginning dropsies.

It is observable, that this root, taken internally, tinges the urine of a deep red colour; and in the philosophical transactions, we have an account of its producing a like effect upon the bones of animals who had it mixed with their food: all the bones particularly the more solid ones, were changed, both externally and internally, to a deep red, but neither the fleshy or cartilaginous parts suffered any alteration: some of these bones, macerated in water for many weeks together, and afterwards steeped and boiled in spirit of wine, lost none of their colour nor communicated any tinge to the liquors. This root appears therefore to be possessed of great subtilty of parts, whence its medical virtues seem to deserve inquiry.

RUBUS IDÆUS; [L.] *rubus idæus spinosus* C. B. — *fructu rubro* J. B. The raspberry bush; the fruit. This shrub is common in our gardens; and has likewise, in some parts of England, been found wild: it flowers in May, and ripens its fruit in July. Raspberries have a pleasant sweet taste, accompanied with a peculiarly grateful flavour; on account of which

they are chiefly valued. As to their virtues, they moderately quench thirst, abate heat, strengthen the viscera, and promote the natural excretions. An agreeable syrup, prepared from the juice, is directed to be kept in the shops.

RUBUS VULGARIS; [E.] *rubus vulgaris sive rubus fructu nigro* C. B. The bramble, or black berry bush; its leaves and fruit. This shrub is frequently found wild in woods and hedges. The berries have a faint taste, without any thing of the agreeable flavour of the foregoing: the leaves are somewhat astringent.

RUSCUS; *ruscus myrtifolius aculeatus* Tourn. Butchers broom, or knee holly; the root. This is a small prickly plant, sometimes found wild in woods. The root has a soft sweetish taste, which is followed by a bitterish one: it is one of the five aperient roots: and in this intention is sometimes made an ingredient in apozems and diet drinks, for opening slight obstructions of the viscera, purifying the blood and juices, and promoting the fluid secretions.

RUTA; [L. E.] *ruta hortensis latifolia* C. B. Broad-leaved rue; the leaves and seeds. This is a small shrubby plant, met with in gardens, where it flowers in June, and holds its green leaves all the winter; we frequently find in the markets a narrow leaved sort, which is cultivated by some in preference to the other, on account of its leaves appearing variegated during the winter, with white streaks. Rue has a strong ungrateful smell, and a bitterish, penetrating taste: the leaves, when in full vigour, are extremely acrid, insomuch as to inflame and blister the skin, if much handled.

handled. With regard to their medicinal virtues, they are powerfully stimulating, attenuating and detergent; and hence in cold phlegmatic habits, they quicken the circulation, dissolve tenacious juices, open obstructions of the excretory glands, and promote the fluid secretions. The writers on the materia medica in general, have entertained a very high opinion of the virtues of this plant. Boerhaave is full of its praises, particularly of the essential oil, and the distilled water cohobated, or re-distilled several times from fresh parcels of the herb: after somewhat extravagantly commending other waters prepared in this manner, he adds, with regard to that of rue, that the greatest commendations he can bestow upon it fall short of its merit: What medicine (says he) can be more efficacious for promoting sweat and perspiration, for the cure of the hysterical passion, and of epilepsies, and for expelling poison? Whatever service rue may be of in the two last cases, it undoubtedly has its use in the others: the cohobated water, however, is not the most efficacious preparation of it (see part II. chap xi.) An extract made by rectified spirit, contains, in a small compass, the whole virtues of the rue; this menstruum taking up by infusion all the pungency and flavour of the plant, and elevating nothing in distillation. With water, its peculiar flavour and warmth arise; the bitterness, and a considerable share of the pungency remaining behind.

SABINA; [L. E.] *sabina folio tamarisci Dioscoridis C. B.* Savin; the leaves. This is an ever-green shrub, clothed with small, somewhat prickly leaves: it does not produce fruit till very old, and hence has been generally reputed

barren. The leaves have a bitter, acrid, biting taste; and a strong disagreeable smell; distilled with water, they yield an essential oil, in larger quantity (as Hoffmann observes) than any other known vegetable, the turpentine tree alone excepted. Savin is a warm, irritating, aperient medicine, capable of promoting sweat, urine, and all the glandular secretions. The distilled oil is one of the most powerful emmenagogues; and does excellent service in obstructions of the uterus, or other viscera, proceeding from a laxity and weakness of the vessels, or a cold sluggish disposition of the juices.

SACCHARUM PURISSIMUM

[L. E.] double refined sugar.

SACCHARUM RUBRUM;

[L. E.] brown, or unrefined sugar.

SACCHARUM CANDUM;

[E.] sugar candy.

Sugar is the essential salt of the *arundo saccharifera*, a beautiful large cane, growing spontaneously in the East Indies, and some of the warmer parts of the West, and cultivated in great quantity in our American plantations. The expressed juice of the cane is clarified with the addition of lime water (without which it does not assume the form of a true sugar) and boiled down to a due consistence; when, being removed from the fire, the saccharine part concretes from the grosser unctuous matter called treacle, or melasses. This, as yet impure or brown sugar, is farther purified, in conical moulds, by spreading moist clay on the upper broad surface: the watery moisture, slowly percolating through the mass, carries with it a considerable part of the remains of the treacly matter. This clayed sugar, imported from America, is by our refiners, dissolved in water, the solution clarified by

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boiling

boiling with whites of eggs and despumation, and after due evaporation poured into moulds: as soon as the sugar has concreted, and the fluid part drained off, the surface is covered with moist clay as before. The sugar, thus once refined, by a repetition of the process, becomes the double refined sugar of the shops. The candy, or crystals, are prepared by boiling down solutions of sugar to a certain pitch, and then removing them into a hot room, with sticks set across the vessel for the sugar to shoot upon: these crystals prove of a white or brown colour, according as the sugar was pure or impure.

The uses of sugar as a sweet, are sufficiently well known; its medical virtues depending on this quality, we have already given some account of it in page 59. The impure sorts contain an unctuous, or oily matter, in consequence of which they prove emollient and laxative. The crystals are most difficult of solution, and hence are properest where this soft lubricating sweet, is wanted to dissolve slowly in the mouth.

SAGAPENUM; [L. E.] a concrete juice, brought from Alexandria, either in distinct tears, or run together in large masses. It is outwardly of a yellowish colour, internally somewhat paler, and clear like horn, grows soft upon being handled, and sticks to the fingers, its taste is hot and biting; the smell disagreeable, by some resembled to that of a leek, by others to a mixture of *asafotida* and *galbanum*. *Sagapenum* is an useful aperient and deobstruent, and frequently prescribed, either alone, or in conjunction with *ammoniacum*, or *galbanum*, for opening obstructions of the viscera, and in hysterical disorders arising from a deficiency of the menstrual purga-

tions. It likewise deterges the pulmonary vessels, and proves of considerable service in some kinds of asthma, where the lungs are oppressed by viscid phlegm. It is most commodiously exhibited in the form of pills; from two or three grains to half a dram, may be given every night or oftner, and continued for some time. When *sagapenum* is scarce, the druggists usually supply its place with the larger and darker coloured masses of *bdellium*, broke into pieces; which are not easily distinguished from it.

SAGO [E.] This is the produce of an oriental tree, called by C. Bauhine *palman referens arbor farinifera*. The medullary part of the tree is beat, with water, and made into cakes, which are used by the Indians as bread: these reduced into granules, and dried, are the sago brought to us. It is moderately nutritious, though not equal to our own grain.

SAL AMMONIACUS [L. E.] *Sal ammoniac*. This is an artificial saline concrete, said to be prepared by sublimation from the foot of cow dung. It is brought to us from Egypt, in large round cakes, convex on one side, and concave on the other; and sometimes in conical leaves: on breaking, they appear composed of needles or stræ, running transversely. The best are almost transparent, colourless, and free from any visible impurities: those most commonly met with are of a grey yellowish colour on the outside, and sometimes black, according as the matter is more or less impure. The taste of this salt is very sharp and penetrating. It dissolves in twice its weight, or a little less, of water; and upon evaporating a part

part of the menstruum concretes again into long shining spicula, or thin fibrous plates like feathers.

Sal ammoniac appears from experiments to be composed of marine acid, united with a volatile alcali. If mingled with fixt salts, or absorbent earths, and exposed to a moderate fire, a large quantity of pure volatile salt sublimes, the acid remaining united with the intermedium: if treated in the same manner with quicklime, an exceeding penetrating volatile spirit arises, but no solid salt is obtained. Exposed alone to a considerable heat, it sublimes entire, without any alteration of its former properties: ground with certain metallic substances, it elevates some part of them along with itself, and concretes with the remainder into a mass, which readily flows into a liquor in a moist air; this appears in most respects similar to a saturated solution of the metal made directly in spirit of salt.

Pure sal ammoniac is a perfectly neutral salt, capable of attenuating viscid humors, and promoting a diaphoresis, or the urinary discharge, according to certain circumstances in the constitution, or as the patient is managed during the operation. If a dram of the salt be taken, dissolved in water, and the patient kept warm, it generally proves sudorific; by moderate exercise, or walking in the open air, its action is determined to the kidneys; a large dose gently loosens the belly, and a still larger proves emetic. This salt is recommended by many as an excellent febrifuge, and by some has been held a great secret in the cure of intermittents. It is undoubtedly a powerful aperient, and seems to pass into the minutest vessels; and as such may in some cases be of service, either alone, or joined with bitters, or the bark,

where the latter would by itself produce dangerous obstructions, or aggravate those already formed. This salt is sometimes employed externally as an antiseptic, and in lotions and fomentations for oedematous tumors; as also in gargarisms for inflammations of the tonsils, and for attenuating, and dissolving thick viscid mucus.

SAL CATHARTICUS AMARUS [L.] The bitter purging salt; extracted from the bitter liquor remaining after the crystallization of common salt from sea water. It was first prepared as a cheap substitute to the salt of the Epsom, and other purging mineral waters, from which it does not considerably differ, either in sensible qualities, or medical effects. We usually meet with it in minute crystals, of a snowy appearance: dissolved in water, and crystallized afresh, it concretes, if properly managed, into larger ones, of a rectangular prismatic figure, resembling those of the artificial cathartic salt of Glauber, to which they are sometimes substituted in the shops.

All these salts have a penetrating bitterish taste: they dissolve in less than an equal weight of water: in a moderate heat, they melt, bubble up into blisters, and soon change into a white spongy mass, with the loss of above half their weight: this calx tastes bitterer than the salts did at first, and almost totally dissolves again in water. The acid of these salts is chiefly the vitriolic; the basis of the natural is a fine absorbent earth; of the artificial, an alkaline substance approaching to the nature of lixivial salts. Hence, upon adding alkaline salts to a solution of the salt of Glauber, no change ensues: whilst the salts obtained from the purging waters, or

the bitter of marine waters, grow milky upon this addition, and deposite their earth, the alkaline salt being taken up in its place.

The sal catharticus is a mild and gentle purgative, operating with sufficient efficacy, and in general with ease and safety, rarely occasioning any gripes, sickness, or the other inconveniencies which purgatives of the resinous kind are too often accompanied with. Eight or ten drams may be dissolved for a dose in a proper quantity of common water; or four, five, or more, in a pint, or quart of the purging waters. These liquors may likewise be so managed as to promote evacuations by the other emunctories; if the patient is kept warm, they increase perspiration; by moderate exercise in a cool air, the urinary discharge.

SAL COMMUNE [E.] Common, or alimentary salt. This is a neutral salt, differing from most others in occasioning drought when swallowed. It dissolves in somewhat less than three times its weight of water; the solution slowly evaporated and set to shoot, affords cubical crystals, which unite together into the form of hollow truncated pyramids. Exposed to the fire, it crackles and flies about, or decrepitates, as it is called; soon after, it melts, and appears fluid as water. A small quantity of this salt, added to the nitrous acid, enables it to dissolve gold; but renders it unfit for dissolving silver: if a solution of silver be poured into liquors, containing even a minute portion of common salt, the whole immediately grows turbid and white; this phenomenon is owing to the precipitation of the silver.

This salt is either found in a solid form in the bowels of the

earth, or dissolved in the waters of the sea, or saline springs.

1. *Sal gemma* [L. E.] Rock salt. This is met with in several parts of the world, but in greatest plenty in certain deep mines, of prodigious extent, near Cracow in Poland; some is likewise found in England, particularly in Cheshire. It is for the most part very hard, sometimes of an opaque snowy whiteness, sometimes of a red, green, blue, and other colours. When pure, it is perfectly transparent and colourless; the other sorts are purified by solution in water and crystallization, in order to fit them for the common uses of salt.

2. *Sal marinus*; [L. E.] the salt extracted from sea water and saline springs. Sea waters yield from one fiftieth to one thirtieth their weight of pure salt: several springs afford much larger quantities; the celebrated ones of our own country at Nantwyck, Northwich, and Droitwich, yield (according to Dr. Brownrigg) from one sixth to somewhat more than one third. There are two methods of obtaining the common salt from these natural solutions of it: the one, a hasty evaporation of the aqueous fluid till the salt begins to concrete, and fall in grains to the bottom of the evaporating pan, from whence it is raked out, and set in proper vessels to drain from the brine or bitter: the other, a more slow and gradual evaporation, continued no longer than till a saline crust forms on the top of the liquor, which, upon removing the fire, soon begins to shoot, and run into crystals of a cubical figure. In the warmer climates, both these processes are effected by the heat of the sun. The salts obtained by them differ very considerably: that got by a hasty evaporation is very apt to relent in a moist air, and run
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per deliquium: an inconvenience which the crystallized salt is not subject to: this last is likewise found better for the preserving of meat, and sundry other purposes.

Common salt checks fermentation, and prevents the putrefaction of vegetable and animal substances: and is supposed to have the same effect on the aliment in the stomach: it likewise, by gently irritating the solids, acts as a stimulus, and thus promotes the protrusion of the aliment: hence the many singular virtues ascribed to this salt, as of heating, absterging, promoting appetite, &c. It is sometimes used to check the operation of emetics, and make them run off by stool; and as a stimulus in gylsters.

SALVIA [L.] *salvia hortensis major*; [E.] Common sage, (the green and red sorts) the leaves.

SALVIA *hortensis minor*; [E.] *salvia minor aurita et non aurita* C. B. Small sage, or sage of virtue; the leaves.

These plants are common in our gardens, and flower in May and June: the green and red common sages differ no otherwise than in the colour of their leaves; the seeds of one and the same plant produce both: the small sort is a distinct species; its leaves are narrower than the other, generally of a whitish colour, and never red; most of them have at the bottom a piece standing out on each side in the form of ears. Both sorts are moderately warm aromatics, accompanied with a light degree of astringency and bitterness: the small sort is the strongest, the large most agreeable.

The writers on the materia medica are full of the virtues of sage, and derive its name from its supposed salutary qualities, (*Salvia salvatricæ, naturæ conciliatricæ*—Cur

moriatur homo, cui salvia crescit in horto, &c.) Its real effects are, to moderately warm and strengthen the vessels; and hence, in cold phlegmatic habits, it excites appetite, promotes the natural secretions, and proves serviceable in debilities of the nervous system. The best preparation for these purposes is an infusion of the dry leaves, drank as tea; or a tincture, or extract, made with rectified spirit, taken in proper doses: these contain the whole virtues of the sage; the distilled water and essential oil, only its warmth and aromatic quality, without any thing of its roughness or bitterness. Aqueous infusions of the leaves, with the addition of a little lemon juice, prove an useful diluting drink in febrile disorders, of an elegant colour, and sufficiently acceptable to the palate.

SALVIA SYLVESTRIS [E.] *scorodotis sive scordium foliis salvia* J. B. Wood sage; the leaves.

This grows wild in woods and hedges. In smell, taste, and medical virtues, it comes nearer to scordium than sage: it is less disagreeable than the former, but more so than the latter.

SAMBUCUS; [L. E.] *sambucus fructu in umbella nigro* C. B. Common black-berried elder; the leaves, bark, [E.] flowers, and berries [L. E.] This is a large shrub, frequent in hedges; it flowers in May, and ripens its fruit in September. The inner green bark of its trunk is gently cathartic: an infusion of it in wine, or the expressed juice, in the dose of half a ounce, or an ounce, is said to purge moderately, and in small doses to prove an efficacious deobstruent, capable of promoting all the fluid secretions. The young buds, or rudiments of the leaves, are strongly purgative, and act with

so much violence as to be deservedly accounted unsafe. The flowers are very different in quality: these have an agreeable aromatic flavour, which they give over in distillation with water, and impart by infusion to vinous and spirituous liquors. The berries have a sweetish, not unpleasent taste; nevertheless, eaten in substance, they offend the stomach: the expressed juice, inspissated to the consistence of a rob, proves an useful aperient medicine: it opens obstructions of the viscera, promotes the natural evacuations, and, if continued for a length of time, does considerable service in sundry chronical disorders. It is observable, that this juice (which in its natural state is of a purplish colour) tinges vinous spirits of a deep red.

SAMPSONUCHUS, vide MAJORANA.

SANDARACHA, a fossil, composed of arsenic and sulphur, vide ARSENICUM.

SANGUIS DRACONIS [L. E.] Dragons blood, so called; a resin brought from the East Indies, either in oval drops, wrapt up in flag leaves, or in large masses, composed of smaller tears. The writers on the materia medica in general give the preference to the former, though the latter is not unfrequently of equal goodness: the fine dragons blood of either sort breaks smooth, free from any visible impurities, of a dark red colour, which changes upon being powdered into an elegant bright crimson. Several artificial compositions, coloured with the true dragons blood, or Brazil wood, are sometimes sold in the room of this commodity: some of these dissolve, like gums, in water: others crackle in

the fire, without proving inflammable; whilst the genuine sanguis draconis readily melts and catches flame, and is not acted on by watery liquors. It totally dissolves in pure spirit, and tinges a large quantity of the menstruum of a deep red colour: it is likewise soluble in expressed oils, and gives them a red hue, less beautiful than that communicated by anchusa. This drug, in substance, has no sensible smell or taste; when dissolved, it discovers some degree of warmth and pungency. It is usually looked upon as a gentle astringent, and sometimes directed as such in extemporaneous prescription, against feminal gleets, the fluor albus, and other fluxes: in these cases, it produces the general effects of resinous bodies, lightly incrassating the fluids, and somewhat strengthening the solids.

SANICULA; [E.] *Sanicula officinarum* C. B. Sanicle; the leaves. This grows wild in woods and hedges, and flowers in May. The leaves have an herbaceous, roughish taste: they have long been celebrated for *sanative* virtues, both internally and externally: nevertheless their effects, in any intention, are not considerable enough to gain them a place in the present practice.

SANTALUM ALBUM [E.] White saunders; a wood brought from the East Indies, in billets, about the thickness of a man's leg, of a pale whitish colour. The greatest part of it, as met with in the shops, has no smell or taste, or any sensible quality that can recommend it to the notice of the physician.

SANTALUM CITRINUM [E.] Yellow saunders; a pale yellowish wood brought from the East Indies;

ndies; of a pleasant smell, and a bitterish aromatic taste, accompanied with an agreeable kind of pungency. This elegant wood might undoubtedly be applied to valuable medical purposes, though at present in disuse. Distilled with water, it yields a fragrant essential oil, which thickens, in the cold, into the consistence of a balsam. Digested in pure spirit, it imparts a rich yellow tincture; which being committed to distillation, the spirit arises, without bringing over any thing considerable of the flavour of the saunders. The residuum contains the virtues of six times its weight of the wood. Hoffman looks upon this extract as a medicine of similar virtues to ambergris; and recommends it as an excellent restorative in great debilities.

SANTALUM RUBRUM [L. E.] Red saunders; a wood brought from the East Indies, in large billets, of a compact texture, a dull red, almost blackish colour on the outside, and a deep brighter red within. This wood has no manifest smell, and little or no taste. It has been commended as a mild astringent, and a corroborant of the nervous system; but these are qualities that belong only to the yellow sort.

The principal use of red saunders is as a colouring drug. It communicates a deep red to rectified spirit, but gives no tinge to aqueous liquors: a small quantity of the resin, extracted by means of spirit, tinges a large one of fresh spirit, of an elegant blood red. There is scarce any oil, that of lavender excepted, to which it communicates its colour. Geoffroy and others, take notice, that the Brazil woods are sometimes substituted to red saunders; and the College of Brussels are in doubt whether

all that is sold among them for saunders is not really a wood of that kind: according to the account which they have given, their saunders is certainly the Brazil wood; the distinguishing character of which is, that it imparts its colour to common water.

SANTONICUM [E.] Worm seed; the produce of a species of wormwood growing in the Levant. It is a small, light, chaffy seed, composed, as it were, of a number of thin membranous coats, of a yellowish colour, an unpleasant smell, and a very bitter taste. These seeds are celebrated for anthelmintic virtues (which they have in common with other bitters) and are sometimes taken in this intention, either along with melasses, or candied with sugar: their unpleasant taste renders the form of a powder or decoction inconvenient. They are not very often met with genuine in the shops.

SAPO DURUS; [L.] *Sapo albus Hispanicus [E.]* White Spanish soap.

SAPO MOLLIS; [L.] Common soft soap.

SAPO NIGER; [E.] Black soft soap.

Soap is composed of expressed vegetable oils, or animal fats, united with alkaline lixivium. The first sort, or white hard soap, is made with the finer kinds of oil olive; the common soft sort, with coarser oils, fat, tallow, or a mixture of all these; and the black (as is said) with train oil.

The purer hard soap is the only sort intended for internal use. This, triturated with oily, or resinous matters, renders them soluble in water, and hence becomes an useful ingredient in pills composed of resins, promoting their dissolution

in the stomach, and union with the animal fluids: Boerhaave was a great admirer of soap; and in his private practice seldom prescribed any resinous pills without it; unless where an alcallescent, or putrid state of the juices forbid its use. From the same quality, soap likewise seems well fitted for dissolving such oily, or unctuous matters, as it may meet with in the body attenuating viscid juices, opening obstructions of the viscera, and deterring all the vessels it passes through. It is likewise a powerful, menstruum for the human calculus: a solution of it in lime water is one of the strongest dissolvents that can be taken with safety into the stomach; the virtue of this composition is considerably greater than the aggregate of the dissolving powers of the soap and lime water when unmixed. See the *Edinburgh essays*, *abr.* vol. i.

The soft soaps are more penetrating and acrimonious than the hard. The only medical use of these is for some external purposes.

SAPONARIA; [E.] *saponaria major lewis* C. B. Soapwort, or bruisewort; the herb and root. This grows wild, though not very common, in low wet places, and by the sides of running waters; a double flowered sort is frequent in our gardens. The leaves have a bitter, not agreeable taste; agitated with water, they raise a saponaceous froth, which has nearly the same effects with solutions of soap itself in taking out spots from cloths, and the like. The roots taste sweetish, and agreeably pungent; and have a light smell like those of liquorice: digested in rectified spirit they yield a strong tincture, which loses nothing of its taste or flavour in being inspissated to the consistence of an extract. This

elegant root has not come much into practice among us, though it promises, from its sensible qualities, to be a medicine of considerable utility: it is greatly esteemed by the German physicians as an aperient, corroborant, and sudorific: and preferred by the college of Wirtembergh, Stahl, Newman, and others, to sassafras.

SARCOCOLLA; [L. E.] a concrete juice, brought from Persia and Arabia, in small, whitish, yellow grains, with a few of a reddish, and sometimes of a deep red colour, mixed with them; the whitest tears are preferred, as being the freshest: its taste is bitter, accompanied with a dull kind of sweetness. This drug dissolves in watery liquors, and appears to be chiefly of the gummy kind, with a small admixture of resinous matter. It is principally celebrated for conglutinating wounds and ulcers (whence its name *σαρκοκόλλη*, flesh glue) a quality, which neither this, nor any other drug, has a just title to.

SARSAPARILLA; [L. E.] a root brought from the Spanish West Indies. It consists of a great number of long strings hanging from one head: the long roots (the only part made use of) are about the thickness of a goose quill, or thicker, flexible, composed of fibres running their whole length, so that they may be stript into pieces from one end to the other: they have a glutinous, bitterish, not ungrateful taste; and no smell. This root was first brought into Europe by the Spaniards, about the year 1563, with the character of a specific for the cure of the lues venerea, which made its appearance a little before that time, and likewise of several obdurate chronic disorders. What-
ever

ever good effects it might have produced in the warmer climates, it proved unsuccessful in this, inasmuch that many have denied it to have any virtue at all. It appears however from experience, that though greatly unequal to the character which it bore at first, it is in some cases of considerable use as a sudorific, where more acrid medicines are improper. The best preparations are a decoction and extract made with water; a decoction of half an ounce of the root, or a dram of the extract which is equivalent thereto, may be taken for a dose.

SASSAFRAS; [L. E.] the root of a large American tree (*arbor ex Florida ficulneo folio C. B.*) brought to us in long straight pieces, very light, and of a spongy texture, covered with a rough fungous bark; outwardly of an ash colour, inwardly of the colour of rusty iron. It has a fragrant smell, and a sweetish, aromatic, subacid taste: the bark tastes much stronger than any other part; and the small twigs stronger than the large pieces. As to the virtues of this root, it is a warm aperient and corroborant; and frequently employed, with good success, for purifying and sweetening the blood and juices. For these purposes, infusions made from the rasped root or bark, may be drank as tea. In some constitutions, these liquors, by their fragrance, are apt on first taking them, to affect the head: in such cases, they may be advantageously freed from their flavour by boiling; a decoction of saffras, boiled down to the consistence of an extract, proves simply bitterish and subastringent. Hoffman assures us, that he has frequently given this extract, to the quantity of a scruple at a time, with remarkable success, for strengthen-

ing the tone of the viscera in cachexies; as also in the decline of intermittent fevers, and in hypochondriacal spasms. Saffras yields in distillation an extremely fragrant oil, of a penetrating pungent taste, so ponderous (notwithstanding the lightness of the drug itself) as to sink in water. Rectified spirit extracts the whole taste and smell of saffras: and elevates nothing in evaporation; hence the spirituous extract proves the most elegant and efficacious preparation, as containing the virtues of the root entire.

SATUREIA: [E.] *satureia hortensis sive cumila sativa Plini C. B.* Summer savory; the leaves. This herb is raised annually in gardens for culinary purposes. It is a very pungent, warm, aromatic; and affords in distillation with water, a subtle essential oil, of a penetrating smell, and very hot, acrid taste. It yields little of its virtues by infusion to aqueous liquors: rectified spirit extracts the whole of its taste and smell, and elevates nothing in distillation.

SATYRION MAS; [E.] *orchis morio mas foliis maculatis C. B.* This plant is frequent in shady places and moist meadows: each plant has two oval roots, of a whitish colour, a viscid sweetish taste, and a faint unpleasent smell. They abound with a glutinous slimy juice. With regard to their virtues, like other mucilaginous vegetables, they thicken the thin cerous humours, and defend the solids from their acrimony; they have also been celebrated, though on no very good foundation, for analeptic and aphrodisiac virtues; and frequently made use of in these intentions.

SALEP, a celebrated restorative among the Turks, is probably the prepared root of certain plants of the

the orchis kind. This drug, as sometimes brought to us, is in oval pieces, of a yellowish white colour, somewhat clear and pellucid, very hard and almost horny, of little or no smell, and tasting like gum tragacanth. Satyrion root, boiled in water, freed from the skin, and afterwards suspended in the air to dry, gains exactly the same appearance: the roots thus prepared dissolve in boiling water, into a mucilage. Geoffroy, who first communicated this preparation of orchis, recommends it in consumptions, in bilious dysenteries, and disorders of the breast proceeding from an acrimony of the juices.

SAXIFRAGA ALBA; [E.] *saxifraga alba radice granulosa* F. B. White flowered saxifrage; the leaves, and the roots improperly called (from their consisting of little grains) seeds.

SAXIFRAGA VULGARIS; [E.] *saxifraga pratensis nostras Raii*. Meadow saxifrage; the leaves and seeds. These herbs grow wild, the first in dry sandy grounds, the second in fields and meadows: the first is not very common, and hence its leaves and roots have been generally supplied by the leaves and seeds of the second. Neither of them are at present in much esteem, notwithstanding the aperient, diuretic and lithontriptic virtues formerly attributed to them: they have a nauseous bitterish taste, with little or no smell.

SCABIOSA; [E.] *scabiosa major communior hirsuta, folio laciniato Raii*. Scabious; the leaves. This is a rough hairy plant, growing wild in pasture grounds; of a nauseous bitterish taste. It stands recommended as an aperient, sudorific, and expectorant; but the present practice has little dependance on it.

SCAMMONIUM; [L. E.] Scammony; a concrete juice extracted from the roots of a large climbing plant growing in the Asiatic Turkey. The best comes from Aleppo, in light, spongy masses, easily friable, of a shining ash colour verging to black; when powdered, of a light grey or whitish colour: an inferior sort is brought from Smyrna, in more compact, ponderous pieces, of a darker colour, and full of sand and other impurities. This juice is chiefly of the resinous kind: rectified spirit dissolves five ounces out of six, the remainder is a mucilaginous substance mixed with dross: proof spirit totally dissolves it, the impurities only being left. It has a faint unpleasant smell; and a bitterish, somewhat acrimonious taste.

Scammony is an efficacious and strong purgative. Some have condemned it as unsafe, and laid sundry ill qualities to its charge; the principal of which is, that its operation is uncertain, a full dose proving sometimes ineffectual, whilst at others a much smaller one occasions dangerous hypercatharises. This difference however is owing entirely to the different circumstances of the patient, and not to any ill quality, or irregularity of operation, of the medicine: where the intestines are lined with an excessive load of mucus, the scammony passes through, without exerting itself upon them; where the natural mucus is deficient, a small dose of this or any other resinous cathartic, irritates and inflames. Many have endeavoured to abate the force of this drug, and correct its imaginary virulence, by exposing it to the fume of sulphur, dissolving it in acid juices, and the like: but this could do no more than destroy as it were a part of the medicine, without making any altera-

alteration in the rest. Scammony in substance, judiciously managed, stands not in need of any corrector: if triturated with sugar or with almonds, as we have formerly recommended for other resinous purgatives, it becomes sufficiently safe and mild in operation. It may likewise be conveniently dissolved, by trituration, in a strong decoction of liquorice, then poured off from the feces: the college of Wirtemberg assures us, that by this treatment it becomes mildly purgative, without being attended with gripes or other inconveniences; and that it likewise proves inoffensive to the palate. The common dose of scammony is from three to twelve grains.

SCHENANTHUS, vide JUN-
CUS ODORATUS.

SCILLA; [L. E.] *scilla radice alba C. B. vel scilla vulgaris radice rubra C. B.* The squill, or sea-onion; its root. This is a sort of onion, growing spontaneously upon dry sandy shores in Spain and the Levant, from whence the root is annually brought into Europe. It should be chosen plump, sound, fresh, and full of a clammy juice: some have preferred the red sort, and others the white, though neither deserves the preference to the other; the only difference perceivable betwixt them, is that of the colour; and hence the college allow both to be used promiscuously. This root is to the taste very nauseous, intensely bitter and acrimonious: much handled, it exulcerates the skin. With regard to its medical virtues, it powerfully stimulates the solids, and attenuates viscid juices; and by these qualities promotes expectoration, urine, and (if the patient is kept warm) sweat:

if the dose is considerable, it proves emetic, and sometimes purgative. The principal use of this medicine is where the primæ viæ abound with mucous matter, and the lungs are oppressed by tenacious phlegm. Dr. Wagner, (in his clinical observations) recommends it given along with nitre: in hydropical swellings and in the nephritis; and mentions several cures which he performed by exhibiting from four to ten grains of the powder for a dose, mixed with a double quantity of nitre; he says that thus managed, it almost always operates as a diuretic, though sometimes it vomits or purges. The most commodious form for the exhibition of squills, unless when designed as an emetic, is that of a bolus or pill: liquid forms are to most people too offensive, though these may be rendered less disagreeable, both to the palate and stomach, by the addition of aromatic distilled waters. This root yields the whole of its virtues, both to aqueous and vinous menstrua, and likewise to vegetable acids. Cartheuser relates, that these last somewhat abate its bitterness, and heighten its acrimony; that rectified spirit extracts extremely little of either; and that alkaline salts destroy both. It gives over nothing of its virtues in distillations either with water or spirit.

SCINCUS; [L. E.] The skink; a kind of small lizard, brought dry from Egypt. It stands recommended as a great restorative: whatever virtues it may have as used fresh by the Egyptians, it has none as it comes to us, and serves to uselessly increase the articles of the mithridate.

SCLAREA, vide HORMINUM.

SCOLO-

SCOLOPENDRIUM, vide LIN- unpleasent smell, and a somewhat
GUA CERVINA. bitter disagreeable taste.

SCORDIUM; [L. E.] *chamaedrys palustris canescens* Tourn. Water germander; the leaves. This is a small, somewhat hairy plant, growing wild in some parts of England, though not very common; the shops are generally supplied from gardens. It has a bitter taste, and a strong disagreeable smell. Scordium is of no great esteem in the present practice, notwithstanding the deobstruent, diuretic, and sudorific virtues which it was formerly celebrated for. It enters six officinal compositions, and gives name to three of them, though not the most valuable of their ingredients.

SCORZONERA; [E.] *scorzonera latifolia sinuata* C. B. Vipers grass; the root. Scorzonera is met with only in gardens. The roots abound with a milky juice, of a bitterish subacid taste; and hence may be of some service, for strengthening the tone of the viscera, and promoting the fluid secretions. They were formerly celebrated as alexipharmacs, and for throwing out the measles and small-pox; but have now almost entirely lost their character.

SCROPHULARIA VULGARIS; [E.] *scrophularia nodosa scabida* C. B. Figwort: the leaves and root. This herb grows wild in woods and hedges: the roots are of a white colour, full of little knobs or protuberances on the surface: this appearance gained it formerly some repute against scrophulous disorders, and the piles; and from hence it received its name: but modern practitioners expect no such virtues from it. It has a faint

SCROPHULARIA AQUATICA MAJOR; [E.] *scrophularia maxima radice fibrosa* J. B. Greater water figwort; the leaves. This is a large plant, met with chiefly in the sides of rivers. The leaves have a bitter taste, and an ungrateful smell: they are principally celebrated, though on no very good grounds, as a corrector of leuca. See the article SENA.

SEBESTEN; [E.] *myxa sive sebesten* J. B. A sort of plum, brought half dried from the East Indies: it is of a dark or blackish brown colour, with whitish or ash coloured cups: the flesh sticks close to the stone, which contains sometimes one and sometimes two kernels. This fruit has a sweet, very glutinous taste; and hence has been employed for softening acrimonious humours, in some kinds of hoarseness, and in coughs from thin sharp defluxions. At present, it is not often met with in the shops.

SECALE; [E.] *secale hybernum vel majus* C. B. Rye; the seeds. These are little regarded as an article of the materia medica: as food, they are accounted more detergent than most other kinds of grain.

SEDUM MAJUS: [E.] *sedum majus vulgare* C. B. Greater house-leek; the leaves. This is a low, fleshy-leaved plant, growing on old walls and on the tops of houses. It stands recommended as a cooler, though its sensible qualities discover no great foundation for any virtue of this kind; the taste is herbaceous, with a slight degree of pungency. It is remarkable of this plant, that its juice purified by filtration

tration (when it appears of a dilute yellowish colour) upon the admixture of an equal quantity of rectified spirit of wine, forms a beautiful white, light coagulum, like the finer kinds of pomatum: this proves extremely volatile; freed from the aqueous phlegm, and exposed to the air, it in a very little time totally exhales. From hence it is concluded (in the medicor. Silesiac. fatyræ) that houseleek contains a volatile alkaline salt: but there are many substances besides these salts which coagulate with spirit of wine.

SEMPERVIVUM, vide SEDUM.

SENA; [L. E.] the leaves of a shrubby plant (*sena Alexandrina foliis acutis* C. B.) cultivated in Persia, Syria, and Arabia; from whence they are brought, dried and picked from the stalks, to Alexandria in Egypt; and thence imported into Europe. They are of an oblong figure, sharp pointed at the ends, about a quarter of an inch broad, and not a full inch in length, of a lively yellowish green colour, a faint not very disagreeable smell, and a subacid, bitterish, nauseous taste. Some inferior sorts are brought from Tripoli and other places: these may be easily distinguished by their being either narrower, longer, and sharper pointed; or larger, broader, and round pointed, with small prominent veins; or large and obtuse, of a fresh green colour, without any yellow cast. Sena is a very useful cathartic, operating mildly, and yet effectually; and if judiciously dosed and managed, rarely occasioning the ill consequences which too frequently follow the exhibition of the stronger purges. The only inconveniencies complained of in this drug are, its

being apt to gripe, and its nauseous flavour. The griping quality depends upon a resinous substance, which like the other bodies of this class, is naturally disposed to adhere to the coats of the intestines: the more this resin is divided by such matters as take off its tenacity, the less adhesive, and consequently the less irritating and griping it will prove; and the less it is divided, the more griping: hence sena exhibited by itself, or infusions made in a very small quantity of fluid, gripe severely, and purge less than when diluted by a large portion of suitable menstruum, or divided by fixt alkaline salts, soaps, or the like. The ill flavour of this drug is said to be abated by the greater water figwort: but we cannot conceive that this plant, whose smell is manifestly fetid, and its taste nauseous and bitter, can at all improve those of sena: others recommend bohea tea, though neither has this any considerable effect. The smell of sena resides in its more volatile parts, and may be discharged by lightly boiling infusions of it made in water: the liquor thus freed from the peculiar flavour of the sena, may be easily rendered grateful to the taste by the addition of any proper aromatic tincture or distilled water. The college have given some very elegant forms for the exhibition of this medicine, which may be seen in part ii. chap. xiii. The dose of sena in substance is from a scruple to a dram; in infusion from one to three or four drams.

It has been customary to reject the pedicels of the leaves of sena as of little or no use; experience however has shewn, that they are not much inferior in efficacy to the leaves themselves. The pods, or seed vessels, met with among the sena brought to us, are by the college

lege of Brussels preferred to the leaves: they are less apt to gripe, but proportionably less purgative.

SENECIO, vide ERIGERUM.

SENEKA; [E.] Seneca rattle snake root; the root of a species of *polygala*, which grows spontaneously in Virginia, and bears the winters of our own climate. This root is usually about the thickness of the little finger, variously bent and contorted, and appears as if composed of joints, whence it is supposed to resemble the tail of the animal whose name it bears; a kind of membranous margin runs on each side, the whole length of the root. Its taste is acrid, bitterish, and somewhat nauseous.

This root is not at present much known in the shops. The Indians are said to prevent the otherwise fatal effects which follow from the bite of the rattle snake, by giving it internally, and applying it externally to the wound. It has of late been strongly recommended in pleurisies, peripneumonies, and other inflammatory distempers; in these cases, Lemery, du Hamel and Jussieu vouch for its good success (See the French memoirs for the years 1738, 1739.) Its more immediate effects are those of a diuretic, diaphoretic, and cathartic, sometimes it proves emetic: the two last operations may be occasionally prevented by giving the root in small doses, along with aromatic simple waters, as that of cinnamon. The usual dose of the powder is thirty grains or more.

Some have likewise employed this root in hydropic cases, and not without success: Bouvart (in the memoirs abovementioned, 1744.) relates examples of its occasioning a plentiful evacuation by stool, urine and perspiration, and by this

means removing the disease, after the common diuretics and hydragogues had failed: where this medicine operates as a cathartic, it generally proves successful; if it acts by liquefying the blood and juices, without occasioning a due discharge, it should either be abstinence from, or assisted by proper additions.

SERICUM *et folliculi bombycis* [E.] Silk and silkworms bags. These are scarce ever made use of for any medicinal purposes. In their crude state they are certainly very insignificant; though if burnt in a close vessel, after the same manner as sponge, they would undoubtedly prove a medicine of similar, and probably of superior virtue. They yield a larger quantity of volatile salt, than any other animal substance we know of.

SERPENTARIA VIRGINIANA; [L. E.] Virginian snake-root; the root of a species of *aristolochia*, growing in Virginia and Carolina. It is a small, light, bushy root, consisting of a number of strings or fibres matted together, issuing from one common head; of a brownish colour on the outside, and paler or yellowish within. It has an aromatic smell, like that of valerian, but more agreeable; and a warm, bitterish, pungent taste. This root is a warm diaphoretic and diuretic: it has been greatly celebrated as an alexipharmac, and esteemed one of the principal remedies in malignant fevers and epidemic diseases. In these intentions, it is given in substance from ten to thirty grains, and in infusion to a dram or two. Both watery and spirituous menstrua extract its virtue by infusion, and elevate some share of its flavour in distillation: along with this

water

water a small portion of essential oil arises.

SERPYPHLLUM; [E.] *serpyllum vulgare minus* C. B. Mother of thyme; the herb. This is a small creeping plant, common on heaths and dry pasture grounds. Its taste, smell, and medical virtues are similar to those of thyme, but weaker.

SESAMUM; [E.] *digitalis orientalis sesam dicta* Tournef, its seeds, called oily purging grain. This plant is cultivated in the eastern countries, from whence the seeds are brought to us. They very properly deserve the name of oily, as they yield upon expression a larger quantity of oil, than almost any other known vegetable. The appellation purging, they have no title to: among the Indians, they are used as food.

SESELI VULGARE; [L. E.] *ligusticum quod seseli officinarum* C. B. Common hartwort; the seeds.

SESELI MASSILIENSE; [E.] *seseli Massiliense ferale folio* C. B. Italian hartwort; the seeds.

These plants grow spontaneously in the warmer climates; amongst us, they are met with only in the gardens of the curious. The seeds and roots of both sorts have an agreeable aromatic smell and taste; and in this light might be occasionally employed, though at present they are in disuse.

SESELI PRATENSE, vide **SAXIFRAGA VULGARIS**.

SIGILLUM SALOMONIS [E.] *polygonatum latifolium vulgare* C. B. Solomon's seal; the root. This grows wild in woods, but is not very common; the root has feve-

ral joints, with some flat circular depressions, supposed to resemble the stamp of a seal. It has a sweetish, glutinous, subacid taste. As to its virtues, practitioners do not now expect any considerable ones from it, and pay very little regard to the vulnerary qualities which it was formerly celebrated for.

SILER MONTANUM, vide **SESELI VULGARE**.

SINAPI; [L. E.] *sinapi rapi folio* C. B. Mustard; the seeds. This plant is sometimes found wild, but for culinary and medicinal uses is cultivated in gardens. Mustard, by its acrimony and pungency, stimulates the solids, and attenuates viscid juices; and hence stands deservedly recommended for exciting appetite, promoting digestion, increasing the fluid secretions, and for the other purposes of the acrid plants called antiscorbutic. It imparts its taste and smell in perfection to aqueous liquors, whilst rectified spirit extracts extremely little of either: the whole of the pungency arises with water in distillation. Committed to the press, it yields a considerable quantity of a soft insipid oil, perfectly void of acrimony; the cake left after the expression is more pungent than the mustard was at first. These seeds are sometimes employed externally as a stimulant; two compositions for this intention in the Edinburgh dispensatory receive name from them.

SISON, vide **AMOMUM VULGARE**.

SMYRNIUM, vide **HIPPOSELINUM**.

SOIA-

SOLANUM VULGARE; [E.]
solanum hortense seu vulgare J. B.
Nightshade, the leaves and berries.

SOLANUM LIGNOSUM; [E.]
solanum scandens seu dulcamara C. B.
Bitter-sweet; the leaves and roots.
These plants are found wild, the first by road sides, the other in moist watery places. In external appearance, they differ considerably from one another: whether they are similar in quality, or what are the real qualities of either, is very doubtful; nor is it certain, that they are even safe. There are examples of fowls having been killed, and children thrown into convulsions, by the berries of the first sort. It is supposed, that the leaves are refrigerant, and the roots diaphoretic.

SOLANUM LETHALE; [E.]
solanum melancerasus C. B. Deadly nightshade; the leaves. This plant grows wild on waste grounds in many parts of England: it has large sharp-pointed leaves, notched about the edges, of a sad green colour, with long hollow flowers of a dull purplish, standing among them at the joints. The leaves are said to be of service, externally, against carcinomatous ulcers; and taken internally, to be virulently narcotic, and to disorder the senses. The berries have this last effect in an eminent degree; insomuch that the plant is hence distinguished, by botanists, by the appellations *somniferum*, *furiosum*, *maniacum*, *lethale*.

SOLDANELLA, vide BRASSICA MARINA.

SOPHIA CHIRURGORUM; [E.] *nasturtium sylvestre tenuissime divisum* C. B. Flixweed; the seeds. This plant had formerly a great character as a vulnerary, and for stopping fluxes; but its effects have

not been considerable enough to continue it in practice.

SPERMA CETI; [L. E.] im-
properly so called; an unctuous flaky substance, of a snowy whiteness, a soft butyraceous taste, without any remarkable smell: prepared from whale oil by boiling and purifying it with alkaline lixivium. The virtues of this concrete are those of a mild emollient: it is of considerable use in pains and erosions of the intestines, in coughs proceeding from thin sharp defluxions, and in general in all cases where the solids require to be relaxed, or acrimonious humours to be softened. For external purposes, it readily dissolves in oils; and for internal ones, may be united with aqueous liquors into the form of an emulsion, by the mediation of almonds or the yolk of an egg. Sugar does not render it perfectly miscible with water; and alcalies, which change other oils and fats into soap, have little effect upon sperma ceti. This drug ought to be kept very closely from the air, otherwise its white colour soon changes into a yellow; its mild unctuous taste, into a rancid and offensive one. After it has suffered this disagreeable alteration, both the colour and quality may be recovered again by steeping it in alkaline liquors, or boiling it in a sufficient quantity of spirit of wine.

SPICA VULGARIS, vide LAVENDULA ANGSTIFOLIA.

SPICANARDI, vide NARDUS INDICA.

SPINA ALBA; [E.] *mespilus apii foliis, sylvestris, spinosa, sive oxyacantha* C. B. White-thorn, or haw-thorn; its leaves and flowers. The reputation which these formerly

merly had, in nephritic and calculous complaints, still continues them in most catalogues of the materia medica, though common practice has long rejected them as insignificant.

SPINA CERVINA; [L. E.] *Rhamnus catharticus* C. B. Buckthorn; the berries. This tree, or bush, is common in hedges: it flowers in June, and ripens its fruit in September or the beginning of October. In our markets, the fruit of some other trees, as the *frangula* or black berry bearing alder, and the *cornus fœmina* or dog-berry tree, have of late years been frequently mixed with, or substituted for, those of buckthorn. This abuse may be discovered by opening the berries: those of buckthorn have almost always four seeds, the berries of the *frangula* two, and those of the *cornus fœmina* only one. Buckthorn berries, bruised on white paper, give it a green tincture, which the others do not. Those, who sell the juice to the apothecaries, are said to mix with it a large proportion of water.

Buckthorn berries have a faint disagreeable smell, and a nauseous bitter taste. They have long been in considerable esteem as cathartics; and celebrated in dropsies, rheumatisms, and even in the gout; though in these cases, they have no advantage above other purgatives, and are more offensive, and operate more churlishly, than many which the shops are furnished with: they generally occasion gripes, sickness, dry the mouth and throat, and leave a thirst of long duration. The dose is about twenty of the fresh berries in substance, and twice or thrice this number in decoction, an ounce of the expressed juice, or a dram of the dried berries. A syrup prepared from the juice is kept in the

shops; in this preparation, the nauseous flavour of the buckthorn is somewhat alleviated, by the sugar and the addition of aromatics.

SPIRITUS VINOSUS RECTIFICATUS; [L.] Rectified spirit of wine; "a spirit distilled from wine or other fermented liquors, purified as much as possible from its fetid smell, and the phlegm that arises with it in the first distillation." [L.] This purification is effected by repeating the distillation in a very gentle heat, with certain additions to keep down the phlegm and the gross oil in which the ill flavour resides (see part ii. chap. xii.) These spirits, whatever vegetable subjects they have been produced from, are, when perfectly pure, one and the same. They have a hot pungent taste, without any particular flavour: they readily catch flame, and burn entirely away, without leaving any marks of an aqueous moisture behind: distilled by a heat less than that of boiling water, they totally arise, the last runnings proving as flavourless and inflammable as the first: they dissolve essential vegetable oils and resins into an uniform transparent fluid. These spirits are the lightest of almost all known liquors: expressed oils, which swim upon water, sink in these to the bottom: a measure which contains ten ounces by weight of water, will hold little more than eight and a quarter of pure spirit.

The uses of vinous spirits as menstrua for the virtues of other medicines we shall see hereafter, and in this place consider only their own. Pure spirit coagulates all the fluids of animal bodies, except urine, and hardens the solid parts. Applied externally, it strengthens the vessels, thickens the juices in them, and thus powerfully restrains

P

hæmor-

hæmorrhagies. It instantly contracts the extremities of the nerves it touches, and deprives them of sense and motion; by this means easing them of pain, but at the same time destroying their use. Hence employing spirituous liquors in fomentations (notwithstanding the specious titles of vivifying, heating, restoring mobility, resolving, dissipating, and the like, usually attributed to them) may sometimes be attended with unhappy consequences. These liquors, received undiluted into the stomach, produce the same effects, thickening the fluid and contracting all the solid parts which they touch, and destroying, at least for a time, their use and office: if the quantity is considerable, a palsy or apoplexy follows, which end in death. Taken in small quantity, and duly diluted, they brace up the fibres, raise the spirits, and promote agility: if farther continued, the senses are disordered, voluntary motion destroyed, and at length the same inconveniences brought on as before. Vinous spirits, therefore, in small doses, and properly diluted, may be applied to useful purposes in the cure of diseases; whilst in larger ones, or if their use is long continued, they act as a poison of a particular kind.

**SPIRITUS VINOSUS TENU-
IOR**; [L.] Proof spirit: "the
" same spirit, containing an admix-
" ture of an equal quantity of wa-
" ter. The best proof spirit is that
" distilled from French wine; but
" for common uses may be em-
" ployed the spirit drawn from me-
" lasses or the syrupy matter that
" runs from sugar in the purifica-
" tion, commonly called melasses-
" spirit." [L.] The spirits usually
met with under the name of proof,
are those distilled from different fer-
mented liquors, freed from their

phlegm and ill flavour only to a certain degree. Their purity with regard to flavour may be easily judged from the taste, especially if the spirit be first duly diluted. It were to be wished, that we had a certain standard with regard to their strength, or the quantity of water contained in them; a circumstance which greatly influences sundry medicinal preparations, particularly the tinctures: for as pure spirit dissolves the resin and volatile oil, and water only the gummy and saline parts of vegetables, it is evident that a variation in the proportions wherein these are mixed, will vary the dissolving power of the menstruum, and consequently the virtue of the preparation. The common methods of estimating the quantity of phlegm contained in these spirits, are liable to uncertainty: it should therefore seem necessary, for the nicer purposes and where a perfectly flavourless proof spirit is required, to make use of the pure rectified spirit, mixed with a certain determined proportion of water; equal quantities of these liquors, whether taken by weight or measure, compose a spirit somewhat weaker than what has been universally looked upon as proof: the exact proportions are, one hundred parts by weight of pure spirit, and eighty-six of water.

SPONGIA; [L. E.] Sponge; a soft, light, very porous and compressible substance, readily imbibing water, and distending thereby. It is found adhering to rocks, particularly in the Mediterranean sea, about the islands of the Archipelago. It is generally supposed to be a vegetable production: nevertheless some observations lately made by Jussieu, give room to suspect that it is of animal origin. Chemical experiments favour this supposition; analysed, it yields the same

same principles with animal substances in general: the volatile salt is in larger quantity than we have obtained from any animal matter except the bags of the silkworm. On this salt which is generated or formed by fire, depend the virtues of the officinal *spongia usta*. (See part ii. chap. i.) Crude sponge, from its property of imbibing and distending by moisture, is sometimes made use of as a tent for dilating wounds and ulcers.

STANNUM; [*L. E.*] Tin is the lightest and easiest of fusion of all the metals. Heated, it becomes so brittle as to fall in pieces by a blow; and by agitation (when just ready to melt) into a powder; hence the officinal method of pulverising this metal, to be described in its place. The proper menstruum of tin is the marine acid or aqua regis; vegetable acids likewise dissolve it in considerable quantity, though it has long been supposed not to be at all soluble in them, unless previously well calcined.

With regard to the virtues of this metal, it was formerly accounted a specific in disorders of the uterus and lungs; a calx of tin and antimony, is still retained in some dispensatories under the name of an antiseptic: but these are virtues, to which it certainly has little claim. It has of late been celebrated, on better foundation, as an anthelmintic; and said to destroy some kinds of worms which elude the force of many other medicines: the cause of this effect is, perhaps, very different from what may be suspected, an admixture of a portion of arsenic.

Tin has the greatest affinity with arsenic of all the metals; inasmuch that when once united therewith,

the arsenic, notwithstanding its volatility in other circumstances, cannot be totally expelled by a vehement fire. Almost all the ores of tin contain more or less of this poisonous mineral, which is not entirely separable in the common processes by which the ores are run down or the metal farther purified. Filings of tin held in the flame of a candle, emit a thick fume smelling of garlic; which smell is universally held, in mineral substances, to be a certain criterion of arsenic. Henckel has discovered a method of separating actual arsenic from tin: this is effected by solution in aqua regis and crystallization: Mr. Margraff has (in a late volume of the Berlin memoirs) given a farther account of this process; and relates, that from the tins usually reputed pure, he has obtained one eighth their weight of crystals of arsenic.

STAPHYSAGRIA; [*E.*] *delphinium platani folio Tourne.* Stavesacre; the seeds. These are large rough seeds, of an irregularly triangular figure, of a blackish colour on the outside, and yellowish or whitish within: they are usually brought from Italy; the plant is not very common in this country, though it bears our severest colds. They have a disagreeable smell, and a very nauseous bitterish, burning taste. Stavesacre was employed by the ancients as a cathartic; but it operates with so much violence both upwards and downwards, that its internal use has been, among the generality of practitioners, for some time laid aside. It is chiefly employed in external applications, for some kinds of cutaneous eruptions, and for destroying the pediculi inguinales and other insects; inasmuch, that it has hence received

its name, in different languages, *herba pedicularis, herba aux poux, laufs krut, lousferwort.*

STERCUS *anseris, canis, columbæ, equi, ovis, pavonis, porci;* [E.] The dung of the goose, dog, pigeon, horse, sheep, peacock, hog. These fulsome medicines, which nothing but the most fantastic visionaries could have introduced, are now expunged from practice.

STIBIUM, vide **ANTIMONIUM**.

STÆCHAS; [L. E.] *stæchas purpurea C. B.* Arabian stæchas or French lavender. This is a shrubby plant, considerably smaller than the common lavender: the flowery heads are brought from Italy and the southern parts of France; they are very apt to grow mouldy in the passage, and even when they escape this inconvenience, are generally much inferior to those raised in our gardens. The best stæchas which we receive from abroad, has no great smell or taste; Pomet affirms that such as the shops of Paris are supplied with, is entirely destitute of both: whilst that of our own growth, either whilst fresh or when carefully dried, has a very fragrant smell, and a warm, aromatic, bitterish, subacid taste; distilled with water, it yields a considerable quantity of a fragrant essential oil; to rectified spirit it imparts a strong tincture, which inspissated proves an elegant aromatic extract. This aromatic plant is rarely met with in prescription; the only officinal compositions which it is admitted into are the mithridate and theriaca.

There is another sort of stæchas, which on account of the beauty and durability of its flowers has of late years had a place in our gardens, and whose aromatic qua-

lities render worthy of one in the shops. This is the *elicbrysum seu stæchas citrina latiore folio C. B.* Golden stæchas, goldilocks, or yellow cassidony: its flowers stand in umbels on the tops of the branches; they are of a deep shining yellow colour, which they retain in perfection for many years; their smell is fragrant and agreeable, approaching to that of nutmegs; their taste warm, bitterish, and pungent; they impart their flavour to water in distillation, and by infusion to rectified spirit.

STYRAX CALAMITA; [L. E.] Storax; an odoriferous resinous substance, exuding, in the warmer climates, from a tree called by C. Bauhine *styrax folio mali cotonei*. It has been customary to distinguish three sorts of storax, though only one is usually met with in the shops.

1. *Styrax calamita* or storax in the cane, so called from its having been formerly brought inclosed in reeds, from Pamphylia: it is either in small distinct tears, or a whitish or reddish colour, or in larger masses composed of such.

2. *Storax in the lump* or red storax. This is in masses of an uniform texture and yellowish red or brownish colour, though sometimes likewise interspersed with a few whitish grains. Of this sort there has been some lately to be met with in the shops, under the name of storax in the tear.

3. The *common storax* of the shops is in large masses, considerably lighter and less compact than the foregoing: it appears upon examination to be composed of a fine resinous juice mixed with a quantity of saw-dust. For what purpose this addition is made we shall not here inquire; observing only, that it can scarce be supposed to be done with

with any fraudulent view, since the saw-dust appears at sight. This common storax is much less esteemed than the two first sorts; though when freed from the woody matter it proves superior in point of fragrance to either of them. Rectified spirit, the common menstruum of resins, dissolves the storax, leaving the wood behind: nor does this tincture lose considerably of its valuable parts in being inspissated to a solid consistence; whilst aqueous liquors elevate almost all the fragrance of the storax.

Storax is one of the most agreeable of the odoriferous resins, and may be exhibited to great advantage in languors and debilities of the nervous system; it is not, however, much used in common practice, unless as an ingredient in some of the old compositions.

STYRAX LIQUIDA; [E.] Liquid storax. What is most commonly met with under this name, is a soft resinous substance, of a grey colour, a weak smell similar to that of the foregoing solid storax: it is supposed to be compounded of solid storax, resin, wine and oil, beat up together, with water, into a proper consistence. The genuine liquid storax, according to Petiver's account (Phil. Transact. No. 313.) is obtained from a tree growing in the island Cobros in the red sea: the preparers of this commodity yearly clear off the bark of the tree, and boil it in sea water to the consistence of birdlime; the resinous matter which floats upon the surface, is taken off, liquefied again in boiling water, and passed through a strainer. The purer part which passes through, and the more impure which remains on the strainer and contains a considerable portion of the substance of the bark, are both sent to Mocca, from whence they are sometimes, though very

rarely, brought to us. The first is of the consistence of honey, tenacious, of a reddish or ash brown colour, an acrid unctuous taste, approaching in smell to the solid storax, but so strong as to be disagreeable: the other is full of woody matter, and much weaker in smell. These resins are at present scarce ever made use of in medicine, and not often found in the shops.

SUBER; [E.] *suber latifolium perpetuo vivens* C. B. Cork, a sort of ever-green oak, growing in the warmer parts of Europe; its bark. This has been by some accounted astringent, and recommended as such in dysenteries and other fluxes: but modern practice applies it to no such uses, and expects from it no virtues of any kind.

It may here be proper to take notice, that sundry liquors undergo sensible alterations from cork stoppers. Neuman observes, that acids, alcalies both fixt and volatile, the dulcified alkaline and acid spirits, some neutral saline liquors, lime water, blue vegetable juices and syrups made from them, are changed more or less to a yellow or brown colour.

SUCCINUM; [L. E.] Amber; a solid, brittle, bituminous substance, dug out of the earth, or found upon the sea shores: the largest quantities are met with along the coasts of Polish Prussia and Pomerania. It is of a white, yellow or brown colour, sometimes opaque, and sometimes very clear and transparent: the dark coloured and opaque sorts, by digestion with certain expressed oils and animal fats, become clearer, paler coloured, more pellucid, and considerably harder. Amber boiled in water, neither softens nor undergoes any sensible alteration: exposed to a greater heat, without

addition, it melts into a black mass like some of the more common bitumens: set on fire, its smell resembles that which arises from the finer kinds of pitcoal: distilled in a retort, it yields an oil of a peculiar strong smell, and a volatile acidulous salt (see part ii. chap. viii.) Amber in substance has very little smell or taste; and hence it has by some been reckoned a mere inactive earthy body. It was formerly accounted an absorbent, and as such had a place in the compound powder of crabs claws: it certainly has no title to this class of medicines, as not being acted upon by any acid. It is supposed to be of service in the fluor albus, gleet, hysterical affections, &c. and in these intentions is sometimes exhibited, in the form of impalpable powder, to the quantity of a dram. A tincture of amber made in rectified spirit (to which it imparts a bitterish aromatic taste and a fragrant smell) promises to be of real service in these disorders: Boerhaave extols this tincture as having incredible efficacy in all those distempers which proceed from weakness and relaxation, and in hypochondriacal, hysterical, and cold languid cases: if part of the spirit be abstracted by a gentle heat, the remainder proves a very elegant aromatic balsam, which is perhaps one of the most useful preparations obtainable from this concrete.

SUCCISA, vide MORSUS DIABOLI.

SULPHUR; [L. E.] Sulphur or brimstone is a yellow substance, of the mineral kingdom, fusible in a small degree of heat, totally volatile in a stronger, readily inflammable, burning with a blue flame, which is accompanied with a suffocating acid fume. It dissolves

in alkaline liquors and in oil, not in acids, water or vinous spirits.

Greatest part of the sulphur met with in the shops is obtained from certain ores by a kind of distillation, or artificially composed by uniting the vitriolic acid with inflammable matters: at some of the Saxon sulphur works (from whence we are chiefly supplied) certain minerals abounding with vitriolic acid, but containing little or no sulphur, being stratified with wood and the latter set on fire, a large quantity of fine sulphur is produced. It is usually brought to us in large irregular masses, which are afterwards melted and cast into cylindrical rolls with the addition of some coarse resin, flower, or the like; whence the paler colour of the rolls. Sulphur is also not unfrequently found native in the earth, sometimes in transparent pieces of a greenish or bright yellow colour; but more commonly in opaque grey ones; with only some streaks of yellow. This last is the sort which is understood by the name *SULPHUR VIVUM* [E.] though that met with under this name in the shops is no other than the dross remaining after the sublimation of sulphur. All the sorts of sulphur are, when perfectly pure, in no respect different from one another; notwithstanding the preference given by some to the more uncommon fossil sorts; these last are of all others the least proper for medicinal purposes, as being the most subject to an admixture of foreign matters both of the metallic and arsenical kind.

Pure sulphur loosens the belly, and promotes insensible perspiration: it seems to pass through the whole habit, and manifestly transpires through the pores of the skin, as appears from the sulphureous smell of persons who have taken

taken it, and silver being stained in their pockets of a blackish colour, which is the known effect of sulphureous fumes. It is a celebrated remedy against cutaneous diseases, both given internally, and externally applied. It has likewise been recommended in coughs, asthmas, and other disorders of the breast and lungs: in these cases, however, it has no very considerable effect, unless, as Hoffman observes, where the disease proceeds from the blood being tainted by serophulous or scorbutic humours; where this happens, the prudent use of sulphur generally does good service, throwing out a plentiful eruption upon the skin, and by degrees carrying off the peccant matter. The common dose of sulphur rarely exceeds a scruple, though Geoffroy goes as far as two drams. The trochisci e sulphure of the dispensatory are one of the most elegant forms for the exhibition of it. It enters six officinal preparations for external use, and gives name to one of them. Some have imagined that sulphur used externally is dangerous; that as it throws the morbid matter outwards when given inwardly, it must in like manner drive it into the blood when applied externally. This opinion, which is supported by some late writers, has no just foundation: sulphur has nearly the same effects, whether used internally or externally: in both cases, the eruptions become frequently more copious after the first use of it.

It is remarkable of this concrete, that though itself a medicine of considerable efficacy, it nevertheless refrains that of some others of the most powerful kind. Mercury is rendered by the admixture of sulphur, inactive; and the virulent antimonial regulus, almost so: hence, when antimonial medicines

exceed in operation, the exhibition of sulphur abates their violence; and an high salivation may be checked by the same medicine. Even the corrosive poison arsenic, by the addition of sulphur becomes almost innocent; and hence if a small proportion of arsenic should be contained in sulphur, it possibly may not receive from thence any poisonous qualities.

SUMACH; [*E.*] *rbus folio ulmi C. B.* Common sumach; the seeds. This tree, or shrub, is cultivated in some places on account of the culinary uses of its fruit, and for the purposes of the dyers, &c. Among us, it is met with only in the gardens of the curious. The seeds or berries are of a red colour, in shape round and flat. They are moderately astringent, and have sometimes been exhibited in this intention, but are now become strangers to the shops.

SYMPHYTUM, vide CONSOLIDIDA.

TACAMAHACCA: [*E.*] a resin obtained from a tall tree (*tacamahacca populo similis, fructu colore pæoniæ simili J. B.*) which grows spontaneously on the continent of America, and in a sheltered situation bears the winters of our own climate. Two sorts of this resin are sometimes to be met with. The best, called (from its being collected in a kind of gourd shells) tacamahacca in shells, is somewhat unctuous and softish, of a pale yellowish or greenish colour, an aromatic taste, and a fragrant delightful smell, approaching to that of lavender and ambergris. This sort is very rare: that commonly found in the shops is in semi-transparent grains or gleans, of a whitish, yellowish, brownish or greenish colour,

Jour, of a less grateful smell than the foregoing. The first is said to exude from the fruit of the tree, the other from incisions made in the trunk. This resin is rarely employed among us for medicinal purposes: among the Indians, it is of frequent use externally for discussing and maturing tumours, and abating pains and aches of the limbs. The fragrance of the finer sort sufficiently points out its being applicable to other purposes.

TAMARINDUS; [*L. E.*] Tamarind; the fruit of a tree growing in the East and West Indies, called by *C. Bauhine filiqua Arabica quæ tamarindus*. It is a pod resembling a bean-cod, including several hard seeds, together with a dark coloured viscid pulp of a pleasant acid taste: the East India tamarinds are longer than the West India sort; the former containing six or seven seeds each, the latter rarely above three or four. The pulp of these fruits, taken in the quantity of two or three drams, or an ounce or more, proves gently laxative or purgative; and at the same time, by its acidity, quenches thirst, and allays immoderate heat. It increases the action of the purgative sweets, casia and manna, and weakens that of the resinous cathartics. Some have supposed it capable of abating the virulence of antimonial preparations; but experience shews, that it has rather a contrary effect, and that all vegetable acids augment their power.

TAMARISCUS; [*E.*] *tamarix altera folio tenuiore, sive Gallica C. B.* The tamarisc tree; its bark and leaves. These are moderately astringent: they are never met with in prescription, and have long been entire strangers to the shops.

TANACETUM; [*L. E.*] *tanacetum vulgare luteum C. B.* Tansy; the leaves [*L.*] flowers and seeds [*E.*] Tansy grows wild by road sides, and the borders of fields, and is frequently also cultivated in gardens both for culinary and medicinal uses: it flowers in June and July. Considered as a medicine, it is a moderately warm bitter, accompanied with a strong, not very disagreeable flavour: some have had a great opinion of it in hysteric disorders, particularly those proceeding from a deficiency, or suppression of the uterine purgations. The leaves and seeds have been of considerable esteem as anthelmintics: the seeds are less bitter, and more acrid and aromatic than those of rue, to which they are reckoned similar; or of fantonicum, to which they have been frequently substituted.

TAPSUS BARBATUS; [*E.*] *verbascum mas latifolium luteum C. B.* Mullein; the leaves. This is met with by road sides, and under hedges: it is clothed all over with soft downy leaves, and produces long spikes of yellow flowers in July. The taste discovers in it a glutinous quality; and hence it stands recommended as an emollient, and is among the Italians of great esteem in consumptions. The flowers of mullein have an agreeable, honey-like sweetness; an extract prepared from them by rectified spirit of wine tastes extremely pleasant.

TARAXACUM, vide **DENEGLEONIS**.

TARTARUM; [*L. E.*] Tartar is a saline substance, thrown off from wines, after fermentation, to the sides and bottom of the cask: it proves of a red or white colour, and

and more or less foul or drossy, according to the colour and quality of the wine; the white is generally looked upon as the purest: of either sort, such as is clean, solid, somewhat transparent, and has its outside covered over with small shining crystals, is preferable to such as appears porous, drossy, opaque, and less bright. This substance, tho' truly saline, is scarce acted upon by cold water; the purest sort, or such as has been purified by art, requires four and twenty times its weight of boiling water to dissolve in: the solutions of both the tartars pass the filter colourless, and shoot, in the cold, into small, white, semitransparent crystals. All such earths as are soluble in vinegar, and alkaline salts, render tartar more easily soluble in water: hence the refiners at Montpellier are said to employ a certain earth for promoting its solution, with some particular managements for making it shoot into large crystals. This addition may occasion a considerable alteration in the salt, insomuch that the finer sorts of white tartar are perhaps preferable, on many occasions, to the common crystals. The virtues of tartar are those of a mild, cooling, aperient, laxative medicine. Taken from half an ounce to an ounce, it proves a gentle, though effectual purgative: Angelus Sala relates, that he was cured of an habitual colic, by purging himself a few times with six drams of the crude salt, after many other medicines had been tried to no purpose.

TELEPHIUM, vide CRASSULA.

TEREBINTHINÆ. Turpentine; resinous juices extracted from certain trees. There are four kinds of turpentine distinguished in the shops.

TEREBINTHINA CHIA *frus* CYPRIA [L. E.] Chian, or Cyprus turpentine. This is generally about the consistence of thick honey, very tenacious, clear and almost transparent, of a white colour, with a cast of yellow, and frequently of blue: it has a warm, pungent, bitterish taste; and a fragrant smell, more agreeable than any of the other turpentine.

This juice is the produce of the *terebintus vulgaris* C. B. common terebinth, an ever green tree or shrub, which grows spontaneously in the warmer climates, and endures the colds of our own. The turpentine brought to us, is extracted in the islands whose names it bears, by wounding the trunk and branches a little after the buds have come forth: the juice issues limpid, and clear as water, and by degrees thickens into the consistence in which we meet with it. A like juice exuding from this tree in the eastern countries, inspissated by a slow fire, is of frequent use, as a masticatory, among the Persian ladies, who (as Kœmpfer informs us) are continually chewing it, in order to fasten and whiten the teeth, sweeten the breath, and promote appetite.

TEREBINTHINA VENETA [E.] Venice turpentine. This is usually thinner than any of the other sorts, of a clear, whitish, or pale yellowish colour, a hot, pungent, bitterish, disagreeable taste, and a strong smell, without any thing of the fine aromatic flavour of the Chian kind.

The true Venice turpentine is obtained from the *larix folis defido, conifera* F. B. larch, a large tree growing in great abundance upon the Alps and Pyrenean mountains, and not uncommon in the English gardens. What is usually met with in the shops, under the

name of Venice turpentine, comes from New England; of what tree it is the produce we have no certain account: the finer kinds of it are in appearance and quality not considerably different from the true sort above described.

TEREBINTHINA ARGENTORATENSIS [L. E.] Straßburgh turpentine. This, as we generally meet with it, is of a middle consistence betwixt the two foregoing, more transparent, and less tenacious than either; its colour a yellowish brown. Its smell is very fragrant, and more agreeable than that of any of the other turpentine, except the Chian; in taste it is the bitterest, yet the least acrid.

This resin is obtained from the two sorts of fir trees mentioned in page 65, which are the most plentiful, and perhaps the only ones that grow spontaneously in Europe. There is another whose resin is much superior to the common turpentine, and has sometimes been brought to us from abroad under the name of **BALSAMUM CANADENSE**. This species is the *abies minor, pectinatis foliis, Virginiana, conis parvis subrotundis* Pluk. Virginian, or Canada fir tree, which, though not a native of this climate, has been found to endure its severest colds.

TEREBINTHINA COMMUNIS [L. E.] Common turpentine is the coarsest, heaviest, in taste and smell the most disagreeable of all the sorts: it is about the consistence of honey, of an opaque brownish white colour.

This is obtained from the *pinus sylvestris* C. B. wild pine, a low unhandsome tree, common in different parts of Europe: this tree is extremely resinous, and remarkably subject to a disease from a redundancy and extravasation of

its resin, insomuch that, without due evacuation, it swells and bursts. The juice, as it issues from the tree, is received in trenches made in the earth, and afterwards freed from the grosser impurities by colature through wicker baskets.

All these juices yield in distillation with water, an highly penetrating essential oil, a brittle insipid resin remaining behind. With regard to their medical virtues, they promote urine, cleanse the parts concerned in the evacuation thereof, and deterge internal ulcers in general; and at the same time, like other bitter hot substances, strengthen the tone of the vessels: they have an advantage above most other acrid diuretics, that they gently loosen the belly. They are principally recommended in gleet, the fluor albus, and the like; and by some in calculous complaints: where these last proceed from sand or gravel, formed into a mass by viscid mucous matter, the turpentine, by dissolving the mucus, promote the expulsion of the sand; but where a calculus is formed, they can do no service, and only ineffectually irritate or inflame the parts. In all cases accompanied with inflammation, these juices ought to be abtained from, as this symptom is increased, and not unfrequently occasioned by them. It is observable, that the turpentine impart, soon after taking them, a violet smell to the urine; and have this effect, though applied only externally to remote parts; particularly the Venice sort. This is accounted the most powerful as a diuretic and detergent; and the Chian and Straßburgh as corroborants. The common turpentine, as being the most offensive, is rarely exhibited internally: its principal use is in some external applications, among farriers, and
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for the distillation of the oil, or spirit, as it is called. The dose of these juices is from a scruple to a dram and a half: they are most commodiously exhibited in the form of a bolus, or dissolved in watery liquors by the mediation of the yolk of an egg. Of the distilled oil, a few drops are a sufficient dose: this is a most potent, stimulating, detergent diuretic, oftentimes greatly heats the constitution, and requires the utmost caution in its exhibition.

TERRA JAPONICA, vide] APONICA.

TERRA LEMNIA et SILESIACA, vide BOLUS.

THAPSIA; [E.] *thapsia sive turbitis Garganicum semine latissima* J. B. Deadly carrot; the root. This plant does not ill deserve its epithet; a small dose operating with extreme violence both upwards and downwards. It is an entire stranger to the shops, and met with only in the gardens of the curious.

THEA [E.]; Tea; the leaves of a shrub (*thea frutex, folio cerasi, flore rosæ sylvestris, &c.* Kaempf.) cultivated in China. The several sorts of tea met with among us, are the leaves of the same plant, collected at different times, and cured in a somewhat different manner: the small young leaves, very carefully dried, are the finer green: the older afford the ordinary green and bohea. The two first have a sensible flavour of violets: the other, of roses: the former is the natural odour of the plant; the latter, as Neuman observes, is probably introduced by art: some of the dealers in this commodity in Europe are not ignorant, that bohea tea is imitable

by the leaves of certain common plants, artificially tintured and impregnated with the rose flavour. The taste of both sorts is lightly bitterish, subastringent, and somewhat aromatic. The medical virtues attributed to these leaves are sufficiently numerous, though few of them have any just foundation: little more can be expected from the common infusions, than that of a diluent, acceptable to the palate and stomach: diuretic, diaphoretic, and other virtues which they have been celebrated for, depend more on the quantity of warm fluid, than any particular qualities which it gains from the tea. This leaf might undoubtedly be so managed as to produce considerable effects as an astringent and corroborant, if there was a scarcity of other medicines to answer these intentions: aqueous and spirituous extracts from it prove notably astringent, though not a little disagreeable. Nothing arises in distillation from either sort of tea with rectified spirit; water elevates the whole of their flavour.

THLASPI [L. E.] Treacle, or mithridate, mustard; the seeds. Two sorts of thlaspi are used promiscuously, *thlaspi arvense siliquis latis* C. B. and the *thlaspi arvense vaccariæ incano folio majus* C. B. they both grow wild, the latter most plentifully. These seeds have an acrid biting taste like common mustard, with which they agree in medical qualities: their principal use is as ingredients in the compositions whose names they bear.

THUS MASCULUM, vide OLIBANUM.

THUS VULGARE [L. E.] Common frankincense; a solid, brittle resin, brought to us in little glebes or masses, of a brownish,
or

or yellowish colour on the outside, internally whitish, or variegated with whitish specks; of a bitterish, acrid, not agreeable taste, without any considerable smell. It is supposed to be the produce of the tree which yields the terebinthina communis; and to concreate on the surface of the terebinthinate juice soon after it has issued from the plant.

THYMUS; [E.] *thymum vulgare folio tenuiore*. C. B. common thyme; the leaves. This plant is frequent in our gardens, and flowers in June and July. It has an agreeable aromatic smell, and a warm pungent taste; which it imparts by infusion to rectified spirit, and sends over in distillation with water: along with the water arises an essential oil extremely hot and pungent.

THYMUS CITRATUS; [L.] *serpyllum, foliis citri odore*. C. B. Lemon thyme; the leaves. This is found wild in dry mountainous places, but the shops are supplied from gardens. In taste and smell it is less acrid, and more grateful than the common thyme; its smell in particular, is remarkably different, approaching to that of lemons. It gives over its flavour in distillation both with water and spirit: with the former, an elegant essential oil arises: the distilled spirit is an agreeable aromatic cordial liquor, not inferior to any thing of this kind.

THYMELÆA; [E.] *thymelæa foliis lini*. C. B. Spurge flax; its berries, called *grana cnidia*.

TITHYMALUS. Spurge; the root. Several sorts of spurge are mentioned in catalogues of the materia medica. The Edinburgh college retain only two; (*ESULA MAJOR*, *tithymalus palustris fruticosus* C. B. German spurge; and *ESULA*

MINOR, *tithymalus foliis pini* C. B. pine spurge; ours has rejected them all.

The spurges and grana cnidia are extremely acrid irritating cathartics, and operate with so much violence as to be altogether unfit for internal use.

TILIA; [L. E.] *tilia fœmina folio majore*. C. B. The lime, or linden tree; its flowers. The lime tree has been much valued on account of its quick growth and pleasant shade: it flowers in July, and loses its leaves soon after. The flowers are made use of chiefly on account of their agreeable flavour, which water extracts from them by infusion, and elevates in distillation. Among the writers on the materia medica, they have the character of an antiepileptic, and a specific in all kinds of spasms and pains. Frederic Hoffman relates, that he knew a chronic epilepsv cured by the use of an infusion of these flowers drank as tea.

TINCAR, vide **BORAX**.

TORMENTILLA; [L. E.] *tormentilla sylvestris*. C. B. Tormentil, or septfoil; the root. Tormentil is found wild in woods and on commons: it has long slender stalks, with usually seven long narrow leaves at a joint: the root is for the most part crooked and knotty, of a blackish colour on the outside, and reddish within. This root has an austere styptic taste, accompanied with a kind of aromatic flavour: it is one of the most agreeable and efficacious of the vegetable astringents, and is employed with good success in all cases where medicines of this class are proper. A tincture made from it with rectified spirit, possesses the whole astringency and flavour of the

the root, and loses nothing of either in inspissation; whilst aqueous liquors elevate the whole of the aromatic part: the distilled water smells agreeably, somewhat like roses.

TRAGACANTHA, vide GUMMI TRAGACANTHÆ.

TRICHOMANES; [L. E.] *trichomanes sive polytrichum officinarum* C. B. English black maiden-hair; the leaves. This is one of the herbs called, from the smallness of their stalks, capillary: it is found wild in different parts of England, upon old walls, and in shady places. The leaves have a mucilaginous, sweetish, subastrigent taste, without any particular flavour: they are esteemed useful in disorders of the breast, proceeding from a thickness and acrimony of the juices; and are likewise supposed to promote the expectoration of tough phlegm, and to open obstructions of the viscera. They are usually directed in infusion or decoction, with the addition of a little liquorice. A syrup prepared from them has frequently supplied the place of that made from the *adiantum verum*: some have substituted a still cheaper ingredient, and perhaps not much to the disadvantage of the medicine: both the maiden-hairs yielding little more than a mucilaginous juice, greatly resembling the substitute made use of. The syrup brought from abroad has an admixture of orange flower water.

TRIFOLIUM PALUDOSUM [L. E.] *trifolium palustre* C. B. Marsh trefoil, or buck-beans; the leaves. This plant grows wild in moist marshy places: it has three oval leaves, standing together, upon one pedicle which issues from

the root; their taste is very bitter, and somewhat nauseous. Marsh trefoil is an efficacious aperient and deobstruent, promotes the fluid secretions, and, if liberally taken, gently loosens the belly. It has of late gained great reputation in scorbutic and scrophulous disorders: and its good effects in these cases have been warranted by experience: inveterate cutaneous diseases have been removed by an infusion of the leaves, drank to the quantity of a quart a day, at proper intervals, and continued for some weeks. Boerhaave relates, that he was relieved of the gout by drinking the juice mixed with whey.

TRISSAGO, vide CHAMÆDRYS.

TRITICUM; [L. E.] *triticum vulgare glumas trituro deponens* J. B. Wheat; the meal or flower, and starch (prepared from the meal by maceration in fresh parcels of water) and bran. Wheat a common article of our food, is more glutinous and nutritious than most other kinds of grain. The flour, or the starch prepared from it, form with water, a soft viscid substance, which has been taken, with good success, in diarrhoeas and dysenteries. Bran contains, besides the husks, or shells of the wheat, a portion of its farinacious matter: this is less glutinous than the finer flower, and is supposed to have a detergent quality: infusions of bran are not unfrequently employed in this intention externally, and sometimes likewise taken inwardly.

BREAD, carefully toasted, and infused, or lightly boiled in water, imparts a deep colour, and a sufficiently agreeable restringent taste. This liquor, taken as common drink, does excellent service in a weak lax state of the stomach and
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intestines; and in bilious vomiting and purging, or the cholera morbus: examples are related in the Edinburgh essays of several cases of this kind cured by it, without the use of any other medicine.

TUNICA, vide CARYOPHYLLUS HORTENSIS.

TURPETHUM [E.] Turbith; the cortical part of the root of an Indian convolvulus, brought to us in oblong pieces, of a brown or ash colour on the outside, and whitish within: the best is ponderous, not wrinkled, easy to break, and discovers a large quantity of resinous matter to the eye: its taste is at first sweetish; chewed, for a little time, it becomes acrid, pungent, and nauseous. This root is a cathartic, not of the safest, or most certain kind: the resinous matter, in which its virtue resides, appears to be very unequally distributed, insomuch that some pieces, taken from a scruple to a dram, purge violently; whilst others, in larger doses, have scarce any effect at all. An extract made from the root is more uniform in strength, though not superior, or equal, to purgatives more common in the shops.

TUSSILAGO; [E.] *tussilago vulgaris* C. B. Coltsfoot; the leaves and flowers. This grows wild in watery places, producing yellow flowers in February and March; these soon fall off, and are succeeded by roundish leaves, hairy underneath: their taste is herbaceous, somewhat glutinous and subacrid. Tussilago stands recommended in coughs, and other disorders of the breast and lungs: practice however seems to have almost rejected it.

TUTIA [L. E.] Tutty; a calx or sublimate of zinc, produced in the furnaces where zinc is fused with other metals, or copper made into brass by calamine the ore of zinc: it is found adhering to certain cylindrical bodies placed in the upper part of the furnace for that purpose; from these it receives its tubulated figure. It is moderately hard and ponderous, of a brownish colour, and full of small protuberances on the outside, smooth and yellowish within: some pieces have a bluish cast, from minute globules of zinc being thrown up by the heat in its metallic form. Tutty is celebrated as an ophthalmic, and frequently employed as such in unguents and collyria. See the article ZINCUM.

VALERIANA HORTENSIS MAJOR; [E.] *valeriana major odorata radice* J. B. The greater garden valerian; its roots. This is an oblong wrinkled root, with several fibres at the bottom, of a brownish or ash colour on the outside, and whitish within; of an aromatic smell and taste, approaching tonard. It is accounted less efficacious as a medicine than the following.

VALERIANA SYLVESTRIS; [L. E.] *valeriana sylvestris major montana* C. B. *valeriana sylvestris major foliis angustioribus* Morison. *plant. umbellif.* Wild Valerian (the narrow-leaved sort, growing on open, dry, mountainous places) its root. This root consists of a number of strings, or fibres matted together, issuing from one common head; of a whitish or pale brownish colour: its smell is strong, like a mixture of aromatics with fetids; the taste unpleasantly warm, bitterish, and subacrid. There is another wild valerian, with broader leaves,

leaves; of a deeper and shining green colour, met with in watery places. Both sorts have hitherto been used indiscriminately, and Linnæus has joined them into one species under the name of *valeriana foliis omnibus pinnatis*. Our college have restrained the shops to the first, which is considerably the strongest, and loses of its quality, if transplanted into such soils as the other naturally delights in. The roots, produced in low watery grounds, have a remarkably faint smell in comparison of the others, and sometimes scarce any at all. Wild valerian is a medicine of great use in nervous disorders, and is particularly serviceable in epilepsies proceeding from a debility of the nervous system. It was first brought into esteem in these cases by Fabius Columna, who by taking the powdered root, in the dose of half a spoonful, was cured of an inveterate epilepsy after many other medicines had been tried in vain. Repeated experience has since confirmed its efficacy in this disorder; and the present practice lays considerable stress upon it. The common dose is from a scruple to a dram: in infusion, from one to two drams. Its unpleasent flavour is most effectually concealed by a suitable addition of mace.

VERATRUM, vide HELLEBORUS ALBUS.

VERBASCUM, vide TAPSUS BARBATUS.

VERBENA; [E.] *verbena communis flore cæruleo* C. B. common wild vervain; the leaves and root. This is one of the medicines which we owe to the superstition of former ages; the virtues it has been celebrated for, both as an internal medicine, and externally as an amulet, are extremely numerous; and pos-

sibly it has an equal title to them all: to the taste and smell it appears almost simply herbaceous.

VERONICA FEMINA; vide ELATINE.

VERONICA MAS; [E.] *veronica mas supina et vulgatissima* C. B. Male speedwell; the leaves. This is one of the veronicae which produce their flowers in clusters at the joints of the stalks: it is a rough, procumbent plant, not unfrequently met with on dry commons, and in sandy grounds. In taste, smell, and medical virtues, it is similar to the betonica, of which in its place. Those who desire a more particular account of the qualities of this herb, may consult Frederic Hoffman's dissertation *de infusi veronicae efficacia præferenda herbae theæ*, and the *veronica theizan*, and *veronica polychresta herba* of Joh. Francus.

VINCETOXICUM; [E.] *asclepias flore albo* C. B. Swallowwort, or tame-poison; the root. This is a native of the warmer climates: it is sometimes met with in our gardens, but rarely perfects its seeds. It is reckoned by botanists a species of apocynum, or dogsbane; from all the poisonous sorts of which it may be distinguished by yielding a limpid juice, whilst that of the others is milky. The root has a strong smell, especially when fresh, approaching to that of valerian, or nard; the taste is at first sweetish and aromatic, but soon becomes bitterish, subacid and nauseous. This root is esteemed sudorific, diuretic, and emmenagogue, and frequently employed by the French and German physicians as an alexipharmac, sometimes as a succedaneum to contrayerva, whence it has received the name of *contrayerva*

yerva Germanorum. Among us, it is very rarely made use of: it appears, from its sensible qualities, to be a medicine of much the same kind with valerian, which is indubitably preferable to it.

VINUM. Wine: the fermented juice of the grape. Among the great variety of wines in common use among us, five are employed in the shops as menstrua for medicinal simples.

Vinum album; [L.] *vinum album Hispanicum* [E.] Mountain.

Vinum album Gallicum [E.] French white wine.

Vinum Canarinum [L. E.] Canary or sack.

Vinum Rhenanum [L. E.] Rhenish.

Vinum rubrum [L.] Red port.

The uses of these liquors as menstrua and vehicles of the virtues of other medicines, will be given hereafter; in this place we shall consider only their effects on the human body. These are, to cheer the spirits, warm the habit, promote perspiration, render the vessels full and turgid, raise the pulse, and quicken the circulation. The effects of the full-bodied wines are much more durable than those of the thinner: all sweet wines, as canary, abound with a glutinous nutritious substance; whilst the others are not nutrimental, or only accidentally so by strengthening the organs employed in digestion: sweet wines in general do not pass off freely by urine, and heat the constitution more than an equal quantity of any other, though containing full as much spirit: red port, and most of the red wines, have an astringent quality, by which they strengthen the tone of the stomach and intestines, and thus prove serviceable for restraining immoderate secre-

tion: those which are of an acid nature, as Rhenish, pass freely by the kidneys, and gently loosen the belly: it is supposed that these last exasperate, or occasion gouty, calculous disorders, and that new wines of every kind have this effect.

VIOLA; [L. E.] *viola maritima purpurea flore simplici odore* C. B.

The single march violet; its flowers [L. E.] leaves and seeds [E.] This is often found wild in hedges and shady places, and flowers in March; the shops are generally supplied from gardens. In our markets we meet with the flowers of a different species, named by botanists *viola maritima major*, *hirsuta*, *inodora*: these may be distinguished from the foregoing by their being larger, of a pale colour, and of no smell. The officinal flowers have a very pleasant smell, and a deep purplish blue colour, denominated from them violet. They impart their colour and flavour to aqueous liquors: a syrup made from this infusion has long maintained a place in the shops, and proves an agreeable and useful laxative for children.

VIPERA [L. E.] The viper, or adder is one of the viviparous reptiles, without feet, about an inch in thickness, and twenty or thirty in length. The poison of this serpent is confined to its mouth: at the basis of the phangs or long teeth which it wounds with, is lodged a little bag containing the poisonous liquid; a very minute portion of which, mixed immediately with the blood, proves fatal: our viper catchers are said to prevent the mischiefs otherwise following from the bite, by rubbing oil olive warm on the part. The flesh of the viper is perfectly innocent; and strongly

strongly recommended as a medicine of extraordinary service in scrophulous, leprous, and other obstinate chronic disorders: its virtues, however, in these cases, are probably too much exaggerated. The viper is undoubtedly an high nutritious food; and hence, in some kinds of weaknesses, and emaciated habits, is not undeservedly looked upon as a good restorative. To answer any valuable purposes, fresh vigorous vipers (not such as have been long kept alive after they are caught) should be liberally used as food: the wines and tinctures of them can scarce be supposed to receive any considerable virtue from the animal; the dry flesh brought us from abroad, is entirely insignificant.

VIRGA AUREA; [E.] *virga aurea angustifolia, minus serrata* C. B. Golden rod; the leaves. This is found wild on heaths and in woods, producing spikes of yellow flowers in August. The leaves have a moderately astringent bitter taste, and hence prove serviceable in debility and laxity of the viscera, and disorders proceeding from that cause.

VISCUS QUERNUS; [E.] *viscum baccis albis* C. B. Mistletoe; the wood and leaves. This is a bushy plant, growing on the trunk and branches of different trees: that met with on the oak is generally preferred, perhaps on account of its being the most rare. It may, however, be propagated by art on any trees, by rubbing the berries against the bark: this office has hitherto been performed by the thrush (who feeds on the berries in the winter) in clearing his bill from the seeds that stick about it. This plant was held in veneration by the superstition of former ages: it was hung about

the neck to prevent witchcraft, and taken internally to expel poisons. Of late times, it has been celebrated as a specific in epilepsies, palsies, &c. virtues, which it were greatly to be wished that experience gave any countenance to.

VITEX, vide **AGNUS CASTUS**.

VITIS VINIFERA [E.] The vine tree. The leaves [E.] of this tree were formerly celebrated as astringents, but have for a long time been entirely disregarded: their taste is herbaceous with only a slight roughness.—The trunk of the tree, wounded in the spring, yields a clear, limpid, watery juice: this tear [E.] of the vine has been accounted excellent for sore eyes; and by some recommended likewise in ardent and malignant fevers, and as a diuretic.—The flowers have a pleasant smell, which water elevates from them in distillation; along with the water, a small portion of an elegant essential oil arises, possessing in great perfection the agreeable fragrance of the flowers.—The unripe fruit is of a very harsh, rough, sour taste: its expressed juice, called verjuice [E.] was of great esteem among the ancients, and still continues so in some places, as a cooling astringent medicine: a rob and syrup were formerly prepared from it.—The ripe fruit, or grapes, properly cured and dried, are the raisins and currants of the shops (*uvæ passæ majores et minores*;) by fermentation it affords wine, vinegar, and tartar (*vinum, acetum, tartarus*) of all which in their places.

VITRIOLUM. Vitriol is a saline crystalline concrete, composed of metal, and an acid similar to those of sulphur and alum. There are but three metallic bodies, which

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this

this acid is capable of perfectly dissolving, or being united with into a crystalline appearance, zinc, copper, and iron: with the first it forms a white, with the second a blue, and with the third a green salt.

VITRIOLUM ALBUM [L.E.] White vitriol, or vitriol of zinc; found in the mines of Goslar, sometimes in transparent pieces, but more commonly in form of white efflorescences, which are dissolved in water, and afterwards reduced by evaporation and crystallization into large masses. We rarely meet with this sort of vitriol pure: after the zinc, which is its proper basis, has been revived by inflammable fluxes, there remains a substance which is attracted by the magnet, and discovers itself, on other trials also, to be iron: a solution of the vitriol deposits on standing an ochery sediment, which generally gives a blue tincture to volatile alkalies, and hence appears to contain copper. White vitriol is sometimes exhibited from five or six grains to a dram, as an emetic: it operates very quickly, and if pure, without violence. Externally, it is employed as an ophthalmic, and often made the basis of collyria, both in extemporaneous prescription, and in dispensaries.

VITRIOLUM CÆRULEUM [L.E.] Blue vitriol, or vitriol of copper, falsely called Roman vitriol. Greatest part of the blue vitriol at present met with in the shops, is said to be artificially prepared, by uniting copper with the vitriolic acid. This salt has a highly acid, austere, and very nauseous taste: it is a strong emetic, too violent to be exhibited with any tolerable degree of safety. Its principal use is externally as an escharotic; and for stopping hemorrhagics, which it effects by coagulat-

ing the blood, and contracting the mouths of the vessels.

VITRIOLUM VIRIDE [L.E.] Green vitriol, or vitriol of iron, commonly called copperas; the Roman vitriol of the Italian and other foreign writers. This is prepared in large quantity at Deptford, by dissolving iron in the acid liquor, which runs from certain sulphureous pyrites exposed for a length of time to the air. When pure, it is similar in quality to the officinal *sal martis*.

The green and blue vitriols (as well as the white) are in many places found native in the earth; though usually, in this state, neither sort is free from an admixture of the other: hence vitriols are met with of all the intermediate colours betwixt the grass green of the one and the sapphire blue of the other. The acid of these salts has the greatest affinity with zinc, next to this with iron, and with copper the least of all. Hence, solutions of white vitriol, deposit on standing, greatest part of the iron and cupreous matter which they contain, and if some fresh zinc be added, the whole: in like manner, upon adding bright polished iron, to solutions of green vitriol, if it holds any cupreous matter, this will be thrown down. By this means, the white and green vitriols may be perfectly purified from other metallic bodies.

ULMARIA; [E.] *ulmaria barba capri floribus compactis C. B.* Meadow-sweet, or queen of the meadows; the leaves. This herb is frequent in moist meadows, and about the sides of rivers: it flowers in the beginning of June, and continues in beauty a considerable time. The flowers have a very pleasant flavour, which water extracts from them by infusion, and elevates in distil-

distillation. The leaves are merely herbaceous.

URTICA MAJOR VULGARIS; [*E.*] *urtica racemifera major perennis* Raii. Stinging nettle; the leaves and seeds.

URTICA ROMANA; [*E.*] *urtica urens, pilulas ferens semine lini* C. B. Roman nettle; the leaves and seeds. These have had sundry virtues attributed to them, which the present practice pays no regard to. The young leaves of the first sort are by some used in the spring as a wholesome pot-herb.

UVÆ PASSÆ [*L.*] *majores*; [*E.*] Raisins of the sun; the dried grapes of the *vitis Damascena*.

UVÆ PASSÆ minores; [*E.*] Currants; the dried grapes of the *vitis Crinitica*. The principal use of these is an agreeable sweet; they impart a very pleasant flavour both to aqueous and spirituous menstrua. The seeds or stones are supposed to give a disagreeable relish, and hence are generally directed to be taken out; nevertheless we have not found that they give any taste at all.

WINTERANUS CORTEX [*E.*] Winter's bark; the produce of a tree growing in Jamaica, Barbadoes, &c. called by Sir Hans Sloane *periclymenum rectum, foliis laurinis, cortice acri aromatico*. It was first discovered on the coast of Magellan, by Captain Winter, in the year 1567: the sailors then employed the bark as a spice, and afterwards found it serviceable in the scurvy; for which purpose it is, at present also, sometimes made use of in diet drinks. The true Winter's bark is not often met with in the shops, canella alba being generally substituted to it, and by many reckoned to be the same; there is neverthe-

less a considerable difference betwixt them in appearance, and a greater in quality: the Winter's bark is in larger pieces, of a more cinnamon-colour, than the canella; and tastes much warmer and more pungent.

ZEDOARIA [*L. E.*] Zedoary; the root of an Indian plant brought over in oblong pieces about the thickness of the finger, or in roundish ones about an inch in diameter. Both sorts have an agreeable fragrant smell, and a warm, bitterish, aromatic taste.

Rectified spirit extracts the whole of its warmth and aromatic flavour; leaving the bitter almost entire and capable of being afterwards extracted by water: in like manner, water applied at first takes up chiefly the bitter, leaving the aromatic to be dissolved by spirit: proof spirit extracts both together. In distillation with water, an essential oil arises, possessing the smell and flavour of the zedoary in an eminent degree; the remaining decoction is almost simply bitter. Spirit likewise brings over some small share of its flavour; nevertheless, the spirituous extract is considerably more grateful than the zedoary itself.

ZIBETHUM [*E.*] Civet; a soft unctuous substance; of a white, brown, or blackish colour, brought from the Brazils, the coast of Guinea, and the East Indies; it is met with in certain bags, situated in the lower part of the belly of an animal said to be of the cat-kind. The chief use of this drug is in perfumes; it is rarely, if ever, employed for any medicinal purposes.

ZINCUM, Zinc; a semimetal, differing from all the other bodies of that class, in being inflammable

meble per se, sublimable into flowers which afterwards remain fixed in the strongest fire, soluble in every acid, not miscible in fusion with sulphur, changing copper into a yellow metal, brass. Several productions of this femimetal, though not generally known to be such, are kept in the shops; as, its rich ore calamine, the white vitriol, the pure white flowers of zinc called pompholyx, and the more impure sublimate tutty. The preparations of zinc are employed principally in external applications as ophthalmics. The flowers, levigated into an impalpable powder, form with oily substances an useful unguent, and with rose water and the like, elegant collyria, for defluxions of thin sharp humours upon the eyes; they are moderately astringent; and

act, if the levigation has been duly performed, without acrimony or irritation. Taken internally, they prove emetic.

ZINGIBER; [L. E.] Ginger; a root, brought from China and the East and West Indies; of a fragrant smell, and a hot, biting aromatic taste. Rectified spirit extracts its virtues by infusion, in much greater perfection than aqueous liquors; the latter elevate its whole flavour in distillation, the former little or nothing. Ginger is a very useful spice, in cold flatulent colics, and in laxity and debility of the intestines: it does not heat so much as those of the pepper kind, but its effects are more durable.



APPEN-

A P P E N D I X.

General titles including several simples [E.]

The five opening roots :
 { Smallage,
 Asparagus,
 Fennel,
 Parsley,
 Butchers broom.

The five emollient herbs :
 { Marshmallows,
 Mallows,
 Mercury,
 Pellitory of the wall,
 Violets.

The four cordial flowers :
 { Borage,
 Buglofs,
 Roses,
 Violets.

The four greater hot seeds :
 { Anife,
 Caraway,
 Cummin,
 Fennel.

The four lesser hot seeds :
 { Bishopsweed,
 Stone parsley,
 Smallage,
 Wild carrot.

The four greater cold seeds :
 { Water melons,
 Cucumbers,
 Gourds,
 Melons.

The four lesser cold seeds :
 { Succory,
 Endive,
 Lettuce,
 Parslane.

General rules for the collection of simples.

1. AROMATIC plants should be collected from warm, dry, sandy soils; FETID from moist and rich ones.
2. VEGETABLES, particularly herbs and flowers, are to be collected in a clear, dry day, as soon as the morning dew is gone off from them.
3. ROOTS are in greatest perfection in the spring. Biennial roots are to be taken up in the spring after the seeds were sown; annual ones, before they have sent out any stalk.
4. HERBS are to be gathered when the leaves have come to their full growth; before the flowers unfold, or at least before they begin to fall off.
5. FLOWERS are to be plucked when moderately expanded.
6. SEEDS should be collected when growing dry, before they begin to fall off spontaneously.
7. FRUITS are to be gathered when fully ripe.
8. WOODS are to be felled in the winter.
9. BARKS also are most conveniently shaved, or taken off, in the winter, as at this time they separate most freely from the wood.

General rules for the preservation of simples.

1. ROOTS are to be washed clean from dirt, freed from the decayed, or rotten fibres, and hung up in a dry, shady, airy place, till moderately dried.
The thicker roots require to be slit longitudinally, or cut transversely into thin slices, and freed from the pith.
Such roots as lose their virtue by exsiccation, may be preserved in dry sand.
2. LEAVES are to be dried in the same manner as roots: if exsiccated in the sun, they lose greatly of their colour, and quality. The leaves of plants, in general, are reduced by exsiccation to about one fourth their original weight; the more juicy ones to less.
3. FLOWERS preserve their colour and virtues in greatest perfection when dried hastily by a gentle heat.



PART II.

Official preparations and compositions.

CHAPTER I.

PREPARATIONES SIMPLICIORES.

THE MORE SIMPLE PREPARATIONS.

TERREORUM, aliorumque quæ aqua non dissolvuntur corporum præparatio: the preparation of EARTHY and such other pulverable bodies as will not dissolve in water.

THESE substances are first to be pulverised in a mortar, and then levigated with a little water, upon an hard and smooth marble, into an impalpable powder: this is to be dried upon a chalk stone, and afterwards set by for a few days, in a warm, or at least, very dry place. L.

After this manner are to be prepared,

- Ærugo, verdgreis. L.
- Antimonium, antimony. L.
- Chelæcancrorum, crabs claws. L. E.
- Corallium, coral. L. E.
- Creta, chalk. L.

Lapis bezoar, bezoar stone, which is to be moistened in the levigation, with spirit of wine instead of water. L.

Lapis calaminaris, calamine, previously calcined for the use of those who make brass. L. Where this is not to be had, the mineral may be calcined by heating it three times red hot, and quenching it as often in water. E.

Lapis hæmatites, blood-stone. L. E.

Lapis lazuli. E.

Margaritæ, pearls. L. E.

Oculi cancrorum, crabs eyes, so called. L. E.

Ostreorum testæ, oyster-shells, washed clean from dirt. L. These may also be prepared by exposing them for some days to the sun, and then rubbing them in a marble mortar till they come into a kind of paste; this is to be again dried in the sun, and afterwards rubbed into an impalp.

impalpable powder: the hollow shells are preserved, [E.] these containing more of the fine white earth, in proportion to the outward rough coat, than the thinner flat ones.

Ovorum testæ, eggshells, freed by boiling, from the skin that adheres to them. L.

Succinum, amber. L. E.

Tutia, tutty. L. E.

In preparing antimony, calamine and tutty, particular care ought to be taken to reduce them into the most subtile powder possible. *L.* The finer parts of these powders are to be separated for use from the grosser, by washing over the former with water, as directed in the following process. Litharge also may be treated in the same manner. *E.*

Bolus Armena preparata,

Bole Armenic prepared.

E.

Mix powdered bole with a sufficient quantity of water, by stirring them well together: pour off the water while loaded with the finer parts of the bole, into another vessel; put fresh on the remainder, repeat the agitation, and decant as before, till nothing is left except sand and small stones. Mix all the turbid liquors together, and let them rest till the powder has subsided; then pour off the water, and dry the bole for use.

Where large quantities of the foregoing powders are to be prepared, it is customary to levigate them in mills made for this purpose. Particular care ought to be had, that these instruments are of sufficient hardness, otherwise they will be abraded by the powders. The hæmatites, a hard iron ore, is most conveniently levigated betwixt two

iron planes; for if the common levigating stones are made use of, the preparation when finished, will contain almost as much of the instrument as of the hæmatites.

It has been customary to moisten several powders in levigation, with rose, balm, and other distilled waters: these nevertheless have no advantage above common water, since in the subsequent exsiccation they must necessarily exhale, leaving the medicine possessed of no other virtue than might be equally expected from it when carefully prepared with the cheaper element.

Some few substances indeed are more advantageously levigated with spirit of wine. Thus bezoar has the green colour usually expected in this costly preparation, considerably improved thereby. The lighter animal substances are apt, when moistened with water, to run into a putrid state, which may be prevented by a prudent use of spirit; though this accident never happens unless large quantities are prepared at once, and the weather is very hot.

The caution given above for reducing antimony, calamine and tutty, to the greatest subtility possible, demands particular attention. The tenderness of the parts to which the two last are usually applied, requires them to be perfectly free from any admixture of gross irritating particles. The first, when not thoroughly comminuted, might not only by its sharp needle-like fibres wound the stomach, but likewise answers little valuable purpose as a medicine, proving either an useless load upon the viscera, or at best passing off without any other sensible effect than an increase of the grosser evacuations: whilst if reduced to a great degree of fineness, it turns out a medicine of considerable efficacy.

The

The most successful method of obtaining these powders of the requisite tenuity, is, to wash off the finer parts by means of water (as above directed for bole; &c.) and continue levigating the remainder till the whole becomes fine enough to remain, for some time, suspended in the fluid: the degree of fineness will be in proportion to the length of time that it continues suspended.

This process may likewise be advantageously applied to hæmatites and other hard pulverable bodies of the mineral kingdom or artificial preparations of them; provided they are not soluble in, or specifically lighter than water; of the first kind is verdegris, of the second amber. The animal and absorbent powders, crabs claws, crabs eyes, oyster-shells, eggshells, chalk, pearl, coral and bezoar, are not well adapted to this treatment; nor indeed do they require it. These substances are readily soluble in acid juices without much comminution: if no acid is contained in the first passages, they are apt to concreate, with the mucous matter usually lodged there, into hard indissoluble masses; the greater degree of fineness they are reduced to, the more are they disposed to form such concretions, and enabled to enter and obstruct the orifices of the small vessels. See page 54.

**AXUNGIE PORCINÆ, SEVI-
que OVILLI curatio.**

*The purification or trying of HOGS
Lard and MUTTON SUET.*

Lond.

Chop them into small pieces, and melt them by a gentle heat, with the addition of a little water; then strain them from the membranes.

The use of the water is to prevent the fat from burning and turn-

ing black; which it does very effectually, though it somewhat prolongs the process, and is likewise apt to be in part imbibed by the fat. The Edinburgh dispensatory directs the fat to be first freed from the skins, blood vessels and fibres, then washed in fresh parcels of water till it no longer gives the liquor any bloody tinge, afterwards melted, strained, and kept close from the injuries of the air. The shops are usually supplied with fats ready prepared.

**AXUNGIE VIPERINÆ cu-
ratio.**

The purification of VIPERS FAT.

Lond.

Let the fat, separated from the intestines, be melted by a gentle fire, and then pressed through a thin linen cloth.

The quantity of this fat usually purified at a time is so small, that the heat may be easily regulated so as to prevent burning, without the addition of water. It is not necessary to be very curious in picking out the fat; it is sufficient if the heart, liver, and other bloody parts are taken away; the rest of the membranes crisp up while the fat melts, so as to be easily separated by straining.

MELLIS DESPUMATIO.

*The despumation or clarifying of
HONEY.*

Lond.

Let the honey be liquefied in a water-bath, and the scum which arises taken off.

The intention of this process is to purify the honey from wax or other grossly matters that have been united with it by the violence of the press in its separation from the comb; and from meal and such like substances, which are sometimes fraudulently mingled with it.

SCIL-

SCILLÆ COCTIO.

The baking of SQUILLS. *Lond.*

Let the squill (freed from the outer skin, and the hard part to which the little fibres adhere) be inclosed in a paste made of wheat flour and water, and baked in an oven, till the paste becomes dry, and the squill soft and tender throughout.

By this process the acrimony of the squill is supposed to be abated. The preparation is as old as the theriaca, and is continued in our dispensatories for no other use than making the troches of squills, which are one of its principal ingredients. The Edinburgh dispensatory prefers to them the squill itself moderately dried.

SCILLÆ EXSICCATIO.

The drying of SQUILLS. *Lond.*

Let the squill, cleared from its outer skin, be cut transversely into thin slices, and dried with a very gentle heat.

By this method, the squill dries much sooner than when only its several coats are separated, as has been usually directed. It loses in this process, four fifths of its original weight; the parts which exhale appear to be merely aqueous: hence six grains of the dry root are equivalent to half a dram of it when fresh, a circumstance to be particularly regarded in the exhibition of this medicine. In the preceding editions of our dispensatory, a particular caution was given not to use an iron knife for cutting squills, but one of wood, ivory or other bone: the foundation of this caution is, that a wound received by an instrument impregnated by the acrimonious juice of the squill, proves extremely painful.

RHABARBARI et NUCIS MOS-
CHATÆ torrefactio.*The toasting of RHUBARB and
NUTMEG.* *Lond.*

Toast them with a gentle heat, until they become easily friable.

Nutmegs in their natural state, are so soft and unctuous, as scarce to be at all reducible into powder, a form in which they are occasionally wanted; and rhubarb is very difficultly so, unless it be thoroughly dry. The torrefaction renders them easily pulverable, and as soon as this point is obtained, should be immediately discontinued, otherwise the drugs will be considerably injured. This treatment is supposed by some to increase the astringency of the subjects, perhaps on no very good foundation: it undoubtedly renders the rhubarb less purgative, and the nutmegs less aromatic.

SPONGIÆ USTIO.

The burning of SPONGE. *Lond.*

Burn the sponge in a close earthen vessel, until it becomes black, and easily friable; then powder it in a glass or marble mortar.

This medicine, now first received in the dispensatory, has been in use for a considerable time; and exhibited with good success against scrophulous disorders and cutaneous foulnesses, in the dose of a scruple. Its virtues depend upon a volatile salt, just formed, and combined with its own oil and an earthy matter: the salt is so far extricated, that if the preparation be ground in a brass mortar, it corrodes the metal, so as to contract a disagreeable taint, and sometimes an emetic quality.

A good deal of address is requisite for managing this process in per-

perfection. The sponge should be cut small, and beat for some time in a mortar, that all the stony matters may be got out, which compared with the weight of the sponge when prepared, will sometimes amount to a considerable quantity. The usion should be discontinued as soon as ever the matter is become thoroughly black. If the quantity put into the vessel at once is large, the outside will be sufficiently burnt before the inside is affected; and the volatile salt of the former will in part escape, before that in the latter is begun to be formed. The best method of avoiding this inconvenience seems to be, to keep the sponge continually stirring, in such a machine as is used for the roasting of coffee.

CORNU CERVI CALCINATIO.

The calcination of HARTSHORN.
 Lond.

Burn pieces of hartshorn in a potter's furnace, till they become perfectly white; then powder and levigate them after the same manner as the other earthy bodies.

The intention here is, totally to burn out and expel the oil, salt, and other volatile parts; so as to leave only a white insipid animal earth. For this purpose, a strong fire, and the free admission of air are necessary. The potter's furnace is directed merely for the sake of convenience: where this is not to be had, any common furnace or stove may be made to serve: on the bottom of the grate spread some lighted charcoal, above which lay a row of the horns, then a row of charcoal, not lighted, and thus alternately until the furnace is full. The whole burns vehemently: the vegetable matter is reduced to ash-

es; and the horns burnt to whiteness, still retaining their original form, by which they are easily distinguished from the other: they ought to be separated as soon as grown cold, to prevent their imbibing any fixt salt from the vegetable ashes moistened by the air. The horns left after the distillation of the volatile salt and oil of hartshorn are as proper for this use as any other; that process only collecting such parts as are here dissipated in the air. Calcined hartshorn is one of the purest of the absorbent powders; as being perfectly free from any glutinous or oily matter, which most of the others abound with.

PULPARUM EXTRACTIO.

The extraction of PULPS.

Lond.

Unripe pulpy fruits, and ripe ones if they are dry, are to be boiled in a small quantity of water until they become soft: then press out the pulp through a strong hair sieve, and afterwards boil it down to a due consistence, in an earthen vessel, over a gentle fire; taking care to keep the matter continually stirring, to prevent its burning.

The pulp of casia fistularis is in like manner to be boiled out from the bruised pod, and reduced afterwards to a proper consistence, by evaporating the water.

The pulps of fruits that are both ripe and fresh, are to be pressed out through the sieve, without any previous boiling.

STYRACIS COLATIO.

The straining of STORAX.

Lond.

Boil storax calamita in water until it becomes soft; then press it out

out betwixt warm iron plates; and separate the storax, now purified, from the water.

The storax commonly met with stands greatly in need of purification. It contains a large quantity of woody matter; which this process effectually frees it from, tho' in other respects liable to some inconveniencies. The woody substance in some measure defends the storax from the action of the press, and retains part of it behind: at the same time that a part of the essential oil of the drug, in which its peculiar fragrance resides, is dissipated by the heat. To prevent as much as possible this last inconvenience, the operator ought carefully to avoid using a greater heat than is absolutely necessary; and as soon as the storax is sufficiently softened, to be expeditious in the straining of it. It is worth trying, whether this resin does not communicate somewhat to the water it is boiled in: benzoine, with which it agrees in its other pharmaceutical characters, imparts to water a saline matter similar to the sublimed flowers.

Storax may be excellently purified by means of spirit of wine, which this resin totally dissolves in, so as to pass through a filtre, the impurities alone being left. If the storax is afterwards wanted in a solid form, it may be recovered from this solution by gently distilling off the spirit, which will elevate very little of its flavour, or pouring to it a quantity of water.

OPIUM COLATUM, vel EXTRACTUM THEBAICUM.
STRAINED OPIUM, or the THEBAIC EXTRACT.

Lond.

Take of opium, cut into slices, one pound: dissolve it into the consistence of a pulp, in a pint of

+

boiling water, with care to prevent its burning: and whilst it remains quite hot, strongly press it from the feces through a linen cloth: the strained opium is then to be reduced, by a water-bath or other gentle heat, to its original consistence.

Opium thus softened by a small quantity of water, passes the strainer entire, the feces only being left behind. If it was dissolved in a large quantity of water, its resinous and gummy parts would be separated from one another.

The impurities usually contained in opium are very different from those of the foregoing article; consisting chiefly of dust and farinaceous matters, which are so fine as partly to pass along with it through the pores of the strainer when dilated by the press: this manifestly appears upon boiling the strained opium in water, and afterwards in spirit; when a considerable quantity of earthy matter will be left, which is not soluble in either of these menstrua.

THE OTHER GUMS, as ammoniacum, galbanum, asafetida and the like, are purified after the same manner, only here a larger quantity of water may be made use of without injury. If the resinous part happens to subside, take it out, and reserve it to be added again towards the end of the inspissation, that it may unite with the rest into one uniform mass.

Any gum that melts easily, as galbanum, may likewise be purified by including it in a bladder, and keeping it in boiling water, until the gum becomes soft enough to be pressed from its impurities through a canvas strainer.

In

In all these processes, care must be had, that the heat be neither too great nor too long continued, otherwise a considerable portion of the essential oils of the gums will be lost. In the straining of opium, this caution is perhaps the least necessary, the virtues of this drug residing more in its fixed, than in the volatile parts: it is nevertheless expedient, that the smell of the opium, which affords an useful mark of its genuineness, be as much as possible preserved; this, if the quantity of water was large, would be destroyed by the long evaporation which would then become necessary.

In the Edinburgh dispensatory, opium and aloes are ordered to be dissolved in a sufficient quantity of water, the solution strained, and evaporated to the consistence of honey. Ammoniacum, galbanum, opopanax, and sagapenum, are dissolved either in water or vinegar.

MILLEPEDARUM PRÆPARATIO.

The preparation of MILLEPEDES.
 Lond.

The millepedes are to be inclosed in a thin canvas cloth, and suspended over hot spirit of wine, in a close vessel, till they are killed by the steam, and rendered friable.

Edinb.

Let them be included in a proper vessel, and dried with a very gentle heat. After the same manner BEES are to be prepared.

BUFO PRÆPARATUS.

Prepared TOAD.

Edinb.

Put live toads into an earthen pot, and dry them in an oven moderately heated, till they become pulverable.

SANGUIS HIRCI præparatus.

GOATS BLOOD prepared.

Edinb.

About the beginning of summer, take blood from any convenient artery of a middle-aged goat, and expose it, in a clean vessel, to the sun, or a moderately heated oven, till sufficiently dried.

CHAPTER II.
C O N S E R V Æ.
C O N S E R V E S.

L. E.

CONSERVES are compositions of recent vegetable matters and sugar. The subject is beat in a marble mortar, with a wooden pestle, first by itself and afterwards with thrice its weight of double refined sugar, until they are united into a smooth uniform mass. Leaves are previously to be picked from their stalks, and flowers from their cups.

This management was introduced for preserving certain simples, undried, in an agreeable form, with as little alteration as possible in their native virtues. Nevertheless, astringent and mucilaginous bodies have their virtues greatly injured by long keeping with sugar: some flowers are of so tender and delicate a texture, as almost entirely to lose their peculiar qualities by the treatment necessary to reduce them into this form: and in general, of the several substances that have been made into conserves, there are few which can be thus exhibited to advantage; the quantity of sugar being so large that the compound cannot be taken in sufficient doses to lay any considerable stress upon, without nauseating the stomach by their bulk.

Conserves are at present considered chiefly as auxiliaries to medicines of greater efficacy; or as intermediums for joining them together. They are very convenient for reducing into boluses or pills, the more ponderous powders, as mercurius dulcis, the calces of iron, and other mineral preparations; which with liquid or less consistent

matters, as syrups, will not cohere.

The shops were formerly incumbered with many conserves altogether insignificant: the few now retained have in general either an agreeable flavour to recommend them, or are capable of answering some useful purposes as medicines. Their common dose is the bulk of a nutmeg, or as much as can be taken up at once or twice upon the point of a knife. There is in general no great danger of exceeding in this particular.

CONSERVA foliorum COCHLEARIÆ hortenſis.

CONSERVE OF the leaves of garden SCURFYGRASS.

L. E.

This is the only form that scurvygrass in substance can be kept in without the total loss of its virtues. The conserve retains the taste and virtue of the herb for a considerable time: it is taken in scorbutic habits, three or four times a day or oftener; and if duly continued, will sometimes do service without any other assistance; though there are few practitioners who depend upon it by itself.

CONSERVA foliorum LUJULÆ.

CONSERVE OF the leaves of WOODSORREL.

L. E.

This is a very elegant and grateful conserve: in taste it is lightly acidulous, with a peculiar flavour which some resemble to that of green tea. It is taken occasionally, for quenching thirst, and cooling the

the mouth and fauces in hot distempers. It may be usefully joined to the foregoing preparation, whose virtue it somewhat promotes, at the same time that it improves the taste.

CONSERVA foliorum MENTHÆ vulgaris.
CONSERVE OF the leaves of
SPEARMINT.
L. E.

The conserve of mint retains the taste and virtues of the herb. It is given in weakness of the stomach and retchings to vomit; and not unfrequently does service in some cases of this kind, where the warmer and more active preparations of mint would be less proper.

CONSERVA foliorum RUTÆ.
CONSERVE OF the leaves of RUE.
L. E.

This conserve is exhibited, from a dram to half an ounce, in crudities of the primæ viæ, for promoting digestion, and in hysteric disorders: it gently stimulates the solids, attenuates viscid juices, and excites the natural secretions. Some have had a great opinion of it, taken in a morning, for preventing contagious diseases.

CONSERVA summitatum ARSINTHII maritimi.
CONSERVE OF the tops of sea
WORMWOOD.

Lond.
(Of the leaves of Roman wormwood.)
Edinb.

The conserve of wormwood has been celebrated in dropsies: Matthiolus relates, that several persons were cured by it of that distemper, without the assistance of any other medicine. Where the disorder indeed proceeds from a viscidness of the juices, or a lax flaccid state of

the solids, this medicine may be of some service: as it tends to attenuate the former, and strengthen the tone of the latter. It is directed to be given in the dose of half an ounce, about three hours before meals.

CONSERVA florum LAVENDULÆ.
CONSERVE OF LAVENDER
flowers.
L. E.

This conserve is not near so fragrant as the flowers themselves. It is nevertheless a sufficiently agreeable one; and is sometimes exhibited as a mild cordial, and in debilities of the nervous system.

CONSERVA florum MALVÆ.
CONSERVE OF the flowers of
MALLOWS.
L. E.

This is looked upon as an emollient, and sometimes made use of as such in disorders of the breast and urinary passages. It may be taken in any quantity that the stomach will bear.

CONSERVA florum ROSARUM
rubrarum immaturarum.
CONSERVE OF the buds of red
ROSES.
L. E.

This is a very agreeable and useful conserve. A dram or two, dissolved in warm milk, are frequently given as a light restrigent, in weakness of the stomach, and likewise in coughs and phthical complaints. In the German ephemerides, examples are related of very dangerous phthises cured by the continued use of this medicine: in one of these cases, twenty pounds of the conserve were taken in the space of a month; and in another, upwards of thirty.

CON-

CONSERVA florum RORISMA-
RINI.

CONSERVE OF ROSEMARY

flowers.

L. E.

Rosemary flowers in great measure lose their peculiar fragrance by beating, and hence the conserve has very little of their flavour. Some are therefore accustomed to make this preparation from the leaves of the plant (which retain their virtues under the pestle) or at least to add a portion of these to the flowers. The conserve of rosemary is directed in weakness of the nerves, and as a light cordial.

CONSERVA flavedinis CORTI-
CUM AURANTIORUM His-
palensium.

CONSERVE OF the yellow rind of
Seville ORANGE PEEL.

L. E.

This conserve is a very elegant one, containing all the virtues of the peel in a form sufficiently agreeable both with regard to the dose and the conveniency of taking. It is a pleasant, warm, stomachic bitter; and in this intention is frequently made use of.

CONSERVA FRUCTUS CY-
NOSBATI.

CONSERVE OF HIPS.

L. E.

Hips require less sugar for reducing them into a conserve than the substances above enumerated. Twelve ounces of the pulp of the ripe fruit are to be mixed with only twenty ounces of sugar.

The conserve of hips is of some esteem as a soft, cooling restringent; three or four drams or more are given at a time, in bilious fluxes, sharpness of urine, and hot dispositions of the stomach. A good deal of care is requisite on the part of the apothecary in making this

conserve: the pulp is apt to carry with it some of the prickly fibres, which the inside of the fruit is lined with; if these are retained in the conserve, they will irritate the stomach, so as to occasion vomiting.

CONSERVA PRUNORUM SYL-
VESTRIUM.

CONSERVE OF SLOES.

Lond.

Let the sloes be put into water, and set over the fire till they grow soft, with care that they do not burst. Then take the sloes out of the water, press out their pulp, and mix with it thrice its weight of double refined sugar.

This preparation is a gentle astringent, and may be given as such in the dose of four or five drams. The degree of its astringency will vary according to the maturity of the sloes, and the length of time that the conserve has been kept.

NOTE,

In making conserves, the leaves, flowers, &c. are to be reduced into a perfectly smooth mass, and the sugar pulverized by itself and passed through a sieve, before they are mixed with one another.

Some simples are scarce reducible to the requisite fineness by beating in a mortar; such is orange peel. This is most conveniently rasped or grated, then well mixed with the sugar, and set by in a close vessel for some weeks; when the compound will more easily beat smooth. This peel, and the rose buds, are commonly ground in wooden mills made for that purpose.

Some of the leaves, when very turgid and full of juice, may be suffered to dry a little before beating; otherwise the conserve turns out too soft and almost liquid.

CHAP.

CHAPTER III.

CONDITA.

PRESERVES.

PRESERVES are made, by steeping, or boiling recent simples, first in water, and then in syrup, or solution of sugar. The subject is afterwards either kept moist in the syrup, or taken out and dried, that the sugar may candy upon it; this last is the most usual method.

In this process, some of the valuable parts of the subject are extracted by the liquor, and consequently lost to the preparation; greater regard being here had to palatableness than medicinal efficacy. And indeed most of the preparations of this kind are considered rather as sweetmeats than as medicines; as the business of the confectioner rather than of the apothecary. It would be needless therefore to mention the doses of the several articles, or give particular remarks on the manner of preparing them.

 Lond. RADIX ERINGII CONDITA.
CANDIED ERINGO ROOTS.

Boil them in water, till the rind will easily peel off: when peeled, slit them thro' the middle, take out the pith, and wash them three or four times in cold water. For every pound of the roots so prepared, take two pounds of double refined sugar, which is to be dissolved in a proper quantity of water, and set over the fire; as soon as the li-

quor begins to boil, put in the roots, and continue the boiling till they are soft.

After this manner are candied
ANGELICÆ CAULES.

ANGELICA STALKS.

CORTEX AURANTIORUM
CONDITUS.

CANDIED ORANGE PEEL.

Steep the fresh peels of Seville oranges in water, which is to be frequently renewed, until they lose their bitterness. Then, having dissolved in water a suitable quantity of double refined sugar, boil the peels in this liquor till they become soft and transparent.

After the same manner are candied

LIMONUM CORTICES.

LEMON PEELS.

 Edinb.

In the same, or a similar manner, may likewise be candied,
RADICES ANGELICÆ.

Angelica roots.

RADICES HELENII.

Elecampane roots.

RADICES SCORZONERÆ.

The roots of Scorzonera.

RADICES SYMPHYTI.

Comfrey roots.

CORTICES CITREORUM.

Citron Peel, &c.

R

All

All sorts of fruits, flowers, and seeds may also be preserved, either by keeping them in syrup, or crusting them over with sugar; but these kinds of preparations scarce belong to the art of pharmacy.

Nutmegs and ginger are brought to us ready candied from the East Indies.

MARS SACCHARATUS.

Sugar'd steel.

Put any quantity of clean filings of iron into a brass kettle, suspended over a very gentle fire. Add to them, by little and little,

twice their weight of white sugar, boiled to the consistence of candy; agitating the kettle continually, that the filings may be crusted over with the sugar, and taking great care to prevent their running into lumps.

This is a very agreeable preparation of steel; but the apothecaries never make it. The confectioners follow the proportions directed here; but they employ, besides, a certain medium, without which, the matter runs into lumps; and of this they make a secret.



CHAPTER IV.

S U C C I.

J U I C E S.

JUICES are obtained from recent plants, &c. by expression. The subject is first cut and moderately bruised: then included in a hair bag, and committed to the press.

If over bruised, a large quantity of the herbaceous matter will be forced out along with the juice. Hempen or woollen bags are apt to communicate a disagreeable flavour; the threads of these likewise swell in proportion as they imbibe moisture, so as in great measure to prevent the free percolation of the juice.

These liquors, when newly expressed, are generally thick, viscid, and very impure: by colature, a quantity of gross matter is separated, the juice becomes thinner, limpid, and better fitted for medicinal purposes, though as yet not entirely pure: on standing, it becomes again turbid, and apt to run into a fermentative or putrefactive state. Clarification with whites of eggs renders the juices more perfectly fine; but there are few that will bear this treatment without a manifest injury to their flavour, taste and virtue.

The most effectual method of purifying and preserving these liquors, is, to let the strained juices stand in a cool place, till they have deposited their grosser feces, and then gently pass them several times

through a fine strainer till perfectly clear; when about one fortieth part their weight of good spirit of wine may be added, and the whole suffered to stand as before: a fresh sediment will now be deposited, from which the liquor is to be poured off, strained again, and put into small bottles that have been washed with spirit and dried. A little oil is to be poured on the surface, so as very nearly to fill the bottles, and the mouths closed with leather, paper, or stopp'd with straw as the flasks in which Florence wine is brought to us: this serves to keep out dust, and suffers the air, which in process of time arises from all vegetable liquors, to escape; which air would otherwise endanger the glasses, or being imbibed afresh, render their contents vapid and foul. The bottles are to be kept on the bottom of a good cellar or vault. By this method juices may be preserved for a year or two; and some for a much longer time. Those which are not injured in their virtue by gentle evaporation, are advantageously inspissated to the consistence of a syrup, of honey, or even to that of a solid extract.

S U C C I S C O R B U T I C I.

The SCORBUTIC JUICES.

Lond.

Take of the juice of

R 2

Gar-

Garden scurvygrafs, two pints;
 Brooklime, one pint;
 Water cressés, one pint;
 Seville oranges, a pint and quarter.

Mix them together, let them stand till the feces have subsided, and then either pour the liquor off clear, or pass it through a strainer.

Edinb.

Take of

Juice of garden scurvygrafs,
 oranges, each one pint
 and a half;
 water cressés,
 brooklime, each one pint;
 Double refined sugar, ten ounces;
 Compound horse-radish water;
 half a pint.

Mix the juices with the sugar, and depurate them according to art; then add the spirituous water.

Both these compositions are of considerable use for the purposes expressed in the title: the orange juice is an excellent assistant to the scurvygrafs and other acrid ant scorbutics, which thus mixed, have been found from experience to produce much better effects than when exhibited by themselves. These juices may be taken, from two or three ounces to as much as the stomach can bear, two or three times a day: they generally increase the urinary secretions, and sometimes introduce a laxative habit. Preserved with the cautions above mentioned, they will keep good for a considerable time: though, whatever care be taken, they are found to answer better when fresh.

ROB BACCARUM SAMBUCI.
 ROB OF ELDER BERRIES.

Lond.

Let the depurated juice of elder

berries be inspissated with a gentle heat.

Edinb.

Take two quarts of the juice of ripe elder berries, and half a pound of refined sugar. Evaporate over a gentle fire, or in a water bath, to the consistence of honey.

This rob prepared with or without sugar, keeps well; and proves a medicine of considerable consequence. It is a powerful saponaceous resolvent, opens obstructions of the viscera, promotes the natural secretions, by stool, urine and sweat, and by this means does service in sundry chronic disorders. The dose is from a dram or two to an ounce or more. A spoonful, diluted with water, is usefully taken, in common colds, at bed time.

Succus prunorum silvestrium, five
 ACACIA GERMANICA.

*Juice of sloes, or
 GERMAN ACACIA.*

Edinb.

Let any quantity of the juice of unripe sloes be inspissated over a gentle fire.

This is a moderately strong astringent, similar to the Egyptian acacia, for which it is not unfrequently substituted (see page 187.) It is given in fluxes, &c. from a scruple to a dram.

GELATINA seu miva
 CYDONIORUM.

GELLY, or marmalade of
 QUINCES.

Edinb.

Take three pints of depurated quince juice, and a pound of white sugar. Boil them together, according to art.

This is an useful, cooling, restringent medicine: it is given in weak

weakness of the stomach, retchings to vomit, diarrhoeas and dysenteries, proceeding from an hot indisposition, or sharp bilious humours. The dose is from a dram to half an ounce or more, or as much as can conveniently be taken, at once or twice, upon the point of a knife.

GELATINA BERBERORUM.
GELLY OF BARBERRIES.

Edinb.

Take a pound of barberries picked clean from the stalks, and the same quantity of white sugar. Boil them with a gentle heat, to a due consistence; then pass the gelly through a flannel cloth.

GELATINA RIBESIORUM.
GELLY OF CURRANTS,

Edinb.

is prepared after the same manner. Here the trouble of expression is saved, these soft fruits freely giving out their juice, which incorporates with the sugar, in the process. Both these preparations are gratefully dulco-acid and cooling, and in this intention are occasionally made use of, for moistening the mouth and fauces in febrile or inflammatory distempers. Dissolved in water, they afford an useful diluent drink, of a saponaceous nature, which mingles with the blood or its serum when thickened (as in some kinds of fevers) where pure water runs off by the kidneys almost unchanged. By the same qualities, they prove serviceable likewise in chronic disorders proceeding from obstructions of the viscera or accompanied with immoderate heat: in bilious fluxes and putrid scurvies, their liberal and continued use has sometimes had good effects. Boerhaave great-

ly commends these kinds of preparations in the scorbutic disorders to which seafaring people are particularly subject.

ELATERIUM.

L. E.

Slit ripe wild cucumbers, and having very lightly pressed out the juice, pass it through a fine hair sieve, into a glazed earthen vessel. After standing for some hours, the thicker part will fall to the bottom, when the thinner is to be poured off, and what liquid matter is still left, separated by filtration. The remaining thick part is to be covered with a linen cloth, and exposed to the sun or other gentle heat till grown thoroughly dry.

The common method of filtration does not succeed here; for the grosser parts of the juice, falling to the bottom, sink into the paper, and prevent the more liquid from passing through. The filtration therefore must be attempted in another manner, so as to drain the liquor from the top: this may be effected by placing one end of some strips of woollen cloth, skins of cotton or the like, in the juice, and laying the other over the edge of the vessel so as to hang down lower than the surface of the liquor: thus managed, the separation of the more fluid part succeeds in perfection.

Elaterium is a strong cathartic, and oftentimes proves violently emetic. It is exhibited, in cases where medicines of the most powerful kind are necessary, from one to four or five grains; and sometimes added in smaller quantities as a stimulus to the weaker purgatives.

R 3

EX-

EXTRACTUM PLANTAGINIS.

EXTRACT of PLANTANE.

Edinb.

Take any quantity of the juice of plantane. Depurate it, either by suffering the juice to rest and then decanting off the clear liquor, or by colature, or by clarification with whites of eggs. Afterwards evaporate the juice, in *balneo marie*, to the consistence of honey.

After the same manner extracts may be made from any acid, or styptic plant.

The extract of plantane is said to be a mild astringent; and as such, has sometimes been given in the dose of a dram or two, in diarrhœas, and other disorders where medicines of that class are indicated. The present practice holds it in no great esteem.



CHAPTER V.

EXTRACTA et RESINÆ.

EXTRACTS and RESINS.

L. E.

EXTRACTS are prepared from certain vegetable substances, by the means of water; which is first boiled on the subject till sufficiently impregnated with its virtues, the decoction passed through a strainer, and set by till the feces have subsided: the liquor is then poured off clear, and evaporated to a pilular consistence; care being taken towards the end of the operation, that the matter do not burn to the vessel.

This process affords us some of the more active parts of plants, free from the useless, indissoluble, earthy matter, which makes the largest share of their bulk. There is a great difference in vegetable substances, with regard to their fitness for this operation; some yielding to it all their virtues, and others scarce any. Those parts in which the sweet, glutinous, emollient, cooling, bitter, austere, astringent virtues reside, are totally extracted by the boiling water, and remain almost entire upon evaporating it: whilst those which contain the peculiar odour, flavour, and aromatic quality, are either not extracted at all, or exhale along with the menstruum, and may be collected by another process to be spoken of hereafter. Thus gentian root, which is almost simply bitter, yields an extract possessing, in a small volume, the whole taste and virtues of the root: wormwood, which has a degree of warmth and strong

flavour joined to the bitter, loses the two first in the evaporation, and gives an extract not greatly different from the foregoing: the aromatic quality of cinnamon is dissipated by this treatment, its astringency remaining; whilst an extract made from the flowers of lavender and rosemary, discovers nothing either of the taste, smell, or virtues of the flowers.

RESINS may be prepared, nearly in the same manner, by using rectified spirit of wine instead of water.

This menstruum, besides the sweet, bitter, astringent, or purgative matter of plants, dissolves those parts in which their flavour, odour, and aromatic virtues reside; and does not readily carry them off in its exhalation; the heat sufficient to exhale pure spirit, being much less than that in which water considerably evaporates, or vegetable odours distil. Hence a resin, or rather spirituous extract, of wormwood, contains the warmth and flavour, as well as the bitterness of the herb; one made from cinnamon possesses its aromatic virtue, as well as its astringency; and one from lavender and rosemary flowers retains the flavour and virtue of the subject.

It is observable, that although rectified spirit is the proper menstruum only of the pure volatile oil, and the grosser resinous matter of vegetables, and water only of the mucilaginous and saline; yet

these principles are in almost all plants so intimately combined together, that which ever of these liquors is applied at first, it will take up a portion of whatever is directly soluble only in the other. Hence fundry vegetables, extreme-

ly resinous, and whose virtues consist chiefly in their resin, afford nevertheless very useful extracts with water, though not equal to those obtained by a prudent application of spirit.

General rules for making E X T R A C T S with water.

1. It is indifferent whether herbs are used fresh or dry; since nothing that can be preserved in this process, will be lost by drying.

2. The more compact and resinous vegetable matters, should, if possible, be used fresh; as in this state they most readily give out their virtues.

3. Very compact dry substances should be reduced into exceeding small parts, previous to the affusion of the menstruum.

4. The quantity of water ought to be no greater than is necessary for extracting the virtues of the subject. A difference herein will sometimes occasion a variation in the quality of the product: the larger the quantity of liquor, the longer fire will be requisite for evaporating it, and consequently the more of the volatile parts of the subject will be dissipated. A long continued heat likewise makes a considerable alteration in the matter which is not volatile: sweet substances by long boiling with water become nauseous; and the drastic purgatives lose their virulence; though without any remarkable separation of their parts.

5. The decoctions are to be depurated by colature; and afterwards suffered to stand for a day or two, when a considerable quantity of sediment is usually found at the bottom. If the liquor, poured off clear, be boiled down a little, and afterwards suffered to cool again, it will deposite a fresh sediment,

from which it may be decanted before you proceed to finish the evaporation. The decoctions of very resinous substances do not require this treatment, and are rather injured by it; the resin subsiding along with the feculent matter.

6. The evaporation is most conveniently performed in broad shallow vessels: the larger the surface of the liquor, the sooner will the aqueous parts exhale: this effect may likewise be promoted by agitation.

7. When the matter begins to grow thick, great care is necessary to prevent its burning. This accident, almost unavoidable if the quantity is large, and the fire applied as usual under the evaporating pan, may be effectually secured against, by carrying on the inspissation after the common manner, no farther than to the consistence of a syrup, when the matter is to be poured into shallow tin, or earthen pans, and placed in an oven, with its door open, moderately heated; which acting uniformly on every part of the liquid, will soon reduce it to any degree of consistence required. This may likewise be done in balneo marie, by setting the evaporating vessel in boiling water; but the evaporation is here exceeding slow and tedious.

8. Extracts are to be sprinkled with a little spirit of wine, to prevent their growing mouldy [L.] They should be kept in bladders moistened with sweet oil [E.]

EXTRA-

EXTRACTUM radicum
ENULÆ CAMPANÆ.
EXTRACT OF the roots of
ELECAMPANE.

Lond.

This extract retains a great share of the virtues of the root: its taste is somewhat warm, and not ungratefully bitterish. It is given, from a scruple to a dram, in a lax state of the fibres of the stomach, and some disorders of the breast.

EXTRACTUM radicum
GENTIANÆ.
EXTRACT OF the roots
GENTIAN. [L. E.]

EXTRACTUM foliorum
ABSINTHII.
EXTRACT OF the leaves
WORMWOOD. [E.]

EXTRACTUM foliorum
CENTAURII MINORIS.
EXTRACT OF the leaves of
LESSER CENTAURY. [E.]

EXTRACTUM florum
CHAMÆMELI.
EXTRACT OF CHAMÆMEL
flowers. [E.]

These extracts are almost simply bitter; the peculiar flavour of such of the subjects as have any, being dissipated in the evaporation: the chemists usually prepare the extracts of wormwood and chamæmel flowers, from the decoction which remains in the still after the distillation of their essential oils: and, provided the still has been perfectly clean, and the liquors not stood too long in it after the distillation, this piece of frugality is not to be disapproved of; since whether we catch the exhaling vapour, or suffer it to dissipate in the air, the remaining extract will be the same.

For the virtues of these preparations, see the articles BITTERS. The dose is from one scruple, or less, to three or four.

EXTRACTUM radicum
HELLEBORI NIGRI.
EXTRACTS OF the roots of
BLACK HELLEBORE.
L. E.

This extract purges with considerably less violence than the crude root; and is perhaps one of the best preparations of hellebore, when intended to act only as a cathartic. The dose is from eight or ten grains to a scruple, or more.

EXTRACTUM foliorum RUTÆ.
EXTRACT OF RUE leaves. [L.]

EXTRACTUM foliorum
SABINÆ.
EXTRACT OF the leaves of
SAVIN. [L.]

The virtues of these plants reside chiefly in their volatile parts: nevertheless the extracts contain a greater share of them than might be expected, provided they are prepared with suitable address, according to the general directions.

EXTRACTUM
GLYCYRRHIZÆ.
EXTRACT OF LIQUORICE.
L. E.

Lightly boil fresh liquorice roots in water, press the decoction through a strainer, and after the feces have subsided, evaporate it until it no longer sticks to the fingers; taking care, towards the end of the operation, to prevent an empyreuma.

It is convenient, before boiling the root, to cut it transversely into small pieces, that it may more readily give out its virtues to light coction: if the boiling is long continued,

tinued, the rich sweet taste, for which this preparation is valued, will be greatly injured. For the same reason, the quantity of water ought to be no larger than is absolutely necessary to extract the virtues of the root: a quart, or at most three pints, will be fully sufficient for a pound of liquorice. It would be of considerable advantage to the preparation, and probably (when made in quantity) less expensive to the preparer, to use instead of the decoction, juice of liquorice, pressed out betwixt iron rollers, after the manner practised abroad for obtaining the juice of the sugar cane.

Large quantities of extract of liquorice have been usually brought to us from Spain, and other foreign countries; but it is very rarely met with in the shops in perfection; the makers of this commodity both at home and abroad, being either very slovenly in its preparation, or designedly mixing it with sand, and other impurities. When made with due care, it is exceedingly sweet, not at all bitterish, or nauseous, more agreeable in taste than the root itself, of a pleasant smell, a reddish brown colour, and when drawn out into strings of a bright golden colour; totally soluble in water, without depositing any feces.

This preparation would be very convenient for many purposes in the shops, if kept in a somewhat softer consistence than that of an extract. The only inconvenience attending this soft form is, its being apt in a short time to grow mouldy: this may be effectually prevented, by the addition of a small portion of spirit of wine.

EXTRACTUM JALAPI.
EXTRACT OF JALAP.
 Lond.

Upon powdered jalap, pour some rectified spirit of wine, and with a gentle heat, extract a tincture: boil the remaining jalap in fresh parcels of water. Strain the first tincture, and draw off the spirit, till what remains begins to grow thick: boil the strained decoction also to a like thickness: then mix both the inspissated matters together, and with a gentle fire, reduce the whole to a pilular consistence.

This extract is an useful purgative, preferable to the crude root, as being of more uniform strength, and as the dose, by the rejection of the woody parts, is rendered smaller: the mean dose is twelve grains. If the spirituous tincture was inspissated by itself, it would afford a resinous mass, which occasions violent griping, and yet does not prove sufficiently cathartic; the watery decoctions yield an extract which operates exceeding weakly: both joined together, as in this preparation, compose an effectual and safe purge. This method of making extracts might be advantageously applied to sundry other resinous substances, as the dry woods, roots, barks, &c. a small quantity of spirit takes up the resin, and much less water than would otherwise be necessary extracts all the other soluble parts. Where the subject has any peculiar flavour, this is readily imbibed by the spirit, and as it does not arise with the menstruum in exhalation, is retained in the extract; whilst if water was applied at first, it is entirely dissipated.

Edinb.

Take any quantity of jalap root, very well bruised, pour upon it as much rectified spirit of wine as will cover it to the height of four fingers, and digest them together in a sand heat: pour off
this

this tincture, and put to the remaining magma a sufficient quantity of water, with a little salt of tartar: boil them together for an hour; then pass the decoction through a strainer, and afterwards evaporate it to the consistence of honey, mixing in, toward the end of the evaporation, the spirituous tincture, and keeping them continually stirring, that the whole may be reduced into an uniform mass.

Here, the spirituous tincture is added without any previous inspissation to the thickened decoction, in order that the resinous and gummy parts may be the more perfectly intermixed. With regard to the alkaline salt, half a dram, or two scruples thereof were, in former editions of the Edinburgh dispensatory, directed to be added to each ounce of every kind of extract, to keep the preparation the longer moist: it seems here principally intended to promote the action of the water as a menstruum upon the root; nevertheless, water alone is sufficiently able to extract all the medicinal parts which remain in jalap after spirit of wine has duly performed its office. It should seem not quite so convenient, if the fixt salt be thought an useful ingredient, to leave its quantity to be determined at the discretion of every compounder: since different quantities will not only alter the dose of the medicine, but vary its action more than may be at first suspected

EXTRACTUM LIGNI
CAMPECHENSIS.
EXTRACT OF LOGWOOD.

Lond.

Take of logwood, reduced to powder, one pound. Boil it in a gallon of water till half the liquor is consumed, repeating the coction with fresh water four

times, or oftner: the several decoctions are to be mixed together, passed through a strainer, and evaporated to a due consistence.

This wood very difficultly yields its virtue to watery menstrua, and hence the reducing it into fine powder is extremely necessary. The Edinburgh dispensatory directs spirit of wine to be called in aid, as in the foregoing preparation. The extract of logwood has been used for a considerable time in some of our hospitals, but is now first received into the pharmacopœia. It has an agreeable sweet taste, with some degree of astringency; and hence becomes serviceable in diarrhœas, for blunting the acrimony of the juices, and moderately constringing the intestines and orifices of the smaller vessels: it may be given from a scruple to half a dram, and repeated five or six times a day to advantage. During the use of this medicine, the stools are frequently tinged red by it, which has occasioned some to be alarmed, as if the colour proceeded from blood: the prescriber therefore ought to caution the patient against any surprize of this kind.

EXTRACTUM CORTICIS
PERUVIANI
molle et durum.

EXTRACT OF PERUVIAN
BARK,

soft and hard.

Lond.

Boil a pound of powdered bark in five or six quarts of water, for an hour or two, and pour off the liquor, which whilst hot will be red and transparent, but on growing cold becomes yellow and turbid. The remaining bark is to be boiled again in the same quantity of water as before, and this process repeated till the liquor

quor remains transparent when cold. All the decoctions, strained and mixed together, are to be evaporated over a very gentle fire to a due consistence, care being taking to prevent the matter from burning.

This extract is directed to be kept in the shops, both in a soft and a hard form; the first of a proper consistence for making into pills: the other fit for being reduced into powder.

Peruvian bark is a very resinous drug: the resin melts out by the heat, but is not perfectly dissolved by the water; hence, in cooling, it separates, renders the liquor turbid, and in part falls to the bottom, as appears manifestly upon examining the sediment by spirit of wine (see the account of this article in page 180. This extract might be made to better advantage by the assistance of spirit of wine, after the same manner as that of jalap; and this method the Edinburgh college have directed. But, as the committee observe, all the spirits which can be expected to be employed for this process among us, are accompanied with some degree of a bad flavour: this adheres most strongly to the phlegmatic part of the spirit, which evaporating last, must communicate this ill flavour to the extract; a circumstance of very great consequence; as this medicine is designed for such whose stomachs are too weak to bear a due quantity of bark in substance. Ten or twelve grains of the hard extract are reckoned equivalent to about half a dram of the bark itself.

EXTRACTUM ligni GUAIACI,
molle et durum.

EXTRACT OF GUAJACUM

wood,
soft and hard.
 Lond.

Boil a pound of shavings of guaiacum in a gallon of water, till half the liquor is wasted, repeating the operation four times, or oftner, with the same quantities of fresh water. The several decoctions, passed thro' a strainer, are to be mixed and inspissated together; when the aqueous parts are almost entirely exhaled, a little rectified spirit of wine is to be added, that the whole may be reduced into an uniform and tenacious mass. This extract is to be prepared, as the foregoing, in a soft and hard form.

Here the resinous part of the wood which were boiled out with the water, are apt to separate towards the end of the inspissation: hence an addition of spirit becomes necessary, to keep them united with the rest of the matter. The extract agrees in virtue with the wood, see page 135.

EXTRACTUM CATHARTICUM.

CATHARTIC EXTRACT.

Lond.

Take of

Socotorine aloes, an ounce and an half;

Colocynth, six drams;

Scammony, half an ounce;

Lesser cardamoms, husked, half an ounce;

Proof spirit, one pint.

Having cut the colocynth small, and bruised the seeds, pour on them the vinous spirit, and digest with a gentle heat for four days. Press out the tincture, and dissolve therein the aloes and scammony, first separately reduced to powder: then draw off the spirit, and inspissate the remaining mass to a pilular consistence.

The title of this medicine expresses

presses its virtue. It is a very powerful cathartic, and relied on in cases where the life of the patient depends on its taking effect: the dose is from fifteen grains to two scruples. It does not retain so much of the flavour of the cardamom seeds as might be expected.

In the Edinburgh pharmacopœia, this extract is directed as follows, under the name of

PILULÆ, seu EXTRACTUM, RUDII.

The PILLS or EXTRACT of RUDIUS.

Take of

Black hellebore roots,
Colocynth,
Socotorine aloes, each two ounces;
Scammony, one ounce;
Vitriolated tartar, two drams;
Distilled oil of cloves, one dram.
Bruise the colocynth and hellebore, pour on them two quarts of water, and boil to the consumption of half the liquor: pass the decoction through a strainer, and evaporate it to the consistence of honey; then add the aloes and scammony, reduced into fine powder: when the mass is taken from the fire, mix into it the vitriolated tartar, and distilled oil.

GUMMI et RESINA ALOES.
GUM and RESIN OF ALOES.

Lond.

Boil four ounces of socotorine aloes in two pints of water, till as much as possible of the aloes is dissolved. The solution suffered to rest for a night, will deposit the resin to the bottom of the vessel: after which, the remaining liquor, strained, if needful, is to be evaporated, that the gum may be left.

The gum of aloes is somewhat less purgative, and considerably

less disagreeable than the crude juice. This alteration is not owing, as might be supposed, to the separation of the resin; for the pure resin of aloes is still less disagreeable, and less purgative, even than the gum; some have denied that it has any purgative virtue at all, and others ascribe to it an astringent quality. I have exhibited this resin, divided by trituration with the testaceous powders, in the dose of a scruple, without observing any effect from it (see page 74.) The gum seems to be the only part here intended for medicinal use: if the resin is required, it ought to be farther purified by solution in spirit of wine: for as it is obtained by precipitation from an aqueous solution of impure aloes, all the impurities of the drug, that are not soluble in water, will precipitate along with it.

RESINA JALAPPÆ.

RESIN OF JALAP.

Edinb.

Take any quantity of jalap root, very well bruised; pour upon it as much rectified spirit of wine as will cover the root to the height of four fingers, and digest them together in a sand heat, till a tincture is extracted.

Filter this tincture through paper, put it into a glass cucurbit, and distil off one half of the spirit: pour on the residuum a sufficient quantity of water; the resin will be precipitated to the bottom; which is afterwards to be dried for use, with a very gentle heat.

After the same manner are prepared

RESINA GUAIACI.

RESIN OF GUALACUM. [E.]

RESINA CORTICIS PERUVIANI.

RESIN OF PERUVIAN BARK.

Edinb.

RESINA

RESINA SCAMMONII.

RESIN OF SCAMMONY, &c.

Edinb.

All these are pure resins, such gummy parts as the spirit might have taken up, remaining suspended in the liquor after the addition of the water, whilst the resin precipitates. This indissolubility in aqueous fluids, and their tenacious quality by which they adhere to the coats of the intestines, occasion gripes, and other inconveniencies; forbids exhibiting them by themselves: they may be fitted for use by triturating them with testaceous powder, or with almonds, into the form of an emulsion, or by dissolving them in spirit of wine, and mixing the solution with a proper quantity of syrup. Six or eight grains of the resins of jalap, or scammony, managed in this manner, prove powerfully cathartic, without griping, or greatly disordering the body.

In the former editions of this work, it is said, that resin of jalap is frequently adulterated with common resin; and that this abuse may

be discovered by spirit of wine, which dissolves the former, without touching the latter. This criterion, however, is not to be relied on; for there are many cheap resins which are soluble in spirit of wine, as well as that of jalap; and there is not any one which may not be artfully rendered so.

Edinb.

The resin of guaiacum may be more commodiously made from gum guaiacum, than from the wood.

Gum guaiacum, as it is called, is very impure, and contains, besides it's resin, a large quantity of mucilaginous and earthy matter: this method of purifying it therefore is very necessary. The resin extracted from the wood and from the gum, are in quality the same: sixteen ounces of the wood yield about three of resin, more or less according to the goodness of the wood: the same quantity of the gum, commonly met with, nine or ten; and the best not above twelve. The bark is somewhat less resinous than the wood.

CHAP-

CHAPTER VI.

OLEA per EXPRESSIONEM.

OILS by EXPRESSION.

THESSE oils are obtained from certain seeds and kernels of fruits, by pounding them in a stone mortar, and then including them in a canvas bag, which is wrapt in a hair cloth, and committed to the press not heated.

The canvas, if employed alone, would be squeezed so close to the plates of the press as to prevent the oil from running down: by the interposition of the hair bag, a free passage is allowed it.

The expression of the oil is greatly facilitated by heat: hence those who prepare these oils for mechanical uses, heat the plates of the press considerably. For medicinal purposes, this is by no means allowable; as the oil becomes less soft and palatable, and subject to grow rancid.

Nor must the oils be kept in a warm place after the expression. Exposed but for a few days to a heat no greater than that of the human body, they lose their emollient quality, become extremely rancid and acrimonious; and in this state, instead of softening and relaxing, irritate and inflame.

So much are these oils disposed to this disagreeable alteration, that they frequently contract an acrimony before their expression from the subject: hence the unctuous seeds and kernels are often met with very rancid. This observation affords an useful caution, to be very careful in the choice of

these substances: almonds are particularly liable to inconveniences of this kind.

OLEUM AMYGDALINUM.
OIL OF ALMONDS.

L. E.

This is prepared from the sweet and bitter almonds indifferently; the oils obtained from both sorts being altogether the same.

OLEUM JUGLANDIUM.

OIL OF WALNUTS. [E.]

OLEUM SEMINUM LINI.

OIL OF LINSEED. [L. E.]

OLEUM SEMINUM SINAPI.

OIL OF MUSTARD SEED. [L. E.]

These oils have nothing of the peculiar taste or flavour of the subjects from which they are obtained: the oil of mustard seed is as soft, insipid and void of pungency as that of sweet almonds, the pungency of the mustard remaining entire in the cake left after the expression. When in perfection, they are all very nearly of the same quality, and agree in one common emollient virtue. They soften and relax the solids, and obtund acrimonious humours: and thus become serviceable, internally, in pains, inflammations, heat of urine, hoarseness, coughs, &c. in glysters, for lubricating the intestines, and promoting the ejection of indurated feces; and in external applications for tension and rigidity of particular parts. They are given inwardly, from half an ounce to three ounces or more.

CHAP-

CHAPTER VII.

OLEA per DISTILLATIONEM.

OILS by DISTILLATION.

THE oils obtainable by distillation from vegetable matters are divided into two classes. The first comprehends such oils as possess the smell, and sometimes the taste, of the subject from which they were drawn: these are called essential. The second takes in those which bear little or no resemblance to the original vegetable, being so altered

by the process for obtaining them, that they all appear to the senses nearly similar, agreeing in one common burnt smell or taste; whence they are named empyreumatic. The essential oils are obtainable only from a few, the empyreumatic from every kind of vegetable matter.

Class I.

OLEA ESSENTIALIA.

ESSENTIAL OILS.

Essential oils are drawn by distillation in an alembic, with a large refrigeratory. A quantity of water is added to the subject, sufficient to prevent its burning; and in this water, it is likewise macerated a little time before the distillation. The oil comes over along with the water; and either swims on its surface, or sinks to the bottom, according as it is lighter or heavier than that fluid. [L.]

All vegetables, as we have observed above, are not proper for this kind of distillation; some, which if we were to reason from analogy should seem very well fitted for this process, yielding extremely little oil, and others none at all. Roses and chamæmel flowers, whose strong and lasting smell promises abundance, are found up-

on experiment to contain but a small quantity: the violet and jasmine flower, which perfume the air with their odour, lose their smell upon the gentlest coction, and do not afford the least perceptible mark of oil upon being distilled: whilst safin, whose disagreeable scent extends to no great distance, gives out the largest quantity of almost any vegetable substance known.

Nor are the same plants equally fit for this operation when produced in different soils or seasons; or at different times of their growth. Some yield thrice as much oil if gathered when the flowers begin to fall off as at any other time; lavender and rue for instance. Others, as sage, afford the largest quantity when young, before they have

have sent forth any flowers: and others, as thyme, when the flowers have just appeared. All fragrant herbs yield a larger proportion of oil when produced in dry soils and warm summers, than in the opposite circumstances. On the other hand, some of the disagreeable strong-scented ones, as wormwood, are said to contain most, in rainy seasons and moist rich grounds.

It has been observed, that herbs and flowers give out a considerably larger quantity of oil after they have been exposed for some time to the action of a dry air in a shady place, than if committed immediately either to maceration or distillation. The drying however must not be too long continued, otherwise the oil will receive a disagreeable alteration in colour and smell, and likewise a diminution in quantity.

With regard to the proportion of water, if whole plants moderately dried, are used, or the shavings of woods; as much of either may be put into the vessel, as, lightly pressed, will occupy half its cavity; and as much water may be added, as will arise up to two thirds its height. The water and ingredients all together, should never take up more than three fourths of the still; there should be liquor enough to prevent any danger of an empyreuma, but not so much as to be too apt to boil over into the receiver.

The maceration should be continued so long, as that the water may fully penetrate the pores of the subject. To promote this effect, woods should be thinly shaved across the grain, roots cut transversely into thin slices, barks reduced into coarse powder, and seeds lightly bruised. Very compact and tenacious substances re-

quire the maceration to be continued a week or two, or longer; for those of a softer and looser texture, two or three days are sufficient; whilst some tender herbs and flowers stand not in need of any at all, or are even injured by it.

Where the maceration is long continued, some sea salt, nitre, or fixt acid liquors (that is, such as will not arise along with the oil by the heat employed in the distillation) are generally directed to be added, in order to prevent putrefaction, which the subjects would otherwise be apt to run into. In the notes on the Edinburgh pharmacopœia, these additions are disapproved of; and the college of London has rejected them. They are certainly rather of disservice than any real use. The resolution here aimed at approaches near to a beginning putrefaction; and saline substances, by retarding this, prolong the maceration far beyond the time that would otherwise be necessary. It is in the power of the operator (as the above mentioned author observes) when he perceives the process coming near this pitch, to put a stop to it at pleasure, by proceeding immediately to distillation: by this means, the whole affair will be finished in a very little time, with at least equal advantage in every other respect; provided the manual operations of pounding, rasping, and the like, which are equally necessary in either case, be scientifically complied with.

Bodies of a very viscous and compact texture are directed in the Edinburgh pharmacopœia, to be fermented for some days with a little yeast: half their quantity of water is sufficient for performing the fermentation; so much more as is necessary, is to be added afterwards, before the distillation. This process promotes the resolution of the subject, and the extraction of

the oil; it rarely happens, however, that assistances of this kind are needful. Particular care must be had not to continue the fermentation too long; or to give a bad flavour to the oil by an ill-chosen ferment, or using too large a quantity of any.

Some chemists pretend, that by the addition of salts and acid spirits, they have been enabled to gain more oil from certain vegetable matters, than can possibly be got from them without such assistance. Experiments made on purpose to settle this point seem to prove the contrary: this at least is constantly found to be true, that where there is any reason to think they yield greater than usual, the quality of the oil is proportionably injured. The quantity of true essential oil in vegetables can by no means be increased; and what is really contained in them may be easily separated without any addition of this kind. All that saline matters can do in this respect, is, to extricate a gross unctuous substance: which arising towards the end of the distillation, mingles with the pure oil, and thus increases the quantity, but at the same time debases its quality. And indeed, when water alone is made use of, the oil which comes over about the end of the operation is remarkably less fragrant, and of a thicker consistence, than that which arises at the beginning; distilled a second time, with a gentle heat, it leaves a large quantity of gross resinous matter behind.

The choice of proper instruments is of great consequence to the performance of this process to advantage. The lighter oils readily pass over the swan neck of the head of the common still; but it turns out otherwise with the more ponderous. For obtaining these, we would re-

commend a large low-head, having a rim or hollow canal round it: in this, the oil is detained on its first ascent (and thence conveyed into the receiver) the advantages of which are sufficiently obvious.

With regard to the fire, the operator ought to be expeditious in raising it at first, and to keep it up during the whole process, of such a degree that the oil may freely distil; otherwise the oil will be exposed to an unnecessary heat, a circumstance which ought as much as possible to be avoided. Fire communicates to all these oils a disagreeable impression, as is evident from their being much less grateful when newly distilled, than after they have stood for some time in a cool place: the longer the heat is continued, the greater alteration it will make in them; the more of the oil will likewise be thus united with the water, and consequently the produce defrauded of its due account.

The water indeed always takes up some portion of the oil, as is evident from the smell, taste, and colour which it acquires. It cannot however retain above a certain quantity; and therefore, such as has been already used and almost saturated itself, may be advantageously employed, instead of common water, in a second, third, or any future distillation of the same subject. Some late chemical writers recommend the water which remains in the still to be used a second time; but this should seem less proper, as being saturated only with such parts of the vegetable as are not capable of arising in distillation, and which serve only to impede the action of the water as a menstruum, and to endanger an empyreuma.

After the distillation of one oil, particular care should be had to
duly

duly cleanse the worm before it is employed in the distillation of a different plant. Some oils, those of wormwood and aniseeds for instance, adhere to it so tenaciously, as not to be melted out by heat, or washed off by water: the best way of cleansing the worm from these, is to run a little spirit of wine through it.

Essential oils, after they are distilled, should be suffered to stand for some days, in vessels loosely covered with paper, till they have lost their disagreeable fiery odour, and become limpid: then put them up in small bottles, which are to be kept quite full, closely stopt, in a cool place: with these cautions, they will retain their virtues in perfection for many years. Nevertheless, in process of time, they gradually lose their flavour, and become gross and thick. Some endeavour to recover them again after they have undergone this change, by grinding them with about thrice their weight of common salt, then adding a large proportion of water and distilling them afresh: the purer part arises thin and limpid, possessing a great degree of the pristine smell and taste of the oil, though inferior in both respects to what the oil was at first. This rectification, as it is called, succeeds equally without the salt: the oils when thus altered, are nearly in the same state with the turpentine, and other thickened oily juices, which readily yield their purer oil in distillation with water alone.

Essential oils, considered as medicines, possess the general qualities of pungency and heat; and in cold phlegmatic habits, prove effectual and speedy cordials; almost instantly diffusing a grateful warmth through the whole habit; strengthening and constringing the

fibres, and stimulating them to stronger and more frequent contractions: the pulse is raised, the circulation quickened, the juices attenuated and rendered more fluid; a mild diaphoresis generally ensues, or an increase of the more sensible secretions. Hence, in laxity and weakness of the vessels, in a sluggish inactive state of the juices and languid circulation, in deficiencies of the natural evacuations or immoderate discharges proceeding from these causes, in great depressions, complaints of cold in particular parts, flatulencies, gripes, &c. these generous, invigorating, warm medicines are eminently serviceable. The qualities, by which in these cases they produce the happiest effects, render them equally prejudicial in the opposite circumstances, in bilious temperaments, in great tenacity and rigidity of the solids, in all hot, inflammatory, or febrile indispositions; which are always aggravated and sometimes occasioned by them.

Some of these oils are accompanied with an unpleasent flavour: these are principally exhibited in hysteric cases, and as anthelmintics, or for other like purposes. Some are extremely grateful, so as to be frequently employed for reconciling to the stomach medicines of themselves disgustful. Others are highly odoriferous, insomuch as to be in common use as perfumes.

It has been customary to employ these oils as correctors for the resinous purgatives; an use which they do not seem well adapted to. All the service they can here be of, is, to make the resin sit easier at first on the stomach: far from abating the irritating quality upon which the virulence of its operation depends, these pungent oils superadd a fresh stimulus. See the article cathartics, page 64.

Essential oils are never given alone, on account of their extreme heat and pungency; which in some is so great, that a single drop, let fall upon the tongue, produces a gangrenous eschar. They are readily imbibed by pure dry sugar, and in this form may be conveniently exhibited. Ground with eight or ten times their weight of the sugar, they become soluble in aqueous liquors, and thus may be diluted to any assigned degree. They dissolve likewise in spirit of wine; the more fragrant in an equal weight, and almost all of them in less than four times their own quantity: these solutions may be either taken on sugar, or mixed with syrups, or the like; with water, the oil separates.

These oils are likewise employed externally against paralytic complaints, numbness, pains and aches, cold tumours, and in other cases where particular parts require to be heated or stimulated. The tooth-ach is sometimes relieved by a drop of the more pungent ones, received on cotton, and put into the hollow tooth.

OLEUM ABSINTHII
ESSENTIALE.
ESSENTIAL OIL of the leaves
OF WORMWOOD.
L. E.

This is one of the more ungrateful oils: it smells strong of the wormwood; and contains the whole of its nauseous taste, but little or nothing of its bitterness, this remaining entire in the decoction left after the distillation: its colour, when drawn from the fresh herb, is a dark green; from the dry, a brownish yellow. This oil is recommended by Hoffman as a mild anodyne, in spasmodic contractions: for this purpose, he directs a dram of it to be dissolved in an ounce of

rectified spirit of wine, and seven or eight drops of the mixture taken for a dose in any convenient vehicle. Boerhaave greatly commends in tertian fevers, a medicated liquor composed of about seven grains of the oil ground first with a dram of sugar, then with two drams of the salt of wormwood, and afterwards dissolved in six ounces of the distilled water of the same plant: two hours before the fit is expected, the patient is to bathe his feet and legs in warm water, and then to drink two ounces of the liquor every quarter of an hour till the two hours are expired: by this means, he says, all cases of this kind are generally cured with ease and safety, provided there is no scirrhoty or suppuration. With us, the oil of wormwood is employed chiefly as a vermifuge, and for this purpose is both applied externally to the belly, and taken internally: it is most conveniently exhibited in the form of pills, which it may be reduced into by mixing it with crumb of bread.

OLEUM SEMINUM ANETHI
ESSENTIALE.
ESSENTIAL OIL OF DILL
SEEDS.
L. E.

This is a very warm oil, of a flavour not very agreeable, resembling that of the seeds. It is sometimes exhibited as a carminative, in flatulencies, colicky pains, hiccups and the like, from one to three or four drops.

OLEUM SEMINUM ANISI
ESSENTIALE.
ESSENTIAL OIL OF
ANISEEDS.
L. E.

This oil possesses the taste and smell of the aniseeds in perfection. It is one of the mildest of the distilled

stilled oils: twenty drops may be taken for a dose, though common practice rarely goes to far as half this number. Its smell is extremely durable and diffusive: milk drawn from the breast after taking it, is found impregnated with its odour; and possibly, this may be, in part, the foundation of the pectoral virtues usually ascribed to it: in flatulencies and colics, it is said by some to be less effectual than the feeds themselves.

It is remarkable of this oil that it congeals, even when the air is not sensibly cold, into a butyraceous consistence: and hence in the distillation of it, the operator ought not to be over solicitous in keeping the water in the refrigeratory too cool: it behoves him rather to let it grow somewhat hot, particularly towards the end of the process; otherwise the oil, congealing, may so stop up the worm as to endanger blowing off the head of the still, at least a considerable quantity of oil will remain in it.

OLEUM SEMINUM CARUI
ESSENTIALE.
ESSENTIAL OIL OF CARAWAY
SEEDS.

L. E.

The flavour of this exactly resembles that of the caraway. It is a very hot and pungent oil; a single drop is a moderate dose, and five or six a very large one. It is not unfrequently made use of as a carminative; and supposed by some to be peculiarly serviceable for promoting urine, to which it communicates some degree of its smell.

OLEUM CARYOPHYLLO-
RUM AROMATICORUM
ESSENTIALE.
ESSENTIAL OIL OF CLOVES.

L. E.

Oil of cloves is usually described as being "in taste excessively hot

"and fiery, and of a gold yellow colour." (*Boerb. process. 27.*)

Such indeed is the composition which we receive under this name from Holland: but the genuine oil of cloves is one of the milder oils, and may be taken with great safety (duly diluted) to the quantity of eight or ten drops or more: nor is its colour at all yellow, unless it has been long and carelessly kept, or distilled by too violent a fire; when in perfection, it is limpid and colourless, of a pleasant, moderately warm and pungent taste, and a very agreeable smell, much resembling that of the spice itself. The Dutch oil of cloves contains a large quantity of expressed oil, as evidently appears upon examining it by distillation. This however cannot be the addition to which it owes its acrimony: a small proportion of a resinous extract of cloves communicates to a large one of oil a deep colour, and a great degree of acrimony.

OLEUM FLORUM CHAMÆ-
MELI ESSENTIALE.
ESSENTIAL OIL OF CHAMÆ-
MEL FLOWERS.

L. E.

This is a very pungent oil, of a strong not ungrateful smell, resembling that of the flowers: its colour is yellow, with a cast of greenish or brown. It is sometimes given in the dose of a few drops, as a carminative, in hysteric disorders, and likewise as a vermifuge: it may be conveniently made into pills with crumbs of bread.

The oil above described is that obtained from the common garden chamæmel, which is the only sort directed in our dispensatories (see the foregoing part, page 113.) There is another species, more frequent in corn fields than in our gardens, (*chamæmelum vulgare*
S 3 Ger-

Ger. Raii synops. ed. iii. 288.) which yields a beautiful blue oil: this colour, if the oil is carefully kept, remains for many years; but if the air is not perfectly excluded, soon degenerates into a yellow like that of the foregoing.

OLEUM CINNAMOMI.
OIL OF CINNAMON.

L. E.

This valuable oil is extremely hot and pungent, of a most agreeable flavour like that of the cinnamon itself. In cold languid cases, and debilities of the nervous system, it is one of the most immediate cordials and restoratives. The dose is one, two, or three drops: which must always be carefully diluted, by the mediation of sugar, &c.

OLEUM SEMINUM CYMINI
ESSENTIALE.
ESSENTIAL OIL OF CUMMIN
SEEDS.

L. E.

This is one of the warmer and less pleasant oils. It is employed chiefly in cold, flatulent, hysterical complaints, in doses of two or three drops. It gives its smell strong to the urine, and is supposed peculiarly serviceable for promoting its discharge.

OLEUM SEMINUM FENICULI
ESSENTIALE.
ESSENTIAL OIL OF FENNEL
SEEDS.

Edinb.

The oil obtained from sweet fennel seeds is much more elegant and agreeable than that of the common fennel (see page 130.) It is one of the mildest of these preparations: it is nearly of the same degree of warmth with that of aniseeds; to which it is likewise similar in flavour, though far more grateful. It

is given, from two or three drops to ten or twelve, as a carminative, in cold indispositions of the stomach; and in some kinds of coughs, for promoting expectoration.

OLEUM foliorum HYSSOPI
ESSENTIALE.
ESSENTIAL OIL OF HYSSOP
leaves.
Edinb.

The oil of hyssop is moderately acrid, of a strong not very agreeable smell, exactly resembling the original herb: its colour is yellowish, with a slight cast of green; which in keeping changes to a brownish. It is commended in humoral asthma, for promoting expectoration, &c. from one to two or three drops; but is rarely made use of, and not often kept in the shops.

OLEUM baccarum JUNIPERI
ESSENTIALE.
ESSENTIAL OIL OF JUNIPER
berries.
L. E.

This oil is a very warm and pungent one, of a strong flavour, not unlike that of the berries. In the dose of a drop or two, it proves a serviceable carminative and stomachic: in one of six, eight or more, a stimulating, detergent, diuretic and emmenagogue: it seems to have somewhat of the nature of the turpentine or their distilled oil; like which it communicates a violet smell to the urine.

The oil of these berries resides partly in vesicles spread through the substance of the fruit, and partly in little cells contained in the seeds; when the berry is dry, and the oil hardened into a resinous substance, it becomes visible, upon breaking the seeds, in form of little transparent drops. In order therefore to obtain this oil to advantage, we ought, previous to the distillation,

to

to bruise the berry throughly; so as to break the seeds, and entirely lay open the oily receptacles.

OLEUM florum LAVENDULÆ
ESSENTIALE:
ESSENTIAL OIL OF LAVENDER
flowers.
L. E.

This oil, when in perfection, is very limpid, of a pleasant yellowish colour, extremely fragrant, possessing in an eminent degree the peculiar smell generally admired in the flowers. It is a medicine of great use, both externally and internally, in paralytic and lethargic complaints, rheumatic pains, and debilities of the nervous system. The dose is from one drop to five or six.

Lavender flowers yield the most fragrant oil, and in considerably the largest quantity, when they are ready to fall off spontaneously and the seeds begin to shew themselves: the leaves give out extremely little. The flowers may be separated from the rest of the plant, by drying it a little, and then gently beating it: they should be immediately committed to distillation, and the process conducted with a well regulated gentle heat: too great heat would not only change the colour of the oil, but likewise make a disagreeable alteration in its smell.

OLEUM baccarum LAURI
ESSENTIALE.
ESSENTIAL OIL OF
BAYBERRIES.
Edinb.

The oil of bay berries is thin and limpid, moderately pungent, of a strong and tolerably grateful smell. It is given in flatulent colics, hysterical complaints, and for allaying the pains consequent upon delivery; the dose, from two drops to five

or six. It is likewise made an ingredient in carminative clysters; and in some hysterical cases, applied externally.

ESSENTIA LIMONUM,
Lond.
Oleum stillatitium corticum
limonum,
Edinb.

ESSENCE OF LEMONS, or the
essential oil of lemon peel.

This is a pleasant oil, of a fine smell, very near as agreeable as that of the fresh peel: it is one of the lightest essential oils we have, perfectly limpid, and almost colourless. It is taken in doses of two or three drops, as a cordial, in weakness of the stomach, &c. though more frequently used as a perfume. It gives a fine flavour to the sal volatile; and renders the soap pills very agreeable to the stomach.

OLEUM MACIS
STILLATITIUM.
ESSENTIAL OIL OF MACE:
Edinb.

The essential oil of mace is moderately pungent, very subtle and volatile, of a strong aromatic smell, like that of the spice itself: it is thin and limpid, of a pale yellowish colour, with a portion of thicker and darker coloured oil at the bottom. This oil is celebrated in vomiting, hiccups, colicky pains, &c. both given internally from one to four drops, and applied externally to the stomach and umbilical region. It is however but rarely made use of, and not often met with in the shops.

OLEUM MAJORANÆ
ESSENTIALE.
ESSENTIAL OIL OF MARJORAM leaves.
L. E.

This oil is very hot and penetrating,

trating, in flavour not near so agreeable as the marjoram itself; when in perfection, it is of a pale yellow colour; by long keeping, it turns reddish: if distilled with too great a heat, it arises of this colour at first. It is supposed to be peculiarly serviceable in obstructions and mucous discharges of the uterus from a cold cause: the dose is one or two drops.

OLEUM MENTHÆ
ESSENTIALE.

ESSENTIAL OIL OF the leaves of
COMMON MINT.

L. E.

This oil smells and tastes strong of the mint, but is in both respects somewhat less agreeable. It is an useful stomachic medicine; and not infrequently exhibited in want of appetite, weakness of the stomach, retchings to vomit, and other like disorders when not accompanied with heat or inflammation; two or three drops or more are given for a dose. It is likewise employed externally for the same purposes; and is an excellent ingredient in the stomachic plaster of the shops.

OLEUM MENTHÆ PIPERITIDIS ESSENTIALE.

ESSENTIAL OIL OF the leaves of
PEPPER MINT.

Lond.

This possesses the smell, taste and virtues of the pepper mint in perfection; the colour is a pale greenish yellow. It is a medicine of great pungency and subtility; and diffuses, almost as soon as taken, a glowing warmth through the whole system. In colics accompanied with great coldness, and in some hysseric complaints, it is of excellent service. A drop or two are in general a sufficient dose.

OLEUM NUCIS MOSCHATÆ
ESSENTIALE.

ESSENTIAL OIL OF NUTMEGS.
L. E.

The essential oil of nutmegs possesses the flavour and aromatic virtues of the spice in an eminent degree. It is similar in quality to the oil of mace, but somewhat less grateful to the stomach.

OLEUM ORIGANI
ESSENTIALE.

ESSENTIAL OIL OF the leaves of
ORIGANUM.

L. E.

This oil has a very pungent acrimonious taste, and a penetrating smell. It has been chiefly employed externally as an erethic, and for easing pains of the teeth.

OLEUM PULEGII
ESSENTIALE.

ESSENTIAL OIL OF the leaves of
PENNYROYAL.

L. E.

This oil in smell and taste, resembles the original plant; the virtues of which it likewise possesses. It is given, in hysseric cases, from one to four or five drops.

OLEUM RORISMARINI
ESSENTIALE.

ESSENTIAL OIL OF ROSEMARY
leaves.

L. E.

The oil of rosemary, when in perfection, is very light and thin, pale and almost colourless; of great fragranciness, though not quite so agreeable as the rosemary itself. It is recommended, in the dose of a few drops, in nervous and hysseric complaints. Boerhaave holds it in great esteem against epilepsies, and suppressions of the uterine purgations, occasioned by weakness and inactivity.

OLEUM

OLEUM LIGNI RHODII
ESSENTIALE.
ESSENTIAL OIL OF RHODIUM
wood.
 Lond.

This oil is extremely odoriferous, and principally employed as a perfume, in scenting pomatums and the like. Custom has not as yet received any preparation of this elegant aromatic wood into internal use.

OLEUM RUTÆ ESSENTIALE.
ESSENTIAL OIL of the leaves
OF RUE.
 L. E.

The oil of rue has a very acrid taste, and a penetrating smell resembling that of the herb, but rather more unpleasent. It is sometimes made use of in hysterical disorders, and as an anthelmintic; as also in epilepsies proceeding from a relaxed state of the nerves.

Rue yields its oil very sparingly. The largest quantity is obtained from it when the flowers are ready to fall off, and the seeds begin to shew themselves: suitable maceration, previous to the distillation, is here extremely necessary.

OLEUM SABINÆ
ESSENTIALE.
ESSENTIAL OIL OF SAVIN
leaves.
 L. E.

Savin is one of the plants which the Edinburgh pharmacopœia directs to be lightly fermented before the distillation: this, however, is not very necessary: for savin yields, without any fermentation, and even without much maceration, a large quantity of oil: the foregoing herb stands more in need of a treatment of this kind. The oil of savin is a celebrated uterine and emmenagogue: in cold phlegmatic habits, it is undoubtedly a medicine of

good service, though not capable of performing what it has been usually represented to do. The dose is two or three drops or more.

OLEUM SASSAFRAS
ESSENTIALE.
ESSENTIAL OIL OF
SASSAFRAS.
 L. E.

This is the most ponderous of all the known essential oils: it appears limpid as water, has a moderately pungent taste, a very fragrant smell exactly resembling that of the saffras. It stands greatly commended as a sudorific, and for purifying the blood and juices: it is likewise supposed to be of service in humoral asthmas and coughs. The dose is from one drop to eight or ten; though Geoffroy goes as far as twenty.

OLEUM TEREBINTHINÆ.
OIL OF TURPENTINE.
 Lond.

This is distilled in the same manner as the foregoing oils; and is strictly an essential one, though not usually ranked in this class: it is commonly, but improperly as the college observe, called spirit of turpentine. This oil is a very hot stimulating medicine (see page 218.) It is sometimes exhibited as a sudorific and diuretic, in the dose of two or three drops: in larger doses, it is apt to greatly heat the body, occasion pain of the head, an effusion of the semen and liquor of the prostate glands. It has nevertheless been of late taken in considerable doses (along with honey or other convenient vehicles) against the sciatica; and, as is said, with good success. Some have recommended it against venereal runnings; but here it has produced mischievous consequences, inflaming the parts and aggravating the dis-

disorder. Externally, it is not unfrequently employed against rheumatic pains, aches, sprains, for diffusing cold tumours, and restraining hæmorrhagies.

After the distillation of the turpentine, there remains in the still a brittle resinous substance, of a yellow colour, called *refina flava*, yellow resin. [L.]

The only use of this is in external applications, for giving consistence to plasters, and the like purposes.

Most of the foregoing oils are drawn by our chemists, and easily procurable in a tolerable degree of perfection; those of cinnamon, cloves, nutmegs and mace excepted. These are usually imported from abroad; and are for the most part so much adulterated, that it is difficult to meet with such as are at all fit for use.

Nor are the adulterations of these kinds of preparations easily discoverable. The grosser abuses indeed may be readily detected: thus if the oil is mixed with spirit of wine, it will turn milky on the addition of water; if with expressed oils, rectified spirit will dissolve the essential and leave the other behind: if with oil of turpentine, on dipping a piece of paper in the mixture, and drying it with a gentle heat, the turpentine will be betrayed by its smell. But the more subtle artists have contrived other methods of sophistication which elude all trials of this kind.

Some have looked upon the specific gravity of oils as a certain criterion of their genuineness; and ac-

cordingly we have given a table of the gravity of several in page 6. This however is not to be absolutely depended on; for the genuine oils, obtained from the same subject, oftentimes differ in gravity as much as those drawn from different ones. Cinnamon and cloves, whose oils usually sink in water, yield, if slowly and warily distilled, an oil of great fragrancy, which is nevertheless specifically lighter than the aqueous fluid employed in the distillation of it; whilst on the other hand, the last runnings of some of the lighter oils prove sometimes so ponderous as to sink in water.

The commentator on the last edition of the Edinburgh pharmacopœia, recommends diluting the suspected oil with a large quantity of rectified spirit, and then to examine it by the taste and smell, comparing it with some of known goodness. By this means we may not only distinguish whether the oil is mixed with any other; but a judgment may likewise be formed of its degree of goodness when unmixed.

The same author recommends an oil drawn from pimento, as a cheap substitute to those of some of the dearer spices: the flavour of this oil is more agreeable than that of cloves, and does not fall far short of that of nutmegs. It is undoubtedly a very elegant oil, and is afforded by the spice in considerable quantity; forty ounces yield above one: it is of a fine pale colour, and like the oils of some of the eastern spices, sinks in water.

Class.

Class 2:

EMPYREUMATIC OILS.

OLEUM BUXI.
OIL OF BOX. *Lond.*

Distil pieces of box wood, in a retort, with a sand heat gradually increased: the oil will come over, along with an acid spirit, which is to be separated by a funnel.

OLEUM GUAIACI.
OIL OF GUAJACUM. *Edinb.*

Put any quantity of chips of guaiacum, into an earthen long neck or a glass retort, and distil either in a sand bath or an open fire, increasing the heat by degrees. At first an acid liquor will come over, afterwards a light red oil, and at length, in the utmost degree of fire, a thick black oil, which sinks through the other liquors to the bottom of the receiver.

Oils may be obtained after the same manner from every kind of wood.

The retort may be filled almost up to the neck with chips or small pieces of box or guaiacum, the refuse of the turner. Lute on a glass receiver, with a paste made of linseed meal and water: set the retort on the bottom of a deep iron pot, with a little sand under it, and fill up the space betwixt it and the sides of the pot, with more sand. Apply at first a gentle fire, and gradually increase it to the utmost that the furnace is capable of giving. Particular care must be had, not to raise the heat too fast when the first reddish oil begins to come over; for at this time, a large

quantity of elastic vapour is extricated from the wood, which, if the fire is urged, or if it is not allowed an exit, will burst the vessels: when the distillation is finished, and the vessels grown cool, unlute the receiver, and separate the oil from the acid liquor: the method of performing this by the funnel, as directed in the first of the above processes, is as follows. Pour the several liquors into a glass funnel whose stem is stopp'd by the finger, the ponderous black oil sinks lowermost: suffer this to run out; then close the stem again, and afterwards separate the acid liquor from the lighter oil in the same manner. They are more perfectly separated by pouring them into a hollow cone of filtering paper moistened with water and placed in a funnel; the acid liquor passes through, and the oil remains on the paper.

The oils obtained by this treatment from different woods and plants are nearly of the same qualities: they have all a very disagreeable acrid taste, and a burnt stinking smell; without any thing of the peculiar flavour, taste, or virtues of the subject which afforded them. By redistilling them a number of times along with water, they become less and less disagreeable; and in this state have been given from ten to twenty drops, as anodynes and diaphoretics. Some have entertained a very high opinion of them in epilepsies, in hysteric and spasmodic disorders: in these cases they may possibly be of some service, though their real merit falls far short of what is promised of them.

them. The present practice rarely employs these oils any otherwise than for external purposes, as the cleaning of foul bones, for the tooth-ach, against some kinds of cutaneous eruptions, old pains and aches, and the like; and for these, not very often.

OLEUM LATERITIUM.
OIL OF BRICKS.

Lond.

Heat bricks red hot, and quench them in oil olive, till they have soaked up all the oil: then break them into pieces small enough to be conveniently put into a retort; and distil with a sand heat gradually increased: an oil will arise, together with a spirit, which is to be separated from it, as in the foregoing process.

This preparation has had a place in most dispensatories, under the pompous names of oleum philosophorum, sanctum, divinum, benedictum, and others, as improper as that under which it stands above. It is really oil olive, rendered strongly empyreumatic by heat: the spirit, so called, is no more than phlegm, or water, tainted with the burnt flavour of the oil. It has been celebrated for sundry external purposes, particularly against gouty and rheumatic pains, deafness and tingling of the ears, &c. and sometimes likewise given inwardly. But common practice seems to have now entirely rejected this loathsome remedy; and the college of Edinburgh have expunged it from their book.

OLEUM PETROLEI BARBADENSIS.
OIL OF BARBADOES TAR.

Lond.

Distil Barbadoes tar with a sand heat; and an oil will arise, toge-

ther with a spirit which is to be separated from it.

This oil is intended for the same purposes as the foregoing ones. It is somewhat less disagreeable, tho' very acrid and stimulating. It is remarkable of this oil, that when placed against the eye and the light, it appears of an orange colour; looked at in other positions, blue: by long keeping it loses this property.

**OLEUM TEREBINTHINÆ
ÆTHEREUM; & empyreumaticum sive BALSAMUM.**
The ETHERICAL OIL OF TURPENTINE, and the empyreumatic oil or BALSAM.

Lond.

Distil the essential oil of turpentine in a retort, with a very gentle fire, until what remains has acquired the consistence of a balsam.

Balsam of turpentine may likewise be obtained from the yellow resin left after the distillation of the essential oil: upon distilling this in a retort, at first a portion of thin oil arises, which is to be kept by itself, and afterwards a thick balsam: there remains in the retort a blackish resin, called colophony.

Edinb.

Melt any quantity of turpentine, over a gentle fire, and pour it into a glass retort, of which it may fill one half; then lute on a receiver, and distil in a sand bath. Apply at first a gentle heat, upon which an acid spirit will come over, and on gradually increasing the fire, a limpid oil commonly called ethereal spirit of turpentine; at length, a yellow oil will arise. In the bottom of the retort, there remains a resinous mass called colophony;

ny; which if still farther urged with successive degrees of heat to the highest, gives first a red oil, and afterwards a darker coloured one, which sinks through the other liquors to the bottom of the receiver.

These processes are tedious, and accompanied with a good deal of danger; for unless the luting is very close, some of the vapour will be apt to get through, which, if it catches fire, will infallibly burst the vessels. The oil here called etherial does not considerably differ in specific gravity, smell, taste, or medical qualities, from the cheaper one obtained by the addition of water in the common still: nor are the empyreumatic thin oil and balsam of any great esteem in practice.

Edinb.

Gum ammoniacum,
Caranna,
Elemi,
Galbanum,
Sagapenum,
Styrax calamita,
Liquid storax,
Tacamahacca, &c.

being distilled after the same manner as turpentine, yield an acid liquor and an empyreumatic oil.

It is surprizing that these vegetable productions should retain a place here, since the use of their empyreumatic oils is generally exploded. Several of them distilled in an alembic, with a suitable quantity of water, afford essential oils of great fragrancy, which might undoubtedly be applied to good use as medicines, where the original resinous juice might not be so convenient or serviceable.

OLEUM COPAIVÆ COMPOSITUM.

COMPOUND OIL OF BALSAM OF COPAIVA.

Lond.

Take two pounds of balsam of Copaiva, and four ounces of gum guaiacum. Distil them in a retort, continuing the operation till a pint of oil is come over.

This mixture, undistilled, proves a medicine of considerable efficacy in rheumatic cases, &c. In distillation, the guaiacum gives over little, serving chiefly for the same purpose that bricks do in the oleum lateritium. The balsam distilled in a retort, with or without the gum, yields first a light coloured oil, smelling considerably of the subject; this is immediately followed by a darker coloured oil, and afterwards by a blue one, both which have little other smell than the empyreumatic one that distinguishes the oils of this class: their taste is very pungent and acrimonious. This balsam, distilled with water, yields half its weight or more of an elegant essential oil.

OLEUM CERÆ.

OIL OF WAX.

Edinb.

Melt the wax with twice its quantity of sand, and distil in a retort placed in a sand furnace. At first an acid liquor arises, and afterwards a thick oil, which sticks in the neck of the retort, unless it be heated by applying a live coal. This may be rectified into a thin oil, by distilling it several times, without addition, in a sand heat.

Boerhave directs the wax, cut in pieces, to be put into the retort first, so as to fill one half of it; when as much sand may be poured thereon as will fill the remaining half. This is a neater, and much less

less troublesome way than melting the wax, and mixing it with the sand before they are put into the retort. The author above mentioned greatly commends this oil against roughness and chaps of the skin, and other like purposes; but its disagreeable smell has brought it into disuse.

BALSAMUM ANODYNUM,
vulgo **GUIDONIS.**
The ANODYNE, commonly called
GUIDO'S BALSAM.

Edinb.

Take of Galbanum,
Tacamahacca, each half a
pound;
Venice turpentine, one
pound;

Put them into a retort, whereof they may fill two thirds, and distil with a fire gradually increased. Separate, according to art, the red oil or balsam, from the liquor that swims above it.



CHAP.

CHAPTER VIII.
SALES et SALINA.

SALTS and SALINE PREPARATIONS.

NITRUM PURIFICATUM.
PURIFIED NITRE.

Lond.

BOIL nitre in water till it is dissolved; filter the solution thro' paper; and then, after due evaporation, set it by in a cold place, that the nitre may shoot into crystals.

Salts dissolved in water, concrete again, upon exhaling a part of the fluid, into solid transparent masses called crystals; which, if the process is skilfully performed, assume a regular figure peculiar to each particular salt: thus the crystals of nitre resemble an hexagonal prism, those of common salt are cubical, whilst sal ammoniac shoots into thin fibrous plates like feathers. Different circumstances in the operation occasion a variation of the crystals from the standard figure: if the evaporation is performed too hastily, or continued too long; if the liquor is suddenly removed from the fire into a cold place; if the cold air is immediately admitted to it; if while the crystals are forming, their mutual attraction is disturbed by shaking the vessel; the particles of the dissolved salt will be forced together irregularly, and form only a confused semitransparent mass. The evaporation is generally directed to be continued till a saline pellicle appears upon the surface of the liquor: but if large and beautiful crystals are re-

quired, this point is somewhat too late; for if so much of the menstruum be taken away that the salt thus begins to concrete in the degree of heat usually employed in evaporation, it will, when removed into a colder place, run hastily and irregularly together. The best mark of the evaporation being carried to a sufficient length is, that some of the liquor, being dropt upon a cold glass plate, discover small crystalline threads.—These observations are applicable to all the salts in this chapter, where crystallization is required.

If different salts be dissolved in the same parcel of water, that which is the most difficult of solution, or requires the largest quantity of the fluid to keep it dissolved, will crystallize first. Thus, if a mixture of tartar, nitre, and common salt, is dissolved in boiling water, the solution strained, duly evaporated, and set in a cool place, the tartar soon concretes: if this be separated, and the remaining liquor farther exhale, the nitre will crystallize next, leaving the common salt still dissolved: by repeating the operation a third time, each of the salts is obtained distinct. The tartar, and in general the salt obtained by the first crystallization, is perfectly pure; but the nitre retains some small admixture of the tartar, and the common salt of the nitre; which they may be purified from
by

by again dissolving and crystallizing them apart. And this is the foundation of the method of purifying, or separating different salts from one another by crystallization.

Common nitre usually contains a considerable proportion of sea salt, which by this process is separated from it. The crystals which shoot first are perfectly pure: but if the remaining liquors be farther exhaled, and this repeated a second or third time, the crystals will be small, imperfect, and tipped with little cubical glebes of sea salt.

If the liquor which is left after the crystallization of a solution of rough nitre, be evaporated to a dry substance, and this calcined for some time in a crucible; there will remain a white powder, called *MAGNESIA ALBA*. This has been celebrated as an excellent purgative, in the dose of a dram or two; and in smaller doses, as an alterant, in hypochondriacal and other disorders. This medicine was for some time kept a great secret, under the names of *nitrous yanacea*, *count Palmer's powder*; *il polvere alba Romano*, &c. till Hoffman made it public in his *Observationes physico-chemicæ*. It is however a precarious medicine, and by no means equal to the character that has been given of it. It is composed of some of the calcareous earth, employed in the elixation of the nitre (see p. 166.) united with a small portion of the nitrous and marine acids; the quantity of which acids will be different, according to the degree and continuance of the fire in the calcination. Neuman relates, that if common slaked lime be moistened with a little spirit of nitre and spirit of salt, and then moderately calcined, a powder will be obtained, not differing in any sensible quality, or in medical virtue, from the magnesia.

*SAL AMMONIACUS
PURIFICATUS.*

PURIFIED SAL AMMONIAC.

Lond.

This is purified by solution in water, filtration and crystallization, after the manner above directed for nitre.

Here the solution and filtration frees the salt from substances that are not of the saline kind: and as no salt that we can suppose mingled with it will dissolve in so little water, such salts, if it should have an admixture of any, would crystallize before it.

The volatility of this salt affords another method of purifying it:

*FLORES SALIS
AMMONIACI.
FLOWERS OF
SAL AMMONIAC.*

Edinb.

Take any convenient quantity of dry sal ammoniac in powder; put it into an earthen cucurbit, and having fitted on a blind head, sublime the salt with a fire gradually increased.

The heat made use of in this process should be no greater than is just sufficient to elevate the sal ammoniac: for in a strong fire, this salt carries up with it substances which of themselves are not volatile. This single sublimation makes no alteration in the quality of the sal ammoniac: if often repeated, it would contract a yellow tinge, and a particular scent, which it had not before.

SAL VITRIOLI. [L.]

Gilla vitrioli. [E.]

*Purified white vitriol,
called*

*SALT, or GILLA
OF VITRIOL.*

Dissolve white vitriol in warm water, filter the solution, and evaporate

porate it to the consumption of two thirds: set the remainder in a cold place, for two days, to shoot; and afterwards dry the crystals in the sun. The liquor which remains after the crystallization, may be farther evaporated, and set to crystallize as before; and this process repeated, until no more salt will shoot.

Lond.

Let a pound of white vitriol be boiled in a proper quantity of water, with an ounce of the strong spirit or oil of vitriol, until it is dissolved. Then filter the liquor, and after due evaporation, set it by in a cold place to crystallize.

Solutions of white vitriol deposite on standing a yellow ochery substance; which, if not suffered to separate before the liquor is exhaled, and set to shoot, will foul the crystals. The addition of the acid in the second of the above processes effectually prevents any inconvenience of this kind, by keeping the impure matter, which would otherwise subside, suspended. What this matter is, may be judged from the account which we have given of this kind of vitriol, in page 226.

CRYSTALLI TARTARI.
CRYSTALS OF TARTAR.

Edinb.

Let powdered white tartar be boiled in twenty times its quantity of water, till perfectly dissolved; and the solution, whilst it continues hot, passed through filtering paper, and received in a wooden vessel: then expose it for a night or longer to the cold air, that crystals may form themselves, and shoot to the sides of the vessel: the water being now poured off, the crystals are to be collected and dried for use.

The filtration of the solution of tartar through paper succeeds very slowly, and unless managed with a good deal of address, not at all: for as soon as the boiling liquor begins to grow sensibly less hot, it deposite most of the tartar all over the surface of the paper, which hinders the remainder from passing through. Zwelffer, in his animadversions on this process in the Augustan pharmacopœia, directs the solution to be clarified with whites of eggs, and strained only through a linen cloth; he likewise judiciously orders the vessel to be close covered, and the crystallization performed in a warm place: for if the solution be suffered to cool very fast, it is in vain to expect any appearance of crystals; the tartar will inevitably be precipitated to the bottom of the vessel in the form of sand. And indeed, the business of refining and crystallizing tartar is so very troublesome, and requires so large an apparatus, that scarce any of the apothecaries, or even of the trading chemists, are at the trouble of it; but either import it ready refined from Holland, or purchase it from some people here who make it their sole business. (See the article TARTAR, page 216.)

CREMOR TARTARI.
CREAM OF TARTAR.

Edinb.

Take any quantity of solution of tartar, made as in the foregoing process, and passed through a filter. Boil it over the fire, till a thick cuticle appears on the surface, which is to be taken off with a wooden skimmer bored full of holes: continue the boiling till a fresh cuticle arises, which is to be taken off as the foregoing, and the operation repeated till the whole quantity

T

quantity

quantity of liquor is thus consumed. Afterwards dry all the cuticles together in the sun.

This process seems inserted only to retain a name long familiar to the shops; for the preparation itself in no respect differs from crystals of tartar reduced to powder.

ALUMEN USTUM.
BURNT ALUM.

Lond.

Let alum be put into an earthen, or iron vessel, and calcined as long as it bubbles or swells up.

Salts retain in crystallization a considerable quantity of aqueous fluid, which by this union, as it is called (more properly exsiccation) is dissipated. Alum loses in this process about one sixth its weight; and by the loss of this quantity of phlegm, becomes proportionably stronger and more acrid, inasmuch as to be sometimes used for eating away proud flesh; which it does very mildly, but is said to have the inconvenience of leaving an hardness upon the part.

VITRIOLUM CALCINATUM.
CALCINED VITRIOL.

Lond.

Let green vitriol be calcined in an earthen vessel, with an open fire, till it becomes thoroughly dry: then breaking the vessel, take out the vitriol, and set it by for use, well closed from the air. The vitriol is sufficiently calcined, if it has acquired a red colour at the sides and bottom of the vessel.

This process succeeds tolerably well for small quantities, but does not answer so perfectly for larger. As the action of the fire is exerted first on the external parts of the mass, these will be calcined first, and, where the quantity is large, exhibit the mark of sufficient calci-

nation, whilst the internal part remains almost unchanged: and even if the process is still farther continued, the effect required will not be produced; for the outside growing first hard, prevents the evaporation of the aqueous parts from within.

Edinb.

Expose any quantity of powdered green vitriol, in an unglazed earthen vessel; to the action of a moderate fire, till it becomes white; keeping the matter continually stirring to prevent its sticking to the vessel, and acquiring a stony hardness. If this be urged with a more vehement fire, it passes into a deep red substance called colcothar of vitriol.

This method is sufficiently troublesome: for unless the heat be very gentle, and the matter spread very thin over the bottom of a broad shallow vessel, it is almost impossible to avoid melting it, which makes it adhere to the sides of the pan, and renders the previous pulverisation an useless labour.

The method usually practised by the chemists is, to place a deep earthen pan, almost filled with vitriol, upon a gentle fire; the vitriol soon liquefies, and by degrees incrustates to the sides of the vessel: the fire may be now increased till the aqueous moisture seems evaporated, when the vitriol will be found to have concentered all into one lump, of a whitish colour, except on the outside next the pan, (which must be broken to take it out) where it appears yellowish or reddish, according to the continuance and degree of fire. If the vitriol be desired still farther dephlegmated, this may be commodiously effected by reducing the mass into a gross powder (which will now no longer melt) and then

then calcining it over a strong fire, in a shallow iron pan, till it has gained the degree of dryness required, which may be known from its colour — The principal use of calcined vitriol is for the distillation of the spirit of vitriol: if employed for this purpose uncalcined, it would melt in the distilling vessel, and running into a lump, scarce give out any spirit; and the little obtained would be very weak.

SALES ESSENTIALES.

ESSENTIAL SALTS.

Edinb.

Sal essentielle	<i>Essential salt of</i>
Acetose,	<i>Sorrel,</i>
Centaurei minoris,	<i>Lesser centaury,</i>
Cichorii,	<i>Succory,</i>
Ephrasie,	<i>Eyebright,</i>
Fumarie,	<i>Fumitory,</i>
Plantaginis,	<i>Plantane,</i>
Quercus,	<i>Oak,</i>

and of such other acid, austere, astringent, and bitterish plants as contain but a small quantity of oily matter.

Let the juices of the respective plants, deperated by rest and decantation from the feces, be evaporated till only one third remains, then strained through a flannel bag, and exhaled again till a pellicle concretes upon the surface. Put the liquor into a glass vessel, and a little oil olive being poured upon the top, set it by in a cellar till plenty of crystals appear formed: these are to be gently washed with water, and afterwards dried for use.

The WATERS of these plants, which are in vain endeavoured to be drawn over by distillation, may be obtained by dissolving a suitable quantity of their essential salt in common water.

Some pharmaceutical writers direct the plants to be gathered early in the morning, but this is of

very little moment. In order, to make the subject yield its juice readily, it should be chopt to pieces, and well bruised in a marble mortar, before it is committed to the press: the magma which remains in the bag, still containing no inconsiderable quantity of saline matter, may be advantageously boiled in water, and the decoction added to the expressed juice. The whole may be afterwards deperated together, either by the method above directed, or by running the liquor several times through a linen cloth.

The evaporation should be performed either in shallow glass basins, or in such earthen ones as are of a compact close texture; such are those usually called stoneware. The common earthen vessels are subject to have their glassing corroded, and are so extremely porous as readily to imbibe and retain a good quantity of the liquor: metallic vessels are particularly apt to be corroded by these acid kinds of juices.

The directions for the time of discontinuing the second evaporation are not so easily observed as one could wish. These juices are so viscid, and abound so much with heterogeneous matter, of a quite different nature from any thing saline, that a pellicle, or pure saline incrustation upon the surface is in vain expected. Boerhaave therefore, and the more expert writers in pharmaceutical chemistry, with great judgment, direct the evaporation of the superfluous moisture to be continued until the matter has acquired the consistence of cream. If it be now suffered to stand for an hour or two in a warm place, it will notwithstanding the former deperations, depolite a fresh sediment, from which it should be warily decanted before it is put in-

to the vessel in which it is designed to be crystallized.

Some recommend an unglazed earthen vessel, as preferable for this purpose to a glass one; the smoothness of the latter being supposed to hinder the salt from sticking thereto; whilst the juice easily insinuating itself into the pores of the former, has a great advantage of shooting its saline spicula to the sides. Others slightly incrustate the sides and bottom of whatever vessel they employ, with a certain mineral salt, which greatly disposes the juice to crystallize, which of itself it is very averse to: but as this addition is, with regard to its medical virtue, quite different from the salt here intended, we forbear to mention it.

The use of the oil is to preserve the juice uncorrupted, and to prevent it from running into fermentation or putrefaction, during the great length of time which this process requires: as much oil as will fully cover the surface of the liquor, is sufficient for this purpose. The washing of the crystals is intended to cleanse them from the mucilaginous feculencies which adhere to them: it ought to be performed with the utmost caution, to prevent any of the salt itself from being dissolved. The liquor which remains after the crystallization, may be depurated by a gentle colature, and after due inspissation set to shoot again; when a farther yield of crystals will be obtained.

The process for obtaining these salts is very tedious, inasmuch as scarce to be completed in less than seven or eight months; and the quantity of salt which the juices afford, is extremely small: hence they are hardly ever made or expected in the shops. The chemists have contrived several methods for expediting the process, among

which the two following seem the most remarkable.

Take any quantity of wormwood, *cardus benedictus*, or the like plants, gently dried in the shade. Pour thereon a suitable portion of spirit of wine, and digest them together with a soft heat, till the menstruum has acquired a green colour. This tincture is to be put into a glass cucurbit, and distilled with the heat of a water-bath; till so much of the spirit is come over, as that the remainder may be left of the consistence of honey. The whole being now suffered to remain unmoved till grown perfectly cold, beautiful pyramidal crystals will be found to have shot from the sides of the distilling vessel towards its centre. *Spießius in Miscell. Berolin. continuat. ii. p. 91, 92.*

This gentleman relates likewise, that having made an essence (that is, a saturated tincture) of elecampane roots, with spirit of wine, and kept it unmoved for a year, he found a great number of crystals shot from the bottom of the glass upwards, of the thickness of a quill, and about an inch long.—The crystals obtained by this method are said to be of the nitrous kind, but of a more subtile taste than common nitre, impressing only an agreeable coolness upon the tongue.

The second process is from the celebrated Dr. Stahl:

Take wormwood, brooklime, pellitory, mercury, soapwort, or any other plants of the same kind, dried quick in a shady place. Cut the herb small, and pour thereon a sufficient quantity of highly rectified spirit of wine: digest them together till the menstruum becomes saturated with the

the oil, or resinous parts of the plant; then pour off the tinged liquor, add a fresh parcel of spirit, and digest as before, continuing to add more of the menstruum, till such time as it no longer extracts any colour from the vegetable. The plant thus freed from its oily matter, is to be gently exsiccated, and boiled in water, till the liquor has taken up its saline parts: the decoction being then passed thro' a filter, afterwards evaporated to a due consistence, and set by in a cool place, will shoot into saline crystals, which, on examination, prove manifestly nitrous. *Stablii fund. chem. pag. 68. et alibi.*

The above processes do not very well quadrate with each other: how far they answer what is expected from them, can only be determined by experiments. The latter appears well founded, and possibly might be advantageously applied to such vegetables as abound with oil; for oil so engages and retains the particles of the salts, as to prevent their uniting and forming crystals; whence, upon taking it away, by means of spirit of wine, a regular crystallization ensues.

The virtues of these preparations have not been sufficiently determined from experience: thus much, however, is certain, that they do not (as has been supposed) possess those of the subjects entire. They appear to be, almost all of them, nearly similar, whatever plant they were obtained from; and to be at bottom no more than a very impure species of volatile nitre (that is, a salt made by saturating the spirit of nitre with volatile alkaline salts, and crystallizing the liquor. Those examined by the chemists of the French academy, deslagrated in

the fire; and triturated with fixt alcalies, exhale an urinous odour.

SALES ALCALINI FIXI.
FIXT ALCALINE SALTS.

Sal abinthii
Salt of wormwood.
Edinb.

Let any quantity of wormwood, either fresh gathered, or moderately dried, be put into an iron pan, and, with a gentle fire, reduced into white ashes. Boil these with a sufficient quantity of spring water, filter the liquor, and evaporate it till a dry salt is left behind: this proves of a brown colour; by repeated solution, filtration, and inspissation, it becomes at length pure and white.

Lond.

Let the ashes of wormwood [which the shops are usually supplied with from the country] be put into an iron pot, or any other convenient vessel; and kept red hot over the fire for some hours, often stirring them, that what oily matter remains may be burnt out. Then boil the ashes in water, filter the ley through paper, and evaporate it till a dry salt remains; which is to be kept in a vessel close stopd.

After the same manner a fixt alkaline salt may be prepared from all those vegetables which yield this kind of salt [*L.*] as bean stalks, broom, &c. [*E.*]

These salts are obtained to greater advantage from dry plants than from green ones; they must not however be too dry, or too old; for in such case, they afford but a small quantity of salt. The fire should be so managed, as that the subject may burn freely, yet not burst into violent flame: this last circumstance would greatly lessen the yield of the salt; and a very

T 3 close

close smothering heat would have this effect in a greater degree; hence the ashes of charcoal scarce yield any salt, whilst the wood it was made from, if burnt at first in the open air, affords a large quantity.

If the ashes are not calcined after the burning, a considerable portion of the oil of the subject remains in them unconsumed; and hence the salt turns out impure, of a brown colour, and somewhat saponaceous. Tachenius, Boerhaave, and others, have entertained a very high opinion of these oily salts, and endeavour as much as possible to retain the oil in them. They are nevertheless liable to a great inconvenience, uncertainty in point of strength, and without promising any advantage to counterbalance it: if the common alcalies are required to be made milder and less acrimonious (which is the only point aimed at in the making of these medicated salts as they are called) they may be occasionally rendered so by suitable additions.

Sal tartari.

Salt of tartar.

Lond.

Let any kind of tartar be wrapt up in strong brown paper, first made wet, or included in a proper vessel, and exposed to the fire, that its oil may be burnt out: then boil it in water, and exsiccate into a salt as before.

Edinb.

Wrap up any quantity of white tartar in wetted paper, and calcine it in a reverberatory furnace till it becomes exceedingly white. Then dissolve it in warm water, filter the solution, and evaporate it in a clean iron vessel, till a salt is left behind, perfectly dry, and white as snow; observing towards the

end of the operation to keep the matter continually stirring with an iron ladle, to prevent its sticking to the bottom of the vessel.

If a stronger salt of tartar is required, let the white salt be fused in a crucible, with the most intense degree of heat, and reverberated for some hours, till it has acquired a greenish or blue colour.

The white and red sorts of tartar are equally fit for the purpose of making fixt salt; the only difference is, that the white affords a somewhat larger quantity than the other; from sixteen ounces, upwards of four may be obtained. The use of the paper is to prevent the smaller pieces of the tartar from dropping down into the ash hole, through the interstices of the coals, upon first injecting it into the furnace. The calcination of the salt (if the tartar was sufficiently burnt at first) does not increase its strength so much as is supposed: nor is the greenish or blue colour any certain mark either of its strength, or of its having been long exposed to a vehement fire: for if the crucible is perfectly clean, close covered, and has stood the fire without cracking, the salt will turn out white, tho' kept fused and reverberated ever so long; whilst, on the other hand, a slight accident, or dextrous management of the process, shall in a few minutes give the salt the colour admired.

The shops were formerly burdened with a great number of these salts, which are now very judiciously rejected; those here retained being abundantly sufficient to answer all the useful purposes that can be expected from these kinds of preparations. All fixt alkaline salts, from whatever vegetable they may be obtained, are nearly one
and

and the same thing, and not distinguishable from each other, at least in their effects as medicines: and hence the college of London, in most of the compositions wherein these sorts of salts are ingredients, allow any fixt alkaline salt to be made use of.

Some differences indeed are observed in them as usually prepared; but these depend entirely upon the manner in which the process for obtaining them is conducted, and not on their being produced from different vegetables. Thus a variation in the heat by which the plant is burnt or calcined, occasions a difference in the acrimony of the produce: the more vehement and lasting the fire (to a certain degree) the more acrid is the salt. The circumstances of applying the water hot or cold to the ashes, likewise make a considerable variation: boiling water takes up more of the earthy parts (and of the oily ones, if any remain unconsumed) than cold water: and likewise a kind of neutral salt, of a quite different nature from alkaline ones, though frequently found among the ashes of vegetables, especially such as have been exposed for some time to the air: whilst cold water extracts from them only the pure alkaline salt, unless it be used in too large a quantity, or suffered to stand too long upon them.

These salts have an acrimonious fiery taste. They render vegetable oils and resins, and animal fats, soluble in water; and liquefy all the animal juices, except milk. Taken into the body, they stimulate and deterge the solids, attenuate the fluids, dissolve viscid tenacious matter; and by these means, open obstructions of the vessels, and promote all the natural secretions. A dilute solution of them drank in bed, generally

excites a copious sweat: by walking in the cool air, its action is determined to the kidneys: taken for some time in proper doses, it proves an excellent remedy for costiveness, especially if a few grains of aloes be occasionally interposed: this medicine has an advantage above all the other purgatives and laxatives, that when the complaint is once removed, it is not apt to return again. These salts are most serviceable in cold phlegmatic habits, and where acridities abound in the *prima via*: they powerfully absorb acids, and unite with them into mildly aperient neutral salts. In a colligated acrimonious state of the fluids, where there is any inflammation, or a tendency to putrefaction, they are manifestly prejudicial. — The dose of these salts is from two or three grains to a dram or more.

LIXIVIVM TARTARI. [L.]

Liquatmen salis tartari vulgo oleum tartari per deliquium. [E.]

LEY OF TARTAR,

or oil of tartar per deliquium.

Edinb.

Let tartar, calcined to whiteness, be set by in a moist place that it may liquefy.

Here only the saline part of the ashes of the tartar liquefies: it is very difficult to separate this from the remaining earth.

Edinb.

Put any quantity of salt of tartar in a flat glass dish, and expose it to the air, for some days, in a moist place: it will run into a liquor, which is either to be filtered through paper, or separated from the feces by decantation. — The higher the salt has been calcined, the more readily will it relent in the air.

The solutions of fixt alkaline

T 4

salts

salts, effected by exposing them to a moist air, are generally looked upon as purer than those made by applying water directly: for tho' the salt be repeatedly dissolved in water, filtered and excicated, on being liquefied by the humidity of the air, it will still deposite a portion of earthy matter: this lixivium contains nearly one part of alkaline salts, and three of an aqueous fluid.

LIXIVIUM SAPONARIUM.
SOAP LEYS.

Lond.

Take equal weights of Russia potash and quicklime. Gradually sprinkle on them as much water as will slake the lime; then pour on more water, stirring the whole together, that the salt may be dissolved: let the ley settle, pour it off into another vessel, and if there is occasion filter it. A wine pint of this ley, measured with the greatest exactness, ought to weigh just sixteen ounces. If it proves heavier, for every dram that it exceeds this weight, add to each pint of the liquor an ounce and an half of water by measure: if lighter, boil it till the like quantity is wasted, or pour it upon fresh lime and ashes.

Quicklime greatly increases the strength of alkaline salts; and hence this ley is much more acrimonious, and acts more powerfully as a menstruum on oils, fats, &c. than a solution of the potash alone: the lime should be used fresh from the kiln; by long keeping, even in close vessels, it loses of its strength: such should be made choice of as is thoroughly burnt or calcined, which may be known by its comparative lightness. All the instruments employed in this process should be either of wood, earthen

ware, or glass: the common metallic ones would be corroded by the ley, so as either to discolour, or communicate disagreeable qualities to it. The liquor is most conveniently weighed in a narrow-necked glass bottle, of such a size that the measure of a wine pint may arise some height into its neck, the place being marked with a diamond. A pint of the common leys of our soft soap makers weighs more than sixteen ounces: Dr. Pemberton observes, that their ley will be reduced to the standard here proposed, by mixing it with something less than an equal measure of water.

SAPO AMYGDALINUS.
ALMOND SOAP.

Lond.

Take any quantity of fresh drawn oil of almonds, and thrice its quantity by measure of the foregoing soap leys. Digest them together in such a heat that they may but just boil or simmer, and in a few hours they will unite: after which, the liquor, in boiling, will soon become rosy, and in good measure transparent; a little of it suffered to cool, will appear like gelly. When this happens, throw in by little and little some common salt, till the boiling liquor loses its ropiness; and continue the coction, till, on receiving some drops on a tile, the soap is found to coagulate, and the water freely separates from it. The fire being then removed, the soap will gradually arise to the surface of the liquor: take it off before it grows cold, and put it into a wooden mould or frame, which has a cloth for its bottom: afterwards take out the soap, and set it by till sufficiently dried.

After

After the same manner, a soap may likewise be made with oil olive; but the purest oil must be used, that the soap may be as little ungrateful as possible either to the palate or stomach.

This process is so fully described, as to render any farther directions unnecessary: it is not however to be expected, that the apothecary will be able to prepare this medicine better than the soap-boiler; since it is scarce possible to make small quantities in such perfection as larger ones. The general virtues of soaps have been already delivered in page 199: that prepared after this manner is not different in quality from the first sort there mentioned. The strength of soaps varies considerably with their age, and the manner in which they have been kept: fresh soap, though apparently of a good consistence, loses upon being thoroughly dried, near one third its weight; the whole of which loss is mere water; a circumstance to be particularly attended to, in the exhibition of this medicine. If the exsiccation is performed by exposing the soap for a length of time to the air, it will imbibe a portion of the acid floating therein; which will unite with a part of the alkaline salt of the soap into a substance of a quite different kind, dislodging a proportionable quantity of the oil: hence, if soap which has lain long in the air, be employed for medicinal purposes, the external coat should be shaved off.

Soap is decomposed (or the alkaline salt and oil, of which it is composed, separated from one another) by all acids; and hence it does not lather with waters that are in the least saline. In pure water, it dissolves into a milky liquor, which on dropping in some oil of vitriol forms a kind of coa-

gulum: on adding more of the acid, the liquor becomes clear, the oil of the soap arises to the surface, its alkali uniting with the acid, and forming saline concretions at the bottom. The oil, carefully collected, proves remarkably purer than when it first entered the composition of the soap; and, like the essential oils of vegetables, dissolves in spirit of wine: it may possibly be applicable to useful purposes in medicine, as being freed from its grosser matter, extremely pure, and void of the pungency of essential oils.

Soap dissolves likewise, but in small quantity, in pure spirit of wine: it is remarkable of this solution, that if exposed to a degree of cold, a very little greater than that in which water begins to freeze, it congeals into a solid, extremely pellucid mass.

The proper menstruum of soap is a proper spirit freed from acid; this dissolves it the most perfectly, and in greatest quantity; three ounces will take up one or more; and in this form soap may, in some cases, be conveniently exhibited.

“SAPO PURIFICATUS.
PURIFIED SOAP.”

Slice one pound of dry, hard, Genua, Alicant, or any other oil-soap, into a clean pewter vessel, and pour upon it two gallons of rectified spirit of wine. Place the vessel in a water bath, and apply such a degree of heat as may make the spirit boil, when it will soon dissolve the soap. Let the vessel stand close covered, in a warm place, till the liquor has grown perfectly clear; if any oily matter swim upon the surface, carefully scum it off. Then decant the limpid liquor from the feces, and distil off from it all the spirit that will arise

arise in the heat of a water-bath. Expose the remainder to a dry air for a few days, and it will become a white, opaque, and somewhat friable mass." *Pract. chem.*

Soap thus purified has little or no smell, and proves upon examination, not in any degree acrimonious, but quite mild and soft, and consequently well fitted for medicinal purposes.

SAPO TARTAREUS.
SOAP OF TARTAR.

Edinb.

Take any quantity of salt of tartar, very well calcined and reduced into powder whilst hot: immediately pour upon it, in a broad glass vessel, twice its quantity of oil of turpentine; and let them stand together in a cellar for some weeks, till the oil has penetrated the salt: then add more oil by degrees, till the salt has absorbed thrice its own quantity, and both appear united into a soap; which, if the matter is every day stirred, will happen in a month or two. The effect succeeds sooner, if the containing vessel be fixed to the sail of a windmill, or any other machine that turns round with great velocity.

This tedious process might be finished in a very little time, by duly attending to a circumstance which our chemists, and the pharmaceutical writers, have in general overlooked; and which many have supposed to be a means even of preventing success. If the oil be poured upon the pulverized salt whilst very hot, they will immediately unite, with a hissing noise; and by rubbing for a few minutes in a hot mortar, form a truly saponaceous mass, the medicine here intended. If the salt is suffered to grow cold before the addition of

the oil, it is scarce possible to unite them, however long the trituration be continued, without the addition of a little water, which in this case promotes the effect. The regular, uniform motion above recommended does not answer so well as agitation or rubbing in a mortar; the different degrees of centrifugal force which the oil and salt acquire when moved circularly, tending to keep them apart. The salt does not retain so much of the oil as might be expected; far the greatest part of this volatile fluid being dissipated in the process.

This medicine has been greatly celebrated as a diuretic, in nephritic complaints, and as a corrector of certain vegetable substances, particularly opium: it was for some time a great secret in the hands of its first preparer, Starkey; under the names, of philosophic soap, the vegetable corrector, &c. Its virtues, however, have not been sufficiently warranted by experience; nor is it often met with in the prescriptions of the physician, or the shop of the apothecary.

LAPIS SEPTICUS seu CAUTERIIUM POTENTIALE.
THE SEPTIC STONE, or POTENTIAL CAUSTIC.

Edinb.

Let half a pound of quicklime, reduced to powder, be put into a crucible, and thoroughly calcined: then sprinkle into it the same quantity of potash, and keep the whole in a wind furnace, until the salt flows. Pour out the mass into an iron vessel, add to it a proper quantity of water, and let them steep together for some days; afterwards filter the liquor, and inspissate it to the consistence of a stone.

This caustic is troublesome in making, and its use is likewise attended

tended with some inconveniencies which the following is free from.

CAUSTICUM COMMUNE FORTIUS.

The STRONGER COMMON CAUSTIC.

Lond.

Boil any quantity of the soap leys above described, to one fourth part: then, whilst it continues boiling, some lime that has been kept for several months in a glass vessel stopp'd with a cork, is to be sprinkled in by little and little, till it has absorb'd all the liquor, so as to form a kind of paste; which keep for use in a vessel very closely stopp'd.

This caustic is preferable to that prepared from alkaline lixivium without the addition of lime in substance; as being less apt to liquefy upon the part it is applied to, and spread farther than is intended. The use of keeping the lime is, somewhat to abate its acrimony.

CAUSTICUM COMMUNE MITIUS.

The Milder COMMON CAUSTIC.

Lond.

Take fresh quicklime and soft soap, of each equal parts: mix them well together at the time of using.

This caustic, notwithstanding the lime is used fresh, proves much milder than the former; the acrimony of the salt being here covered by the oil and tallow by which it is reduced into soap.

SPIRITUS VITRIOLI tenuis, et fortis (oleum dictus E.) atque COLCOTHAR.

Weak and strong SPIRIT or OIL OF VITRIOL, and COLCOTHAR.

Lond.

Let calcined vitriol be distilled in earthen vessels, with a reverberatory fire, for three days without intermission. What remains in the vessels is called colcothar of vitriol.

Put the distilled liquor into a glass retort, and place it in a sand furnace: the weak spirit will come over, the strong (improperly called oil of vitriol) remaining behind.

Edinb.

Take any quantity of green vitriol, calcined to whiteness, and reduced into powder. Fill therewith one half of an earthen retort, place it in a reverberatory furnace, sit on a very large receiver, and lute well the junctures: then proceed to distillation, gradually increasing the fire to the utmost degree, which is to be kept up as long as any vapours arise.

The phlegm, spirit and oil (so called) may be separated from each other by committing the whole to distillation in a retort placed in a sand furnace. The phlegm will arise with a small degree of heat, and the spirit with a stronger, leaving the oil behind.

The vitriol should be calcined till it acquires a yellowish colour inclining to red; if calcined only to whiteness, it will change in the distilling vessels into a hard compact mass, from which the due quantity of acid can never be obtained, though urged with the most vehement fire for a great length of time. A retort is an inconvenient instrument for performing the distillation in: it requires an extraordinary expence of fuel and time to elevate the ponderous acid of vitriol, so high as the figure of this vessel demands: the vessels usually employed are so contrived that the vapour

vapour passes out laterally, without any ascent; these are called long-necks: the junctures of them with the receivers may be luted with Windsor loam moistened with a solution of any fixt alkaline salt, and then beat up with a small quantity of horse-dung. If the fire is sufficiently strong, the distillation will be finished in much less than three days, though vapours will not cease to appear long after this period: when the process has been continued for a certain time, which Boerhaave limits to eighteen hours, the spirit that arises will not pay the expence: regard however must be had herein to the size of the furnace, the quantity of vitriol in each distilling vessel, and the degree of heat employed: those who make this commodity in quantity, continue the operation no longer, than till the fumes which issue from the long necks at the greatest distance from the fire, begin to lessen, and the recipients grow somewhat clear.

This process is not practicable to advantage without a very large apparatus. Hence it is become a distinct branch of the chemical business; and considerable works have been erected for it, in such parts of the kingdom as fuel can be most easily procured in: some of the furnaces are so large as to contain an hundred earthen long-necks, or distilling vessels, at once. The metallic part of the vitriol, or colcothar, which remains after the distillation, is ground down in mills,edulcorated with water, and employed as a pigment: in medical virtue, it is not different from some of the calces of iron to be spoken of hereafter.

The acid spirit, as it arises in the first distillation, appears of a dark or blackish colour, and contains a

considerable portion of phlegm. In the second distillation, the phlegmatic parts arise first, together with the lighter acid, which are kept apart under the name of weak spirit: at the same time, the remaining strong spirit, or oil as it is called, loses its black colour, and becomes clear; and this is the usual mark for discontinuing the distillation. Methods of farther purifying this acid for the nicer uses are described in Practical chemistry page 144.

The spirit of vitriol is the most ponderous of all the liquids we are acquainted with; and the most powerful of the acids. If any other acid be united with a fixt alkaline salt or earth; upon the addition of the vitriolic, such acid will be dislodged, and arise on applying a moderate heat, leaving the vitriolic in possession of the alkali; though without this addition, it would not yield to the most vehement fire. Mixt with water, it instantly conceives great heat; exposed to the air, it imbibes its moisture and soon acquires a notable increase of weight. In medicine, it is employed chiefly as subservient to other preparations: it is likewise not unfrequently mixed with juleps and the like (in such quantity as will be sufficient to give the liquor an agreeable tartness) for abating heat, quenching thirst, and promoting the urinary discharge.

SPIRITUS SULPHURIS

per campanam.

SPIRIT (commonly called *OIL*)

OF SULPHUR by the bell.

Lond.

Let the sulphur be set on fire, under a glass vessel fitted for this use, called a bell; and let the acid spirit, which trickles down from

from the sides of the bell, be received in a glass dish placed underneath.

Edinb.

Put any quantity of powdered sulphur into an earthen dish placed upon an inverted crucible: set them both together upon the bottom of a large earthen vessel, in a moist place screened from the wind: then kindle the sulphur with a red hot iron; and hang over it a glass bell, at such a distance that the flame may not touch it. The vapour of the sulphur will condense in the bell by the cold, and drop down from its sides, like water, into the vessel placed underneath.

The glass usually employed by the chemists differs considerably from the bell shape: its belly is spherical, and has a rim at the bottom turned inwards a little; the upper part ends in a long open stem: a large receiver, with a hole cut in its bottom, and a long tube inserted into its mouth, would answer as well. If the sulphur happens to burn dull, the glass is taken off, and the matter stirred with an iron wire, or a clean tobacco pipe: as it consumes, fresh quantities are supplied, till all the sulphur designed for this use is burnt. The condensation of the fumes depends in great measure upon their imbibing aqueous moisture: hence in wet weather, or a damp place, the operation succeeds best. In dry weather, it is customary to moisten the bell, by suspending it for a little time over the steam of boiling water.

This process is sufficiently troublesome, and the yield of acid spirit obtained by it extremely small; greatest part of the fumes escaping into the air, partly at the bottom, and partly through the upper aperture of the bell. Several contri-

vances have been made for preventing this: one of the best commonly known, is that of Mr. Lucas described in the Edinburgh essays; who employs, instead of the bell, a large retort, having a tubulated receiver (with the pipe turned uppermost) adapted to its neck; instead of the large aperture in the bottom of the bell, a small one is made in the bottom of the retort: and thus by diminishing the aperture, enlarging the capacity of the vessels, and lengthening the passage of the fume, a considerably larger quantity of the fumes are detained than in the common instruments. The commentator on the Edinburgh dispensatory has, by a slight alteration in this apparatus, greatly improved it: he cuts the hole in the side of the retort, and pours into the bottom an ounce or two of warm water, in the middle of which is placed a shallow stone cup containing the sulphur. The heat of the burning sulphur is soon communicated to the water, so as to keep it continually rising in steam: with this aqueous vapour, the fumes of the brimstone are effectually blended as they ascend; and detained in considerable quantity, in a much less proportion of phlegm than when the common methods are pursued: for here, the business of rectification or dephlegmation is carrying on, at the same time that the acid is collecting.

This affair is capable of being much farther improved. In the common method by the bell, in the most favourable circumstances, scarce above two drams of acid spirit are obtained from sixteen ounces of sulphur: by Lucas's apparatus, an ounce may be obtained from the same quantity; and by the other, about two ounces. It is very certain however from experiments, that out of sixteen ounces
of

of sulphur, at least fifteen ounces and seven drams are pure acid, of such strength as to require being diluted with above an equal weight of water, to reduce it to the pitch of common spirit of sulphur. It follows therefore, that if we could contrive a method of burning sulphur, so as to preserve all the fumes, we might obtain from it near double its own weight, of an acid of the ordinary strength.

The acid obtained from sulphur is in all respects similar to that of vitriol. The acid of sulphur, united with iron or copper, forms a true vitriol; and the acid of vitriol, combined with inflammable matters, produces sulphur, not distinguishable from pure common brimstone. The identity of these acids is well known to some particular persons, who, if we are not greatly misinformed, supply us with almost all that is now sold under the name of oil of vitriol, prepared from the fumes of burning sulphur.

SPIRITUS NITRI Glauberi.

Glauber's SPIRIT OF NITRE.

Lond.

Take three pounds of nitre, and one pound of the strong spirit, or oil of vitriol. Mix them cautiously and gradually together, under a chimney; and then distil, at first with a gentle, and afterwards with a stronger heat.

Here the vitriolic acid dislodges the weaker one of nitre, and takes its place. A pound of the former however is scarce sufficient to expel all the acid from three pounds of nitre: some direct equal quantities of each. The spirit, in both cases, is in quality the same, the difference in this respect affecting only the residuum; which, when the larger proportion of acid is

employed, dissolves readily in water, so as to be got out without breaking the retort; with the lesser, not; the smaller proportion is preferred above, lest the remaining salt, which is used in medicine, should prove too acid.

The acid of nitre is next in strength to the vitriolic, and dislodges all but that from alkaline salts or earths. It differs from all the other acids in desagrating with inflammable matters: if a solution of any inflammable substance, as hartshorn, &c. in this acid, be evaporated, as soon as the matter approaches to dryness, a violent detonation ensues. The chief use of this acid is as a menstruum for certain minerals, and as the basis of some particular preparations, of which hereafter. It has been given likewise diluted with any convenient vehicle, as a diuretic, from ten to fifty drops.

SPIRITUS SALIS MARINI

Glauberi.

Glauber's SPIRIT OF SEA SALT.

Lond.

Take two pounds of sea salt, and the same quantity of strong spirit, or oil of vitriol. Dilute the acid spirit with a pint of water, and pour this mixture by little and little on the salt under a chimney; then distil, at first with a gentle, and afterwards with a stronger fire.

Edinb.

Take of sea salt dried, and powdered two pounds; of oil of vitriol one pound; and as much water as is sufficient to dissolve the salt. Put them into a glass retort, and distil in a sand heat to dryness.

It is not needful to dry the salt, since water is afterwards added to it. The oil of vitriol is most conveniently mixed with the water in

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an earthen or stone ware vessel; for unless the mixture is made exceeding slowly, it grows so hot as to endanger breaking a glass one. When this mixture is grown somewhat cool, it may be poured upon the sea salt, already placed in the retort, taking great care to avoid the fumes: instantly lute on a receiver, and proceed to distillation.

The spirit of sea salt is the weakest of the mineral acids, but stronger than any of the vegetable: it requires a greater fire to distil it than that of nitre, yet is more readily dissipated by the action of the air. It is used chiefly as a menstruum, for the making of other preparations: sometimes likewise it is given, properly diluted, as an antiphlogistic, aperient, and diuretic, from ten to sixty or seventy drops.

SPIRITUS SALIS.

Spirit of salt.

Edinb.

Take a pound of sea salt thoroughly dried, and three pounds of powdered bricks. Mix, and put them into an earthen retort, of such a size that they may fill only one half of it. Place the retort in a reverberatory furnace, adapt to it a large receiver, and lute well the junctures. Let the fire be applied at first very sparingly, and afterwards increased by degrees, until all the spirits are driven over in the form of clouds. When the vessels are grown cold, pour out the distilled liquor into a glass cucurbit, and gently abstract from it the phlegm, which will leave the spirit pure.

Instead of brickdust, some have used solar earths and clays. It has been supposed, that these substances act by discontinuing and dividing the particles of the salt, to

us to enable the fire to expel the spirit: if this was true, glass or sand would prove equally serviceable, and the same intermedium would answer as well for a number of times as at first; the reverse of which, experiments shew to be true. Brick earth, and other substances of this kind, contain a small quantity of vitriolic acid, whose known property it is to disengage the acid of sea salt, and which is the only part of them of use in this process. The quantity of spirit therefore, obtained by these intermedia, is only in proportion to that of the acid contained in them, which is extremely small. This has occasioned some to make use of vitriol, as containing a larger quantity of the vitriolic acid; but though vitriol is in this respect greatly preferable to brickdust, or the argillaceous earths; yet in another, it is found less eligible; its metallic part so strongly adheres to the marine acid, as to keep it down after it is separated from its basis, or else arises along with it, and defiles the product. These methods therefore of extracting the spirit of salt have been for some time laid aside; the foregoing, in which the pure vitriolic acid itself is used, being in all respects more convenient and advantageous.

AQUA FORTIS.

Lond.

Take nitre and green vitriol uncalcined, of each three pounds, of the same vitriol calcined, one pound and an half. Mix them well together, and distil with a very strong fire, as long as any red vapour arises.

Edinb.

Aqua fortis simplex.

Single aqua fortis.

Take two parts of vitriol calcined

to whiteness, and one part of powdered nitre. Mix them very well together, and fill therewith an earthen retort to two thirds; then sit on a large receiver, and proceed to distillation; which is to be performed in the same manner as directed for spirit of salt.

The vitriol here is not liable to the inconvenience mentioned in the foregoing remark: it only occasions a greater heat to be necessary than when the pure vitriolic acid is used, for the acid of the vitriol must be extricated before it can act on the nitre; the fire, however, must not be extremely strong, otherwise some of the metallic parts of the vitriol will be forced over along with the nitrous acid: the direction of thoroughly mixing the ingredients ought to be well attended to, for if this is neglected, or but slightly performed, the due quantity of acid will not be obtained. The produce of these processes is a spirit of nitre containing so much more phlegm, or watery moisture than Glauber's spirit, as the vitriol employed in its preparation does more than an equivalent quantity of oil of vitriol.

Aqua fortis duplex.

Double aqua fortis.

Edinb.

Take green vitriol calcined to whiteness, clay dried and powdered, and powdered nitre, of each equal parts. Mix them well together, and distil in an earthen retort as above.

This process has been long received in the shops, but is nevertheless a very unartful one. The clay, containing much less acid than vitriol, is not near so proper an intermedium. It should seem therefore more eligible to omit the

first, and increase the quantity of the latter; which in order to make the aqua fortis of the strength here intended, should undergo a farther degree of calcination.

The great demand which there is in sundry businesses for aqua fortis, has occasioned the preparation of it to become a trade by itself. Hence larger and less expensive instruments than those mentioned above, have been contrived. The common distilling vessel is a large iron pot, with an earthen, or stoneware still-head, to which is adapted a large glass globe, or else a jar made of the same kind of clay as the head. The workmen are not at the trouble either of drying the vitriol, or pounding the nitre, but throw them both promiscuously into the pot, where the fire (which is raised to a very high degree) soon liquefies, and mixes them together. The aqua fortis, prepared after this manner, is extremely impure, and utterly unfit for many purposes, such in particular are the solution of mercury and of silver: the violence of the fire, employed in the operation, never fails to elevate some of the metallic parts of the vitriol; the nitre is used rough or unrefined, which containing a portion of sea salt, sends over some of the marine along with the nitrous acid; nor are the ingredients free from bits of wood, or other vegetable matters, which burning in the process foul the spirit with an empyreumatic oil, giving it, at the same time, an high colour. If therefore common aqua fortis be employed in any medicinal preparation, it should be purified by a careful rectification in glass vessels, a small quantity of solution of silver being previously added: if there is any marine acid in the spirit, the silver will detain it from arising

arising a second time, and keep it at the bottom of the vessel along with the other impurities.

AQUA FORTIS COMPOSITA.
COMPOUND AQUA FORTIS.

Lond.

Take sixteen ounces of aqua fortis, and one dram of sea salt. Distil them to dryness.

This is designed as a menstruum for quicksilver, for the preparation of the red mercurial corrosive, or red precipitate as it is called; which the marine acid in this compound liquor renders of a more sparkling appearance, and more beautiful to the eye, than when made with the nitrous acid alone.

AQUA REGIA.

Edinb.

Put an ounce of powdered sal ammoniac into a large cucurbit, and add to it, by little and little at a time, four ounces of spirit of nitre, or double aqua fortis. Let them stand together in a sand heat, till the salt is entirely dissolved.

The glass in which the mixture is made should be placed under a chimney (to carry up the offensive vapour) and its orifice by no means stop'd till such time as the salt is perfectly dissolved, and the fumes cease to arise with impetuosity. These cautions are extremely necessary if the process be conducted according to the directions above. But if the sal ammoniac, finely powdered, be gradually added to the acid spirit (which ought to be of a middle degree of strength between single aqua fortis and strong spirit of nitre) the solution will proceed without any inconvenience: and may be finished in a reasonable compass of time, provided the mixture be now and then stirred.—The only use of aqua regia

and the aqua fortis, is, as menstrua for certain mineral substances.

ACETUM DISTILLATUM, vel SPIRITUS ACETI.
DISTILLED VINEGAR, or SPIRIT OF VINEGAR.

Lond.

Let vinegar be distilled with a gentle heat, as long as the drops fall free from an empyreuma.

If some part of the spirit which comes over first be thrown away, the rest will be the stronger.

Edinb.

Put any quantity of the best vinegar into a glazed earthen pot, and with the gentle heat of a water bath evaporate about one fourth part of it: then distil the remainder in an alembic, with a glass head, gradually increasing the fire, as long as the spirit comes off clear.

This process may be performed either in a common still with a condensing head, or in a retort. The better kinds of wine vinegar should be made use of: those made from malt liquors, however fine and clear they may appear to be, contain a large quantity of a viscid substance, as appears from the sliminess and ropiness to which they are very much subject; this not only hinders the acid parts from arising freely, but likewise is very apt to make the vinegar boil over into the recipient, and at the same time disposes it to receive a disagreeable impression from the fire. And indeed, with the best kind of vinegar, if the distillation be carried on to any great length, it is extremely difficult to avoid an empyreuma. The best method of preventing this inconvenience is, if a retort be made use of, to place the sand but a little way up its sides, and when somewhat more than half the liquor is come over,

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to pour on the remainder a quantity of fresh vinegar equal to that of the liquor drawn off: this may be repeated three or four times; the vinegar supplied at each time being previously made hot; the addition of cold liquor would not only prolong the operation, but also endanger breaking the retort. If the common still is employed, it should likewise be occasionally supplied with fresh vinegar, in proportion as the spirit runs off; and this continued, until the quantity of gross matter in the still is so large, as not to admit of the process being conveniently carried farther. The head of the still, and the recipient, ought to be of glass, or stone ware.

The residuum of this process is commonly thrown away as useless, though, if skilfully managed, it might be made to turn to good account; the most acid parts of the vinegar still remaining in it. Mixed with about three times its weight of fine dry sand, and committed to distillation in a retort, with a well regulated fire, it yields an exceeding strong acid spirit; together with an empyreumatic oil, which taints the spirit with a disagreeable odour. This acid is nevertheless, without any rectification, better for some purposes (as a little of it will go a great way) than the pure spirit; particularly for making the sal diureticus of the London dispensatory; for there the oily matter, on which its ill flavour depends, is burnt out by the calcination.

The spirit of vinegar is a purer and stronger acid than vinegar itself, with which it agrees in other respects. The medical virtues of these liquors may be seen in the section of acids, page 52, and under the article *Acetum*, page 67. their principal difference from the

mineral acids consists in their being milder, less stimulating, less disposed to affect the kidneys, and promote the urinary secretions, or to coagulate the animal juices. The matter left after the distillation, though not commonly made use of in medicine, would undoubtedly prove a serviceable detergent, saponaceous acid; and in this light it stands recommended by Boerhaave.

TARTARUM VITRIOLATUM.
VITRIOLATED TARTAR.

Lond.

Dissolve eight ounces of green vitriol in four pints of boiling water: and whilst the liquor continues boiling, throw into it salt of tartar, or any other alkaline salt, till no farther effervescence arises upon a fresh addition; which generally happens when four ounces, or a little more of the salt have been used. Filter the liquor through paper, and after due evaporation set it by to crystallize.

Here the acid of the vitriol forsakes the iron which it was before in possession of, to unite with the alkaline salt: particular care ought to be had that the quantity of alkali be sufficient to fully saturate the acid, otherwise it will not deposit all the metal. It is convenient, even after the saturation seems, from the effervescence ceasing, to be completed, to throw in a little more of the alkali; for by this means the preparation is secured from containing any metallic matter; whilst the superfluous quantity of alkali can do no prejudice, as it remains uncrystallized. It is remarkable, that although the vitriolic acid and fixt alkaline salt do each readily unite with water, and strongly attract moisture even from

from the air; yet the neutral salt resulting from a mixture of these two, vitriolated tartar, is very difficult of solution, and does not remain suspended in cold water: from hence we are directed to filter the liquor in this process whilst very hot, otherwise great part of the salt will be left upon the paper; a circumstance sufficiently troublesome.

Edinb.

Put any quantity of oil of tartar per deliquium, into a large glass vessel; and gradually drop into it oil of vitriol, diluted with equal its quantity of warm water, till the effervescence ceases. Then filter the liquor, evaporate it till a pellicle appears upon the surface, and set it by in a cold place to crystallize.

This is a very elegant, and one of the least troublesome ways of making this salt. The wholesale dealers in medicine, however, have long thrown both processes aside, and substituted an article which has been almost useless in their shops, the caput mortuum of Glauber's spirit of nitre. See the following process.

Fixt alkaline salts, exposed for a length of time to the air, imbibe therefrom (besides aqueous moisture) a portion of vitriolic acid, so as to yield a pure vitriolated tartar: hence a salt of this kind is frequently found among the potashes brought from abroad. Some have entertained a great opinion of the medical virtues of the vitriolated tartar thus produced by the aerial acid; though experience discovers no difference betwixt it and that skilfully prepared in the common way. All the use we would make of this observation is, that potash, as already containing a portion of the salt required, is at least as fit for this process as the

genuine salt of tartar, but that for other purposes it ought to be purified from its neutral salt; the method of doing which is pointed out by the different solubility of the two, already taken notice of.

Vitriolated tartar is an aperient neutral salt. It is sometimes exhibited in small doses, as a scruple, or half a dram, for attenuating viscid juices, and promoting the fluid secretions: in larger doses, it proves a mild and safe cathartic.

NITRUM VITRIOLATUM.
VITRIOLATED NITRE.

Lond.

Dissolve in warm water the mass which remains after the distillation of Glauber's spirit of nitre: filter the solution through paper, and crystallize the salt.

This salt is very nearly one and the same thing with the vitriolated tartar, to which it has been frequently substituted. It consists of the vitriolic acid, united with the basis of nitre, which differs no otherwise from a fixt alkaline salt, than in containing a minute admixture of a calcareous earth.

SAL CATHARTICUS
GLAUBERI.

*The CATHARTIC SALT OF
GLAUBER, commonly called
SAL MIRABILE.*

Lond.

Dissolve in warm water the mass which remains after the distillation of spirit of sea salt: filter the solution, and crystallize the salt.

Edinb.

If the crystals (obtained as above) prove too sharp, dissolve them again in water, filter the liquor, and cautiously evaporate it to such a pitch only as may dispose the salt to crystallize.

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There

There is no great danger of the crystals proving too sharp, even when the spirit of salt is made with the largest proportion of oil of vitriol directed under that process. The liquor which remains after the crystallization is indeed very acid; and with regard to this preparation, it is convenient it should be so; for otherwise, the crystals will be very small, and likewise in little quantity. Where a sufficient proportion of oil of vitriol has not been employed in the distillation of the spirit, it is necessary to add some to the liquor, in order to promote the crystallization of the salt.

The title of this salt expresses its medical virtues. Taken from half an ounce to an ounce, or more, it proves a mild and useful purgative; and in smaller doses, largely diluted, a serviceable aperient and diuretic. The shops frequently substitute to it the sal catharticus amarus (see page 195.) which is nearly of the same quality, but somewhat more unpleasant, and, as is said, less mild in operation. They are very easily distinguishable from one another by the different effects of alkaline salts upon them, as mentioned in the page above referred to.

SAL PRUNELLÆ.

Edinb.

Take two pounds of the purest nitre, reduced to powder. Melt it in a crucible, and sprinkle into it, by little at a time, one ounce of flowers of sulphur. When the deflagration is over, pour out the melted salt upon a clean, dry, and warm brass plate, so as to form it into cakes.

Those who prepare sal prunell in large quantities, make use of a clean iron pot instead of a crucible; and when the nitre is melted, and the sulphur deflagrated, take out

the salt with an iron ladle, and pour it into brass moulds kept for this purpose. The previous pounding of the nitre, directed above, may be as well omitted, as occasioning a needless trouble.

This preparation was formerly in great esteem, and is sometimes still ordered in prescription. It is nevertheless built upon an erroneous foundation, which supposed, that the nitre was purified by the deflagration it undergoes upon injecting a little sulphur on it: from proper experiments it appears, that the sulphur is so far from depurating the nitre, or tending to its improvement as a medicine, that it really alters some part of it into a salt, which has quite different properties; and therefore, as far as so little a quantity of sulphur can go, alters it for the worse. Hence Boerhaave directs the nitre, intended for making sal prunell, to be purified after the common method, and then melted by itself, and poured out into moulds. The fusion, here, brings the salt into a less compass, by evaporating the aqueous moisture, which has concreted with it in its crystallization.

SAL POLYCHRESTUM.

Salt of many virtues.

Edinb.

Take powdered nitre and flowers of sulphur, of each equal parts. Mingle them well together, and inject the mixture, by little and little at a time, into an ignited crucible: after the deflagration ceases, keep the crucible in the fire for an hour. The salt may be purified by dissolving it in warm water, filtering the solution, and exhaling it to dryness.

This salt does not greatly differ from some that may be afforded at a cheaper

a cheaper rate, as is well known in the shops; and little deserves the pompous title which the chemists have given it. It is composed of the acid of the sulphur, and the alkaline basis of the nitre.

SPIRITUS SALIS MARINI
COAGULATUS.
COAGULATED SPIRIT OF
SEA SALT.

Lond.

Drop into Glauber's spirit of salt, a lixivium of any fixt alkaline salt, till all effervescence ceases; then evaporate the mixture to dryness.

This regenerated sea salt (as it is very properly called) is entirely new to books of pharmacy, and might perhaps have been very well spared in this. It does not differ from common salt in any property which a slight addition of the acid spirit will not give the latter. The regenerated salt affords with the vitriolic acid a sal mirabile, with the nitrous a quadrangular nitre, as common salt does: and again, common salt, when reduced into a like quadrangular nitre, desagrates with inflammable matters, and forms a pure and perfect alkaline salt.—In the preparation of this salt, the operator must be careful not to exsiccate it with too strong a fire; lest, instead of the acidulated salt here intended, he produce one not distinguishable from that used at table.

SAL SEDATIVUS.

*Salt of borax called
SEDATIVE SALT.*

Put nine ounces of powdered borax into a wide-necked retort; pour thereon half an ounce of water; and then add two ounces of oil of vitriol. Place the retort in a proper furnace, and gradually increase the fire till the vessel

becomes red hot. The sedative salt will arise into the neck, in form of thin shining plates, which are to be swept out with a feather.

Or,

Dissolve the borax in a sufficient quantity of warm water, and add thereto the oil of vitriol. Evaporate this mixture, till thin plates appear upon the surface; then suffer the fire to decay, and let the vessel stand unmoved till plenty of crystals are formed.

Though the vitriolic acid has been usually directed in this process, any other will answer as well: the matter which remains after the separation of the sedative salt, is, when this acid is employed, a Glauber's salt; when the nitrous is made use of, a quadrangular nitre; when the marine, a genuine sea salt. The sal sedativus, united with the basis of sea salt (or with an alkali, that has been previously combined with the marine acid) recomposes borax again. This salt appears to the taste a neutral salt; but examined with alcalies has the properties of an acid, effervescing, uniting, and crystallizing with them, and destroying their alkaline quality. It dissolves both in water and in spirit of wine; though not very readily in either. As to its virtues, it is supposed to be a mild anodyne, (whence its name) to calm the heat of the blood in burning fevers, to prevent or remove delirious symptoms, and allay spasmodic affections, whether hypochondriacal or hysterical, at least for a time. The dose is from two to twelve grains, in any proper liquor.

TARTARUM SOLUBILE.

SOLUBLE TARTAR.

Lond.

Dissolve a pound of any fixt alkaline salt in a gallon of boiling water;

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water;

water; and gradually throw in crystals of tartar, as long as a fresh addition thereof raises any effervescence; which generally ceases before three pounds of the crystals have been used. Then filter the liquor, and after due evaporation, set it by to crystallize; or evaporate it to dryness, and keep the remaining saline mass for use.

Edinb.

Boil crystals of tartar, till they are perfectly dissolved, in ten times their quantity of water; and gradually drop into the solution, whilst it continues boiling, oil of tartar per deliquium, till the effervescence ceases. Filter the liquor whilst hot, and evaporate it till a pellicle appears on the surface, that when removed into a cold place, it may crystallize.

Common white tartar is perhaps preferable for this operation to the crystals usually met with (see the article TARTAR, page 216.) Its impurities can here be no objection; since it will be sufficiently depurated by the subsequent filtration.

The preparation of this medicine by either of the above methods is very easy; though some chemists have rendered it sufficiently troublesome by a nicety that is not at all wanted. They insist upon hitting the very exact point of saturation betwixt the alkaline salt and the acid of the tartar; and caution the operator to be extremely careful, when he comes near this mark, lest by imprudently adding too large a portion of either, he render the salt too acid, or too alkaline. If the liquor be suffered to cool a little before it is committed to the filter, and then properly exhaled and crystallized, no error of this kind can happen, though the saturation should not be

very exactly hit: for since crystals of tartar are very difficultly soluble even in boiling water, and when dissolved therein, concrete again upon the liquors growing cold; if any more of them has been employed, than is taken up by the alkali, this superfluous quantity will be left upon the filter: and on the other hand, if too much of the alkali has been made use of, it will remain uncrystallized. The crystallization of this salt indeed cannot be effected without a good deal of trouble: it is therefore most convenient to let the acid salt prevail at first, to separate the superfluous quantity, by suffering the liquor to cool a little before filtration, and then proceed to the total evaporation of the aqueous fluid, which will leave behind it the neutral salt required. The most proper vessel for this purpose is a glazed earthen or stone ware one; iron discolours the salt.

This salt has long been in esteem both as a medicine as a menstruum. It is a very serviceable, aperient, attenuates viscid juices, promotes the urinary secretion, and gently loosens the belly: the dose is from ten grains to a dram or two, or more. It is an useful addition to the resinous purgatives, as it promotes their action, and at the same time prevents their griping quality.

SAL DIURETICUS.

Lond.

TARTARUS REGENERATUS.

Edinb.

*The DIURETIC SALT, or
REGENERATED TARTAR,
otherwise called,*

TERRA FOLIATA TARTARI.

Edinb.

Put any quantity of dry salt of tartar, powdered, into a large glass vessel; and pour thereon,
by

by little and little, as much distilled vinegar as is necessary to saturate it. Filter the liquor, and exhale it, over a very gentle fire, to dryness, taking great care that the matter contract not an empyreuma. On the salt which remains, pour as much more spirit of vinegar as will saturate it; then deposite the liquor again, and carefully excise it into a dry salt.

If the common alcalies are made use of for this process, they should be previously purified, by solution and crystallization, from the neutral salt which they generally contain. The distilled vinegar must be perfectly free from any empyreumatic taint: it is not necessary to dephlegmate it, or throw away the first runnings in the distillation, since these contain a portion of the acid (the part here wanted) as well as the phlegm.

It is difficult to hit the point of saturation betwixt the acetous acid, and the alkaline salt. After about fourteen parts of strong distilled vinegar have been gradually poured upon one of the fixed salt, the addition of a little more of the acid will not occasion any further effervescence in the cold; but if the mixture be now strongly stirred and well heated, the effervescence will appear afresh; upon which some more vinegar is to be added, till it again ceases. The saturation is not as yet complete; for upon exhaling the aqueous parts, the remaining salt still effervesces with fresh vinegar. When so much of the acid has now been added that no marks of fermentation any longer appear, a little more of the vinegar may be poured in before you proceed to the last evaporation; by this means, the saturation of the alcali will be secured, whilst, if the acid prevails,

the superfluous quantity of it will exhale.

The salt thus prepared, is of a dark brown colour, a peculiar, not ungrateful odour, a penetrating, saponaceous, saline taste, in no wise alkaline or acid. Its brown colour, and saponaceous quality, proceed from the oily parts of the vinegar; the depuration of the salt from which, is not in the foregoing process insisted on.

Lond.

Take a pound of any fixt alkaline salt, and boil it, with a very gentle heat, in four or five times its weight of distilled vinegar. When the fermentation ceases, add more distilled vinegar; and proceed with fresh additions thereof, until the vinegar being almost evaporated, fresh vinegar will no longer raise any fermentation; which generally happens by the time that twenty pounds of distilled vinegar have been used. Then slowly exhale to dryness.

Melt the remaining impure salt for a little time, but not too long over, a gentle fire; then dissolve it in water, and filter the solution through paper. If the melting has been duly performed, the filtered liquor will be limpid and colourless as water; but if otherwise, of a brown colour.

Evaporate the limpid solution, with an exceeding gentle heat, in a shallow glass vessel; occasionally stirring the salt as it dries, that its moisture may be the sooner exhaled. Afterwards keep it for use in a vessel very closely stopp'd; for it will liquefy by the air.

This salt ought to be of perfect whiteness; and should totally dissolve both in water and in
U 4 spirit

spirit of wine, without leaving any feces. If the salt, though ever so white, deposites any feces in spirit of wine; the whole of it must be dissolved in this spirit, the solution filtered, and exsiccated again.

We need not here be very solicitous that the vinegar be free from an empyreuma: such as is very considerably empyreumatic (particularly the strong concentrated acid obtained from the caput mortuum of vinegar) answers as well as any other; the oil in which the burnt flavour resides, being separated by the depuration above directed. This purification is indeed sufficiently troublesome: the operator must be particularly careful in melting the salt, not to use too great a heat, or to keep it liquefied too long; a little should be occasionally taken out, and put into water; and as soon as it begins to part freely with its black colour, the whole removed from the fire. In the last drying, the heat must not be so great as to melt it; otherwise it will not prove totally soluble. If the solution in spirit of wine be exsiccated, and the remaining salt liquefied with a very soft fire, it gains the leafy appearance, which has procured it the name terra foliata.

We shall not take upon us to determine whether the pure or impure salt are preferable as medicines; observing only, that the latter is more of a saponaceous nature, the former more acrid, though somewhat more agreeable to the stomach. They are both medicines of great efficacy, and may be so dosed and managed as to prove either mildly cathartic, or powerfully diuretic: few of the saline deobstruents come up to them in virtue. The dose is from half a scruple to a dram or two.

A bare mixture of alkaline salt and vinegar without exsiccation, is not perhaps much inferior as a medicine to the more elaborate salt: I have known two drams of the alcali, saturated with vinegar, occasion ten or twelve stools, in hydroptic cases, and a plentiful discharge of urine, without any inconvenience.

SPIRITUS MINDERERI.
SPIRIT OF MINDERERUS.

Edinb.

Take any quantity of the volatile alkaline salt of sal ammoniac, and gradually pour upon it distilled vinegar, till the effervescence ceases; occasionally stirring the mixture, to promote the action of the vinegar on the salt.

This neutral spirit has been for some time held in considerable esteem; and successfully employed as a deobstruent and diaphoretic: it may be so managed as to prove powerfully diuretic; and if given in a considerable dose, gently loosens the belly. The strength of this medicine greatly depends upon that of the vinegar; and therefore its dose can scarce be determined.

SPIRITUS VITRIOLI
DULCIS.
*DULCIFIED SPIRIT OF
VITRIOL.*

Lond.

Take of the strong spirit or oil of vitriol, one pound; of rectified spirit of wine, one pint. Cautiously mix them together, by little and little at a time; and distil the mixture, until a black froth begins to arise: then immediately remove the whole from the fire, lest this froth should pass over into the recipient, and frustrate the operation.

Edinb.

Edinb.

Take four pounds of rectified spirit of wine, and six ounces of oil of vitriol. Cautiously drop the latter into the former, by a little at a time; digest them together for three days; and then distil according to art.

The different proportions of the acid spirit to the vinous in these processes, make no variation in the quality of the produce, provided the distillation be duly conducted. The residua indeed are considerably different from one another: that of the first is extremely acid, and might be employed for the same purpose again, and this for several times successively, instead of fresh oil of vitriol; whilst the residuum of the other has but little acidity.

The distillation should be performed with an equable and very gentle heat; and not continued so long as till a black froth begins to appear; for before this time, a sulphureous liquor will arise, of a very different nature from the spirit here intended. The commentator on the Edinburgh pharmacopœia describes a very convenient apparatus for this purpose. The mixture is to be put into a retort with a very long neck, whose body should be capable of containing at least four times the quantity: set the retort on a little sand no more than is just sufficient to keep it steady in a proper furnace; and adapt to it a large tubulated recipient, in such a manner, that its pipe may convey the matter which shall come over, immediately into a vial placed underneath: the juncture of the retort and recipient, is to be luted with a paste made of linseed meal, and farther secured by a piece of wet bladder: the lower juncture may be closed only with some soft wax,

that the vial may be occasionally removed with ease. A gentle fire being now applied, a volatile spirit soon arises, and condensing upon the sides of the recipient, in straight striæ, runs down into the vial. After the fire has been kept up for some time, white vapours come over, which form either irregular streams, or collect into large round drops: on the first appearance of these, the vial must be taken away. The distilled liquor is colourless as water, very volatile, inflammable, extremely odorous, in taste somewhat aromatic: this is the true dulcified spirit of vitriol.

If the distillation be farther continued (another vial being put in place of the former) an acid liquor comes over, of an exceeding pungent smell, like the fume of burning sulphur: at length a black froth begins hastily to arise, which prevents our carrying the process farther. On the surface of the sulphureous spirit is found swimming a small quantity of OIL, of a light yellow colour, and a strong and very agreeable smell. This oil seems to be of the same nature with the essential oil of vegetables: it readily and totally dissolves in rectified spirit of wine, and communicates to sixty times its weight thereof the same taste and smell with the aromatic or dulcified spirit.

Dulcified spirit of vitriol has been for some time greatly esteemed both as a medicine and as a menstruum. Considered in the first light, it promotes perspiration and the urinary secretion, expels flatulencies, and in many cases eases pains and procures sleep: when made in perfection, it differs not considerably from a preparation which has been celebrated in Germany under the name of the mineral anodyne liquor of Hoffman; this

this last being only somewhat more impregnated with the aromatic oil above mentioned: it may be given, in flatulent colics, &c. from ten to ninety drops, in any convenient vehicle. As a menstruum, it extracts elegant tinctures from sundry vegetables, and dissolves some resinous matters that are scarce acted upon by spirit of wine alone. It is the basis of VIGANI'S VOLATILE ELIXIR OF VITRIOL, a medicine which has been in great esteem, and was first communicated to the public in the pharmacopœia reformatâ: this is prepared by digesting some of the spirit upon a small quantity of mint curiously dried, till it has acquired a green colour. If the spirit, as it frequently does, partakes too much of the acid, this colour will not succeed: in such case, it should be carefully rectified by a second distillation, from a small quantity of fixt alkaline salt, in the heat of a water-bath. The mint is most commodiously suspended in the spirit, in a fine linen cloth; this prevents the necessity of filtration, during which the more volatile parts would exhale.

If the dulcified spirit of vitriol be re-distilled from twice or thrice its weight of water, and afterwards poured into an equal quantity of fresh water, and the whole well shaken together in a close vessel; the liquor gains a milky appearance, but immediately grows clear again, throwing up to the surface an extremely volatile inflammable fluid, not miscible with water or with any other known liquor. This is called by the chemists æther or ÆTHEREAL SPIRIT OF WINE: it has been hitherto regarded chiefly as a matter of curiosity, though possibly applicable to useful purposes in medicine: digested in the cold for about an

hour upon any vegetable substances, it extracts their essences, or oils, in which their peculiar virtues reside; these may be afterwards separated from it by the affusion of water.

SPIRITUS NITRI DULCIS.
DULCIFIED SPIRIT OF
NITRE.

Lond.

Take a quart of rectified spirit of wine, and half a pound of Glauber's spirit of nitre. Mix them by pouring the nitrous spirit into the other; and distil with a gentle heat, as long as the liquor which comes over does not raise any effervescence with lixivial salts.

Edinb.

Put three parts of rectified spirit of wine into a large bolt-head, and gradually add thereto one part of spirit of nitre. Digest them together for two days; and then distil in a sand heat, according to art; taking care, towards the end of the operation, that the retort break not from too great a heat.

Here the operator must take care not to invert the order of mixing the two liquors, by pouring the vinous spirit into the acid; for if he should, a violent effervescence and heat would ensue, and the matter be dispersed in highly noxious red fumes. The most convenient and safe method of performing the mixture seems to be, to put the inflammable spirit into a large glass body with a narrow mouth, placed under a chimney, and to pour upon it the acid by means of a glass funnel, in very small quantities at a time; shaking the vessel as soon as the effervescence ensuing upon each addition ceases, before a fresh quantity is put in: by this means, the glass will heat equally,

qually, and be prevented from breaking. During the action of the two spirits upon one another, the vessel should be lightly covered; if close stopt, it will burst; and if left entirely open, some of the more valuable parts will exhale. Lemery directs the mixture to be made in an open vessel; by which unscientific procedure he usually lost, as he himself observes, half his liquor; and the remainder was not the medicine here intended. The liquors mixed together, should be suffered to rest for at least twelve hours, that the fumes may entirely subside, and the union be in some measure completed. The distillation should be performed with a very slow and well regulated fire; otherwise the vapour will expand with so much force as to burst the vessels. Wilson seems to have experienced the justness of this observation; and hence directs the juncture of the retort and receiver not to be luted, or but slightly: if a tubulated recipient, with its additional pipe, be made use of, and the distillation performed with the heat of a water-bath, the vessels may be luted without any danger: this method has likewise another advantage, as it ascertains the time when the operation is finished; examining the distilled spirit every now and then with acaline salts as directed above, is sufficiently troublesome; whilst in a water bath, we may safely draw over all that will arise, for this heat will elevate no more of the acid than what is dulcified by the vinous spirit.

Dulcified spirit of nitre has been long held, and not undeservedly, in great esteem. It quenches thirst, promotes the natural secretions, expels flatulencies, and moderately strengthens the stomach: it may be

given from twenty drops to a dram, in any convenient vehicle. Mixed with a small quantity of spirit of hartshorn, the spiritus volatilis aromaticus, or any other alkaline spirit, it proves a mild yet efficacious diaphoretic, and often notably diuretic; especially in some febrile cases where such a salutary evacuation is wanted. A small proportion of this spirit added to malt spirits, gives them a flavour approaching to that of French brandy.

SPIRITUS SALIS DULCIS.
DULCIFIED SPIRIT OF SALT.

Edinb.

This is made with spirit of salt, after the same manner as dulcified spirit of nitre.

The dulcification of the spirit of salt does not succeed so perfectly, as that of the two foregoing acids, only a minute portion of it uniting with the spirit of wine, and unless the process is skilfully managed, scarce any. Some have held this spirit in great esteem against weakness of the stomach, indigestion, and the like, following from hard drinking; at present, it is not often made use of, or kept in the shops.

SPIRITUS, SAL, ET OLEUM
SUCCINI.
SPIRIT, SALT, AND OIL OF
AMBER.

Lond.

Distil amber in a sand heat gradually increased: there will come over a spirit, an oil, and a salt fouled with the oil.

The oil distilled again by itself, is divided into a thinner oil which arises; and a thicker part that remains behind, called balsam of amber.

The salt is to be boiled in the distilled spirit, or in common water, and set to crystallize; by this

this means it is freed from its adhering oil. The oftner this is repeated, the purer it will be.

Edinb.

Mix powdered white amber with thrice its weight of clean sand, and put them into a glass retort, of which the mixture may fill one half: then adapt a large receiver, and distil in a sand furnace, with a fire gradually increased. At first a spirit will come over, with some yellow oil; then more yellow oil, along with a little salt; and upon raising the heat, more of the salt, with a reddish coloured oil.

When the distillation is finished, empty the liquor out of the receiver; and having collected together the salt which adheres to the sides, dry it by gentle pressure between the folds of some spongy paper.

The oil may be separated from the spirit by filtration: and afterwards rectified by distilling it from a brine of sea salt.

The salt is to be rectified in the following manner. Grind it well with twice its quantity of sea salt, and put the mixture into a tall and narrow glass cucurbit: fit on a blind-head, and proceed to sublimation in a sand heat, taking care that the oil does not rise. When the vessels are grown cold, sweep out the salt with a feather.

The distillation of amber may be performed without the use of sand (or any other intermedium) which does little more than take up room in the retort. The chemists generally leave the receiver unluted, that it may be occasionally removed as the salt rises and concretes in the neck of the retort, from whence it is every now and then to be scraped out, to prevent the oil from carrying it down into the receiver.

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When a gross thick oil begins to arise, and no more salt appears, the distillation should be stopt. The spirit of amber so called, is no more than a solution of a small portion of the salt in phlegm or water; and therefore is very properly employed for dissolving the salt in order to its crystallization. We cannot take upon us to determine whether crystallization or sublimation is absolutely the best method of purifying this salt: the former is certainly the easiest and least expensive; whilst the latter gives the salt a more elegant appearance, and renders it less liable to be adulterated.

Pure salt of amber is of a penetrating, gratefully acid taste. It dissolves, both in water and in rectified spirit; and with a proper quantity of the former, shoots into an irregular lump of crystals. Exposed to a small heat, in a glass vessel, it first melts, then rises in a white fume, and concretes again, in the upper part of the glass, into fine white flakes. It effervesces with alkaline liquors, but makes no sensible commotion with acid ones. Ground with fixt alkaline salts, it does not exhale any urinous odour. By these characters, we conceive, this salt may be readily distinguished from all the other matters that have been mixed with or vended for it. Salt of amber is accounted aperient, diuretic, and, on account of its retaining some portion of the oil, antihysteric: Boerhaave gives it the character of diureticorum et antihystericorum princeps. Its great price, however, has prevented its coming much into use; and perhaps its real virtues are not equal to the opinion generally entertained of them.

The rectified oil has a strong bituminous smell, and a pungent, acrid taste. Given in a dose of ten

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or twelve drops, it heats, stimulates, and promotes all the fluid secretions; it is chiefly celebrated in hysterical disorders, and in deficiencies of the uterine purgations. Sometimes it is used externally, in liniments for weak or paralytic limbs, and rheumatic pains.

SPIRITUS, SAL et OLEUM
CORNU CERVI.
SPIRIT, SALT and OIL OF
HARTSHORN.

Lond

Distil pieces of hartshorn by a fire gradually raised almost to the highest: a spirit, salt and oil will ascend.

If the oil be separated: and the spirit and salt distilled again together, with a very gentle heat, they will both arise more pure. If this be carefully repeated several times, the salt will become exceedingly white, the spirit limpid as water, and of a grateful odour.

The salt separated from the spirit, and sublimed first from an equal weight of pure chalk, and afterwards from a little rectified spirit of wine, becomes the sooner pure.

Calcined hartshorn is generally made by burning the horns left after this distillation.

After the same manner, a spirit, salt and oil may be obtained from every kind of animal substance.

Edinb.

Fill an earthen or coated glass retort up to the neck with pieces of hartshorn; place it in an open fire, and having fitted on a large receiver, distil with a fire gradually augmented. At first a phlegm arises, then a spirit, afterwards an oily salt of a yellow colour, and last of all, a reddish black coloured oil, along with some

more volatile salt: a black coal remains at the bottom of the distilling vessel, which being burnt in an open fire till it becomes white, is called calcined hartshorn.

Having poured out of the recipient all the different matters which have come over into it, they may be separated from one another in the following manner: The oil separates from the phlegm and spirit in filtration: the two latter will pass through, and the oil remain on the filter.

The phlegm may be separated from the spirit by distillation in a tall vessel, with a gentle heat: the spirit will come over into the recipient, and the phlegm remain at the bottom of the distilling vessel.

The spirit may be divided into a volatile salt and phlegm, by distilling it in a very tall and narrow cucurbit; the salt will arise, and adhere to the head in a dry form; the phlegm remaining behind.

The salt may be freed from the oil, by subliming it from six times its quantity of chalk or calcined bones; for the oil is kept down by these substances, whilst the salt arises.

A spirit, salt and oil may be distilled in the same manner from all the solid parts of animals; from blood, exsiccated by a gentle heat; from urine, evaporated to the consistence of honey, and putrefied; and even from recent urine, inspissated; in this last process, it is convenient to mix with the urine four times its quantity of sand, or an equal quantity of any fixt alkaline salt. Urine distilled with the addition of quicklime, yields only an exceeding pungent spirit.

The chemists usually employ in
this

this process a large iron pot, with an earthen head almost like that of the common still: many of the wholesale dealers have these instruments very large, and use for their recipients a couple of oil jars, the mouths of which are luted together; the pipe that comes from the head enters the lowermost jar, through a hole made on purpose in its bottom. When a large quantity of the subject is to be distilled, it is customary to continue the operation for several days successively; only unluting the head occasionally, to put in fresh materials. When only a small quantity of spirit or salt is wanted, a common iron pot, such as is usually fixed in sand furnaces, may be employed; an iron head being fitted to it: the receiver ought to be large, and a glass or rather tin adopter inserted betwixt it and the pipe of the head. The distilling vessel being charged with pieces of the horn, a moderate fire is applied, which is slowly increased, and raised at length almost to the utmost degree. At first, a phlegmatic liquor arises; the quantity of which will be less or greater, according as the horns were more or less dry: this is succeeded by the salt and oil; the salt at first, dissolves as it comes over, in the phlegm, and thus forms what is called spirit: when the phlegm is saturated, the remainder of the salt concretes in a solid form to the sides of the recipient. If it is required to have the whole of the salt solid and undissolved, the phlegm should be removed as soon as the salt begins to arise, which may be known by the appearance of white fumes: and that this may be done the more commodiously, the receiver should be left unluted, till this first part of the process is finished. The white vapours which now arise, sometimes come with such vehemence,

as to throw off or burst the receiver: to prevent this accident, it is convenient to have a small hole in the luting; which may be occasionally stopped with a wooden peg, or opened, as the operator shall find proper. After the salt has all arisen, a thick, dark coloured oil comes over: the process is now to be discontinued, and the vessels, when grown cold, unluted. All the liquid matters being poured out of the receiver, the salt which remains adhering to its sides, is to be washed out with a little water, and added to the rest. It is convenient to let the whole stand for a few hours, that the oil may the better disengage itself from the liquor, so as to be first separated by a funnel, and afterwards more perfectly by filtration through wetted paper. The salt and spirit are then to be farther purified as above directed.

The spirit of hartshorn met with in the shops is extremely precarious in point of strength; the quantity of salt contained in it (on which its efficacy depends) varying according as the distillation, in rectifying it, is continued for a longer or shorter time. If after the volatile salt has arisen, so much of the phlegm or watery part be driven over after it, as is just sufficient to dissolve it, the spirit will be fully saturated, and as strong as it can be made: if the process is not at this instant stopt, the phlegm, continuing to arise, must render the spirit continually weaker and weaker. The distillation therefore ought to be discontinued at this period, or rather whilst some of the salt still remains undissolved: the spirit will thus prove always equal, and the buyer be furnished with a certain criterion of its strength. Very few have taken any notice of the above mentioned inconvenience of these kinds

kinds of spirits: and no one that we know of has hinted the remedy except the author of the pharmacopœia reformata. The purity of the spirit is easily judged from its clearness and grateful odour.

Volatile salts and spirits in general, are in taste and smell extremely pungent and acrimonious: applied to the skin, and prevented from exhaling, they inflame the part, and produce the effect of caustics: they liquefy the animal juices, and dissolve the coagula made from them by acids; mixed immediately with acids, they effervesce, and unite into a neutral salt.

With regard to their medical virtues, they stimulate the nervous system, attenuate viscid humours, promote a diaphoresis and other natural secretions, and absorb acidities in the primæ viæ. They are particularly useful in lethargic and apoplectic cases; in hypochondriacal and hysterical disorders, and the languors, head-achs, inflations of the stomach, flatulent colics, and other symptoms with attend them. They are generally found more serviceable in aged persons, and in phlegmatic habits, than in the opposite circumstances. In febrile and inflammatory distempers, they are hurtful; those kinds of temperers excepted which are accompanied with a cough, hoarseness, and a redundance of phlegm. They are most conveniently exhibited in a liquid form, largely diluted with water or other convenient liquors: the dose of the pure salt is from two or three grains to ten, twelve, or more: the spirit is taken from five or six to thirty or more drops.

The volatile salts and spirits prepared from different animal substances, have been supposed capable of producing different effects upon the human body, and to re-

ceive specific virtues from the subject. The salt of vipers has been esteemed particularly serviceable in the disorders occasioned by the bite of that animal; and one drawn from the human skull, in diseases of the head. But modern practice acknowledges no such different effects from these preparations, and chemical experiments have shewn their identity. There is indeed, when not sufficiently purified, a very perceptible difference in the smell, taste, degree of pungency, and volatility of these salts; and in this state, their medicinal virtues vary considerably enough to deserve notice: but this difference they have in common, according as they are more or less loaded with oil, not as they are produced from this or that animal substance. As first distilled, they may be looked upon as a kind of volatile soap, in which the oil is the prevailing principle: in this state, they are much less acrimonious and pungent, than when they have undergone repeated distillations, and such other operations as disengage the oil from the salt; for by this means, they lose their saponaceous quality, and acquiring greater degrees of acrimony, become medicines of a quite different class. These preparations, therefore, do not differ near so much from one another, as they do from themselves in different states of purity. To which may be added, that the medicinal virtues of a distilled animal oil are likewise to be brought into the account.

These oils, as first distilled, are of themselves too fetid and offensive for medicinal use: by repeated rectifications, they become limpid as water, highly volatile, of an agreeable fragrant smell, and a penetrating taste. Hoffman and others, bestow an extraordinary character

character upon the oils thus purified, under the name of OLEUM ANIMALE; and strongly recommend them in epileptic cases and intermittent fevers. Their more sensible effects are, to promote sweat, and procure a calm gentle sleep, which sometimes continues for twenty hours, and is rarely accompanied with the languor or other inconveniencies which too frequently follow upon the use of opiates.

SPIRITUS, SAL, et OLEUM
FULIGINIS.

*SPIRIT, SALT, and OIL OF
SOOT.*

Lond.

Distil soot after the same manner as directed above for hartshorn: but here more labour is required to render the spirit and salt pure.

The volatile salt and spirit of soot are, when sufficiently purified, not different in quality from those of animal substances: though by some preferred in nervous complaints, particularly in epileptic cases.

SPIRITUS et SAL VOLATILIS
SALIS AMMONIACI.

*The VOLATILE SALT and SPIRIT
OF SAL AMMONIAC.*

Lond.

Take a pound and an half of sixt alkaline salt, a pound of sal ammoniac, and four pints of water. Distil off with a gentle heat, two pints of spirit.

The volatile salt is made from a pound of sal ammoniac mixed with two pounds of pure chalk, and set to sublime in a retort, with a strong fire.

Edinb.

Take equal parts of sal ammoniac and salt of tartar: grind them separately to powder, then mix,

and put them into a glass retort, with as much water as is sufficient to dissolve the salts; and distil in a sand heat. The volatile salt will arise first: if the spirit is wanted, continue the distillation: till this salt is dissolved by the aqueous liquor which comes over after it.

In making the spirit, it is most convenient to dissolve the sal ammoniac and salt of tartar separately in water, before they are put into the retort.

With regard to the salt, chalk is found to answer at least as well as an intermedium, as the more expensive alkali. The chalk and sal ammoniac should be separately reduced to powder, and then mixed together: when put into the retort, the surface of the matter may be covered with a little more powdered chalk, otherwise such part of the sal ammoniac as happens to lie uppermost will sublime unchanged. A strong fire is necessary, but it must not be too strong or too suddenly raised; for if it is, a part of the chalk (though of itself not capable of being elevated by any degree of heat) will be carried up along with the volatile salt. M. du Hamel experienced the justness of this observation, and frequently found his volatile salt, when a very intense fire was made use of in the sublimation, amount to more, sometimes one half more, than the weight of the crude sal ammoniac employed; though it is certain, that not three fourths of this concrete are pure volatile salt. When all the salt has sublimed, and the receiver grown cool, it may be taken off, and luted to another retort charged with fresh materials: this process may be repeated, till the recipient appears lined with volatile salt to a considerable thickness; when the vessel must be broken,

broken, in order to get out the salt.

The volatile salt and spirit of sal ammoniac are the purest of all the medicines of this kind. They are somewhat more acrimonious than those produced directly from animal substances; for these, it is scarce possible, by the common methods of purification, to separate entirely from their oil, which gives them some degree of a saponaceous quality.

If quicklime be employed as an intermedium in the distillation of sal ammoniac, a spirit more pungent and penetrating than the foregoing is obtained, but no concrete salt. Three pounds of quicklime, exposed to the air till it has fallen into powder, may be mixed with one pound of sal ammoniac, and immediately put into a retort, with two pounds of water: the spirit will arise with a moderate heat. This spirit is held too acrimonious to be given internally, and has therefore been chiefly used for smelling to in faintings, &c. It is an excellent menstruum for sundry vegetable substances (Peruvian bark for instance) which the other spirit extracts little from.

Some have mixed a quantity of this with the officinal spirit; which thus becomes more pungent, so as to bear an addition of a considerable proportion of water, without any danger of discovery either from the taste or smell: this abuse would be prevented, if the mark formerly laid down of the goodness and strength of these spirits (some of the volatile salt remaining in them undissolved) was duly attended to. Others have substituted a solution of crude sal ammoniac and fixt alkaline salt, mixed together: this may be discovered by the liquor leaving a neutral salt upon evaporation.

The matter which remains in the retort after the distillation of the spirit, and sublimation of the salt of sal ammoniac, is found to consist of marine acid united in the one with the fixt alkaline salt, and with the chalk in the other. The caput mortuum, as it is called, of the spirit of sal ammoniac, dissolved in water, filtered and exsiccated, proves similar to sea salt, or the spiritus salis marini coagulatus; and hence we may judge of the extraordinary virtues attributed to it under the names of sal antihystericum, antihypochondriacum, febrifugum, digestivum Sylvii, &c.

The caput mortuum of the volatile salt where chalk is employed as an intermedium, exposed to a moist air, runs into a liquor, which proves nearly the same with a solution of chalk made directly in the marine acid. If calcined shells or other animal limes be mingled with sal ammoniac, a mass will be obtained, which likewise runs in the air, and forms a liquor of the same kind. This liquor seems to be the secret of some late pretenders to a dissolvent of the calculus.

It appears from these processes, that sal ammoniac is composed of a volatile alkaline salt (which arises in the sublimation) and of marine acid (which remains united with the intermedium.) Upon this principle, which is certainly a just one, some have attempted to prepare this commodity among ourselves; and the Edinburgh pharmacopœia has received a process of this kind, under the title of

SAL AMMONIACUM
FACTITIUM.
FACTITIOUS SAL AMMONIAC.
Take of human urine, or that of beasts, three quarts; of sea salt, two pounds; of wood foot, one pound. Boil them together into
X a mass;

a mass; which put into proper subliming vessels, and with a fire gradually increased, sublime the salt. This salt may be rendered pure by dissolving it in water, filtering the solution, and evaporating it to dryness; as also by repeated sublimations. It is brought to us ready made from abroad.

Here the sea salt is supposed to furnish its acid, and the two other ingredients a volatile alkali. But the acid of common salt is too closely united with its own basis to be separable in this process: this fixt salt appears, if any thing, to be injurious; for if mixed with sal ammoniac itself, it makes it more difficult of sublimation, and even detains a part of it from arising at all. We nevertheless cannot affirm with a late writer, that by the foregoing process "not a grain of sal ammoniac has ever been produced," for both the urine and foot yield by themselves a portion of this salt, though very small.

SPIRITUS SALIS AMMONIACI DULCIS.
DULCIFIED SPIRIT OF SAL
AMMONIAC.

Lond.

Take half a pound of any alkaline salt, four ounces of sal ammoniac, and three pints of proof spirit of wine. Distil off, with a gentle heat, a pint and an half.

This spirit has lately come much into esteem both as a medicine and a menstruum. It is a solution of volatile salt in rectified spirit of wine; for though proof spirit is made use of, its phlegmatic part does not arise in the distillation, and serves only to facilitate the action of the alkaline salt upon the ammoniacal. The virtues and uses

of this spirit will hence be easily understood.

SPIRITUS VOLATILIS
FÆTIDUS.
THE VOLATILE FÆTID SPIRIT.
 Lond.

Take of

Any fixt alkaline salt, a pound and an half;
Sal ammoniac, one pound;
Asa fœtida, four ounces;
Proof spirit of wine, six pints.
Draw off with a gentle heat, five pints.

This spirit is designed as an anti-hysterical, and is undoubtedly a very elegant one. Volatile spirits impregnated for these purposes, with different fetids, have been usually kept in the shops: the ingredient here made choice of, is the best calculated of any for general use, and equivalent in virtue to them all. The spirit is pale when newly distilled, but acquires a considerable tinge in keeping.

SPIRITUS VOLATILIS
AROMATICUS [L.]
Spiritus salinus aromaticus [E.]
The VOLATILE (or saline)
AROMATIC SPIRIT,

commonly called

SAL VOLATILE OLEOSUM.
 Lond.

Take of

Essential oil of nutmegs,
Essence of lemons, each two
drams;
Essential oil of cloves, half a
dram;
Dulcified spirit of sal ammoniac,
one quart.
Distil them with a very gentle
fire.

Edinb.

Take of

French brandy, three gallons;
Distilled

Distilled oil of

lavender, an ounce and a half;
 rosemary, an ounce;
 marjoram, six drams;
 lemon peel, half an ounce;
 nutmegs, three drams;
 cloves, two drams;
 cinnamon, one dram.

Gradually drop the oils into the spirit, occasionally stirring them together. One half of this mixture is to be reserved for making the compound spirit of lavender, as directed hereafter. To the other half add eight ounces of the volatile salt of sal ammoniac; and immediately distil, in balneo mariae, till two thirds are come over.

Volatile salts, thus united with aromatics, are not only more agreeable in flavour, but likewise more acceptable to the stomach, and less acrimonious, than in their pure state. Both the foregoing

compositions turn out excellent ones, provided the oils are good, and the distillation skilfully performed. Medicines of this kind might be prepared extemporaneously, by dropping any proper essential oil into the dulcified spirit of sal ammoniac, which will readily dissolve the oil without the assistance of distillation: by this method a sal volatile may be occasionally prepared, of any particular flavour, or adapted to particular purposes. Thus, if a cephalic is required, the oils of marjoram, rosemary, &c. afford a very serviceable one: in coldness, faintings, and the like, the oil of cinnamon joined to the volatile spirit, proves a most immediate cordial; and in suppressions of the uterine purgations, the oils of rue or savin effectually promote the discharge. The dose of these compositions is from six drops to sixty or more.



CHAPTER IX.

RESINOSA et SULPHUREA.

*RESINOUS and SULPHUREOUS PREPARATIONS.*FLORES BENZOINI.
FLOWERS OF BENZOINE.*Lond.*

PUT some powdered benzoine into an earthen pot placed in sand; and with a gentle heat, sublime the flowers into a conical paper cap fitted to the pot.

Or, the sublimation may be performed in a retort; the flowers will arise with a soft heat, into the neck.

If the flowers have any yellow tinge, mix them with tobacco pipe clay, and sublime again.

Edinb.

The sublimation is to be performed in a glazed earthen pot, and repeated in the same instruments with fresh parcels of benzoine, till the paper cap becomes foul with oil.

Benzoine, exposed in a retort, to a gentle fire, melts and sends up into the neck white, shining crystalline flowers, which are followed by an oily substance. On raising the heat a little (a recipient being applied) a thin yellowish oil comes over, intermingled with an acid liquor, and afterwards a thick butyraceous substance; this liquefied in boiling water, gives out to it a considerable quantity of saline matter (separable by filtration and proper exhalation) which appears in all respects similar to the flowers. It appears therefore, that the whole quantity of flowers which benzoine

is capable of yielding, cannot be obtained by the above processes, since a considerable portion arises after the time that they are discontinued in: the greatest part of the flowers arises with a less degree of heat than what is necessary to elevate the oil; but that if the operation is hastily conducted, or if the fire is not exceeding gentle, the oil will arise along with the flowers, and render them foul: hence in the way of trade, it is extremely difficult to prepare them of the requisite whiteness and purity; the heat which becomes necessary when large quantities of the benzoine are employed, being so great as to elevate some of the oil along with them. In order therefore to obtain these flowers in perfection, only a small quantity of benzoine should be put into the vessel at a time: that this may not be any impediment to the requisite dispatch, a number of shallow, flat bottomed, earthen dishes may be employed, each fitted with a conical paper cap. With these you may fill a sand furnace, having a number of fresh dishes charged in readiness to replace those in the furnace as soon as the process shall appear finished in them: the residuum of the benzoine should be scraped out of each of the vessels, before a fresh parcel is put in.

These flowers, when made in perfection, have an agreeable taste and fragrant smell. They totally dissolve

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dissolve in spirit of wine; and likewise, by the assistance of heat, in water; but separate again from the latter upon the liquor's growing cold, shooting into saline spicula, which unite together into irregular masses. By the mediation of sugar, they remain suspended in cold water, and thus form an elegant balsamic syrup. Some have held them in great esteem, as pectoral and sudorific, in the dose of half a scruple or more: but the present practice rarely makes use of them on account of the offensive oil, which, as usually prepared, they are tainted with, and from which a fresh sublimation from tobacco pipe clay does not free them so effectually as might be wished. The observations above related, point out a method of depurating them more perfectly, viz. solution, filtration and crystallization.

FLORES SULPHURIS.
FLOWERS OF SULPHUR.

Lond.

Sublime sulphur in proper vessels; and reduce the flowers, which concrete, into powder, either in a wooden mill, or in a marble mortar with a wooden pestle.

Edinb.

Put any quantity of yellow sulphur, grossly powdered, into an earthen cucurbit placed in a sand furnace; and having fitted on a glass blind head, or inverted into it another earthen cucurbit, begin the sublimation with a gentle heat, which may be afterwards increased. The flowers will arise into the uppermost part of the vessels, from whence they are to be swept out for use.

This process is rarely attempted by the apothecaries, a large apparatus being necessary for performing it to advantage. Those who

prepare the flowers of brimstone in quantity, use for the subliming vessel a large iron pot capable of holding two or three hundred weight; this stands under an arched chamber, lined with glazed tiles, which serves for the recipient.

This preparation of sulphur makes no change in its qualities, and only separates its impurities. At the bottom of the subliming vessel, there remains a ponderous grey coloured mass, composed of sand, earth, stony, and sometimes metallic matters, with a small portion of sulphur that has escaped the subliming heat. This is usually broke in pieces, and vended in the shops under the name of sulphur vivum.

FLORES SULPHURIS LOTI.
WASHED FLOWERS OF
SULPHUR.

Lond.

Pour upon the flowers as much water as will arise to the height of four fingers above them, and boil them for some time: then pouring off this water, let some cold be added, and thoroughly wash the flowers; after which they are to be dried for use.

As the flowers of sulphur are generally sublimed into very capacious rooms, which contain a large quantity of air; some of those that arise at first, are apt to take fire, and thus are changed into a volatile acid vapour, which, mingling with the flowers that sublime afterwards, communicates to them a notable degree of acidity. In such case, the ablution here directed is absolutely necessary; for the flowers, thus tainted with acid, sometimes occasion gripes, and may, in other respects, be productive of effects different from those of pure sulphur.

X 3

BAL-

BALSAMUM SULPHURIS

simplex [L.] *crassum* [E].

Lond.

Boil flowers of sulphur, with four times their weight of oil olive, in a pot lightly covered, until they unite into the consistence of a balsam.

Edinb.

Take a pint of linseed oil, or oil olive, and four ounces of flowers of sulphur. Boil them together over a gentle fire, keeping them continually stirring, till they come to the consistence of a balsam.

Linseed oil more readily dissolves sulphur than oil olive, and the preparation made with it proves somewhat less disagreeable. The vessel they are boiled in ought to be capable of holding at least three times the quantity of the ingredients. As soon as the oil begins to act upon the sulphur, which happens nearly at the point of ebullition, the mixture rarifies very much, so as, if not prudently removed from the fire, to run over into the furnace: and as the matter is very susceptible of flame, dangerous consequences may ensue, especially if the quantity is large.

Balsamum sulphuris Barbadiense.

Balsam of sulphur with Barbadoes tar.

Lond.

This is made after the same manner as the foregoing, by using Barbadoes tar instead of the oil.

Balsamum sulphuris anisatum, juniperatum, succinatum, terebinthinatum, &c.

Balsams of sulphur, with the distilled oils of aniseed, juniper berries, amber, turpentine, &c.

Edinb.

Take ten ounces of any of these

oils, and two ounces of flowers of sulphur. Digest them for some days, in a circulatory vessel, placed in a sand heat, until the oil becomes saturated with the sulphur. The vessel being then suffered to grow cold, separate the balsam from such part of the sulphur as remains undissolved.

These preparations are more conveniently and safely made in a large and tall uncut glass body (its orifice being left open) than in circulatory or close vessels: for when the sulphur and oil begin to act vehemently upon each other, they not only rarify into a large volume, but likewise throw out impetuously great quantities of an elastic vapour, which, if the vessels are closed, or the orifices not sufficient to allow it a free exit, infallibly burst them: Hoffman relates a very remarkable history of the effects of an accident of this kind. In the vessel above recommended, the process may be completed, without danger, in four or five hours, by duly managing the fire; which should be very gentle for some time, and afterwards increased so as to make the oil just bubble or boil, in which state it should be kept till all the sulphur appears to be taken up.

The essential oils employed in these processes undergo a great alteration from the degree of heat, necessary for enabling them to dissolve the sulphur; and hence the balsams have not near so much of their flavour as might be expected. It should therefore seem more eligible to add a proper quantity of the essential oil to the simple balsam: these readily incorporate by a gentle warmth, if the vessel be now and then shaken. Sixteen parts of essential oil, and six of the balsamum sulphuris simplex, form a bal-

a balsam more elegant than those made in the foregoing manner, and which retains so much of the flavour of the oil, as is in some measure sufficient to cover the taste of the sulphur, and render it supportable.

The balsams of sulphur have been strongly recommended in coughs, consumptions, and other disorders of the breast and lungs. But the reputation which they have had in these cases does not appear to have been built upon any fair trial, or experience of their virtues. They are manifestly hot, acrimonious and irritating; and therefore should be used with the utmost caution. They have frequently been found to injure the appetite, offend the stomach and viscera, parch the body, and occasion thirst and febrile heats. The dose of the simple balsam is from ten to forty drops: those with essential oils are not given in above half these quantities. Externally, they are employed for cleansing and healing foul running ulcers: Boerhaave conjectures, that their use in these cases gave occasion to the virtues ascribed to them when taken internally.

HEPAR SULPHURIS.
LIVER OF SULPHUR.

Edinb.

Take four ounces of flowers of sulphur, and one ounce and an half of powdered salt of tartar. Mix, and melt them in an earthen dish, under a chimney, keeping the matter constantly stirring with a spatula till it has acquired a red colour: care must be had to prevent its taking fire.

It is more convenient to melt the sulphur first by itself, and add the salt of tartar by degrees; than to grind them together, and after-

wards endeavour to melt them: for in this case, the mixture will not flow sufficiently thin to be properly united by stirring; and the sulphur either takes fire, or sublimes in flowers, which probably has been the reason why so large a proportion of it has been commonly directed. The quantity of sulphur ordered above, requires, at least, eight ounces of the alkaline salt, to render it perfectly soluble in water, which this preparation ought to be.

Solutions of the hepar sulphuris in water, made with sugar into a syrup, have been recommended in the same intentions as the balsams above mentioned: our pharmacopœias nevertheless have deservedly rejected this syrup, as common practice has almost done the balsams. The hepar, digested in rectified spirit of wine, imparts a rich gold colour, a warm, somewhat aromatic taste, and a peculiar, not ungrateful smell: a tincture of this kind is kept in the shops, under the name of another mineral.

SULPHUR PRECIPITATUM.

Lond.

Lac sulphuris.

Edinb.

PRECIPITATUM SULPHURIS,

commonly called,

LAC SULPHURIS.

Lond.

Boil flowers of sulphur in water, with thrice their weight of quicklime, till the sulphur is dissolved. Filter the solution, and drop into it some of the weak spirit of vitriol: this will throw down a precipitate, which is to be washed in fresh parcels of water, till it becomes insipid.

Edinb.

Boil the hepar sulphuris, reduced to powder, in four times its quantity of water for three
X 4 hours;

hours; adding more water if there is occasion. Then filter the solution whilst hot, and drop into it spirit of vitriol, till the effervescence ceases: a powder will be precipitated to the bottom, which is to be washed with water, and afterwards dried for use.

The method of making this lac, as it is called, with hepar sulphuris, is the most expeditious, and least troublesome, provided the hepar be well made: and, on the other hand, quicklime gives the preparation a more saleable whiteness. The medicine is nearly the same in both cases; and not different in quality from pure sulphur itself, to which it is preferred, in unguents, &c. only on account of its colour. The whiteness does not proceed from the sulphur having lost any of its parts in the operation, or from any new matter superadded: for if common sulphur be ground with alkaline salts, and set to sublime, it arises of a like white colour, the whole quantity of the alkali remaining unchanged; and if the lac be melted with a gentle fire, it returns into yellow sulphur again.

It might perhaps be more eligible, where alkaline salts are employed in this process, to perform the abluition with boiling water than with cold: for the vitriolic acid used for precipitating the sulphur, forms with the alkali a substance not soluble in cold water (vitriolated tartar) and which consequently will remain united with the sulphur.

AQUA SULPHURATA.
SULPHURATED WATER,
usually called, GAS SULPHURIS.

Lond.

Take a quart of water, and half a pound of sulphur. Let part of the sulphur be set on fire in an iron ladle, and suspended over

the water in a close vessel: as soon as the fumes subside, some more of the sulphur is to be fired in the same manner; and this repeated till the whole quantity is burnt.

A convenient way of managing this process is, to put the water into a glass receiver, placed on its side; and to have the ladle, containing the burning sulphur, fixed to a plug, made to go freely into the neck of the vessel; the use of the plug is to keep the ladle from dipping into the water: the fumes which issue betwixt it and the glass, may be confined by a cloth thrown round the neck.

This liquor is liable to great uncertainty in point of strength, as the water will be impregnated with a greater or less quantity of acid, according as the process is more or less skilfully managed. It likewise varies greatly after it has been kept for some time, from what it was when newly prepared: at first, it is highly volatile and pungent, smelling like the fumes of burning sulphur; in time, the part on which its volatility depends is lost, and the liquor becomes indistinguishable from water acidulated with common oil of vitriol.

TINCTURA SULPHURIS
VOLATILIS.
VOLATILE TINCTURE OF
SULPHUR.

Take of

Flowers of sulphur, six ounces;
Sal ammoniac, one pound;
Quicklime, a pound and a half.

Sprinkle some water on the lime, and when flaked and fallen into powder, grind it first with the sulphur, and afterwards with the sal ammoniac, in small quantities at a time: then distil the mixture in a retort, with a fire gradually increased. The distilled

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led liquor is to be kept, in a bottle close stopp'd, for use.

This liquor has a strong offensive smell, somewhat similar to that which arises in the precipitation of *lac sulphuris*. The vapour in both cases spreads to a considerable distance, changes silver or copper utensils of a brown or blackish colour, and produces disagreeable alterations in many medicinal preparations: to this circumstance therefore due regard ought to be had in the performance of that process, and in the keeping of this tincture.

Hoffman has a great opinion of the virtues of this preparation. He says, a mixture of one part of the tincture with three of spirit of wine, in a dose of thirty or forty drops, proves a most powerful diaphoretic; and that a liquor composed of this and camphor, surprizingly takes off the pain of the gout by bathing the feet with it. This tincture may be a powerful medicine, but it is certainly a very unpleasant one.



CHAPTER X.

METALLICA.

METALLIC PREPARATIONS.

SECT. I.

Preparations of GOLD.

GOLD is the most ponderous and perfect of the metals: it abides fixt and unaltered in the strongest fire; and is not acted upon by alkaline, or any simple acid menstruum. It dissolves in aqua regis alone, into a yellow transparent fluid: this solution stains the skin, &c. purple: the ethereal spirit of wine, and some essential oils, take up the gold from it: alcalies precipitate the metal in form of a yellowish mud, which exsiccated, and exposed to a small heat, violently explodes.

As to the medicinal virtues of this metal, experience has sufficiently shewn, that it is not possessed of any valuable ones. In its metallic form, however finely comminuted, it proves inactive; when satiated with acid, corrosive; and in the intermediate states, either insignificant or unsafe.

AURUM POTABILE.
POTABLE GOLD.

Dissolve, with a moderate heat, half a dram of fine gold, in two ounces of aqua regis; and add to the solution one ounce of the essential oil of rosemary. Shake them together, and then suffer them to rest: the acid loses its gold yellow colour; and the oil,

which arises to the surface, becomes richly impregnated therewith. Separate the oil by decantation, and add to it four or five ounces of rectified spirit of wine: digest this mixture for a month, and it will acquire a purplish colour.

There have been many preparations of this kind, contrived by the designing pretenders to alchemy, and imposed upon the credulous and unwary, as cordials and diaphoretics of inestimable value. The above seems to be one of the best and safest of them; tho' it would be equally serviceable as a medicine, if made without the ingredient, which it receives its name from.

AURUM FULMINANS.
FULMINATING GOLD.

Dissolve gold in aqua regia (about four times the weight of the gold will be sufficient) and drop into the solution oil of tartar per deliquium, until the effervescence ceases: let the whole stand for some hours, and the gold will be deposited: then pour off the liquor, wash the precipitated matter with fresh parcels of water, and afterwards exsiccate it for use.

This

This powder requires to be exsiccated with the utmost precaution; for in a small heat, it explodes with great violence: the same effect ensues likewise upon strongly rubbing it. This property has given name to the preparation; and is the only one on account of which it is at present taken any notice of. It has been recommended indeed, in fevers, as a diapho-

retic, in the dose of a few grains: its more certain effect, however, is to operate downwards, and that not always with safety; König and Ludovici relate, that in some febrile cases, it has occasioned almost mortal diarrhœas. And Stahl (*de proxeurisi medica*, sect. viii) reports, that the intestines have been found eroded by it.

S E C T. II.

Preparations of S I L V E R.

SILVER is the most permanent in the fire of all the metals after gold. It dissolves in the pure nitrous acid, into a colourless, transparent liquor, intensely bitter and corrosive. This solution exsiccated, furnishes the shops with an useful caustic; which has likewise been taken internally in small doses, and mixed with other substances, as an hydragogue: it stains the skin black.

CAUSTICUM LUNARE.
THE LUNAR CAUSTIC.

Lond.

Let pure silver be dissolved in about twice its weight of aqua fortis, upon warm sand; then gently increase the heat, until a dry mass is left. Melt this in a crucible, that it may be poured into proper moulds, carefully avoiding over much heat, lest the matter should grow too thick.

Causticum lunare, seu lapis infernalis.
The lunar caustic, or infernal stone.
Edinb.

Dissolve fine cupelled silver, by the heat of a sand bath, in three times its weight of spirit of nitre. Evaporate the solution, until

two thirds of the moisture are exhaled: then put the matter into a large crucible, and exhale the remaining moisture over a gentle fire. Augment the heat by degrees, until the mass flows like oil, and ceases to fume: then pour it into an iron pipe made for this purpose, previously heated and greased: lastly, let it be dried, and kept for use in a glass vessel close stopp'd.

Strong spirit of nitre will dissolve somewhat more than half its weight of pure silver; and the weaker of the *aquæ fortes*, formerly described, proportionably less, according to their quantity of pure nitrous acid. Sometimes this spirit contains a portion of the vitriolic, or marine acids; which, however minute, renders it unfit for dissolving this metal, and should therefore be carefully separated before the solution is attempted. The method which the refiners employ, for examining the purity of their aqua fortis, and purifying it, if necessary, is, to let fall into it a few drops of a perfect solution of silver already made: if the liquor remains clear, and grows not in the least turbid or whitish, it is fit for their use; otherwise, they add a small

small quantity more of the solution, which immediately turns the whole of a milk white colour: the mixture being then suffered to rest for some time, deposites a white sediment; from which it is warily decanted, examined afresh, and if need be, farther purified, by a fresh addition of the solution.

In evaporating the liquor, the heat should be very gentle, till such time as the matter appears dry, and then quickly raised so as to melt it: as soon as it flows thin, pour it into the mould, without waiting till the fumes cease to appear, for when this happens, the preparation proves not only too thick to run freely into the mould, but likewise less corrosive than it is expected to be.

In want of a proper iron mould, one may be formed of tempered tobacco pipe clay, not too moist, by making in a lump of it, with a smooth stick first greased, as many holes as there is occasion for: pour the liquid matter into these cavities, and when congealed, take it out by breaking the mould. Each piece is to be wiped from the grease; and wrapt up in dry soft paper, not only to keep the air from acting upon them, but likewise to prevent their corroding or discolouring the fingers in handling.

This preparation is a strong caustic, and frequently employed as such, for consuming warts and other fleshy excrescencies, keeping down fungous flesh in wounds or ulcers, and other like uses. It is rarely applied where a deep eschar is required, as in the laying open of imposthumations and tumours; for the quantity necessary for these purposes, liquefying by the moisture of the skin, spreads beyond

the limits in which it is intended to operate.

PILULÆ LUNARES.

THE LUNAR PILLS.

Dissolve pure silver in aqua fortis, and after due evaporation, set the liquor to crystallize. Let the crystals be again dissolved in common water, and mingled with a solution of equal their weight of nitre. Evaporate this mixture to dryness, and continue the exsiccation, with a gentle heat, keeping the matter constantly stirring, till no more fumes arise.

Here it is necessary to continue the fire till the fumes entirely cease, as more of the acid is required to be dissipated, than in the preceding process. The preparation is, nevertheless, in taste very sharp, intensely bitter and nauseous; applied to ulcers, it acts as a caustic, but much milder than the foregoing. Boerhaave, Boyle, and others, greatly commend it in hydropic cases. The former assures us, that two grains of it made into a pill, with crumb of bread and a little sugar, and taken on an empty stomach, (some warm water, sweetened with honey, being drank immediately after,) purge gently without griping, and bring away a large quantity of water, almost without the patients perceiving it. He nevertheless cautions against the too liberal, or continued use of this medicine; and observes, that by its corrosive quality, it weakens the bowels, particularly the stomach; and that therefore proper corroborants, as the rob of juniper berries, ought to be occasionally interposed.

S E C T.

S E C T, III.

Preparations of IRON.

IRON calcines by fire the most easily, and melts the most difficultly of all the metals. Sulphur promotes its fusion, and changes it into a substance not greatly dissimilar to a combination of the metal, with vitriolic acid. All acids dissolve this metal; even the air corrodes it into a rust or calx.

Iron, in its metallic form, or lightly calcined, or combined with vegetable, or with mineral acids, acts in the human body in the same manner, (but with different degrees of power) by constringing the fibres. In all these states, it promotes, or restrains secretions, where the deficiency or excess proceed from a laxity and debility of the vessels; and, in general, raises the pulse, and quickens the circulation. The calces are the least active preparations, and in most constitutions prove altogether inert: the crude metal, duly comminuted, is more easily soluble in the animal fluids, and if accreted juices are lodged in the primæ viæ, soon manifests its operation by nidorous eructations, and the black colour of the alvine feces: if previously combined with saline bodies, it scarce ever fails of taking effect.

CHALYBIS RUBIGO
PRÆPARATA.
RUST OF STEEL PREPARED.

Lond.

Expose filings of steel to the air, frequently moistening them with vinegar or water, until they change into rust; then grind them in a mortar, and pouring on water, wash over the more subtile powder. The remainder

is to be exposed afresh to the air, and moistened as at first, then triturated and washed again, and the powders that have been washed over, dried, and kept for use.

MARTIS LIMATURA
PRÆPARATA.
FILINGS OF IRON
PREPARED.

Edinb.

Set filings of iron, first cleansed by the magnet, in a moist place, that they may turn to rust, which is to be ground into an impalpable powder.

They may likewise be prepared by moistening them with vinegar.

The cleansing of iron filings by means of a magnet is very tedious, and does not answer so well as might be expected; for if they are rusty, they will not be attracted by it, or not sufficiently; nor will they, by this means, be entirely freed from brass, copper, or other metallic substances which may adhere to them. It appears from the experiments of Henckel (*Pyritolog. cap. vom eisen im kiesel*) that if iron be mixed by fusion with even its own weight of any of the other metals or semimetals, regulus of antimony alone excepted, the compound will be vigorously attracted by the load-stone. — The rust of iron is to be procured at a moderate rate from the dealers in iron, free from any impurities, except such as may be washed off by water.

The rust of iron is preferable as a medicine to the calces, or croci, made by a strong fire. Hoffman relates,

relates, that he has frequently given it with remarkable success, in obstinate chlorotic cases accompanied with excessive headachs, and other violent symptoms; and that he usually joined with it pimpinella, arum root, and salt of tartar, with a little cinnamon and sugar. The dose is from four or five grains to twenty or thirty: some have gone as far as a dram; but all the preparations of this metal answer best in small doses, which should rather be often repeated than enlarged.

Lemery shews a method of reducing steel to a very fine powder without rusting it. The filings are put in an unglazed earthen vessel, with so much water as will stand above them about four inches: the whole is to be well stirred every day, and more water supplied, as that in the vessel exhales, so that the steel may remain always covered: by this means, he says, the filings will, in no long time, fall into an impalpable black powder. If suffered to remain for a little while uncovered with water, a part changes into rust.

CHALYBS CUM SULPHURE
PRÆPARATUS.
STEEL PREPARED WITH
SULPHUR.

Lond.

Heat the steel, with a very fierce fire, to a strong white heat; and in this state, apply it to a roll of sulphur held over a vessel of water: the steel will melt, and fall down in drops, which are to be picked out from the sulphur that runs down with them, and ground into an impalpable powder.

It was supposed in former editions of this work, that this preparation is no other than common brimstone, and that it contains nothing of the steel. If the steel indeed is not made extremely hot, it

will not melt on applying it to the sulphur; and the latter will run into the water by itself: but if the metal is heated to the degree above directed, it will readily melt, and fall down in drops of a brown colour; whilst the sulphur runs into long yellow strings. The heat, requisite for this purpose, is scarce procurable in the furnaces of the apothecary; and even if the steel is sufficiently heated at first, it will soon become too cool to be corroded by the sulphur. For this reason, and on account of the offensive fumes, which arise very copiously, and are not avoidable by the operator, this process has been long neglected. The shops have been generally supplied with a preparation of steel with sulphur made, at an easier rate, in the following manner.

MARS SULPHURATUS.
SULPHURATED IRON.

Edinb.

Mix filings of iron with twice their weight of powdered sulphur, and as much water as is sufficient to make them into a paste: suffer this to stand and ferment for six hours; then put it into a crucible, and let it deslagrate: afterwards keep the matter continually stirring with an iron spatula, till it falls into a deep black powder.

If the quantity of this mixture is considerable, and strongly pressed down, it will ferment so violently as to burst out into flame. The calces, or ores of iron, do not produce this phenomenon.

CROCUS MARTIS APERIENS.
OPENING CROCUS OF IRON.

Edinb.

This is made by keeping the foregoing preparation longer over the fire, when it assumes a red colour.

colour. It is not different from the rust of iron, gently calcined in a crucible to redness.

CROCUS MARTIS
ASTRINGENS.
ASTRINGENT CROCUS OF
IRON.

Edinb.

This is made from the opening crocus of iron, by reverberating it for a long time in the most extreme degree of heat.

These preparations differ from one another in virtue; though the difference is not of such a kind as the titles, they have been usually distinguished by, import. All the preparations of steel act, if they act at all, by an astringent quality; that above, denominated *astringent*, has the least, if any, effect. The *crocus aperiens* has a greater chance of entering the habit; and the sulphurated steel will in most constitutions take place (tho' with less certainty than the following preparations.) They may be given in form of bolus, electary, or pill, from six grains to a scruple.

In some pharmacopœias, the croci of iron are prepared from pure green vitriol. This strongly calcined (or the colcothar remaining after the distillation of oil of vitriol) is the astringent crocus; when less calcined, it is called *a-perient*. These preparations differ little from those above distinguished by the same appellations.

MARS SOLUBILIS, seu
CHALYBS TARTARIZATUS.
SOLUBLE or TARTARIZED
STEEL.

Edinb.

Mix equal parts of iron filings and crystals of tartar, with as much water as is sufficient to reduce them into a mass: this is to be

formed into balls, then baked in an oven, ground into powder, and again made into balls with a fresh parcel of water, and baked in an oven as before. Repeat this operation, till such time as the matter will easily grind into an impalpable power.

This is a very elegant and useful preparation of steel, and will in many cases take effect after all the foregoing ones have failed; the salt here joined rendering the metal sufficiently soluble in the animal fluids. It may be given either in a liquid form, or in that of a bolus, &c. in doses of half a scruple or a scruple. Dr. Willis is said to have been the inventor of this preparation, and by his name it has been usually distinguished in the shops. The chemists have received another method of preparing iron with tartar; which is as follows:

Take equal quantities of filings of iron, and of white tartar. Grind them together, and put them into a crucible, which is to be set in a fire strong enough to make the materials red hot; in this state let them continue for some time. When grown cold, powder the matter in a mortar; and the part which will not pass through a fine sieve, heat and pulverize again; repeating this, until the whole has passed through. Mix the several siftings together, and keep them in a vessel close stopp'd from the air.

This preparation is soluble like the foregoing; exposed to the air, it deliquesces like alkaline salts, and therefore is not to be prescribed in any dry form. It is very rarely made use of.

FLORES MARTIALES.
MARTIAL FLOWERS.

Lond.

Take

Take of

Colcothar of green vitriol washed,
or of filings of iron, one pound;
Sal ammoniac, two pounds.

Mix and sublime in a retort. Grind the flowers with the matter which remains in the bottom of the retort, and repeat the sublimation until the flowers arise of a beautiful yellowish colour.

To the residuum you may add half a pound of fresh sal ammoniac, and sublime as before; repeating this as long as the flowers arise well coloured.

Edinb.

Take of

Iron filings,
Sal ammoniac powdered, each equal parts.

Mix them well together, and suffer them to stand for some time in a moist place: then put them into an earthen cucurbit; fit on a glass head, and proceed to sublimation. First a spirit of sal ammoniac will arise, which may be caught in a receiver; then white flowers, which may be thrown away; and at length yellowish red flowers; these last are to be swept out of the head with a feather, and kept for use.

A tincture of steel may be drawn from the caput mortuum, as also from the flowers.

The success of this process depends principally upon the fire being hastily raised, that the sal ammoniac may not sublime before the heat is become strong enough to enable it to carry up a sufficient quantity of the iron. Hence glass vessels are not so proper as earthen or iron ones; for when the former are made use of, the fire cannot be raised quick enough without endangering the breaking of them. The most convenient instrument is an iron pot; to which may be lu-

ted an inverted earthen jar, having a small hole, in its bottom, to suffer the elastic vapours, which arise during the operation, to escape. It is of advantage to thoroughly mix the ingredients together, moisten them with a little water, and then gently dry them; and to repeat the pulverization, humectation and exsiccation, two or three times or oftner. If this method is followed, the sal ammoniac may be increased to three times the quantity of the iron, or farther; and a single sublimation will oftentimes be sufficient to raise flowers of a very deep orange colour.

This preparation is supposed to be highly aperient and attenuating; though no otherwise so than the rest of the chalybeates, or at most, only by virtue of the saline matter joined to the iron. It has been found of good service in hysterical and hypochondriacal cases, and in distempers proceeding from a laxity and weakness of the solids, as the rickets. It may be conveniently exhibited in the form of a bolus, from six grains to twenty: it is nauseous in a liquid form (unless in spirituous tincture) and occasions pills to swell and crumble, except such as are made of the gums.

LIXIVIUM MARTIS.

LEY OF IRON.

Lond.

Let the matter which remains after the sublimation of the martial flowers, be set by in a moist place: it will run into a liquor, which is to be kept for use.

This liquor seems greatly to resemble a saturated solution of iron made in spirit of salt: its taste is highly astringent, and somewhat sweetish. It may be given in doses of a few drops, in any convenient vehicle, for the same intentions as the other chalybeates.

SAL

SAL MARTIS.
SALT OF STEEL.

Lond.

Take of

Strong spirit or oil of vitriol,
eight ounces ;
Iron filings, four ounces ;
Water, two pints.

Mix them together ; and after the
ebullition ceases, let the mixture
stand for some time upon warm
sand : then pour off, and filter
the liquor ; and after proper ex-
halation, set it by to crystallize.

VITRIOLUM MARTIS, seu
SAL CHALYBIS.

VITRIOL of IRON, or SALT
of STEEL.

Edinb.

Take of

Oil of vitriol, four ounces :
Water, ten ounces ;
Filings of iron, three ounces.

Cautiously mix them together, and
digest in a cucurbit for twelve
hours, that the metal may be
dissolved : filter the solution
whilst hot, then evaporate it to a
pellicle, and set it in a cold place,
until the vitriol has crystallized
at the bottom of the vessel.
The liquor poured off from the
crystals, is to be again evapo-
rated till a pellicle forms on the
surface, and set to shoot as be-
fore. Collect all the crystals to-
gether, and dry them on a paper
in the shade.

During the dissolution of the iron,
a strong sulphureous vapour arises,
which on the approach of flame,
catches fire, and explodes, so as
sometimes to burst the vessel : to
this particular therefore, the opera-
tor ought to have due regard.

The chemists are seldom at the
trouble of preparing this salt ac-
cording to the directions above gi-
ven ; but in its stead substitute com-

mon green vitriol, purified by so-
lution in water, filtration, and cry-
stallization. The only difference
betwixt the two is, that the com-
mon vitriol contains somewhat more
metal in proportion to the acid ;
and hence in keeping, its green
colour is debased by a rusty brown-
ish cast. The superfluous quantity
of metal may be easily separated,
by suffering the solution of the vi-
triol to stand for some time in a cold
place, when a brownish yellow
ochery sediment will fall to the
bottom ; or it may be perfectly
dissolved, and kept suspended, by
a suitable addition of oil of vitriol.
If the vitriol is suspected to contain
any cupreous matter, the first me-
thod should be followed ; for thus
the most minute portion of copper
will be separated. The common
English vitriol very rarely contains
any metallic substance besides
iron.

The salt of steel is one of the
most efficacious preparations of this
metal ; and not unfrequently made
use of, in cachectic and chlorotic
cases, for exciting the uterine pur-
gations, strengthening the tone of
the viscera, and destroying worms.
It may be conveniently exhibited
in a liquid form, largely diluted
with aqueous fluids : half a scruple,
dissolved in a pint of water, may
be drank at a time, divided into
different doses : this quantity gives
no very disagreeable taste to the
water. If the dose is increased to
half a dram or a dram, it for the
most part gently purges ; and pow-
erfully promotes urine, especially if
the patient walks about in a cool
air during the operation. These
solutions may be used as succedanea
to the natural chalybeate waters,
and will in many cases produce si-
milar effects.

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SECT.

S E C T. IV.

P R E P A R A T I O N S of C O P P E R.

COPPER is less easy of solution than iron; and, in its metallic state, does not appear to be acted on by the animal fluids, or to have any considerable effect in the body. Dissolved, it proves externally an escharotic; internally, a violent purgative and emetic. Acids of every kind dissolve it, and likewise volatile alcalies.* With the vegetable, nitrous, and marine acids, it forms a green solution; with the vitriolic acid, and volatile alcalies, a blue.

ÆS USTUM.

Let thin copper plates be stratified in a crucible, with sulphur, nitre, or common salt, and calcined until they are reduced into a powder.

These preparations consist of copper combined with a small portion of saline matter. They were used by the ancients for drying and cleansing ulcers, and preventing the growth of fungous flesh: and sometimes likewise internally as an emetic; but have not, for a long time, been taken notice of among us, for any medicinal intention.

CRYSTALLI VENERIS.

CRYSTALS of COPPER.

Dissolve pure copper in thrice its weight of aqua fortis, adding the metal to the acid by little and little at a time. Evaporate the liquor by a gentle heat, till one half of it is wasted; then set the remainder in a cool place to crystallize: afterwards dry the crystals, and keep them in a vial close stopp'd from the air.

These crystals are strongly caustic, similar to the *causticum lunare*;

but are so much disposed to liquefy, that they are scarce ever made use of, and cannot be long preserved.

TINCTURA VENERIS

VOLATILIS.

VOLATILE TINCTURE of COPPER.

Take of

Copper filings, one dram;
Spirit of sal ammoniac, twelve drams.

Let them stand together in a close vessel, frequently shaking it, until the liquor is tinged of a beautiful violet colour.

This tincture, or solution of copper, has been given internally, in the dose of a few drops, as a diuretic. Boerhaave directs at first three drops to be taken in a morning fasting, with a glass of mead, and this dose to be daily doubled till it comes to twenty-four drops; which last quantity is to be continued for some days: he says, that by this means, he cured an hydroptic person labouring under a confirmed ascites; and that the medicine procured surprizing discharges of urine; that nevertheless, on trying it in another case of the same kind, it did not answer. See the article CUPRUM, page 120.

ENS VENERIS.

Edinb.

Take

Colcothar of blue vitriol well dulcorated with water, and afterwards dried;

Sal ammoniac, of each equal parts.

Reduce them separately into powder;

der; then mix, and put them into an earthen cucurbit, so as to fill two thirds thereof. Place the cucurbit in an open fire, and having adapted to it a glass blind head, apply at first a gentle heat, which is to be increased by degrees, and continued as long as the flowers arise of a yellow colour inclining to red: when the vessels are grown cold, let the flowers be carefully swept out with a feather.

This medicine is taken from Mr. Boyle. It has been lately disputed, whether the author prepared it from blue vitriol or from green: for tho' he expressly says, he used blue or cupreous vitriol, it is affirmed that this will not yield flowers of the colour here required; and it is certain that pure copper will not. It appears however from experi-

ence, that the foreign blue vitriols, the sorts used and recommended by Boyle, will afford, with sal ammoniac, a sublimate possessing the qualities he ascribes to his preparation, and not greatly different from the martial flowers already spoken of. The foreign blue vitriols, though manifestly cupreous, are not purely such: several trials discover in them a quantity of iron; and sal ammoniac elevates iron much more readily than it does copper. The making of this preparation from venereal vitriol, however, is by no means to be recommended; since in some cases so much of the copper may be raised, as to give it noxious qualities; and since it is parable with greater certainty, and at an easier rate, from iron or its vitriol.

S E C T. V.

P R E P A R A T I O N S of L E A D.

LEAD readily melts in the fire, and calcines into a dusky powder; which, if the flame is reverberated on it, becomes at first yellow, then red, and at length melts into a vitreous mass. This metal dissolves easily in the nitrous acid, difficultly in the vitriolic, and in small quantity in the vegetable acids: it is also soluble in expressed oils, especially when calcined.

Lead and its calces, whilst undissolved, have no considerable effects as medicines. Dissolved in oils, they are supposed to be (when externally applied) anti-inflammatory and desiccative. Combined with vegetable acids, they are notably so; and taken internally, prove a powerful but dangerous styptic.

P L U M B U M U S T U M.

BURN'T LEAD.

Edinb.

Melt lead in an unglazed earthen vessel; and keep it continually stirring, with an iron spatula, till it changes into powder.

M I N I U M.

R E D L E A D.

Edinb.

This is made by a continuance of the foregoing process. The powder, at first blackish, in a little time becomes yellow, and at length of a very red colour, when it is to be taken from the fire, and kept for use.

The preparation of red lead is so troublesome and tedious, as scarce
Y 2 ever

ever to be attempted by the apothecary or chemist; nor indeed is this commodity expected to be made by them. The makers melt large quantities of lead at once, upon the bottom of a reverberatory furnace built for this purpose, and so contrived, that the flame acts upon a large surface of the metal, which is continually changed by the means of iron rakes drawn backwards and forwards, till the fluidity of the lead is destroyed; after which the calx is only now and then turned. It is said, that twenty pounds of lead gain, in this process, five pounds; and that the calx, being reduced into lead again, is found one pound less than the original weight of the metal.

These calces are employed in external applications, for abating inflammations, cleansing and healing ulcers and the like. Their effects, however, are not very considerable; nor are they perhaps of much farther real use, than as they give consistence to the plaster, unguent, &c.

CERUSSA.

CERUSSE, or WHITE LEAD.

Edinb.

Put some vinegar into the bottom of an earthen vessel, and suspend over the vinegar very thin plates of lead, in such a manner, that the vapour, which arises from the acid, may circulate about the plates. Set the containing vessel in the heat of horse dung, for three weeks; if at the end of this time the plates are not totally calcined, scrape off the white powder, and expose them again to the steam of vinegar, till all the lead is thus corroded into powder.

The making of white lead also is become a trade by itself, and

confined to a few persons, who have large conveniencies for this purpose. The general method which they follow, is nearly the same with that above described. See the philosophical transactions, No. 137.

In this preparation, the lead is so far opened by the acid, as to discover, when taken internally, the malignant quality of the metal: and to prove externally, when sprinkled on running sores or ulcers, moderately cooling, drying and astringent.

SACCHARUM SATURNI.

SUGAR OF LEAD.

 Lond.

Boil cerusse with distilled vinegar, in a leaden vessel, until the vinegar becomes sufficiently sweet: then filter the vinegar through paper, and after due evaporation set it to crystallize.

 Edinb.

Put any quantity of cerusse, minium, or litharge, into a cucurbit, and pour thereon distilled vinegar, to the height of four inches. Digest them together for some days in a sand heat, till the vinegar has acquired a sweetish taste, when it is to be suffered to settle, and then poured off. Add fresh vinegar to the remainder, and repeat this process till the menstruum no longer extracts any sweet taste. Let all the impregnated liquors rest for some time; and after they have been poured from the feces, evaporate them, in a glass vessel, to the consistence of thin honey; so that, upon being set in a cool place, the sugar may shoot into crystals, which are afterwards to be dried in the shade. Exhale the remaining liquor to a pellicle, set it again in the cold, and more crystals

crystals will shoot; repeat this operation till no crystals can be any longer obtained.

Cerusse (especially that sort called *flake lead*, which is not, like the others, subject to adulteration) is much preferable either to minium or litharge, for making the sugar of lead: for the corrosion, which it has already undergone from the steam of vinegar, disposes it to dissolve more readily. It should be finely powdered before the vinegar is put to it, and during the digestion or boiling, every now and then stirred up with a wooden spatula, to promote its dissolution, and prevent its concreting into a hard mass at the bottom. The strong acid obtained from the *caput mortuum* of vinegar (see page 289.) may be employed for this process, to better advantage than the weaker though purer acid above directed. If a small quantity of rectified spirit of wine be prudently added to the solution as soon as it is duly exhaled, and the mixture suffered to grow cold by slow degrees, the sugar will concrete into very large and transparent crystals, which are scarcely to be obtained by any other method.

The sugar of lead is much more efficacious than the foregoing preparations, in the several intentions which they are applied to. Some

have ventured upon it internally, in doses of a few grains, as a stiptic, in hæmorrhagies, profuse colliquative sweats, feminal fluxes, the fluor albus, &c. nor has it failed their expectations. It very powerfully restrains the discharge; but almost as certainly as it does this, it occasions symptoms of another kind, often more dangerous than those removed by it, and sometimes fatal. Violent pains in the bowels, or through the whole body, and obstinate constipations, sometimes immediately follow, especially if the dose has been considerable: cramps, tremors, and weakness of the nerves generally, sooner or later, ensue.

Boerhaave is of opinion, that this preparation proves malignant only in so far as its acid happens to be *absorbed* in the body; for in such case, he says, "it returns again into cerusse which is violently poisonous." On this principle, it would follow, that in habits where acidities abound, the sugar of lead would be innocent. But this is far from being the case. Lead and its preparations act in the body only in so far as they are *combined* with acid: cerusse possesses the qualities of the saccharum only in a low degree; and either of them freed from the acid, have little, if any effect at all.

S E C T. VI.

P R E P A R A T I O N S of T I N.

TIN easily melts in the fire, and calcines into a dusky powder, which by a farther continuance of the heat, becomes white. A mass of tin, heated till it is just ready to melt, proves extremely brittle, so as to fall in pieces from a blow, and by dextrous agitation into powder. Its

proper menstruum is aqua regia, though the other mineral acids also may be made to dissolve it, and the vegetable ones in small quantity. It crystallizes with the vegetable and vitriolic acids; but with the others, deliquesces.

The virtues of this metal are little

be known. It has been recommended as an antihysterical, antihæctic, &c. At present, it is chiefly used as an anthelmintic.

[STANNUM PULVERATUM.
POWDERED TIN.

Lond.

Melt the tin, and pour it into a wooden box rubbed in the inside with chalk: then immediately let the box be nimbly shook, and a part of the tin will fall into powder. The remainder is to be melted a second time, and treated in the same manner, till the whole of the metal is thus reduced into powder.

This preparation has been used for some time as a remedy against worms, particularly the flat kinds, which too often elude the force of other medicines. The general dose is from a scruple to a dram; some confine it to a few grains. But Dr. Alston assures us, in the Edinburgh essays, that its success chiefly depends upon its being given in much larger quantities: he exhibits an ounce, on an empty stomach, mixed with four ounces of melasses; next day, half an ounce; and the day following, half an ounce more: after which, a cathartic is administered: he says the worms are usually voided during the operation of the purge, but that pains of the stomach occasioned by them are removed almost immediately upon taking the first dose of the tin. The experiments on tin, related in page 211 of this work, account sufficiently for its being destructive to these animals; though not for its being safe to the patient.

CALX JOVIS.
CALX OF TIN.

Edinb.

Melt any quantity of tin in an un-

glazed earthen vessel, and keep it continually stirring, with an iron spatula, until it falls into a calx.

This process is not here intended to be carried so far as the pharmaceutical writers in general direct: it must be discontinued as soon as the metal is reduced into a dusky powder: if calcined to whiteness, the following operation would not succeed. As to the virtues of the calx, we apprehend they are not greatly different from those of the foregoing preparation.

SAL JOVIS.
SALT OF TIN.

Edinb.

Take of the

Calx of tin, any quantity at pleasure;

Aqua regia, diluted with eight times its quantity of water, as much as will be sufficient to cover the calx to the height of some inches.

Digest them together in a gentle heat of sand, that a solution may be made, which is to be passed through a filter, exhaled to a pellicle, and then set by, in a cold place, for three or four days to crystallize: pour off the liquor, and dry the crystals for use.

The calx, which remains undissolved, may be digested with a fresh parcel of aqua regia as before; and the solution thereof mixed with the liquor that was left after the preceding crystallization. The whole being now duly evaporated, and set in a cold place, a farther yield of crystals will be obtained.

In the last edition of this dispensatory, it was denied that any salt could be obtained by this process. If the tin indeed is highly calcined, aqua regia will not act upon

upon it (though this circumstance is supposed to promote the solution of tin in vegetable acids) nor will any other salt be produced, than what the menstruum furnishes. But if the calcination is continued no farther than directed under the preceding article, this acid will dissolve some part of the calx: the crystallization indeed does not well succeed: if any appearance of crystals is expected from a solution of tin made in aqua regis, the liquor should not be set in a cold place, but kept unmoved, in a gentle heat: as it begins to thicken, a number of saline concretions form, to the eye manifestly crystalline, but in texture infirm and incoherent: they must be carefully taken up, put into a warm, dry bottle, and well secured from the air.

This salt seems intended for external purposes. The preparation described in other books of pharmacy under the name of *sal jovis*, and designed for internal use, may be commodiously made in the following manner:

Dissolve pure tin in a proper quantity of aqua regia, continuing to add the metal, by little and little at a time, till the menstruum will take up no more. Pour the solution into four times its quantity of water, and gradually put to it spirit of sal ammoniac till the effervescence ceases: a white curdly matter will precipitate, which is to be washed with water, and gently dried. Digest this powder in a pewter vessel, with ten times its weight of distilled vinegar, occasionally stirring up the matter from the bottom, till the vinegar has acquired a rough sweetish taste: then evaporate the liquor to the consistence of a syrup, add to it about one twentieth its weight of

rectified spirit of wine, and suffer the heat slowly to decrease, that the salt may crystallize.

The crystals obtained by this method are hard, solid, colourless, transparent, void of acrimony. They have been recommended, in the dose of a few grains, in uterine disorders; but experience has not warranted the virtues attributed to them; nor are either this or the foregoing salt met with in the shops.

The powder precipitated from aqua regis, either by volatile alkalies or by water alone, is sometimes employed as a cosmetic, under the name of *MAGISTERY OF TIN*. A whiter, and more elegant, preparation of this kind might be obtained, by dissolving the metal in the vitriolic acid, and precipitating with volatile spirits.

AMALGAMA JOVIS.

AMALGAM OF TIN.

Edinb.

Melt some tin in a crucible; and heat the same quantity of quicksilver in another crucible, till it begins to fume: then immediately pour the hot quicksilver into the melted tin, and keep them stirring together, with an iron spatula, until the mass grows cold.

This process is given only as preparatory to the following. Iron ladles are more convenient than crucibles.

AURUM MOSAICUM.

MOSAIC GOLD.

Edinb.

Take of the
Amalgam of tin, six ounces;
Sal ammoniac,
Flowers of sulphur, of each three ounces.

Grind and mix them well together in a marble mortar: put the
Y 4 mix.

mixture into a cucurbit, and apply at first a gentle heat, which is to be raised by slow degrees to the utmost. When the process is finished, break the vessel; the mosaic gold will be found in the bottom, and the scoria, or dross, above it.

AURUM MUSIVUM.

Lond.

Take of

Tin, one pound;
Flowers of sulphur, seven ounces;
Sal ammoniac,
Purified quicksilver, of each half a pound.

Melt the tin by itself, add to it the quicksilver, and when the mixture is grown cold, reduce it into powder; mix this with the sulphur and sal ammoniac, and sublime in a matras: the mosaic gold will be found under the sublimed matter, with some dross at the bottom.

This preparation is chiefly valued, and receives its name, from its beautiful, sparkling, gold-like

hue. As a medicine, it is at present little regarded; though formerly held in considerable esteem, in hysterical and hypochondriacal complaints, malignant fevers, and venereal disorders. It has been recommended in these last from a supposition of its being a mercurial; but none of the mercury made use of is retained in the preparation. It appears from experiments, made for this purpose by Dr. Lewis, and related in his commentary on the Edinburgh pharmacopœia, to be little other than a calx of tin, reducible, by proper fluxes, into its metallic form again: the volatile ingredients, sal ammoniac, sulphur and quicksilver, sublime in the process, partly escaping, and partly forming the scoria: the two last are found united together into a cinnabar. Tin calcined by itself gains near as much in weight, as it does by being made into *aurum musivum*: the golden colour of this preparation is probably owing to a minute portion of sulphur that adheres to it.

S E C T. VII.

P R E P A R A T I O N S of M E R C U R Y.

MERCURY, or quicksilver, is a ponderous metallic fluid, totally volatile in a strong fire, and calcinable by a weaker one (tho' very difficult) into a red powdery substance. It dissolves in the nitrous acid, is corroded by the vitriolic, but not acted on by the marine in its liquid state: it nevertheless may be combined with this last, if skilfully applied in the form of fume. Quicksilver unites by trituration, with earthy, unctuous, resinous, and other like substances, so as to lose its fluidity: triturated with sulphur, it form a black mass,

which by sublimation changes into a beautiful red one.

The general virtues of the mercurial preparations are, to fuse the juices, however viscid, in the minutest and remote vessels; by this means they prove eminently serviceable in inveterate chronical disorders, proceeding from a thickness and sluggishness of the humours, and obstinate obstructions of the glands. Crude mercury has no effect this way. Resolved into fume, or divided into minute particles, and prevented from re-uniting by the interposition of other sub-

substances, it operates very powerfully; unless the dividing body be sulphur, which restrains its action. Combined with a small quantity of the mineral acids, it acts effectually, though in general mildly; with a larger, it proves violently corrosive.

ARGENTI VIVI
PURIFICATIO.
PURIFICATION OF
QUICKSILVER.

Lond.

Distil quicksilver in a retort; and afterwards wash it with water and common salt, or with vinegar.

If a glass retort is made use of for this operation, it ought to have a low body, and a long neck, which should be considerably inclined downwards, so as to allow the elevated mercury a quick descent: the receiver should be filled almost to the neck of the retort with water; the use of this is not to condense, but to cool, the distilling quicksilver, lest falling hot upon the bottom, it should crack the glass. The distillation may be more conveniently performed in an iron retort, or pot fitted with a head.

The fire should be raised no higher than is sufficient to elevate the mercury; for certain mineral substances, which are said to be sometimes mixed with it, prove in part volatile in a degree of heat, not much greater than that in which mercury distils. Mr. Boyle relates, that he has known quicksilver carry up with it a portion even of lead, so as to have its weight very sensibly increased thereby: and this happened tho' only a moderate fire was used.

MERCURIUS ALCALIZATUS.
ALCALIZED MERCURY.

Take of

Pure quicksilver, three drams;
Prepared crabs eyes, five drams;
Grind them together in a glass mortar, till the mercurial globules disappear.

This preparation, which has never been received into the London pharmacopœia, and is now rejected from the Edinburgh, we have inserted here on account of its being still now and then called for, and held by some in considerable esteem. It has never come much into common practice, the labour of making it having been a temptation to a grievous abuse in its preparation, *viz.* the addition of an intermedium, which facilitates the union of the mercury with the crabs eyes, but greatly abates its medical powers. The medicine, when duly prepared, is an useful alterative; and may be given, in cutaneous or venereal cases, from two or three grains to a scruple.

MERCURIUS SACHARATUS.
SUGAR'D MERCURY.

Edinb.

Take

Pure quicksilver,
Brown sugar candy, of each half
an ounce;
Essential oil of juniper berries,
sixteen drops.

Grind them together in a glass mortar, until the mercury ceases to appear.

The essential oil, here added, is a very useful ingredient; as it not only promotes the extinction of the quicksilver, but likewise improves the medicine. The intention, in this and the foregoing process, is only to divide the mercury by the interposition of other bodies; for when thus managed (as already observed) it has very powerful effects; though whilst undivided it seems

to

to be altogether inactive. Sugar alone apparently answers this intention; but on the commixture of aqueous fluids, entirely dissolves by itself, leaving the mercury to run together again in its original form: the addition of the oil effectually prevents this inconvenience; for the preparation made as here directed, will totally dissolve in water, without any separation of the quicksilver. The dose of this medicine, as an alterative, is from two or three grains to a scruple.

ÆTHIOPS MINERALIS.
ETHIOPS MINERAL.
[L. E.]

Take

Purified quicksilver,
Flowers of sulphur (unwashed)
of each equal weights.
Grind them together, in a glass
or stone mortar, until they are
united.

The union might be greatly facilitated by the assistance of a little warmth. Some are accustomed to make this preparation in a very expeditious manner, by melting the sulphur in an iron ladle, then adding the quicksilver, and stirring them together till the mixture is completed. Nor does this practice appear to be justly blameable: for the small degree of heat here sufficient, cannot reasonably be supposed to do any injury to substances, which have already undergone much greater fires, not only in the extraction from their ores, but likewise in the purifications of them directed in the pharmacopœia. In the following process, they are exposed in conjunction to a strong fire, without suspicion of the compound receiving any ill quality from it. Thus much is certain, that the ingredients are more perfectly united by heat, than by the degree of triture usually bestowed upon them.

Ethiops mineral is one of the most inactive of the mercurial preparations. Some practitioners have boldly asserted its possessing extraordinary virtues; and most people imagine it a medicine of some efficacy. But what benefit is to be expected from it in the common doses of eight or ten grains, or a scruple, may be judged from hence, that it has been taken in doses of several drams, and continued for a considerable time, without producing any remarkable effect. Sulphur eminently abates the power of all the more active minerals, and seems to be at the same time restrained by them from operating in the body itself. Boerhaave, who is in general sufficiently liberal in the commendation of medicines, disapproves the ethiops in very strong terms. "It cannot enter the absorbent vessels, the lacteals or lymphatics; but passes directly through the intestinal tube, where it may happen to destroy worms, if it operates luckily. They are deceived who expect any other effects from it; at least I myself could never find them. I am afraid, it is unwarily given, in such large quantities, to children and persons of tender constitutions; as being a foreign mass, unquerable by the body, the more to be suspected, as it there continues long, sluggish, and inactive. It does not raise a salivation, because it cannot come into the blood. Who knows the effects of a substance, which, so long as it remains compounded, seems no more active than any ponderous insipid earth?"

CINNABARIS FACTITIA.
ARTIFICIAL CINNABAR.
Lond.

Take

Take of

Purified quicksilver, twenty-five ounces,

Sulphur, seven ounces.

Melt the sulphur, and mix into it the quicksilver; if the mixture happens to catch flame, extinguish it by covering the vessel. The matter is afterwards to be reduced into powder, and sublimed.

It has been customary to order a larger quantity of sulphur than here directed; but this smaller proportion answers better; for the less sulphur, the finer colour is the cinnabar. As soon as the mercury and sulphur begin to unite, a considerable explosion frequently happens, and the mixture is very apt to take fire, especially if the process is somewhat hastily conducted. This accident, the operator will have previous notice of, from the matter swelling up, and growing suddenly consistent: as soon as this happens, the vessel must be immediately close covered. During the sublimation, care must be had, that the matter rise not into the neck of the vessel, so as to block up and burst the glass: to prevent this, a wide-neck bolt-head, or rather an oval earthen jar, coated, should be made use of. If the former is employed, it will be convenient to introduce, at times, an iron wire, somewhat heated, in order to be the better assured, that the passage is not blocking up; the danger of which may be prevented, by cautiously raising the vessel higher from the fire. If the ingredients were pure, no feces will remain: in such case, the sublimation may be known to be over, by introducing a wire as before, and feeling therewith the bottom of the vessel, which will then be perfectly smooth: if any roughness or inequalities are per-

ceived, either the mixture was impure, or the sublimation is not completed; if the later, the wire will soon be covered over with the rising cinnabar.

The preparers of cinnabar in large quantity, employ earthen jars, which in shape pretty much resemble an egg. These are of different sizes, according to the quantity intended to be made at one sublimation, which sometimes amounts to two hundred weight. The jar is usually coated from the small end, almost to the middle, to prevent its breaking from the vehemence, or irregularity of the fire. The greater part, which is placed uppermost, not being received within the furnace, has no occasion for this defence. The whole secret, with regard to this process, is (1) the management of the fire, which should be so strong as to keep the matter continually subliming to the upper part of the jar, without coming out at its mouth, which is covered with an iron plate; (2) to put into the subliming vessel, only small quantities of the mixture at a time.

A method is mentioned in the practical chemistry of making cinnabar without sublimation, by agitating or digesting mercury in the volatile tincture of sulphur, already described. We have found a sulphureous liquor more easily parable to have a like effect: the solution for *lac sulphuris* will, with some address, succeed.

The principal use of cinnabar is as a pigment. It was formerly held in great esteem as a medicine, in cutaneous foulnesses, gouty and rheumatic pains, epileptic cases, &c. but of late, it has lost much of its reputation. It appears to be nearly similar to the *ethiops*, already spoken of: like this, it is very mild, never occasions a salivation,

or

or other violent symptoms (the qualities for which it has been chiefly recommended :) but like this also, it is inactive. Cartheuser relates, that having given cinnabar in large quantities to a dog, it produced no sensible effect, but was partly voided along with the feces unaltered, and partly found entire in the stomach and intestines upon opening the animal. It is presumed no one will at this time have recourse to the arguments for the efficacy of cinnabar used so late as the elder Frederic Hoffman, that the *arcbeus*, or *anima* (a visionary superintendent of the vital functions) is pleased with its fine colour as it passes along the intestines, and whilst he has this beautiful object to divert him, ceases from committing disorders in the body.

Cinnabar is sometimes used in fumigations against venereal ulcers in the nose, mouth, and throat. Half a dram of it burnt, the fume being imbibed with the breath, has occasioned a violent salivation. This effect is by no means owing to the medicine as cinnabar: when set on fire, it is no longer a mixture of mercury and sulphur; but mercury resolved into fume, and blended in part with the volatile vitriolic acid; in either of which circumstances, this mineral, as already observed, has very powerful effects.

MERCURIUS CALCINATUS.
CALCINED MERCURY.

Lond.

Put purified quicksilver into a broad bottomed glass vessel, having a small hole opening to the air; and keep it in a constant heat, in a sand furnace, for several months, until it is calcined into a red powder.

This tedious process might, in all probability, be greatly expedited, by employing, instead of a

vessel with a small aperture, a very wide mouthed, flat bottomed glass body, of such a height that the mercury may not escape: by this means, the air, which is essentially necessary to the calcination of all metallic substances, will be more freely admitted. A vessel might be so contrived, as to occasion a continual flux of air over the surface of the mercury.

This preparation is by some highly esteemed in venereal cases, and supposed to be the most efficacious and certain of all the mercurials. It may be advantageously given in conjunction with opiates: a bolus or pill, containing from half a grain to two grains of this calx, and a quarter or half a grain or more of opium, with the addition of some warm aromatic ingredient, may be taken every night. Thus managed, it acts mildly, though powerfully, as an alterative and diaphoretic: exhibited by itself in larger doses, as five or six grains, it proves a rough emetic and cathartic.

MERCURII SOLUTIO.
SOLUTION of MERCURY.

Edinb.

Take equal quantities of pure quicksilver and double aqua fortis. Digest them together, in a phial placed in a sand furnace, that a limpid solution may be made.

Aqua fortis dissolves mercury more easily, and in larger quantity, than any other acid: sixteen ounces, if the menstruum is very strong and pure, will take up eleven or twelve. As the liquor grows cold, a considerable part concretes, at the bottom of the vessel, into a crystalline form. If the whole is wanted to remain suspended, a proper quantity of water should be added after the solution is completed.

This process is given only as preparatory to some of the following

ing ones. The solution is highly caustic, so as scarce to be safely touched. It stains the skin purple or black.

CALX MERCURII.
CALX OF MERCURY.

Edinb.

Take any quantity of the solution of mercury, and evaporate it over a gentle fire, till a white dry mass remains.

This calx, or rather salt, of mercury, is violently corrosive. It is rarely made use of any otherwise than for making the following preparation.

MERCURIUS CALCINATUS,
vulgo
PRÆCIPITATUS RUBER,
RED CALX OF MERCURY,
commonly called,
RED PRECIPITATE.

Edinb.

Take any quantity of the calx of mercury, and reverberate it in a crucible, with successive degrees of heat. Its white colour will change first into a brown, and afterwards a yellow; at length, upon increasing the fire, it passes into a deep red.

MERCURIUS CORROSIVUS
RUBER.
THE RED MERCURIAL
CORROSIVE.

Lond.

Take
Purified quicksilver,
Compound aqua fortis, of each
equal weights.

Mix, and set them in a broad bottomed vessel, in a sand heat, till all the humidity is exhaled, and the mass has acquired a red colour.

The marine acid in the compound menstruum ordered in this last process, disposes the mercurial

calx to assume the bright sparkling look admired in it; which, tho' perhaps no advantage to it as a medicine, ought nevertheless to be insisted on by the buyer as a mark of its goodness and strength. As soon as the matter has gained this appearance, it should be immediately removed from the fire, otherwise it will soon lose it again. The preparation of this red precipitate, as it is called, in perfection, is supposed by some to be a secret not known to our chemists; inasmuch that we are under a necessity of importing it from abroad. This reflexion seems to be founded on misinformation: we sometimes indeed receive considerable quantities from Holland; but this depends upon the ingredients being commonly cheaper there than with us, and not upon any secret in the manner of the preparation.

This precipitate is, as its title imports, an eucharotic, and in this intention is frequently employed by the surgeons, with *basilicum*, and other dressings, for consuming fungous flesh in ulcers, and the like purposes. It is subject to great uncertainty in point of strength; more or less of the acid exhaling, according to the degree and continuance of the fire. The best criterion of its strength, as already observed, is its brilliant appearance; which is also the mark of its genuineness: if mixed with minium, which it is sometimes said to be, the duller hue will discover the abuse. This admixture may be more certainly detected by means of fire: the mercurial part will totally evaporate, leaving the minium behind.

Some have ventured to exhibit this medicine internally, in venereal, scrophulous, and other obstinate chronic disorders, in doses of two or three grains, and more.

But

But certainly, the milder mercurials, properly managed, are capable of answering all that can be expected from this; without occasioning violent anxieties, tormina of the bowels, and other ill consequences, which the best management can scarcely prevent this corrosive preparation from sometimes doing. The chemists have contrived sundry methods of correcting and rendering it milder, by diverting it of a portion of the acid; but to no very good purpose; as they either leave the medicine still too corrosive, or render it similar to others, parable at an easier rate.

MERCURIUS CORALLINUS.
CORALLINE MERCURY.

Lond.

Pour on the red mercurial corrosive, about thrice its weight of rectified spirit of wine, and digest them together, with a gentle heat, for two or three days, frequently shaking the vessel: then set fire to the spirit, keeping the powder continually stirring till all the spirit is burnt away.

Here the corrosive becomes somewhat milder, a part of the acid being dissipated by the heat of the burning spirit; (whether the spirit takes up any in the digestion, is greatly to be doubted;) the preparation nevertheless seems to be scarce sufficiently safe for internal use: a few grains of it generally prove cathartic or emetic, and sometimes occasion violent symptoms.

ARCANUM CORALLINUM.
THE CORALLINE SECRET.

Take five ounces of the red mercurial corrosive, and eight ounces of spirit of nitre: distil off the spirit in a retort; return it, with four ounces of fresh, upon the

residuum, and draw it off again as before: repeat this process, with four ounces of new spirit; and at last keep the fire up very strong, for at least two hours. The powder, which remains in the retort, is to be put into a crucible, and kept of a worm-red heat for seven or eight minutes: then boil it for half an hour, in three pints of pure water: distil from it twelve ounces of tartarized spirit of wine, cohobating the spirit twice: digest it for forty eight hours in a sand heat, with the same quantity of fresh tartarized spirit; raising the fire towards the end, so as to make the spirit simmer a little: afterwards suffer the whole to cool, decant off the spirit, and dry the powder for use.

This preparation, notwithstanding its pompous name, is a very unthrifty and injudicious one. The cohobation of spirit of nitre upon the corrosive, answers no useful purpose; for whatever the acid communicates, is afterwards dissolved and separated by the water; if the direction of keeping up a strong fire for some time, after the last distillation, is not strictly complied with, all the mercury will dissolve in the water, and the solution will prove similar to the *solutio mercurii* above described.

PULVIS PRINCIPIS.
PRINCES POWDER.

Grind eight ounces of the red mercurial corrosive into a fine powder; and digest it with two quarts of water, in an almost boiling heat, for twelve hours, occasionally stirring up the powder from the bottom: then pour off the liquor, and digest the powder in a fresh parcel of water as before: repeating this process a third time. The last wa-

ter

ter being poured off, grind the powder with double its weight of fixt alkaline salt, and digest it as at first, in fresh waters, till it becomes inspid. Afterwards boil it in spirit of wine; and lastly, pouring off the spirit, dry the powder for use.

PANACEA MERCURII
RUBRA.
RED PANACEA OF
MERCURY.

Digest the red mercurial corrosive with eight times its weight of water, for twenty-four hours, shaking the vessel three or four times: pour off the water, dry the powder, and digest it with eight times its weight of spirit of wine, for fifteen days. The spirit being then decanted off, burn upon the calx twice its weight of tincture of sulphur: afterwards, digest it two or three days longer in fresh spirit of wine; and in the last place, exsiccate it for use.

The three foregoing preparations, have been kept in particular hands as secrets. At bottom they are all nearly the same, and much too trivial to deserve the pains taken about them. They are perhaps farther divested of acid, than the *mercurius corallinus* of the shops; but have this disadvantage, that the quantity of acid separated in the troublesome digestions, &c. must vary according to different circumstances in the operation. All the four stand recommended in small doses, two grains for instance, as excellent alterants and diaphoretics: in larger ones, they prove emetic and cathartic.

MERCURIUS CORROSIVUS
SUBLIMATUS, vel ALBUS.
The WHITE MERCURIAL
CORROSIVE or CORROSIVE

MERCURY SUBLIMATE.

Lond.

Take of

Purified quicksilver, forty ounces;
Sea salt, thirty-three ounces;
Nitre, twenty-eight ounces;
Calcined green vitriol sixty-six ounces.

Grind the quicksilver, in a wooden or stone mortar, with an ounce or more of corrosive mercury sublimate already made, until the former is divided into small granules: this mixture is to be ground with the nitre, and afterwards with the sea salt; then add the calcined vitriol, continuing the triture only for a little time longer, lest the quicksilver should run together again. Lastly proceed to sublimation, in a glass matras; to which you may adapt a head, in order to save a little spirit that will come over.

It has been supposed, that corrosive sublimate participates of all the ingredients employed in this process; though 'tis certain, that it consists only of mercury and the acid of the sea salt united together. The materials being mixed and exposed to the fire, first the vitriol parts with its acid; which dislodging those of the nitre and marine salt, takes their place. The marine acid, resolved into fume and assisted by the nitrous, dissolves the mercury now also strongly heated. This acid, though it very difficultly acts on mercury, yet when thus once united with it, is more strongly retained thereby than any other acid. The nitrous spirit, therefore, having nothing to retain it (for its own basis, and that of the sea salt are both occupied by the vitriolic; and that which the vitriolic forsok to unite with these, has now little affinity with any acid) arises; leaving the mercury and marine acid

acid to sublime together when the heat shall be strong enough to elevate them. Some small portion of the marine spirit arises along with the nitrous; and hence this compound acid has been usually employed, instead of the *aqua fortis composita*, to which it is similar, for making the red corrosive.

It appears therefore, that the vitriol, and the bases of the nitre and sea salt, are of no farther use in this process than as convenient intermediums for facilitating the union of the mercury with the marine acid. They likewise serve to afford a support for the sublimate to rest upon, which thus assumes the form it is expected in, that of a placenta or cake.

Edinb.

Take

Calx of mercury (that is, a solution of mercury in aqua fortis, evaporated to a dry white mass.

Decrepitated sea salt, of each equal quantities.

Powder, and mix these well together; and put them into a matras, of which they may nearly fill one half: place the vessel in a sand furnace, and proceed to sublimation; applying at first a gentle heat, and afterwards increasing it, till all the sublimate has arose, in a white crystalline mass, to the upper part of the matras: separate this from the red scoriae, and purify it, if needful, by a second sublimation.

The sublimate made by this method is in all respects the same with the foregoing; but as the quantity of fixt matter is small, it difficultly assumes the form of a cake. It requires indeed some skill in the operator, to give it this appearance when either process is followed. When large quantities are

made, this form may be easily obtained by placing the matras no deeper in the sand, than the surface of the matter contained in it; and removing a little thereof from the sides of the glass, as soon as the flowers begin to appear in the neck; when the heat should likewise be somewhat lowered, and not at all raised during the whole process. The sublimation is known to be completed by the edges of the crystalline cake, which will form upon the surface of the caput mortuum, appearing smooth and even, and a little removed from it.

Our apothecaries, and even the chemists, very rarely attempt the making of this preparation themselves; greatest part of what is used among us, comes from Venice, Holland, and other places. This foreign sublimate has been reported to be adulterated with arsenic; and sundry trials have been made for discovering this dangerous fraud. Barchusen proposes alkaline liquors as an infallible criterion; if these, he says, change the sublimate black, it most certainly contains arsenic: Homberg affirms, that these liquors change all sorts of sublimate black: and on the other hand, Boulduc denies that they will change either the genuine or adulterated of this colour. It would be needless here to enquire, how far these gentlemen are in the right or otherwise, since the suspicion which gave rise to the controversy, appears to have little foundation: arsenic, as Neuman observes, will not arise, in sublimation, along with this mercurial preparation; and it cannot be mingled therewith afterwards, without destroying the form in which it is brought to us.

Sublimate is a most violent corrosive, presently corrupting and destroying

stroying all the parts of the body it touches. A solution of it in water, in the proportion of about a dram to a quart, is made use of for keeping down proud flesh, and cleansing foul ulcers: and a more dilute solution as a cosmetic, and for destroying cutaneous insects. But a great deal of caution is requisite even in these external uses of it.

Some have nevertheless ventured to exhibit it internally, in the dose of one tenth, or one eighth of a grain. Boerhaave relates, that if a grain of it be dissolved in an ounce or more of water, and a dram of this solution, softened with syrup of violets, taken twice or thrice a day, it will perform wonders in many reputed incurable distempers; but particularly cautions us not to venture upon it, unless the method of managing it is well known.

Sublimate consists of mercury united with a large quantity of marine acid. There are two general methods of destroying its corrosive quality, and rendering it mild; combining with it so much fresh mercury as the acid is capable of taking up, and separating a part of the acid by means of alkaline salts and the like.

MERCURIUS DULCIS
SUBLIMATUS.
DULCIFIED MERCURY
SUBLIMATE.

Lond.

Take of

Corrosive mercury sublimate, one pound;

Purified quicksilver, nine ounces.

Having powdered the sublimate, add to it the quicksilver, and digest them together in a matras, with a gentle heat of sand, until they unite; then, increasing the heat, let the mixture be sub-

limed. The sublimed matter, freed from the acrimonious part at top and such mercurial globules as happen to appear distinct in it, is to be reduced into powder, and sublimed again; and this sublimation repeated six times.

Edinb.

Take of

Corrosive mercury sublimate, reduced to powder in a glass mortar, four ounces;

Pure quicksilver, three ounces.

Mix them exquisitely together in a mortar, until the quicksilver ceases to appear. Put the powder into an oblong phial, of such a size that only one third of it may be filled; and set the glass in a sand furnace, so as that the sand may reach up to one half its height. By degrees of fire successively applied, almost all the mercury will sublime, and adhere to the upper part of the vessel. The glass being then broken, and the red powder which is found in its bottom, with the whitish one that sticks about the neck, being thrown away, let the white mercury be sublimed again three or four times.

If the sublimation is repeated seven times, the preparation is called CALOMELAS or AQUILA ALBA.

The trituration of corrosive sublimate with quicksilver is a very noxious operation: for it is almost impossible, by any care, to prevent the lighter particles of the former from arising, so as to affect the operator's eyes and mouth. It is nevertheless of the utmost consequence, that the ingredients are perfectly united before the sublimation is begun: this may be most commodiously effected, by the digestion ordered in the first of the

Z

above

above processes. It is indeed still necessary to pulverize the sublimate, before the mercury is added to it: but this may be safely performed, with a little caution; especially, if during the pulverization the matter be now and then sprinkled with a little spirit of wine: this addition does not at all impede the union of the ingredients, or prejudice the sublimation: it will be convenient not to close the top of the subliming vessel with a cap of paper at first (as is usually practised) but to defer this till the mixture begins to sublime, that the spirit may escape.

The rationale of this process deserves particular attention; and the more so, as a mistaken theory herein has been productive of several errors with regard to the operation of mercurials in general. It is supposed, that the dulcification, as it is called, of the *mercurius corrosivus*, is owing to the spicula or sharp points, on which its corrosiveness depends, being broken and worn off by the frequent sublimations. If this opinion was just, the corrosive would become mild, without any addition, barely by repeating the sublimation; but this is contrary to all experience. The abatement of the corrosive quality of the sublimate is entirely owing to the combination of so much fresh mercury with it, as is capable of being united; and by whatever means this combination is effected, the preparation will be sufficiently dulcified. Triture and digestion promote the union of the two, whilst sublimation tends rather to disunite them. The prudent operator therefore, will not be solicitous about separating such mercurial globules as appear distinct after the first sublimation; he will endeavour rather to combine them

with the rest, by repeating the triture and digestion.

The college of Wirtemberg require their *mercurius dulcis* to be only twice sublimed; and the Augustan, but once: and Neuman proposes making it directly, by a single sublimation, from the ingredients which the corrosive sublimate is prepared from, by only taking the quicksilver in a larger proportion. If the medicine, made after either of these methods, should prove in any degree acrid; water, boiled on it for some time, will effectually dissolve and separate all that part in which its acrimony consists. The marks of the preparation being sufficiently dulcified are, its being perfectly insipid to the taste, and indissoluble in water.

Mercurius dulcis is one of the best and safest preparations of this mineral. Many of the more elaborate processes are no other than attempts to produce such a medicine as this really is: all that mercurials are capable of performing, as sialagogues, diaphoretics or alterants, may be effected by it. The dose, for raising a salivation, is fifteen or twenty grains; taken in the form of a bolus or pills, every night or oftner, till the ptyalism begins. As an alterant and diaphoretic, it is given in doses of six, eight, or ten grains; a purgative being occasionally interposed, to prevent its affecting the mouth. It answers, however, much better, when given in smaller quantities, as one, two, or three grains, every morning and evening in conjunction with such substances as determine its action to the skin, as the extract or resin of guaiacum; the patient at the same time keeping warm, and drinking liberally of warm diluent liquors. By this method

method of managing it, obstinate cutaneous and venereal distempers may be successfully cured, without any remarkable increase of the sensible evacuations.

PANACEA MERCURII.
MERCURIAL PANACEA.

Edinb.

Take any quantity of levigated calomel, and four times as much spirit of wine. Digest them together in a sand heat for twenty days, frequently shaking the vessel; then pour off the spirit, and dry the powder for use.

This preparation differs very little, if at all, from the foregoing; for, as Lemery observes, the spirit of wine does not dissolve any part of the calomel. Some chemists have therefore recommended a proof spirit, or common water, as more suitable for this purpose than rectified spirit: if any part indeed of the calomel remains not sufficiently dissolved, this will be dissolved by boiling in water, and consequently the preparation becomes milder; but if the calomel is well made, even water will have no effect upon it: the mercury and spirit of salt being so closely united to each other, as not to admit of any separation by the means here proposed. Nor indeed does good *mercurius dulcis* want any of its acid to be taken away, as being already sufficiently safe and mild in its operation.

MERCURIUS
PRÆCIPITATUS ALBUS.
WHITE PRÆCIPITATE of
MERCURY.

Lond.

Take
Sublimate corrosive mercury,
Sal ammoniac, of each equal
weights.
Dissolve them both together in wa-

ter, filter the solution, and precipitate it with a solution of any fixt alkaline salt. Wash the precipitated powder, until it is perfectly sweet (that is, insipid or void of acrimony.)

MERCURIUS
PRÆCIPITATUS DULCIS.
SWEET PRÆCIPITATE of
MERCURY.

Edinb.

Dissolve sublimate corrosive mercury in a sufficient quantity of hot water, and gradually drop into the solution some spirit of sal ammoniac, as long as any precipitation ensues. Wash the precipitated powder upon a filter, with several parcels of warm water.

The use of the sal ammoniac in the first of these prescriptions is to promote the solution of the sublimate; which of itself is difficultly, and scarce at all entirely, soluble in water; for however skilfully prepared, some part of it will have an under proportion of acid, and consequently approach to the state of *mercurius dulcis*. The chemists, however, to save the expence of this article, often make a less quantity, than above directed, serve; and take the trouble of boiling the sublimate in several fresh parcels of water. A good deal of care is requisite in the precipitation: if too large a quantity of the alkaline liquor be imprudently added, the precipitate will lose the elegant colour which recommends it in unguents. For internal purposes this medicine is rarely made use of, nor is it at all wanted: it is similar to calomel, but less certain in its effects.

Mercurius præcipitatus albus.
White præcipitate of Mercury.

Edinb.

Z 2

Take

Take any quantity of the solution of mercury (made in aqua fortis) and pour into it, by little and little, some very strong brine of sea salt, until all the quicksilver is precipitated in form of a very white powder; which is to be washed upon a filter with warm water, till the water comes off without any acrimony. The powder is then to be put betwixt the folds of paper, and dried with a very gentle heat.

This is a very unfrugal preparation; for sea salt, in whatever proportion it be added, will not precipitate all the mercury: this evidently appears upon adding a small quantity of a solution of fixt alkaline salt, or volatile alkaline spirit, to the liquor which remains after the precipitate is fallen, when it will again grow turbid, and let fall a considerable quantity of fresh precipitate. Homberg observes, that if the acid spirit bears an over proportion to the mercury in the solution, no precipitation at all will follow upon the affusion of the brine of sea salt. If the precipitate be washed too often with hot water, it will all dissolve and pass the filter: the same accident will likewise happen, if the brine employed at first to throw down the mercury, be suffered to stand too long upon the precipitate.

Some have been accustomed to substitute the foregoing preparation in the place of this; but very injudiciously: the first is so mild, as not improperly to deserve the appellation by which it is distinguished in the Edinburgh pharmacopœia, *dulcis*; whilst this last is so far corrosive, as to be employed by the farriers for the purposes of an escharotic. Internally, it is among us very rarely made use of; notwithstanding the character given of it by Boerhaave, of being

“perhaps the best remedy hitherto afforded by mercury.” *Mercurius dulcis* produces all the good effects which this is supposed to do, with a greater degree of certainty, and without disordering the constitution, occasioning vomiting, &c. which this precipitate, in a dose of two or three grains, frequently does.

MERCURIUS
PRÆCIPITATUS FUSCUS,
vulgo WURTZII.

*BROWN, commonly called
WURTZ'S, PRECIPITATE.*

Edinb.

Take any quantity of solution of mercury (made in aqua fortis) and gradually drop into it oil of tartar per deliquium, till the effervescence ceases. A powder will precipitate, which is to be edulcorated as the foregoing.

This preparation was in considerable esteem some years ago, but at present is rarely made use of. It does not differ in strength or effects from the sweet precipitate.

MERCURIUS
PRÆCIPITATUS VIRIDIS.
*GREEN PRECIPITATE of
MERCURY.*

Edinb.

Dissolve four ounces of corrosive sublimate mercury (previously reduced to powder) in a quart of hot water.

Digest an ounce and a half of copper filings, with eight ounces of spirit of sal ammoniac, in a matras, until a deep blue tincture is extracted.

Filter the tincture, and drop it by degrees into the mercurial solution: when the precipitate has fallen, evaporate in a sand heat to dryness.

This differs from the sweet precipitate in containing an admixture
of

of copper, which renders it an emetic too rough to be used internally with safety; and hence the present practice has almost entirely rejected it.

MERCURIUS EMETICUS
FLAVUS.
*The YELLOW MERCURIAL
EMETIC.*

Lond.

Upon purified quicksilver, contained in a glass vessel, pour double its weight of the strong spirit or oil of vitriol. Heat the liquor by degrees, so as at length to make it boil, till a white mass remains, which is to be thoroughly dried, with a strong fire. This mass, on the affusion of warm water, grows yellowish, and falls into powder, which is to be diligently ground with the water in a glass mortar: then suffer it to settle, pour off the water, and wash the powder in several parcels of fresh water, until it is sufficiently dulcified.

MERCURIUS
PRÆCIPITATUS FLAVUS,
feu
TURPETHUM MINERALE.

*YELLOW PRECIPITATE of
MERCURY, or TURPETH
MINERAL.*

Edinb.

Take four ounces of pure quicksilver, and sixteen ounces of rectified oil of vitriol. Cautiously mix them together, and distil in a retort placed in a sand furnace, to dryness; the white calx, which is left at the bottom, being ground to powder, and thrown into water, immediately grows of a yellow colour; wash this in fresh waters, renewed several times, until it has lost all its acrimony; then dry it for use.

The quantity of vitriolic acid in this last prescription, is greatly too large; and even less than that in the first would suffice. Boerhaave directs this preparation to be made in an open glass, slowly heated, and then placed immediately upon burning coals; care being taken to avoid the fumes, which are extremely noxious. This method will succeed very well, with a little address, when the ingredients are in small quantity: but where the mixture is large, it is better to use a retort, placed in a sand furnace, with a recipient containing a small quantity of water luted to it. Great care should be taken, when the oil of vitriol begins to bubble, to steadily keep up the heat, without at all increasing it till the ebullition ceases, when the fire should be augmented to the utmost degree; for the more perfectly the mass is exsiccated, the greater will the yield of turbith prove.

Theedulcoration of this preparation, which is attempted by repeated ablutions with water, does but ill succeed; especially if the vitriolic acid has been used in too large a proportion, or the mass not been duly exsiccated; in either of which cases, great part of the turbith will be taken up by the water: this evidently appears upon pouring into it a little solution of fixt salt, which will throw down a considerable quantity of yellow precipitate, greatly resembling the turbith, except that it is less violent in operation.

From this experiment, it appears, that the best method ofedulcorating this powder is, by impregnating the water intended to be used in its abluion, with a determined proportion of fixt alkaline salt; for by this means, the washed turbith will not only turn out

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greater

greater in quantity, but, what is of more consequence, always have an equal degree of strength; a circumstance which deserves particularly to be considered, especially in making such preparations as, from an error in the process, may prove too violently corrosive to be used with any tolerable degree of safety.

Turbith mineral is a strong emetic, and in this intention operates the most powerfully of all the mercurials that can be safely given internally. Its action however is not confined to the primæ viæ; it will sometimes excite a ptyalism, if a purgative is not taken soon after it. This medicine is used chiefly in violent gonorrhœas, and other venereal cases where there is a great flux of humours to the parts: it is said likewise to have been employed with good success, in robust constitutions, against leprous disorders, and obstinate glandular obstructions: the dose is from two grains, to six or eight, though there are some constitutions which have been much used to mercurials, that bear well even the dose of a scruple. It may

be given in doses of a grain or two as an alterative and diaphoretic, after the same manner as the *mercurius calcinatus* already spoken of.

This medicine has been of late recommended as the most effectual preservative against the hydrophobia. There are several examples of its preventing madness in dogs that had been bit; and some, of its performing a cure after the madness was begun: from six or seven grains to a scruple, may be given every day, or every other day, for a little time, and repeated at the two or three succeeding fulls and changes of the moon. Some few trials have likewise been made on human subjects, that had been bit by mad dogs; and in these also, the turbith, used either as an emetic or alterative, had happy effects.

The washings of turbith mineral are used by some, externally, for the itch and other cutaneous foulnesses. In these cases, this mercurial lotion often does some service, but the patient must not be too free with it.

S E C T. VIII.

P R E P A R A T I O N S of ANTIMONY.

ANTIMONY is composed of a semimetal, united with sulphur or common brimstone.

If powdered antimony be exposed to a gentle fire, the sulphur exhales; the metallic part remaining in form of a white calx, reducible, by proper fluxes, into a whitish brittle semimetal, called *regulus*. This is readily distinguished from the other bodies of that class, by its not being soluble in aqua fortis: its proper menstruum is aqua regis.

If aqua regis be poured upon crude antimony, the metallic part will be dissolved; and the sulphur thrown out, partly to the sides of the vessel, and partly to the surface of the liquor, in form of a greyish yellow substance. This, separated and purified by sublimation, appears on all trials the same with pure common brimstone.

The semimetal, freed from the sulphur naturally blended with it, and afterwards fused with common

common brimstone, resumes the appearance and qualities of crude antimony.

It is extremely difficult to determine exactly the proportions of sulphur and semimetal which enter the composition of this concrete; since they can scarce be perfectly separated from one another, without some part of them being lost in the operation. The proportions likewise vary in different antimonies: sixteen ounces of some sorts yield ten or eleven of regulus; whilst the same quantity of others scarce affords eight.

Many celebrated chemists have maintained, that antimony contains, besides its own semimetal and sulphur, a portion of an arsenical substance; to which they ascribe the virulent effects produced by some of the antimonial preparations. But this opinion, how plausible soever it may appear from the arguments which they bring in support of it, does not seem to have any just foundation. Nothing arsenical has ever been separated from pure antimony. The most violent antimonials are rendered inactive, by means which do not lessen the poisonous quality of arsenic; and the most inactive antimonial preparations are rendered virulent, by operations in which arsenic would either be dissipated, or its violence abated.

The antimonial semimetal is a medicine of the greatest power of any known substance whatever: a quantity too minute to be sensible on the tenderest balance, is capable of producing virulent effects, if taken dissolved or in a soluble state. If exhibited in such a form as to be immediately miscible with the animal fluids, it proves violently emetic; if so managed as to be more slowly acted on, cathar-

tic; and in either case, if the dose is extremely small, diaphoretic.

Thus, though vegetable acids extract so little from this semimetal, that the remainder seems to have lost nothing of its weight; these tinctures, nevertheless, prove in no large doses strongly emetic, and in smaller ones powerfully diaphoretic. The regulus has been cast into the form of pills, which acted as virulent cathartics, though without suffering any sensible diminution of weight in their passage through the body, and this repeatedly, for a great number of times.

This semimetal, divested of the inflammable principle which it has in common with all metallic bodies, that is reduced to a calx, becomes indissoluble and inactive. The calx nevertheless, urged with a strong fire, melts into a glass, as easy of solution (partially) and as virulent in operation, as the regulus itself: the glass, thoroughly mingled with such substances as prevent its solubility, as wax, resins, and the like, is again rendered mild.

Vegetable acids, as we have already observed, dissolve but an extremely minute portion of this semimetal; the solution nevertheless proves powerfully emetic and cathartic. The nitrous and vitriolic acids only corrode it into a powder, to which they adhere so slightly as to be separable in good measure by water, and totally by fire, leaving the regulus in form of a calx similar to that prepared by fire alone. The marine acid has a very different effect: this reduces the regulus into a violent corrosive, and though it difficultly unites, yet very closely adheres to it, inasmuch as not to be separable by any ablution, nor by fire, the regulus arising along with it. The

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nitrous

nitrous or vitriolic acids expel the marine, and thus reduce the corrosive into a calx similar to the foregoing.

Sulphur remarkably abates the power of this semimetal: and hence crude antimony (in which the regulus appears to be combined with from one fourth to one half its weight of sulphur) proves altogether mild. If a part of the sulphur be taken away, by such operations as do not destroy or calcine the semimetal, the remaining mass becomes proportionably more active; the farther the sulphur is separated, the more does the regulus, thus divested of its corrector, exert its virulence.

The sulphur of antimony may be expelled by deflagration with nitre: the larger the quantity of nitre, to a certain point, the more of the sulphur will be dissipated, and the preparation will be the more active. If the quantity of nitre is more than sufficient to consume the sulphur, the rest of it, deflagrating with the inflammable principle of the regulus itself, renders it again mild.

The sulphur of antimony is likewise absorbed, in fusion, by certain metals, and by alkaline salts. These last, when united with sulphur, prove a menstruum for all the metals (zinc excepted) and hence, if the fusion is long continued, the regulus is taken up, and rendered soluble in water.

REGULUS ANTIMONII
MEDICINALIS.
*A MEDICINAL REGULUS OF
ANTIMONY.*

Take of

Antimony, eight parts;
Nitre, one part.

Mix, and inject them by little at a time, into a red hot crucible: when the deflagration ceases,

take the crucible out of the fire, and reduce the matter into powder.

This preparation is sufficiently mild, though considerably more active than the crude mineral: eighteen or twenty grains will in some constitutions operate, though very gently, both upwards and downwards. It is similar to one to be described hereafter under the same name.

CROCUS ANTIMONII
MITIOR.

*The Milder Crocus of
ANTIMONY.*

Take of

Antimony, two parts;
Nitre, one part.

Mix, and inject the powder into a red hot crucible. As soon as the deflagration ceases, remove the matter from the fire (without suffering it to melt) and reduce it into powder.

This preparation acts much more powerfully than the foregoing; the increase of the nitre occasioning a greater quantity of the sulphur of the antimony to be dissipated. The London committee received it in their first draught, with the character of an antimonial of mild operation, which had proved a successful medicine in numerous instances, without any one example of its being unsafe. Some trials however, afterwards reported to them, where the operation of this and the following crocus were compared, induced them to lay this preparation aside. It appears to differ from the other only in being less violent.

CROCUS ANTIMONII.
CROCUS of ANTIMONY.
Lond.

Take

Antimony,

Nitre,

Nitre, of each equal weights. Reduce them separately into powder; then mix, and inject them into a crucible heated to a white heat, that the mixture (after deflagration) may melt. Then pour it out, separate the scoriae, and reserve the matter underneath them for use: it proves different in colour according to the continuance of the heat; the longer it has been kept in fusion, the yellower it will be.

CROCUS METALLORUM.

CROCUS of METALS.

Edinb.

The mixture of antimony and nitre, made as above, is to be injected into a red hot crucible; and when the detonation is over, separate the reddish metallic matter from the whitish crust, and edulcorate it with water.

Here the antimonial sulphur is totally consumed, and the metallic part left divested of its corrector.

These preparations, given from two to six grains, act as violent emetics, greatly disordering the constitution. Their principal use is in maniacal cases; as the basis of some other preparations; and among the farriers, who frequently give to horses an ounce or two a day, divided into different doses, as an alterative: in these and other quadrupeds, this medicine acts chiefly as a diaphoretic.

The chemists have been accustomed to make the crocus with a less proportion of nitre than directed above; and without any farther melting, than what ensues from the heat that the matter acquires by deflagration, which, when the quantity is large, is very considerable: a little common salt is added to promote the fusion. The mixture is put by degrees into an iron pot, or mortar, somewhat

heated, and placed under a chimney: when the first ladle-full is in, a piece of lighted charcoal is thrown to it, which sets the mixture on fire: the rest of the mixture is then injected by little and little: the deflagration is soon over, and the whole appears in perfect fusion: when cold, a considerable quantity of scoriae are found upon the surface; which scoriae are easily knocked off with a hammer. The crocus prepared after this manner is of a redder colour, than that of the first of the above processes.

CROCUS ANTIMONII

LOTUS.

WASHED CROCUS OF ANTIMONY.

Lond.

Reduce the crocus into a very subtile powder, and boil it in water: then, throwing away this water, wash the powder several times in fresh warm water, until it becomes perfectly insipid.

This process is designed chiefly to fit the crocus for the preparation of emetic tartar, of which hereafter. Cold water would not extract the saline matter; for we have already seen, that sulphur and nitre, deflagrated together, form a salt not dissoluble in cold water.

EMETICUM MITE

ANTIMONII.

A MILD ANTIMONIAL

EMETIC.

Take of

Antimony, one part;

Nitre, two parts.

Grind them together, and throw them by little and little into a red hot crucible: when the deflagration is over, the remaining matter, which proves white, is to be washed for use.

The quantity of nitre is here so large, as to consume not only the sulphur

fulphur of the antimony, but likewise great part of the inflammable principle of the regulus. Boerhaave, from whom we have taken this preparation, informs us, that it is so mild as often to occasion only some light nausea and gentle vomiting, with a large discharge of saliva, and thick urine. Its effects seem to be nearly the same with those of the *regulus medicinalis*.

CALX ANTIMONII.
CALX OF ANTIMONY.

Lond.

Take of

Antimony, one part,
Nitre, three parts.

Let the powdered antimony be well mixed with the nitre, and gradually injected into a crucible, heated to a light white heat; the matter being afterwards taken from the fire, is to be washed with water, both from the salt which adheres to it, and from the grosser part that is less perfectly calcined.

ANTIMONIUM
DIAPHORETICUM.
DIAPHORETIC ANTIMONY.

Edinb.

Take of

Antimony, half a pound,
Nitre, a pound and a half.

Reduce them separately into powder, then mix, and inject them, by a spoonful at a time, into a red hot crucible: when the detonation is over, let the white mass be calcined in the fire for half an hour longer; then powder, and keep it in a glass vessel closely stoppt. This calx, unwashed, is called ANTIMONIUM DIAPHORETICUM NITRATUM, *nitrated diaphoretic antimony*.

The foregoing calx, digested for a nitre in as much water as

will rise above it some inches, and then washed in fresh parcels of water five or six times, is named ANTIMONIUM DIAPHORETICUM DULCE, *edulcorated diaphoretic antimony*.

The several washings, mixed together, filtered, and evaporated over a gentle fire till a cuticle forms on the surface, yield in the cold, crystals, called NITRUM STIBIATUM, *antimoniated nitre*.

The calx of antimony, when freed by washing from the saline matter, is extremely mild, if not altogether inactive. Hoffman, Lemery, and others assure us, that they have never experienced from it any such effects as its usual title (that under which it stands in the last of the above processes) imports; Boerhaave declares, that it is a mere metallic earth, entirely destitute of all medicinal virtue; and the committee of the London college admit that it has no sensible operation. The common dose is from five grains to a scruple, or half a dram; though Wilson relates, that he has known it given by half ounces, and repeated two or three times a day, for several days together.

Some report, that this calx, by being kept for a length of time, contracts an emetic quality: from whence it has been concluded, that the powers of the reguline part are not entirely destroyed; that the preparation has the virtues of other antimonials which are given as alteratives, that is, in such small doses as not to stimulate the primæ viæ; and that therefore, diaphoretic antimony, as it is certainly among the mildest preparations of that mineral, may be useful for children, and such delicate constitutions where the stomach and intestines are easily affected. The
observa-

observation, however, from which these conclusions are drawn, does not appear to be well founded: Ludovici relates, that after keeping the powder for four year, it proved as mild as at first: and the Strasburgh pharmacopœia, with good reason, suspects, that where the calx has proved emetic, it had either been given in such cases as would of themselves have been attended with this symptom (for the great alexipharmac virtues, attributed to it, have occasioned it to be exhibited even in the more dangerous malignant fevers, and other disorders, which are frequently accompanied with vomiting) or that it had not been sufficiently calcined, or perfectly freed by ablution from such part of the regulus as might remain uncalcined.

It has been observed, that when diaphoretic antimony is prepared with nitre, abounding with sea salt, of which all the common nitre contains some portion, the medicine has proved violently emetic. This effect is not owing to any particular quality of the sea salt, but to its quantity, by which the proportion of the nitre to the antimony is rendered less.

The *nitrum sibiatum* differs little from *sal polychrest*.

CFRUSSA ANTIMOMII.
CERUSSE OF ANTIMONY.

Take of

Regulus of antimony, one part;
Nitre, three parts.

Deslagrate them together, as in the foregoing process.

The result of both processes appear to be altogether the same. It is not necessary to use so much nitre here, as when antimony itself is employed; for the sulphur which the crude mineral contains, and which requires for its dissipation nearly an equal weight of nitre to the antimony, is here already se-

parated. Two parts of nitre to one of the regulus are sufficient.

REGULUS ANTIMONII
MEDICINALIS.
MEDICINAL REGULUS OF
ANTIMONY.

Take of

Antimony, five parts;
Common salt, four parts;
Salt of tartar, one part.

Grind them together, and inject the mixture into a red hot crucible, and when it flows sufficiently thin, pour it into a cone, smoked and heated: gently shake the cone, or strike it on the sides, that the regulus may sink to the bottom. This regulus, freed from the scoriæ, appears bright like polished steel; powdered, it assumes a reddish or purple colour.

This medicine is similar in quality to one made with one eighth of nitre, already described: in both processes, the antimony is freed from a small portion of its sulphur, which is dissipated in flame by the nitre, and absorbed by the alkaline salt. This preparation is greatly celebrated by Hoffman, and other German physicians, in sundry obstinate chronical disorders, and esteemed one of the best antimoniales that can be given with safety as alterants: it operates chiefly as a diaphoretic, and sometimes, though rarely, proves emetic. The dose is from three or four grains to twenty.

This regulus, reduced into a subtle powder, is the genuine FEBRIFUGE POWDER of Craanius (*Pharm. Boruffo-Brandenburg*, edit. 1734. pag. 107.) and has been greatly commended in all kinds of fevers, both of the intermittent and continual kind, (*Pharm. Argent.* 1725. pag. 252.) A dose or two have frequently removed these

These disorders, by occasioning either a salutary diaphoresis, or acting mildly by stool or vomit. The colour of the levigated powder is a purplish brown. The antimonial emetic of Boerhaave already mentioned, which is white, is nearly similar to it.

The common salt is of no farther use in the process, than as it serves to promote the fusion; and even for this it is not necessary. The medicine proves rather more mild and certain in operation, if prepared without it.

REGULUS ANTIMONII.
REGULUS OF ANTIMONY.

Edinb.

Take

Antimony,
Nitre,

Crude tartar, of each equal parts.

Grind them separately into a powder, then mix, and rub them all together. Injest the powder, at several times, into a red hot crucible, taking care to break the crust, which forms on the surface, with an iron rod: when the detonation is over, let a strong fire be made, that the matter may flow like water, then pour it out into a warm greased cone, which is to be gently struck on the sides, that the regulus may separate and fall to the bottom; when grown cold, let the regulus be cleared from the scoriae that lie a-top of it.

In this process, an alkaline salt is produced from the nitre and tartar; in such quantity, as entirely to absorb the sulphur of the antimony: the alkali, thus sulphurated, will take up more or less of the reguline part, according to its quantity, and the continuance of the fusion.

As the ingredients are above proportioned, the yield of regulus proves extremely small, and if the fusion is long continued, scarce

perceptible, almost the whole of it being taken up into the scoria: in order to obtain the largest quantity, the nitre ought to be diminished one half. It is convenient to rub the nitre and tartar together, and deflagrate them in an iron ladle or pan, before their mixture with the antimony; for by this means, the loss of some part of the antimony, which otherwise happens from the vehemence of the deflagration, will be prevented, a smaller crucible will serve, and less time and labour complete the process.

The mixture of nitre and tartar deflagrated together, will reduce any of the antimonial calces (as the diaphoretic antimony, cerusse, or antimony calcined by itself) into regulus; the oily matter of the tartar supplying the inflammable principle, which all calces require for their revival into a metallic form; and the alkaline salt promoting their fusion. It is the common reducing flux of the chemists; by whom it is called, from its colour, the *black flux*. The largest yield of regulus, hitherto obtained from antimony, has been got by calcining it without addition, as directed hereafter for making glass of antimony, and reviving the calx by fusion, with this, or other like compositions. Mr. Geoffroy, who first communicated this method to the French academy, seems to look upon soap (the substance he happened to make use of himself) as the only one that will succeed: but the effects of this are not different from those of the foregoing flux. Both consist of an alkaline salt, and an inflammable (not sulphureous) substance, which are the only materials here necessary.

REGULUS ANTIMONII
MARTIALIS.

MAR.

MARTIAL REGULUS OF
ANTIMONY.

Edinb.

Take

Antimony,
Nitre,
Crude tartar, of each one pound;
Small pieces of iron, half a
pound.

Heat the iron in a crucible to a white heat: then gradually add the other ingredients, first powdered and mixed together, and proceed in the same manner as in the foregoing process.

The nitre might here be diminished to one fourth its weight, and the tartar to half that quantity. The pieces of iron may be small nails; the filings of the metal, lying closer together, are not so readily acted upon by the antimony.

REGULUS ANTIMONII
STELLATUS.
STELLATED REGULUS OF
ANTIMONY.

Edinb.

This is made by melting the martial regulus several times with fresh nitre and tartar.

The simple regulus of antimony is more readily made to exhibit a stary appearance on its surface, than the martial; which it will also do by one, as well as by any number of fusions: the phenomenon entirely depends upon the regulus being pure, brought into extreme thin-fusion, and cooled slowly in the cone, without shaking or moving it. If the martial regulus is employed, it is convenient to add some fresh antimony (about one fourth the weight of the regulus) to absorb such part of the iron as may be retained in it: when the whole is in perfect fusion, inject, at times, about one eighth of nitre, or fixt alkaline salt, previously dried, and made very hot.

The three foregoing *reguli* are at present rarely, if ever, made use of in medicine: the emetic cups, and perpetual pills, formerly made from them, have long been laid aside as precarious and unsafe. The scoriae, produced in the several processes, afford medicines less violent, some of which are in considerable esteem. These scoriae consist of the sulphur of the antimony united with an alkaline salt, and a part of the regulus taken up by this compound, and rendered soluble in water.

SULPHUR AURATUM
ANTIMONII.
GOLDEN SULPHUR OF
ANTIMONY.

Edinb.

Let the scoriae of regulus of antimony be reduced into powder, whilst warm, and then boiled for a considerable time in thrice their quantity of water. Filter the yellowish red solution, and drop into it a proper quantity of spirit of vitriol: a powder will precipitate, which is to be washed with water, till perfectly edulcorated and freed from its ill smell.

SULPHUR ANTIMONII
PRÆCIPITATUM.
PRECIPITATED SULPHUR OF
ANTIMONY.

Lond.

Take of

Antimony, sixteen ounces,
Tartar, a pound,
Nitre, half a pound.

Let these be reduced separately into powder, then mixed, thrown by degrees into a red hot crucible, and melted with a strong fire. Pour out the matter into a conical mould; the metallic part, commonly called regulus of antimony, will sink to the bottom,

bottom, the scoria swimming above it. Dissolve these scoria in water, filter the solution thro' paper, and precipitate the sulphur by dropping in some spirit of sea salt: lastly, wash the sulphur from the salts, and dry it for use.

These preparations are not strictly sulphurs: they contain a considerable quantity of the metallic part of the antimony, which is reducible from them by proper fluxes. That made by the first of the above processes contains greatest part of the semimetal; for as we have already seen, very little, sometimes scarce any at all, separates in the fusion. The quantity of regulus taken up in the second also will be different, according to the degree of fire employed, and the length of time that the fusion is continued. These medicines, therefore, must needs be liable to great variation in point of strength, and in this respect there is not perhaps any of the antimonials more precarious; notwithstanding the assertion in the last edition of this work, that they are the most certain of them.

These preparations prove emetic when taken on an empty stomach, in a dose of four, five, or six grains; but in the present practice, they are scarce ever prescribed in this intention; being chiefly used as alterative deobstruents, particularly in cutaneous disorders. Their emetic quality is easily blunted by making them up into pills with resins or extracts, and giving them on a full stomach: with these cautions, they have been increased to the rate of sixteen grains a day, and continued for a considerable time, without occasioning any disturbance upwards or downwards. As their strength is precarious, they should be exhibited at first in very

small doses, and increased by degrees according to their effect.

A composition of the *sulphur auratum*, with *mercurius dulcis*, has been found a powerful, yet safe, alterative in cutaneous disorders; and has completed a cure after salivation had failed; in venereal cases likewise, this medicine has produced excellent effects. A mixture of equal parts of the sulphur and calomel (well triturated together, and made into pills with extracts, &c.) may be taken from four to eight or ten grains, morning and night; the patient keeping moderately warm, and drinking after each dose, a draught of a decoction of the woods, or other like liquors. This medicine generally promotes perspiration, scarce occasioning any tendency to vomit or purge, or at all affecting the mouth. See the *Edinburgh essays*, vol. i. and the *Aëta natur. curios.* vol. v.

KERMES MINERALIS.

KERMES MINERAL.

Take of

Antimony, sixteen ounces;
Any fixt alkaline salt, four ounces;

Water, one pint.

Boil them together for two hours, then filter the warm liquor; as it cools, the kermes will precipitate. Pour off the water, and add to it three ounces of fresh alkaline salt, and a pint more of water: in this liquor boil the remaining antimony as before: and repeat the process a third time, with the addition of only two ounces of alkaline salt, and another pint of water; filtering the liquor as at first, and collecting the powders which subside from them in cooling.

This medicine has of late been greatly esteemed in some places, under

under the names *Kermes mineral*, *pulvis Carthusianus*, *poudre des Charvreaux*, &c. It was originally a preparation of Glauber, and for some time kept a great secret, till at length the French king purchased the preparation from M. de la Ligerie, for a considerable sum, and communicated it to the public in the year 1720. In virtue it is not different from the sulphur abovementioned: all of them owe their efficacy to a part of the regulus of the antimony, which the alkaline salt, by the mediation of the sulphur, renders soluble in water.

PANACEA ANTIMONII.
PANACEA OF ANTIMONY.

Take of

- Antimony, six ounces;
- Nitre, two ounces;
- Common salt, an ounce and a half;
- Charcoal, an ounce.

Reduce them into a fine powder, and put the mixture into a red hot crucible, by half a spoonful at a time, continuing the fire a quarter of an hour after the last injection: then either pour the matter into a cone, or let it cool in the crucible, which when cold must be broke to get it out. In the bottom will be found a quantity of regulus; above this, a compact liver-coloured substance; and on the top, a more spongy mass: this last is to be reduced into powder, edulcorated with water, and dried, when it appears of a fine golden colour.

This is supposed to be the basis of LOCKYER'S PILLS, which was formerly a celebrated purge. Ten grains of the powder, mixed with an ounce of white sugar candy, and made up into a mass with mucilage of gum tragacanth, may be divided into an

hundred small pills; of which one, two, or three, taken at a time, are said to work gently by stool and vomit. The compact liver-coloured substance, which lies immediately above the regulus, operates more churlishly.

VITRUM ANTIMONII.
GLASS OF ANTIMONY.

Edinb.

Take of

- Antimony reduced to powder, one pound.

Calcine it over a gentle fire, in an unglazed earthen vessel, keeping it continually stirring with an iron spatula, until the fumes cease, and the antimony is reduced into a grey powder. Melt this powder in a crucible, with an intense fire, and pour out the liquid matter upon an heated copper plate.

The calcination of antimony, to fit it for making a transparent glass, succeeds very slowly, unless the operator be very wary and circumspect in the management of it. The most convenient vessel is a broad shallow dish, or a smooth flat tile, placed under a chimney. The antimony should be the purer sort, such as is usually found at the apex of the cones: this, grossly powdered, is to be evenly spread over the bottom of the pan, so as not to lye above a quarter of an inch thick on any part. The fire should be at first no greater than is just sufficient to raise a fume from the antimony, which is to be now and then stirred: when the fumes begin to decay, increase the heat, taking care not to raise it so high as to melt the antimony, or run the powder into lumps: after some time the vessel may be made red hot, and kept in this state, until the matter will not, upon being stirred, any longer fume. If this

part

part of the process be duly conducted, the antimony will appear in an uniform powder, without any lumps, and of a grey colour.

With this powder, fill two thirds of a crucible, which is to be covered with a tile, and placed in a wind furnace. Gradually increase the fire, till the calx is in perfect fusion, when it is to be now and then examined by dipping a clean iron wire into it: if the matter, which adheres to the end of the wire, appear smooth and equally transparent, the vitrification is completed and the glass may be poured out from an hot smooth stone, or copper plate, and suffered to cool by slow degrees, to prevent its cracking and flying in pieces.

The glass of antimony usually met with in the shops, is said to be prepared with certain additions; which may perhaps render it not so fit for the purposes here designed. By the method above directed, it may be easily made, in the requisite perfection, without any addition.

The calcined antimony is said by Boerhaave to be violently emetic; but this does not appear from experience, and seems to have been an over hasty conclusion from the known qualities of the glass, which is extremely virulent, inasmuch as to be unsafe for internal use: combined with wax or resins, it becomes mild.

VITRUM ANTIMONII
CERATUM.
CERATED GLASS OF
ANTIMONY.

Edinb.

Take of

Yellow wax, a dram;

Glass of antimony, reduced into powder, an ounce.

Melt the wax in an iron vessel, and inject upon it the powdered

2

glass: detain the mixture over a gentle fire for half an hour, keeping it continually stirring; then pour it out upon a paper, and when cold, grind it into powder.

The glass melts in the wax, with a very soft heat: after it has been about twenty minutes on the fire, it begins to change its colour, and in ten more, comes near to that of Scotch snuff, which is a mark of its being sufficiently prepared: the quantity set down above, loses about one dram of its weight, in the process.

This medicine has for some time been greatly esteemed in dysenteries: several examples of its good effects in these cases, may be seen in the fifth volume of the *Edinburgh essays*, from which the above remarks on the preparation are taken. The dose is from two or three grains to twenty, according to the age and strength of the patient. In its operation, it makes some persons sick and vomit; it purges almost every one; though it has sometimes effected a cure, without occasioning any evacuation or sickness.

Mr. Geoffroy gives two pretty singular preparations of glass of antimony, which seem to have some affinity with this. One is made by digesting the glass, most subtilely levigated, with a solution of mastich made in spirit of wine, for three or four days, now and then shaking the mixture; and at last evaporating the spirit, so as to leave the mastich and glass exactly mingled. Glass of antimony thus prepared, does not prove emetic, but acts merely as a cathartic, and that not of the violent kind.

The other preparation is made by burning spirit of wine upon the glass three or four times, the powder being every time exquisitely rubbed upon a marble. The dose

of

of this medicine is from ten grains to twenty or thirty: it operates mildly both upwards and downwards, and sometimes proves sudorific.

ANTIMONIUM
CATHARTICUM.
THE PURGING ANTIMONY
of Wilson.

Take four ounces of glass of antimony, finely powdered, and gradually pour thereon twelve ounces of oil of vitriol; distil in a sand heat; and wash the powder, which remains in the bottom of the retort, till all its acrimony is lost: then dry it, and grind it with an equal weight of Glauber's cathartic salt, and a double quantity of vitriolated nitre. Let this mixture be kept a quarter of an hour in gentle fusion, in a crucible; and afterwards pulverized, washed, and dried for use.

Mr. Wilson, the inventor of this preparation, informs us, that it is the most certain antimonial purge he ever met with; that it operates without nauseating the stomach; and that by the use of this powder only, he knew three confirmed poxes cured. His dose is from two grains to ten.

CAUSTICUM
ANTIMOMIALE.
THE ANTIMONIAL CAUSTIC.
Lond.

Take of

Crude antimony, one pound;
Corrosive mercury sublimate, two pounds.

Reduce them separately into powder; then mix, and distil them in a wide-necked retort, with a gentle sand heat. The matter, which arises into the neck of the retort, is to be exposed to the air, that it may run into a liquor.

BUTYRUM ANTIMONII.
BUTTER OF ANTIMONY.

Edinb.

Take

Crude antimony,
Corrosive mercury sublimate, of each equal parts.

Grind them first separately, then thoroughly mix them together, taking the utmost care to avoid the vapours. Put the mixture into a coated glass retort (having a short wide neck) so as to fill one half of it: the retort being placed in a sand furnace, and a receiver adapted to it, give first a gentle heat, that only a dewy vapour may arise: the fire being then increased, an oily liquor will ascend, and congeal in the neck of the retort, appearing like ice, which is to be melted down by a live coal cautiously applied. This oily matter is to be rectified in a glass retort, into a pellucid liquor.

These processes are extremely dangerous, insomuch that even the life of the operator, though tolerably versed in common pharmacy, may be affected for want of taking due care herein. Boerhaave relates that one, who from the title he gives him, is not to be supposed inexpert in chemical operations, or unacquainted with the danger attending this, was suffocated for want of proper care to prevent the bursting of the retort. The fumes which arise even upon mixing the antimony, with the sublimate, are highly noxious, and sometimes issue so copiously and suddenly, as very difficultly to be avoided. The utmost circumspection therefore is necessary.

The caustic, or butter as it is called, appears to be a solution of the metallic part of the antimony in the marine acid of the sublimate; the sulphur of the antimony,

A a

and

and the mercury of the sublimate, remain at the bottom of the retort, united into an ethiops. This solution does not succeed with spirit of salt in its liquid state; and cannot be effected unless (as in the case of making sublimate) the acid is highly concentrated, and both the ingredients violently heated. If regulus of antimony was added in the distillation of spirit of sea salt, a like solution would be made.

When the congealed matter that arises into the neck of the retort, is liquefied by the moisture of the air, it proves less corrosive than when melted down and rectified by heat; though it seems, in either case, to be sufficiently strong for the purposes it is intended for. It is remarkable, that though this saline concrete, readily and entirely dissolves by the humidity of the air, it nevertheless will not dissolve on putting water to it directly: even when previously liquefied by the air, the addition of water will precipitate the solution.

CINNABARIS ANTIMONII.
CINNABAR OF ANTIMONY.

Lond.

Let the matter, which remains in the retort after the distillation of the caustic, be sublimed in a coated matras, in an open fire.

Edinb.

As soon as red vapours begin to appear, in the distillation of the butter, change the receiver, without luting the junctures; and increase the fire until the retort becomes intensely red hot: in an hour or two, the whole of the black powder will be sublimed, and its colour changed into red. Then break the retort, and diligently separate the cinnabar, which will be found in the neck, from the black drossy matter.

The cinnabar of antimony is composed of the sulphur of the antimony, and the mercury of the sublimate, which are perfectly the same with the common brimstone and quicksilver, of which the *cinnabaris falsitia* is made. The antimonial cinnabar therefore, whose ingredients are laboriously extracted from other substances, is not different from the common cinnabar, made with the same materials procured at a much cheaper rate. The former indeed is generally of a darker colour than the other, and has somewhat of a needled appearance like that of antimony itself; from whence it has been supposed to participate of the metallic part of that mineral. But it appears from experiment; that both the colour and needled form are entirely accidental, and owing to the mixt containing a larger proportion of sulphur, and being sublimed in a more languid manner.

MERCURIUS VITÆ.
MERCURY OF LIFE.

Edinb.

Take of

Rectified butter of antimony, as much as you please:

Pour to it a sufficient quantity of spring water, and an exceeding white powder will be precipitated: edulcorate this by repeated affusions of warm water, and dry it by a slow fire.

This powder has not, as its name should seem to imply, any thing of mercury in it; but is solely composed of the reguline part of the antimony, corroded by the acid spirit of sea salt; which acid is so closely united, as not to be separable by any ablution with water. Le Mort directs some alkaline salt to be dissolved in the water, in order to obtund the acid: several other methods also have been contrived

contrived for correcting and abating the force of this violent emetic; but they either leave it still virulent, or render it inert.

BEZOARDICUM MINERALE.

BEZOAR MINERAL.

Edinb.

Take any quantity of butter of antimony newly rectified, and gradually drop into it spirit of nitre, till the effervescence ceases. Draw off the spirit in a glass vessel, placed in a sand heat, till a dry powder remains behind: add to this a little fresh spirit of nitre, and again exsiccate it. Repeat this a third time: then commit the powder in a crucible to a naked fire, till it has received an almost white heat, and detain it in this state for half an hour.

This preparation may be easier made, and with greater safety to the operator, by dropping the butter of antimony into three or four times its weight of spirit of nitre, and distilling the mixture in a retort, until a dry white mass is left behind, which is afterwards to be calcined, as above directed. It may likewise be made by distilling spirit of nitre from the *mercurius vitæ*, and calcining the remainder; or by deflagrating the *mercurius vitæ* with thrice its weight of pure nitre. This last method, proposed by G. Wolff: Wedelius, is followed by the Augustan college.

Bezoar mineral was formerly held in great esteem as a diaphoretic; but its reputation is at present almost lost. It is not different in medical virtue, or in any sensible quality, from the calces of antimony made directly by deflagration with nitre, some of which have generally supplied its place in the shops. It appears at first pretty extraordinary, that the violent caustic, butter of antimony, should be

rendered indolent by the corrosive spirit of nitre: how this happens will be easily understood, upon considering that the nitrous acid expels the marine (to which the caustic quality of the butter is owing) and is itself expelled from most metallic substances by fire.

TARTARUM EMETICUM.

EMETIC TARTAR.

Land.

Take of

Washed crocus of antimony,

Crystals of tartar, each half a pound.

Water, three pints.

Boil them together for half an hour; then filter the liquor, and after due evaporation, set it by to crystallize.

Edinb.

Take of

Cream of tartar, four ounces;

Glas of antimony powdered, two ounces.

Boil them together in four pints of water, for ten hours, stirring them frequently with a spatula, and adding more water as there is occasion. Filter the liquor whilst warm; and evaporate it, either to dryness, or only till a pellicle forms, that it may shoot into crystals.

This preparation has been usually made with the unwashed crocus of antimony: by employing, as here directed, the washed crocus, or the glass, it proves of a whiter colour, and likewise more certain in strength; though it will still be somewhat precarious in this last respect, if the crystallization is complied with: for some of the tartar, even though the operation is performed with a good deal of care, will be apt to shoot by itself, retaining little or nothing of the crocus. It should seem therefore more eligible, as soon as the solution

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tion

tion has passed the filter, to proceed to the total evaporation of the liquor, or at least to evaporate lower than is usual for crystallization, that the whole may shoot at once.

The title of this medicine expresses its principal operation. It is one of the best of the antimonial emetics, acting more powerfully than the quantity of crocus contained in it would do by itself, though it does not so much ruffle the constitution. And indeed antimonials in general, when thus rendered soluble by vegetable acids, are more safe and certain in their effects, than the violent preparations of that mineral exhibited by themselves; the former never varying in their action from a difference in the

food taken during their use, or other like circumstances, which occasioning more or less of the others to be dissolved, make them operate with different degrees of force. Thus crude antimony, where acid food has been liberally taken, has sometimes proved violently emetic; whilst, in other circumstances, it has no such effect.

The dose of emetic tartar, when designed to produce the full effect of an emetic, is from four to six or eight grains. It may likewise be advantageously given in smaller doses, half a grain for instance, as a diaphoretic and alterative in cutaneous disorders; and added, in the quantity of a grain, as a stimulus to vegetable cathartics.

S E C T. IX.

P R E P A R A T I O N S of B I S M U T H.

THIS femimetal resembles in appearance the regulus of antimony; but differs greatly from it, in its pharmaceutical properties and medical qualities. It melts in a very small heat, long before ignition; and totally dissolves, with great effervescence, in aqua fortis, which only corrodes the antimonial femimetal. As a medicine, it seems, when pure, to have little or no effect; though some preparations of it were formerly accounted diaphoretic. At present, only one preparation comes under the notice of the apothecary or chemist; and that designed for external use.

MAGISTERIUM BISMUTHI.
MAGISTERY OF BISMUTH.

Dissolve bismuth in a proper quantity of aqua fortis, without heat,

adding the bismuth by little and little at a time. Pour the solution into sixteen times its quantity of fair water; it will grow milky, and on standing for some time, deposite a bright white precipitate: the addition of spirit of wine will expedite the precipitation. Wash the powder in fresh parcels of water; and dry it in a shady place betwixt two papers.

This preparation is of some esteem as a cosmetic, which is the only use it is now applied to. The diaphoretic virtues, attributed to it when taken internally, have very little foundation, and by the present practice are not at all regarded. It was proposed to be received in our pharmacopœia at the late revival, but was found much too insignificant to be admitted there.

S E C T.

SECT. X.

PREPARATIONS of ZINC.

THIS semimetal melts in a red heat; and if the air is admitted, flames, and sublimes into light, white, downy flowers; if the air is excluded, it arises, by a strong fire, in its metallic form. Sulphur, which unites with, or scorifies all the other metals except gold, does not act on zinc. Acids of every kind dissolve it.

Zinc, its flowers or calces, and solutions, taken internally, prove strong and quick emetics; in small doses, they are said to be diaphoretic. Externally, they are cooling, astringent, and desiccative.

PURIFICATIO ZINCI.

PURIFICATION OF ZINC.

Melt zinc, with a heat no greater than is just sufficient to keep it fluid. Stir it strongly with an iron rod, and throw in alternately pieces of sulphur and of tallow, the first in largest quantity. If any consistent matter, or scorixæ, forms on the top, take it off, and continue the process, until the sulphur is found to burn freely and totally away on the surface of the fluid zinc.

Zinc usually contains a portion of lead, which this process effectually separates. Sulphur united with lead forms a mass, which does not melt in any degree of fire that zinc is capable of sustaining.

FLORES ZINCI.

FLOWERS OF ZINC.

Let a large and very deep crucible, or other deep earthen vessel, be

placed in a furnace, in an inclined situation, only half upright. Put a small quantity of zinc into the bottom of the vessel, and apply a moderate fire, no greater than is necessary to make the zinc flame: white flowers will arise, and adhere about the sides of the vessel, like wool. When the zinc ceases to flame, stir it with an iron rod, and continue this operation till the whole is sublimed.

These flowers should seem preferable, for medicinal purposes, to tutty, and the more impure sublimes of zinc, which are obtained in the brass works; and likewise to calamine the natural ore of this semimetal, which contains a large quantity of earth, and frequently a portion of heterogeneous metallic matter.

SAL seu VITRIOLUM
ZINCI.

SALT or VITRIOL OF ZINC.

Dissolve purified zinc, by a gentle heat of sand, in a mixture of equal parts of oil of vitriol and water. Filter the solution, and after due evaporation, set it to crystallize.

This salt is an elegant white vitriol. It differs from the common white vitriol, and the *sal vitrioli* of the shops, only in being purer, and perfectly free from any admixture of copper, or such other foreign metallic bodies, as the others generally contain.

SECT. XI.

COMPOUND METALLIC PREPARATIONS.

LAPIS MEDICAMENTOSUS.
THE MEDICINAL STONE.

Lond.

Take of

Litharge,
Bole armenic, or French bole,
Alum, each half a pound;
Colcothar of green vitriol, three
ounces;

Vinegar, a quarter of a pint.

Mix, and exsiccate them till they
grow hard.

Edinb.

Take of

Colcothar of vitriol,
Litharge of gold,
Bole armenic,
Alum, each equal parts;

Strong vinegar, as much as will
cover them to the height of
four inches.

Digest these ingredients together,
for four days, in an earthen
pan; then set them over the
fire, that all the humidity may
evaporate; after which, calcine
the remaining mass with a strong
heat.

This preparation is employed ex-
ternally as an astringent, for fasten-
ing loose teeth, preserving the
gums, healing and drying up ulcers
and wounds, and repressing de-
fluxions of thin acrid humours upon
the eyes. It is sometimes used in
injections for checking a gonor-
rhœa, after the virulence is ex-
pelled. A preparation much re-
sembling this is said, in the me-
moirs of the French academy, to
be greatly esteemed among the sur-
geons in the army as a vulnerary.

SPECIFICUM ADSTRINGENS
MAETZII.

An astringent preparation taken from
Maetz; which has been sold under
the name of

COLBATCH'S STYPTIC
POWDER.

Take of

Sugar of lead

Iron filings, as much as you
please;Spirit of salt, as much as will
rise above the filings three or
four inches.

Digest them together with a gentle
heat, till the spirit ceases to act
on the metal; then pour off the
liquor, evaporate it to one half,
and add thereto an equal weight
of sugar of lead. Continue the
evaporation, with a small heat,
until the matter remains dry,
and assumes a red colour.

If the process is stoppt as soon as
it becomes dry, it has exactly
the appearance of Colbatch's
powder. It must be kept close
from the air, otherwise it deli-
quiates.

This is said to be the styptic,
with which so much noise was
made some time ago, by the author
of the *novum lumen chirurgiæ*;
and for the sale of which, a
patent was procured; only in that
was used oil of vitriol, instead of
the spirit of salt in this, a difference
not very material. The prepa-
ration stands recommended in all
kinds of hemorrhagies and im-
moderate fluxes, both internally and
externally: the dose is from four
grains to twelve. It is undoubt-
edly an efficacious styptic, but for
internal use a dangerous one. See
the article LEAD, and its prepara-
tions.

ANTI-

ANTIHECTICUM POTERII.
POTERIUS' ANTIHECTIC.

Edinb.

Take of

Martial regulus of antimony, six
ounces;

Fine tin, three ounces.

Melt these together in a crucible; then pour them out into a warm greased mortar, and when the mass is grown cold, grind it into a powder. Add to this thrice its weight of pure nitre, and de-flagrate the mixture in a crucible, throwing in only a spoonful at a time; then calcine it [that is, keep it in fusion] for an hour; and having afterwards ground it into an impalpable powder, pour thereon a sufficient quantity of warm water stir them well together with a pestle, till the water grows milky, which thus loaded with the finer parts of the powder, is to be poured off, and fresh water put to the remainder: repeat this operation, till nothing but indissoluble feces remains behind. Suffer all the milky liquors to rest; a powder will fall to the bottom, which is to be washed with repeated affusions of warm water, and lastly dried for use.

The regulus of antimony should be melted before the tin is added to it; for if they are both put into the crucible together, a part of the tin will be dissipated by the heat requisite for the fusion of the regulus.

The chemists have been greatly divided with regard to the proportion which these two ingredients ought to bear to one another. Some vary so much from the above prescription, as to order two parts of the antimonial regulus to one of tin; others, no more than one part of the former to six of the latter. Nor have they agreed up-

on the colour which this preparation ought to have; some preferring that which is perfectly white; whilst others look upon a bluish tinge as a mark of the proportions having been duly observed, and the operation regularly performed: in the process above, it seems intended to be white; for without the observance of certain encheireses, not there mentioned, as particularly calcining the powder after the ablation, it will scarce have any thing of a bluish cast.

Practical physicians do not differ less in the accounts which they give of the virtues of this celebrated medicine. Some extol it as an excellent diaphoretic, &c. others are ready to vouch, that it has done most eminent service in hectic cases; whilst many, of no small note, are not only confident that it has none of the virtues attributed to it, but utterly condemn it as unsafe, and capable of producing the very disorders said to be remedied by its use. This affair probably will not be satisfactorily determined, till the virtues of *calx of tin* and *calx of antimony* (which this medicine is a mixture of) shall be better ascertained than they are at present. In the mean time, the use of the *antibectic* is in common practice laid aside; and is not likely to be ever introduced again.

BEZOARDICUM JOVIALE.

BEZOAR with TIN.

Edinb.

Take of

Regulus of antimony, three
ounces;

Pure tin, two ounces;

Corrosive sublimate mercury, five
ounces.

Melt the regulus of antimony in a crucible, and put to it the tin, so as to make a new regulus; to

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which,

which, after being levigated, add the corrosive sublimate, and distil the mixture in a retort. Let the butter which arises in this process, be fixed by three repeated distillations with thrice its own quantity of spirit of nitre. The powder is then to be calcined; thrown, whilst ignited, into a proper quantity of spirit of wine; and afterwards dried for use.

This preparation is not greatly different from the foregoing. The butter seems to contain more of the tin, than of the antimonial regulus, united with the marine acid of the sublimate; the nitrous spirit expels the marine, and is itself afterwards expelled in the calcination; leaving the powder a mere calx, similar to one prepared from the same ingredients in a less troublesome manner, either by fire alone, or by deflagration with nitre.

ETHIOPS ANTIMONIALIS.
ANTIMONIAL ETHIOPS.

Let equal quantities of antimony and sea salt be fluxed together in a crucible for an hour; when grown cold, a regulus, (impro-

perly so called) will be found in the bottom; which is to be separated from the scorixæ that lie above it, and ground with an equal weight of purified quicksilver, until they are united.

This medicine is said to be of remarkable efficacy in venereal cases of long standing, in cancerous tumours, scorbutic and serophulous disorders, obstinate glandular obstructions, and sundry other chronical distempers which elude the force of the common medicines. A few grains may be given at first; and the dose gradually increased, according to its operation, to a scruple or more. It acts chiefly by promoting perspiration: in some constitutions, it proves purgative; and in others, if the dose is considerable, emetic.

Sundry other preparations of this kind have of late been held by some people in considerable esteem, though not taken notice of by common practice. They have been generally composed of mercury united by triture either with crude antimony, the medicinal regulus, or the golden or precipitated sulphur.



CHAPTER XI.

AQUÆ SIMPLICES STILLATITIÆ.
SIMPLE DISTILLED WATERS.

WATER, distilled over from certain plants, &c. by a boiling heat, becomes more or less impregnated with their flavour and virtue. The distillation is performed in the same kind of instruments as that of essential oils already spoken of (chap. vii.) and the distilled liquor owes the qualities it acquires, to a portion of the oil of the subject elevated and mingled with it.

The virtues, capable of arising in this process, are those only which consist in warmth, pungency, and smell or flavour; and hence such substances as are eminently endued with these, are the proper subjects for distilled waters to be drawn from; such are, spices, warm seeds and berries, fragrant herbs, flowers, and fruits, and some of the acrid plants. Cathartic, emetic, astringent, bitter, sweet, cooling, emollient, nutritious qualities, are in vain expected to come over the helm.

Some vegetable matters, even of the more odoriferous kind, undergo such an alteration from the aqueous medium, and the degree of heat necessary in this operation: that though the subject loses all its fragrance, yet the distilled liquor has little or nothing of it, but proves both in smell and taste disagreeable.

In order to collect the volatile

virtues of these kinds of vegetables, the chemists have contrived another process; which Boerhaave seems particularly fond of. The subject is included in proper vessels, without any additional matter, and exposed to a heat no greater than that of the summer's sun: the vapour, which arises in this degree of warmth, and condenses in the receiver, is supposed to contain the more fragrant, subtle and aromatic parts of the plant; and to be in reality, the effluvia that would exhale from it in the open air caught and collected by the means of art.

This process however, is, upon trial, found defective; the liquors obtained by it proving greatly different in smell from the natural effluvia of the subject. And indeed the principle, it is founded upon, appears to be erroneous: it is not the sun's heat alone, that raises, and impregnates the air with, the odorous effluvia of vegetables; this fluid itself, as a menstruum, dissolves and imbibes them. 'Tis when the air is humid, not when it is warmest, that odoriferous herbs and flowers diffuse their fragrance: exsiccated in a warm dry air, they in good measure retain the flavour which an humid one, tho' cool, would totally rob them of.

The natural effluvia of vegetables therefore, which may be looked upon as an infusion of them
made

made in air, may have very different effects from those parts of them which are capable of being elevated in distillation. Thus, though the effluvia of poppies should procure sleep or bring on lethargic disorders, and those of the walnut tree bind the belly, (as they are reported to do) it is not to be expected that their distilled waters should do the like. Lemery relates, from his own knowledge, that several persons were purged, by staying long in a room where damask roses were drying; an effect daily experienced from aqueous infusions of these flowers, but never from their distilled water.

Many have been of opinion, that distilled waters may be more and more impregnated with the virtues of the subject, and their strength increased, to any assigned degree, by *cobobation*, that is, by redistil-

ling them a number of times from fresh parcels of the plant. Experience however, shews the contrary; a water skilfully drawn in the first distillation, proves on every repeated one, not stronger, but more disagreeable. Aqueous liquors are not capable of imbibing above a certain quantity of the volatile oil of vegetables, and this they may be made to take up by one, as well as by any number of distillations: the oftener the process is repeated, the ungrateful impression which they generally receive from the fire even at the first time, becomes greater and greater. Those plants which do not yield at first waters sufficiently strong, are not proper subjects for this process, since their virtues may be obtained much more advantageously by others.

General rules for the distillation of the officinal simple waters.

I.

Plants and their parts ought to be fresh gathered. [E.]

Where they are directed fresh, such only must be employed; but some are allowed to be used dry, as being easily procurable in this state at all times of the year, though rather more elegant waters might be obtained from them whilst green. [L.]

Many pharmaceutical writers direct all the plants designed for the distillation of simple waters, to be previously dried. Such are indispitably most proper where the essential oil is required by itself; but not when it is wanted to be combined with an aqueous fluid. In green herbs, the oil is already blended with a fluid of this kind; as the subject dries, it separates, and concretes distinct.

II.

Having bruised the subject a little, pour thereon thrice its quantity of spring water: this quantity is to be diminished or increased, according as the plants are more or less juicy than ordinary. [E.]

When fresh and juicy herbs are to be distilled, thrice their weight of water will be fully sufficient: but dry ones require a much larger quantity. In general, there should be so much water, that after all intended to be distilled has come over, there may be liquor enough left to prevent the matter from burning to the still.

III.

The distillation may be performed in an alembic with a refrigeratory, the junctures being luted. [E.]

The

The heat should be sufficient to make the water boil, and the liquor distil in an almost continued stream. If it is considerably greater, the liquor will be apt to boil over, and the herb to be thrown up into the head, so as to foul or block up the worm; if weaker, the virtue of the plant will be imperfectly elevated.

IV.

The distillation is to be continued as long as the water which comes over is perceived to have any smell or taste of the plant [E.]

Plants differ so much according to the soil and season of which they are the produce, and likewise according to their own age, that it is impossible to fix the quantity of water to be drawn from a certain weight of them, to any invariable standard. The distillation may always be continued as long as the liquor runs well flavoured of the subject; and no longer.

If the herbs are of prime goodness, they must be taken in the weights prescribed. But when fresh ones are substituted to dry, or when the plants themselves are the produce of unfavourable seasons, and weaker than ordinary, the quantities are to be varied according to the discretion of the artist. [L.]

After the odorous water, alone intended for use, has come over, an acidulous liquor arises, which has sometimes extracted so much from the copper head of the still, as to prove emetic. To this are owing the anthelmintic virtues attributed to certain distilled waters.

V.

Those plants which abound with an aromatic fragrant oil, should be committed immediately to distillation. But such as contain a

more fixt oil, or owe part of their virtues to a saline matter though volatile, ought first to undergo an imperfect fermentation, with the addition of yeast; that is, they should be distilled as soon as the fermentation is begun, without staying till it is finished [E.]

The principle, upon which certain vegetable substances are directed to be slightly fermented, is certainly just: for the fermentation somewhat opens and unlocks their texture, so as to make them part with more in the subsequent distillation, than could be drawn over from them without some assistance of this kind. Those plants, however, which require this treatment, are not proper subjects for simple waters to be drawn from; their virtues being obtainable to better advantage by other processes.

VI.

If any drops of oil swim on the surface of the water, they are to be carefully taken off. [E.]

VII.

That the waters may keep the better, about one twentieth part their weight of proof spirit, may be added to each, after they are distilled. [L.]

With regard to the general virtues of these preparations, they have been supposed by some to possess those of the simples which they are distilled from, entire. This rule indeed may in some cases obtain; but most of the waters which have been usually kept in the shops, are exceptions to it. The greatest number of them are at present considered only as agreeable diluters, or as vehicles for medicines of greater efficacy; very few are depended on, in any intentions of consequence, by themselves.

AQUA

AQUA ALEXETERIA
SIMPLEX.
SIMPLE ALEXETERIAL
WATER.

Lond.

Take of

Spearmint leaves, fresh, a pound
and a half;

Sea wormwood tops, fresh;

Angelica leaves, fresh, each one
pound;

Water, as much as is sufficient to
prevent an empyreuma.

Draw off by distillation three gal-
lons.

Edinb.

Take of

Elder flowers,

Scordium leaves, each two
pounds;

Angelica leaves,

Balm,

Spearmint,

Rue, each half a pound;

Water, three gallons.

Let the water be poured on the o-
ther ingredients, fresh gathered;
and distil according to art.

These waters, particularly the
first, are sufficiently elegant with
regard to taste and smell; though
few expect from them such virtues
as their title seems to imply. They
are used occasionally for vehicles
of alexipharmac medicines, or in
juleps to be drank after them, as
coinciding with the intention; but
in general are not supposed to be
themselves of any considerably ef-
ficacy.

AQUA SEMINUM ANETHI.
DILL SEED WATER.

Lond.

Take of

Dill seeds, a pound and a half;

Water, as much as is sufficient
to prevent an empyreuma.

Draw off by distillation one gallon.

This water, which turns out pret-
ty strong of the dill seeds, is some-

times employed as the basis of car-
minative juleps. It is similar in
flavour to a water drawn from ca-
raway seeds, but less agreeable.

AQUA ANGELICÆ.
ANGELICA WATER.

Edinb.

Take of

Angelica leaves, fresh, any quan-
tity;

Water, three times as much.

Distil as long as the liquor runs well
flavoured of the plant.

This water is among us very
rarely made use of. It smells and
tastes considerably of the angelica,
but does not prove so agreeable as
might be expected.

AQUA ARTEMISIÆ.
MUGWORT WATER.

Edinb.

Take of

Mugwort leaves, fresh, as much
as you please;

Water, a sufficient quantity;

Yeast, a little.

Let them stand together in a warm
place, till they begin to ferment;
and then distil according to art.

Mugwort water has been held by
many in great esteem as an uterine;
but the herb itself has little title to
that class, and the distilled water
less. It is at present scarce ever
called for, or kept in the shops.

AQUA CORTICUM
AURANTIORUM SIMPLEX.
SIMPLE ORANGE PEEL
WATER.

Lond.

Take of

Yellow peel of Seville oranges,
dried, four ounces;

Water, as much is sufficient to
prevent burning.

Distil off one gallon.

This water proves very weak of
the orange peel. It is designed for
a di-

a diluter, in fevers, and other disorders where the stomach and palate are subject to receive quick disgust; in which cases (as the committee observe) cordial waters, especially if their use is to be long continued, ought to be but lightly impregnated with any flavour however agreeable.

AQUA CARDUI BENEDICTI.
CARDUUS WATER.

Edinb.

This is prepared from the leaves of *carduus benedictus*, after the same manner as the *aqua artemisia*.

This water has been looked upon as a sudorific and alexipharmac; and in this intention is still frequently prescribed, by foreign physicians, in juleps and draughts. Among us, it has long been disused, and held entirely insignificant; this plant, however, opened by fermentation, giving nothing valuable over the helm. The decoction, which remains after the distillation, duly depurated and inspissated, proves a medicine of some use: it is a moderately strong bitter, similar to the extract of *carduus* already spoken of: in keeping, a considerable quantity of essential salt will sometimes shoot in it.

AQUA CASTOREI.
CASTOR WATER.

Lond.

Take of

Russia castor, one ounce;

Water, as much as will prevent burning.

Draw off two pints.

Castor yields almost all its flavour in distillation to water; but treated in the same manner with spirit of wine, gives over nothing. The spirit of castor formerly kept in the shops, had none of the smell or virtues of the drug; whilst the

water here directed proves when fresh drawn very strong of it.

It is remarkable, that the virtues of this animal substance reside in a volatile oil, analagous to the essential oils of vegetables: some are reported to have obtained, in distilling large quantities of the drug, a small portion of oil, which smelt extremely strong of the castor, and diffused its ungrateful scent to a great distance.

This water is made use of in hysterical cases, and some nervous complaints; though it has not been found to answer what many people expect from it: it loses greatly of its flavour in keeping.

AQUA CERASORUM
NIGRORUM.
BLACK CHERRY WATER.

Edinb.

Let any quantity of black cherries be bruised, so as that the stones may be broken; and then distilled, according to art, with only a small proportion of water.

This is a very grateful water, and has long maintained a place in the shops. It has frequently been employed by physicians as a vehicle, in preference to the other distilled waters; and among nurses, and others who have the care of young children, has been the first remedy against the convulsive disorders to which children are so often subject.

This water has nevertheless of late been brought into disrepute, and by some looked upon as poisonous. They observe, that it receives its flavour principally from the cherry stones; and that these kernels, like many others, bear a resemblance in taste to the leaves of the *lauro-cerasus*, which have some time past been discovered to yield, by infusion or distillation, the

the most sudden poison known: Some physicians of Worcester have lately found, by trial purposely made, that a distilled water very strongly impregnated with the flavour of the cherry kernels (no more than two pints being distilled from fourteen pounds of the cherry stones) proved in like manner poisonous to brutes: the committee of the London college repeated the same experiment, and found the effects agreeable to those gentlemen's report.

It by no means follows from these trials, nor after such long experience can it be imagined, that black cherry water, when no stronger than the shops have been accustomed to prepare it, is unsafe. These kernels, as the committee observe, plainly resemble opium, and some other things, which poison only in too great quantity; the water from the very laurel leaves is harmless when duly diluted; and even spirit of wine proves a poison of a kind not greatly different, if drank to a certain degree of excess. Nor can it be concluded from the trials with the strong black cherry water on dogs, &c. that even this will have the same effects in the human body: the kernels of many sorts of fruits being, in substance, poisonous to brutes, though innocent to man.

It is possible, however, that this water in any degree of strength may not be altogether safe in the tender age of infants, where the principles of life are but just beginning as it were to move: 'tis possible, that it may here have had pernicious effects, without being suspected; the symptoms it would produce, if it should prove hurtful, being such as children are often thrown into from the disease which it is imagined to relieve. On these considerations, the Lon-

don college have chose to lay it aside; especially as it has been too often counterfeited with a water distilled from bitter almonds, which are known to communicate a poisonous quality.

AQUA CINNAMOMI
SIMPLEX.
SIMPLE CINNAMON WATER.
 Lond.

Take of
Cinnamon, one pound;
Water, as much as will prevent
burning.
Distil off a gallon.

AQUA CINNAMOMI SINE
VINO.
CINNAMON WATER
WITHOUT WINE.
 Edinb.

Take of
Cinnamon, one pound;
Water, a gallon and a half.
Steep them together for two days,
and then distil off the water, till
it ceases to run milky.

This is a very grateful and useful water, possessing in an eminent degree the fragrance and aromatic cordial virtues of the spice. Great care should be had, in the choice of the cinnamon, to avoid the too common imposition of casia being substituted in its room: this latter yields a water much less agreeable than that of cinnamon, and whose flavour is manifestly empyreumatic. The two drugs may be easily distinguished from one another by the marks laid down under the respective articles in the first part.

The virtues of all these waters depend upon their containing a portion of the oil of the subject. The oil of cinnamon is extremely ponderous, and arises more difficultly than that of any of the other vegetable matters from which simple waters are ordered to be drawn.

This

This observation directs us, in the distillation of this water, to make use of a quick fire, and a low vessel. For the same reason, the water does not keep so well as might be wished; the ponderous oil parting from it in time, and falling to the bottom, when the liquor loses its milky hue, its fragrant smell, and aromatic taste. Some recommend a small proportion of sugar to be added, in order to keep the oil united with the water.

AQUA CHAMÆMELI.
CHAMEMEL WATER.

Edinb.

This is distilled from chamemel flowers, first slightly fermented, after the same manner as the *aqua artemisiæ*.

Chamemel flowers stand little in need of being fermented: they give over, without any fermentation, as much as that process is capable of enabling them to do. In either case, the smell and peculiar flavour of the flowers arise, without any thing of the bitterness; this remaining behind in the decoction: which, if duly deperated and inspissated, yields an extract similar to that prepared from the flowers in the common manner. The distilled water has been used in flatulent cholics, and the like, but is at present held in no great esteem.

AQUA FENICULI.
FENNEL WATER.

Lond.

Take of
Sweet fennel seeds, one pound;
Water, as much as is sufficient
to prevent an empyreuma.

Distil off one gallon.

Edinb.

Take of
Fennel leaves, fresh, any quantity;
Water, three times as much.

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Distil as long as the water runs well flavoured.

The first of these waters is a sufficiently grateful one, and the other is not unpleasent: the leaves should be taken before the plant has run into flower: for after this time, they are much weaker and less agreeable. Some have observed, that the upper leaves and tops, before the flowers appear, yield a more elegant water, and a remarkably finer essential oil, than the lower ones; and that the oil obtained from the one swims on water, whilst that of the other sinks. No part of the herb, however, is equal in flavour to the seeds.

AQUA HYSSOPI.
HYSSOP WATER.

Edinb.

This is distilled from the fresh leaves of hyssop, after the same manner as the water of fennel leaves.

Hyssop water has been held by some in considerable esteem as an uterine and a pectoral medicine. It is directed in the Edinburgh pharmacopœia, for making up the black bechic troches. Few at present expect any singular virtues from it, nor is it often made use of, or met with in the shops.

AQUA MELISSÆ.
BALM WATER.

Edinb.

This is prepared by distilling the green leaves of balm, as in the foregoing process; and afterwards cohobating the distilled liquor upon fresh quantities of the herb.

Boerhaave has a very high opinion of this water: he says, he has experienced in himself, extraordinary effects from it taken on an empty stomach; that it has scarce

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its equal in hypochondriacal and hysterical cafes, the chlorosis, and palpitation of the heart, as often as these diseases proceed from a disorder of the spirits rather than from any collection of morbid matter.

For our own part, we have already given our opinion with regard to the cohobation of these liquors; and shall here only observe, that whatever virtues are lodged in balm, they may be much more perfectly and advantageously extracted by cold infusion in aqueous or spirituous menstrua: in this process, the liquor suffers no injury from being returned on fresh parcels of the herb; a few repetitions will load it with the virtues of the subject, and render it very rich. (See chap. xiii.) The impregnation here is almost unlimited; but in distilled waters, it is far otherwise.

AQUA MENTHÆ.
MINT WATER.

Edinb.

Take of
Spearmint leaves, fresh, any quantity;
Water, three times as much.
Distil as long as the liquor which comes over has any taste or smell of the mint.

AQUA MENTHÆ VULGARIS
SIMPLEX.
SIMPLE SPEARMINT WATER.

Lond.

Take of
Spearmint leaves, dried, a pound and a half;
Water, as much as is sufficient to prevent burning.

Draw off by distillation one gallon.
These waters smell and taste very strong of the mint, and prove in many cases an useful stomachic. Boerhaave commends them (cohobated) as a present and incompara-

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ble remedy, for strengthening a weak stomach, and curing vomiting proceeding from cold viscous phlegm; as also in lenteries.

AQUA MENTHÆ
PIPERITIDIS SIMPLEX.
SIMPLE PEPPER MINT
WATER.

Lond.

Take of
Pepper mint leaves, dry, a pound and a half;
Water, as much as will prevent an empyreuma.

Draw off by distillation one gallon.

This is a very elegant and useful water: it has a warm, pungent taste, exactly resembling that of the pepper mint itself. A spoonful or two, taken at a time, warm the stomach, and give great relief in cold, flatulent colics. Some have substituted a plain infusion of the leaves, which is not greatly different from the distilled water.

AQUA PETROSILINI.
PARSLEY WATER.

Edinb.

This is distilled from the fresh leaves of parsley, after the same manner as the *aqua menthæ*.

This water is scarce ever called for, or kept in the shops. Parsley yields little virtue in distillation; and the leaves are not the part that yield most. The seeds give a considerable share of flavour, which is not disagreeable.

AQUA PIPERIS
JAMAICENSIS.
WATER OF JAMAICA
PEPPER.

Lond.

Take of
Jamaica pepper, half a pound;
Water, as much as will prevent burning.

Distil off one gallon,

This

This is the only officinal preparation, in which Jamaica pepper is an ingredient. The distilled water is a very elegant one, and has of late come pretty much into use: the hospitals employ it as a succedaneum to the more costly spice waters.

AQUA PULEGII SIMPLEX.
SIMPLE PENNY-ROYAL
WATER.

Lond.

Take of

Pennyroyal leaves, dry, a pound and a half;

Water, as much as will prevent burning.

Draw off by distillation one gallon.

AQUA PULEGII VULGARIS.
WATER of COMMON
PENNY-ROYAL.

Edinb.

Take of

Penny-royal leaves, fresh, any quantity;

Water, three times as much.

Distil as long as the water comes off well flavoured of the herb.

These waters possess, in a considerable degree, the smell, taste, and virtues of the penny-royal. They are frequently taken in hysterical cases, and not without good effects.

AQUA ROSARUM
DAMASCENARUM.
DAMASK ROSE WATER.

Lond.

Take of

Damask roses, fresh gathered, six pounds;

Water, as much as will keep them from burning.

Distil off a gallon of the water.

Edinb.

Take three parts of water to one of the fresh roses; and distil as long

as the water which comes over has any smell of the flowers.

This water is principally valued on account of its fine flavour, which approaches to that generally admired in the rose itself. The purgative virtue of the roses remains entire in the liquor left in the still, which has therefore been generally employed for making the solutive honey and syrup, instead of a decoction or infusion of fresh roses prepared on purpose: and this piece of frugality the college have now admitted. A distilled water of red roses has been sometimes called for in the shops; and supplied by that of damask roses, dilated with common water: this is a very venial substitution; for the water drawn from the red rose has no quality which that of the damask does not possess in a far superior degree; neither the purgative virtue of the one, or the astringency of the other, arising in distillation.

AQUA RUTÆ.
RUE WATER.

Edinb.

This is to be distilled from the fresh leaves of rue, and cohobated on fresh parcels of them, after the same manner as the *aqua melissæ*.

Rue gives over in this process the whole of its smell, and great part of its pungency. The distilled water stands recommended in epileptic cases, the hysterical passion, for promoting perspiration and other natural secretions.

AQUA SABINÆ.
SAVIN WATER.

Edinb.

This is distilled from the fresh leaves of savin, after the same manner as the *aqua angelicæ*.

This water is by some held in considerable esteem for the same

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pur-

purposes as the distilled oil of sa-
vin. Boerhaave relates, that he
has found it (when prepared by co-
hobation) to give an almost incre-
dible motion to the whole nervous
system, and prove eminently ser-
viceable for promoting the exclu-
sion of the foetus, the menfes, and
the hæmorrhoidal flux.

AQUA SAMBUCI.
ELDER FLOWER WATER.

Edinb.

This is distilled from fresh elder
flowers, after the same manner
as the *aqua angelica*.

This water smells considerably
of the flowers; but is rarely made
use of.



CHAP.

CHAPTER XII.

AQUÆ STILLATITIÆ SPIRITUOSÆ,
et SPIRITUS.SPIRITUOUS DISTILLED WATERS
and SPIRITS.

WE observed in the preceeding chapter, that the flavour and virtues of distilled waters are owing to their being impregnated with a portion of the essential oil of the vegetables from which they are drawn. Spirit of wine is the proper menstruum for these oils; and not only dissolves them when previously separated from the subject by the means of art, but likewise extracts them from the other matters with which they are combined in the original plant.

Nevertheless, many substances, which, on being distilled with water, impart to it their virtues in great perfection; if treated in the same manner with spirit of wine, scarce give over any perceptible smell or taste. This difference seems owing to the different degrees of volatility of spirit and of water, and the lightness or ponderosity of the oils themselves; many of which are too heavy to arise with the greatest degree of heat that spirit of wine can receive, whilst they readily give way to one capable of elevating the less volatile liquor, water.

Thus if cinnamon, for instance, be committed to distillation with a mixture of spirit of wine and water, or a pure proof spirit; the spirit will arise first, clear, colourless and transparent, and almost

without any taste of the spice: but as soon as the more ponderous watery fluid begins to arise, the oil comes freely over with it, so as to render the liquor highly odorous, sapid, and of a milky hue.

The proof spirits usually met with in the shops are accompanied with a degree of ill flavour; which, though concealed by means of certain additions, plainly discovers itself in distillation. This nauseous relish does not begin to arise, till after the purer spirituous part has come over; which is the very time, that the virtues of the ingredients begin, also, most plentifully to distil: and hence the liquor receives an ungrateful taint. To this cause principally is owing the general complaint, that the cordials of the apothecary are less agreeable than those of the same kind prepared by the distiller; the latter being extremely curious in rectifying or purifying the spirits (when designed for what he calls *fine goods*) from all ill flavour.

SPIRITUS VINI
RECTIFICATUS.
RECTIFIED SPIRIT OF WINE.*Edinb.*

Take any quantity of French brandy, and with a very gentle heat distil it to one half.

B b z

This

This rectified spirit, being digested for two days with one fourth its quantity of dry salt of tartar in powder, and then distilled in a glass cucurbit, with a very gentle heat, becomes ALCOHOL.

French brandy is rather too dear an article in this country, for distillation; nor is the spirit obtained from it any ways preferable to one procurable from cheaper liquors. The coarser inflammable spirits may be rendered perfectly pure, and fit for the nicest purposes, by the following method.

If the spirit is exceedingly foul, mix it with about an equal quantity of water, and distil with a slow fire; discontinuing the operation as soon as it begins to run milky, and discovers, by its nauseous taste, that the impure and phlegmatic part is arising. By this treatment, the spirit leaves a considerable portion of its foul oily matter behind it in the water, which now appears milky and turbid, and proves highly disagreeable in taste. If the spirit was not very foul at first, this ablation is not necessary; if extremely so, 'twill be needful to repeat it.

As vinous spirits arise with a less degree of fire than watery liquors, we are hence directed to employ, in the distillation of them, a heat less than that in which water boils: and if due regard be had to this circumstance, very weak spirits may, by one or two wary distillations, be tolerably well freed from their aqueous phlegm; especially if the distilling vessels are of such a height, that the spirit, by the heat of a water bath, may but just pass over them: in such case, the phlegmatic vapours, which arise for a little way along with the spirit, will condense and fall back again before they can come to the head. Very pompous instruments

have been contrived for this purpose, and carried in a spiral or serpentine form, to an extraordinary height. The spirit, ascending through these, was to leave all the watery parts it contained, in its passage, and come over perfectly pure and free from phlegm. But these instruments are built upon erroneous principles, their extravagant height defeating the end it was designed to answer: if the liquor is made to boil, a considerable quantity of mere phlegm will come over along with the spirit; and if the heat is not raised to this pitch, neither phlegm nor spirit will distil. The most convenient instrument is the common still, betwixt the body of which, and its head, an adopter or copper tube may be fixed.

The spirit being washed, as above directed, from its foul oil, and freed from the greatest part of the phlegm, by gentle distillation in a water bath; add to every gallon of it a pound or two of pure, dry, fixt alkaline salt. Upon digesting these together for a little time, the alkali, from its known property of attracting water and oils, will imbibe the remaining phlegm, and such part of the disagreeable unctuous matter as may still be left in the spirit, and sink with them to the bottom of the vessel. If the spirit be now again gently drawn over, it will arise entirely free from its phlegm and nauseous flavour; but some particles of the alkaline salt are apt to be carried up with it, and give what the workmen call an urinous relish: this may be prevented by the addition of a small proportion of any fixt acid liquor, or rather of an acid salt, as vitriol, or alum.

The spirit obtained by this means is extremely pure, limpid, perfectly flavourless, and fit for the finest purposes.

purposes. It may be reduced to the strength commonly understood by proof, by mixing twenty ounces of it (by weight) with seventeen ounces of water. The distilled cordials made with these spirits, prove much more elegant and agreeable, than when the common rectified, or proof spirits of the shops are made use of.

If the rectified spirit be distilled afresh from dry alkaline salt, with a quick fire, it brings over a considerable quantity of the salt, and

in this state is supposed to be a more powerful menstruum for certain substances than the pure spirit. This alcalized spirit is called TARTARIZED SPIRIT OF WINE.

The general virtues of vinous spirits have been already mentioned in the preceding part: the spirits impregnated with the volatile oils of vegetables, to be treated of in this chapter, have joined to those, the aromatic, cordial, or other virtues which reside in the oils.

S E C T. I.

D I S T I L L E D S P I R I T S.

SPIRITUS ROSISMARINI.

SPIRIT of ROSEMARY.

 Lond.

Take of

Rosemary tops, fresh gathered,
a pound and a half;

Proof spirit, one gallon.

Distil in the heat of a water bath,
till five pints are come over.

AQUA REGINÆ.

HUNGARIÆ.

HUNGARY WATER.

 Edinb.

Take of

Rosemary flowers, just gathered,
two pounds;Rectified spirit of wine, half a
gallon.Put them together, and immedi-
ately distil in a water bath.

This spirit is very fragrant, in-
much as to be in common use as a
perfume. It is difficult to make it
in the requisite perfection: the vi-
nous spirit should be extremely
pure; the rosemary tops gathered
when the flowers are full blown
upon them, and committed immedi-
ately to distillation, particular
care being taken not to bruise or
press them. The best method of

managing the process therefore
seems to be, to first place the spirit
in the still, and then set in, above
the liquor, an iron hoop, with a
hair cloth stretched over it: upon
this lightly lay the flowers, and
apply a gentle heat just sufficient to
raise the spirit. Probably the su-
periority of the French Hungarian
water, to that prepared among us,
is owing to some skilful manage-
ment of this kind, and employing
a perfectly pure spirit.

In the Wirtemberg pharmaco-
pœia, some sage and ginger are
added, in the proportion of half a
pound of the former, and two
ounces of the latter, to four pounds
of the rosemary.

SPIRITUS LAVENDULÆ

SIMPLEX.

SIMPLE SPIRIT OF

LAVENDER.

 Lond.

Take of

Lavender flowers, fresh gather-
ed, a pound and a half;

Proof spirit, one gallon.

Draw off, by the heat of a bal-
neum, five pints.

B b 3

The

The same cautions are to be observed here, as in the distillation of the foregoing spirit. Both of them, when made in perfection, are very grateful and fragrant: they are frequently rubbed on the temples, &c. under the notion of refreshing and comforting the nerves; and likewise taken internally, to the quantity of a tea spoonful, as a cordial.

SPIRITUS LAVENDULÆ
COMPOSITUS
COMPOUND SPIRIT of
LAVENDER.

Lond.

Take of
Simple spirit of lavender, three pints;
Spirit of rosemary, one pint;
Cinnamon,
Nutmegs, each half an ounce;
Red saunders, three drams.
Digest them together, and then strain out the spirit for use.

The digestion should be performed without heat, and not too long continued; otherwise the flavour of the spirit will be considerably injured.

Edmb.

Take of the distilled oils of
Lavender, an ounce and a half;
Rosemary, an ounce;
Marjoram, six drams;
Lemon peel, half an ounce;
Nutmegs, three drams;
Cloves, two drams;
Cinnamon, one dram.

Gradually drop these oils into three gallons of French brandy, occasionally stirring them together. One half of this mixture is to be reserved for making the sal volatile, as it is called (see page 307.) Distil the other half in balneo maris to two thirds; and in the spirit which comes over, suspend the following ingredients, tied up in a linen cloth: viz. of

Red saunders, one ounce;

English saffron,

Cochineal, each two drams;

To which, if you would have the spirit perfumed, add of

Ambergris, a scruple;

Musk, half a scruple.

The red saunders is of no farther use in these compositions than as a colouring ingredient. If a yellow spirit was liked, the yellow saunders would be an excellent article, as it not only communicates a fine colour, but likewise a considerable share of medicinal virtue. A spirit distilled from the flowers of lavender and sage, in due proportion, and digested in the cold for a little time with some cinnamon, nutmegs, and yellow saunders, proves a very elegant and grateful one. Where essential oils are employed, as in the second of the above processes, particular care must be had in the choice of them; for on their goodness, that of the medicine depends: perhaps fewer oils might have served the purpose, and those might have been proportioned more to the advantage of the preparation: but that could not be done without increasing the price, a circumstance to be carefully avoided, to prevent sophistication; it may be made richer, of the oil of cinnamon for instance, in extemporaneous prescription. The compound spirit of lavender of the former London pharmacopœia is as follows:

Take of

Lavender flowers, one gallon;

Sage flowers,

Rosemary flowers,

Betony flowers, each one handful;

Borage flowers,

Bugloss flowers,

Lilies of the valley,

Cowslips, each two handfuls;

Balm leaves,

Fever-

Feverfew leaves,
Orange tree leaves,
Orange flowers,
Stæchas flowers.
Bay berries, each one ounce;
French brandy, four gallons.

Pour the brandy on the other ingredients fresh gathered, and after suitable digestion, draw off in balneo mariæ two gallons and a half. To this spirit add the following ingredients.

Citron peel,
Yellow Saunders, each six drams;
Cinnamon,
Nutmegs,
Mace,
Lesser cardamom seeds,
Cubebs, each half an ounce;
Aloes wood, one dram.

Digest these together for twenty four hours; then filter the spirit, and suspend in it the following ingredients (where they are judged proper) tied up in a thin linen cloth; viz. of

Musk,
Ambergris,
Saffron, each half a scruple;
Red roses dried,
Red Saunders, each half an ounce.

All these spirits are grateful reviving cordials: the first, though considerably the most simple, is not inferior in elegance to either of the others. This medicine has long been held in great esteem, under the name of PALSY DROPS, in all kinds of languors, weakness of the nerves, and decays of age. It may be conveniently taken upon sugar, from ten to eighty, or an hundred drops.

SPIRITUS et EXTRACTUM
CROCI.

SPIRIT and EXTRACT of
SAFFRON.

Take of
Saffron, four ounces;

Rectified spirit of wine, six pints.
Digest the saffron with four pints of the spirit, in a gentle warmth, for two or three days; then pour off the tincture, add the remainder of the spirit, and distil as before. Mix both tinctures together, and digest in balneo mariæ, until the residuum appears of the consistence of oil.

The distilled spirit stands recommended in the former editions of this work, as one of the greatest cordials which medicine can produce; and is said to have the advantage of being at the same time a noble alexipharmac, and disposing the patient to sweat if duly encouraged; an effect which few of the other cordial spirits produce. It may be taken from a dram to an ounce, or more, for a dose, in any proper vehicle.

The extract, or thick oily liquid remaining after the distillation of the spirit, is greatly commended by Boerhaave in the same intentions: he says, it possesses such exhilarating virtues, that if used a little too freely, it occasions an almost perpetual and indecent laughing; that it tinges the urine of a red colour, that it mingles with water, spirit, and oil, but is most conveniently taken in canary, or other rich wines.

Both medicines are undoubtedly serviceable cordials, particularly the extract, which is vastly stronger of the virtues of the saffron, than the distilled spirit. The saffron remaining after the operation still retains some of its virtue, and may be employed, for extracting a fresh tincture from, for inferior purposes. If digested in a fresh quantity of spirit of wine, it will be totally deprived of its colour, &c. and reduced into insipid, white filaments.

B b 4

AQUA

AQUA ODORIFERA.

An ODORIFEROUS SPIRIT,
called SWEET HONEY WATER.

Take of

Honey,
Coriander seeds, each one pound;
Cloves, an ounce and a half;
Nutmegs,
Benzoin,
Storax, each an ounce;
Veneloes, in number four;
Yellow rind of three lemons;
French brandy, one gallon.

Digest these ingredients together
for forty eight hours; and then
distil off the spirit in balneo ma-
riae. To one gallon of this spi-
rit, add

Orange flower water,
Rose water, of each one pound
and a half;
Ambergris,
Musk, of each five grains.

First grind the musk and ambergris,
with some of the water, and af-
terwards put all together, in a
large matras; shake them well,
and let them circulate for three
days and nights in a gentle heat;
then suffer them to cool, filter
the liquor, and keep it close stop-
ped up for use.

Another.

Take of
Coriander seeds, one pound;
Lemon peel, fresh,
Nutmegs, each four ounces;
Ambergris,
Musk, each five grains;

Bruise the nutmegs and coriander
seeds, and put them, with the
lemon peel and the spirit, into a
small still placed in balneo ma-
riae: tie a thin cloth over the
mouth, and sprinkle thereon the
ambergris and musk, reduced in-
to fine powder: lute on the
head, let the whole stand in di-
gestion for twelve hours, and
then distill as much as a boiling
heat of the bath can force over.

To this add, of

Rose water, one pint;
Orange flower water, half a
pint.

These compositions are designed
rather as perfumes than as medi-
cines; though for such as can bear
their fragrance, they might be used
to advantage in this last intention.
The musk and ambergris do not
communicate so much of their smell
as might be expected; and serve
chiefly to heighten the flavour of
the other ingredients; which these
perfumes excellently do, when em-
ployed in very small proportion, to
all the odoriferous simples, with-
out imparting any thing perceptible
of their own. Both the foregoing
spirits are very agreeable; a few
drops of either give a fine flavour
to a large quantity of other liquor.
Mr. Wilson, from whom the first
is taken (*Pract. Chem.* page 354.)
tells us, that he often made it for
king James II, and that it gives
one of the most pleasant scents that
can be smelt to. The other is a
reform of it, made by the com-
mentator.

SPIRITUS COCHLEARÆ.

SPIRIT of SCURVYGRASS.

Edinb.

Take of

Scurvygrafs, ten pounds;
Rectified spirit of wine, five
pints.

Let the herb, fresh gathered and
bruised, be steeped in the spirit
for twelve hours; then, with
the heat of a water bath, distil
off five pints.

This spirit is very strong of the
scurvygrafs, and may be given in
those cases where the use of this
herb is proper, from twenty to an
hundred drops. The virtues of scur-
vygrafs reside in a very subtile,
volatile oil, which arises in distilla-
tion both with water and pure spi-
rit,

rit, and if the liquors are exposed to the air, soon exhales from both. The spirit, newly distilled, is extremely pungent, but if long kept, even in close vessels, becomes remarkably less so.

The makers of this spirit have frequently added to the scurvygrass a quantity of horse radish root, and sometimes substituted to it one drawn entirely from the horse radish; the flavour of these two simples being so much alike, that their distilled spirits are scarce distinguishable from one another. Here it may be observed, that tho' *arum* and *dracunculus* are usually ranked in the same class with the two foregoing vegetables, and looked upon as similar to them: this process discovers a remarkable difference: whilst the former yield all their pungency in distillation both to water and spirit, the latter give over nothing to either, and yet their virtues are destroyed in the operation.

SPIRITUS COCHLEARIE
AUREUS.

GOLDEN, or PURGING
SPIRIT of SCURVYGRASS.

Take of

Spirit of scurvygrass, one pound;
Gamboge, one ounce.

Dissolve the gamboge in the spirit, and if any sediment falls to the bottom, carefully decant the tinged liquor from it.

This spirit is otherwise made with scammony, or resin of jalap, instead of gamboge.

This has been in great esteem among the common people, and strongly recommended by the vendors, in all kinds of scorbutic disorders. It is nevertheless a very indifferent medicine, and little deserves the pompous title given it. It may be taken from twenty to sixty drops, either upon sugar, or mixed with syrup.

AQUA ANHALTINA.

ANHALT WATER.

Take of

Turpentine, six ounces;
Olibanum, one ounce;
Aloes wood, three ounces;
Cloves,
Cinnamon,
Cubeb, s
Rosemary flowers,
Galangal,
Mastic,
Nutmegs, each six drams;
Saffron, two drams and a half;
Bay berries,
Fennel seeds, each half an ounce;
Spirit of wine, five pints.

Pulverize those ingredients which require such treatment, and digest the whole with the spirit for six days; then distil with an exceeding gentle heat, in *balneo marie*: the liquor which runs clear, is to be separated from the turbid, and kept by itself.

Where the addition of musk is required, fifteen grains thereof are to be tied in a bag, and suspended in the head of the still.

We have inserted this composition from the Brandenburg pharmacopœia, on account of its being held, in some places, in great esteem. It is rubbed on weak or paralytic limbs, against catarrhs, old pains and aches, &c. and likewise given internally, in doses of half an ounce, for strengthening the stomach, dissolving flatulencies, relieving colicky pains, and promoting the uterine purgations. It is very unpleasant to the palate; the aromatics, though sufficiently numerous, and in considerable quantity, not giving over near enough to cover the strong flavour of the turpentine: there are not many of them, indeed, that give over any thing at all.

SECT.

S E C T. II.

D I S T I L L E D S P I R I T U O U S W A T E R S.

BY *distilled spirits* are understood such as are drawn with a spirit that has been previously rectified, or which is reduced nearly to this strength in the operation: by *spirituous waters*, those in which the spirit is only of the proof strength, or contains an admixture of about an equal measure of water. These last have been usually called compound waters, even when distilled from one ingredient only; as those on the other hand, which

are drawn by common water, tho' from a number of ingredients, are named simple; the title *simplex*, here, relating not to simplicity in respect of composition, but to the vehicle being plain water. The Edinburgh pharmacopœia denominates those waters simple which are drawn from a single ingredient, whether the vehicle be common water, or spirituous water, and all those compound, which are distilled from more than one.

General rules for the distillation of spirituous waters, from the Edinburgh pharmacopœia.

I.

The plants and their parts ought to be moderately and newly dried, except such as are ordered fresh gathered.

II.

After the ingredients have been steep'd in the spirit for the time prescribed, add as much water as will be sufficient to prevent an empyreuma.

III.

The liquor which comes over first in the distillation, is by some kept by itself, under the title of spirit; and the other runnings, which prove milky, fined down by art. But it is better to mix all the runnings together, without fining them, that the waters may possess the virtues of the plant entire; which is a circumstance to be more regarded than their fineness or lightness.

If the distillation is skilfully managed, the heat equable, and all

along gentle, and no more drawn off than the quantity directed, most of the waters will appear sufficiently bright and fine: some of them which look turbid just after they are drawn, will, on standing for a few days, become clear and transparent. The practice here forbid, of saving some of the first runnings apart, is certainly very injurious to the composition; the water being not only robbed by it of some of the more volatile parts of the ingredients, but likewise rendered permanently milky, as wanting the spirit which, by dissolving the oil of the ingredients that gives this appearance, would make the liquor transparent. Nor is the method of fining the turbid waters by alum, &c. less culpable; for these additions produce their effects only by separating from the liquor what it had before gained from the ingredients.

AQUA

AQUA ABSINTHII
COMPOSITA.
COMPOUND WORMWOOD
WATER.
Edinb.

Take of
Calamus aromaticus,
Orange peel, fresh,
Cinnamon, each four ounces;
Roman wormwood, half a pound;
Mint, three ounces;
Lesser cardamoms,
Mace, each one ounce;
French brandy, two gallons.

Having bruised the seeds and spices,
and cut the other ingredients,
pour on them the brandy, and
after steeping them together for
the space of four days, distill off
two gallons.

This water has been frequently
prescribed as a stomachic, along
with bitter infusions; and for this
purpose it is the least unfit, (as be-
ing the most elegant and least un-
pleasant) of all the wormwood wa-
ters that the shops have been usu-
ally furnished with. It is never-
theless too ungrateful an addition to
the fine bitters of our new pharma-
copœia; and cannot be supposed to
contribute any thing to their vir-
tue, which more agreeable spiri-
tuous waters would not equally do.
Some have expected wormwood
water to be itself a bitter; but on-
ly the smell and flavour of the
wormwood arises in this process,
those parts in which its bitterness
resides remaining behind in the
still.

In former editions of the Lon-
don pharmacopœia there were two
wormwood waters, which in some
shops are still retained, and occa-
sionally called for. In the edition
preceding the present, they are di-
rected as follows:

AQUA ABSINTHII MINUS
COMPOSITA.

WORMWOOD WATER LESS
COMPOUNDED.

Take of
Common wormwood leaves, dri-
ed two pounds;
Lesser cardamom seeds, two
ounces;
Coriander seeds, half a pound;
French brandy, four gallons.
Let them steep together for some
time, and then distil off four
gallons.

AQUA ABSINTHII MAGIS
COMPOSITA.
WORMWOOD WATER MORE
COMPOUNDED.

Take of
Sea wormwood,
Common wormwood, each, dried,
one pound;
Sage,
Mint,
Balm, each dried, two handfuls;
Galangal,
Ginger,
Calamus aromaticus,
Elecampane roots,
Sweet fennel seeds,
Coriander seeds, each three
drams;
Cinnamon,
Cloves,
Nutmegs, each two drams;
Lesser cardamom seeds,
Cubebs, each one dram;
French brandy, twelve pints.

Having cut or bruised the ingre-
dients, which require that treat-
ment, steep them for some time
in the brandy, and afterwards
draw off by distillation twelve
pints.

AQUA ALEXETERIA
SPIRITUOSA.
SPIRITUOUS ALEXETERIAL
WATER.

Lond.

Take of Spear-

Spearmint leaves, fresh, half a pound;

Angelica leaves, fresh,

Sea wormwood tops, fresh, each four ounces;

Proof spirit, one gallon;

Water as much as will prevent burning.

Distil off one gallon.

This is a tolerably pleasant water: it is looked upon as alexipharmac and stomachic, and in these intentions is not unfrequently made use of in juleps, &c.

AQUA ALEXETERIA
SPIRITUOSA cum ACETO.
SPIRITUOUS ALEXETERIAL
WATER with VINEGAR.

Lond.

Take of

Spearmint leaves,

Angelica leaves, each half a pound;

Sea wormwood tops, four ounces;

Proof spirit, one gallon;

Water, as much as is sufficient to prevent burning;

Vinegar, one pint.

Distil the fresh herbs with the spirit and water, drawing off one gallon; and add to this the vinegar.

Angelica, after trial of sundry other materials, has been found the most effectually to remove the disagreeable flavour which the vinegar would otherwise communicate; and therefore this plant is ordered in a larger proportion here than in the other alexeterial waters. Perhaps it would be more eligible to add the vinegar occasionally; for when mixed with the liquor at first, it is apt to throw down, upon keeping, some of the more valuable parts which the water received from the herbs.

This water is given in the room of the AQUA THERIACALIS or

treacle water, which in the Edinburgh pharmacopœia is thus directed.

Take of

Butterbur,

Angelica,

Masterwort, roots, each half a pound:

Zedoary, four ounces;

Scordium leaves,

Rue leaves, each six ounces;

Theriaca, one pound;

French brandy, three gallons;

Distilled vinegar, half a gallon.

Let the roots, leaves and theriaca be steeped in the spirit for four days; then distil off two gallons and a half; to which add the distilled vinegar.

This water is ordered not to be drawn so low as the other distilled waters, and with great judgment; for the addition of the vinegar considerably weakens it, and if drawn low, renders it very unfightly. It is left to the choice of the operator, to employ either Andromachus's or the Edinburgh treacle; the latter is the best of the two, but neither of them are proper subjects for distillation; for besides that three parts in four are honey, which yields nothing, they contain several other ingredients that afford as little.

The AQUA THERIACALIS of the former London pharmacopœia is as follows:

Take of

Juice of green walnuts, four pints;

Rue, three pints;

Carduus,

Balm, each three pints;

Butter bur roots, fresh, a pound and a half;

Burdock roots, fresh, one pound;

Angelica roots,

Masterwort roots, fresh, each half a pound;

Scordium, fresh, four handfuls;

Venice

Venice treacle and
Mithridate, kept for some time,
each eight ounces;
Lemon juice, two pints;
French brandy, a gallon and a
half.

Draw off by distillation three gal-
lons and a half, then add half a
gallon of distilled vinegar.

The predominant flavour of this
water is from the rue and angelica;
the rest contribute only enough to
render the whole more offensive.
What qualities it can receive from
the numerous ingredients of the
imagined all-powerful theriaca, may
be estimated by this, that the whole
species of that electary employed
in half an ounce of the water, its
usual dose, amounts not to a single
grain; the mithridate, with which
our pharmacopœia by the advice of
Sir Theodore Mayerne had the hon-
our of enriching the composition,
being also just of the same impor-
tance in it. In short, if any com-
position in the shops partakes of an-
cient superstition, it is this.

The three foregoing composi-
tions are the only distilled waters
in which the heat of the spirit is
tempered by the addition of vine-
gar, an ingredient which renders
them serviceable in many cases
where spirituous liquors alone would
be improper. The treacle water
has long been held in great esteem
as a sudorific and alexipharmac;
and that which the London college
have now directed in the room of
it, though far more simple and ele-
gant, is not inferior in efficacy.

AQUA SEMINUM ANISI
COMPOSITA.
COMPOUND ANISEED
WATER.

Lond.

Take of
Aniseeds,

Angelica seeds, each half a
pound;
Proof spirit, one gallon;
Water, as much as is sufficient
to prevent burning.

Draw off by distillation one gallon.

This is a very elegant aniseed
water, the angelica seeds greatly
improving the flavour of the anise:
it is apt to turn out milky, if drawn
so low as here ordered.

AQUA CORTICUM AURAN-
TIORUM SPIRITUOSA.
SPIRITUOUS ORANGE PEEL
WATER.

Lond.

Take of

Outer rind of Seville orange peel,
dried, half a pound;
Proof spirit, one gallon;
Water, as much as is sufficient to
prevent an empyreuma,

Distil off one gallon.

This is considerably stronger of
the orange peel than the simple
water. It is used as a cordial, sto-
machic and carminative.

AQUA BRYONIE
COMPOSITA.
COMPOUND BRYONY WATER.

Edinb.

Take of

Bryony roots, one pound;
Wild valerian root, four ounces;
Pennyroyal,
Rue, each half a pound;
Mugwort leaves,
Feverfew flowers,
Savin tops, each one ounce;
Orange peel, fresh,
Lovage seed, each two ounces;
French brandy, two gallons and
a half.

Having cut or bruised those ingre-
dients which require such treat-
ment, steep them in the brandy
four days: then draw off by di-
stillation two gallons and a half
of liquor.

B b 7

This

This composition is designed for an antihysterical, and too frequently perhaps employed as such. Many, by the use of this and other like waters, under the notion of medicines, have been betrayed into the pernicious habit of drinking drams: whereas, however spirituous liquors may give a temporary relief to the languors of hysterical and hypochondriacal persons, none suffer so soon the ill effects attending the constant use of them. The unpleasant flavour of this water renders it exceptionable also as a vehicle of other antihysterical medicines, which in general are of themselves sufficiently ungrateful: a small augmentation in the dose of the medicines themselves (as the London committee observe) would abundantly compensate any assistance to be expected from this water, and leave room for the use of a more agreeable vehicle.

AQUA SEMINUM
CARDAMOMI.
CARDAMOM SEED WATER.

Lond.

Take of

Lesser cardamom seeds, freed from the husks, four ounces;
Proof spirit, one gallon;
Water, as much as is sufficient to prevent burning.

Distil off one gallon.

This water is a grateful cordial and carminative, the cardamom seeds giving over in this process the whole of their flavour. It is not perhaps very necessary to be at the trouble of separating the husks, for these communicate nothing disagreeable: If employed unhusked, a proportionably larger quantity of them must be taken.

AQUA SEMINUM CARUI.
CARAWAY WATER.

Lond.

Take of
Caraway seeds, half a pound;
Proof spirit, one gallon;
Water, as much as will prevent burning.

Distil off one gallon.

This is a cordial in common use: it contains the flavour of the caraway seeds in perfection.

AQUA CINNAMOMI
SPIRITUOSA.
SPIRITUOUS CINNAMON
WATER.

Lond.

Take of

Cinnamon, a pound;
Proof spirit, a gallon;
Water, so much as will prevent burning.

Draw off by distillation one gallon.

AQUA CINNAMOMI CUM
VINO.
CINNAMON WATER WITH
WINE.

Edinb.

Take of

Cinnamon, one pound;
French brandy, one gallon;
Let them steep together for two days, and then distil off one gallon.

This is a very agreeable and useful cordial water, but not so strong of the cinnamon as might be expected; for very little of the virtues of the spice arise till after the pure spirituous part has distilled. Hence in the former editions of the London pharmacopœia, the distillation was ordered to be protracted till two pints more, than here directed, were come over. By this means, the whole virtue of the cinnamon was more frugally than judiciously obtained; for the disagreeable flavour of the scents of proof spirits, and the acidulous liquor arising from cinnamon as well as all other vegetables when their

distillation is long continued, gave an ill relish to the whole; at the same time that the oil which was extracted from the spice, was by this acid thrown down.

The author of the pharmacopœia reformata proposes making this water by mixing the *aqua cinnamomi simplex* with somewhat less than an equal quantity of rectified spirit: on shaking them together, the liquor loses its milky hue, soon becomes clear, and more elegant than the water distilled as above: it is equally strong of the cinnamon, and free from the nauseous taint which the common proof spirits are impregnated with.

AQUA EPIDEMIA.

PLAGUE WATER.

Edinb.

Take of
Masterwort roots,
Butter-bur roots, each four ounces;
Virginian snakeroot,
Zedoary, each two ounces;
Angelica seeds,
Bay berries, each three ounces;
Scordium leaves, six ounces;
French brandy, two gallons.

Pour the brandy on the other ingredients first cut or bruised; digest for four days; and then draw off by distillation two gallons.

This water is not a little unpleasant, though it scarce has any advantages to counterbalance that inconvenience. The alexipharmac virtues formerly attributed to it, and implied in its title, are not now expected from it. It lost at the late revival, almost as many ingredients as are now retained in it, though some of those which are still left, might be dispensed with.

AQUA JUNIPERI

COMPOSITA.

COMPOUND JUNIPER WATER.

Lond.

Take of

Juniper berries, one pound;
Sweet fennel seeds,
Caraway seeds, each an ounce and a half;
Proof spirit, one gallon;
Water, as much as is sufficient to prevent burning.
Distil off one gallon.

This water, mixed with about an equal quantity of the rob of juniper berries, proves an useful medicine in catarrhs, debility of the stomach and intestines, and difficulty of urine. The water by itself is a good cordial and carminative: the service, which this and other spirituous waters do in these intentions, is too commonly known; though the ill consequences that follow their constant use, are too little regarded.

AQUA MENTHÆ PIPERITIDIS SPIRITUOSA.

SPIRITUOUS PEPPER MINT WATER.

Lond.

Take of

Pepper mint leaves, dry, a pound and a half;
Proof spirit, a gallon;
Water, as much as is sufficient to prevent an empyreuma.
Draw off by distillation one gallon.

This water is made use of in flatulent colics and other like disorders; in which it oftentimes gives immediate relief. It is not near so strong of the pepper mint as the simple water, though the same quantity of the herb is employed in both.

AQUA MENTHÆ VULGARIS SPIRITUOSA.

SPIRITUOUS SPEARMINT WATER.

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Take of

Spearmint leaves, dry, a pound
and a half;

Proof spirit, a gallon;

Water, as much as will prevent
burning.

Distil off one gallon.

This water also is considerably weaker of the mint than the simple water: Nevertheless, if the spirit be good, the medicine turns out a very elegant one, and preferable, in weakness of the stomach, retching to vomit, and the like, to many more elaborate preparations. Where the disorder is not accompanied with heat or inflammation, half an ounce of this water rarely fails of giving relief.

AQUA MIRABILIS.

Edinb.

Take of

Cinnamon, two ounces;

Lemon peel, one ounce;

Angelica seeds,

Lesser cardamom seeds,

Mace, each half an ounce;

Cubebs, two drams;

Balm leaves, six ounces;

French brandy, one gallon.

Pour the brandy on the other ingredients bruised; and after digesting them for four days, draw off by distillation one gallon.

This water is very rich of the spices; and proves a pleasant, warm, cordial and carminative. In those who have not, by frequent use, deprived themselves of the benefit of these kinds of liquors, it gives present relief in languors, flatulencies, colicky pains, and other like complaints. It would not, however, be less agreeable or efficacious, if its ingredients were somewhat fewer: it has already lost half a dozen useless ones, and perhaps might still spare the angelica, mace, cubebs, and balm, if the proportions of the other ingre-

dients were varied a little. Some have substituted Jamaica pepper to them all, in the proportion of two ounces to a gallon of spirit: and if the spirit be good, the water made in this manner is not easily distinguishable from the other. The simple water of this spice is far less elegant than a spirituous one.

AQUA NUCIS MOSCHATÆ.
NUTMEG WATER.

Lond.

Take of

Nutmegs, two ounces;

Proof spirit, a gallon;

Water, as much as will prevent
burning.

Draw off by distillation one gallon.

This water (with the addition only of some hawthorn flowers, an article of very little significance) was formerly celebrated in nephritic disorders, under the name of AQUA NEPHRITICA. At present, it is regarded only as an agreeable spirituous liquor, lightly impregnated with the nutmeg flavour.

AQUA PETROSELINI
COMPOSITA.

COMPOUND PARSLEY
WATER.

Edinb.

Take of

Parsley roots, four ounces;

Horse radish, fresh, three ounces;

Juniper berries, six ounces;

St. John's wort tops,

Biting arsmart leaves,

Elder flowers, each two ounces;

Wild carrot seeds,

Sweet fennel seeds,

Parsley seeds, each one ounce
and a half;

French brandy, two gallons.

Having cut or bruised those ingredients which require such treatment, steep them four days in the

the brandy, and then distil off two gallons.

This is intended for an aperient and diuretic, and for these purposes has been by some held in considerable esteem. At present, it is rarely called for, and not often kept in the shops; the compound horse-radish water being more frequently prescribed, as the more efficacious medicine, in the intentions for which this is designed. For this reason, though the composition contains some exceptionable articles, it has not been thought worth while to make any farther alteration than increasing the quantity of the juniper berries, which are the best ingredient in it.

AQUA PÆONIÆ
COMPOSITA.
COMPOUND PEONY WATER.
Edinb.

Take of

- Peony roots, two ounces;
- Wild valerian roots, an ounce and a half;
- White dittany roots, one ounce;
- Peony seeds, six drams;
- Lillies of the valley, fresh, four ounces;
- Lavender flowers,
- Rosemary flowers, each two ounces;
- Betony,
- Marjoram,
- Rue,
- Sage, tops, of each, one ounce.
- French brandy, a gallon and a half.

Cut or bruise those materials that require such treatment, steep them four days in the brandy, and then distil over a gallon and a half of liquor.

This water has been distinguished by the title of AQUA ANTI-EPILEPTICA; and recommended in all kinds of epilepsies and nervous complaints. The present

practice pays little regard to it, and rarely prescribing it any otherwise than as a vehicle, and as such not often. The ingredients from which it receives its name, the peony roots and seeds, communicate little or nothing to the water; whatever virtues these are possessed of, remain behind in the decoction: nor are these the only exceptionable articles; the dittany, betony, and some others, though of the aromatic kind, afford so little as not to deserve a place among more powerful ingredients.

The compound peony water of the former London pharmacopœia thus directed:

Take of

- Lillies of the valley, fresh gathered, one pound;
 - Lime flowers, half a pound;
 - Peony flowers, four ounces;
 - Male peony root, two ounces and a half;
 - White dittany root,
 - Long birthwort, each half an ounce;
 - Mistletoe of the oak,
 - Rue, each two handfuls;
 - Peony seeds, husked, ten drams;
 - Rue seeds, three drams and a half;
 - Russia castor,
 - Cubebs,
 - Mace, each two drams;
 - Cinnamon, an ounce and a half;
 - Rosemary flowers, six pugils;
 - Stachas flowers,
 - Lavender flowers, each four pugils;
 - Betony flowers,
 - Clove-july flowers,
 - Cowslips, each eight pugils;
 - Juice of black cherries, four pints;
 - French brandy, two gallons and a half;
- After proper maceration, distil off four gallons.

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This water, though very injudicious in its composition, is still kept in some shops, and supposed to be a good assistant in epileptic and other nervous cases.

AQUA PULEGII
SPIRITUOSA.
SPIRITUOUS PENNYROYAL
WATER.

Lond.

Take of

Pennyroyal leaves, dry, a pound and a half;
Proof spirit, a gallon;
Water, as much as will prevent burning.

Distil off one gallon.

This water has a good share of the flavour of the pennyroyal, and is pretty much in use as a carminative and antihysterical.

AQUA RAPHANI
COMPOSITA.
COMPOUND HORSE-RADISH
WATER.

Lond.

Take of

Garden scurvygrafs leaves, fresh, four pounds;
Horse-radish root fresh,
Orange peel, fresh, each two pounds;
Nutmegs, nine ounces;
Proof spirit two gallons;
Water a sufficient quantity to prevent burning.

Draw off by distillation two gallons.

Edinb.

Take of

Horse-radish, fresh, three pounds;
Garden scurvygrafs,
Water cresses, each, fresh, two pounds;
Orange peel,
Lemon peel, each, fresh, three ounces;
Canella alba, four ounces;
Nutmegs, one ounce;
French brandy, three gallons.

Pour the brandy on the ingredients cut and bruised, and after steeping for two days, draw off three gallons of liquor.

Both these waters are very elegant ones, and as well adapted for the purposes of an antiscorbutic, as any thing that can well be contrived in this form. The committee of the London college observe, with regard to the first, that the horse-radish and scurvygrafs join very well together, giving a similar flavour, though not a little disagreeable; that the nutmeg suppresses this flavour very successfully, without super-adding any of its own; and to this, orange peel (no incongruous ingredient to the intention of the medicine) adds a flavour very agreeable. Arum root has generally had a place in this water, but is here deservedly thrown out; for it gives nothing of its pungency over the helm, notwithstanding what is asserted, in former editions of this work, to the contrary. Mustard seed, though not hitherto, that we know of, employed in these kinds of compositions, should seem to be an excellent ingredient: it gives over the whole of its pungency, and is likewise less perishable than most of the other substances of this class: this seed wants no addition, unless some aromatic material to furnish an agreeable flavour.

AQUA MELISSÆ
COMPOSITA.
COMPOUND BALM WATER,
commonly called,
EAU DE CARMES.

Take of

Balm leaves, fresh, four ounces;
Lemon peel, fresh, two ounces;
Coriander seeds,
Nutmegs, each one ounce;
Angelica root,
Cinnamon,

Cloves,

Cloves, each half an ounce;
Balm water, one pint;
Proof spirit, two pints.

Powder the dry ingredients, and digest them with the spirit in a close vessel, for two or three days; then add the balm water, and distil in balneo almost to dryness.

This water is an elegant cordial, all the ingredients giving over to it great share of their flavour; the balm, though it seems intended as the principal, yields the least. The preparation has of late been greatly esteemed in most parts of Europe; and strongly recommended by the venders as being more strengthening and reviving than the common cordials: but, like other medicines whose composition has been kept a secret, its virtues have been greatly exaggerated.

AQUA VULNERARIA, seu
AQUA CATAPULTARUM.
ARQUEBUSADE WATER.

Pharm. Argent.

Take of

Comfrey, leaves and roots,
Sage,
Mugwort,
Bugloss, each four handfuls;
Betony,
Sanicle,
Ox-eye daisy,
Common daisy,
Greater figwort,
Plantane,
Agrimony,
Vervain,
Wormwood,
Fennel, each two handfuls;

St. John's wort,
Long birthwort,
Orpine,
Veronica,
Lesser centaury,
Milfoil,
Tobacco,
Moufe-ear,
Mint,
Hyssop, each one handful;
Wine, twenty-four pounds.

Having cut and bruised the herbs, pour on them the wine, and let them stand together in digestion, in horse-dung or any other equivalent heat, for three days; afterwards distil in an alembic with a moderate fire.

This celebrated water has been for some time held in great esteem, in contusions, for resolving coagulated blood, dissolving the tumours that arise on fractures and dislocations, for preventing the progress of gangrenes, cleansing and healing ulcers and wounds, particularly gun-shot wounds. Mr. Lermery has been at the pains of writing a whole treatise on it; in which he considers each of the ingredients singly, and supposes the water to possess their united virtues. But here this eminent chemist, relying more on hypothetical reasoning than the experiments which that art requires, happened to be mistaken; for the virtues of most of the herbs, admitting them to be as great as he would have them, reside in such parts as are not capable of being elevated in this process.

CHAPTER XIII.

DECOCTA et INFUSA.

DECOCTIONS and INFUSIONS.

Under this head are comprehended decoctions and infusions in aqueous liquors only: those made in wine, vinegar, vinous spirits, and in oils, will be treated of hereafter.

WATER extracts the gummy, mucilaginous and saline parts of vegetables; and hence becomes the proper menstruum for the glutinous and acefcent plants. Its action, however is not confined to these: the resinous and oily principles, though of themselves not soluble in water, are in most plants so intimately blended with the gummy and saline, as to be readily taken up along with them. Several of the resinous cathartics, most of the aromatic herbs, all the bitters, astringents, sweets, yield to water their smell, taste and medicinal virtues.

The action of this menstruum varies, according as it is applied cold or hot, continued for a longer or shorter time, as the subject itself is more or less resinous, fresh or dry, of a loose or compact texture.

Aromatic herbs, and the leaves of plants in general, yield their virtues most perfectly when moderately dried. The cold element extracts from these, in a few hours, the lighter, more fragrant and agreeable parts; and then begins to take up the grosser and more ungrateful; the liquor, poured successively on fresh parcels of the herb, becomes stronger, richer, thick, unctuous, balsamic: and

herein these preparations have the advantage of distilled waters, which are not mended by a like treatment. These saturated infusions are undoubtedly applicable to valuable purposes in medicine, as they contain, in a small compass, the finer, more subtle and active principles of the vegetable, in a form readily miscible with the fluids of the human body.

The compact, resinous woods, roots and barks, give out their virtues most freely whilst fresh. Dry, they yield little to cold or moderately warm water, and require the force of it boiling. By this process, the grosser, more fixt saline and mucilaginous parts are dissolved, the resinous melted out, the volatile dissipated, and the virtues depending on them lost. The spices which we receive from abroad, the warm seeds of our own growth when dry, scarce give out their virtues, without such a degree of heat as will dissipate them.

Water extracts likewise the gelatinous parts of animals; whence glues, gellies, broths, &c. and takes up some part of calcined calcareous earths.

Water may be tinged by vegetable matters of every colour except green; though every vegetable will

will not yield its colour to water: almost all flowers impart their own colour; leaves, woods and roots, generally a different one. Acids change the infusions of most flow-

ers (except the yellow ones) to a red; and alcalies to a green; the former impede the action of the water as a menstruum, the latter somewhat promote it.

General rules for making decoctions, from the Edinburgh pharmacopœia.

I.

Vegetable substances ought to be moderately and newly dried, unless they are expressly ordered otherwise. They ought likewise to be cut and bruised, before the menstruum is poured on them.

II.

Woods, roots, seeds, and all those ingredients which are dry and of a compact texture, are to be put in first; and the others added towards the end of the boiling: among these last, liquorice is to be reckoned.

III.

All decoctions are to be strained, and after resting for some time, poured off from the feces; unless they are ordered to be turbid; and even in this case, they ought to be passed through a coarse strainer.

DECOCTUM ALBUM.

The WHITE DECOCTION.

Lond.

Take of

Calcined hartshorn, prepared,
two ounces;

Gum Arabic, two drams;

Water, three pints.

Boil them till only two pints remain, and then strain off the liquor.

Edinb.

Take of

Calcined hartshorn, prepared,

one ounce;

Common water, three pints;

Simple cinnamon water, one ounce;

White sugar, two drams.

Boil the hartshorn in the common water till only two pints remain; to this decoction, unstrained, add the other ingredients, and mix the whole together.

These decoctions are used as common drink in acute diseases attended with a looseness, and where acrimonious humours abound in the primæ viæ. The gum is added in the first prescription, in order to render the liquor lightly glutinous, and thus enable it to sustain more of the calx; which is the ingredient that the colour, but probably not the virtue, of the medicine depends upon. Calcined hartshorn has no quality from which it seems capable either of *constringing* or strengthening the vessels, giving a greater degree of consistency to thin fluids, or obtunding acrimonious humours. It blunts and absorbs acid juices: but acrimony and acidity are extremely different: there are few (perhaps none of the acute) disorders of adults attended with the latter; and few of infants are unaccompanied therewith. Some have proposed starch as an ingredient in these kinds of decoctions; a small quantity of this should seem to be a very useful one.

DECOCTUM ALBUM
COMPOSITUM.

C c 3

COM.

**COMPOUND WHITE
DECOCTION.***Edinb.*

Take of

Calcined hartshorn, six drams;
 Crabs eyes, three drams;
 Comfry roots,
 Tormentil roots, each two drams;
 Common water, three pints;
 Simple cinnamon water, one
 ounce;
 Syrup of meconium, half an
 ounce.

Boil the roots and powders in the
 common water, till such time as
 the liquor, when strained, will
 amount only to a quart: to this
 whilst turbid, add the cinnamon
 water and the syrup, and mix
 them all well together.

This is a very well contrived
 composition for the purposes of a
 mild, lightly incrassating restrin-
 gent. A quarter of a pint, more
 or less, may be taken occasionally,
 according to the urgency of the
 symptoms. The two first ingre-
 dients, though they seem intended
 as the principal ones, are the least
 useful.

**GELATINA CORNU CERVI.
GELLY OF HARTSHORN.***Edinb.*

Take of

Hartshorn shavings, half a pound;
 Water, three quarts;
 White sugar candy, in powder,
 six ounces;
 Mountain wine, a quarter of a
 pint;
 Orange (or lemon) juice, one
 ounce.

Boil the hartshorn with the water
 by a gentle heat, in a glazed
 earthen vessel, till two parts are
 wasted; strain out the remaining
 liquor, add to it the other ingre-
 dients, and boil the whole
 over a gentle fire, to the consist-
 ence of a soft jelly.

This is an agreeable, nutritious,
 animal gelly, and possesses the ge-
 neral virtues of the substances of
 that class. It is occasionally made
 use of in fevers, &c. tho' not kept
 in the shops.

**DECOCTUM COMMUNE pro
CLYSTERE.***The COMMON DECOCTION for
CLYSTERS.* *Lond.*

Take of

Mallow leaves, dried, one ounce;
 Chamemel flowers dried,
 Sweet fennel feeds, each half an
 ounce;
 Water, one pint.

Boil them together, and strain out
 the decoction for use.

Edinb.

Take of

Mallow leaves,
 Mercury leaves,
 Chamemel flowers, each half an
 ounce;
 Fennel feed,
 Linseed, each two drams;
 Water, a pint and a half.

Boil them to the consumption of
 one third of the liquor, and then
 strain out the decoction.

The title of these decoctions
 sufficiently expresses their use as the
 basis of glysters. The chamemel
 flowers and fennel feeds should not
 be put in, till towards the end of the
 process; a part of the virtues of
 these being soon lost by boiling.

**DECOCTUM DIASCORDII.
DECOCTION of
DIASCORDIUM.***Edinb.*

Take of

Diascordium, one ounce;
 Japan earth, two drams;
 Spirituous cinnamon water,
 Syrup of meconium, each one
 ounce;

Common water, a pint and a half.
 Boil

Boil the diascordium and Japan earth in the common water, till only a pint of liquor remains after straining; to which, while turbid, add the syrup and the cinnamon water, and mix the whole well together.

This decoction is used, both in draughts and by the way of glyster, as an anodyne and restraining in fluxes. The quantity here prescribed contains about two grains and a half of opium, exclusive of the syrup.

FOTUS COMMUNIS.

The COMMON FOMENTATION.

Lond.

Take of

Abrotanum leaves, dried,
Sea wormwood tops, dried,
Chamemel flowers, dried, each
one ounce;
Bay leaves dried, half an ounce;
Water, six pints.

Lightly boil them, and strain out
the decoction for use.

It is left to the choice of the apothecary to take either the male or female *abrotanum*, that is southernwood or lavender cotton; which, though differing from one another in some respects, may be looked upon as similar with regard to the purposes for which this composition is intended: and possibly the fomentation would not be much the worse if neither of them was used.

DECOCTUM EMOLLIENS

pro FOTU.

EMOLLIENI DECOCTION for FOMENTATIONS.

Edinb.

Take of

Mallow leaves, one ounce;
Chamemel flowers,
Melilot flowers,
Elder flowers, each half an ounce;
Fenugreek seeds, one ounce;

Water, two quarts.

Boil them together.

This decoction may likewise be prepared without the fenugreek seed.

The titles of this and the foregoing decoction, express the purposes they are designed for: spirit of wine, which is commonly added in fomentations, is left to be directed by the prescriber in such quantity as particular cases may require.

DECOCTUM ad ICTERICOS.

DECOCTION for the JAUNDICE.

Edinb.

Take of

Celandine, roots and leaves,
Turmeric,
Madder, each one ounce;
Millepedes, two hundred;
Syrup of the five roots, two
ounces;
Water, three pints.

Boil the celandine, turmeric and madder in the water, till only a quart of liquor remains after straining; then, having pressed out the juice of the millepedes, add this and the syrup to the decoction.

The ingredients of which this decoction is composed, have been long held by many as specifics for the cure of the disease expressed in its title. The medicine, though extremely unpleasent, is well calculated to answer many useful purposes; if well managed and properly assisted. A quarter of a pint may be taken twice a day, or oftner.

DECOCTUM LIGNORUM.

DECOCTION of the WOODS.

Edinb.

Take of

Guaiacum shavings, three ounces;
Raisins of the sun, stoned, two
ounces;

C c 4

Sassa-

Saffras wood, shaved, one ounce;

Liquorice, sliced, half an ounce;

Water, one gallon.

Boil the guaiacum and raisins with the water, over a gentle fire, to the consumption of one half; adding towards the end, the saffras and liquorice. Strain out the liquor, and having suffered it to rest for some time, pour off the clear from the feces.

This decoction is very well contrived, and if its use is duly continued, will do great service in scorbutic and cutaneous diseases, foulness of the blood and juices, and some disorders of the breast; particularly in cold phlegmatic habits. It may be taken by itself, in the quantity of a quarter of a pint, two or three times a day, or used as an assistant in a course of mercurial or antimonial alteratives; the patient in either case keeping warm, in order to promote the operation of the medicine.

DECOCTUM ad
NEPHRITICOS.
NEPHRITIC DECOCTION.

Edinb.

Take of

Mashmellow roots,

Liquorice,

Reit harrow root, each half an ounce;

Wild carrot seed,

Linseed, each three drams;

Pellitory of the wall, one ounce;

Fat figs, four in number;

Raisins of the sun, stoned, two ounces;

Water, six pints.

Boil them together so long, that there may be only four pints of strained liquor.

This decoction is intended chiefly as an emollient, to be liberally drank of in nephritic paroxysms: in which cases, by softening and

relaxing the parts, it frequently relieves the pain, and procures an easy passage for the fabulous matter.

DECOCTUM NITROSUM.
NITROUS DECOCTION.

Edinb.

Take of

Pure nitre, half an ounce;

White sugar, two ounces;

Cochineal, one scruple;

Water, two pints and a half.

Boil to two pints, then suffer the whole to rest for some time, and pour off the clear decoction.

This is an elegant way of disguising nitre, and rendering it agreeable to the patient, both which intentions are fully answered by the cochineal and sugar. There is no occasion for boiling, unless to furnish the medicine with a name; for the water will dissolve a much larger quantity of the nitre and sugar than is directed above, without any heat; and it easily extracts a fine colour from cochineal.

The virtues of nitre have been already given in the preceding part. This or other similar forms are the most commodious for the exhibition of it; for when given in a solid form, it often occasions great uneasiness about the stomach. Three or four ounces of this decoction may be taken for a dose.

DECOCTUM PECTORALE.
PECTORAL DECOCTION.

Lond.

Take of

Common barley,

Stoned raisins,

Figs each two ounces;

Liquorice, half an ounce;

Water, four pints.

First boil the water with the barley, then add the raisins, and lastly (just before the end of the process) the figs and liquorice; the boiling

boiling is to be continued so long, that the liquor, when strained, may be no more than two pints.

Edinb.

Take of

Stoned raisins,
Barley, each one ounce;
Fat figs, in number four;
Florentine orris root,
Liquorice, each half an ounce;
Harts-tongue leaves,
Coltsfoot flowers, each one ounce;
Water, six pints.

Boil the water with the raisins, barley, and figs, till only four pints remain: adding, towards the end, the other ingredients; then strain out the liquor for use.

Both these decoctions are useful soft pectorals; and very agreeable to the palate, particularly the first. They are good auxiliaries in sharp defluxions on the breast and lungs, and have sometimes done service by themselves. They may be drank at pleasure.

DECOCTUM SERPENTARIÆ
COMPOSITUM.
COMPOUND DECOCTION of
SNAKEROOT.

Edinb.

Take of

Virginian snakeroot, six drams;
Venice treacle, half an ounce;
Cochineal, one scruple;
Syrup of meconium, an ounce
and a half;
Water, two pints.

Boil the root in the water, to the consumption of half the liquor; adding towards the end, the treacle and cochineal. Then strain the decoction off thick, and mix with it the syrup.

This decoction is given as a succedaneum to the compound tincture of snakeroot; and directed to be made only in want thereof. See

tinctura serpentariæ composita in chap. xvi. This watery preparation is nevertheless a medicine of considerable efficacy, possessing nearly all the virtues of the snakeroot, and the opiate quality of the cheriaca; the quantity here prescribed contains about three grains of opium. It is observable that snakeroot yields its virtues to water almost as perfectly as to spirituous liquors: and notwithstanding its subtilty of parts, does not lose much in evaporation with either, unless the process is performed by a more hasty fire than there is occasion for.

AQUA HORDEATA.
BARLEY WATER.

Lond.

Take of

Pearl barley, two ounces;
Water, four pints.

First wash the barley from the mealy matter that adheres to it, with some cold water; then boil it a little with about half a pint of fresh water, which will acquire a considerable tinge from it. Throw away this tinged water; put the barley into the water prescribed, made first to boil; and continue the boiling till half the water is wasted.

This liquor is to be drank freely, as a diluter, in fevers and other disorders; hence it is of consequence that it should be prepared so as to be as elegant and agreeable as possible: for this reason, it was inserted in the pharmacopœia, and the several circumstances which contribute to its elegance set down if any one of them is omitted, the beverage will be less grateful. However trivial, medicines of this class may appear to be, they are of greater importance, in the cure of sundry acute diseases, than many more laborious preparations.

JUS

JUS VIPERINUM.

VIPER BROTH.

 Lond.

Take a middle sized viper, freed from the head, skin, and intestines; and two pints of water. Boil them to a pint and a half; then remove the vessel from the fire; and when the liquor is grown cold, let the fat, which congeals upon the surface if the viper was fresh, be taken off. Into this broth, whilst warm, put a pullet of a moderate size, drawn, and freed from the skin, and all the fat, but with the flesh entire. Set the vessel on the fire again, that the liquor may boil; then remove it from the fire, take out the chicken, and immediately chop its flesh into little pieces: put these into the liquor again, set it over the fire, and as soon as it boils up, pour out the broth, first carefully taking off the scum.

Here also all the circumstances subservient to the perfection of the broth are carefully set down: and even plain chicken broth, for the use of the sick, ought to be made in a similar manner.

This seems to be one of the best preparations of the viper; all the benefit that can be expected from that animal being by this means obtained. It is a very nutritious and restorative food: continued for a length of time, it has sometimes done good service in leprous and other obstinate cutaneous diseases. The dried flesh of the vipers, brought from abroad, is far inferior to it, and has very little, if any virtue at all; the wines and tincture of the animal, probably have not much; the volatile salt, however strongly recommended, some, does not appear to differ from that producible from every animal substance. See page 303.

MUCILAGO SEMINUM
CYDONIORUM.MUCILAGE of QUINCE
SEEDS. *Lond.*

Take of

Quince seeds, one dram;

Water, six ounces by measure.

Boil them, over a soft fire, till the water grows slimy almost like the white of an egg; then pass it through a linen cloth.

This is a pleasant soft mucilage, of a somewhat sweetish taste, and a light agreeable smell: in these respects, and in its easy solubility in water, it differs from the mucilage of gum tragacanth which some have supposed it similar to: it has another difference, to its disadvantage, being apt to grow mouldy in keeping.

SERUM ALUMINOSUM.
ALUM WHEY. *Lond.*

Take of

Cows milk, one pint;

Alum, in powder, two drams.

Boil them till the milk is curdled, and then carefully separate the whey.

This medicine is a strong, tho' not very grateful, astringent: immoderate uterine fluxes, and the diabetes, frequently yield to it, if taken in the quantity of a quarter of a pint three or four times a day. It has been recommended in intermittent fevers, the quantity above prescribed to be taken before the approach of a fit, divided into different doses.

SERUM SCORBUTICUM.
SCORBUTIC WHEY. *Lond.*

Take of

Cows milk, one pint;

Scorbutic juices, a quarter of a pint.

Boil

Boil them till the milk is curdled, and then carefully separate the whey.

This whey may be used as common drink in scorbutic cases: the quantity above directed, at least ought to be taken every day, if any considerable effect is expected from it.

**INFUSUM AMARUM.
BITTER INFUSION.**

Edinb.

Take of

- Gentian root, half a dram;
- Lesser centaury tops, a dram;
- Boiling water, a quarter of a pint.

Infuse them four hours, and then filter the liquor for use.

**INFUSUM AMARUM
SIMPLEX.
SIMPLE BITTER INFUSION.**

Lond.

Take of

- Gentian root,
- Fresh yellow rind of lemon peel, carefully freed from the inner white part, each half an ounce;
- Dry yellow rind of Seville orange peel, freed in like manner from the white, one dram and a half;
- Boiling water, three quarters of a pint.

Macerate for an hour or two, then filter the liquor through paper, or pass it through a strainer without pressure.

Both these liquors are very elegant and useful bitters; the latter in particular is as agreeable a one as can well be contrived, the peels communicating a fine flavour, which is the only addition that the gentian stands in need of. The committee informs us, that "most of the ingredients, which usually enter the composition of bitter infusions, being prepared by them

separately, amongst all the strong bitters, gentian gave the most unexceptionable colour, but it wants the assistance of some ingredient to furnish an acceptable flavour; scarce any of the bitters accompanied with flavour, such as zedoary, calamus aromaticus, and the like, appeared to be truly grateful, except orange peel and cardamom seeds: but cardamom seeds are mucilaginous, and render the liquor cloudy, and orange peel is accompanied with a hot oil that requires it to be but sparingly used: lemon peel, in its outer rind, to which all its flavour is confined, is not a bitter, but supplies the gentian most successfully with what is wanted; tho' the composition, by a moderate addition of orange peel, becomes yet more perfect."

**INFUSUM AMARUM
PURGANS.
PURGING BITTER INFUSION.**

Lond.

Take of

- Sena,
- Yellow rind of lemon peel, fresh, each three drams;
- Gentian root,
- Yellow rind of Seville orange peel, dry,
- Lesser cardamom seeds, freed from the husks, each half a dram;
- Boiling water, five ounces by measure.

Macerate them together, and when cold strain off the liquor.

**INFUSUM AMARUM
cum SENA.
BITTER INFUSION
with SENA.**

Edinb.

Take of

Sena,

Sena,
 Lesser centaury tops, each one
 dram;
 Gentian root,
 Sweet fennel seeds, each half a
 dram;
 Boiling water, a quarter of a
 pint.

Infuse them for four hours, and
 then filter the liquor.

This infusion may likewise be pre-
 pared with two, three, or more
 times the quantity of sena.

Both these are useful purging
 bitters. The quantities here pre-
 scribed seem intended for a dose;
 the first is the largest, and the other
 the smallest dose, that sena is usual-
 ly given in.

INFUSUM SENÆ
 COMMUNE.

COMMON INFUSION of SENA.

Lond.

Take of

Sena, an ounce and a half;
 Crystals of tartar, three drams;
 Lesser cardamom seeds, freed
 from the husks, two drams;
 Water, one pint.

Boil the crystals of tartar in the wa-
 ter, until they are dissolved;
 then pour the water, whilst it
 continues boiling, upon the o-
 ther ingredients; and when
 cold, strain off the liquor for
 use.

In our former pharmacopœia,
 an alkaline salt was used in the in-
 fusion of sena, instead of the acid
 one here directed. The first con-
 tributed to promote the operation
 of the medicine, by superadding a
 degree of purgative virtue of its
 own, and by enabling the water to
 extract somewhat more from the
 capital ingredient, than it would be
 capable of doing by itself; whilst
 acids have rather a contrary effect.
 Experience however has sufficient-
 ly shewn (as the committee assure

us) "that this infusion, and the
 "following one with lemon juice,
 "do not fail in their intention:
 "and in a medicine, very nau-
 "seous to many, it is of principal
 "consequence to prepare it so, that
 "the lightest and least disgustful
 "parts may be extracted." Alca-
 line salts increase the offensiveness
 of the sena; whilst crystals of tartar
 considerably improve the colour of
 the infusion, and likewise render
 the taste to some persons less disa-
 greeable. Soluble tartar should seem
 a good ingredient in these kinds of
 compositions; as it not only im-
 proves the taste, but promotes the
 purgative virtue of this medicine;
 this addition is said also to render
 the infusion less apt to gripe, or oc-
 casion flatulencies.

INFUSUM SENÆ
 LIMONIATUM.

INFUSION of SENA with
 LEMON.

Lond.

Take of

Sena, an ounce and a half;
 Yellow rind of lemon peel, fresh,
 one ounce;
 Lemon juice, one ounce, by
 measure;
 Boiling water, one pint.

Macerate them together, and when
 cold, strain off the infusion.

This is a very pleasant and suf-
 ficiently efficacious purge: the com-
 mittee inform us, that it is the most
 agreeable form they have been able
 to contrive for the exhibition of
 sena, to such as are more than
 ordinarily offended with its fla-
 vour. The dose is from two ounces
 to four.

INFUSI SENÆ UNCLÆ
 QUATUOR.

A FOUR-OUNCE INFUSION
 of SENA.

Edinb.

Take

Take of

Sena, three drams;
Greater water figwort leaves, two
drams;
Vitriolated tartar,
Ginger, each ten grains;
Boiling water, four ounces.

Infuse them for four hours, and
then strain off the liquor for
use.

The greater water figwort has
been discovered to be the Brazilian
herb *iguetaia*, celebrated as a spe-
cific corrector of the flavour of sena:
that plant however has not been
found from experience to answer
this purpose so effectually, as it was
supposed to do, before it was com-
monly known. See the article SE-
NA, in the first part.

DECOCTUM
TAMARINDORUM
cum SENA.

DECOCTION of TAMARINDS
with SENA.

Edinb.

Take of

Tamarinds, six drams;
Crystals of tartar, two drams;
Sena, one dram;
Syrup of violets, one ounce;
Water, a pint and a half.

Boil the water with the tamarinds,
in an earthen vessel, so long that
there may be a pint of strained
liquor; in which, whilst hot,
infuse the sena for a night: af-
terwards strain off the liquor,
and add to it the syrup of vio-
lets.

This decoction may likewise be pre-
pared with two, three, or more
times the quantity of sena.

This is a sufficiently efficacious,
and not disagreeable purge. The
quantity here prescribed, is intend-
ed for a dose, which may be divid-
ed into three or four parts, to be
taken at short intervals, as the sto-
mach will bear it.

AQUA CALCIS SIMPLEX.
SIMPLE LIME WATER.

Land.

Take of

Quicklime, one pound;
Water, twelve pints.

Pour the water gradually upon the
lime, and when the ebullition is
over, let the whole stand to
settle; then filter the liquor
through paper.

AQUA CALCIS seu
BENEDICTA.
LIME WATER.

Edinb.

Take of

Quicklime, one pound;
Warm water, one gallon.

Stir them well together, and when
the lime has subsided, pour off
the clear liquor, which is to be
kept in close vessels.

This water may likewise be made
from calcined oystershells.

The water should be poured
slowly upon the lime, otherwise a
kind of muddy substance forms up-
on the outside, which defends it
from the action of the menstruum.
This liquor should be set in a cool
place, and not kept too long; for
on long standing, great part of what
the water had taken up from the
lime will be separated in form of a
fine white cream.

The change produced by this
process is very remarkable: not-
withstanding the extreme acrimony
of the quicklime itself, neither the
part which the water extracts, nor
that which is left behind, nor the
vapour which exhales, have any
considerable acrimony: the remain-
ing lime is almost insipid; the solu-
tion has only a rough drying taste;
the vapour, being caught, proved
almost merely aqueous, very slight-
ly alkaline. Though quicklime,
exposed to the strongest fire that
our furnaces are capable of giving,
suffe.

suffers no considerable loss of weight, and if fully calcined at first undergoes no diminution at all; yet the part which water dissolves, when thus separated from the rest, totally exhales by a heat not very strong. Some have reported, that water will thus dissolve and volatilise about one half of the lime, but there is not near so much taken up in the common process for making lime-water; nor have I found above one third of it dissolved on boiling it repeatedly in fresh parcels of water.

Lime water has been found of great service in scrophulous and scorbutic complaints, some kinds of alvine fluxes, female weaknesses, and other disorders, proceeding from a laxity and debility of the solids; particularly in corpulent and phlegmatic habits. It is given internally, in the dose of a quarter of a pint, three or four times a day; and likewise used externally for washing foul ulcers. See CALX VIVA, in the first part, page 102.

AQUA BENEDICTA
COMPOSITA.
COMPOUND LIME WATER.

Edinb.

Take of

Sassafras, root and bark, shaved, two ounces;

Nutmegs, three drams;

Liquorice, sliced, or well bruised, one ounce;

Lime water, fresh made, four pints:

Balsamic syrup, two ounces.

Digest the lime water with the roots and nutmegs for two days, in a close vessel; then strain the liquor, and add to it the syrup.

This composition is taken from Bates's pharmacopœia; but the raisins, there ordered, are here omitted, as they never fail to ferment and spoil the medicine: the

balsamic syrup, is not liable to this inconvenience.

AQUA CALCIS MINUS
COMPOSITA.
LIME WATER LESS
COMPOUNDED.

Lond.

Take of

Liquorice, one ounce;

Sassafras bark, half an ounce;

Simple lime water, six pints.

Macerate without heat for two days, and then strain off the liquor.

AQUA CALCIS MAGIS
COMPOSITA.
LIME WATER MORE
COMPOUNDED.

Lond.

Take of

Guaiacum wood, shaved, half a pound;

Liquorice, one ounce;

Sassafras bark, half an ounce;

Coriander seeds, three drams;

Simple lime water, six pints.

Macerate without heat for two days, and then strain off the liquor.

This last water has been used for some time in our hospitals, under the title of AQUA LIBERANS. The guaiacum does not communicate so much of its virtue as might be wished: some have therefore proposed boiling it in the lime water before the other ingredients are added; but though this treatment more perfectly extracts the virtues of the wood, it greatly injures those of the lime water.

In all these compositions, the additional articles take off the ill flavour of the lime water, render it more grateful both to the palate and stomach, and at the same time considerably promote its medicinal efficacy; especially when intended against cutaneous disorders, and

foul-

foulness of the blood and juices. They may be taken in the same quantities as the simple lime water, and continued for some time; the patient keeping moderately warm during their use.

TINCTURA ROSARUM.
TINCTURE OF ROSES.

Take of

Red rose buds, freed from the white heels, half an ounce;
Strong spirit (called oil) of vitriol, one scruple;
Boiling water two pints and a half;
Double refined sugar, one ounce and a half.

First mingle the spirit of vitriol with the water, in a glass, or glazed earthen vessel, and in this mixture macerate the roses; when the liquor is grown cold, strain it, and add the sugar.

Edinb.

Take of

Red roses, cleared from the heels, one ounce;
Spirit of vitriol, one dram;
Boiling water, four pints;
White sugar, four ounces.

Mix the acid spirit with the water, and infuse the roses therein for four hours; then filter the tincture, and add to it the sugar.

Some have directed the oil of vitriol to be dropt upon the roses before the water is put to them: but this method is certainly faulty, for such of the roses as this caustic liquor falls upon undiluted, will be burnt up by it, and have their texture destroyed. Others have made an infusion of the roses in water first, and then added the acid, from an apprehension that if this acid is added to the water, it would weaken its power as a menstruum; but, as the committee observe, whatever the acid spirit will hinder the water

from extracting, it must precipitate, if added afterwards; though in this preparation, the oil of vitriol bears so small a proportion to the water, that its effect, in this respect, will be very little. The infusion should be made in a glass, or stone-ware vessel, rather than a glazed earthen one, for the acid will be apt to corrode the glazing of the latter.

This tincture is of an elegant red colour, and makes a very grateful julep in all cases that require mild coolers and subastringents: it is well suited for drinking after bowles, or electaries of the bark; and likewise makes a good gargle.

TINCTURA MENTHÆ.
TINCTURE OF MINT.

Edinb.

Take of

Simple spearmint water, one pint;
Spearmint leaves dried, one ounce.

Let them steep together in a close vessel, set in a warm place, for four hours, and then strain the tincture.

This tincture is very rich in the virtues of the mint, and proves much superior as a medicine to the cohobated water, which some have strongly recommended.

TINCTURA RHABARBARI.
TINCTURE of RHUBARB.

Edinb.

Take of

Rhubarb, cut and bruised, one ounce;
Vitriolated tartar, half a dram;
Cochineal, one scruple;
Small cinnamon water, one pint.

Digest them for a night in a warm place, and then strain out the tincture for use.

CHAPTER XIV.

A C E T A.

V I N E G A R S.

VINEGAR is rarely applied as a menstruum for medicinal subjects. It extracts the virtues of several in tolerable perfection; but at the same time, its acidity makes a notable alteration in them, or superadds a virtue of a different kind. Some drugs however, vinegar, for particular purposes, excellently assists, or coincides with, as squills, garlic, ammoniacum, and others: and in many cases, where this acid is itself principally depended on, it may be advantageously impregnated with the flavour of certain vegetables; most of the odoriferous flowers impart to it their fragrance, together with a fine purplish, or red colour: violets, for instance, if fresh parcels of them are infused in vinegar in the cold for a little time, communicate an exceeding pleasant flavour; though they do not, as Neuman and his commentator affirm, tinge it of a blue colour.

ACETUM ROSATUM.

VINEGAR of ROSES.

Edinb.

Take of

Red roses, clipped from the white heels, and dried, one pound;

Strong vinegar, one gallon.
Expose them to the sun in a close

vessel, for forty days, and then strain off the liquor.

This is scarce otherwise made use of than for embrocating the head and temples, in some kinds of head-achs, &c. in which it has now and then done good service.

ACETUM RUTACEUM.

VINEGAR of RUE.

Edinb.

This is made [from the tops of rue] after the same manner as the foregoing.

It stands recommended as an antipefential; but is little regarded in the present practice, and not often kept in the shops.

ACETUM SAMBUCINUM.

VINEGAR of ELDER.

Edinb.

This is made after the same manner, [from the flowers of elder.]

Some have had a great opinion of this vinegar in contagious diseases, both as a preservative and cure: the medicine is, no doubt, of consequence as vinegar, though not as a preparation of elder.

ACETUM SCILLITICUM.

VINEGAR of SQUILLS.

Lond.

Take of

Dried squills, one pound;

Vinegar, six pints.

Macc-

Macerate the squills in the vinegar with a gentle heat; then press out the liquor, and set it by till the feces have subsided; the vinegar being afterwards poured off, add to it about one twelfth its quantity of proof spirit, that it may keep the longer from growing motherly.

It should seem most convenient to add the spirit before the vinegar is decanted; for by this means, the purification is accelerated and rendered more perfect; and the liquor prevented from growing foul a second time, which it is apt to do upon the affusion of the spirit, however carefully it may have been depurated before.

Edinb.

Take of

Squills, cut into thin slices, one pound;

Strong vinegar, six pints;

Expose them to the sun after the manner directed for making vinegar of roses; and afterwards press out and strain the liquor.

As the root in this last prescription is intended to be used fresh, the vinegar proves weaker of the squills than the first: a pound of the fresh squill is not equivalent to three ounces when dry. Vinegar has been supposed by some to be a corrector of squills, that is, to diminish their virtue: but this does not appear from experience, the acidity of the liquor only rendering the pungent bitterness of the root somewhat less perceivable.

Vinegar of squills is a medicine of great antiquity; we find in a treatise attributed to Galen, an account of its preparation, and of many particular virtues then ascribed to it. It is a very powerful stimulant, aperient, and attenuater of tenacious juices: and hence is

frequently used, with good success, in disorders of the breast occasioned by a load of thick viscid phlegm, for promoting urine in hydropic cases, &c. See the section of acrids, page 60. The dose of this medicine is from a dram to half an ounce: where crudities abound in the first passages, it may be given at first in a larger dose, to evacuate them by vomit. It is most conveniently exhibited along with cinnamon or other agreeable aromatic waters, which prevent the nausea it would otherwise, even in small doses, be apt to occasion.

ACETUM THERIACALE.
TREACLE VINEGAR.

Edinb.

Take of

Venice or Edinburgh treacle, one pound;

Strong vinegar, four pints.

Digest them together in a very gentle heat for three days, and then strain out the vinegar for use.

This medicine has been greatly celebrated in acute and contagious diseases, as a sudorific and alexipharmac. Some have chosen to employ the vinegar as a vehicle, rather than as a menstruum, for the theriaca; in either case, it is indisputably, for sundry purposes, an useful addition. To half an ounce by measure of the composition here prescribed, there goes somewhat more than half a grain of opium; though it does not appear, that the medicine has all the effect which might be expected from that article.

ACETUM LITHARGYRITES.
VINEGAR of LITHARGE.

Edinb.

D d

Take

Take of
Litharge of gold, four ounces;
Strong vinegar, one pint.
Digest in a sand heat for four
days, frequently shaking them:
then filter the liquor for use.
This liquor may be looked up-
on as a solution of *saccharum sa-*

turni, of which already; see page
324. It is only used externally
as a cosmetic, against cutaneous
eruptions, redness, inflammation,
&c. But even here, it is not void
of danger: there are examples of
its continued use having occasioned
fundry ill consequences.



CHAP.

CHAPTER XV.

V I N A.

W I N E S.

THE original intention of medicated wines was, for exhibiting medicines, which were to be continued for a length of time, in the most familiar and agreeable form; by this means, a course of remedies was complied with, notwithstanding the repugnance and aversion which the sick often manifest to those directly furnished from the shops; and hence the inferior sort of people had their medicated ales. Nevertheless, as vinous liquors excellently extract the virtues of several simples, and are not ill fitted for keeping, they have been employed as officinal menstrua also; and substances of the greatest efficacy are trusted in this form.

VINUM ALOETICUM
ALCALINUM.
ALCALINE ALOETIC WINE.

Lond.

Take of

Any fixt alkaline salt, eight ounces;
Socotorine aloes,
Saffron,
Myrrh, each one ounce;
Sal ammoniac purified, six drams;
Mountain wine, two pints.

Macerate without heat for a week or longer; then filter the wine through paper.

This is the ELIXIR PROPRIETATIS HELMONTII, with

some little variations, which affect the compounder rather than the composition. It is observable, that though sal ammoniac is used as an ingredient, yet the preparation when finished does not contain any; the same change happening to that salt here, as in the distillation of the *spiritus salis ammoniaci*.

Helmont's elixir, in our preceding pharmacopœia is thus directed: Take of

Red tartar,
Nitre, each twelve ounces;
White wine, two pints;
Aloes,
Saffron, each an ounce and a half.

Let the nitre and tartar be reduced into powder, and the mixture thrown by degrees into an hot crucible: when sufficiently calcined, pour the matter into a glass mortar, and add the wine, so as to make a ley thereof; with which ley, a tincture is to be drawn from the aloes and saffron.

Take also of

Sal ammoniac, eight ounces;
Spring-water, twenty ounces;
White wine, one pint;
Myrrh, an ounce and a half.

Dissolve the sal ammoniac in the water, strain the solution, and evaporate it to dryness. One ounce of this dry salt is to be

D d 2 dif

dissolved in the wine; and with this solution, draw a tincture from the myrrh.

Mix both tinctures together, in a close vessel, so as to make them into an elixir.

The preparation made after this troublesome method is not different from the foregoing. The nitre and tartar, when calcined together, form an alkaline salt, similar to those which the shops are supplied with at a cheaper rate.

Helmont and others have entertained a very high opinion of this medicine, and looked upon it as "a vivifying and preserving balsam, capable of continuing health and prolonging life to the utmost possible limits." The medicine is doubtless a very efficacious and useful one for many purposes: it may be so managed as to attenuate viscid juices and open obstructions in the remoter parts, and promote evacuation by almost all the emunctories. In doses of one, two, or three drams, it increases the urinary secretion; and if the patient is kept moderately warm, generally proves diaphoretic or sudorific; in larger doses, it gently loosens the belly.

VINUM AMARUM.

BITTER WINE.

Lond.

Take of

Gentian root,

Yellow rind of lemon peel, fresh,
each one ounce;

Long pepper, two drams;

Mountain wine, two pints.

Macerate without heat, and strain out the wine for use.

This is a very elegant bitter, considerably warmer than the watery infusion. Gentian and lemon peel, as we have already seen, make a bitter of a very grateful flavour: "the spice here added

"was selected after the trial of
"many other materials."

VINUM ANTIMONIALE.

ANTIMONIAL WINE.

Lond.

Take of

Crocus of antimony, washed,
one ounce;

Mountain wine, a pint and a
half.

Digest without heat, and filter the wine through paper.

VINUM EMETICUM.

EMETIC WINE.

Edinb.

Take of

Crocus metallorum, one ounce;

Mountain wine, one pint.

Stir them well together; then let the mixture stand till it has perfectly settled, and carefully pour off the wine.

However carefully the settling and decantation are performed, the filtration of the wine through paper appears to be necessary, lest some of the finer parts of the crocus should chance to remain suspended in substance. It is not here as in most other wines and tinctures, where the matter left undissolved by the menstruum is of little consequence: the antimonial crocus, after the action of the wine, continues as virulent as ever, and capable of impregnating fresh parcels of the liquor as strongly as the first; and this, in appearance, inexhaustibly; yet after thirty repeated infusions, it has been found scarce sensibly diminished in weight.

The antimonial wine possesses the whole virtues of that mineral, and may be so dosed and managed, as to perform all that can be effected by any antimonial preparation; with this advantage, that as the active part of the antimony is here already dissolved and rendered miscible

miscible with the animal fluids, its operation is more constant and certain. Given from ten to fifty or sixty drops, it acts as an alterative and diaphoretic; in larger doses, as a diuretic and cathartic; whilst two, three, or four drams prove violently emetic. It has been chiefly used in this last intention, in some maniacal and apoplectic cases; and hence gained the name of emetic wine.

VINUM CHALYBEATUM.

STEEL WINE.

Lond.

Take of

Iron filings, four ounces;

Cinnamon,

Mace, each half an ounce;

Rhenish wine, four pints.

Macerate without heat for a month, frequently shaking the vessel, then strain off the wine for use.

Edinb.

Take of

Iron filings, three ounces;

Cochineal, half a dram;

Rhenish wine, two pints.

Digest in a sand heat for ten days, and then pass the wine through a filter.

Both these wines are sufficiently elegant ones: Rhenish is an excellent menstruum for steel, and dissolves a considerable quantity of it: the cochineal, in the second, imparts a fine colour; and the spices, in the first, give the liquor an agreeable flavour, make it set easier on the stomach, and likewise promote its medicinal efficacy. Some have objected to the use of heat; which by impregnating the menstruum more strongly with the metal, renders it more unpleasant to the taste: but where this is complained of, the remedy is easy, diluting it with more wine.

Steel wine is a very useful preparation of this metal, and fre-

quently exhibited in chlorotic and other indispositions where chalybeates are proper. Boerhaave recommends it as one of the noblest medicines he was acquainted with, for promoting that power in the body by which blood is made, when weakened by a bare debility of the over-relaxed solids, and an indolent, cold, aqueous indisposition of the juices: for in this case, says he, no virtue of any vegetable or animal substance, no diet, or regimen, can effect that, which is effected by iron; but it proves hurtful, where the vital powers are already too strong, whether this proceeds from the fluids or the solids. The dose is from a dram to half an ounce; which may be repeated two or three times a day.

Some direct solutions of iron made in wine or other vegetable acids, to be evaporated to the consistence of an extract, under the title of *EXTRACTUM MARTIS*. These preparations have no advantage, in point of virtue, above the common chalybeates; though in some forms, that of pills in particular, they may be rather more commodiously exhibited, than most of the officinal chalybeates of equal efficacy. They may be made into pills by themselves, and are tenacious enough to reduce other substances into that form.

VINUM CROCEUM.

SAFFRON WINE.

Lond.

Take of

Saffron, one ounce;

Canary, one pint.

Macerate without heat, and strain off the wine.

Canary has been objected to by some, as an improper menstruum for medicinal simples, since it contains a large quantity of unctuous matter, which impedes its dissolving

D d 3

power;

power; a pint of this sort of wine left, upon evaporation, two ounces of a mellaginous substance, not unlike honey boiled hard. It is nevertheless, for saffron, a very well adapted menstruum, as not only sufficiently loading itself with its virtues, but likewise coinciding in the general intention of the medicine, that of a cordial. The preparation made with canary is also better fitted for keeping than when wines that have any tendency to acidity are employed; for tinctures of saffron drawn with these last, soon lose their fine colour; whilst those made with the first retain it for a much longer time. The dose of this tincture is from one dram to three or more.

VINUM IPECACOANHÆ.
WINE of IPECACOANHA.
Lond.

Take of
Ipecacoanha, two ounces;
Yellow rind of Seville orange
peel, dried, half an ounce;
Canary, two pints.
Macerate without heat, and strain
out the wine.

TINCTURA IPECACUANHÆ.
TINCTURE of IPECACUANHA.
Edinb.

Take of
Ipecacuanha, in powder, one
ounce;
Cochineal, one scruple;
Mountain wine, one pint.
After two days digestion, let the
tincture be filtered for use.
Both these wines are very mild
and safe emetics, and equally ser-
viceable, in dysenteries also, with
the ipecacoanha in substance; this
root yielding nearly all its virtues
both to the mountain and canary
wines here ordered, as it does a
good share of them even to aque-
ous liquors. The orange peel in

the first of these prescriptions, gives
the liquor an agreeable flavour;
and the cochineal, in the second
imparts a fine red colour, but for
this reason has been by some ob-
jected to, not a few having been
alarmed at the colour of what
they threw up, as if it proceeded
from blood. The dose of these tin-
ctures is half an ounce, more or less
according to the age and strength
of the patient.

VINUM VIPERINUM.
VIPER WINE.
Lond.

Take of
Dry vipers, two ounces;
Mountain, three pints.
Macerate with a gentle heat for a
week, and then strain off the
wine.

It has been disputed whether live
or dry vipers are preferable for
making this medicine: such as are
moderately and newly dried, are
perhaps the most eligible, since by
exiccation they seem to lose only
their phlegmatic or aqueous parts.
Whether they communicate to the
wine, either when used fresh or
dry, so much virtue as they are
supposed to do, is greatly to be
doubted. Some compositions un-
der this name have been highly
celebrated, as restoratives, in debi-
lities and decays of constitution;
but what virtues of this kind they
possessed, were supplied chiefly from
other ingredients.

VINUM MILLEPEDATUM.
WINE of MILLEPEDES.
Edinb.

Take of
Live millepedes, bruised, two
ounces;
Rhenish wine, one pint.
Infuse them together for a night,
and afterwards press the liquor
through a strainer.

This

This wine has been commended as an admirable cleanser of all the viscera, yielding to nothing in the jaundice, and obstructions of the kidneys or urinary passages, of excellent service in almost all chronic distempers, even in scrophulous and strumous swellings, and in defluxions of rheum upon the eyes. But those who expected these extraordinary virtues from it, have often been deceived; and at present, there are few who have any great dependence on it. It is directed to be given from half an ounce to two ounces.

TINCTURA CEPHALICA.
CEPHALIC TINCTURE.

Edinb.

Take of

Peony roots, two ounces;
Cafumunar,
White dittany roots, each six
drams;
Wild valerian root,
Mistletoe of the oak, each one
ounce;
Peacock's dung,
Rosemary flowers, each half an
ounce;
French white wine, six pints.

Digest them together for four days,
and then filter the tincture.

This composition is very singular with regard to the choice of its ingredients: the roots of cafumunar and wild valerian, and the rosemary flowers, are indisputably well chosen; these coincide in one general intention; and seem to improve and heighten the smell, taste, and virtue of each other; but the peony roots, white dittany, and mistletoe of the oak, are mere expletives, and the other filthy article is too ridiculous an one to be admitted in medicinal compositions.

Here it may be proper to observe, that though some of the distilled waters, formerly spoken of,

receive many supernumerary ingredients, without any considerable injury to the produce; yet in medicines prepared by infusion, it is far otherwise. For there, ingredients, which give nothing over do little harm: but as all those commonly employed in infusions communicate something to the menstruum, so, if superfluous ones are admitted, they load the liquor with an useless matter, and occupy in it the place that ought to be possessed by the more efficacious.

TINCTURA CEPHALICA
PURGANS.

PURGING CEPHALIC
TINCTURE.

Edinb.

This is made by adding to the foregoing, of
Sena, two ounces;

Black hellebore roots, one ounce;
French white wine, two pints.

The title of this medicine expresses the purposes it is designed for. It is but weakly purgative.

TINCTURA HELLEBORI
NIGRI.

TINCTURE of BLACK
HELLEBORE.

Edinb.

Take of

Black hellebore roots, four
ounces;

Cochineal, half a dram;
Mountain wine, two pints.

Digest with a very gentle heat for four days, and then filter the tincture for use.

This tincture is nearly similar to the *tinctura melampodii*, drawn with proof spirit, of which hereafter.

TINCTURA RHABARBARI
VINOSA.

VINOUS TINCTURE of
RHUBARB.

Lond.

D d 4

Take

Take of
 Rhubarb, two ounces;
 Lesser cardamom seeds, freed
 from the husks, half an ounce;
 Saffron, two drams;
 Mountain wine, two pints.
 Macerate without heat, and then
 strain off the tincture.

This is a warm, cordial, laxative
 medicine. It is used chiefly in
 weakness of the stomach and bow-
 els, and some kinds of loosenesses;
 for evacuating the offending matter,
 and strengthening the tone of the
 viscera. It may be given from half
 a spoonful to three or four spoon-
 fuls or more, according to the
 strength of the patient, and the pur-
 poses it is intended to answer.

TINCTURA SACRA.

Lond.

Take of
 Socotorine aloes, eight ounces;
 Canella alba, two ounces;
 Mountain wine, ten pints.

Reduce the aloes and canella sepa-
 rately into powder, then mix,
 and pour on them the wine;
 afterwards macerate without heat,
 for a week or longer, occasion-
 ally shaking the vessel; lastly,
 strain off the wine.

It will be convenient to mix with
 the powders some white sand,
 well washed from dirt, to pre-
 vent the aloes from concreting,
 which it is apt to do upon being
 moistened.

Edinb.

Take of
 Socotorine aloes in powder, one
 ounce;

Lesser cardamom seeds,
 Virginian snakeroot, each one
 dram;
 Cochineal, one scruple;
 Mountain wine, a pint and a
 half.

Digest in a very gentle heat for

two days, and then strain off the
 tincture.

This medicine has long been in
 great esteem, not only as a cathar-
 tic, but likewise as a stimulus; the
 wine dissolving all that part of the
 aloes in which these qualities re-
 side, a portion only of the less
 active resinous matter being left.
 The aromatic ingredients are add-
 ed, to warm the medicine, and
 somewhat alleviate the ill flavour
 of the aloes: canella alba, or cloves,
 are said, among numerous materi-
 als that have been made trial of,
 to answer this end the most suc-
 cessfully. The snakeroot in the
 second of the above prescriptions,
 seems designed for promoting the
 stimulating virtue of the aloes, and
 thus extending its action to farther
 purposes than it is by itself capable
 of. Probably in the same inten-
 tion, asarum was made an ingre-
 dient in our former pharmaco-
 pœias; in the edition preceding
 the present, the tincture is as fol-
 lows:

Take of

Aloes, eight ounces;
 Asarum,
 Cinnamon,
 Zedoary,
 Cardamom seeds,
 Saffron, each four drams;
 Cochineal, a scruple;
 Mountain, ten pints.

Pour the wine on the other ingre-
 dients reduced into powder, di-
 gest them together, and after-
 wards strain off the tincture for
 use.

The *tinctura sacra* appears from
 long experience, to be a medicine
 of excellent service in languid,
 phlegmatic habits, not only for
 cleansing the primæ viæ, but like-
 wise for attenuating and dissolving
 viscid juices in the remoter parts,
 stimulating the solids, warming the
 habit,

habit, promoting or exciting the uterine purgations, and the hæmorrhoidal flux. The dose, as a purgative, is from one to four ounces, or more: it may be introduced into the habit, so as to be productive of excellent effects, as an alterant, by giving it in small doses, at proper intervals; thus managed, it does not for a considerable time operate remarkably by stool; but at length proves purgative, and occasions a lax habit of much longer continuance, than that produced by any other cathartic.

TINCTURA SERPENTARIÆ
COMPOSITA.
COMPOUND TINCTURE of
SNAKEROOT.

Edinb.

Take of

Virginian snakeroot, two ounces;
Theriaca, one ounce;
Cochineal, one dram;
Mountain wine, two pints.

Digest them in a gentle heat for four days, and then strain off the tincture.

This tincture is a powerful alexipharmac: and in this intention has not unfrequently been relied on, in malignant fevers, and other cases, where a sweat or diaphoresis were to be promoted. Three ounces of it, by measure, contain about half a grain of opium.

TINCTURA AD
STOMACHICOS.
STOMACHIC TINCTURE.

Edinb.

Take of

Calamus aromaticus,
Galangal,
Gentian root,
Zedoary,
Orange peel,
Peruvian bark, each two ounces;
Wormwood tops,

Lesser centaury,
Chamemel flowers,
Carduus benedictus seeds, each
one ounce;
Iron filings (to be tied up in a
bag) six ounces;
French white wine, two gallons.
Digest for the space of four days,
and then filter the tincture.

This tincture may likewise be made without the iron.

This medicine is a very efficacious one for the purposes expressed in its title; but is not very agreeable to the palate. The omission of the unnecessary articles would render it much more elegant and grateful; viz. calamus aromaticus, galangal, zedoary, centaury, the wormwood tops, chamemel flowers, and carduus seeds. A tincture, drawn from the remaining ingredients, proves a medicine of great service in weakness of the stomach and chylopoietic organs, and in a lax, flaccid state of the viscera in general.

TINCTURA THEBAICA.
THEBAIC TINCTURE.

Lond.

Take of

Strained opium, two ounces;
Cinnamon,
Cloves, each one dram;
Mountain wine, one pint.

Macerate without heat for a week, and then filter the tincture thro' paper.

This is the LIQUID LAUDANUM of SYDENHAM, with the exchange of canary wine for mountain, and the omission of an ounce of saffron. The aromatics in the form above are in so small quantity, that the prescriber can scarce expect any considerable effect from them, the proportion of each that goes to a grain of opium, amounting to no more than the sixteenth part of a grain: even these minute propor-

proportions, however, are in good measure sufficient to take off the ill odour of the opium, which seems to be all that is intended by them.

TINCTURA OPII, seu
LAUDANUM LIQUIDUM.
TINCTURE of OPIUM, or
LIQUID LAUDANUM.

Edinb.

Take of

Crude opium, two ounces ;
English saffron, one ounce ;
Canary wine,
French brandy, each ten ounces.
Digest them together in a gentle heat of sand, and afterwards strain off the tincture.

The addition of proof spirit in this prescription, prevents an inconvenience, which the tinctures of opium made either in vinous or spirituous liquors alone, are subject to; *viz.* throwing out, on keeping, a considerable part of the opium; which, in the spirituous tinctures, falls to the bottom, and in the vinous, forms a crust towards the surface, about the sides of the glass: the quantity which thus separates, if the tincture is long kept, amounts in either case, to about one fourth of the opium: so that the medicine, newly made, is perhaps one fourth stronger, than after it has been kept; a circumstance certainly of great consequence, though not taken notice of by any pharmaceutical writer we have consulted, except the commentator on the Edinburgh pharmacopœia.

With regard to the virtues of these preparations, they have none

distinct from those of simple opium; the quantity of additional ingredients in the largest dose that can be ventured on, being two inconsiderable to produce any sensible effect. The saffron has been looked upon as a corrector of opium, but the ill qualities it was supposed to correct, are merely imaginary. The principal advantages of exhibiting opium in this form are, that by being already dissolved, it exerts itself the sooner in the body; and that by some persons, liquids are more commodiously taken, than a bolus or pill. The common doses of these tinctures are from ten drops to forty, fifty, or more, according to the exigencies of the case. It were to be wished, that the dose could be more exactly ascertained, by weight or measure; as the drops may, according to different circumstances, vary in quantity, though in number the same; and as an error therein may, in some cases, be of mischievous consequence.

A liquid opiate, free from the inconveniencies here complained of, will be given at the end of chapter xvii.

NOTE.

To all the foregoing wines, after they have been strained, you may add about one twentieth their quantity of proof spirit, to preserve them from fermentation. They may be conveniently kept in the same kind of glass bottles that wines generally are for common uses, which should likewise be corked with the same care. [L.]

CHAPTER XVI.

TINCTURÆ SPIRITUOSÆ.

SPIRITUOUS TINCTURES.

RECTIFIED spirit of wine dissolves the volatile oils and resins of vegetables (in which their smell, and not unfrequently their taste, reside;) whilst water acts more immediately on the mucilaginous and saline matter. Proof spirit, which is a mixture of these, equally affects both. Thus a compound of gum and resin, as ammoniacum, which rectified spirit and water, singly, dissolve only in part, is totally taken up by proof spirit: the more phlegmatic the menstruum, the more gummy and saline matter it will dissolve; and the stronger, the more resin.

Hence, in whatever proportion the soluble parts of any vegetable are blended together; a spirit may be so adjusted thereto by art, as entirely to dissolve the whole, and consequently to extract all the virtues of the subject, without any of the useless or woody parts.

Rectified spirit may be tinged by vegetables of all colours except blue, the leaves of plants in general, which give out nothing of their natural colour to watery li-

quors, communicate to spirit the whole of their green tincture, which for the most part proves elegant, though not very durable.

Fixt alkaline salts deepen the colour of spirituous tinctures; and hence have been supposed to promote the dissolving power of the menstruum, tho' this does not appear from experience: in the trials that have been made to determine this affair, no more was found to be taken up in the deep coloured tinctures, than in the paler ones, and often not so much; if the alkali be added after the extraction of the tincture, it will heighten the colour as much as when mixed with the ingredients at first. Nor is the addition of these salts in making tinctures, useless only, but likewise prejudicial: as they, in general, injure the flavour of aromatics and superadd a quality, sometimes contrary to the intention of the medicine — Volatile alkaline salts, in many cases, promote the action of the spirit. Acids almost universally weaken it.

General rules for extracting tinctures; from the Edinburgh pharmacopœia.

I.
The vegetable substances ought to be moderately and newly dried, unless they are expressly ordered

otherwise. They should likewise be cut and bruised, before the menstruum is poured on them.

II. If

II.

If the digestion is performed in balneo, the whole success depends upon a proper management of the fire: it ought to be all along gentle, unless the hard texture of the subject should require it to be augmented; in which case the heat may be increased so as to make the menstruum boil a little, towards the end of the process.

III.

Very large circulatory vessels ought to be employed for this purpose, which should be heated before they are luted together.

A commodious circulatory may be composed of two long-necked matrasses or boltheades; the mouth of one of which is to be inserted into that of the other, and the juncture secured by a piece of wet bladder. The use of heating the vessels is, to expel a part of the air, which otherwise, rarefying in the process, would endanger bursting them, or blowing off the uppermost matras.

IV.

The vessel is to be frequently shaken during the digestion.

V.

All tinctures should be suffered to settle before they are committed either to the filter or strainer,

VI.

In the tinctures (and distilled spirits likewise) designed for internal use, no other spirit (drawn from malt, melasses, or other fermented matter) is to be used, than that expressly prescribed.

TINCTURA AMARA.
BITTER TINCTURE.

Lond.

Take of
Gentian root, two ounces;
Yellow rind of Seville orange peel, dried, one ounce;
Lesser cardamom seeds, freed

from the husks, half an ounce;

Proof spirit, two pints.

Digest without heat, and strain off the tincture.

This is a very elegant spirituous bitter. As the preparation is designed for keeping, lemon peel, an excellent ingredient in the watery bitter infusions, has, on account of the perishableness of its flavour, no place in this. The cardamom seeds are here a very commodious ingredient, as in this spirituous menstruum, they are free from the inconvenience which they are attended with in other liquor, of rendering them untransparent. The Edinburgh pharmacopœia has a composition similar in intention to this, under the title of

ELIXIR STOMACHICUM.
STOMACHIC ELIXIR.

Take of

Orange peel, fresh,

Gentian, each two ounces;

Cochineal, half a dram;

French brandy, two pints.

Let them steep for three days, and then filter the elixir.

Both these medicines are useful stomachic bitters: their virtues as such, may be seen under the head of bitters, in page 621.

TINCTURA AROMATICA.
AROMATIC TINCTURE.

Lond.

Take of

Cinnamon, six drams;

Lesser cardamom seeds, freed from the husks, three drams;

Long pepper,

Ginger, each two drams;

Proof spirit, two pints.

Digest without heat, and then strain off the tincture.

This is a very warm aromatic, too much so to be given without dilution. A tea spoonful or two may be taken in wine, or any other
con ve-

convenient vehicle, in languors, weakness of the stomach, flatulencies, and other like complaints. The stomachic tincture is similar in intention to this, but contrived less hot of the spices, that it may be taken by itself.

TINCTURA BALSAMICA.
BALSAMIC TINCTURE.

Edinb.

Take of

Balsam of Copaiba, one ounce;
of Peru, three drams;
of Tolu, two drams;
Benzoine, half a dram;
English saffron, one scruple;
Rectified spirit of wine, one pint.

Digest these ingredients together, in a sand heat, for four days; and then pass the tincture thro' a strainer.

This tincture is an excellent balsamic, both for internal and external purposes. It is usually exhibited, in doses of ten, twenty, or thirty drops, in the fluor albus, gleet, cachexies, some kinds of asthmas and nephritic complaints, for strengthening the tone of the viscera, and corroborating the nervous system in general. Some caution is requisite in the use of these resinous warm medicines: in cold, languid, phlegmatic habits, they have for the most part good effects; but in bilious and plethoric constitutions, where there is any tendency to inflammation, or immoderate heat, they are manifestly prejudicial, and raise or continue febrile symptoms.

TINCTURA BENZOINI.
TINCTURE of BENZOINE.

Take of

Benzoine, four ounces;
Rectified spirit of wine, one pint.
Digest them together in a sand heat for three or four days, and then decant off the tincture.

This tincture stands recommended in asthmas, and other disorders of the lungs, in doses of from twenty to sixty or seventy drops. It has, however, been principally made use of externally, as a cosmetic, for clearing and smoothing the skin: for these purposes, it is mixed with a large proportion of water, when it forms a white liquor called LAC VIRGINIS. If this be suffered to rest for some time, the benzoine precipitates, in form of a white magiltery, (of a very pleasant smell, and not disagreeable taste) which in the Brandenburgh pharmacopœia, is preferred to the flowers of benzoine, as being free from the empyreumatic flavour which these are generally attended with. The precipitation is directed to be made with rose water.

TINCTURA
CANTHARIDUM.
TINCTURE of CANTHARIDES.

Lond.

Take of

Cantharides, bruised, two drams;
Cochineal, half a dram;
Proof spirit, a pint and a half.

Digest them together, and afterwards filter the tincture through paper.

Edinb.

Take of

Cantharides, two drams;
Balsam of Copaiba, one ounce;
Gum guaiacum, half an ounce;
Camphor, two drams;
Distilled oil of juniper berries,
one dram;
Cochineal, half a dram;
Rectified spirit of wine, a pint
and an half.

Digest the cantharides in the spirit with a very gentle heat for two days; then strain off the liquor, and add to it the balsam, gum guaiacum, and cochineal. Digest again in a sand heat for four

or

or five days; and lastly, having strained off the tincture, add to it the camphor and distilled oil.

Both these tinctures owe their virtues to the cantharides. The cochineal is used in each only as a colouring ingredient: the additional articles in the second are supposed partly to correct the acrimony of the flies, and partly to promote their medicinal efficacy, by strengthening the vessels, &c. But their quantity is too little to do any service in a medicine limited to so small a dose; and yet they may so far thicken the menstruum, as to occasion a part of the cantharides to remain suspended in it in substance, especially if the tincture is passed only through a common strainer.

These tinctures are the only officinal preparations of cantharides, designed for internal use. They possess nearly the whole virtues of the fly itself; and require the same cautions in their exhibition. See the article CANTHARIDES in the foregoing part, page 105. The usual dose is, fifteen or twenty drops.

TINCTURA CARDAMOMI.
TINCTURE of CARDAMOMS.

Lond.

Take of Lesser cardamom seeds, husked, half a pound;

Proof spirit, two pints,
Digest without heat, and strain the tincture.

This tincture has been in use for a considerable time, though now first received into the dispensatory. It is a pleasant, warm cordial, and may be taken, along with any proper vehicle, from a dram to a spoonful or two.

TINCTURA CASTOREI.
TINCTURE of CASTOR.

Lond.

Take of Russia castor, powdered, two ounces;

Proof spirit, two pints.
Digest for ten days without heat, and strain off the tincture.

Edinb.

Take of Russia castor, an ounce and a half;

Rectified spirit of wine, one pint.
Digest them with a gentle heat for four days, and afterwards strain out the liquor.

An alkaline salt was formerly added in this last prescription, which is here judiciously rejected, as being at least an useless, if not prejudicial ingredient. It has been disputed, whether a weak or rectified spirit, and cold or warm digestion, are preferable for making this tincture. To determine this point, the following experiment has been brought. "Some fine Siberia castor having been infused in good French brandy, without heat, for twenty days, the tincture proved very weak: on the same individual castor (the magma or residuum of the former tincture) the same quantity of rectified spirit was poured, as before, of brandy; and after a few hours warm digestion, a tincture was extracted much stronger than the other." But this experiment is not satisfactory; the effects of the two menstrua, and of heat, having been respectively compared in very different circumstances. From the trials which we have made, it appears, that castor, macerated without heat, gives out its finer and most grateful parts, to either spirit, most perfectly to the rectified: that heat enables both menstrua to extract greatest part of its grosser and more nauseous matter; and that

that proof spirit extracts this last more readily than rectified.

The tincture of castor is recommended in most kinds of nervous complaints, and hysteric disorders: in the latter, it sometimes does service, though many have complained of its proving ineffectual. The dose is from twenty drops to forty, fifty, or more.

TINCTURA CINNAMOMI.

TINCTURE of CINNAMON.

Lond.

Take of

Cinnamon, an ounce and a half;

Proof spirit, a pint.

Digest without heat, and strain off the tincture.

This tincture possesses the astringent virtues of the cinnamon, as well as its aromatic, cordial ones; and in this respect it differs from the distilled waters of the spice.

TINCTURA CORTICIS

PERUVIANI SIMPLEX.

SIMPLE TINCTURE of
PERUVIAN BARK.

Lond.

Take of

Peruvian bark, four ounces;

Proof spirit, two pints.

Digest and strain.

A medicine of this kind has been for a long time pretty much in esteem, and usually kept in the shops, tho' now first received into the dispensatory. Some have employed highly rectified spirit of wine as a menstruum; which they have taken care fully to saturate, by digestion on a large quantity of the bark. Others have thought to assist the action of the spirit, by the addition of a little fixt alkaline salt; and many have given the preference to the vitriolic acid, which was supposed, by giving a greater consistence to the spirit, to enable it to sustain more than it

would be capable of doing by itself; at the same time that the acid improves the medicine, by increasing the roughness of the bark. Each of these preparations have their advantages: though for general use, that here directed is the most convenient of any, the proof spirit extracting nearly all the virtues of the bark. It may be given from a tea spoonful to half an ounce or an ounce, according to the different purposes it is intended to answer. See PERUVIANUS CORTEX, page 178.

TINCTURA CORTICIS
PERUVIANI VOLATILIS.

VOLATILE TINCTURE of
PERUVIAN BARK.

Lond.

Take of

Peruvian bark, four ounces;

Spirit of sal ammoniac, two pints.

Digest without heat, in a vessel close stop'd; and afterwards strain the tincture.

This tincture is but lightly impregnated with the virtues of the bark; and is so acrimonious that the largest dose, which can with safety be given of it, can contain only a very small quantity of the subject. The medicine nevertheless has its uses, and may be serviceable in some cases where the stronger are improper, as in difficulty of breathing, obstructions, and oppressions of the breast. Stronger tinctures of this kind may be obtained by means of dulcified spirit of sal ammoniac, or the spirit prepared with quicklime. All the three may be employed where a large quantity of bark is not required, as at the close of the cure of intermittents, in weakness of digestion, attended with a cold sensation at the stomach, and some fluxes, particularly those from the uterus, where the circulation is languid,

languid, the fibres relaxed, and where there is a periodical return of slight feverish complaints. In these cases, I have often experienced salutary effects from a tincture in dulcified spirit of sal ammoniac, given to the quantity of a tea spoonful five or six times a day, in any appropriated vehicle.

TINCTURA CORTICIS
PERUVIANI [composita].
[Compound] TINCTURE of
PERUVIAN BARK.

Edinb.

Take of

Peruvian bark, in powder, three ounces;

Virginian snakeroot,
Gentian, each two drams;
French brandy, two pints.

Let them steep together for four days, and afterwards filter the tincture.

The substances here joined to the bark, in many cases promote its efficacy in the cure of intermitents; and not unfrequently, are absolutely necessary. In some ill habits, particularly where the juices are sluggish and tenacious, the viscera and abdominal glands obstructed, the bark, by itself, proves unsuccessful, if not injurious; whilst given in conjunction with corroborant stomachics and deobstruents, it rarely fails of the due effect. Gentian and Virginian snakeroot, are among the best additions for this purpose; to which it is often necessary to join chalybeat medicines also.

TINCTURA CROCI.
TINCTURE of SAFFRON.

Edinb.

Take of

English saffron, one ounce;
French brandy, one pint.

After digesting them for three days,

let the tincture be strained out for use.

This tincture is similar in virtue to the saffron wine. A spirituous menstruum is here preferred to the wine, as a tincture drawn therewith, retains its elegant colour longer, and is not apt to deposite in keeping any part of what it had taken up from the saffron. The shops have been accustomed to employ treacle water as a menstruum for saffron, with a view to the promoting its efficacy in the intention of an alexipharmac; but the acid in that compound water soon destroys the colour of the tincture.

TINCTURA FÆTIDA.
FÆTID TINCTURE.

Lond.

Take of

Asa fœtida, four ounces;
Rectified spirit of wine, two pints.

Digest and strain.

This tincture, now first received into the pharmacopœia, has been in use for a considerable time: it possesses the virtues of the asa fœtida itself; and may be given from ten drops to fifty or sixty. It was first proposed to the college to be made with proof spirit: this dissolves more of the asa fœtida than a rectified one, but the tincture proves turbid; and therefore rectified spirit, which extracts a transparent one, is very justly preferred.

TINCTURA FULIGINIS.
TINCTURE of SOOT.

Lond.

Take of

Wood foot, two ounces;
Asa fœtida, one ounce;
Proof spirit, two pints.

Digest and strain.

Edinb.

Take of

Shining wood foot, one ounce;

Asa

Aſa foetida, half an ounce;

French brandy, a pint.

Digeſt for four days, and ſtrain.

The proof ſpirit is not liable to the ſame objection here as in the foregoing tincture; for when ſoot is added, whatever ſpirit be employed, the tincture will not prove transparent. Fuller, in his pharmacopœia domeſtica, has a medicine under the title of HYS-
TERIC TINCTURE, ſimilar to theſe, only with a little myrrh, which is no very material addition to aſa foetida and ſoot. Theſe medicines are found ſerviceable, not only in hys-
teric caſes, but likewiſe in epilepſies, and other nervous diſorders.

TINCTURA GUAIAICINA
VOLATILIS.

VOLATILE TINCTURE of
GUAIAICUM.

Lond.

Take of

Gum guaiacum, four ounces;

Volatile aromatic ſpirit, a pint
and a half.

Digeſt without heat, in a veſſel cloſe ſtopp'd; and afterwards let the tincture be paſſed through a ſtrainer.

This is a very elegant and efficacious tincture; the volatile ſpirit excellently diſſolving the gum, and at the ſame time promoting its medicinal virtue. In rheumatic caſes, a tea ſpoonful, taken two or three times a day in any convenient vehicle, has proved of ſingular ſervice.

TINCTURA JALAPII.

TINCTURE of JALAP.

Lond.

Take of

Jalap root, eight ounces;

Proof ſpirit, two pints.

After proper digeſtion, ſtrain off the tincture.

This tincture is an uſeful and mild purgative, the menſtrum, here employed, taking up ſo much of the gummy parts, as corrects the griping quality which the reſin is attended with. It may be taken by itſelf from a dram to half an ounce; or mixed in ſmaller quantities with cathartic infuſions, or the like.

TINCTURA JALAPPÆ.

TINCTURE of JALAP.

Edinb.

Take of

Jalap, in coarſe powder, three ounces;

Rectified ſpirit of wine, one pint.

Digeſt them in a gentle heat for eight days, and then ſtrain the tincture.

This is an almoſt purely reſinous tincture, and therefore never to be exhibited by itſelf. It is commonly given in mixtures of the tinctura ſacra, ſyrup of buckthorn, &c. which mixtures ſhould not be very liquid for fear of precipitation.

Some have preferred to the tinctures of jalap, a ſolution in ſpirit of wine of a known quantity of the reſin extracted from the root; and obſerve, that this ſolution is more certain in ſtrength than any tincture that can be drawn from the root directly. For, as the purgative virtue of jalap reſides in its reſin, and as all jalap appears from experiment, not to be equally reſinous, ſome ſorts yielding five, and others not three ounces of reſin from ſixteen; it follows, that although the root be always taken in the ſame proportion to the menſtrum, and the menſtrum always exactly of the ſame ſtrength, it may nevertheless, according to the degree of goodneſs of the jalap, be impregnated with different quantities of reſin, and conſequently prove different in degree of efficacy. Tho'

E e

this

this objection against the tincture does not reach so far as some seem to suppose, it certainly behoves the apothecary to be careful in the choice of the root. The inferior sorts may be employed for making the *resina jalapii*, which they yield in as great perfection, tho' not in so large quantity, as the best. Neuman thinks even the worm-eaten jalap as good, for that purpose, as any other.

TINCTURA JALAPPÆ
COMPOSITA.

COMPOUND TINCTURE of
JALAP.
Edinb.

Take of

Jalap, six drams;
Black hellebore roots, three
drams;
Juniper berries,
Guaiacum shavings, each half
an ounce;
French brandy, a pint and a
half.

Digest for three days, and afterwards strain the tincture.

This tincture requires to be taken in larger quantity than either of the foregoing, if intended to act fully as a cathartic. It may, in some cases, be employed to advantage, in small doses, as an alterant.

TINCTURA JAPONICA.
JAPONIC TINCTURE.

Lond.

Take of

Japan earth, three ounces;
Cinnamon, two ounces;
Proof spirit, two pints.

After proper digestion, let the tincture be passed through a strainer.

A tincture of this kind, with the addition of Peruvian bark, ambergris and musk to the ingredients above directed, has been for some time kept in the shops. The form

here received is preferable for general use; where any other ingredients are required, tinctures of them may be occasionally mixed with this in extemporaneous prescription. The cinnamon is a very useful addition to the Japan earth, not only as it warms the stomach, &c. but likewise as it improves the roughness and astringency of the other.

This tincture is of good service in all kinds of defluxions, catarrhs, loosenesses, uterine fluors, and other like disorders, where mild astringent medicines are indicated. Two or three tea spoonfuls may be taken every now and then, in red wine, or any other proper vehicle.

TINCTURA LACCÆ.
TINCTURE of GUM LAC.

Edinb.

Take of

Spirit of scurvygrass, a pint and
a half;
Gum-lac, an ounce;
Myrrh, half an ounce;

Oil of tartar per deliquium, so much as will be sufficient to make the powdered gums into a paste.

Let this paste be dried by a gentle fire; and then digested with the spirit, in a sand heat for four days: after which strain off the tincture for use.

This tincture is principally employed for strengthening the gums, and in bleedings and scorbutic ulcerations of them: it may be fitted for use in these intentions, by mixing it with honey of roses, or the like. Some recommend it internally against scorbutic complaints, and as a corroborant in gleans, female weaknesses, &c. Its warmth, pungency, and manifestly astringent bitterish taste, point out its virtues, in these cases, to be considerable; tho' common practice,

tice, among us, has not yet received it.

TINCTURA FLORUM
MARTIALIUM.

TINCTURE of the MARTIAL
FLOWERS.

Lond.

Take of the
Martial flowers, four ounces;
Proof spirit, one pint.

Digest and strain.

TINCTURA MARTIS.

TINCTURE of IRON.

Edinb.

Take of
Iron filings, three ounces;
Dulcified spirit of salt, two pounds.
Digest them together in a gentle
heat of sand, for three days, and
then filter the tincture.

TINCTURA MARTIS in
SPIRITU SALIS.

TINCTURE of IRON in
SPIRIT of SALT.

Lond.

Take of
Iron filings, half a pound;
Glauber's spirit of salt, three
pounds;
Rectified spirit of wine, three
pints.

Digest the iron filings in the spirit
of salt, without heat, as long as
the spirit acts upon the iron:
after the feces have subsided,
evaporate the liquor to one
pound, and add thereto the vi-
nous spirit.

All the tinctures of steel are no
other than real solutions of the me-
tal made in acids, and combined
with vinous spirits. The three
tinctures, here directed, differ from
one another only in strength, the
acid being the same in all: the
first is the weakest, and the last the
strongest. The Edinburgh phar-
macopœia retains only the second,
which is a very strong one; judg-
ing it needless to burthen the shops

with any more, as this may be
brought down to any degree of
weakness by dilution. Some have
recommended dulcified spirit of ni-
tre as a menstruum; but tho' this
readily dissolves the metal, it does
not keep it suspended.

All these tinctures are greatly
preferable to the calces or croci of
iron, as being not only more speedy,
but likewise more certain in their
operation: the latter, in many
cases, pass off through the intesti-
nal tube without effect; whilst the
tinctures scarce ever fail. A tea
spoonful or two may be taken two
or three times a day, in any proper
vehicle.

TINCTURA MELAMPODII.

TINCTURE of
MELAMPODIUM,

or black bellebore.

Lond.

Take of

Black hellebore roots, four
ounces;
Cochineal, two scruples;
Proof spirit, two pints.

Digest them together, and after-
wards filter the tincture through
paper.

This is perhaps the best prepa-
ration of hellebore when designed
for an alterative, the menstruum
here employed, extracting the
whole of its virtues. It has been
found, from experience, particu-
larly serviceable in uterine obstruc-
tions; in sanguine constitutions,
where chalybeates are hurtful, it
scarce ever fails of exciting the
menstrual evacuations, and remov-
ing the ill consequences of their
suppression. So great is the power
of this medicine that wherever,
from an ill conformation of the
parts, or other causes, the expect-
ed discharge does not succeed upon
the exhibition of it; the blood, as
Dr. Mead has observed, is so for-
cibly

cibly propelled, as to make its way through other passages. A tea spoonful of the tincture may be taken twice a day, in warm water, or any other convenient vehicle.

TINCTURA MYRRHÆ.
TINCTURE of MYRRH.

Lond.

Take of

Myrrh, three ounces;
Proof spirit, two pints.

After due digestion, strain off the tincture.

Edinb.

Take of

Myrrh, an ounce and a half;
Rectified spirit of wine, a pint;
Oil of tartar per deliquium, as much as is sufficient to make the powdered myrrh into a paste.

Exsiccate this mass with a gentle fire, pour on it the spirit, and digest them together in a sand heat for six days; then strain off the tincture for use.

The pharmaceutical writers in general have been of opinion, that no good tincture can be drawn from myrrh by spirit of wine alone, without the assistance of fixt alkaline salts. But it appears from proper experiments, that these salts only heighten the colour of the tincture, without enabling the menstruum to dissolve any more than it would by itself. Rectified spirit extracts, without any addition, all that part of the myrrh, in which its peculiar smell, and taste reside, viz. the resin; and proof spirit dissolves almost the whole of the drug except its impurities.

Tincture of myrrh is recommended internally for warming the habit, attenuating viscid juices, strengthening the solids, opening obstructions, particularly those of the uterine vessels, and resisting putrefaction. Boerhaave greatly

esteems it in all languid cases, proceeding from simple inactivity; in those female disorders which are occasioned by an aqueous, mucous, sluggish indisposition of the humours, and a relaxation of the vessels; in the fluor albus, and all diseases arising from a like cause. The dose is from fifteen drops to forty or more. The medicine may doubtless be given in these cases to advantage; though with us, it is more commonly used externally, for cleansing foul ulcers, and exfoliating carious bones.

TINCTURA MYRRHÆ et
ALOES.

TINCTURE of MYRRH and
ALOES.

Edinb.

Take of

Myrrh, in powder, two ounces;
Hepatic aloes, in powder, one ounce;
Rectified spirit of wine, two pints.

Digest the myrrh with the spirit in a sand heat for eight days; then add the aloes, and continue the digestion for two days longer; after which, let the tincture be strained off.

The alkaline lixivium, added in the foregoing tincture on a supposition of its opening the texture of the myrrh, is here very judiciously omitted, as being not only useless for that purpose, but likewise improper in surgical dressings, for which only this tincture is designed. The myrrh is prudently ordered to be first digested in the spirit by itself; for if the aloes was put in along with it, the menstruum would so load itself with the latter, as scarce at all to act on the myrrh.

TINCTURA RHABARBARI
SPIRITUOSA.

SPI.

SPIRITUOUS TINCTURE of
RHUBARB.

Lond.

Take of
Rhubarb, two ounces;
Lesser cardamom seeds, hulked,
half an ounce;
Saffron, two drams;
Proof spirit, two pints.
Digest without heat, and strain off
the tincture for use.

TINCTURA RHEI AMARA.

BITTER TINCTURE of
RHUBARB.

Edinb.

Take of
Rhubarb, one ounce;
Gentian root, a dram and a
half;
Virginian snakeroot, one dram;
Cochineal, one scruple;
French brandy, one pint.

Digest for two days, and then strain
the tincture.

This tincture may likewise be made
with mountain wine.

TINCTURA RHEI DULCIS.

SWEET TINCTURE of
RHUBARB.

Edinb.

Take of
Choice rhubarb,
Liquorice sliced, each two
ounces;
Raisins of the sun, stoned, one
ounce;
Canella alba,
Lesser cardamoms, each two
drams;
French brandy, two pints.

Digest for two days; and then,
having strained out the tincture,
add to it three ounces of white
sugar candy in powder, and di-
gest again until the sugar is dis-
solved.

These tinctures are designed ra-
ther as stomachics and corroborants,
than as purgatives: spirituos li-

quors excellently extract those parts
of the rhubarb in which the two
first qualities reside, and the addi-
tional ingredients considerably pro-
mote their efficacy. In weakness
of the stomach, indigestion, laxity
of the intestines, diarrhoeas, colicky
and other like complaints, these
medicines are frequently of good
service: the second is also, in many
cases, an useful addition to the Pe-
ruvian bark, in the cure of inter-
mittents, particularly in cachectic
habits, where the viscera are ob-
structed. In these intentions, a
spoonful or two may be taken for
a dose, and occasionally repeated.

TINCTURA SATURNINA.

SATURNINE TINCTURE.

Lond.

Take of
Sugar of lead,
Green vitriol, each two ounces;
Rectified spirit of wine, two pints.
Reduce the salts separately into a
powder; then add the spirit, and
digest them together without
heat: afterwards filter the tinc-
ture through paper.

TINCTURA
ANTIPHTHISICA.

ANTIPHTHISICAL TINCTURE.

Edinb.

Take of
Sugar of lead, an ounce and a
half;
Vitriol of iron, an ounce;
Rectified spirit of wine, a pint.
Let a tincture be extracted without
heat.

The reducing of the salts *sepa-
rately* into powder, and perform-
ing the digestion *without heat*,
are very necessary circumstances;
for if the ingredients are attempt-
ed to be pulverized together, they
will grow soft and almost liquid;
and if heat is made use of, scarce
any tincture will be obtained.

These tinctures are sometimes given from twenty to thirty drops, for restraining immoderate secretions, particularly the colligative sweats attending hectic fevers and phtisical disorders, whence the name *antiptisical* tincture. They are undoubtedly medicines of great efficacy in these cases, but too dangerous ones to be rashly ventured on. Some have supposed, that they do not contain any of the sugar of lead; but experiments, made for that purpose, have shewn that they do: and therefore, the London college has very judiciously changed the title of their tincture into one expressing its being a preparation of lead.

TINCTURA SALUTIFERA.
TINCTURE of HEALTH.

Edinb.

Take of
 Angelica root,
 Calamus aromaticus,
 Galangal,
 Gentian root,
 Zedoary,
 Bay berries,
 Lesser cardamoms,
 Cinnamon,
 Long pepper, each one dram;
 French brandy, two pints.

Let them steep together for three days, and then filter the tincture.

This composition has escaped, unaltered, through the several editions of the pharmacopœia: several of its ingredients however might very well be spared; such are the angelica, calamus aromaticus, galangal, zedoary, and bayberries. A tincture drawn from the remaining articles proves an agreeable, very warm, cordial, stomachic bitter. The medicine however is not a necessary one in a dispensatory containing the elegant *tincture amara* and *aromatica*, a mixture of which will abundantly supply its place.

TINCTURA SENÆ.

TINCTURE of SENÆ.

London.

Take of

Raisins, stoned, sixteen ounces;
 Sena, one pound;
 Caraway seeds, one ounce and a half;
 Lesser cardamoms, husked, half an ounce;
 Proof spirit, one gallon.

Digest without heat, and then strain the tincture.

ELIXIR SALUTIS.

ELIXIR of HEALTH.

Edinb.

Take of

Sena, two ounces;
 Choice rhubarb,
 Sweet fennel seeds,
 Juniper berries,
 Guaiacum shavings, each one ounce;
 French brandy, three pints.

Digest for the space of four days; then strain off the tincture, and add to it four ounces of powdered sugar candy.

Both these tinctures are useful carminatives and cathartics, especially to those who have accustomed themselves to the use of spirituous liquors; they oftentimes relieve flatulent and colicky complaints, where the common cordials have little effect. Several preparations of this kind have been offered to the public, under the name of Dasse's elixir: the two above are equal to any, and superior to most of them. The guaiacum, in the last of the above formulas, is a very useful ingredient, as it is found to have very good effects when joined with purgatives: two drams of sena, infused in half a pint of decoction of guaiacum, work as briskly as three drams infused in plain water, and with greater ease to the patient.

TINC.

TINCTURA SERPENTARIÆ.
TINCTURE of SNAKEROOT.
Lond.

Take of
Virginian snakeroot, three ounces;
Proof spirit, two pints.
Digest without heat, and strain off
the tincture.

This tincture was in our last pharmacopœia directed with the *tinctura salis tartari*, which being now expunged, it was proposed to the college to employ rectified spirit; but as the heat of this spirit prevents the medicine from being taken in so large a dose as it might otherwise be, a weaker spirit was made choice of. The tincture made in this menstruum, which extracts the whole virtues of the root, may be taken to half an ounce or more.

TINCTURA STOMACHICA.
STOMACHIC TINCTURE.
Lond.

Take of
Raisins, stoned, four ounces;
Cinnamon, half an ounce;
Caraway seeds,
Lesser cardamoms, husked,
Cochineal, each two drams;
Proof spirit, two pints.
Digest without heat, and strain off
the tincture.

This is a moderately warm stomachic tincture, much more pleasant than the USQUEBAUGH of our former pharmacopœias. It may be taken without any vehicle, in the quantity of half an ounce or an ounce.

TINCTURA STYPTICA.
STYPTIC TINCTURE.
Lond.

Take of
Green vitriol, calcined, one dram;
French brandy (such as has acquired a yellowish tinge from the cask) two pints.

Mix them together, that the spirit may grow black; then pass it through a strainer.

Some have supposed that no other spirit than French brandy would succeed in striking the black colour, for which this tincture is valued. But any spirit, that has gained an impregnation from the oak casks, which these liquors are generally kept in, or from other vegetable astringents, will equally exhibit this phenomenon; and French brandy will not do it, without such assistance. The title of this tincture expresses its medicinal intention. The celebrated STYPTIC OF HELVETIUS (which is said to be the same with that of EATON,) differs from it no otherwise, than in being more operose in composition. They are recommended both for internal use, and for restraining external hemorrhages: their virtues depend not so much on the iron, as on the menstruum.

TINCTURA SUCCINI.
TINCTURE of AMBER.
Edinb.

Take of
Yellow amber, two ounces;
Rectified spirit of wine, twenty ounces;
Oil of tartar per deliquium as much as is sufficient to reduce the powdered amber into a paste; which is to be gently exsiccated: then pour on it the spirit, digest in a sand heat for eight days, and afterwards filter the tincture.

This is a very elegant preparation of amber, of a grateful balsamic taste, and fragrant smell. Boerhaave, Hoffman, and others, strongly recommend it in disorders proceeding from a lax state of the solids and debility of the nervous system; in suppressions of the menstrual

strual discharges, the fluor albus, seminal gleets, rheumatic complaints, and some kinds of epilepsies: it is directed to be taken from ten to an hundred drops, in canary or other rich wine. The medicine is doubtless an efficacious one; though it would be much more so, if a part of the spirit was drawn off, so as to leave what it had extracted from the amber, concentrated into the consistence of a balsam: a tea spoonful of this may be taken three or four times a day, with sugar, or in any convenient vehicle. The spirit distilled off, which is impregnated with the amber smell, may be reserved for extracting a fresh tincture either from another parcel of amber, or from that remaining after the former extraction: by degrees, nearly the whole of the amber will dissolve; the last tincture, if reduced to the same thicknes, proves as good as the first. The alkaline liquor may be omitted; for it not only does not promote the dissolution of the amber, but likewise injures the medical virtue of the preparation. Scarce any of the substances that have been made trial of, give any considerable assistance to spirit of wine in dissolving this concrete, except the aromatic oil, obtained in the distillation of this spirit with vitriolic acid. See SPIRITUS VITRIOLI DULCIS.

TINCTURA SUDORIFICA.
SUDORIFIC TINCTURE.

Edinb.

Take of
Virginian snakeroot, five drams;
Cochineal, half an ounce;
Russia castor, one dram;
English saffron, two scruples;
Opium, one scruple.
Spirit of Mindercerus, one pint.

4

Digest them together in a gentle heat for three days, and then pass the tincture through a strainer.

This is a very efficacious medicine for the purpose expressed in its title; for although the virtues of cochineal and castor are disputable, those of the snakeroot, saffron, and opium, are of the most powerful-kind: the menstruum is such as will not only extract those parts of the ingredients in which their virtues consist, but at the same time greatly promotes the efficacy of the whole. Half an ounce of the tincture, by measure, contains five eighths of a grain of opium.

TINCTURA SULPHURIS.
TINCTURE of SULPHUR.

Take of

Rectified spirit of wine, one pint.
Hepar sulphuris (that is, a mixture of sulphur and fixt alkaline salt fused together) four ounces.

Grind the hepar into powder whilst hot from the fire, add to it the spirit, and digest in a moderate heat for twenty four hours; then pour off the tincture from the feces.

The digestion may be commodiously performed in a glass receiver: put the spirit first into the vessel and pour the hot powder upon it: then shake them together; and, to prevent the exhalation of any part of the spirit during the digestion, insert a glass tube into the mouth of the receiver.

This tincture is of a rich gold colour, a hot aromatic taste, and a particular, not ungrateful smell. Its virtues are those of a warm attenuating, aperient, and anti-acid medicine. Some have recommended it as a last resort in phthises and

and ulcerations of the lungs; but in these cases it promises little service, and has been sometimes found prejudicial. The dose is from ten to sixty drops: it is most commodiously taken in canary or other rich wines.

TINCTURA ANTIMONII.
TINCTURE of ANTIMONY.

Lond.

Take of
Any fixt alkaline salt, one pound;
Antimony, half a pound;
Rectified spirit of wine, two pints.

Reduce the antimony into powder, mix it with the salt, and melt them together, with a strong fire, for an hour. Then pour out the matter, pulverize it, add the spirit, and digest them for three or four days: after which, strain off the tincture for use.

Edinb.

Take of
Antimony,
Nitre, each two ounces;
Salt of tartar, four ounces;
Rectified spirit of wine, two pints.

Grind the antimony and nitre into a powder, which gradually inject upon the salt of tartar previously fused in a crucible by a strong fire. Continue the fusion for half an hour, then pour out the mixture into a hot and dry iron mortar. Powder the mass while warm, put it into a heated matras, and pour thereon the spirit. Digest them together, for eight days, in a gentle heat of sand; and then filter the tincture.

In these processes, the alkaline salt unites with the sulphur of the antimony, into a hepar; which communicates to the spirit a tincture similar to the foregoing. This an-

timonial tincture is supposed to contain likewise some of the reguline parts of the mineral, and said to have sometimes provoked a puke when taken on an empty stomach, even in a small dose. It stands recommended, in doses from ten to sixty drops or more, as a deobstruent, promoter of urine, and purifier of the blood.

TINCTURA ANTIMONII
DIAPHORETICI.
TINCTURE of DIAPHORETIC
ANTIMONY.

Take of
Diaphoretic antimony, sixteen ounces;
Nitre, four pounds;
Tartarized spirit of wine, three pints.

Let the antimony and nitre be finely powdered, mixed, injected by a spoonful at a time into a red hot crucible, and kept in a strong melting heat for half an hour. Then pour the matter into a warm iron mortar, powder it whilst hot, and immediately add the vinous spirit. Digest for three days, and filter the tincture for use.

This tincture is recommended for the same purposes as the foregoing, and in the same dose. It is very fragrant in smell, and agreeable to the taste.

TINCTURA SALIS
TARTARI.

TINCTURE of SALT of TARTAR.

Take of
Pure salt of tartar, six ounces.
Melt it in a crucible until it acquires a red colour; pulverize it whilst hot, and immediately pour upon it, in a strong long-necked matras, as much rectified spirit of wine as will stand three or four inches above it: digest for several

ral days, in a pretty strong sand heat, that a tincture may be obtained.

This preparation is taken from the preceding edition of our pharmacopœia. It has been usually expected to be of a red hue; but (as the committee observe) if neither the salt nor the spirit have any oily tincture, the spirit, though it acquires from the alkali a hot pungent taste, will scarce receive any degree of colour, unless by some spark of coal, which may accidentally fall into the crucible, while the salt is calcining. For this reason, this tincture has been usually prepared in a counterfeit manner, by adding some portion of antimony to the salt, whereby it resembled too much the tincture of antimony for both to be retained at the late revival.

TINCTURA TOLUTANA.
TINCTURE of BALSAM of TOLU.
Edinb.

Take of
Balsam of Tolu, an ounce and a half;

Rectified spirit of wine, a pint.
Digest in a sand heat, until the balsam is dissolved; and then strain the tincture.

This solution of balsam of Tolu possesses all the virtues of the balsam itself. It may be taken internally against rheumatic pains, seminal and other weaknesses, in the dose of a tea spoonful or two, in any convenient vehicle. Mixed with the plain syrup of sugar, it forms an elegant balsamic syrup.

TINCTURA VALERIANÆ
SIMPLEX.
SIMPLE TINCTURE of
VALERIAN.
Lond.

Take of
Wild valerian root, four ounces;

Proof spirit, two pints.
After due digestion, strain off the tincture.

The root ought to be reduced into fine powder, otherwise the spirit will not sufficiently extract its virtues. The tincture proves of a deep colour, and considerably strong of the valerian; though it has not been found to answer so well in the cure of epileptic disorders, as the root in substance exhibited in the form of powder or bolus. The dose of the tincture is, from half a spoonful to one or two spoonfuls.

TINCTURA VALERIANÆ
VOLATILIS.
VOLATILE TINCTURE of
VALERIAN.
Lond.

Take of
Wild valerian root, four ounces;
Volatile aromatic spirit, two pints.

Digest without heat, in a vessel closely stopp'd, and afterwards strain off the tincture.

The volatile spirit is here an excellent menstruum, and at the same time considerably promotes the virtues of the valerian, which in some cases wants an assistance of this kind. The dose may be a tea spoonful or two.

TINCTURA VERATRI.
TINCTURE of VERATRUM,
or white hellebore.
Lond.

Take of
White hellebore root, eight ounces;
Proof spirit, two pints.

Digest them together, and filter the tincture through paper.

This tincture is sometimes used for acuating cathartics, &c. and as an emetic in apoplectic and maniacal disorders. It may likewise be so managed, as to prove a powerful

erful alterative and deobstruent; in cases where milder remedies have little effect. But a great deal of caution is requisite in its use: the dose, at first, ought to be only a few drops; if considerable, it proves violently emetic or cathartic.

BALSAMUM GUAIA CINUM.

BALSAMUM OF GUALIACUM.

Lond.

Take of

- Gum guaiacum, one pound;
- Balsam of Peru, three drams;
- Rectified spirit of wine, two pints and a half;

Digest till the gum is dissolved, and then strain off the balsam.

ELIXIR POLYCHRESTUM,

ELIXIR POLYCHREST,

or of many virtues.

Edinb.

Take of

- Gum guaiacum, six ounces;
- Balsam of Peru, half an ounce;
- Essential oil of sassafras, two drams;
- Rectified spirit of wine, two pints.

Digest the spirit, with the gum and balsam, in a sand heat for four days; then strain out the liquor, and add to it the distilled oil.

Both these compositions are medicines of great efficacy, and capable of answering many useful purposes. They warm and strengthen the habit, and promote insensible perspiration; and hence become serviceable in rheumatic, scorbutic, and scrophulous disorders, particularly where the patient is of a cold phlegmatic temperament; as also in gleet, and in other ill consequences of a weak relaxed state of the solids. Twenty or thirty drops may be taken two or three times a day or oftener, in any proper vehicle.

BALSAMUM

COMMENDATORIS.

BAUME DE COMMANDEUR.

Take of

- Dry Peruvian balsam, one ounce;
- Storax in the tear, two ounces;
- Benjamin, three ounces;
- Socotorine aloes,
- Myrrh,
- Olibanum,
- Angelica roots,
- St. John's wort flowers, each half an ounce;
- Spirit of wine, two pounds eight ounces by weight.

Let them stand together in the sun during the dog-days, in a glass vessel, closely stopp'd; and afterwards strain out the balsam thro' a linen cloth.

This balsam has been inserted, with little variation, in some foreign pharmacopœias, and likewise kept a secret in private hands, under the titles of *Balsamum Perfecum*, *balsam of Berne*, *Wade's balsam*, *Friars balsam*, *Jesuits drops*, &c.

The form above is taken from the original receipt, published by Pomet (*histoire des drogues* edit. 2. ii. 56.) It stands greatly recommended, externally, for cleansing and healing wounds, and ulcers even of the cancerous kind, for dissolving cold tumours, allaying gouty, rheumatic, and other cold pains and aches; and likewise internally, for warming and strengthening the stomach and intestines, expelling flatulencies, and relieving colicky complaints. Outwardly, it is applied cold on the part with a feather; inwardly, a few drops are taken at a time, in wine or any other convenient vehicle.

BALSAMUM

TRAUMATICUM.

TRAUMATIC, or VULNERARY

BALSAM.

Lond.

Take

Take of

Benzoine, three ounces;
 Storax, strained, two ounces;
 Balsam of Tolu, one ounce;
 Socotorine aloes, half an ounce;
 Rectified spirit of wine, two pints.

Digest, that the gums may as much as possible be dissolved; and then strain off the balsam for use.

This is an elegant reform of the preceding composition, considerably more simple, yet not inferior in efficacy. The balsam of Tolu supplies, with advantage, the dry Peruvian balsam, a drug very rare to be met with in this country: the olibanum, myrrh, and angelica roots, here omitted, were certainly superfluous in a medicine containing so much more powerful materials; and the St. John's wort flowers are as deservedly thrown out, as having little else to recommend them than prejudice or superstition.

Edinb.

Take of

Benzoine, powdered, three ounces;
 Balsam of Peru, one ounce and an half;
 Hepatic aloes, in powder, half an ounce;
 Rectified spirit of wine, two pints.

Digest them in a sand heat, for the space of four days; and then strain the balsam.

This is a farther contraction of the baume de commandeur, without any injury to it as a medicine, at least with regard to the purposes for which the title shews it designed. Socotorine aloes is here judiciously exchanged for the hepatic, which appears from experience to be the most serviceable in external applications.

ELIXIR ALOES.

ELIXIR of ALOES. *Lond.*

Take of

Tincture of myrrh, two pints;
 Socotorine aloes,
 Saffron, each three ounces.

Digest them together, and strain off the tincture.

ELIXIR PROPRIETATIS.

 Edinb.

Take of

Myrrh, in powder, two ounces;
 Socotorine aloes, an ounce and a half;

English saffron, one ounce;

Rectified spirit of wine, two pints;

Oil of tartar per deliquium, as much as is sufficient to reduce the myrrh into a soft paste, which is to be exsiccated by a gentle heat, and digested with the spirit, in a sand bath, for the space of four days: then add the aloes in powder, and the saffron; continue the digestion for two days longer, suffer the feces to subside, and pour off the clear elixir.

This is the *elixir proprietatis* of Paracelsus, improved with regard to the manner of preparation. The myrrh, saffron, and aloes, have been usually directed to be digested in the spirit together; by this method, the menstruum soon loads itself with the latter, so as scarce to take up any of the myrrh; whilst a tincture, extracted first from the myrrh, readily dissolves a large quantity of the others. The alkaline salt, ordered in the second prescription, with a view to promote the dissolution of the myrrh, we have already observed to be useless.

This medicine is greatly recommended,

mended, and not undeservedly, as a warm stimulant and aperient. It strengthens the stomach and other viscera, cleanses the first passages from tenacious phlegm, opens obstructions in the remoter vessels, and promotes all the natural secretions. Its continued use has frequently done good service in cachectic and icteric cases, uterine obstructions, and other like disorders; particularly in cold, pale, phlegmatic habits: where the patient is of a hot, bilious constitution, and florid complexion, this warm stimulating medicine is less proper, and sometimes prejudicial. The dose may be, from twenty drops to a tea spoonful, two or three times a day.

ELIXIR PROPRIETATIS cum ACIDO.

ELIXIR PROPRIETATIS with ACID.
Edinb.

Take of

Myrrh, in powder, an ounce and a half;
Socotorine aloes, in powder, an ounce;
English saffron, half an ounce;
Rectified spirit of wine, twenty-four ounces;
Dulcified spirit of vitriol, six ounces.

Digest them in a sand heat, for the space of four days; and having then suffered the feces to subside, pour off the clear elixir.

Here the dulcified spirit of vitriol is very judiciously substituted to the spirit of sulphur, ordered in other books of pharmacy to be added to the foregoing preparation; for that strong acid precipitates from the liquor great part of what it had before taken up from the other ingredients. This elixir possesses the general virtues of the

preceding, and is preferred to it in hot constitutions, and where the juices tend to a putrescent state.

ELIXIR PAREGORICUM.
PAREGORIC ELIXIR.

Lon.

Take of

Flowers of benzoine,
Opium strained, each one dram:
Camphor, two scruples;
Essential oil of aniseeds, half a dram;
Rectified spirit of wine, two pints.

Digest and strain.

This elixir is taken from *Lé Mort*, with the omission of three unnecessary ingredients, honey, liquorice, and alkaline salt. It was originally prescribed under the title of *ELIXIR ASTHMATICUM*, which it did not ill deserve; none of the officinal compositions being equal to it in that intention. It excellently allays the tickling, which provokes frequent coughing; and yet at the same time opens the breast, and gives greater liberty of breathing: the opium procures (as it does by itself) a temporary relief from the symptoms; whilst the other ingredients tend to remove the cause, and prevent their return. It is given to children, against the chin-cough, &c. from five drops to twenty; to adults, from twenty to an hundred. Half an ounce, by measure, contains about a grain of opium.

ELIXIR PECTORALE.
PECTORAL ELIXIR.

Edinb.

Take of

Balsam of Tolu, two ounces;
Benzoine, an ounce and a half;
English saffron, half an ounce;
Rectified

Rectified spirit of wine, two pints.
Digest them in a sand heat for four days, and then strain off the elixir.

ELIXIR VITRIOLI ACIDUM.
ACID ELIXIR of VITRIOL.

Lond.

Take of the
Aromatic tincture, one pint;
Strong spirit (called oil) of vitriol, four ounces;
Mix them together, and after the feces have subsided, filter the elixir through paper.

This preparation was originally taken from Mynsicht, and has been usually distinguished by his name. It is here prepared in a somewhat different manner from that directed by the author and in other books of pharmacy; the oil of vitriol and spirit of wine being there first mixed together, and then digested upon aromatics: when thus managed, the acid disables the spirit from extracting the virtues of the aromatics, and indeed, when added to the tincture, as here ordered, it precipitates great part of what the spirit had before taken up.

Mynsicht's elixir of vitriol is directed in our preceding pharmacopœia as follows:

Take of
Cinnamon,
Ginger,
Cloves, each three drams;
Calamus aromaticus, one ounce;
Galangal, an ounce and a half;
Sage,
Mint, each half an ounce;
Cubebbs,
Nutmegs, each two drams;
Aloes wood,
Citron peel, each one dram.
Reduce these ingredients into a powder, to which add, of

Sugar candy, three ounces;
Spirit of wine, a pint and a half;
Oil of vitriol, one pint.

Digest them together for twenty days, and then filter the tincture for use.

These medicines are greatly recommended in weakness of the stomach: and in most cases of this kind, where an acid does not already prevail, they have generally good effects. Sometimes they have proved serviceable after bitters had availed nothing, especially in great relaxations from debauches and over-feeding. Fuller relates (in his *medicina gymnastica*) that he was recovered, by Mynsicht's elixir, from an extreme decay of constitution, and continual retchings to vomit. It may be given from ten to thirty or forty drops, in any convenient vehicle, once, twice, or thrice a day, at such times as the stomach is most empty.

ELIXIR VITRIOLI DULCE.
SWEET ELIXIR of VITRIOL.

Lond.

Take of the
Aromatic tincture, one pint;
Dulcified spirit of vitriol, eight ounces by weight.
Mix them together.

This is designed for persons whose stomach is too weak to bear the foregoing acid elixir; to the taste, it is gratefully aromatic, without any perceptible acidity. The dulcified spirit of vitriol, here directed, occasions little or no precipitation upon adding it to the tincture.

ELIXIR VITRIOLI.
ELIXIR of VITRIOL.

Edinb.

Take of
Dul-

Dulcified spirit of vitriol, two pounds;
Essential oil of mint, half an ounce;
of lemon peel,
of nutmegs, each two drams.

Gradually drop the oils into the spirit, and mix the whole well together.

This elixir, if the essential oils are good, and the dulcified spirit made as it ought to be, (if it is not, it will not dissolve the oils) proves a very elegant and grateful stomachic, similar to the foregoing sweet elixir: a tea spoonful of either, taken two or three times a day, has in many cases produced happy effects.

**ELIXIR MYRRHÆ
COMPOSITUM.**

*COMPOUND ELIXIR of
MYRRH.*

Lond.

Take of

Extract of favin, one ounce;
Tincture of castor, one pint;
Tincture of myrrh, half a pint.

Digest them together, and then strain the elixir.

This preparation is improved from one described in former editions of this work, under the name of **ELIXIR UTERINUM**. It is a medicine of great efficacy in all uterine obstructions, and in hypochondriacal cases, promotes the menses, the expulsion of the fœtus, and the lochia. It may be given from five drops, to twenty or thirty, or more, in pennyroyal water, or any other suitable vehicle.

ELIXIR SACRUM.

Edinb.

Take of

Socotorine aloes, in powder,

Choice rhubarb, cut small,
Bay berries, bruised, each one ounce;
French brandy, two pints.
Digest for two days, and then strain the elixir.

ESSENTIA AMBRÆ.

ESSENCE of AMBERGRIS.

Take of

Ambergris, two drams;
Musk, twelve grains;
Civet, two grains;
Rectified spirit of wine, four ounces.

Digest them together in a water bath, with a small heat, which is to be gradually increased until the spirit boils, and kept in this state for a little time: when the tincture is grown cold, decant it from the feces, and keep it in a bottle well stoped for use.

This essence is, to such people as can bear perfumes, an exceeding high cordial: the dose is from one to ten drops.

ESSENTIA ODORIFERA alia.

Another **ODORIFEROUS
ESSENCE.**

Take of

Musk, ten grains;
Civet, five grains;
Balsam of Peru, twelve drops;
Oil of cloves, four drops;
Oil of rhodium, two drops;
Salt of tartar, half a dram;
Rectified spirit of wine, two ounces.

Digest them together in a close vessel, with a heat equal to that of the sun in summer, for several days; and afterwards pour off the essence for use.

This is likewise a very high perfume; a single drop of it gives a fine flavour to many ounces of other liquors.

GUTTÆ

GUTTÆ VITÆ.

DROPS of LIFE.

Take of

Opium, four ounces;
 Saffron, one ounce;
 Virginian snakeroot,
 Cochineal, each half an ounce;
 Nutmegs,
 Zedoary, each two ounces;
 Camphor, one ounce;
 Tincture of diaphoretic antimony, one pint;
 Water, two pints.

Digest the opium with water in a scalding heat, till as much as

possible of it is dissolved, and pass the solution through a strainer. Digest the other ingredients in the antimonial tincture, for three or four days. Mix both liquors together, let them stand in digestion for two days longer, and after the feces have subsided, pour off the clear for use.

This medicine has been recommended as preferable to the common opiates, and less apt to leave a nausea on the stomach: the dose is from ten drops to forty or fifty.



CHAPTER XVII.

M I X T U R Æ.

M I X T U R E S.

JULEPUM e CAMPHORA.

JULEP of CAMPHOR.

 Lond.

TAKE of
Camphor, one dram;
Double refined sugar, half an
ounce;

Boiling water, one pint.

Grind the camphor first with a little rectified spirit of wine, until it grows soft; and afterwards with the sugar, till they are perfectly mixed: then add the water by little and little, let the mixture cool in a close vessel, and lastly pass it through a strainer.

This is a more easy and effectual way of mingling camphor with aqueous liquors, than grinding it with water alone, or setting it on fire, and then quenching it in water, as directed in our former dispensatory, and in other books of pharmacy: though even this method is liable to some inconveniences; part of the camphor exhaling, unless an extraordinary deal of care is taken, upon the affusion of the boiling water; and part remaining upon the strainer. The julep tastes strong of the camphor, and may be given, in cases where this drug is proper, in the dose of a spoonful or two.

JULEPUM e CRETA.

CHALK JULEP.

 Lond.

Take of

The whitest chalk, prepared,
one ounce;

Double refined sugar, six drams;

Gum Arabic, two drams;

Water, two pints.

Mix them together.

This julep is designed for heartburns and other like disorders arising from acid juices in the first passages. The use of the gum is to give a greater degree of consistence to the water, and enable it to keep the powdered chalk suspended; and likewise to soften and obtund the thin acrimonious humours.

JULEPUM e MOSCHO.

MUSK JULEP.

 Lond.

Take of

Damask rose water, six ounces
by measure;

Musk, twelve grains;

Double refined sugar, one dram.

Grind the sugar and the musk together, and gradually add to them the rose water.

This is an improvement upon the HYSTERIC JULEP WITH MUSK of Bates. Orange flower water is directed by that author; and indeed this more perfectly coincides with the musk than rose water: but as the former is difficultly procurable in perfection, the

F f

latter

latter is here preferred. The julep appears turbid at first; on standing a little time, it deposits a brown powder, and becomes clear.

This julep is a strong perfume. To those who can bear medicines of this class, it proves of great service in lowness, faintings, &c. See the article MUSK, in the materia medica, page 162.

EMULSIO COMMUNIS.
COMMON EMULSION.

Lond.

Take of

Sweet almonds, blanched, one ounce;

Gum Arabic, half an ounce;

Double refined sugar, six drams;

Barley water, two pints.

Dissolve the gum in the barley water warmed; as soon as the water is grown thoroughly cold, pour it by little at a time upon the almonds and sugar, first beat together, continuing to grind the whole, that the liquor may grow milky; after which, it is to be passed through a strainer.

Edinb.

Take of

The four greater cold seeds, one ounce;

Sweet almonds, blanched, half an ounce;

White sugar, two drams;

Simple cinnamon water, one ounce;

Common water, two pints.

Beat the almonds with the seeds in a marble mortar, and gradually pour on them the common water, working the whole well together. Then strain off the liquor, and add to it the cinnamon water and the sugar.

If three drams of gum arabic be previously dissolved in the water, the preparation is called EMUL-

SIO ARABICA, the *Arabic emulsion*.

Great care should be taken, that neither the seeds nor the almonds are become rancid by keeping; which will not only render the emulsion extremely unpleasent, a circumstance of great consequence in a medicine that requires to be taken in large quantities, but likewise give it some injurious qualities little expected from preparations of this class. These liquors are principally made use of for diluting and obtunding acrimonious humours; particularly in heat of urine and stranguries arising either from a natural sharpness of the juices, or the operation of cantharides or other irritating medicines: in these cases, they are to be drank frequently, in the quantity of half a pint or more at a time. See *Amygdalæ*, page 78.

LAC AMMONIACI.

MILK of AMMONIACUM.

Lond.

Take of

Gum ammoniacum, two drams;

Simple pennyroyal water, half a pint.

Grind the ammoniacum with the water, in a mortar, until the gum is dissolved.

This liquor is employed with good success for attenuating tough phlegm, and promoting expectoration, in humoural asthmas, coughs, and obstructions of the viscera. It may be given in doses of an ounce or two, and occasionally repeated.

Several other gummy-resinous bodies, as myrrh, may by a like treatment be excellently fitted for medicinal purposes; their whole substance being thus dissolved into an uniform milky liquor.

SPIRITUS VINOSUS
CAMPHORATUS.

CAM.

CAMPHORATED SPIRIT
of WINE

Lond. and Edinb.

Take of
Camphor, two ounces;
Rectified spirit of wine, two pints.
Mix them together, that the camphor may be dissolved.

This solution of camphor is employed chiefly for external uses, against rheumatic pains, paralytic numbnesses, inflammations, for dissolving tumours, preventing gangrenes, or restraining their progress. It is too pungent to be exhibited internally, unless largely diluted; nor is the dilution easily effected; for on the admixture of aqueous liquors, the camphor separates, and runs into its original form.

Hoffman, Rothen, and others, mention a camphorated spirit not subject to this inconvenience. It is prepared by grinding the camphor with somewhat more than an equal weight of fixt alkaline salt, then adding a proper quantity of proof spirit, and drawing off one half of it by distillation. This spirit was proposed to the college to be received into the pharmacopœia, at the late revival, under the title of SPIRITUS CAMPHORÆ TARTARIZATUS. But upon trial, it did not answer expectation: some of the camphor, as the committee observe, rises with the spirit in distillation, though but a small quantity; whence, mixt with a large portion of water, it does not sensibly render it turbid; but in a proper quantity, it exhibits

the same appearance as the more common camphorated spirit: it did not appear, that spirit distilled from camphor, with or without the alkaline salt, differed at all in this respect.

The most convenient method of uniting camphor with aqueous liquors, seems to be by the mediation of almonds; triturated with these, it readily mingles with water into the form of an emulsion, at the same time that its pungency is considerably abated. It may also be commodiously exhibited in the form of an oily draught, expressed oils totally dissolving it.

SOLUTIO THEBAICA.
THEBAIC SOLUTION.

Take of

Thebaic extract, two drams;
Rectified spirit of wine, two pints and a half;
Water, five pints.

Digest them together, until the opium is dissolved; and then filter the solution thro' paper.

This preparation is free from the inconveniencies attending the common opiate tinctures (p. 409.) the opium totally dissolves in the menstruum here ordered, no part of it separates in keeping, and the dose may be ascertained to great exactness: one grain of opium is contained in an ounce by measure, and in nearly seven drams by weight. Where aromatics are wanted, either in a medicinal intention, or to cover the ill smell of the opium, any proper tincture, or distilled water may be added occasionally.

CHAPTER XVIII.

SYRUP I.

SYRUPS.

Syrups are saturated solutions of sugar, made in vegetable decoctions or infusions.

THESE preparations were formerly considered as medicines of much greater importance, than they are thought to be at present. Syrups and distilled waters were for some ages made use of as the great alteratives: inasmuch that the evacuation of any peccant humour was never attempted till, by a due course of these, it had first been regularly prepared for expulsion. Hence arose the exuberant collection of both, which we meet with in pharmacopœias: and like errors have prevailed in each. As multitudes of distilled waters have been compounded from materials unfit to give any virtue over the helm;

so numbers of syrups have been prepared from ingredients, which in this form cannot be taken in sufficient doses to exert their virtues; for two thirds of a syrup consist of sugar, and greatest part of the remaining third is an aqueous fluid.

Syrups are at present chiefly regarded as convenient vehicles for medicines of greater efficacy; and made use of for sweetening draughts and juleps, for reducing the lighter powders into bolusses, pills, or electaries, and other like purposes. Some likewise may not improperly be considered as medicines themselves; as those of saffron, and buckthorn berries.

General rules for preparing syrups.

I.

All the rules laid down for making decoctions are likewise to be observed in the decoctions for syrups. Vegetables, both for decoctions and infusions, ought to be dry, unless they are expressly ordered otherwise [E.]

II.

In the London pharmacopœia, only the purest or double refined sugar is allowed.

In the Edinburgh, the less pure or common white sugar is employed, and farther purified by the operator. For such syrups as are prepared without coction, the sugar is previously dissolved in water by itself, the solution clarified with whites of eggs, and boiled down to a thick consistence, the scum which arises during the boiling being carefully taken off. In the syrups pre-

prepared by coction, the clarification with whites of eggs is performed after the sugar has been dissolved in the decoction of the vegetable; except in the syrup of meconium, for which therefore the purest sugar is directed.

The purification of sugar by clarification and despumation is not so perfect as might be expected; for after it has undergone this process, the refiners still separate from it a quantity of oily matter, which is disagreeable to weak stomachs. See page 193. The clarification of the sugar along with the vegetable decoction is likewise injurious to the medicine; since by this means, not only the impurities of the sugar are discharged, but a considerable part of what the liquor had before taken up from the other ingredients. It appears therefore most eligible to employ fine sugar for all the syrups; even the purgative ones (which have been usually made with coarse sugar, as somewhat coinciding with their intention) not excepted; for as purgative medicines are in general ungrateful to the stomach, it is certainly improper to employ an addition which increases their offensiveness.

III.

Where the weight of the sugar is not expressed, twenty-nine ounces thereof are to be taken to every pint of liquor. The sugar is to be reduced into powder, and dissolved in the liquor by the heat of a water bath, unless ordered otherwise. [L.]

Although in the formulæ of the several syrups, a double weight of the sugar to that of the liquor is directed, yet less will generally be sufficient. First therefore dissolve in the liquor an equal weight of sugar, then gradually

add some more in powder, till a little remains undissolved at the bottom, which is to be afterwards incorporated by setting the syrup in a water bath [E.]

The quantity of sugar should be so much, as the liquor is capable of keeping dissolved in the cold: if there is more, a part of it will separate, and concrete into crystals or candy; if less, the syrup will be subject to ferment, especially in warm weather, and change into a vinous or sour liquor.

IV.

Copper vessels, unless they are well tinned, should not be employed in the making of acid syrups, or such as are composed of the juices of fruits [E.]

The confectioners, who are the most dextrous people at these kinds of preparations, to avoid the expence of frequently new tinning their vessels, rarely make use of any other than copper ones untinned, in the preparation even of the most acid syrups, such as that of oranges, lemons, and the like. Nevertheless, by taking due care, that their coppers be well scoured and perfectly clean, and that the syrup remain no longer in them than is absolutely necessary, they avoid giving it any ill taste or quality from the metal.

V.

The syrup, when made, is to be set by till next day: if any saccharine crust appears upon the surface, take it off [L.]

SYRUPUS ex ALLIO.

SYRUP of GARLIC.

Lond.

Take of

Garlic, sliced, one pound;

Boiling water, two pints.

Macerate them in a close vessel for twelve hours, then strain off the

F f 3 liquor,

liquor, and dissolve in it a proper quantity of sugar, so as to make a syrup.

This syrup is occasionally made use of for attenuating viscid phlegm, and promoting expectoration in humoural asthma, and oppressions of the breast: in these cases, it proves a medicine of considerable efficacy, though a very unpleasant one: it tastes and smells strong of the garlic.

SYRUPUS ex ALTHÆA.
SYRUP of MARSHMALLOWS.

Lond.

Take of

Marshmallow roots, fresh, one pound;

Double refined sugar, four pounds;

Water, one gallon.

Boil the water with the roots to one half: when grown thoroughly cold, pour off and press out the decoction, and set it by for a night to settle: next morning, pour off the clear liquor, and adding to it the sugar, boil the whole to the weight of six pounds.

Edinb.

Take of

Marshmallow roots, three ounces;

Eryngo roots, one ounce;

Liquorice, half an ounce;

Maidenhair (the true, or English.)

Pellitory of the wall, each one ounce;

White sugar, four pounds;

Water, six pints.

Boil the water with the herbs and roots to the consumption of one third; then strain out the remaining decoction, and suffer it to rest for some time. Pour off the clear liquor from the sediment, and boil it with the sugar over a gentle fire, keeping the matter continually stirring, till it becomes a syrup.

This syrup seems to have been a sort of favourite among dispensatory-writers, who have taken great pains to alter and amend it, but have been wonderfully tender in lopping off any of its articles. In the first of the above forms, it has lost all its superfluities, and in the second a great many of them, without any injury to its virtues. It is used chiefly in nephritic cases, for sweetening emollient decoctions, and the like; of itself, it can do little service, notwithstanding the high opinion which some have entertained of it; for what can be expected from two or three spoonfuls of the syrup, when the decoction, from which five or six pounds are made, may be taken at a draught or two?

SYRUPUS e CORTICIBUS
AURANTIORUM.

SYRUP of ORANGE PEEL.

Lond.

Take of the

Yellow rind of Seville orange peel, fresh, eight ounces;

Boiling water, five pints.

Macerate them for a night in a close vessel; next morning, strain out the liquor, and dissolve in it the proper quantity of sugar for making it into a syrup.

Edinb.

Take of the

Yellow rind of orange peel, fresh, six ounces;

Boiling water, three pints.

Infuse them for a night, in a close vessel, then strain the liquor, let it stand to settle, and having poured it off clear from the sediment, dissolve therein twice its weight of white sugar, so as to make it into a syrup without boiling.

In making this syrup, it is particularly necessary, that the sugar be previously powdered, and dissolved

solved in the infusion with as gentle a heat as possible, to prevent the exhalation of the volatile parts of the peel. With these cautions, the syrup proves a very elegant and agreeable one, possessing great share of the fine flavour of the orange peel.

SYRUPUS BALSAMICUS.
BALSAMIC SYRUP.

Lond.

Take of

Balsam of Tolu, eight ounces;
Water, three pints.

Boil them for two or three hours in a circulatory vessel, or at least in a long-necked matras having its mouth lightly covered. When grown cold, strain out the liquor, and mix therewith a proper quantity of sugar to make it into a syrup.

The coction may be conveniently performed in a retort, with a receiver adapted to it, the liquor which comes over being occasionally poured back; or the water may be entirely drawn off, and the sugar dissolved in the distilled liquor.

Edinb.

Take of the

Syrup of sugar, just made, and warm from the fire, two pounds;

Tincture of balsam of Tolu, one ounce.

When the syrup has grown almost cold, stir into it the tincture, by little at a time, agitating them well together, till perfectly united. The mixture is then to be kept in the heat of a water bath until the spirit has exhaled.

This method of making the balsamic syrup was dropt in the preceding edition of the Edinburgh pharmacopœia, on a complaint that the spirit spoiled the taste of the syrup; which it did in a great de-

gree when the tincture was drawn with malt spirits. Particular care therefore should be taken, that the spirit, employed for this tincture, be perfectly clean, and well rectified from all ill flavour.

The intention of the contrivers of the two foregoing processes seems to have been somewhat different. In the first, the more subtle and fragrant parts of the balsam, are extracted from the grosser resinous matter, and alone retained in the syrup: the other syrup contains the whole substance of the balsam, in larger quantity. They are both moderately impregnated with the agreeable flavour of the balsam.

In some pharmacopœias, an elegant syrup of this kind is prepared from a tincture of balsam of Peru, with rose water and a proper quantity of sugar.

SYRUPUS CARYOPHYLLO-
RUM RUBRORUM.
SYRUP of CLOVE-JULY-
FLOWERS.

Lond.

Take of

Clove-july-flowers, fresh gathered, and freed from the heels, three pounds;

Boiling water, five pints.

Macerate them for a night, in a glass or glazed earthen vessel, then strain off the liquor, and dissolve therein its due proportion of sugar to make it into a syrup.

Edinb.

One pound of the flowers is to be infused in three pints of water, and the syrup made as above, without boiling.

This syrup is of an agreeable flavour, and a fine red colour; and for these, it is chiefly valued. Some have substituted to it one easily parable at seasons when the flowers are not to be procured: an ounce

F f 4

of

of clove spice is infused for some days in twelve ounces of white wine, the liquor strained, and with the addition of twenty ounces of sugar, boiled to a proper consistence: a little cochineal renders the colour of this syrup exactly similar to that prepared from the clove-july-flower; and its flavour is of the same kind, though not so pleasant.

SYRUPUS CROCI.
SYRUP of SAFFRON.

Lond.

Take of

Saffron wine, one pint;

Double refined sugar, twenty-five ounces.

Dissolve the sugar in the wine, so as to make a syrup thereof.

Saffron is very well fitted for making a syrup, as in this form a sufficient dose of it is contained in a reasonable compass. This syrup is at present more frequently prescribed than the wine from which it is made: it is a pleasant cordial, and gives a fine colour to juleps.

SYRUPUS CYDONIORUM.
SYRUP of QUINCES.

Lond.

Take of

Quince juice, depurated, three pints;

Cinnamon, one dram;

Cloves,

Ginger, each half a dram;

Red port wine, one pint;

Double refined sugar, nine pounds.

Digest the juice with the spices, in the heat of ashes, for six hours; then adding the wine, pass the liquor through a strainer; and afterwards dissolve in it the sugar, so as to make a syrup.

If the quinces are kept for some time, in an airy place, before the juice is pressed out, the syrup

proves rather more elegant, and richer of the fruit, than when they are taken fresh from the tree. In either case, the preparation is a very agreeable, mild, cordial restituent; and in some kinds of looseness and disorders of the stomach, may be either taken by itself, in the quantity of a spoonful or two at a time, or employed for reconciling to the palate and stomach, medicines of the more ungrateful kind.

SYRUPUS KERMESINUS.
SYRUP of KERMES.

Edinb.

Take of

Juice of kermes grains, one pound;

White sugar, two pounds.

Make them into a syrup, without heat.

The syrup of kermes, which is brought to us ready made, from the southern parts of France, is to be preferred; especially if it has been prepared without heat.

This syrup is of an agreeable taste, and a fine red colour. It is accounted cordial and corroborant, and supposed to be particularly serviceable in weakness, and other disorders of pregnant woman.

SYRUPUS e SUCCO
LIMONUM.

SYRUP of LEMON JUICE.

Lond.

Take of the

Juice of lemons, suffered to settle till the feces have subsided, and afterwards strained, two pints;

Double refined sugar, fifty ounces.

Dissolve the sugar in the juice, so as to make a syrup thereof.

Edinb.

Take of

Lemon juice, depurated, one pound;

White

White sugar, two pounds.
Make them into a syrup according
to art, without boiling.

After the same manner are prepared,

SYRUPUS e SUCCO
AURANTIORUM.
SYRUP of ORANGE JUICE. [E.]

SYRUPUS e SUCCO
MORORUM.
SYRUP of MULBERRIES. [L.]

SYRUPUS e SUCCO FRUCTUS
RUBI IDÆI.
SYRUP of RASPBERRIES. [L.]

All these are very pleasant, cooling syrups, and in this intention are occasionally made use of, in draughts and juleps, for quenching thirst, abating heat, &c. in bilious or inflammatory distempers. They are sometimes likewise employed in gargarisms, for inflammations of the mouth and tonsils.

SYRUPUS e MECONIO, sive
DIACODION.
SYRUP of MECONIUM, or
DIACODIUM.
Lond.

Take of

White poppy heads, dried and cleared from the seeds; three pounds and a half;
Water, six gallons.

Cut the heads, and boil them in the water, stirring them now and then to prevent their burning, till only about one third part of the liquor remains, which will be almost entirely soaked up by the poppies. Then remove the vessel from the fire, strongly press out the decoction, and boil it down to about four pints: strain it whilst hot, first through a sieve, and afterwards through a fine woollen cloth; and set it by for a night, that

the feces may subside. Next morning, pour the liquor off clear, and boil it with six pounds of double refined sugar, until the weight of the whole is nine pounds, or a little more, that it may become a syrup of a proper consistence.

SYRUPUS PAPAVERIS ALBI,
seu de MECONIO, vulgo
DIACODION.

SYRUP of WHITE POPPIES, or of
MECONIUM, commonly called DI-
ACODIUM.

Edinb.

Take of

White poppy heads, just ripe, and moderately dried, fourteen ounces;

Boiling water, one gallon.

Let these be steeped together for a night, and then boiled until half the liquor is wasted: strain, and strongly press out the remainder, and boil it, with the addition of four pounds of white sugar, to the consistence of a syrup.

Particular care is requisite, in the preparation of this syrup, that it may be always made as nearly as possible, of the same strength. It is given to children, in doses of two or three drams; to adults, from half an ounce to an ounce and upwards, for obtunding acrimonious humours, easing pain, procuring rest, and answering the other purposes of opiates. See PAPAVER in the materia medica, page 175.

SYRUPUS PAPAVERIS
ERRATICI.
SYRUP of WILD POPPIES.

Lond.

Take of

Wild poppy flowers, fresh, four pounds;
Boiling water, four pints and a half.

Pour

Pour the water on the poppies, set them over the fire, and frequently stir them, until the flowers are thoroughly moistened: as soon as they have sunk under the water, let the whole be set by to steep for a night: next day pour off, and press out the liquor, and set it by for a night longer to settle: afterwards add the proper quantity of double refined sugar to make it into a syrup.

Edinb.

Take of
Wild poppy flowers, fresh, one pound;

Boiling water, three pints.

Steep the flowers in the water for a night, then strain off the liquor, and adding two pounds of white sugar, boil it into a syrup.

The design of setting the flowers over the fire is (as Dr. Pemberton observes) that they may be a little scalded, so as to shrink enough to be all immersed in the water; without this artifice, they can scarce be all got in: but they are no longer to be continued over the fire, than till this effect is produced, lest the liquor become too thick, and the syrup be rendered roapy.

This syrup has been recommended in disorders of the breast, coughs, spitting of blood, pleurifies, and other diseases, both as an emollient, and as an opiate. It is one of the lightest of the opiate medicines, and in this respect so weak, that some have doubted of its having any anodyne quality.

SYRUPUS PECTORALIS.

PECTORAL SYRUP.

Land.

Take of
English maidenhair, dried, five ounces;

Liquorice, four ounces;

Boiling water five pints.

Macerate them for some hours, then strain out the liquor, and with a proper quantity of double refined sugar, make it into a syrup.

Edinb.

Take of

Florence orris roots,

Elecampane roots, each one ounce and a half.

Liquorice, two ounces;

Coltsfoot flowers,

Maidenhair (either the true, or English)

Ground-ivy, each one ounce;

Fat figs, twelve in number;

Water, one gallon.

Boil the water with the other ingredients, till one fourth part is wasted; strain out the remaining liquor, add to it six pounds of white sugar, and boil them into a syrup.

The title of these compositions expresses their medical intention: they are supposed to soften acrimonious humours, allay tickling coughs, and promote the expectation of tough phlegm. The true maidenhair is the only sort that has been usually directed in these kinds of compositions: the use of the English is here very judiciously allowed; not only as being more easily procurable, and having been substituted to the other in the shops, but likewise as there does not seem to be any medicinal difference betwixt them. Fuller finds great fault with both these ingredients, on a supposition that all their virtues fly away in drying: but in this he was certainly mistaken; for the virtues of both these maidenhairs consist in a mucilaginous substance, which suffers no injury by being dried. There is one species indeed, the Canada maidenhair, which has a considerable share of a pleasant smell and flavour joined to its mucilage; but

but this is as yet a stranger to the shops, though not uncommon in some of our gardens.

SYRUPUS PEONIÆ.
SYRUP of PEONY.

Edinb.

This syrup is made of an infusion of fresh gathered peony flowers after the same manner as that of wild poppies:

Nor is it greatly different from that syrup in quality: the antiepileptic virtues formerly attributed to it have no foundation.

SYRUPUS e FLORIBUS
PARALYSIS.

SYRUP of COWSLIPS.

Lond.

This is made from cowslip flowers, after the same manner as the syrup of clove july-flowers.

It has been supposed serviceable in nervous disorders; its agreeable flavour recommends it to the patient, though at present there are few who suppose it to possess any singular virtues.

SYRUPUS QUINQUE
RADICUM.

SYRUP of the FIVE ROOTS.

Edinb.

Take of

The five opening roots, (viz. those of smalage, asparagus, fennel, parsley, and butchers broom) two ounces of each;

Water, six pints.

Boil them together till one third of the water is wasted; then strain and press out the remaining liquor, dissolve in it four pounds of white sugar, and boil them into a syrup.

This syrup stands recommended as an aperient and diuretic, where medicines of that class are indicated.

A decoction of the roots, drank in large quantity, is of considerable

service; but little can be expected from a spoonful or two of the syrup.

SYRUPUS ROSARUM
SOLUTIVUS.

SOLUTIVE SYRUP of ROSES.

Lond.

Take the liquor that remains after the distillation of six pound of damask roses;

Of double refined sugar, five pounds.

Having pressed out the liquor from the roses, boil it down to three pints, and set it by for a night to settle; next morning, pour it off clear from the sediment, and adding the sugar, boil the mixture to the weight of seven pounds and an half.

Edinb.

This syrup is made from a double infusion of fresh gathered pale roses, after the same manner as the syrup of wild poppies.

The liquor remaining after the distillation of roses is as proper for making this syrup as a fresh infusion of the flowers; for the distillation only collects, and preserves for other uses, those volatile parts of the rose, which are dissipated in the air, whilst the infusion is boiling to its consistence. This syrup is an agreeable and mild purgative for children, in the dose of half a spoonful, or a spoonful. It likewise proves gently laxative to adults, and does good service in costive habits. Its principal use is in solutive glysters.

SYRUPUS de ROSIS SICCIS.

SYRUP of DRY ROSES.

Edinb.

Take of

Red roses, half a pound;

White sugar, four pounds;

Boiling water, four pints.

Infuse the roses in the water for a night,

night, then boil them a little, strain out the liquor, and adding to it the sugar, boil them to the consistence of a syrup.

This syrup is supposed to be mildly astringent: but is principally valued on account of its red colour. The London college have omitted this and the syrup of peony flowers, as being the most insignificant of the red syrups; some which they have retained are equal to them in point of colour, and superior in other respects.

SYRUPUS SCILLITICUS.

SYRUP of SQUILLS.

Lond.

Take of

Vinegar of squills, a pint and a half;

Cinnamon,

Ginger, each one ounce;

Double refined sugar, three pounds and a half.

Steep the spices in the vinegar for three days; then strain out the liquor, and add the sugar, so as to make a syrup thereof.

Edinb.

Take of

Vinegar of squills, two pints;

White sugar, four pounds.

Make them into a syrup, without boiling.

The spices in the first of these compositions, somewhat alleviate the offensiveness of the squills, tho' not so much as to prevent the medicine from being disagreeable. It is used chiefly in doses of a spoonful or two, for attenuating viscid phlegm, and promoting expectoration, which it does very powerfully.

SYRUPUS de SENA et RHEO.

SYRUP of SENA and

RHUBARB.

Edinb.

Take of

Sena, two ounces;

Rhubarb, one ounce;

Sweet fennel seeds,

Cinnamon, each two drams;

White sugar, three pounds;

Boiling water, three pints;

Let the sena, rhubarb, fennel seeds, and cinnamon, be steeped in the water for a night, in a vessel closely stop'd. The liquor being then strained out, suffered to settle, and poured off clear from the sediment, boil it with the sugar, over a gentle fire, to the consistence of a syrup.

Here it should seem most eligible to increase the quantity of sugar, or diminish that of the water, that the syrup might be made without boiling: for as it is necessary, according to the proportions set down above, to continue the coction for a considerable time, in order to bring the liquor to a due consistence; how gently soever it be performed, great part of the flavour of the aromatics will be dissipated.

This syrup is designed chiefly as a purgative for children; but is not a very agreeable one, nor among us often made use of. The former London pharmacopœia had a medicine of this kind, with some superfluous articles, which the committee, in their revival of it, retrenched: they likewise omitted the sena, as being at best unnecessary, and retained only rhubarb for the purgative ingredient: the composition was, nevertheless, at length intirely expunged, and very justly; for, as they observe, rhubarb is easily given to young children in powder or infusion, and the taste of it cannot be rendered agreeable to them by any sweetning.

SYRUPUS SIMPLEX.

The SIMPLE SYRUP.

Lond.

Dissolve in water so much double refined sugar, as will make it into a syrup.

SY-

SYRUPUS SACCHARI.

SYRUP of SUGAR.
Edinb.

Take of
White sugar,
Water, each equal quantities.

Boil them into a syrup.
These preparations are plain liquid sweets, void of flavour or colour. They are convenient for sundry purposes where these qualities are not wanted, or would be exceptionable.

SYRUPUS e SPINA

CERVINA.

SYRUP of BUCKTHORN.

Lond.

Take of the
Juice of ripe and fresh buckthorn berries, one gallon;
Cinnamon,
Ginger,
Nutmegs, each one ounce;
Double refined sugar, seven pounds.

Set the juice by for some days to settle; then pass it through a strainer, and in some part thereof macerate the spices. Boil the rest of the juice, adding towards the end that part in which the spices were macerated, first passed through a strainer: this part of the process must be so managed, that the whole liquor may be reduced to four pints. Lastly, put in the sugar, and make the mixture into a syrup.

Edinb.

Take of the
Juice of ripe buckthorn berries, depurated, six pounds;
Brown sugar, four pounds;
Essential oil of cloves, one dram;
Boil the juice with the sugar, over a gentle fire, to the consistence of a syrup; and whilst it continues warm, mix therewith the essential oil previously ground with a little sugar.

In these preparations, the disagreeable qualities of the buckthorn berries are abated by the aromatics and the essential oil: they are nevertheless still ungrateful, though as useful, medicinally, as any of the syrups. Three or four spoonfuls operate briskly as a cathartic, and bring away large quantities of ferous humours. The principal inconveniencies attending them are, that they occasion a thirst and dryness of the mouth and fauces, and sometimes violent gripes: both these may be prevented, by drinking liberally of water gruel, or other warm liquids, during the operation.

SYRUPUS e SYMPHYTO.

SYRUP of COMFRY.

Edinb.

Take of
Comfry roots, fresh,
Plantane leaves, fresh, each half a pound.

Bruise them both together, and strongly press out the juice: pour on the remaining magma, a quart of water, and boil to the consumption of one half: then strain off the liquor, add to it the expressed juice, and boil the mixture, with an equal weight of white sugar, into a syrup.

This syrup is supposed to be gently emollient and restringent; and by some stands greatly commended in phtisical disorders and internal ulcerations. But whatever virtues of this kind the ingredients may possess, the syrup is one of those which can have very little effect, even in the largest dose that preparations of this kind can be taken in.

SYRUPUS VIOLARUM.

SYRUP of VIOLETS.

Lond.

Take of
Vio-

Violets, fresh, and well coloured,
two pounds;

Boiling water, five pints.

Macerate them for a whole day,
in a glass, or at least a glazed
earthen vessel; then pour out
the liquor, and pass it through a
thin linen cloth, carefully avoid-
ing even the lightest pressure:
afterwards, adding the due pro-
portion of sugar, make it into a
syrup.

Edinb.

Take of

March violets, fresh, one pound;
Boiling water, three pints.

Steep them together for a night, in
an earthen vessel close covered:
then strain out the liquor, and
dissolve in it twice its weight of
white sugar, so as to make a sy-
rup without boiling.

This syrup is of a very agreeable
flavour, and in the quantity of a
spoonful or two, proves to children
gently laxative. It is apt to lose,
in keeping, the elegant blue colour,
for which it is chiefly valued.

SYRUPUS ZINGIBERIS.

SYRUP of GINGER.

Lond.

Take of

Ginger, cut into thin slices, four
ounces;

Boiling water, three pints.

Macerate them for some hours,
then strain out the liquor, and
make it into a syrup with a pro-
per quantity of double refined
sugar.

This is an agreeable and mode-
rately aromatic syrup, lightly im-
pregnated with the flavour and vir-
tues of the ginger.

CONFECTIO ALKERMES.

CONFECTIO of KERMES.

Lond.

Take of

Juice of kermes grains, warmed
and strained, three pounds;

Damask rose water, six ounces by
measure;

Oil of cinnamon, half a scruple;

Double refined sugar, one pound.

Dissolve the sugar in the rose wa-
ter, by the heat of a water bath,
into a syrup; then mix in the
juice of kermes, and after it has
grown cold, the oil of cinnamon.

Edinb.

Take of

Syrup of kermes, three pounds;

Yellow Saunders,

Cinnamon, each six drams;

Cochineal, three drams;

Saffron, one dram and an half.

Evaporate the syrup, with a gentle
heat, to the consistence of hon-
ney; then mix with it the other
ingredients reduced to a very fine
powder.

Both these compositions are ele-
gant and agreeable cordials; the
dose, when taken by themselves, is
from a scruple to a dram or more.
The first has an advantage of mix-
ing uniformly in juleps, without
spoilng their transparency, which
the powders in the second always
do. Particular care ought to be
had in the choice of the essential
oil, which for the most part is
grievously adulterated; it would be
convenient to grind the oil with a
little of the sugar, before it is ad-
ded to the other ingredients; for
by this means, it will mix more
perfectly, and not be apt to sepa-
rate in keeping.

CHAPTER XIX.

MELLA et OXYMELITA.

HONEYS and OXYMELS.

MEL AEGYPTIACUM.

TAKE of
 Verdegriſ, reduced into a
 very ſubtile powder, five
 ounces;
 Honey, fourteen ounces by
 weight.
 Vinegar, ſeven ounces by mea-
 ſure.

Boil theſe ingredients together, o-
 ver a gentle fire, till they have
 acquired a due confiſtence, and
 a reddiſh colour. On keeping
 this mixture for ſome time, the
 thicker part falls to the bottom;
 the thinner, which floats on the
 top, is called *mel Aegyptiacum*.

UNGUENTUM AEGYPTIACUM.

Edinb.
 Take of
 Verdegriſ, finely powdered, five
 ounces;
 Honey, fourteen ounces;
 Vinegar, ſeven ounces.

Boil them over a gentle fire, to the
 confiſtence of an ointment.
 Theſe preparations are deſigned
 only for external uſe, for cleanſing
 and deterging ulcers, and keeping
 down fungous fleſh: they are ſer-
 viceable alſo in venereal ulcerations
 of the mouth and tonſils. If for
 particular purpoſes, they ſhould be
 wanted more acrid, they may be
 occaſionally rendered ſo by ſhaking
 the veſſel, ſo as to mix up the

thick matter at the bottom (which
 contains greateſt part of the verde-
 griſ) with the upper thin one.

MEL ELATINES.
HONEY of FLUELLIN.

Lond.
 Take of the
 Depurated juice of fluellin, four
 pints.
 Clarified honey, four pounds.

Boil them to a due confiſtence.
 This preparation made its firſt
 appearance in the preceding edition
 of our pharmacopœia. It is very
 rarely made uſe of, and not often
 kept in the ſhops.

MEL HELLEBORATUM.
HONEY of HELLEBORE.

Lond.
 Take of
 White hellebore roots, dried and
 cut in ſlices, one pound;
 Clarified honey, three pounds;
 Water, four pints.

Let the roots be macerated in the
 water for three days, and then
 boiled a little; preſs out the li-
 quor, and having paſſed it again
 through a ſtrainer, boil it with
 the honey to a proper thick-
 neſs.

Particular care ought to be had,
 to reduce this preparation as nearly
 as poſſible to the honey confiſtence,
 that its ſtrength may not be too
 uncertain. It acts as a draſtic pur-
 gative

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gative or emetic, too violent and precarious for common use. It has been sometimes given in maniacal cases, in doses of one or two drams and upwards; though more frequently employed in glysters. The present practice very rarely makes use of it at all.

MEL MERCURIALE.

HONEY of MERCURY.

Edinb.

Take of the

Juice of French herb mercury,
Honey, each three pounds.

Boil them together to the consistence of honey, taking off the scum which arises to the top.

This is designed chiefly for glysters: it is very rarely made use of, and hence dropt by the London college.

MEL ROSACEUM.

HONEY of ROSES.

Lond.

Take of

Red rose buds, freed from the
heels, and hastily dried, four
ounces;

Boiling water, three pints;
Clarified honey, five pounds.

Steep the roses in the water for
some hours, then strain off the
liquor, mix with it the honey,
and boil them to a due consistence.

MEL ROSATUM.

Edinb.

Take of

Red roses, dried, half a pound;
Boiling water, four pints;
Honey, four pounds.

Steep the roses in the water for a
night, then strain out the liquor,
add to it the honey, and boil
the mixture to the consistence of
honey.

This preparation is not unfrequently made use of, as a mild

cooling detergent, particularly in
gargarisms for ulcerations and inflammation of the mouth and tonsils. The design of hastily drying the roses, as directed in the first of the above prescriptions, is, that they may the better preserve their virtues. See page 191.

MEL SOLUTIVUM.

SOLUTIVE HONEY.

Lond.

Take

The liquor remaining after the
distillation of six pounds of damask roses;

Cummin seeds, bruised a little,
one ounce;

Brown sugar, four pounds;

Honey, two pounds.

Having pressed out the liquor, boil it to three pints; adding towards the end, the seeds tied up in a linen cloth. Then put in the sugar and honey, and boil down the mixture to the consistence of thin honey.

This composition is very well contrived for the purpose expressed in its title. It is principally employed in laxative glysters; and hence brown sugar is here allowed; whilst for all other uses, the double refined is directed.

OXYMEL ex ALLIO.

OXYMEL of GARLIC.

Lond.

Take of

Garlic, cut in slices, an ounce
and a half;

Caraway seeds,

Sweet fennel seeds, each two
drams;

Clarified honey, ten ounces by
weight;

Vinegar, half a pint.

Boil the vinegar for a little time, with the seeds bruised, in a glazed earthen vessel; then add the garlic, and cover the vessel close;

close; when grown cold, press out the liquor, and dissolve in it the honey, by the heat of a water bath.

This oxymel is recommended for attenuating viscid juices, promoting expectoration, and the fluid secretions in general. It is doubtless a medicine of considerable efficacy, though very unpleasant, the flavour of the garlic prevailing, notwithstanding the addition of the aromatic seeds.

OXYMEL PECTORALE.
PECTORAL OXYMEL.

Edinb.

Take of

Elecampane roots,
Florence orris roots, each half
an ounce;
Gum ammoniacum, one ounce;
Vinegar, a quarter of a pint;
Honey, eight ounces;
Water, two pints.

Let the roots, cut and bruised, be boiled in the water till half a pint is wasted; then strain off the liquor, and add to it the gum ammoniacum, previously dissolved in the vinegar, and the honey: boil the whole together, taking off the scum as it arises; and lastly, strain out the oxymel.

The title of this composition expresses its medical virtues. It is designed for those disorders of the breast that proceed from a load of viscid phlegm (which this medicine attenuates and promotes the expectoration of, and obstructions of the pulmonary vessels. Two or three spoonfuls may be taken every night and morning, and continued for some time.

OXYMEL SCILLITICUM.
OXYMEL of SQUILLS.

Lond.

Take of

Clarified honey, three pounds;
Vinegar of squills, two pints.

Boil them in a glazed earthen vessel, over a gentle fire, to the consistence of a syrup.

In the Edinburgh pharmacopœia, the honey is employed unclarified; and the scum, which in such case arises in the boiling, taken off: by this means, the impurities of the honey are discharged; but some of the medicinal parts of the squills, which the vinegar is impregnated with, are also separated. For this reason the London college have judiciously ordered the honey, for all these kinds of preparations, to be previously clarified by itself.

Oxymel of squills is an useful aperient, detergent, and expectorant; and of great service in humoral asthmas, coughs, and other disorders, where thick phlegm abounds. It is given in doses of two or three drams, along with some aromatic water, as that of cinnamon, to prevent the nausea which it would otherwise be apt to excite. In large doses, it proves emetic.

OXYMEL SIMPLEX.
SIMPLE OXYMEL.

Lond.

Take of

Clarified honey, two pounds;
Vinegar, one pint.

Boil them in a glazed earthen vessel over a gentle fire, to the consistence of a syrup.

Edinb.

Take of

Honey, two pounds;
Vinegar, one pint.

Boil them according to art.

This simple preparation is not inferior in efficacy to many more elaborate compositions. It is an agreeable, mild, cooling, saponaceous, detergent, and attenuating medicine. It is often used in cooling, detergent gargarisms, and not unfrequently as an expectorant.

G g

CHAP-

CHAPTER XX.

PULVERES.

POWDER S.

General rules for making powders.

PARTICULAR care ought to be taken that nothing carious, decayed, or impure, be mixed in the composition of powders: the stalks, and corrupted parts of plants, are to be separated [E.]

II.
The dry aromatics ought to be sprinkled, during their pulverization, with a few drops of any proper water [E.]

III.
For light, dry substances, it is convenient to oil the mortar a little, or occasionally, add a drop or two of sweet oil. This prevents the finer powder from flying about, does not hinder the subject from pulverizing freely, or occasion the preparation to grow mouldy in keeping, which aqueous liquors do.

IV.
The moiſter aromatics may be dried, with a very gentle heat, before they are committed to the mortar [E.]

V.
Gums, and ſuch other ſubſtances as are difficultly pulverable, ſhould be pounded along with the drier ones, that they may paſs the ſieve together.

VI.
No part ſhould be ſeparated for uſe, until the whole quantity put into the mortar has paſſed the

ſieve, and the ſeveral ſiftings been mixed together; for thoſe parts of one and the ſame ſubject, which powder firſt, may prove different at leaſt in degree of efficacy, from the reſt. Powders are to be prepared only in ſmall quantities at a time, and kept in glaſs veſſels very cloſely ſtopped [E.]

If powders are long kept, and not carefully ſecured from the air, their virtue is in great meaſure deſtroyed, altho' the parts in which it conſiſts ſhould not in other circumſtances prove volatile. Thus, though the virtues of ipeacacanha are ſo fixt as to remain entire even in extracts, made with proper menſtrua; yet, as the college of Wirtemberg obſerves, if the powdered root be expoſed for a length of time to the air, it loſes its emetic quality. How this happens will be eaſily underſtood from what has been already ſaid in page 361.

PULVIS ANTI-EPILEPTICUS, de gutteta dictus.

ANTI-EPILEPTIC POWDER.

Ednb.

Take of
Wild valerian roots,
White dittany roots,
Peony roots,
Mistletoe of the oak, each equal parts.

Mix, and make them into a powder.

This

This powder has undergone a considerable change since its last appearance. The form above contains seven less ingredients than the old one; most of the articles rejected favour too much of superstition to be any longer retained, or appear upon other accounts evidently exceptionable; and it is probable, a severer scrutiny would have thrown out the dittany, peony, and mistletoe of the oak; the virtues of this last are greatly to be suspected; and though the two others may be admitted as of some service, yet they are certainly inferior to the valerian, and increase the bulk of the medicine, without contributing a proportionable share of efficacy. However, as the powder now stands, it may be looked upon as a medicine of considerable use for the purpose expressed in its title; the testacea, which are in many compositions of this kind, are here prudently omitted, as they may be more conveniently added occasionally. The dose is from ten grains to half a dram for children; and from half a dram to two drams, for adults.

PULVIS ARI COMPOSITUS.
COMPOUND POWDER of
ARUM.

Lond.

Take of
Arum root, fresh dried, two
ounces;
Yellow water flag roots,
Burnet saxifrage roots, each one
ounce;
Crabs eyes prepared,
Cinnamon, each half an ounce;
Salt of wormwood, two drams.
Beat them into a powder, which is
to be kept in a close vessel.

Edinb.

Take of

Arum roots, newly dried, two
ounces;
Calamus aromaticus,
Burnet saxifrage roots, each one
ounce;
Crabs eyes prepared, half an
ounce;
Cinnamon, three drams;
Salt of wormwood, two drams.
Mix, and make them into a powder,
according to art.

The calamus aromaticus is inserted in the latter of these prescriptions, on a supposition that this was understood by the *acorus vulgaris* of the original, a name which has been applied by different writers, both to it and to the *gladiolus luteus*, or yellow water flag. But as the medicine was first contrived by a German physician, Birekmann, and as in some of the German pharmacopœias, the *acorus vulgaris* is explained to be the water flag, the London college have made choice of this last, and expressed it by a name which more clearly distinguishes it from the other. The caution of keeping the powder in a close vessel, is a very necessary one; for if exposed to the air, the alkaline salt, imbibing moisture from it, would run into a liquid state. Two alkaline salts have been generally directed; but as they differ from one another only in name (see page 278.) one of them is here justly omitted, and supplied by a proportionable increase of the other. Possibly the prepared crabs eyes might also have been dropt, unless they are intended to augment the volume of the medicine; for they do not appear to have any medicinal virtue which alkaline salts do not possess in a greater degree.

This composition was originally intended for a stomachic: and in cold sluggish temperaments, where viscid phlegm and crude acid juices

G g 2 abound

abound in the first passages, it proves a very serviceable one; dissolving and promoting the expulsion of the noxious humours, exciting appetite, and opening obstructions, not only of the viscera, but likewise of the remoter glands; whence it becomes useful in scorbutic cases also: the dose is from one scruple to two. It is best when fresh made: in keeping, it is apt to grow mouldy, and lose of its efficacy; the arum root in particular soon loses the pungency in which its virtue resides.

PULVIS ANTILYSSUS.
POWDER against the BITE of a
MAD DOG.

Lond.

Take of

Ash-coloured ground liverwort,
two ounces;

Black pepper, one ounce.

Beat them together into a powder.

In our former pharmacopœia, the quantity of pepper was equal to that of the herb: which rendering the powder greatly too hot, the above diminution of it became necessary. The virtue which this medicine has been celebrated for, is expressed in its title: the dose is a dram and a half, to be taken in the morning fasting, in half a pint of cows milk warm, for four mornings together. Before the use of the powder, the patient is to be bled; and after it, to be dipt in cold water every morning fasting for a month. See LICHEN CINEREUS, page 151.

PULVIS e BOLO
COMPOSITUS sine OPIO.
COMPOUND POWDER of
BOLE without OPIUM.

Lond.

Take of

Bole Armenic, or French bole,
half a pound;

Cinnamon, four ounces;

Tormentil root,

Gum Arabic, each three ounces;

Long pepper, half an ounce.

Reduce these ingredients into powder.

PULVIS e BOLO
COMPOSITUS cum OPIO.
COMPOUND POWDER of
BOLE with OPIUM.

Lond.

Take of

Opium strained, three drams.

Dry it a little, so as to render it easily pulverable; and add it to the foregoing species, that they may all beat into a powder together.

This powder, with opium, is an elegant reform of the species of Fracastorius's confection, commonly called *diascordium*; consisting only of such of the ingredients of that composition, as are most conducive to the intention for which it is at present prescribed. Forty-five grains of the powder contain one of opium.

The powder is directed to be kept without opium, for cases, where the assistance of that soporific drug is not wanted. It is a warm, glutinous astringent; and in fluxes, or other disorders, where medicines of this class are proper, generally does good service. It may be given in doses of a scruple, or half a dram, and occasionally repeated.

PULVIS e CERUSSA
COMPOSITUS.
COMPOUND POWDER of
CERUSSE.

Lond.

Take of

Cerusse, five ounces;

Sarco-

Sarcocolla, one ounce and a half;

Gum tragacanth, half an ounce.

This composition is the *trachisci albi* of Razi, brought back to its original simplicity with regard to the ingredients, and without the needless trouble of making it into troches. It is employed for external purposes; as in collyria, lotions, and injections, for repelling hot acrimonious humours; and in inflammations.

PULVIS e CHELIS
CANCROCORUM COMPOSITUS.
COMPOUND POWDER of
CRABS CLAWS.

Leod.

Take of

The tips of crabs claws prepared, one pound;

Pearls prepared,

Red coral prepared, each three ounces,

Mix them together.

Edinb.

Take of

Crabs eyes prepared,

Red coral prepared, each an ounce;

Black tips of crabs claws prepared, two ounces.

Mix, and make them into a powder.

These powders have lost several of their ingredients, without any injury to their virtues; and possibly they would still bear a farther reduction; for both the crabs eyes and claws are by themselves more effectual than any composition of them with pearls and coral.

The only virtue of these powders is to absorb acidities in the first passages; if no acid juices are contained there, they prove injurious rather than beneficial (see pages 53, 54.) They have been often exhibited in fevers, under the notion of alexipharmacs and sudorifics,

from a supposition that these disorders are occasioned by a latent acid; and, though this theory is now exploded, the practice built upon it is, in good measure, still continued. Infants at the breast, indeed, are not unfrequently thrown into febrile distempers, from a redundancy of acid humours; and in these cases, the absorbent powders are undoubtedly of use; but in the fevers of adults, it scarce ever happens that they can be of any service. So far are absorbents from being useful here, that substances of a directly contrary quality, mild acidulous liquors, are in general the most successful remedies, wherever the *vis vitæ* is not too far depressed; and where it is, the insipid indolent earths can contribute nothing to support or raise it.

PULVIS BEZOARDICUS.
BEZOARDIC POWDER.

Leod.

Take of

Compound powder of crabs claws, one pound;

Oriental bezoar prepared, one ounce.

Mix them together.

Bezoar has hitherto been an ingredient in the foregoing composition; though, notwithstanding the addition it made to the price, it added nothing to the virtue of the medicine. The college of London have therefore very prudently directed an absorbent powder, without this costly article; and composed another, distinguished by its name, for the use of those who expect any particular virtues from it. The Edinburgh college have entirely expunged this unnecessary drug, and take no farther notice of it in their pharmacopœia, than barely giving it a place in a catalogue of simples, along with sundry other substances, which they

certainly do not insit upon being kept in the shops.

**PULVIS CONTRAYERVÆ
COMPOSITUS.
COMPOUND POWDER of
CONTRAYERVA.**

Lond.

Take of
Compound powder of crabs claws,
a pound and a half;
Contrayerva root, five ounces.
Make them into a powder.

Edinb.

Take of
Contrayerva root, half an ounce;
Virginian snakeroot, a dram and
a half
Cochineal, one dram;
English saffron, half a dram;
Bole Armenic prepared, three
drams;
Compound powder of crabs claws,
seven drams;
Make them into a powder.

These powders were formerly directed to be made up into balls with water, (and then called LAPIS CONTRAYERVÆ,) a piece of trouble now laid aside as needless, for it was necessary to reduce the balls into powder again before they could be used. Nor did that form contribute, as has been imagined, to their preservation; for it is scarce to be supposed, that the powder will lose more by being kept for a reasonable length of time in a close-stopt glass, than the balls will, in the humectation with water, and exsiccation in the air, before they are fit for being put by to keep.

These medicines have a much better claim to the title of an alexipharmac and sudorific, than the two foregoing compositions. The contrayerva, snakeroot, and saffron by themselves are such, and prove eminently serviceable in low fevers, where the vis vitæ is weak, and a

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diaphoresis to be promoted. It is possible, that the crabs claw powders are of no farther service than as they divide these powerful ingredients, and render them sup- portable to the stomach.

**PULVIS DIATESSARON.
POWDER of FOUR
INGREDIENTS.**

Edinb.

Taste of
Round birthwort roots,
Gentian roots,
Bayberries,
Myrrh, each two ounces.
Make them into a powder.

In former editions of the London pharmacopœia, this composition was ordered to be made into an electary, and dignified with the title of THERIACA diateffaron. We have not heard, however, of its being otherwise made use of, than for diseases of cattle.

**PULVIS DIAPENTE.
POWDER of FIVE
INGREDIENTS.**

Edinb.

This is made by adding to the foregoing compositions two ounces of ivory shavings: which add more to its bulk than to its virtue.

**PULVIS e MYRRHA
COMPOSITUS.
COMPOUND POWDER of
MYRRH.**

Lond.

Take of
Rue leaves, dried,
Dittany of Crete,
Myrrh, each an ounce and a
half;
Afa fetida,
Sagapenum,
Ruffia castor,
Opopanax, each one ounce.
Beat them together into a powder.

This

This is a reform of the *trochisci e myrrha*, a composition contrived by Razi against uterine obstructions. The making the powder into troches was very unnecessary, since the medicine is never used in that form. The powder may be taken in any convenient vehicle, or made into boluses, from a scruple to a dram or more, two or three times a day.

PULVIS ad PARTUM.

POWDER to promote
DELIVERY.

Ednb.

Take of

- Borax, half an ounce;
- Castor,
- Saffron, each a dram and a half;
- Oil of cinnamon, eight drops;
- Oil of amber, six drops.

Beat the species together into a powder, to which add the oils, and mix the whole well together.

This medicine has long been held in esteem for the purpose expressed in its title: nevertheless, its real efficacy, and what share thereof is owing to each of the ingredients, has not been sufficiently determined: the borax, tho' generally looked upon as the capital article, seems to contribute the least to its virtue. The dose is from a scruple to a dram, or so much as can be conveniently taken up at once on the point of a knife. It should be kept in a very close vessel, otherwise it will soon lose a considerable deal of its more valuable parts.

PULVIS e SCAMMONIO
COMPOSITUS.

COMPOUND POWDER of
SCAMMONY.

Lond.

Take of

- Scammony, four ounces;

Calcined hartshorn prepared, three ounces.

Grind them diligently together into a powder.

Here the scammony is divided by the earthy calx, and thus rendered somewhat more soluble, and less adhesive; hence its purgative quality is promoted, at the same time that it becomes less griping. The dose of the compound is from fifteen grains to half a dram.

This powder has been usually prepared with diaphoretic antimony and crystals of tartar (instead of the calcined hartshorn above directed,) and called, from its first publisher, PULVIS CORNACHINI, which in the Edinburgh pharmacopoeia is thus directed:

Take of

- Diaphoretic antimony,
- Creme of tartar,

Scammony, each equal parts.

Make them into a powder.

This may be given to the quantity of a dram or more. In other prescriptions, the tartar and antimonial calx bear nearly the same proportion to the scammony, as the calcined hartshorn in the preceding formula. It appears probable, that neither of these ingredients are of any farther use, than as they divide the texture of the scammony; though Cornacchini proposes notable advantage from some deobstruent quality in the tartar, whereby the vessels shall be opened, and the noxious humours prepared for expulsion; and from the preparation of antimony, tho' it have no sensible operation, he expects some share of the same success, which sometimes attends the rougher preparations of that mineral.

PULVIS e SENA
COMPOSITUS.

G g 4

COM.

COMPOUND POWDER of
SENA. *Lond.*

Take of
Sena,
Crystals of tartar, each two ounces;
Scammony, half an ounce;
Cloves,
Cinnamon,
Ginger, each two drams.

Powder the scammony by itself;
and all the other ingredients to-
gether; then mix them.

PULVIS DIASENNÆ. *Edinb.*

Take of
Sena,
Creme of tartar, each two ounces;
Scammony.
Ginger, each half an ounce.

Make them into a powder.

These powders are given as cathartics, in the dose of two scruples, or a dram. The spices are added, not only to divide, but to warm the medicine, and make it sit easier on the stomach. The scammony is used as a stimulus to the sena; the quantity of the latter necessary for a dose, when not assisted by some more powerful material, being too bulky to be conveniently taken in this form.

PULVIS STERNUTATORIUS.
STERNUTATORY POWDER. *Lond.*

Take of
Asarum,
Marjoram,
Marum Syriacum, leaves dried,
Lavender flowers, dried, each
equal weights.

Rub them all together into a powder.

PULVIS CEPHALICUS.
CEPHALIC POWDER. *Edinb.*

Take of

Asarum,
Betony,
Marjoram, of the leaves of each,
equal parts.

Beat them together into a powder.

The titles of these powders sufficiently express their intention. They are both agreeable and efficacious to the rhines, and superior to most of those usually sold under the name of herb snuffs.

PULVIS STYPTICUS.
STYPTIC POWDER. *Edinb.*

Take of
Alum, half an ounce;
Dragons blood, two drams.
Mix, and make them into a powder.

This powder has long been in repute as an astringent, under the title of PULVIS STYPTICUS HELVETII. It is undoubtedly a very powerful medicine; though the dragons blood seems to have little share in its effects. See page 75. Some direct the ingredients to be melted together before they are powdered: but this circumstance does not appear to be at all necessary.

PULVIS e SUCCINO
COMPOSITUS.
COMPOUND POWDER of
AMBER. *Lond.*

Take of
Amber prepared,
Gum Arabic, each ten drams;
Juice of hypocistis,
Balaustines,
Japan earth, each five drams;
Olibanum, half an ounce;
Strained opium, one dram.

Reduce them all together into a powder.

This powder is composed of the more unexceptionable ingredients of the TROCHISCI e CARABE

of

of our former pharmacopœia. The articles omitted, which are as many in number as those now retained, were manifestly absurd or superfluous; and the making it up into troches, a very unnecessary trouble. The medicine, as now reformed, may be looked upon as an useful, and tolerably elegant affringent; though possibly the ingredient, which it receives name from, contributes little to its virtue. Two scruples of the composition contain one grain of opium.

PULVIS e TRAGACANTHA
COMPOSITUS.

COMPOUND POWDER of
GUM TRAGACANTH.

Lond.

Take of

Gum tragacanth,
Gum Arabic,
Marshmallow root, each an ounce
and a half;
Starch,
Liquorice, each half an ounce;
Double refined sugar, three
ounces;

Grind them into a powder.

PULVIS DIATRAGACANTHI.

Edinb.

Take of

Gum tragacanth, one ounce;
Gum Arabic, five drams;
Liquorice,
White poppy seeds,
Starch, each two drams;
Marshmallow roots, half an
ounce.

Beat them all together into a powder.

Both these powders are mild, emollient, glutinous medicines, and hence become serviceable in hectic cases, tickling coughs, strangury, heat of urine, some kinds of alvine fluxes, and other disorders proceeding from a thin acrimonious state of the humors, or an abrasion of the natural mucus of the intes-

tines; they soften, and give a greater degree of consistency to the former, and defend the latter from being irritated or excoriated by them. All the ingredients coincide in these general intentions; the marshmallow root, however, is somewhat too bulky for this form, and likewise subjects the composition to grow mouldy in keeping, an inconvenience which the cold seeds formerly employed in these powders were particularly liable to. The dose is from half a dram to two or three drams, which may be frequently repeated.

HIERA PICRA.

i. e. The HOLY BITTER.

Lond.

Take of

The gum extracted from Socotrine aloes, one pound;
Canella alba, three ounces.

Beat them separately into powder, and then mix them together.

This powder, in our former pharmacopœia, besides the capital ingredient aloes, contained cinnamon, zedoary, asarum, cardamom seeds, saffron, and cochineal. The article here introduced in the room of these, was found, upon trial of a great many others, most effectually to cover the ill flavour of the aloes; at the same time, that the quantity sufficient to effect this, communicates to the medicine the same degree of spicy warmth, as the aromatics in the old form. It should nevertheless seem, that the alteration made in this preparation may occasion some small change in its medical virtues; the singular qualities of the asarum point out the intention of the contriver to have been, not entirely to alleviate the intense bitterness and disagreeable smell of the aloes, or barely to warm the medicine with aromatics, but by the addition of pungent,

gent, penetrating substances, to promote and extend its action to farther purposes, than the aloes alone was capable of answering. In this light, the modern practice considers this medicine, and prescribes it not simply as a purgative, but as a stimulus. In the following formula, the asarum is likewise rejected; but another pungent drug introduced in its stead:

PULVIS HIERÆ PICRÆ.

Edinb.

Take of
Socotorine aloes, four ounces;
Virginian snakeroot,
Lesser cardamon seeds, each half an ounce.

Mix, and beat them into a powder.

These compositions were originally directed to be made into an electary: with us, they have been rarely used in that form, and not often in this of a powder, on account of their great nauseousness. They are chiefly employed as the basis of a tincture called, from the extraordinary virtues attributed to it, *tinctura sacra*, which see.

SPECIES AROMATICÆ.
AROMATIC SPECIES.

Lonb.

Take of
Cinnamon, two ounces;
Lesser cardamon seeds, hulked,
Ginger,
Long pepper, each one ounce.
Beat them together into a powder.

PULVIS DIAROMATON.
AROMATIC POWDER.

Edinb.

Take of
Canella alba,
Lesser cardamom seeds,
Mace,
Ginger, each equal parts.

Beat them all together into a powder.

Both these compositions are agreeable, hot, spicy medicines; and as such, may be usefully exhibited in cold phlegmatic habits and decayed constitutions, for warming the stomach, promoting digestion, exciting the vis vitæ, and strengthening the tone of the viscera in general. The dose is from ten grains to a scruple and upwards. The first proves considerably the warmest.

SPECIES e SCORDIO fine
OPIO.

SPECIES of SCORDIUM without
OPIUM.

Lonb.

Take of

Bole Armenic, or French bole,
four ounces;
Scordium, two ounces;
Cinnamon, one ounce and a half;
Storax strained,
Tormentil root,
Bistort root,
Gentian,
Dittany of Crete,
Galbanum strained,
Gum Arabic,
Red roses, each one ounce;
Long pepper,
Ginger, each half an ounce.

Reduce them into powder.

SPECIES e SCORDIO cum
OPIO.

SPECIES of SCORDIUM with
OPIUM.

Lonb.

Take of

Strained opium, three drams.
Dry it a little, that it may easily pulverize; and add it to the foregoing species in the beating, that they may be all reduced into a powder together.

This

This is the species of Fracastorius's confection or diascordium, which has been hitherto kept in the shops in the form of an electary only, but is now judiciously directed in that of a powder also, both with and without the opium: when made into an electary, the medicine, in keeping, loses considerably of its astringency, in which consists great part of its medicinal virtue.

As this composition has in common practice been looked upon as a medicine of great consequence, and its effects determined by long experience; the college have made no farther alteration in its ingredients, than substituting red roses them-

selves to the sugar of roses, omitting sorrel seeds, which are certainly insignificant, and supplying the Lemnian earth, which with us is scarce ever met with genuine, by a proper increase of the bole. They have nevertheless given an elegant reform of it, in the *pulvis e bole, cum et sine opio*: there, the scordium, storax, gentian, dittany, ginger, and galbanum, are rejected as being either superfluous or contrary to the intention; whilst an increase of the tormentil root more than amply supplies the loss of the bistort root and roses. The quantity of opium is the same in both, viz. one grain in forty-five of the composition.



Take of
 bole armenic or french bole
 four ounces
 Scordium two ounces
 Storax three drams
 Tormentil root
 each one ounce

Take of
 strained opium three drams
 Div it a little that it may easily
 pulverize, and add it to the
 foregoing species in the bearing
 that they may be all reduced in
 to a powder together.

Take of
 Opium
 Scordium
 each one ounce

and beat them into a powder
 these compositions were origi-
 nally directed to be made into an
 electary, with as they have been
 lately used in that form, and not
 reduced to this of a powder, on ac-
 count of their great handsomely
 face are chiefly employed as the
 base of a tincture called from the
 extraordinary virtue attributed to
 it, the *rose-water*, which is.

SPECIES ARO-
 MATAE SP.
 Take of
 storax two ounces
 bitter cardamon seeds, husked
 three ounces
 long pepper, each one ounce
 reduce them together into a powder

PULVIS DIAROMATON
 AROMATIZ. POW-
 DER.
 Take of
 Cardia alba
 bitter cardamon seeds
 each equal part

CHAP-

CHAPTER XXI.

TROCHISCI et TABELLÆ.

TROCHES and LOZENGES.

Troches and lozenges are composed of powders made up with glutinous substances into little cakes, and afterwards exsiccated.

THIS form is principally made use of for the more commodious exhibition of certain medicines, by fitting them to dissolve slowly in the mouth, so as to pass by degrees into the stomach; and hence these preparations have generally a considerable proportion of sugar or other materials grateful to the palate. Some pow-

ders have likewise been reduced into troches, with a view to their preservation; though possibly for no very good reasons: for the moistening, and afterwards drying them in the air, must in this light be of greater injury, than any advantage accruing from this form can counterbalance.

General rules for making troches.

I. The four first rules laid down for making powders, are also to be observed in the powders for troches.

II. If the mass proves so glutinous as to stick to the fingers in making up, the hands may be anointed with any convenient sweet or aromatic oil, or else sprinkled with powder of starch, or with that of liquorice.

III. In order to thoroughly dry the troches, put them on an inverted sieve, in a shady, airy place, and frequently turn them.

IV.

Troches are to be kept in glass vessels, or in earthen ones well glazed.

TROCHISCI ALBI RHASIS, seu SIEF ALBUM.

The WHITE TROCHES, or DRY COLLYRIUM of RAZI.

Take of
Cerule, ten drams;
Sarcocolla, three drams;
Gum tragacanth,
Starch, each two drams;
Camphor, half a dram;
Rose water, as much as is sufficient.

Make

Make them into troches according to art. in the throat, which provokes coughing.

The making these ingredients into troches is an unnecessary trouble; since before they are used, they must be powdered again, for being mixed with rose water or other liquors, for the purposes of a cooling, antacid, and moderately astringent collyrium, injection, &c. The London college have therefore judiciously directed them to be kept in the form of powder (under the title of *pulvis e cerussa compositus*) omitting the starch and camphor, which are not found in the original of Razi.

TROCHISCI BECHICI ALBI.
WHITE PECTORAL TROCHES.

Take of
Double refined sugar, a pound
and a half;
Starch, an ounce and a half;
Liquorice, six drams;
Florence orris root, half an
ounce.

Reduce these ingredients into powder, which is to be made up into troches with a proper quantity of mucilage of gum tragacanth.

Edinb.

Take of

White sugar candy, a pound and
a half;
Florence orris root, an ounce
and a half;
Liquorice, an ounce;
Starch, half an ounce;
Mucilage of gum tragacanth, as
much as is sufficient to make
the other ingredients, powdered,
into troches.

These compositions are very agreeable pectorals, and may be used at pleasure. They are calculated for softening acrimonious humours, and allaying the tickling

TROCHISCI BECHICI NIGRI.
BLACK PECTORAL TROCHES.

Edinb.

Take of

Extract of liquorice,
Double refined sugar, each ten
ounces;
Gum tragacanth, half a pound.

Drop upon these ingredients, so much water as will make the mass soft enough to be formed into troches.

By some error, powder of liquorice was ordered in the last edition of the pharmacopœia, instead of the extract, which is the ingredient that gives the troches their black colour. The college have now corrected this mistake; and likewise omitted the sweet almonds and mucilage of quince-seeds; the first was an improper article, and the other an insignificant one.

Edinb.

Take of

Extract of liquorice, two ounces;
Balsam of Tolu, one dram;
Gum tragacanth, half an ounce;
White sugar, four ounces;
Hyssop water, as much as is
sufficient to make the other
ingredients into troches.

These compositions are calculated for the same purposes as the white pectoral troches above described. In foreign pharmacopœias there are some other troches of this kind, under the titles of *Trochisci bechici flavi*, and *rubri*; the first are coloured with saffron, the latter with bole Armenic.

TROCHISCI CYPHEOS pro
MITHRIDATIO.

The TROCHES called CYPHI
(incense cakes) for MITHRIDATE.

Edinb.

Take

Take of
 Raisins of the sun, stoned,
 Turpentine of Cyprus, each three
 ounces;
 Myrrh,
 Camels hay, each an ounce and
 a half;
 Cinnamon, half an ounce;
 Saffron, one dram;
 Bdellium,
 Spikenard,
 Casia lignea,
 Cyperus roots, the round or long,
 Juniper berries, each three drams;
 Aspalathus, or yellow faunders,
 two drams and a half;
 Calamus aromaticus, nine drams;
 Clarified honey, as much as is
 sufficient.

Grind the bdellium and myrrh with
 so much Canary wine as will re-
 duce them to the consistence of
 honey; then add thereto the
 pulp of the raisins, the turpen-
 tine, and the honey, and lastly
 the other ingredients reduced in-
 to a very subtile powder. Make
 the whole into troches according
 to art.

**TROCHISCI dicti MAGMA
 HEDYCHROI, pro THERIACA
 ANDROMACHI.**

*The TROCHES called
 HEDYCHROI (pleasant coloured)
 for VENICE TREACLE.*
Edinb.

Take of
 Marum leaves,
 Marjoram leaves,
 Aspalathus, or yellow faunders,
 Asarum roots, each two drams;
 Camels hay,
 Calamus aromaticus,
 Pontic phu (or wild valerian root)
 Xylobalsamum (or agallochum)
 Opobalsam (or balsam of Peru)
 Costus, (or zedoary)
 Cinnamon, each three drams;

Myrrh,
 Malabathrum, (or bay leaves)
 Indian nard,
 Casia lignea,
 Saffron, each six drams;
 Amomum, (or cloves) an ounce
 and a half;
 Mastich, one dram;
 Canary wine, as much as is suf-
 ficient.

Make them into troches according
 to art.

These and the foregoing troches,
 as their titles import, are designed
 only as ingredients, one in the mi-
 thridate, the other in the theriaca,
 though most of their articles are in-
 serted therein over again. The
 London college has rejected the
 needless trouble of making either of
 these troches; and in their stead,
 direct the several articles which they
 consist of, to be united in those
 compositions directly.

**TROCHISCI de MINIO
 RED-LEAD TROCHES.**
Edinb.

Take of
 Red lead, half an ounce;
 Corrosive mercury sublimated,
 one ounce;
 Crumb of the finest bread, four
 ounces.

Make them up with rose water into
 oblong troches.

These troches are employed only
 for external purposes as escharo-
 tics: they are powerfully such, and
 require a good deal of caution in
 their use.

**TROCHISCI e MYRRHA.
 TROCHES of MYRRH.**
Edinb.

Take of
 Myrrh, half an ounce;
 Madder roots,
 Pennyroyal leaves,
 Russia castor, each three drams;
 Cummin

Cummin seed,
 Aſa fetida,
 Galbanum, each two drams;
 Eſſential oil of rue,
 Eſſential oil of favin, each twenty
 drops;
 Elixir proprietatis, as much as is
 ſufficient.

Let the gums be ſoftened with the
 elixir into a maſs of the confiſt-
 ence of honey; then add the oils
 and powders, and make the
 whole into troches according to
 art.

Theſe troches are very well con-
 trived, in regard to efficacy, and
 ſuperior to thoſe in moſt other phar-
 macopœias, under the ſame title;
 though ſome of their ingredients
 might nevertheless be diſpenſed
 with: the madder is an unneceſſary
 article, and the cummin ſeed an
 offenſive one, and not of ſimilar in-
 tention with the reſt. There ſeems
 to be no occaſion for making a
 medicine of this kind into troches,
 as it cannot be conveniently taken
 in that form; the London college
 have therefore exchanged their
 TROCHISCI *e myrrha* for a PUL-
 VIS *e myrrha compoſitus*, which ſee.
 Both compositions are deſigned for
 antihyſterics and promoters of the
 uterine diſcharges: the doſe is
 from a ſcruple to a dram.

TROCHISCI *e* NITRO.
 TROCHES of NITRE.

Lond.

Take of
 Nitre purified, four ounces;
 Double refined ſugar, one pound.
 Make them into troches with mu-
 cilage of gum tragacanth.
 This is a very agreeable form
 for the exhibition of nitre, though
 it is not free from inconveniencies;
 for when the ſalt is thus taken
 without any liquid (if the quantity
 is conſiderable) it occasions great

uneaſineſs about the ſtomach, which
 can only be prevented by large di-
 lution with aqueous liquors.

TROCHISCI *e* SCILLA.
 TROCHES of SQUILLS.

Lond.

Take of
 Baked ſquills, half a pound;
 Wheat flower, four ounces.
 Beat them together, and form the
 maſs into troches, which are to
 be dried with a gentle heat.

TROCHISCI SCILLITICI pro
 THERIACA ANDROMACHI.
 TROCHES of SQUILLS for
 VENICE TREACLE.

Edinb.

Take a whole ſquill, after the
 leaves and ſtalks are withered.
 Having peeled off the outward
 ſkin, incloſe the ſquill in a paſte
 of wheat flower, and bake it
 in an oven until the paſte is dried
 into an hard cruſt.
 Let three ounces of ſquills, thus
 baked tender, be beat in a mor-
 tar with two ounces of the meal
 of white vetch, or of common
 wheat flower, into a paſte which
 form into troches, to be gently
 dried in the ſhade.
 The ſquill itſelf, moderately
 dried, is juſtly preferred to theſe
 troches.

Theſe preparations are uſed only
 as ingredients in the theriac. The
 deſign of baking the ſquill is, to
 abate its acrimony, and making it
 afterwards into troches ſeems the
 moſt convenient way of drying it;
 common wheat flower is as fit for
 this purpoſe as any, though that of
 the white vetch has been generally
 directed.

TROCHISCI *e* SULPHURE.
 TROCHES of SULPHUR.

Lond.

Lond.

Take of

Flowers of sulphur, washed, two ounces;

Double refined sugar, four ounces;

Beat them together, and adding some mucilage of quince-seeds, form them into troches.

TROCHISCI DIASULPHURIS.
TROCHES of SULPHUR. *Edinb.*

Take of

Flowers of sulphur, one ounce;

Flowers of benzoine, one dram;

White sugar, four ounces;

Mucilage of gum tragacanth, as much as is sufficient.

Mix and make them into troches, according to art.

These compositions are to be considered only as agreeable forms for the exhibition of sulphur, no alteration or addition being here made to its virtue; unless that by the flowers of benzoine in the second prescription, the medicine is supposed to be rendered more efficacious as a pectoral.

TROCHISCI e TERRA
JAPONICA.*TROCHES of JAPAN EARTH.* *Lond.*

Take of

Japan earth,

Gum Arabic, each two ounces;

Sugar of roses, sixteen ounces.

Beat them together, and dropping in some water, make them into troches.

 Edinb.

Take of

Japan earth, two ounces;

Gum tragacanth, half an ounce;

White sugar, one pound;

Rose water, a sufficient quantity.

Make them into troches.

A preparation of this kind, with the addition of ambergris and musk,

which are here more prudently omitted, has long been in some esteem as a mild restraining, &c. under the title of CATECHU. Medicines of this class in general are excellently fitted for the form of troches: for when slowly and gradually received into the stomach, as this form occasions them to be, they produce much better effects, than if an equal quantity was taken down at once. Japan earth is for this purpose one of the most proper of the astringents, as being totally soluble, mild in quality, and free from any ungrateful relish, which most of the others are accompanied with. The troches are sufficiently palatable, and of considerable service in some kinds of coughs, thin acrid fluxions, diarrhoeas, and disorders proceeding from a laxity of the intestines.

TROCHISCI VIPERINI pro
THERIACA ANDROMACHI,
*VIPER TROCHES for VENICE
TREACLE.* *Edinb.*

Take of

Vipers flesh (first freed from the skin, intestines, fat, heads, and tails, then boiled in water, with a little dill and salt, till it has grown soft; and afterwards separated from the back bone) eight ounces:

Bisket bread, pounded and passed through a sieve, two ounces.

Beat them together, with a sufficient quantity of the liquor wherein the vipers were boiled, into a mass; which is to be formed into troches according to art.

These troches are brought to us ready made from abroad; but the vipers flesh itself dried, is justly preferred to them: and accordingly

accordingly the London college have entirely omitted the troches and supplied their place in the theriaca, with a suitable quantity of the dried flesh of the animal. The troches brought from abroad are certainly very insignificant, if genuine, which some suspect they are not.

TABELLÆ CARDIALGICÆ.
CARDIALGIC LOZENGES.

Lond.

Take of

Chalk prepared, four ounces;
Crabs claws prepared, two ounces;
Bole Armenic, or French bole,
half an ounce;
Nutmegs, one scruple;
Double refined sugar, three
ounces;

Reduce these ingredients into powder, and make them into troches with water.

TROCHISCI CARDIALGICI.

Edinb.

Take of

Oyster shells prepared,
White chalk, powdered, each
two ounces;
Gum Arabic, half an ounce;
Nutmegs, half a dram;
White sugar, ten ounces;
Balm water, a sufficient quantity.

Make them into troches according to art.

These compositions are calculated against that uneasy sensation at stomach improperly called the heart-burn; in which they oftentimes give immediate relief, by absorbing and neutralizing the acid juices that occasion this disorder. The absorbent powders here made use of, are of the most powerful kind.

SACCHARUM ROSACEUM.
SUGAR of ROSES.

Lond.

Take of

Red rose buds, freed from the

heels, and hastily dried, one ounce;

Double refined sugar, one pound.
Reduce them separately into powder, then mix, and moisten them with water, that they may be formed into troches, which are to be dried by a gentle heat.

SACCHARUM ROSATUM
RUBRUM.

RED SUGAR of ROSES.

Edinb.

Take of

White sugar, one pound;
Juice of red roses, four ounces;
Red roses dried, one ounce.

Boil the sugar and the juice over a gentle fire, till the juice is almost all evaporated; then throw in the dry roses reduced to a very fine powder. Pour out the matter upon a marble, and form it into lozenges according to art.

These preparations are chiefly valued for their agreeableness to the eye and palate. Some likewise esteem them, medicinally, as light restringents; and look upon them, not undeservedly, as an excellent addition to milk in phtisical and hectic cases. Some have been accustomed to add a portion of acid in making these preparations: this improves the colour, but renders them less proper to be used with milk.

SACCHARUM HORDEATUM
seu PENIDIATUM.

BARLEY SUGAR.

Edinb.

This is made by boiling white sugar in barley water (that is, a decoction of barley) till it acquires such a consistence as that it may be drawn out, and twisted into threads or strings.

It is rarely prepared by the apothecary, or considered as a medicine.

H h

TA-

TABELLÆ
 DIATRAGACANTHI.
 LOZENGES of the COMPOUND
 POWDER of GUM
 TRAGACANTH.
Edinb.

Take of

The compound powder of gum
 tragacanth, three ounces ;
 White sugar, one pound ;
 Rose water, four ounces.
 Set the sugar and rose water over
 the fire, and when the sugar is

dissolved, throw in the powder ;
 then pour out the matter upon a
 marble, and form it into lozenges.

The virtues of this composition
 may be understood from those of
 the powder which it receives name
 from. The ingredients here added
 render it very agreeable to the
 palate, but at the same time so far
 increase its bulk, that large quantities
 must be taken in order to produce
 any considerable effect.



CHAPTER XXII.

P I L U L Æ.

P I L L S.

General rules for making pills, from the Edinburgh pharmacopœia.

I. LET the four first rules, formerly laid down for the making of powders, be likewise carefully observed here.

II. Gums and inspissated juices are to be first softened with the liquid prescribed; then add the powders by little and little, and beat the whole well together.

III. The masses for pills are best kept in bladders, which should be moistened, now and then, with some of the same kind of liquid that the mass was made up with.

PILULÆ ÆTHIOPICÆ.
ETHIOPIC PILLS.

Edinb.

Take of
Pure quicksilver,
Golden sulphur of antimony,
Resin of guaiacum,
Spanish soap, each half an ounce.
Grind the quicksilver with the golden sulphur and resin, in a glass mortar, until the mercurial globules entirely disappear; then add the soap, with as much balsamic syrup as is sufficient to make the mixture into a mass of the proper consistence for forming pills.

These pills are much more efficacious than those of the preceding edition; the ethiops mineral, there ordered, being exchanged for a more active composition. In their present form, they resemble Dr. Plummer's pills, described in the Edinburgh essays, (see page 350 of this work) to which they are preferable in one respect, that they are less apt to run off by stool. The soap is added merely to promote their dissolution in the stomach; for pills made up of resins and substances not easily dissoluble, frequently pass through the body entire; which sometimes happened to the last form of these pills.

This medicine is an useful alterative both in cutaneous and venereal disorders. One fourth part of the quantity above prescribed may be made into sixty pills; of which, from one to four may be taken every night and morning, the patient keeping moderately warm during the whole time that this course is continued.

PILULÆ AROMATICÆ.
AROMATIC PILLS.

Lond.

Take of
Socotorine aloes, an ounce and a half;
H h 2 Gum

Gum guaiacum, one ounce ;

Aromatic species,

Balsam of Peru, each half an ounce.

Reduce the aloes and gum guaiacum separately into powder, then mix them with the rest, and make the whole into a mass with syrup of orange peel.

It is somewhat difficult to unite these ingredients into a mass fit for making pills. The best way is, to first rub the aromatic species with the balsam, then to add the powdered aloes, and afterwards the guaiacum ; when these are well mixed together, drop in the syrup by little and little at a time.

These pills are contrived to supply the place of the *PILULÆ DIAMBRÆ* of our former pharmacopœia. They are far more elegant as well as simple, truly uniform in their ingredients, and excellently adapted to the purposes they seem designed for. Taken in small doses, as half a scruple, or a little more, and occasionally repeated, they warm the stomach, and by degrees the whole habit, promote perspiration, and all the natural secretions : hence, in cold phlegmatic temperaments, sluggish indispositions, and obstructions of the viscera, or remoter glands, proceeding from these causes, this stimulating warm medicine proves eminently serviceable. If the dose is considerable, it operates gently by stool : and if continued for some time in smaller doses, it proves at length purgative, or introduces a salutary looseness.

PILULÆ ex COLOCYNTHIDE SIMPLICIORES.

The MORE SIMPLE COLOCYNTH PILLS.

Lond.

Take of

Pith of colocynth,

Scammony, each two ounces ;

Oil of cloves two drams.

Pulverize the dry species by themselves, then mix in the oil, and make the whole into a mass, with syrup of buckthorn,

PILULÆ de DUOBUS.

PILLS of TWO INGREDIENTS.

Edinb.

Take of

Colocynth,

Scammony, each one ounce ;

Vitriolated tartar, two drams ;

Oil of cloves, one dram.

Reduce them into a mass, according to art, with a proper quantity of syrup of buckthorn.

The operator should be careful, in pulverizing the colocynth, to avoid the finer particles that fly off from it ; which, though they do not considerably affect the mouth or fauces, have sometimes been observed to occasion violent purging. The drug should first be well dried, cut with a sheers into small pieces, and freed from the seeds : then rub it in an oiled mortar, adding a few drops of sweet oil occasionally during the trituration : afterwards mix this powder with the powdered scammony, add the essential oil preferred, and make the mixture into a mass, as above directed. This composition is apt to grow stiff and dry in keeping, and therefore ought to be made pretty soft at first : the pills should be formed as they are wanted ; for when long kept, they become so hard, as to have sometimes passed through the intestines undissolved.

These pills are very strong cathartics, and ought not to be ventured upon where less violent ones will take effect. They have been recommended, and sometimes made use of, in venereal cases ; but here they are manifestly improper, as greatly weakening the constitution, and

and apt to bring on an obstinate or incurable gleet. The essential oil, which is added as a corrector to the purgative ingredients, does not contribute so much as is generally supposed, to abate the roughness of their operation. See pages 64 and 259. The dose of these pills is from fifteen grains to half a dram: this last quantity of those of the London pharmacopœia contains about half a scruple of colocynth, and as much scammony: those of the Edinburgh contain somewhat less of each.

PILULÆ ex COLOCYNTHIDE
cum ALOE.

COLOCYNTH PILLS with
ALOES.
Lond.

Take of

Socotorine aloes,
Scammony, each two ounces;
Pith of colocynth, one ounce;
Oil of cloves, two drams.

Let the dry species be separately reduced into powder; then mix in the oil, and make the whole into a mass with syrup of buckthorn.

PILULÆ COCCIÆ.
The PILLS called COCHLÆ.
Edinb.

Take of

Socotorine aloes,
Colocynth,
Scammony, each one ounce;
Vitriolated tartar, two drams;
Oil of cloves, one dram.

Beat them into a mass, with a proper quantity of syrup of buckthorn.

These pills also are strong cathartics, but less violent than the foregoing. They are commonly made use of where brisk purgatives are necessary in doses of a scruple, or half a dram, and sometimes two scruples. Half a dram of those of

the London pharmacopœia contains nearly of colocynth four grains; aloes and scammony, of each eight grains. The same quantity of those of the Edinburgh contains colocynth, scammony, and aloes, about six grains and a half of each.

By the diminution of the colocynth in the first of the above forms, the ingredients are reduced to the proportions, wherein they are set down in the original of Galen; and what is of greater consequence, the medicine becomes less ungrateful to the stomach. Razi has several compositions of this kind (formed probably upon that of Galen) under the titles of *pilula cocchie*, *pilula solventes colicam velociter*, *medicina laxativa*, *confectio ad dolores capitis*, &c. That which he calls *cocchie* (by a corruption of the Greek *κόκκιοι* or *κόκκία*, which are only general names for pills) consists of ten drams of hiera picra, three and one third of colocynth, two of scammony, five of turbith, and five of stachas. This composition, with the addition of syrup of stachas to make it into a mass, has been continued in most of the modern pharmacopœias, under the title of *pilula cocchie*, or *coccie MAJORES*, in distinction from those of Galen, which are named *MINORES*.

Here it may be observed, that the ancients exhibited these kinds of medicines in much larger quantities than can be ventured on at present. Razi directs the above-mentioned quantity of his *cocchie* for only ten doses; so that each dose must contain no less than a dram of hiera picra (of which two scruples are aloes,) one scruple of colocynth, twelve grains of scammony, and half a dram of turbith root.

PILULÆ ECPHRACTICÆ.
DEOBSTRUENT PILLS.*Leod.*

Take of the
Aromatic pills, three ounces;
Rhubarb,
Extract of gentian,
Salt of steel, each one ounce;
Salt of wormwood half an ounce;
Beat them together into a mass,
with solutive spirit of roses.

It is difficult to bring this mass into the due consistence, the two salts acting upon one another, so as to make it swell and crumble. Notwithstanding the alkaline salt employed, the pill does not prove at all alkaline; for the acid of the salt of steel forsakes its metal, and unites with the alkali, into a vitriolated tartar: whence some have proposed using, instead of the two salts here directed, an ounce of vitriolated tartar already made, and half an ounce of any of the calces of iron: this they observe prevents the inconveniency above mentioned, without making any apparent alteration in the quality of the medicine.

PILULÆ ECPHRACTICÆ
CHALYBEATÆ.
CHALYBEAT DEOBSTRUENT
PILLS.*Edinb.*

Take of

The mass of common pills, an ounce and a half;
Gum ammoniacum,
Resin of guaiacum, each half an ounce;
Salt of steel, five drams;
Elixir proprietatis, as much as is sufficient to reduce the other ingredients into a mass.

These pills are very properly called chalybeat; the salt of steel, which is one of the most active preparations of the metal, remaining here undecomposed. Both these and the foregoing are very well

calculated for answering the intention expressed in the title. A dram of the mass may be made into twelve pills, and three of these taken every night, in chlorotic, or other cases, where warm, aperient, or deobstruent medicines are proper.

PILULÆ ECPHRACTICÆ
cum ACULEO.
ACCUTED, or PURGATIVE
DEOBSTRUENT PILLS.*Edinb.*

Take of

Socotorine aloes,
Extract of black hellebore,
Scammony, each one ounce;
Gum ammoniacum,
Resin of guaiacum, each half an ounce;
Vitriolated tartar, two drams;
Essential oil of juniper berries,
one dram.

Beat them into a mass, with a sufficient quantity of syrup of buckthorn.

The *pilule ephractice sine aculeo* of the former Edinburgh pharmacopœia, which were never called for, being now omitted, the name of these, *cum aculeo*, becomes less proper. But as this pill, or one of the same strength, containing several superfluous ingredients, has been much in use in Scotland, and for a long time prescribed under that title, the college have studied convenience rather than propriety, in keeping the old name. The medicine may be given as an alterant and deobstruent, in doses of eight or ten grains; a scruple or half a dram, generally prove purgative.

PILULÆ FETIDÆ.
FETID PILLS.*Edinb.*

Take of

Asa fetida, one dram and a half;
Russia castor, one dram;
Camphor half a dram;

Oil

Oil of hartshorn, a sufficient quantity.
Beat them all together into a mass.

PILULÆ GUMMOSÆ.
GUM PILLS.

Lond.

Take of
Galbanum,
Opopanax,
Myrrh,
Sagapenum, each one ounce;
Afa fetida, half an ounce;
Make them into a mass, with syrup of saffron.

Edinb.

Take of
Gum ammoniacum,
Sagapenum, each half an ounce;
Ruslia castor,
Myrrh, each three drams;
Afa fetida,
Galbanum, each two drams;
Oil of amber, half a dram;
Elixir proprietatis, as much as is sufficient.

Beat them together into a mass.

All these pills are designed for antihysterics and emmenagogues, and very well calculated for answering those intentions: half a scruple, a scruple, or more, may be taken every night or oftner. The fetid pills of our former pharmacopœias were considerably purgative: in the last edition they were, by a typographical error, less so than in the preceding ones. The purgative ingredients are now entirely omitted, and very judiciously; as the physician may easily, in extemporaneous prescription, compound these pills with cathartic medicines, in such proportions as particular cases shall require.

PILULÆ de GAMBOGIA.
GAMBOGE PILLS.

Edinb.

Take of
Socotorine aloes,

Extract of black hellebore,
Gamboge,
Calomel, each two drams;
Essential oil of juniper berries,
half a dram.
Make them into a mass, with syrup of buckthorn.

This is a strong mercurial purgative. It may be given, where medicines of this kind are necessary from fifteen grains to half a dram. This last quantity contains of aloes, extract of hellebore, gamboge, and calomel, about five grains of each.

PILULÆ MERCURIALES.
MERCURIAL PILLS.

Edinb.

Take of
Pure quicksilver, one ounce;
Gum ammoniacum, two ounces.
Grind the quicksilver in a glass mortar, with a sufficient quantity of honey, till the mercurial globules cease to appear; then add the gum, and make the whole into a mass according to art.

These pills were, in the last edition ordered to be made up with gum guaiacum and balsam of copaiba; but these, tho' very proper ingredients with regard to the intention of the medicine, were attended with an inconvenience of becoming, when long kept, hard and indissoluble, inasmuch as oftentimes to pass through the body entire. The ammoniacum, here made choice of, contains so much gummy matter as renders its resinous part easily soluble; and at the same time divides the mercury as conveniently as the others.

PILULÆ MERCURIALES.
MERCURIAL PILLS.

Lond.

Take of
Quicksilver, five drams;
Strasburgh turpentine, two drams;
H h 4 Cathartic

Cathartic extract, four scruples;
Rhubarb powdered, one dram.
Grind the quicksilver with the turpentine, until they are perfectly incorporated; then let the other ingredients be beat up with this mixture into a mass. If the turpentine happens to be too thick, loosen it with a little oil olive.

A good deal of care is necessary, to bring this mass to a due degree of uniformity, with regard to the mercury: for although the quicksilver seems to have been entirely extinguished by the turpentine, yet upon beating the other ingredients with this mixture, part of the mercury is apt to reappear again by the time the mass is reduced to a proper consistence.

PILULÆ MERCURIALES
LAXANTES.
LAXATIVE MERCURIAL
PILLS.

Edinb.

Take of
Pure quicksilver, one ounce;
Gum ammoniacum,
Extract of black hellebore,
Choice rhubarb, each half an ounce.

Grind the quicksilver with a sufficient quantity of honey, until they are perfectly incorporated; then add the other ingredients, and beat the whole into a mass according to art.

All these mercurial pills are capable of doing good service in sundry chronic disorders. They may be given as alteratives, in doses of eight or ten grains. The two last are purgative mercurials; and in this intention the dose may be increased to half a dram, or farther. BELLOSTE'S PILLS, if the analysis, that has been made of them, be just, are somewhat similar to these: they are supposed to be

made up of crude quicksilver, resin of guaiacum, a chemical oil, and extract of rhubarb.

PILULÆ PACIFICÆ, vulgo
MATTHÆI.

*The PACIFIC, commonly called
MATHEWS'S PILLS.*

Edinb.

Take of
Russia castor, two ounces;
English saffron,
Opium, each one ounce;
Soap of tartar, three ounces;
Balsam of copaiba, as much as is sufficient.

Mix, and make them into a mass, according to art.

These pills were contrived by a chemical empyric, Starkey, and communicated by him to Mathews, under whose name they were some time ago, greatly celebrated. The form here given differs from the original in omitting a small portion of black hellebore, an ingredient of no great service; for though this article "might perhaps promote a stool the day after the medicine is taken, that advantage, in cases which require it, may with greater certainty be obtained, by more obvious means." Nor are any of the ingredients of much consequence, except the opium; their quantity being too inconsiderable to answer any useful purpose. Eight grains of the composition contain nearly one of opium.

PILULÆ PECTORALES.
PECTORAL PILLS.

Edinb.

Take of
Gum ammoniacum, half an ounce;
Benzoin, three drams;
Myrrh, two drams;
English saffron, one dram;
Ani-

Anisated balsam of sulphur, half a dram;

Balsamic syrup, a sufficient quantity.

Make them into a mass according to art.

This composition is very well contrived for promoting expectoration; and may be usefully given in common colds and difficulty of breathing, proceeding from viscid phlegm: the dose is from six or eight grains, to a scruple or more.

Here it may be observed, that though several compositions are denominated pectorals, and have no ill title to that appellation; they are nevertheless, in virtue, very dissimilar. Thus, the pectoral decoction, the syrup, and the troches, are calculated for softening, lubricating, and incrassating, thin, serous, tickling humours; whilst the pectoral pills, the elixir and the oxymel, stimulate and deterge the pulmonary vessels, and attenuate or dissolve thick, tenacious juices.

PILULÆ RUFÆ.

RUFUS'S PILLS.

Lond.

Take of

Socotorine aloes, two ounces;

Myrrh,

Saffron, each one ounce.

Make them into a mass with syrup of saffron.

PILULÆ COMMUNES, vulgo RUFÆ.

The COMMON PILLS vulgarly called RUFUS'S PILLS.

Edinb.

Take of

Socotorine aloes, two ounces;

Myrrh, one ounce.

Saffron, half an ounce.

Beat them into a mass with a proper quantity of syrup of orange peel,

These pills have long continued in practice, without any other alteration than in the syrup which the mass is made up with, and in the proportion of saffron. In our last pharmacopœia, the syrup of wormwood was ordered, which is here judiciously exchanged for that of saffron, this preserving and improving the brightness of colour in the medicine, which is usually looked upon as the characteristic of its goodness. The saffron, in the composition which Razi attributes to Rufus, is equal in quantity to the myrrh; and in these proportions the pill was received in our first pharmacopœia. As the diminution afterwards made in the saffron was grounded on very absurd reasons, (viz. "lest the former quantity should occasion no less than the spasms cynicus,") the London college have now again increased it, and restored the pill to its original form.

The virtues of this medicine may be easily understood from its ingredient. See *elixir proprietatis*, from which this differs only in producing its effect more gradually. The pills, given to the quantity of half a dram or two scruples, prove gently cathartic, but they answer much better purposes if exhibited in smaller doses as alteratives.

PILULÆ SAPONACEÆ.
SAPONACEOUS PILLS.

Lond.

Take of

Almond soap, four ounces;

Strained opium, half an ounce;

Essence of lemons, one dram.

Soften the opium with a little wine, and then beat it with the rest, until they are perfectly mixed.

This pill is introduced in the room of Mathews's. The soap promotes the solution of the opium

in

in the stomach, and thus occasions it to act the more quickly; which is the only intention that the more laborious soap of tartar can answer. The essence of lemons gives an agreeable flavour, makes the medicine set easy on the stomach, and prevents a nausea which it would otherwise be apt to occasion. Ten grains of the pill contain nearly one grain of opium.

PILULÆ SCILLITICÆ.
SCILLITIC PILLS.

Edinb.

Take of

Spanish soap, one ounce;
Gum ammoniacum,
Millepedes prepared,
Fresh squills, each half an ounce;
Balsam of copaiba, as much as is sufficient.

Reduce them into a mass, according to art.

These pills are pretty much prescribed in Scotland, for promoting urine and expectoration, and in general for attenuating the viscosity of the fluids. As their virtue is chiefly from the squills, the other ingredients are often varied in extemporaneous prescription: the soap is frequently omitted, as being of no great use in the quantity that goes to a dose of the composition; and other powders, as the lesser cardamom seeds, substituted to the millepedes. In any of these forms, if the squills are fresh and juicy, there is no need of balsam; but as the mass soon dries and hardens, it must be formed immediately into pills. A scruple of the composition above directed contains nearly four grains of fresh squills.

PILULÆ STOMACHICÆ.
STOMACHIC PILLS.

Edinb.

Take of

Socotorine aloes one ounce;
Rhubarb, six drams;
Gum ammoniacum, three drams;
Extract of gentian,
Myrrh, each two drams;
Vitriolated tartar, one dram;
Essential oil of mint, half a dram;
Syrup of fena and rhubarb, as much as is sufficient to make the other ingredients into a mass.

This pill is intended for moderately warming and strengthening the stomach, and evacuating crude viscid humours. It may be taken, as an alterant, in doses, of ten, fifteen, or twenty grains.

PILULÆ e STYRACE.
STORAX PILLS.

Lond.

Take of

Strained storax, two ounces;
Saffron, one ounce;
Strained opium, five drams.
Beat them together till perfectly united.

Edinb.

Take of

Storax, five drams;
Gum tragacanth, one ounce;
Olibanum,
Opium, each half an ounce;
Syrup of meconium, a sufficient quantity.

Make them into a mass, according to art.

These are contrived for dissolving more slowly in the stomach than the saponaceous or Mathews's pills, and consequently producing more gradual and lasting effects. One grain of opium is contained in five grains and four fifths of a grain of the storax pills of the London pharmacopœia; and in nearly the same quantity of those of the Edinburgh.

CHAPTER XXIII.

ELECTARIA.

ELECTARIES.

General rules for making electaries.

I.
THE rules already laid down for decoctions and powders in general, are likewise to be observed in making decoctions and powders for electaries.

II.
Gums, inspissated juices, and such other substances as are not pulverable, should be dissolved in the liquor prescribed: then add the powders by little and little, and keep the whole briskly stirring, so as to make an equable and uniform mixture [E.]

III.
Astringent electaries, and such as have pulps of fruits in their composition, should be prepared only in small quantities at a time. [E.]

For astringent medicines lose greatly of their virtue, on being kept in this form, and the pulps of fruits are apt to become sour.

IV.
The superfluous moisture of the pulps should be exhaleed over a gentle fire, before the other ingredients are added to them [E.]

V.
Electaries, if they grow dry in keeping, are to be reduced to the due consistence, with the addition of a little Canary wine; and

not with syrap or honey: by this means, the dose will be the least uncertain; a circumstance deserving particular regard, in those especially which are made up with syrap, and contain a large quantity of opium, as the *confectio Paulina*, and *philonium*, [L.]

ELECTUARIUM
ANTIDYSENTERICUM.
ANTIDYSENTERIC
ELECTARY.
Edinb.

Take of
Diacordium, two ounces;
Locatelli's balsam, one ounce.
Mix, and make them into an electary.

This is a well contrived composition for the purpose expressed in its title. A scruple or half a dram may be taken for a dose. Half a dram contains one tenth part of a grain of opium.

ELECTARIUM e BACCIS
LAURI.
ELECTARY of BAY BERRIES.
Lond.

Take of
Rue leaves dried,
Caraway seeds,
Parley seeds,

Bay

Bay berries, each one ounce ;
Sagapenum, half an ounce ;
Black pepper,
Russia castor, each two drams ;
Clarified honey, thrice the weight
of the powdered species.

Mix the species with the honey,
and make them into an electary.
Edinb.

Take of
Conserve of rue, two ounces ;
Ginger candied, one ounce ;
Bay berries, half an ounce ;
Zedoary, two drams ;
Russia castor, one dram ;
Essential oil of fennel, ten drops ;
Syrup of orange peel, as much
as is sufficient.

Mix them into an electary, accord-
ing to art.

These compositions are some-
times taken, in flatulent colics and
hysterical disorders, from a scruple
to two drams : but their principal
use is in carminative glysters.

ELECTARIUM e CASIA.
ELECTARY of CASIA.
 Lond.

Take of
Soluteve syrup of roses,
Pulp of casia, fresh extracted,
each half a pound ;
Manna, two ounces ;
Pulp of tamarinds, one ounce.
Grind the manna in a mortar, and,
with a gentle heat, dissolve it in
the syrup ; then add the pulps,
and continue the heat until the
whole is reduced to a due consist-
ence.

DIACASSIA.
 Edinb.

Take of
Pulp of casia, twelve ounces ;
Pulp of tamarinds, six ounces ;
Calabrian manna, eight ounces ;
Syrup of pale roses, one pound.
Dissolve the manna in warm wa-
ter, strain the solution, and eva-

porate it, along with the syrup,
over a gentle fire, to the consist-
ence of honey : then mix in the
pulps, so as to make the whole
into an uniform electary, accord-
ing to art.

These compositions are very con-
venient officinals, to serve as a ba-
sis for purgative electaries and o-
ther like purposes ; as the pulping
a small quantity of the fruits, for
extemporaneous prescription, is suf-
ficiently troublesome. The tama-
rinds give these electaries a pretty
taste, and do not subject them, as
might be expected, to turn sour :
the commentator on the Edinburgh
pharmacopœia relates, that after
standing for four months, the com-
position was no sower than when
first made up. They are likewise
usefully taken by themselves, in
the quantity of two or three drams
occasionally, for gently loosening
the belly in costive habits.

ELECTARIUM LENITIVUM.
LENITIVE ELECTARY.
 Lond.

Take of
Figs, one pound ;
Sena, eight ounces ;
Pulp of tamarinds,
casia,
French prunes, each half
a pound ;
Coriander seeds, four ounces ;
Liquorice, three ounces,
Double refined sugar, two pounds
and a half.

Pulverize the sena along with the
coriander seeds, and sift out ten
ounces of the powder : the re-
mainder is to be boiled with the
figs and liquorice, in four pints
of water, to one half ; then strain
and press out the liquor, and
evaporate it to the weight of a
pound and a half, or somewhat
less : in this dissolve the sugar,
so as to make it into a syrup,
and

and add this syrup, by little and little to the pulps: lastly mix in the powder before separated by the sieve.

This electary may be occasionally taken to the quantity of a nutmeg or more, for loosening the belly in costive habits. It is frequently employed in glysters, tho' for that use the following is rather more convenient.

ELECTUARIUM
LENITIVUM pro CLYSTERE.
LENITIVE ELECTARY for
GLYSTERS.

Edinb.

Take of

Polypody roots, two ounces;
French mercury, leaves,
Penagreek seeds,
Linseed, each one ounce;
Sena, two ounces;
Coriander seeds, half an ounce;
Honey, two pounds;
Pulp of damask prunes, one
pound;
Pulp of castia, half a pound.

Boil the polypody, mercury, fennegreek, and linseed, in six pints of water, until half the water is wasted; adding, towards the end of the coction, the sena and coriander seeds. Having strained and pressed out the liquor, boil it with the honey, to the consistence of a thick syrup: to this add the pulps, and mix the whole well together, so as to make them into an electary.

This electary is much preferable, for glysters, to those which have powders in their composition. Perhaps sugar would be a better ingredient than honey, (as being less apt to turn sour in keeping) and melasses than either: this last is not only of itself inapt to ferment, but likewise prevents such substances as are this way disposed, from running into fermentation.

ELECTUARIUM
PECTORALE.
PECTORAL ELECTARY.

Edinb.

Take of

Conserve of red roses, two
ounces;
Compound powder of gum tragacanth, half an ounce;
Flowers of benzoine, one dram:
Balsamic syrup, as much as is
sufficient to make the other ingredients into an electary.

This composition is intended for those disorders of the breast which proceed from a laxity and debility of the vessels, and a thin acrimonious state of the fluids. It is sufficiently agreeable to the palate, and may be taken to the quantity of a nutmeg or more, several times a day.

ELECTARIUM e
SCAMMONIO.
ELECTARY of SCAMMONY.

Lond.

Take of

Scammony, an ounce and a half;
Cloves,
Ginger, each six drams;
Essential oil of caraway, half a
dram:
Honey, half a pound.

Let the spices be ground together, and mixed with the honey; then add the powdered scammony, and afterwards the oil.

This electary is a warm, brisk purgative. It is a reform of the *electuarium caryocostinum* of our preceding dispensatories, a composition which was greatly complained of, as being inconvenient to take, on account of the largeness of its dose. A dram and a half of this, which contains fifteen grains of scammony, is equivalent to half an ounce of the other.

ELEC-

ELECTARIUM e SCORDIO.
ELECTARY of SCORDIUM.
 Lond.

Take of

The species of scordium with opium, any quantity;
Syrup of meconium, boiled to the consistence of honey, thrice as much by weight.
Mix the species with the syrup, so as to make an electary.

DIASCORDIUM.

 Edinb.

Take of

Scordium leaves,
Cinnamon,
Nutmegs,
Japan earth,
Gum Arabic,
Olibanum, each one ounce;
Tormentil root,
Bole Armenic, each an ounce and a half;
Opium, (dissolved in a sufficient quantity of Canary) a dram and a half;
Syrup of dry roses, boiled down to the consistence of honey; thrice the weight of the powders.

Mix and make them into an electary, according to art.

In our former dispensaries, the species were ordered to be made up with honey: this is now exchanged for syrups, more agreeable to the intention of the medicine, which is that of an opiate astringent, whilst honey is manifestly aperient and detergent. The opinion, which some are still ridiculous enough to maintain, that the honey and other ingredients, by this contrariety in virtue, improve and heighten one another, has no foundation. It is not perhaps necessary, for the purposes of the shops, to make the species into an electary at all: by keeping in this form, the ingredients lose

greatly of their aromatic flavour and astringency, becoming soft and smooth upon the palate; and the red colour, imparted by the bole, decays. The London college have therefore very justly ordered them to be kept in powder as well as in an electary; and directed the powder both with and without opium, for different occasions. See *Species e scordio*, and *pubois e bolo*, cum and *sine opio*. Either of these powders may be made up extemporaneously into an electary, with any syrup that shall be judged proper.

Diascordium was intended by its author Fracastorius for an antipestiferous; but we have been so happy as to have little occasion for medicines in that intention; nor could this be anywise depended on. It is a moderately warm, glutinous astringent and opiate; and in this light only, is considered by the present practice. One grain of opium is contained in nine scruples of the electary of the London pharmacopœia, and in ten scruples of that of the Edinburgh.

BALSAMUM LOCATELLI.
LOCATELLI'S BALSAM. *Lond.*

Take of

Oil olive, one pint,
Straßburgh turpentine;
Yellow wax, each half a pound;
Red Saunders, six drams;
Melt the wax over a gentle fire, with some part of the oil; then add the rest of the oil, and the turpentine; afterwards mix in the saunders, and keep them stirring together until the mixture is grown cold.

 Edinb.

Take of

Yellow wax, one pound;
Oil olive, a pint and a half;
Venice turpentine, a pound and a half;

Balsam

Balsam of Peru, two ounces :
 Dragons blood, one ounce.
 Melt the wax in the oil over a gentle fire, then add the turpentine; and having taken them from the fire, mix in the balsam of Peru and dragons blood, keeping them continually stirring till grown cold.

Dragons blood gives a more elegant colour to this composition than red saunders, though on another account it is somewhat less proper, having been found, when dissolved in oil, to communicate some degree of heat and pungency, qualities quite foreign to the intention of the medicine. This balsam is used in internal bruises and hæmorrhagies, erosions of the intestines, ulcerations of the lungs, dysenteries, and in some kinds of coughs and asthmas: the dose is from two scruples to two drams: it may be commodiously exhibited along with about double its weight of conserve of roses. Some have likewise applied it externally, for deterring and incarnating recent wounds and ulcers.

BALSAMUM ad
 APROPLECTICOS.
 APROPLECTIC BALSAM.
 Edinb.

Take of
 Expressed oil of nutmegs, one ounce,
 Distilled oil of cloves,
 of lavender,
 of rosemary, each half a dram;
 of amber, half a scruple;
 Balsam of Peru, one dram.
 Liquefy the oil of nutmegs in a silver vessel; and when taken from the fire, mix into it the distilled oils and the balsam, according to art.
 This medicine is recommended to be rubbed on the temples, and

on paralytic limbs, for warming the part, and comforting the nerves: and to be smelt to, for refreshing and enlivening the spirits. Some have also given it inwardly as a warm cordial, in languid cases, and in debilities of the nervous system.

There are abundance of preparations of this kind in foreign pharmacopœias, composed each of only one essential oil, incorporated with the expressed oil of nutmegs; which last is to be previously freed from its flavour (by distillation with water) that the smell of the former may not be injured thereby: in the room of this prepared sebaceous matter, a mixture of white wax and oil olive might be used. In the practical chemistry, a general process is given for the making of these kinds of preparations, under the title of

BALSAMUM ODORIFERUM.
 An ODORIFEROUS BALSAM.

Take of
 Oil olive,
 White bees wax, each two ounces.
 Put the oil into a china basin, placed in a pan of boiling water, and slice the wax into it. Stir them together with a clean knife, or small spatula, till the wax is melted: then remove the vessel out of the hot water, and when the matter begins to thicken, drop in four drams of any odorous essential oil, as that of cinnamon, nutmegs, mace, lemon peel, rhodium, lavender, rosemary, &c. or of a mixture of two or three of these oils: to which may be added one dram of essence of ambergris, which will heighten the smell of the oils, without communicating any of its own. Keep the whole constantly stirring, that they may be perfectly mixed; and as soon as this is done, plunge the vessel

fel into cold water, to prevent the dissipation of the essential oils.

These kinds of balsams may be made of any colour, so as to resemble in this respect also, as well as in smell, the vegetable, from which the essential oil, you make use of, was drawn. A little of the pigment, called by the painters sap-green, being previously ground with the oil olive, will give a fine green; a little cinnabar, a scarlet; turmeric, a lemon colour; Prussian blue, a violet; and cochineal, a fine purplish hue.

CONFECTIO CARDIACA.
CORDIAL CONFECTION.

Lond.

Take of

Rosemary tops, fresh,
Juniper berries, each one pound;
Lesser cardamom seeds, hulked,
Zedoary,
Saffron, each half a pound.

Extract a tincture from these ingredients with about a gallon and a half of proof spirit: let the tincture be strained off, and reduced by a gentle heat to the weight of about two pounds and a half: then add the following ingredients very finely pulverized, and make the whole into an electary;

Compound power of crabs claws,
sixteen ounces;
Cinnamon,
Nutmegs, each two ounces;
Cloves, one ounce;
Double refined sugar, two pounds.

This electary is composed of the more unexceptionable ingredients of the CONFECTIO RALEGHANA, an enormous collection of materials, not inferior in number to those of the mithridate itself. The principles upon which this process is founded, whatever some may have alledged to the contrary, are

far from being unjust: spirit of wine excellently extracts the virtues of most of the spices and aromatic herbs; and, provided it be perfectly pure and free from all admixture of phlegm, elevates very little, from some nothing at all, in distillation; so that by this process, remedies of great efficacy may be obtained. See chap. vi. In that confection however, tho' the virtues of many of the ingredients were preserved in tolerable perfection, they were extremely prejudiced by their multiplicity and contrariety.

The ingredients from which the extract for the *confectio cardiaca* is made, are few and well chosen; most of them being so hardy, that a considerable share of their virtues stands the exhalation even of the watery phlegm which the spirit there ordered contains: the juniper berries, zedoary, and saffron lose but little; and the rosemary tops, not so much as might be suspected.

The substances directed to be added to the extract, are well proportioned for making an electary of a just consistence; though on keeping the powders are apt to subside, the extract and sugar floating above them in a liquid form. This might be prevented either by continuing the inspissation farther (by a gentle warmth) or adding a larger quantity of the dry powders: the first method is most eligible, as the extract is scarce tenacious enough to bear the second. Perhaps the sugar and the crabs-claw powder are not very necessary, as they do not seem to contribute any thing to the intention of the medicine, which is usually prescribed as a warm cordial and corroborant. It is given sometimes in draughts, but more frequently in the form of a bolus, from eight or ten grains to a scruple and upwards.

ELE-

ELECTUARIUM
CARDIACUM.
CORDIAL ELECTARY.
Edinb.

Take of

Conserve of rosemary flowers,
Conserve of red roses, each an
ounce and a half;
Candied orange peel,
citron peel,
nutmegs, each one ounce;
ginger, six drams;
Confection of kermes, half an
ounce;
Oil of cinnamon, twenty drops;
Syrup of clove july flowers, as
much as is sufficient.

Mix them into an electary according
to art.

This electary, however different
in composition, is similar in virtue
to the foregoing. Particular care
ought to be had in the choice of
the essential oil, for on its good-
ness, that of the medicine in great
measure depends.

CONFECTIO PAULINA.
*The CONFECTIO called
PAULINA.
Lond.*

Take of

Costus, or in its stead zedoary,
Cinnamon,
Long pepper,
Black pepper,
Storax,
Galbanum, } strained,
Opium, }
Russia castor, each two ounces;
Simple syrup, boiled to the con-
sistence of honey, thrice the
weight of the other ingredi-
ents.

Warm the syrup, and carefully mix
with it the opium first dissolved
in wine: gradually add this mix-
ture, whilst it continues warm,
to the storax and galbanum pre-
viously melted together; and

afterwards sprinkle in the other
species reduced into powder.

This is the CONFECTIO AR-
CHIGENIS of our former dispen-
satory, brought back to its first
form and author. It is a warm
opiate medicine, and as such is
sometimes made use of in practice:
thirty-two grains contain one grain
of opium.

MITHRIDATIUM, five
CONFECTIO DAMOCRATIS.
*MITHRIDATE, or the
CONFECTIO of
DAMOCRATES.
Lond.*

Take of

Cinnamon, fourteen drams;
Myrrh, eleven drams;
Agaric,
Indian nard,
Ginger,
Saffron,
Seeds of mithridate mustard,
Frankincense,
Chio turpentine, each ten drams;
Camels hay,
Costus, or in its stead zedoary,
Indian leaf, or in its stead mace,
Stechas,
Long pepper,
Hartwort seeds,
Hypocistis,
Storax strained,
Opananax,
Galbanum strained,
Opobalsam, or in its stead ex-
pressed oil of nutmegs,
Russia castor, each one ounce;
Poley mountain,
Scordium,
Carpobalsam, or in its stead cu-
bebs,
White pepper,
Candy carrot seed,
Bdellium strained, each seven
drams;
Celtic nard,
Gentian root,

i i

Dit.

Dittany of Crete,
 Red roses,
 Macedonian parsley seed,
 Lesser cardamom seeds, husked,
 Sweet fennel seed,
 Gum Arabic,
 Opium strained, each five drams;
 Calamus aromaticus,
 Wild valerian root,
 Aniseed,
 Sagapenum, strained, each three
 drams:
 Meum athamanticum,
 St John's wort,
 Acacia, or in its stead terra Ja-
 ponica,
 Bellies of skinks, each two drams
 and a half;
 Clarified honey, thrice the weight
 of all the other ingredients.

Warm the honey, and mix with it
 the opium dissolved in wine;
 melt the storax, galbanum, tur-
 pentine and opobalsam (or ex-
 pressed oil of nutmegs) together
 in another vessel, continually
 stirring them about, to prevent
 their burning; with these so
 melted, mix the hot honey, at
 first by spoonfuls, and afterwards
 in larger quantities at a time;
 when the whole is grown al-
 most cold, add by degrees the
 other species reduced into pow-
 der.

Edinb.

Take of
 Myrrh,
 Saffron,
 Agaric,
 Ginger,
 Cinnamon,
 Spikenard,
 Male frankincense,
 Mithridate mustard seeds, each
 ten drams;
 Hartwort seeds,
 Opobalsam (or balsam of Peru)
 Camels hay,
 Arabian flechas flowers,
 Costus, (or zedoary)

Galbanum,
 Turpentine of Cyprus,
 Long pepper,
 Castor,
 Hypocistis,
 Storax calanita,
 Opopanax,
 Indian leaf, each one ounce;
 Casia lignea,
 Poley mountain,
 White pepper,
 Scordium leaves,
 Candy carrot seed,
 Carpobalsamum (or cubebis)
 The troches called cyphi,
 Bdelium, each seven drams;
 Celtic nard,
 Gum Arabic,
 Macedonian parsley seeds,
 Opium,
 Lesser cardamom seeds,
 Fennel seeds,
 Gentian root,
 Red roses,
 Dittany of Crete, each five
 drams;
 Aniseeds,
 Asarum root,
 Calamus aromaticus,
 Phu (or wild valerian) root,
 Sagapenum, each three drams;
 Spignel roots,
 Acacia (true or German)
 Bellies of skinks,
 St. John's wort seeds, each two
 drams and a half;
 Clarified honey, thrice the weight
 of the powders;
 Canary wine, as much as will
 dissolve the gums and juices.
 Mix them all together into an elec-
 tuary, according to art.

THERIACA ANDROMACHI.
VENICE TREACLE.

Lond.

Take of
 Troches of squills, half a pound;
 Long pepper,
 Opium strained,
 Vipers dried, each three ounces;
 Cinna-

Cinnamon,
 Opobalsam, or in its stead ex-
 pressed oil of nutmegs, each
 two ounces;
 Agaric,
 Florence orris root,
 Scordium,
 Red roses,
 Navew seeds,
 Extract of liquorice, each an
 ounce and a half;
 Indian nard,
 Saffron,
 Amomum,
 Myrrh,
 Costus, or in its stead zedoary,
 Camels hay, each one ounce;
 Cinquefoil root,
 Rhubarb,
 Ginger,
 Indian leaf, or in its stead mace,
 Dittany of Crete,
 Horehound leaves,
 Calamint leaves,
 Stechas,
 Black pepper,
 Macedonian parsley seed,
 Olibanum,
 Chio turpentine,
 Wild valerian root, each six
 drams;
 Gentian root,
 Celtic nard,
 Spignel,
 Poley mountain
 St. John's wort, } leaves,
 Groundpine
 Germander, tops with the seed,
 Carpoballam, or in its stead cu-
 bebs,
 Aniseed,
 Sweet fennel seed,
 Lesser cardamom seeds, husked,
 Bishops weed,
 Hartwort, } seeds,
 Treacle mustard
 Hypocistis,
 Acacia, or in its stead Japan
 earth,
 Gum Arabic,
 Storax strained,

Sagapenum strained,
 Terra Lemnia, or in its stead bole
 Armenic or French bole,
 Green vitriol calcined, each half
 an ounce;
 Small (or in its stead, the long)
 birthwort root,
 Lesser centaury tops,
 Candy carrot seed,
 Opopanax,
 Galbanum strained,
 Russia castor,
 Jews pitch, or in its stead white
 amber prepared,
 Calamus aromaticus, each two
 drams;
 Clarified honey, thrice the weight
 of all the other ingredients.
 Let these ingredients be mixed to-
 gether, after the same manner as
 directed in making the mithri-
 date.

Edinb.

Take of
 Troches of squills, six ounces;
 Troches of vipers,
 The troches called hedychroi,
 Long pepper,
 Opium, each three ounces;
 Illyrian (or Florence) orris root,
 Red roses,
 Scordium leaves,
 Agaric,
 Opobalsam (or balsam of Peru)
 Extract of liquorice,
 Wild navew seeds,
 Cinnamon, each an ounce and a
 half;
 Myrrh,
 Saffron,
 Ginger,
 Rhapontic (or tormentil root),
 Cinquefoil roots,
 Calamint leaves,
 Horehound leaves,
 Dittany of Crete,
 Arabian stechas flowers,
 Camels hay,
 Macedonian parsley seeds,
 Costus (or zedoary)
 Turpentine of Cyprus,

Male Frankincense,
 White pepper,
 Black pepper,
 Casia lignea,
 Indian nard, each six drams;
 Poley of Crete,
 Marfeilles (or common) hartwort
 seeds,
 Aniseeds,
 Bishopsweed seeds,
 Amomum (or cloves)
 Lesser cardamoms,
 Fennel seeds,
 Treacle mustard seeds,
 Gentian root,
 Spignel root,
 Pontic phu (or wild valerian root)
 Calamus aromaticus,
 Germander
 Groundpine } leaves,
 St. John's wort }
 True (or German) acacia,
 Carpobalsamum (or cubebs)
 Terra Lemnia (or bole Armenic)
 Burnt chalcitis (or green vitriol
 calcined)
 Styrax calamita,
 Gum Arabic,
 Hypocistis,
 Celtic nard,
 Indian leaf, each half an ounce;
 Lesser centaury tops,
 Candy carrot seed,
 Small (or long) birthwort roots,
 Jews pitch (or amber)
 Galbanum,
 Opopanax,
 Sagapenum,
 Castor, each two drams;
 Clarified honey, thrice the weight
 of the powders.
 Canary wine, as much as is suffi-
 cient to dissolve the gums and
 juices.

Mix them all together, so as to make
 an electary, according to art.

These celebrated compositions are
 almost the only reliëts of ancient
 superstition, that now remain among
 us. The theriaca is a reform of
 mithridate, made by Andromachus
 physician to Nero: the mithridate

itself is said to have been found in
 the cabinet of Mithridates king of
 Pontus. The first publishers of this
 pompous arcanum were very extra-
 vagant in their commendations of
 its virtues; the principal of which
 was made to consist in its being a
 most powerful preservative against
 all kinds of venom: whoever took
 a proper quantity in a morning,
 was ensured from being poisoned
 during that whole day: this was
 confirmed by the example of its
 supposed inventor, who, as Celsus
 informs us, was by its constant use
 so fortified against the commonly-
 reputed poisons, that none of them
 would have any effect upon him
 when he wanted their assistance.
 But the notions of poisons, which
 prevailed in those ruder ages, were
 manifestly erroneous. Before ex-
 perience had furnished mankind
 with a competent knowledge of
 the powers of simples, they were
 under perpetual alarms from an
 apprehension of poisons, and bu-
 sified themselves in contriving com-
 positions which should counteract
 their effects, accumulating together
 all those substances which they
 imagined to be possessed of any de-
 gree of alexipharmac power. Hence
 proceed the voluminous antidotes
 which we meet with in the writ-
 ings of the ancient physicians: yet
 it does not appear, that they were
 acquainted with any real poison,
 except the cicuta, aconitum, and
 bites of venomous beasts; and to
 these they knew of no antidote
 whatever. These medicines, there-
 fore, were originally intended a-
 gainst diseases merely imaginary:
 nevertheless, as some of their in-
 gredients are of the most powerful
 kind, succeeding ages applied them
 in real ones, and experienced good
 effects from them, as warm, dia-
 phoretic opiates.

These compositions might with-
 out

out doubt be lopt of numerous superfluities, without any diminution of their virtues; yet as the effects of them, in their present form, are so well known, so much regard has been paid to ancient authority, as not attempt a reformation of that kind. The London college have however thought proper to retrench, from forms originally complex, all subsequent additions that have erept into them. Neither the description in verse of the elder Andromachus, or the prose explanation of the younger, make any mention of the white pepper afterwards added to the theriaca; and the orris root, in the mithridate of our former pharmacopœias, is also a supernumerary ingredient, not warranted by the original: these therefore are rejected. Nor is the asarum in mithridate grounded on any good authority: the verse, it is taken from, is mutilated and corrupt; and the word which some, upon conjecture only, suppose to have been asarum, others, also upon conjecture, chuse to read differently: till some emendation shall be better founded than merely upon critical guesses, this single species may be safely passed over, without any prejudice to the medicine. None of the ancient descriptions afford any other light in this particular; for they either omit this ingredient and others also, or abound with additions.

One innovation in both these medicines, the college have allowed themselves. In each of these compositions are found both cinnamon and casia lignea; and it is very evident, from several parts of Galen's works, that the latter was used by the ancients only upon account of the great difficulty of procuring the other; so that to retain the casia, now that cinnamon is so common, is a blind following of these writers, without

any attention to their meaning: the casia therefore is now rejected, and half the quantity of cinnamon put in its room, which is the proportion that Galen directs to be observed in substituting the one for the other. It is probable, that the case is the same with regard to the Celtic and Indian nard; that the first had a place in these compositions, on account of the difficulty of procuring the Indian; for Galen expressly prefers the latter.

There is a material error in regard to the theriaca, which has passed through all the editions of our pharmacopœia, except the present; this is, the substituting Roman vitriol to the ancient chalcitis now not certainly known, and in the catalogue of simples, describing the Roman to be a blue vitriol; whereas the Italian writers are unanimous it is a green vitriol; and were it not, it would not answer to the effects of the chalcitis, which was certainly a chalybeate, and gives the medicine its black colour. What has chiefly occasioned chalcitis to be supposed a cupreous vitriol seems to be its name, derived from χαλκος copper: but it is to be observed, that all vitriols were formerly imagined to proceed from copper, and were named accordingly; the green or martial vitriols are still called by the Germans *kupffer-wasser*, and by us *copperas*. It is probable, that the ancient chalcitis was no other than a native martial vitriol, calcined, by the heat of those warm climates, to a degree of yellowish red or coppery colour: and therefore the common green vitriol, thus calcined by art, very properly supplies its place.

The London college have likewise somewhat facilitated the preparation of these medicines, by omitting the *trochisci cybeos* used in the mithridate, and the *bedychois* and

viperini for the theriaca; and inserting their ingredients, after *Zucclif's* manner, in the compositions they are intended for. This is done in the theriaca very commodiously, the ingredients in these troches uniting with those in the theriaca itself, into unbroken numbers. But to render the numbers equally simple in the mithridate, it was necessary to retrench a few odd grains from some of the articles, and make a small addition to some others: they adjusted the proportions of the ingredients in the *trochisci cybeis* from the original description in Galen; the numbers in our former pharmacopœia being very erroneous.

The college of Edinburgh have not ventured to touch these venerable compositions; as antiquity has now rendered them sacred, they leave them, for the admirers of the ancients; but have made a slight reformation of them, under the title of

THERIACA EDINENSIS.
EDINBURGH THERIACA.

Edinb.

Take of
Virginian snakeroof, six ounces;
Wild valerian root,
Contrayerva root, each four ounces;
Aromatic powder, three ounces;
Resin of guaiacum,
Ruffia castor,
Myrrh, each two ounces;
English saffron,
Opium, each one ounce;
Clarified honey, thrice the weight of the powders;
Canary wine, as much as is sufficient to dissolve the opium.

Make them, according to art, into an electary; to which some camphor may be occasionally added.

This composition consists of very powerful ingredients, and is doubtless capable of answering every thing that can be reasonably expected from the more voluminous theriaca of Andromachus. The London college also had formerly their theriaca, composed of the less exceptionable ingredients of Andromachus's. But as these medicines have for a long time been chiefly employed for external purposes, by the way of cataplasm, the *theriaca Londinensis* is now omitted, and its place supplied by a cataplasm, composed of a few well chosen articles, under the name of *cataplasma e cymino*, of which hereafter. For internal use, none of the theriaca's are at present so much regarded as they have been heretofore; practitioners having introduced, in their room, extemporaneous boluses of Virginian snake root, camphor, contrayerva, and the like; which answer all their intentions, with this advantage, that they may be given either with or without opium, an ingredient which renders the others prejudicial in cases where they might otherwise be proper.

With regard to the quantity of opium in these compositions, one grain thereof is contained in four drams of the mithridate of the London pharmacopœia, and in four drams and a scruple of that of the Edinburgh; in three scruples, fifteen grains of the London Venice-treacle; in nearly four scruples of the Edinburgh; and in five scruples of the *theriaca Edinensis*. The proportion of opium will vary a little, according to the time that they have been kept; their moisture by degrees exhaling, so as to leave the remainder stronger of the opium, than an equal weight was at first. A change of this kind is taken notice of by many writers, but

but falsely attributed to an imaginary fermentative quality of the ingredients, by which they were supposed, from their multiplicity and contrariety, to be continually exalting and improving the virtues of one another.

A good deal of care is requisite in making these compositions, to prevent the waste which is apt to happen in the pounding, and which would render the proportion of opium to the other ingredients precarious. The intention of dissolving the opium in wine, for these and other electaries, is, that it may be more uniformly mingled with the rest.

PHILONIUM LONDINENSE.
LONDON PHILONIUM.

Lond.

Take of

White pepper,

Ginger,

Caraway seeds, each two ounces;

Strained opium, six drams;

Syrup of meconium, boiled to the consistence of honey, thrice the weight of the other ingredients.

Heat the syrup, and carefully mix with it the opium, previously dissolved in wine; then add the other ingredients, reduced into powder.

This is a reformation of the *philonium* described by Galen, which was received in our preceding pharmacopœias with the addition of some superfluous ingredients, and distinguished, but not very properly, by the epithet *Romanum*. The additional articles, and some unnecessary ones that were in the original, are here omitted, and the quantities of the others varied so as to

preserve the same proportion of opium to the whole, as in our last pharmacopœia. Thirty-six grains of the composition contain one grain of opium.

The mithridate, theriaca, dia-cordium, confectio Paulina, and philonium, are the only compositions now remaining, of what have been called the officinal capitals. They are all medicines of great power; and as, on the one hand, they are applicable, by the judicious physician, to excellent purposes, so on the other, their imprudent use has often been productive of mischievous consequences. It has been customary among nurses and others, to give dia-cordium to children, to ease their complaints, and to procure sleep; intentions which it effectually answers, but at the same time never fails to bring on a costive habit, the foundation of numerous ills: this medicine has likewise been too unwarily given for restraining fluxes; whose suppression was afterwards followed by more dangerous symptoms. The celebrated alexipharmacs, mithridate, and theriaca, have oftentimes aggravated the disorders they were intended to remedy, have converted a common cold into a high fever, have raised slight febrile complaints into a malignant fever. However strongly therefore these kinds of medicines are recommended for easing pain, warming, promoting sweat, expelling malignity, &c. the utmost caution is requisite in the use of them: the cases which demand their assistance, are much less frequent than is generally supposed.

L O H O C H S.

A *lohoch*, *eclegma*, *linctus*, or *lambative*, is of a middle consistence betwixt a *syrop* and *electary*. This form is calculated chiefly for the exhibition of *pectoral* medicines, both of the *emollient* and *detergent* kind. It is an ill contrived one, and therefore at present almost entirely laid aside: the *mucliginous* or *oily* substances, which enter most of these compositions in large quantity, render them disagreeable to the palate (especially in the way of taking which they are designed for, that of *licking*, or *slowly swallowing down*) and likewise to the stomach; and impede the virtues of some ingredients which have been employed in this form, particularly those of the *astringent* kind. The *London college* have therefore rejected all the *lohochs*; and the *Edinburgh* retain only the following.

LOHOCH ex AMYLO.

LOHOCH of STARCH.

Take of
Starch, two drams;
Japan earth, one dram;
Syrup of comfrey,
Whites of eggs beat into a thin liquor, each one ounce.
Mix them together, so as to make a *lohoch*.

LOHOCH COMMUNE.

COMMON LOHOCH.

Take of
Oil of almonds fresh drawn,
Pectoral (or balsamic) syrup, each one ounce;
White sugar, two drams.
Mix, and make them into a *lohoch*.

LOHOCH

DIATRAGACANTHI.

LOHOCH of the COMPOUND
POWDER of GUM
TRAGACANTH.

Take of

Compound powder of gum tragacanth, two drams;
Japan earth, one dram;
Whites of eggs, beat up into a liquor, one ounce;
Syrup of meconium, two ounces.
Mix, and make them into a *lohoch*.

LOHOCH de LINO.

LOHOCH of LINSEED.

Take of

Linseed oil, fresh drawn,
Balsamic syrup, each one ounce;
Flowers of sulphur,
White sugar, each two drams.
Mix them, so as to make a *lohoch*.

LOHOCH de MANNA.

LOHOCH of MANNA.

Take of

Calabrian manna,
Oil of almonds, fresh drawn,
Syrup of violets, each equal quantities.
Mix them into a *lohoch*.

LOHOCH SAPONACEUM.

SAPONACEOUS LOHOCH.

Take of

Spanish soap, one dram;
Oil of almonds, one ounce;
Pectoral (or balsamic) syrup, an ounce and half.
Make them into a *lohoch*, according to art.

LOHOCH de SPERMATE CETI.

LOHOCH of SPERMA CETI.

Take of

Sperma ceti, two drams,
Oil of almonds, fresh, half an ounce;
Balsamic syrup, one ounce;
Yolk of eggs, as much as, when rubbed with the sperma ceti, will fit it to mix with the other ingredients, into the consistence of a *lohoch*.

CHAP.

CHAPTER XXIV.

AQUÆ MEDICAMENTOSÆ.

MEDICATED WATERS.

AQUA ALUMINOSA
BATEANA.

BATES' ALUM WATER.

Lond.

Take of
Alum,
White vitriol, each half an
ounce;
Water, two pints.

Boil the salts in the water till they
are dissolved, let the solution
settle, and afterwards filter it
through paper.

Bates directs the salts to be calcined
before they are dissolved: this is certainly a needless trouble,
since calcination only evaporates
the aqueous parts, which are re-
stored again on the addition of the
water. This liquor is used for
cleansing and healing ulcers and
wounds; and for removing cuta-
neous eruptions, the part being
bathed with it hot, three or four
times a day. It is sometimes like-
wise employed as a collyrium; and
as an injection in the gonorrhœa
and fluor albus, when not accom-
panied with virulence.

AQUA ALUMINOSA.
ALUM WATER.

Edinb.

Take of
Corrosive mercury sublimate,
Alum, each two drams;
Water, two pints.

Let the sublimate and alum be
ground into powder, and boiled
with the water, in a glass vessel,
to the consumption of half the
water; then suffer the liquor to
settle, and pour it off clear from
the sediment.

This is taken from Fallopius,
with the exchange of rose and
plantane waters for common water,
which is equally fit for the pur-
pose. The composition is design-
ed chiefly for cutaneous pustules
and ulcerations. It is an injudi-
cious one, and rarely made use of,
and therefore expunged from the
London pharmacopœia. The se-
diment is the mercury sublimate,
thrown down by the alum.

AQUA SAPPHIRINA.
SAPPHIRE COLOURED
WATER.

Lond.

Take of
Lime water, one pint;
Sal ammoniac, one dram.
Let them stand together, in a cop-
per vessel, or along with some
plates of copper, until the liquor
has acquired a sapphire colour.

Edinb.

Take of
Lime water, newly made, one
pint;
Sal ammoniac, two drams.
Dissolve the salt in the lime water,
and

and let the solution stand in a brass vessel, until it has acquired a blue colour.

This water is at present pretty much in use, as a detergent of foul and obstinate ulcers, and for taking away specks or films in the eyes. The copper contributes more to its colour, than to its medicinal efficacy; for the quantity of the metal dissolved is extremely minute.

**AQUA VITRIOLICA
CÆRULEA.
BLUE VITRIOLIC WATER.**
Lond.

Take of

Blue vitriol, three ounces;

Alum,

Strong spirit (or oil) of vitriol, each two ounces;

Water, a pint and a half.

Boil the salts in the water, until they are dissolved, then add the acid spirit and filter the mixture through paper.

**AQUA STYPTICA.
STYPTIC WATER.**
Edinb.

Take of

Blue vitriol,

Alum, each half a pound;

Water, four pints.

Boil them until the salts are dissolved, then filter the liquor, and to every pint of it add a dram of oil of vitriol.

These compositions are formed upon the styptic, recommended by Sydenham, for stopping bleeding at the nose, and other external hemorrhagies: for this purpose, cloths or dossils are to be dipped in the liquor, and applied to the part.

**AQUA VITRIOLICA
CAMPHORATA.
CAMPHORATED VITRIOLIC
WATER.**
Lond.

Take of

White vitriol, half an ounce;

Camphor, two drams;

Boiling water, two pints.

Mix them, that the vitriol may be dissolved; and after the feces have subsided, filter the liquor through paper.

**AQUA OPHTHALMICA.
EYE WATER.**
Edinb.

Take of

Bole Armenic, unprepared, two ounces;

Tutty, unprepared, one ounce;

White vitriol, half an ounce;

Camphor, two drams;

Water, four pints.

Boil the water a little, with the other ingredients powdered, frequently stirring them up from the bottom: then suffer the feces to subside, and pour off the clear liquor for use.

The last of these compositions does not differ so much from the first, as might be imagined from its containing more ingredients; for the bole and tutty, too ponderous to remain suspended in the water, fall to the bottom, and form greatest part of the feces. Both these liquors are very useful ophthalmics; they cool, and repel the sharp humors which sometimes fall down upon the eyes, and defend them from beginning films and specks.

**AQUA PHAGEDÆNICA.
PHAGEDENIC WATER.**
Edinb.

Take of

Lime water, one pint:

Corrosive mercury sublimate, half a dram.

Let a solution be made.

This is designed for washing and cleansing old foul ulcers, and preventing the growth of fungous flesh.

flesh. It is for most purposes rather too corrosive to be used without dilution.

LOTIO SAPONACEA.
SAPONACEOUS LOTION.

Lond.

Take of

- Damask rose water, three quarters of a pint;
- Oil olive, one quarter of a pint;
- Ley of tartar, half an ounce by measure.

Grind the ley of tartar and the oil together, until they unite; then gradually add the rose water.

This is designed for a detergent wash; and, like other soapy liquors, answers this purpose very effectually. Where it is required to be more deterfivive, it may be occasionally rendered so, by the addition of a small quantity of a solution of any fixt alkaline salt.



CHAP-

CHAPTER XXV.

OLEA per INFUSIONEM et DECOCTIONEM.
OILS by INFUSION and DECOCTION.

EXpressed oils extract the resinous and oily parts of vegetables, but do not act upon, or unite with, the gummy and mucilaginous: hence the *oleum e mucilagibus* of the shops contains nothing of the mucilage which its ingredients abound with. These oils may be tinged, by vegetable matters, of almost all colours; the leaves of most plants communicate a green; yellow flowers, a dilute gold colour; some red flowers, a light red; alcanet root, a beautiful and deep red.

In making the officinal oils from the leaves of plants, a good deal of care is necessary, to give them the fine green colour expected in them. If the boiling of the herb in the oil is not continued till all the aqueous moisture has exhaled (the mark of which is, the herb's being crisp) the oil will have a dingy yellowish hue; if continued longer, it turns black, and contracts an empyreumatic smell. The most convenient method of managing the process seems to be, to strain off the oil when sufficiently impregnated with the virtue of the plant, and afterwards to let it stand in a clean vessel, over a gentle fire, until by frequent trials on a white tile, it appears to have gained the deep green colour required.

1

OLEUM HYPERICI.
OIL of ST. JOHN'S WORT.
Lond.

Take of
The flowers of St. John's wort, full blown, fresh gathered, and carefully freed from the cups, four ounces;
Oil olive, two pints.
Pour the oil upon the flowers, and let them stand together, till the oil is sufficiently coloured.
Edinb.

Take of
The tops of St. John's wort, fresh gathered and bruised, one pound;
Oil olive, three pints.
Boil them gently together, until the herb is almost crisp; then strain and press out the oil.

After the same manner are prepared,

OLEUM ABSINTHITES.
OIL of WORMWOOD TOPS.

OLEUM ANETHINUM.
OIL of DILL LEAVES.

OLEUM CHAMEMELINUM.
OIL of CAMOMILE FLOWERS.

OLEUM LILIORUM
ALBORUM.
OIL of WHITE LILY FLOWERS.

OLEUM

OLEUM ROSARUM
RUBRARUM.
OIL of RED ROSES.

OLEUM RUTACEUM.
OIL of RUE LEAVES.

OLEUM LUMBRICORUM.
OIL of EARTH WORMS.
Edinb.

Take of
Earth worms, well washed, half
a pound;
Oil olive, two pints;
White wine, half a pint.

Boil them together in balneo maria, until the wine is evaporated; then press out the oil, and afterwards strain it for use.

OLEUM e MUCILAGINIBUS.
OIL of MUCILAGES.
 Lond.

Take of
Marshmallow root, fresh, half a
pound;
Linseed,
Fenugreek seed, each three
ounces;
Water, two pints;
Oil olive, four pints.

Bruise the roots and seeds, and gently boil them in the water for half an hour: then add the oil, and continue the boiling till all the water is wasted; afterwards let the oil be carefully poured off for use.

OLEUM MUCAGINUM.
Edinb.

Take of
Marshmallow (or white lily) roots,
fresh, four ounces;
Squills, fresh, two ounces;
Fenugreek seed,
Linseed, each an ounce and a
half;
Oil olive, half a gallon.

Bruise the roots, and steep them with the seeds in a sufficient quan-

tity of water; then gently boil them till they give out a thick viscous mucilage, which being strongly pressed out and strained, is to be boiled with the oil, in balneo maria, or over a very gentle fire, till the aqueous moisture is exhale'd; keeping the mixture continually stirring, to prevent its burning.

OLEUM SAMBUCINUM.
OIL of ELDER.
 Lond.

Take of
Elder flowers, one pound,
Oil olive, two pints.
Boil the flowers in the oil, till they are almost crisp; then press out the oil, and set it by till the feces have subsided.

OLEUM VIRIDE.
GREEN OIL.
 Lond.

Take of
Bay,
Rue,
Marjoram,
Sea wormwood,
Camomile, leaves, fresh, each
three ounces;
Oil olive, two pints.

Bruise the herbs, and gently boil them in the oil till they are almost crisp; then press out the oil, let it stand to settle, and afterwards pour it off from the sediment.

All the foregoing oils are design'd for external applications. Their general virtues are to soften and relax; by which qualities, they prove serviceable in tension, rigidity, contractions, and inflammations of particular parts; and in pains proceeding from these causes. As several of them contain those parts of the ingredients in which their virtues principally reside, they are hence supposed capable in some degree

degree of exerting those virtues when externally applied: thus, the oil of wormwood, rubbed on the stomach and umbilical region, is said to excite appetite, strengthen the viscera, and kill worms; that of chamemel flowers, to be a warm discutient and resolvent; those of St. John's wort flowers and dill leaves, to be peculiarly grateful to the nerves, to give great relief in all kinds of pains and weariness, to resolve tumors, and heal wounds and ulcers; the oil of mucilages, to be softer and more emollient

than common oil; that of rue, to be of singular efficacy against schirous swellings, and hardness of the spleen, &c. It is presumed, however, that at present there are few who expect much more from these preparations than from common oil itself, which has the advantage of being less offensive: the resinous parts of vegetables, however active when taken internally in a proper form, can scarce be supposed, when combined with a large quantity of oil, to have any considerable effect in external applications.

General rules for making powders. See from the Edinburgh Dispensatory.

Such plants as are employed in their composition ought to be fresh, dry, and well purified. In this regard the section of water is intended to be understood, till they have acquired a due consistence.

Boil the herbs till they are reduced to one half, and then strain them through a cloth, and add to the residue of water, which is to be kept in a glass vessel, till it is wanted. The water is to be used in the same manner as the powder, and is to be added to the powder, when it is to be used. The powder is to be used in the same manner as the powder, and is to be added to the powder, when it is to be used.



SECT. I. POWDERS.

EMPLASTRUM ANODYNUM.
ANODYNE PASTILLES.
Chart.
To the resin, eight ounces, and the gum, four ounces, add the oils, and mix them well together, and then add the resin, and mix them well together, and then add the resin, and mix them well together.

degrees of exerting their virtues than common oil; that of the
 when externally applied: thus the oil of nutmeg is more effectually
 applied to the stomach, than the oil of turpentine, and the nature of the
 oil of turpentine, adapted to the stomach, is more effectually
 applied to the stomach, than the oil of turpentine, and the nature of the
 oil of turpentine, adapted to the stomach, is more effectually
 applied to the stomach, than the oil of turpentine, and the nature of the

CHAPTER XXVI.

EMPLASTRA, UNGUENTA, CERATA,
 EPITHEMATA.

PLASTERS, OINTMENTS, CERATES,
 EPITHEMS.

*General rules for making plasters, &c. from the Edinburgh
 pharmacopœia.*

I.
SUCH plants as are employed
 in these compositions, ought to
 be fresh, juicy, and well bruised;
 unless they are ordered other-
 wise.

II.
 Boil the herbs till they are almost
 crisp, taking care to prevent the
 matter from contracting a black
 colour: afterwards strain off the
 liquid, and set it on the fire again,
 that all the aqueous moisture
 may exhale.

III.
 Metallic powders are to be boiled
 first with the oils and unctuous
 ingredients, till duly united.
 Such gums as are readily soluble,
 powders, and also turpentine,

are to be added towards the end
 of the operation.

IV.
 Plasters require the addition of wa-
 ter, till they have acquired a due
 consistence.

The use of the water is, to keep
 the plaster from burning and grow-
 ing black. Such water, as it may
 be necessary to add during the boil-
 ing, must be previously made hot:
 cold liquor would not only prolong
 the process, but likewise occasion
 the matter to explode and be thrown
 about with violence, to the great
 danger of the operator; this acci-
 dent will equally happen upon the
 addition of hot water, if the plaster
 is extremely hot.

SECT. I.

PLASTERS.

EMPLASTRUM ANODYNUM.
 ANODYNE PLASTER.
 Edinb.

Take of
 White resin, eight ounces;
 Tacamahacca in powder,

Galbanum, each four ounces;
 Cummin seeds, powdered, three
 ounces;

Black soap, four ounces.
 Melt the resin and the gums to-
 gether; then add the seeds and the
 soap,

soap, and make the whole into a plaster, according to art.

This plaster sometimes gives ease in slight gouty and rheumatic pains, which it is supposed to effect by preventing the afflux of humors to the part, and putting in motion, and repelling such as already stagnate there.

EMPLASTRUM
ANTI-HYSTERICUM.
ANTIHYSTERIC PLASTER.

Edinb.

Take of

Galbanum, twelve ounces;
Tacamahacca, in powder,
Yellow wax, each six ounces;
Asa fetida,
Cummin seed in powder,
Venice turpentine, each four ounces.

Mix and make them into a plaster, according to art.

This plaster is applied to the umbilical region, or over the whole abdomen, in hysteric cases; and sometimes with good effect.

EMPLASTRUM
ATTRAHENS.
DRAWING PLASTER.

Lond.

Take of

Yellow resin,
Yellow wax, each three pounds;
Tried mutton suet, one pound.
Melt them together, and whilst the mass remains fluid, pass it thro' a strainer.

This is a very well contrived plaster for the purpose expressed in its title. It is calculated to supply the place of melilot plaster; whose great irritation, when employed for the dressing of blisters, has been continually complained of. This was owing to the large quantity of resin contained in it, which is here for that reason retrenched. It should seem that, when designed only for

dressing blisters, the resin ought to be entirely omitted, unless where a continuance of the pain and irritation, excited by the vesicatory, is required. Indeed plasters of any kind are not very proper for this purpose: their consistence makes them set uneasy, and their adhesive-ness renders the taking them off painful. Cerates, which are softer and less adhesive, appear much more eligible: the *ceratum album* will serve for general use; and for some particular purposes, the *ceratum citrinum* may be applied.

EMPLASTRUM
CEPHALICUM.
CEPHALIC PLASTER.

Lond.

Take of

Burgundy pitch, two pounds;
Soft labdanum, one pound;
Yellow resin,
Yellow wax, each four ounces;
The expressed oil, called oil of mace, one ounce.

Melt the pitch, resin, and wax together; then add, first the labdanum, and afterwards the oil of mace.

Edinb.

Take of

Yellow wax, three ounces;
White resin,
Tacamahacca, each two ounces;
Myrrh,
Castor, each two drams;
Venice turpentine, three ounces;
Essential oil of lavender,
Oil of amber, each one dram.

Add the oils, to the other ingredients previously made into a plaster and grown almost cold.

These plasters are applied, in weakness or pains of the head, to the temples, forehead, &c. and sometimes likewise to the feet. Schulze relates, that an inveterate rheumatism in the temples, which at times extended to the teeth, and

occa-

occasioned intolerable pain, was completely cured in two days by a plaster of this kind (with the addition of a little opium) applied to the part, after many other remedies had been tried in vain: he adds, that a large quantity of liquid matter exuded, under the plaster, in drops, which were so acrid as to corrode the cuticle.

EMPLASTRUM de CICUTA
cum AMMONIACO.
PLASTER of HEMLOCK with
AMMONIACUM.

Edinb.

Take of

Juice of hemlock leaves, four ounces;

Gum ammoniacum, eight ounces;
Vinegar of squills, as much as is sufficient to dissolve the gum.

Add the juice to this solution, and having strained the mixture, boil it to the consistence of a plaster.

This is supposed to be a powerful cooler and discutient, and particularly serviceable against swellings of the spleen and distensions of the hypocondres.

EMPLASTRUM COMMUNE.
COMMON PLASTER.

Lond.

Take of

Oil olive, one gallon;
Litharge, ground into a most subtle powder, five pounds.

Boil them over a gentle fire, with about two pints of water, keeping them continually stirring, till the oil and litharge unite, and acquire the consistence of a plaster. If all the water should be consumed before this happens, add some more water previously made hot.

EMPLASTRUM DIACHYLON.
DIACHYLON PLASTER.

Edinb.

Take of

Oil of mucilages, four pints;

Litharge of gold, a pound and a half.

Boil them into a plaster.

The heat, in these processes, should be gentle, and the matter kept continually stirring, otherwise it swells up, and is apt to run over the vessel. If the composition proves discoloured, the addition of a little white lead and oil will recover the colour.

These plasters are the common application in excoriations of the skin, slight flesh wounds, and the like. They keep the part soft, and somewhat warm, and defend it from the air, which is all that can be expected in these cases from any plaster. Some of our industrious medicine-makers have thought these purposes might be answered by a cheaper composition, and accordingly have substituted a mixture of no better materials than common whiting and hogs lard: this, however, is by no means allowable, not only as it does not stick so well, but likewise as the lard is apt to grow rancid and acrimonious, and in some cases occasion great pain. The counterfeit is distinguishable by the eye, but more satisfactorily by burning a little in an iron ladle: the genuine will be partly revived into little globules of lead, whilst the counterfeit burns into a kind of lime.

EMPLASTRUM COMMUNE
ADHÆSIVUM.
COMMON STICKING
PLASTER.

Lond.

Take of

Common plaster, three pounds;
Yellow resin, half a pound.

Melt the common plaster over a very gentle fire; then add the resin, first reduced into powder that it may melt the sooner; and mix them all together.

K k

This

This plaster may otherwise be made, by taking, instead of the common plaster, its ingredients oil and litharge; and adding the resin a little before they have come to the due consistence; then continue the boiling till the plaster is finished.

It turns out the most elegant when made by this last method.

EMPLASTRUM
ADHÆSIVUM.
STICKING PLASTER.

Edinb.

Take of

Simple diachylon plaster, two pounds;

Burgundy pitch, one pound.

Melt them together, so as to make a plaster.

These plasters are used chiefly as adhesives, for keeping on other dressings, &c.

EMPLASTRUM COMMUNE
cum GUMMI.
COMMON PLASTERS with
GUMS.

Lond.

Take of

Common plaster, three pounds;

Galbanum strained, eight ounces;

Common turpentine,

Frankincense, each three ounces.

Melt the galbanum with the turpentine, over a gentle fire, and sprinkle in the frankincense, reduced to powder: then gradually mix with these the common plaster, previously liquefied by a very gentle heat.

Or, instead of the common plaster already made, you may take the oil and litharge boiled together: as soon as these unite, before they have acquired the consistence of a plaster, the other ingredients are to be added.

EMPLASTRUM DIACHYLON
cum GUMMI.

DIACHYLON PLASTER with
GUMS.

Edinb.

Take of

Oil of mucilages, four pints;

Litharge of gold, two pounds;

Gum ammoniacum,

Galbanum,

Venice turpentine,

Yellow wax, each half a pound.

Boil the oil with the litharge to the consistence of a plaster; then add the other ingredients, and make the whole into a plaster, according to art.

These plasters are used as digestives and suppuratives; particularly in abscesses, after a part of the matter has been matured and discharged, for suppurating or discharging the remaining hard part.

EMPLASTRUM e CYMINO.
CUMMIN PLASTER.

Lond.

Take of

Burgundy pitch, three pounds;

Yellow wax,

Cummin seeds,

Caraway seeds,

Bay berries, each three ounces.

Melt the pitch with the wax; then sprinkle in the other ingredients, first reduced into a powder, and mix the whole well together.

This plaster stands recommended as a moderately warm discutient; and directed to be applied to the hypogastric region, for strengthening the viscera, and expelling flatulencies.

EMPLASTRUM
DEFENSIVUM.
DEFENSIVE PLASTER.

Edinb.

Take of

Juice of Shepherds purse,

Knot grass,

Horsetail,

Milfoil,

Juice

Juice of Plantane,
 Houfeleek,
 Common nightshade,
 Comfry, each half a pint;
 Oil olive, three pints;
 Hogs lard, two pounds;
 Litharge of gold, two pounds
 and a half;
 Red lead, half a pound;
 Yellow wax,
 White refin,
 Olibanum,
 Venice turpentine, each four
 ounces;
 Powdered Bole Armenic, one
 pound;
 Comfrey roots,
 Granate peels,
 Balaustines,
 Maltich,
 Dragons blood,
 Red faunders, each two
 ounces.

Boil the juices with the oil, lard
 litharge, and red lead, till they
 come almost to the consistence of
 a plaster; then mix in the wax
 and refin; and when these are
 liquefied, add the olibanum, tur-
 pentine, and the powders. Let
 the whole be well mixed, and
 made into a plaster, according
 to art.

It may likewise be prepared
 without the juices.

This plaster is laid round the
 lips of wounds and ulcers, for *de-*
fending them from inflammation,
 and other ill symptoms; which it
 is supposed to effect, by somewhat
 constringing the vessels, and thus
 preventing the afflux of humors to
 the part.

This composition is very redun-
 dant in its ingredients: and indeed,
 through the whole of this chapter,
 the college of Edinburgh have been
 very sparing of their emendations,
 especially of such ointments and
 plasters as are used by the surgeons
 in their dressings. They were at

no further pains about them, than
 to enquire of the surgeons what
 forms they followed in making
 them up. With regard to this par-
 ticular composition, they were as-
 sured, that some, of the greatest
 practice, continued still to make it
 according to the old prescription
 above retained, without the omis-
 sion of any one juice. It would
 have been very easy, no doubt, to
 have composed a plaster, as good
 for the purpose, of four or five in-
 gredients; but possibly neither one
 or the other would have answered
 any useful end.

EMPLASTRUM DIAPALMÆ
 dictum.

The PLASTER called
 DIAPALMA.

Edinb.

Take of

Litharge of gold,
 Oil olive, each three pounds;
 Hogs lard, two pounds.

Boil these ingredients together, and
 keep them stirring, till they have
 acquired a due consistence.

This plaster has lost the ingre-
 dient from which it received its
 name, the young shoots of the
 palm tree; and likewise the ridicu-
 lous ceremony of stirring it with a
 palm tree stick, which was observ-
 ed only to countenance the conti-
 nuance of its name. It is used for
 the same purposes as the simple
 diachylon, and is inserted only in
 compliance with the shops, some
 chusing to keep the one, and others
 the other.

EMPLASTRUM e MELILOTO.
 MELILOT PLASTER.

Edinb.

Take of

Melilot leaves, fresh, six pounds;
 Beef suet, three pounds;
 White refin, eight pounds;
 Yellow wax, four pounds.

K k 2

Boil

Boil the herb in the melted suet till it is almost crisp; then strongly press out the suet, and adding the resin and wax, boil the whole a little, so as to make a plaster thereof.

This plaster has been frequently made use of for dressing blisters: see EMPLASTRUM ATTRAHENS. The London college have diminished the quantity of resin, to render the composition less irritating; and likewise omitted the herb, as being of no significance towards the use of the plaster, and of a very disagreeable scent, a circumstance of primary consequence to be avoided in disorders, where freedom from disturbance, and every means, that can contribute to quiet rest, ought by all possible endeavours to be procured: not to mention the mischievous adulterations sometimes practised in this plaster with irritating materials, for procuring the green colour, which is made its marketable characteristic more compendiously than by the decoction of the herb. The most certain method of discovering abuses of this kind, is to put a little of the plaster into some spirit of sal ammoniac; if it tinges the spirit blue, we may be certain it is adulterated.

EMPLASTRUM ex
AMMONIACO cum
MERCURIO.
PLASTER of AMMONIACUM
with MERCURY.
 Lond.

Take of
Gum ammoniacum, strained, one pound;
Quicksilver three ounces;
Simple balsam of sulphur, one dram.

Grind the quicksilver with the balsam of sulphur, till it ceases to appear; then, having melted the ammoniacum, add it gradually

a little before it cools, to this mixture; and let the whole be perfectly mingled together.

This is a very well contrived mercurial plaster: if in some cases, it should not prove adhesive enough, the addition of a small quantity of turpentine will readily make it so.

EMPLASTRUM COMMUNE
cum MERCURIO.
COMMON PLASTER with
MERCURY.
 Lond.

Take of
Common plaster, one pound;
Quicksilver, three ounces;
Simple balsam of sulphur, one dram.

Make them into a plaster, after the same manner as the foregoing.

EMPLASTRUM
MERCURIALE.
MERCURIAL PLASTER.
 Edinb.

Take of
Diachylon plaster with gums, a pound and a half;
Quicksilver eight ounces;
Venice turpentine, one ounce;
Liquid storax, an ounce and a half.

Grind the quicksilver in a mortar, with the turpentine and storax, until they are perfectly incorporated; and then, having melted the diachylon, and taken it from the fire, add to it this mixture.

These mercurial plasters are looked on as powerful resolvents and discutients, acting with much greater certainty in these intentions, than any composition of vegetable substances alone; the mercury exerting itself in a considerable degree, though it is rarely introduced into the habit, in such quantity as sensibly to affect the mouth. Pains in the joints and limbs from a venereal cause, nodes, tophs, beginning ichirō-

fchirrosities, and indurations of the glands sometimes yield to them.

EMPLASTRUM e MINIO.
RED LEAD PLASTER

Lond.

Take of

Oil olive, four pints;
Red lead, reduced to a most sub-
tile powder, two pounds and
a half.

Make them into a plaster, after
the manner directed for prepar-
ing the common plaster: but
more water is here required, and
greater care is necessary to pre-
vent the composition from burn-
ing and growing black.

EMPLASTRUM de MINIO
SIMPLEX.
SIMPLE RED LEAD PLASTER.

Edinb.

Take of

Red lead, one pound;
Oil olive, a pint and a half;
Vinegar, half a pint;

Make them into a plaster, by boil-
ing over a gentle fire.

These are used for the same pur-
poses as the common or diachylon
plaster, from which they differ
little otherwise than in colour.
They have an inconvenience of
not sticking so well.

EMPLASTRUM de MINIO
cum SAPONE.

RED LEAD PLASTER with
SOAP.

Edinb.

This is made by adding to the fore-
going plaster taken from the fire
as soon as the moisture is evapo-
rated, and whilst hot, half a
pound of Spanish soap cut into
thin slices: stir the whole
strongly together, until the soap
is liquefied, and a plaster form-
ed, according to art.

This is much esteemed by some,
for discussing gouty tumors, and
the juices stagnating after sprains.
Whatever virtues it may have di-
stinct from the general ones of the
applications of this class, they de-
pend entirely upon the soap.

EMPLASTRUM
OXYCROCEUM.

The PLASTER called
OXYCROCEUM.

Edinb.

Take of

Yellow wax, one pound;
Pitch,
Galbanum, each half a pound;
Venice turpentine,
Myrrh,
Olibanum, each three ounces;
Saffron, two ounces;

Mix and make them into a plaster,
according to art.

This plaster is said to strengthen
the parts to which it is applied,
especially the tendinous ones; to
warm in a great degree, and to re-
solve and discuss cold tumors.

EMPLASTRUM e
MUCILAGINIBUS.
PLASTER of MUCILAGES.

Lond.

Take of

Yellow wax, forty ounces;
Oil of mucilages, half a pint;
Gum ammoniacum, strained, half
a pound;

Common turpentine, two ounces.
Melt the ammoniacum with the
turpentine; and having, in an-
other vessel liquefied the wax
with the oil, add this latter mix-
ture to the other.

Some have been accustomed to
use, instead of the oil of mucilages,
common oil olive, flavoured with
fenugreek seeds: and possibly this
substitution may be admitted as a
venial one; for the oil of mucil-
ages

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cilages

lages genuinely made contains scarce any thing of any of the ingredients, except that part of the fenugreek seeds wherein their flavour resides, the mucilaginous materials serving only to provide it with a name.

**EMPLASTRUM ROBORANS.
STRENGTHENING PLASTER.**

Lond.

Take of

Common plaster, two pounds;
Frankincense, half a pound;
Dragons blood, three ounces.

Melt the common plaster, and add to it the other ingredients reduced into powder.

This is a reformation of the laborious and injudicious composition described, in our preceding pharmacopœias, under the title of **EMPLASTRUM ad HERNIAM**; and tho' far the most elegant and simple, is as effectual for that purpose, as any of the medicines of this kind. If constantly worn, with a proper bandage, it will, in children, frequently do service; tho' not so much from any strengthening quality of the ingredients, as from its being a soft, close, and adhesive covering. It has been supposed, that plasters composed of styptic medicines, constrict and strengthen the part to which they are applied, but on no very just foundation; for plasters in general relax rather than astringe, the unctuous ingredients necessary in their composition, counteracting and destroying the effect of the others.

**EMPLASTRUM e SAFONE.
SOAP PLASTER.**

Lond.

Take of

Common plaster, three pounds;
Hard soap half a pound.
Having melted the common plaster, mix with it the soap, and boil

them to the consistence of a plaster. Take care not to let it grow too cold before you form it into rolls; otherwise it will prove too brittle.

This plaster differs only in colour from the red lead plaster with soap above mentioned.

**EMPLASTRUM
STOMACHICUM.
STOMACH PLASTER.**

Lond.

Take of

Soft labdanum, three ounces;
Frankincense, one ounce;
Cinnamon,

The expressed oil, called oil of mace, each half an ounce;

Essential oil of mint, one dram.

Having melted the frankincense add to it, first the labdanum softened by heat, and then the oil of mace; afterwards mix these with the cinnamon and oil of mint; and beat them together in a warm mortar, into a mass, which is to be kept in a close vessel.

This is a very elegant stomach plaster. It is contrived so, as to be easily made occasionally (for these kinds of compositions, on account of their volatile ingredients, are not fit for keeping;) and to be but moderately adhesive, so as not to offend the skin; and that it may without difficulty be frequently taken off and renewed, which these sorts of applications, in order to their producing any considerable effect, require to be.

Edinb.

Take of

Yellow wax, eight ounces;
Tacamahacca in powder, four ounces;
Venice turpentine, six ounces;
Bay berries powdered, two ounces;
Cubebs, powdered, one ounce;
Expressed

Expressed oil of mace, an ounce
and a half;

Essential oil of mint, two drams.
Melt the wax and tacamahacca to-
gether, then add the other in-
gredients, and make them into
a plaster, according to art.

These plasters are applied to the
pit of the stomach, in weakness of
that viscus, in vomitings, the dis-
order improperly called the heart-
burn, &c. and sometimes with good
success. The pit of the stomach
however, as Hoffman has observ-
ed, is not always the most proper
place for applications of this kind
to be made to: if they are applied
to the false ribs of the left side, to-
wards the back, the stomach will in
general receive more benefit from
them; for it appears from anatomi-
cal inspection, that greatest part
of it is situated there.

EMPLASTRUM
VESICATORIUM.
BLISTERING PLASTER.

Lond.

Take of

Drawing plaster, two pounds;
Cantharides, one pound;
Vinegar, half a pint.

Melt the drawing plaster, and a
little before it grows stiff, mix in
the cantharides, reduced into a
most subtile powder; then add
the vinegar, and work them
well together.

EMPLASTRUM
EPISPASTICUM.
BLISTERING PLASTER.

Edinb.

Take of

Melilot plaster,
Burgundy pitch, each eight
ounces;
Venice turpentine, three ounces;
Cantharides, five ounces.

Reduce the cantharides into a most
subtile powder, and add them to

the other ingredients, previously
melted together, so as to make
the whole into a plaster, accord-
ing to art.

EMPLASTRUM
EPISPASTICUM
COMPOSITUM.
COMPOUND BLISTERING
PLASTER.

Edinb.

Take of

Burgundy pitch, ten ounces;
Yellow wax, four ounces;
White resin, two ounces;
Venice turpentine, eighteen oun-
ces;
Mustard seed,
Black pepper, each one ounce;
Verdegris, two ounces;
Cantharides, twelve ounces.

Melt the wax, pitch, and resin to-
gether, then add the turpentine,
and when this is liquefied, sprinkle
in the other ingredients, first
powdered and mixed together;
keeping them continually stir-
ring, so as to make a plaster
thereof, according to art.

The blistering plasters are to be
kept in oiled bladders.

This last composition has long
been used in some particular shops,
as the most infallible blister: tho'
either of the other two answer the
purpose very successfully. Whe-
ther the vinegar in the first is of
any advantage, is greatly to be
doubted: in some cases indeed, it
has been observed, that the plaster
without this addition seemed at first
to fail of its effect, and that on tak-
ing it off, and rubbing the part
with vinegar, the same plaster, ap-
plied again, blistered freely: but
this is not so much owing to any
peculiar quality of the vinegar, as
to its softening the skin when ap-
plied in this manner, and fitting it
for the action of the cantharides:
when mixed with the other ingre-

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dients

dients of the plaster, it has not this effect: it likewise exhales in keeping, insomuch that the composition, tho' sufficiently soft at first, becomes in no long time too dry. Some have been accustomed to spare the trouble of making any plaster on purpose for blistering, by occasionally spreading some of the cantharides in powder upon a common plaster. The general intention and use of blisters have been already spoken of, under the article CANTHARIDES in the materia medica.

EMPLASTRUM VOLATILE.
VOLATILE PLASTER.

Edinb.

Take of
Venice turpentine,
Spirit of sal ammoniac, each one
ounce;

Tacamahacca in powder, half an ounce;

Beat the turpentine in a mortar, pouring on it, by little and little, the spirit of sal ammoniac; when they are thoroughly mixed, throw in by degrees the tacamahacca, and mingle the whole well together,

This is a very acrid composition, and as such is sometimes applied in rheumatic and ischiadic pains. The tacamahacca renders it very adhesive, insomuch that it can scarce be got off so quick, as, in some cases, may be requisite. The London college therefore, omitting this ingredient, have ordered the medicine to be kept in a softer form, under the title of EPITHEMA VOLATILE.

S E C T. II.

OINTMENTS, LINIMENTS, and CERATES.

UNGUENTUM ALBUM.
WHITE OINTMENT.

Lond.

Take of
Oil olive, one pint;
White wax, four ounces;
Sperma ceti, three ounces,
Liquefy them by a gentle fire, and keep them constantly and briskly stirring, till grown thoroughly cold.

Edinb.

Take of
Oil olive, three pints;
Cerusse, one pound;
White wax, nine ounces.

Mix and make them into an ointment, according to art.

These are useful, cooling, emollient ointments, of good service in excoriations, and other like frettings of the skin. The cerusse is omitted in the first prescription, on a sus-

picion that it might produce some ill effects, when applied, as these unguents frequently are, to the tender bodies of children.

UNGUENTUM ALBUM
CAMPHORATUM.
CAMPHORATED WHITE
OINTMENT.

Lond.

This is made by adding to the white ointment a dram and a half of camphor, previously ground with some drops of oil of almonds.

Edinb.

Mix with the white ointment, when taken from the fire, an ounce of camphor, ground with some drops of oil of almonds.

These ointments are supposed to be more discutient than the foregoing.

ing, and serviceable against cutaneous heats, itching, and serpiginous eruptions. They should be kept in close vessels, otherwise the camphor will soon exhale: their smelling strong of this ingredient is the best mark of their goodness.

UNGUENTUM ex
ALTHÆA.
OINTMENT of
MARSHMALLOWS.
 Lond.

Take of

Oil of mucilages, three pints;
Yellow wax, one pound;
Yellow resin, half a pound;
Common turpentine, two ounces.

Melt the resin and wax with the oil; then, having taken them from the fire, add the turpentine, and while the mixture remains hot, strain it.

Edinb.

Take of

Oil of mucilages, two pints;
Yellow wax, half a pound;
White resin, three ounces;
Venice turpentine, one ounce and a half.

Mix and make them into an ointment, according to art.

These ointments receive no virtue from the ingredient which they take their name from.

UNGUENTUM.
ANTIPSORICUM.
OINTMENT against the ITCH.
 Edinb.

Take of

Elecampane root, fresh,
Sharp-pointed dock root, fresh,
each three ounces;
Water cresses, fresh and bruised,
ten ounces;
Hogs lard, four pounds;
Yellow wax,
Oil of bays, each four ounces;
Vinegar, one pint;
Water, three pints,

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Bruise the roots, and boil them in the water and vinegar, till half the liquor is consumed; strain and strongly press out the remainder, add to it the water-cresses and the lard, and boil them till the moisture is exhaled; then press out the ointment, and liquefy in it the wax and the oil of bays.

Sulphur is added to this ointment occasionally.

UNGUENTUM
ANTIPSORICUM cum
MERCURIO.
OINTMENT against the ITCH
with MERCURY.
 Edinb.

This is made by adding to the foregoing ointment four ounces of quicksilver, killed with a sufficient quantity of Venice turpentine, and mixing them together, according to art, into an unguent.

These ointments are very inelegant ones, and rarely made use of. The first is likewise precarious in its effects, and though those with sulphur and mercury are of undoubted efficacy, yet they are by no means superior to the more simple ointments of these drugs described hereafter.

UNGUENTUM BASILICUM
FLAVUM.
YELLOW BASILICUM
OINTMENT.
 Lond.

Take of

Oil olive, one pint;
Yellow wax,
Yellow resin,
Burgundy pitch, each one pound;
Common turpentine, three ounces.
Melt the wax, resin, and pitch, along with the oil over a gentle fire; then take them from the fire, add the turpentine, and whilst the mixture remains hot, strain it.

UN-

UNGUENTUM BASILICUM.
BASILICUM OINTMENT.

Edinb.

Take of
 Yellow wax,
 Goats suet,
 White resin,
 Venice turpentine,
 Pitch, each half a pound;
 Oil olive, two pints and a half;
 Melt all the other ingredients in
 the oil, stirring them well to-
 gether; and then strain off the
 ointment.

These are commonly employed
 in dressings, for digesting, cleansing
 and incarnating wounds and ul-
 cers. They differ very little, if at
 all, in their effects, from the *lini-
 mentum Arcaei*.

UNGUENTUM BASILICUM
 NIGRUM vel
 TETRAPHARMACUM.
*BLACK BASILICUM
 OINTMENT or OINTMENT
 of Four INGREDIENTS.*

Lond.

Take of
 Oil olive, one pint;
 Yellow wax,
 Yellow resin,
 Dry pitch, each nine ounces.
 Melt them all together, and whilst
 the mixture is hot strain it off.

This ointment was formerly of
 considerable esteem for healing and
 incarnating wounds, &c. but is said
 to have an inconvenience of being
 apt to render them foul, and pro-
 duce fungous flesh: at present it
 is rarely made use of; the yellow
 basilicum, and the liniment of Ar-
 caeus being in general preferred.

UNGUENTUM BASILICUM
 VIRIDE.
*GREEN BASILICUM
 OINTMENT.*

Lond.

Take of
 Yellow basilicum, eight ounces;

Oil olive, three ounces by mea-
 sure;

Verdegris prepared, one ounce.
 Mix and make them into an oint-
 ment.

Our hospitals have been accu-
 stomed to prepare an ointment
 greatly resembling this, under the
 title of *unguentum viride detergens*.

UNGUENTUM CITRINUM.
YELLOW OINTMENT.

Edinb.

Take of
 Quicksilver, one ounce;
 Spirit of nitre, two ounces;
 Hogs lard, tried, one pound.
 Dissolve the quicksilver in the spi-
 rit of nitre, by digestion in a sand
 heat; and whilst the solution is
 very hot, mix with it the lard,
 previously melted by itself, and
 just beginning to grow stiff. Stir
 them briskly together, in a mar-
 ble mortar, so as to form the
 whole into an ointment.

UNGUENTUM CÆRULEUM
 FORTIUS.
*The STRONGER BLUE
 OINTMENT.*

Lond.

Take of
 Hogs lard, tried, two pounds;
 Quicksilver, one pound;
 Simple balsam of sulphur, half
 an ounce.
 Grind the quicksilver with the bal-
 sam of sulphur till they are per-
 fectly incorporated; then gra-
 dually add the lard heated, and
 mix them carefully together.

UNGUENTUM CÆRULEUM
 MITIUS.
*The Milder BLUE
 OINTMENT.*

Lond.

Take of
 Hogs lard, tried, four pounds;
 Quicksilver, one pound;
 Coramon

Common turpentine, one ounce.
Grind the quicksilver with the turpentine, in a mortar, till it ceases to appear; then gradually add the lard warmed, and carefully mix them together.

This unguent turns out of a much better blue colour than the foregoing, which is of a very dingy hue. Mercurial unguents have in many cases the same effects with the preparations of this mineral taken internally; and are at present frequently employed, not only against cutaneous disorders, as alterants; but likewise in venereal and other obstinate cases, for raising a salivation. The ptyalism excited by unctio is said to be attended with the fewest inconveniencies, and to perform the most compleat cure. In some constitutions, mercurials, taken inwardly, run off by the intestines, without affecting the mouth; and in others, they affect the salival glands so quickly as to occasion a copious ptyalism, without extending their action to the remoter parts, and consequently without removing the cause of the disease.

UNGUENTUM
DESICCATIVUM RUBRUM.
RED DESICCATIVE
OINTMENT.

Edinb.

Take of

Oil olive, a pint and a half;
White wax, half a pound;
Calamine prepared, six ounces;
Litharge of gold prepared,
Bole armenic, each four ounces;
Camphor, three drams.

Melt the wax in the oil, and having taken them from the fire, gradually sprinkle in the other ingredients, stirring them briskly together into an ointment. The camphor must be previously ground with a little oil of almonds.

This is said to be an excellent dryer and healer, but is at present in no great esteem, and rarely kept in the shops.

UNGUENTUM
DIAPOMPHOLYGOS.
OINTMENT of POMPHOLYX.

Edinb.

Take of

Oil olive, twenty ounces;
Juice of the berries of common,
or deadly nightshade, eight
ounces;
White wax, five ounces;
Cerusse, four ounces;
Burnt lead,
Pompholyx, each two ounces;
Pure frankincense, one ounce.

Boil the oil and the juice over a gentle fire, till the juice is exhaled; and towards the end of the coction, melt the wax in the oil; then take the mixture from the fire, and add to it, whilst hot, the other ingredients reduced to powder. Mix and make them into an ointment.

This stands recommended against hot inflammatory ulcers and sharp defluxions on the eyes; but is very rarely made use of, having for some time given place to compositions more simple, though at least equal in efficacy.

UNGUENTUM e GUMMI
ELEMI.

OINTMENT of GUM ELEMI.

Lond.

Take of

Mutton suet, fresh and tried, two
pounds;
Gum elemi, one pound;
Common turpentine, ten ounces.

Melt the gum with the suet, and having taken them from the fire, immediately mix in the turpentine; then, whilst the mass remains fluid, strain it off.

UN-

UNGUENTUM seu
LINIMENTUM ARCAEI.
*The OINTMENT or LINIMENT
of ARCAEUS.*
Edinb.

Take of
Hogs lard, one pound;
Goats suet, two pounds;
Venice turpentine,
Gum elemi, each a pound and a
half.

Melt and strain them, so as to make
an ointment, according to art.

This unguent has long been in use
for digesting, cleansing, and incar-
nating; and for these purposes is
preferred by some to all the other
compositions of this kind.

UNGUENTUM
MERCURIALE.
MERCURIAL OINTMENT.
Edinb.

Take of
Hogs lard, two ounces;
Quicksilver, half an ounce.
Beat them diligently together, till
the quicksilver disappears. It
may likewise be made with two,
three, or more times the quan-
tity of quicksilver.

This is the most simple of the
mercurial ointments, tho' possibly
as efficacious as any. It requires
indeed a great deal more labour to
extinguish the mercury in the lard
alone, than when turpentine, or
other like substances are joined:
but, in recompence, the composi-
tion with lard is free from an in-
convenience which the others are
accompanied with, viz. being apt,
by frequent rubbing, to fret tender
skins. Some chuse to stiffen this
ointment with a fourth part of suet
(proportionably diminishing the lard)
which gives it a better consistence
for use.

UNGUENTUM e MERCURIO
PRÆCIPITATO.
*OINTMENT of MERCURY
PRÆCIPITATE.*

Lond.

Take of
Simple ointment, an ounce and a
half;
Precipitated sulphur, two drams;
White mercury precipitate, two
scruples.

Mix them well together, and moisten
them with ley of tartar, that they
may be made into an ointment.

This is a very elegant mercurial
ointment, and frequently made use
of against cutaneous disorders. The
preparations of mercury and sulphur
here directed, are chosen on account
of their colour.

UNGUENTUM NERVINUM.
NERVE OINTMENT.
Edinb.

Take of
Southernwood,
Marjoram (or Origanum)
Mint,
Penny-royal,
Rue,
Rosemary, each, fresh gathered,
six ounces;
Neats-foot oil, five pints;
Beef suet, three pounds;
Oil of bays, half a pint.

Boil the herbs, with the neats-foot
oil and suet, till the aqueous
moisture is exhaled, then press
and strain out the liquid, and
adding to it the oil of bays, make
the whole into an ointment.

This ointment has been supposed
to warm and strengthen the nerves.
It is at present in no great esteem.

UNGUENTUM NUTRITUM.
*The OINTMENT called
NUTRITUM.*
Edinb.

Take of
Litharge of gold,
Vinegar, each half a pound;
Oil olive, a pint and a half.
Rub them in a mortar, adding the
oil and vinegar alternately by
little and little at a time, till the
vinegar

vinegar ceases to appear, and the ointment becomes uniform and white.

This ointment is troublesome to make, and does not keep well, the vinegar exhaling, so as to leave the compound too stiff. It is supposed to be a good cooler and desiccative; and is occasionally used in excoriations, slight serpiginous eruptions, and for anointing the lips of wounds or ulcers that itch much, or tend to inflammation.

UNGUENTUM
OPHTHALMICUM.
EYE OINTMENT.

Edinb.

Take of

Ointment of tutty, an ounce
and a half;
Saturnine ointment, half an ounce;
Camphor, half a dram.

Mix and make them into an ointment, according to art.

This ointment may likewise be made with two, three, or more times the quantity of camphor.

This unguent is very well contrived for the purpose expressed in its title; scarce any of those commonly met with being equal to it, in inflammations, and hot acrid fluxions on the eyes.

UNGUENTUM e PICE.
OINTMENT of TAR.

Lond.

Take of

Mutton suet tried,
Tar, each equal weights.

Melt them together, and strain the mixture whilst hot.

This composition, with the addition of half its weight of resin, has long been used in the shops as a cheap substitute to the black balsicum.

UNGUENTUM POPULEON.
OINTMENT of POPLAR BUDS.

Edinb.

Take of

Buds of black poplar, fresh and bruised, one pound;

Hogs lard, fresh, four pounds.

Let them be well mixed together, and kept in a glazed earthen vessel, until the following herbs can be gathered: viz.

Hemlock leaves,

Black henbane,

Garden poppy,

Nightshade, of each six ounces.

Bruise the herbs, and boil them with the lard and poplar buds, over a gentle fire, till the moisture is exhaled; then strongly press out and strain the ointment, and melt in it four ounces of white wax.

This unguent is said to be a cooler, and in some degree anodyne. It has been used in inflammations, and tension of the skin; and rubbed on the wrists, temples, and arteries of the feet, in ardent fevers, for easing pains, and procuring rest. The success attending this practice was not, probably, so great as has been reported; nor is the preparation, at present, much regarded in any intention.

UNGUENTUM
SAMBUCINUM.
OINTMENT of ELDER.

Lond.

Take of

Elder flowers, full blown, four pounds;

Mutton suet, tried, three pounds;

Oil olive, one pint.

Melt the suet with the oil, and in this mixture boil the flowers till they are almost crisp; then strain and press out the ointment.

Edinb.

Take of

The inner bark of the elder tree,
The leaves of elder, fresh, each four ounces;

Linseed oil, two pints;

White

White wax, six ounces.
Let the bark and leaves be well bruised, and boiled in the oil till the humidity is consumed; then press out the oil thro' a strainer, and melt in it the wax, so as to make an ointment.

These ointments do not seem superior to some others which are much neater, and parable at less expence. They can scarce be supposed to receive any considerable virtue from the ingredients which they take their name from.

UNGUENT. SATURNINUM.
SATURNINE OINTMENT.

Lond.

Take of

Oil olive, half a pint;
White wax, an ounce and a half;
Sugar of lead, two drams.

Let the sugar of lead, reduced into a very subtil powder, be ground with some part of the oil, and the wax melted with the rest of the oil: mix both together, and keep them stirring till the ointment is grown cold.

UNGUENTUM
SATURNINUM, vulgo
BALSAMUM UNIVERSALE.
SATURNINE OINTMENT,
commonly called the
UNIVERSAL BALSAM.

Edinb.

Take of

Sugar of lead, two ounces;
White wax, three ounces;
Oil olive, one pint.

Liquefy the oil and wax together, and gradually add the sugar of lead; continually stirring them till, growing cold, they unite into an ointment.

This is an excellent cooler and deficcative; much superior, both in elegancy and efficacy to the *nutritum* or *tripharicum*.

UNGUENTUM SIMPLEX.

The SIMPLE OINTMENT.

Lond.

Take of

Hogs lard, tried, two pounds;
Rose water, three ounces by measure.

Beat the lard with the rose water, till they are well mixed; then melt them over a very gentle fire, and set them by for some time, that the water may subside: pour the lard off from the water, and keep incessantly stirring and beating it about till it grows cold, so as to reduce it into a light incoherent mass: lastly, add so much essence of lemons as will be sufficient to give a grateful odour.

UNGUENTUM ROSACEUM
vulgo POMATUM.

The ROSE OINTMENT,
commonly called POMATUM.

Edinb.

On any quantity of hogs lard, cut into small pieces, and placed in a glazed earthen vessel, pour as much water as will rise above it some inches; and digest them together for ten days, renewing the water every day. Then liquefy the lard with a very gentle heat, and pour it into a proper quantity of rose water: work them well together; and afterwards, pouring off the water, add to the lard some drops of oil of rhodium.

These ointments are in common use for softening and smoothing the skin, and healing chaps.

UNGUENTUM e SULPHURE.
OINTMENT of SULPHUR.

Lond.

Take of

The simple ointment, half a pound;
Flowers of sulphur, unwashed, two ounces;

Essence

Essence of lemons, one scruple.
Mix them together.

This is designed for cutaneous disorders: it is much neater than the *unguentum antipforicum cum sulphure*, though, at least, equally efficacious.

UNGUENTUM
TRIPHARMACUM.
OINTMENT of THREE
INGREDIENTS.

Lond.

Take of

Common plaster, four ounces;

Oil olive, two ounces by measure;

Vinegar, one ounce by measure.

Boil them together over a gentle fire, keeping them continually stirring till they are reduced to the consistence of an ointment.

This is a new method of preparing the *unguentum nutritum*, much less troublesome than the one already described under that title. The composition proves likewise more smooth and uniform, and not so liable to grow dry in keeping. This ointment is nevertheless inferior, both in respect of elegance and efficacy, to the *unguentum saturninum*.

UNGUENTUM TUTIÆ.
OINTMENT of TUTTY.

Lond.

Let any quantity of prepared tutty be mixed with as much purified vipers fat, as is sufficient to reduce it into the consistence of a soft ointment.

This ointment is designed for an ophthalmic. What particular virtues it receives from the vipers fat, we shall not presume to determine.

Edinb.

Take of

White wax, three ounces;

Best oil olive, ten ounces;

Tutty, prepared, two ounces;

Calamine prepared, one ounce.

Liquefy the wax with the oil, over a gentle fire; then gradually sprinkle in the tutty and calamine, continually stirring them, till the ointment grows cold.

This ointment may likewise be made extemporaneously, by mixing the calamine and tutty with four times their quantity of fresh butter.

The ointment of tutty made with butter (with which it has been usually directed) turns so soon rancid, as to be improper for an officinal. The college have therefore given one for the use of the shops with oil, which (if sweet Florence oil be employed) is as effectual and inoffensive to the eyes, as the other. The calamine is not perhaps a necessary ingredient in either; since this crude mineral can scarce be supposed to have any virtue which the tutty itself does not possess in at least an equal degree.

UNGUENTUM
VERMIFUGUM.
OINTMENT against WORMS.
 Edinb.

Take of

Lavender cotton,

Wormwood,

Rue,

Savin,

Tansy, leaves, fresh gathered,
each two ounces;

Oil olive, a pint and a half;

Hogs lard, one pound;

Yellow wax, three ounces;

Ox gall,

Socotorine aloes, each an ounce
and a half;

Coloquintida,

Worm seed, each one ounce.

Bruise the herbs, and boil them with the oil and lard, till the aqueous moisture is evaporated; then press the liquor through a strainer, melt in it the wax, and

afterwards add the other ingredients, boiling and stirring them together, so as to make an ointment. The aloes, coloquintida, and worm-seed must be previously reduced into a very subtile powder.

This ointment is rubbed on the bellies of children for destroying worms, and sometimes with good success.

UNGUENTUM ad
VESICATORIA [L.]
UNGUENTUM
EPISPASTICUM [E.]
OINTMENT for BLISTERS.

Lond.

Take of

Hogs lard, tried,
Blistering plaster, each equal weights.

Melt them together over a very gentle fire, and keep them constantly stirring till grown cold.

Edinb.

Take of

Hogs lard,
Venice turpentine, each three ounces;
Yellow wax, one ounce;
Cantharides, three drams.

To the lard and wax melted together, add first the cantharides reduced into powder, and then the turpentine: lastly, mix the whole into an ointment.

These ointments are added in the dressings for blisters, intended to be made perpetual as they are called, or to be kept running for a considerable time, which in many chronic, and some acute cases, they are required to be. The resinous melilot plaster, which as we have already seen is too irritating for dressing blisters in other intentions, proves here, even when made with the largest proportion of resin, insufficient.

UNGUENTUM VIRIDE.
GREEN OINTMENT.

Lond.

Take of

The green oil, three pints;
Yellow wax, ten ounces;

Melt them together over a gentle fire, and keep the mixture continually stirring until it is grown cold.

This ointment does not seem to receive any particular virtue from the ingredients to which its colour is owing.

LINIMENTUM ALBUM.
WHITE LINIMENT.

Lond.

Take of

Oil olive, three ounces by measure;

Sperma ceti, six drams;
White wax, two drams.

Melt them together over a gentle fire, and keep them constantly and briskly stirring, till grown cold.

This differs only in consistence from the *unguentum album*.

LINIMENTUM
SAPONACEUM.
SAPONACEOUS LINIMENT.

Lond.

Take of

Spirit of rosemary, one pint;
Hard Spanish soap, three ounces;
Camphor, one ounce.

Digest the soap in the spirit of rosemary, until it is dissolved; then add the camphor.

BALSAMUM SAPONACEUM,
vulgo OPODELTOCH.
SAPONACEOUS BALSAM,
commonly called OPODELDOC.

Edinb.

Take of

Spanish soap, one pound;
Camphor, two ounces;
Essential oil of rosemary,
Essential oil of origanum, each half an ounce;

Resti-

Rectified spirit of wine, four pints.
Digest the soap in the spirit of wine,
with a gentle heat, till it is dis-
solved; then add the camphor
and the oils, and shake the whole
well together, that they may be
perfectly mixed.

BALSAMUM ANODYNUM
BATEANUM.
BATES'S ANODYNE BALSAM.
Edinb.

This is made by occasionally add-
ing tincture of opium to the fore-
going saponaceous balsam.

This medicine stands highly com-
mended for allaying gouty pains:
it is said to procure ease in the
greatest extremities of torture, to
promote the transpiration of the
irritating matter, and entirely to
carry off the fit; a cloth, dipt in
it, being laid on the part. It is
likewise directed to be taken in-
wardly, from twenty to fifty drops,
in the same disorder, as also in ner-
vous colics, the jaundice, and for
cleansing and deterring the viscera.

BALSAMUM VIRIDE.
GREEN BALSAM.
Edinb.

Take of
Linseed oil,
Oil of turpentine, each one
pound;
Verdegris, in powder, three
drams.

Boil and stir them well together till
the verdegris is dissolved.

A balsam, similar to this, is said
to have been greatly valued by our
surgeons as a detergent.

LINIMENTUM
TRIPHARMACUM.
LINIMENT of THREE
INGREDIENTS.
Lond.

Take of
Common plaster, four ounces;

Oil olive, a quarter of a pint;
Vinegar, one ounce by measure.
Boil them over a gentle fire, con-
tinually stirring them until they
acquire the consistence of a lini-
ment.

This is the same with the *unguen-
tum tripharmacum*, except that the
quantity of oil is here increased to
give the compound the softer con-
sistence of a liniment.

LINIMENTUM VOLATILE.
VOLATILE LINIMENT.
Lond.

Take of

Oil of almonds, one ounce by
measure;
Spirit of sal ammoniac, two drams
by weight.

Stir them together in a wide mouth-
ed phial, until they perfectly
unite.

This is designed for the same
purposes as the *emplastrum* and *epi-
thema volatile*; from which it dif-
fers little otherwise than in consis-
tence.

CERATUM ALBUM.
WHITE CERATE.
Lond.

Take of

Oil olive, a quarter of a pint;
White wax, four ounces;
Sperma ceti, half an ounce.

Liquefy them all together, and keep-
them stirring till the cerate is
grown quite cold.

This differs from the white oint-
ment and liniment only in being of
a thicker consistence.

CERATUM CITRINUM.
YELLOW CERATE.
Lond.

Take of

Yellow basilicum ointment, half
a pound;

Yellow wax, one ounce;

Melt them together.

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This

This is no otherwise different from the yellow basilicum, than being of a stiffer consistence, which renders it for some purposes more commodious.

CERATUM EPULOTICUM.
EPULOTIC CERATE.

Lond.

Take of
Oil olive, one pint;
Yellow wax,
Calamine, prepared, each half a pound.

Liquefy the wax with the oil, and as soon as the mixture begins to grow stiff, sprinkle in the calamine; keeping them constantly stirring together, till the cerate is grown quite cold.

UNGUENTUM e LAPIDE
CALAMINARI.

OINTMENT of CALAMINE.

Edinb.

Take of
Yellow wax, eighteen ounces;
Oil olive, two pints;
Calamine prepared, ten ounces and a half.

Melt the wax with the oil, and gradually sprinkle in the calamine, mixing and stirring them well together till grown cold.

These compositions are formed upon the cerate, which TURNER strongly recommends in cutaneous ulcerations and excoriations, and which has been usually distinguished by his name. They appear from experience to be excellent epulotics, and as such are frequently made use of in practice.

CERATUM MERCURIALE.
MERCURIAL CERATE.

Lond.

Take of
Yellow wax,
Hogs lard, tried, each half a pound;
Quicksilver, three ounces;
Simple balsam of sulphur, one dram.

Melt the wax with the lard, then gradually add this mixture to the quicksilver and balsam of sulphur previously ground together.

S E C T. III.

E P I T H E M S.

EPITHEMA VESICATORIUM.
BLISTERING EPITHEM.

Lond.

Take of
Cantharides, reduced into a most subtil powder,
Wheat flower, each equal weights.
Make them into a paste with vinegar.

This composition is of a softer consistence than the blistering plasters, and for this reason is in some cases preferred. Practitioners differ with regard to the degree of consistence and adhesiveness most proper for

applications of this kind, and sometimes vary them occasionally.

EPITHEMA VOLATILE.
VOLATILE EPITHEM.

Lond.

Take of
Common turpentine,
Spirit of sal ammoniac, each equal weights.

Stir the turpentine in a mortar, gradually dropping in the spirit, until they unite into a white mass,

This is the *emplastrum volatile* of the Edinburgh pharmacopœia, rendered

dered of a softer consistence by the omission of the tacamahacca. The design of this alteration is, that the epithem may be immediately removed with ease, in cases where its acrimony might render its longer continuance on the part hurtful.

CATAPLASMA e CYMINO.
CATAPLASM of CUMMIN.
Lond.

Take of
Cummin seeds, half a pound;
Bay berries,
Scordium leaves dried,
Virginian snake root, each three ounces;
Cloves one ounce;
Honey, thrice the weight of the powdered species.

Make them into a cataplasim.

This is a reformation of the THE-RIACA LONDINENSIS, which for some time past has been scarce otherwise made use of than as a warm cataplasim: only such of its ingredients are retained as contribute most to this intention.

CATAPLASMA DISCUTIENS.
DISCUTIENT CATAPLASM.
Edinb.

Take of
Bryony root, two ounces;
Common orris root, one ounce;
Camomile flowers,
Elder flowers,
Gum ammoniacum, each half an ounce;
Sal ammoniac, crude, two drams;
Camphorated spirit of wine, one ounce.

Boil the roots and flowers in a sufficient quantity of water, till they become tender; and having bruised the magma, add to it the gum ammoniacum, dissolved in a sufficient quantity of vinegar, and likewise the sal ammoniac and spirit: mix the whole to-

gether, so as to make them into a cataplasim.

This composition is as good a discutient as any thing that can well be contrived in this form of a cataplasim. In some cases, however, it will contradict its title, and instead of discussing, promote suppuration.

CATAPLASMA MATURANS.
RIPENING CATAPLASM.
Lond.

Take of
Figs, four ounces;
Yellow basilicum ointment, one ounce;
Galbanum, strained, half an ounce.

Beat the figs throughly in a mortar, occasionally dropping in some spirit of wine or strong ale; then carefully mix with them the ointment first liquefied along with the galbanum.

CATAPLASMA SUPPURANS.
SUPPURATING CATAPLASM.
Edinb.

Take of
White lily (or marshmallow) roots, four ounces;
Fat figs, one ounce;
Raw onions, bruised, six drams;
Galbanum, half an ounce;
Basilicum ointment,
Oil of camomile by infusion, each one ounce;
Linseed meal, as much as is sufficient.

Let the lily (or marshmallow) roots be boiled along with the figs, in a sufficient quantity of water, till they become tender; then bruise, and add to them the other ingredients, and make the whole into a cataplasim, according to art. The galbanum must be previously dissolved in the yolk of an egg.

Both these compositions are good suppurants, or ripeners; tho' their effects

effects probably depend more on their keeping the part soft, moist, and warm, than on any particular qualities of the ingredients.

SINAPISMUS SIMPLEX.

*The SIMPLE SINAPISM.**Edinb.*

Take of

Mustard seed, in powder,
Crumb of bread, each equal
parts;

Strong vinegar, as much as is
sufficient.

Mix them together.

SINAPISMUS COMPOSITUS.

*COMPOUND SINAPISM.**Edinb.*

Take of

Mustard seed, in powder,
Crumb of bread, each two
ounces;

Garlic, bruised, half an ounce;

Black soap, one ounce;

Strong vinegar, a sufficient quan-
tity.

Mix and make them into a cata-
plasm, according to art.

This and the foregoing composi-
tion are employed only as stimu-
lants: they often inflame the part to
which they are applied, and raise

blisters, but not so perfectly as can-
tharides. It has been customary
to employ these kinds of acrid me-
dicines in applications to the feet,
with a view to make a derivation
or revulsion from the head: but
few, it is presumed, at this time lay
any stress upon such notions: the
service which these irritating appli-
cations are of in acute disorders
where the head already is, or is
disposed to be affected, can arise
only from their impressing a stimu-
lus, which is at first partial, and
by degrees becomes universal.

COAGULUM
ALUMINOSUM.*ALUM CURD.**Lond.*

Take

Any quantity of the white of
eggs;

Agitate it with a sufficiently large
lump of alum, in a tin dish, un-
til it is coagulated.

This preparation is taken from
Riverius. It is an useful astringent
epithem for sore moist eyes, and
excellently cools and represses thin
defluxions. It may be applied up-
on a little tow, or the like, at bed
time.



P A R T III.

Extemporaneous prescriptions.

S E C T. I.

P O W D E R S.

THIS form receives such materials only, as are capable of being sufficiently dried to become pulverable, without the loss of their virtues. There are many substances, however, of this kind, which cannot be conveniently exhibited in powder; bitter, acrid, fetid drugs, are too disagreeable; emollient and mucilaginous herbs and roots are too bulky, pure gums cohere, and become tenacious in the mouth; fixt alkaline salts liquefy upon exposing the composition to the air; and volatile alcalies exhale.

The dose of powders is generally about half a dram: it rarely exceeds a whole dram; and is not often less than a scruple. Substances which produce powerful effects in smaller doses are not trusted to this form, unless their bulk is increased by additions of less efficacy: those which require to be given in larger ones, are better fitted for other forms.

The usual vehicle for taking the lighter powders in, is any agreeable thin liquid. The ponderous

powders, particularly those prepared from metallic substances, require a more consistent vehicle, syrups for instance; for from thin ones, they soon separate and subside. Resinous substances likewise are most commodiously taken in thick liquors: in thin ones, they are apt to run into lumps, which are not easily again dissoluble.

PULVIS ALEXIPHARMACUS.
Alexipharmac powder.

Take of

Contrayerva root, ten grains;
Virginian snake root,
Saffron, each five grains.

Make them into a powder.

Or

Take of

Virginian snake root, ten grains;
Nitre, six grains;
Camphor, three grains.

Make them into a powder.

These powders are designed to be given in low, depressed fevers: in which cases medicines of this kind are generally prescribed, for keeping up the vis vitæ, raising the pulse, and promoting a general dia-

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phoreas.

phorefis. The quantities above directed, are intended for one dose, which may be repeated every six hours, or ofner, according to the urgency of the symptoms.

PULVIS ANTHELMINTICUS.
Anthelmintic powder.

Take of
Tin reduced into fine powder,
one scruple;
Ethiops mineral, ten grains;
Fine sugar, six grains.
Mix them well together.

This powder is a very effectual remedy for worms in children; hardly ever failing to destroy them in a few days. It is to be taken every morning, in a little syrup or common treacle; and a cathartic given after the third or fourth dose.

PULVIS ASTRINGENS.
Astringent powder.

Take of
Roch alum,
Nutmegs, each one scruple,
Make them into a powder.

This powder is a very strong astringent; and as such may be depended on in intestinal, or other fluxes, where the only indication is to check the evacuation. It has been given likewise in intermittent fevers; but in these cases, though it sometimes proves successful, it has too frequently been injurious.

PULVIS BALSAMICUS.
Balsamic powder.

Take of
Balsam of Tolu,
Benzoine, each half a scruple;
Fine sugar, one scruple.

Grind them together into a powder.
This is a healing, pectoral medicine, of good service in tickling coughs, and sharp defluxions on the lungs: the quantity here prescribed may be taken two or three times a day.

PULVIS CATHARTICUS.
Cathartic powder.

Take of
Extract of jalap,
Scammony, each six grains;
Crabs eyes prepared, half a scruple;
Fine sugar, one scruple.

Let these ingredients, separately powdered, be well mixed and triturated together.

This powder is a safe and sufficiently mild purgative, not disagreeable to the palate or stomach. The trituration ought to be continued for a considerable time, in order to perfectly mingle the cathartic ingredients with the crabs eyes and sugar, which by dividing their resinous texture, prevent their adhering to the intestines and occasioning gripes.

PULVIS CATHARTICUS SALINUS.
Saline cathartic powder.

Take of
Vitriolated tartar,
Crystals of tartar,
Sal polychrest, each half a dram.
Make them into a powder.

This is an excellent cathartic in scorbutic disorders, and a viscid impure state of the blood and juices. It is most commodiously taken in whey; which should likewise be drank, to the quantity of a pint or more, during the operation.

PULVIS CARMINATIVUS.
Carminative powder.

Take of
Aniseed,
Sweet fennel seed, each two scruples;
Ginger, one scruple;
Nutmegs, half a scruple;
Fine sugar, half a dram.

Reduce them into a powder, for four doses.

This powder is of good service for expelling flatulencies arising from

from indigestion, particularly those to which hypochondriacal and hysterical persons are subject. It is likewise usefully given in the gripes of young children, either mixed with their food or otherwise.

PULVIS DIURETICUS.
Diuretic powder.

Take of

Sal prunell, ten grains;
Salt of amber, four grains;
Oil of turpentine, three drops;
Fine sugar, one scruple.

Drop the oil upon the sugar, then add the salts, and grind the whole together.

This powder is a very efficacious diuretic, and may be given to great advantage in cases where the assistance of such forcing medicines is required. The salts prevent any ill effects from the stimulating oil, and at the same time cool and relax the passages.

PULVIS EMMENAGOGUS.
Emmenagogue powder.

Take of

Salt of steel,
Myrrh, each eight grains;
Saffron, five grains;
Oil of favin, one drop;
Fine sugar, half a scruple.

Having mixed the oil with the sugar, and beat the other ingredients by themselves, let the whole be well mixed together.

Or,

Take of

Black hellebore root, ten grains;
Salt of amber, six grains;
Saffron, five grains;

Make them into a powder.

In obstructions and suppressions of the uterine discharges, these powders scarce ever fail of taking due effect. The first succeeds in pale, emaciated habits; the second in full plethoric ones. They may be given once or twice a day, in a

little penny royal water, or a glass of white wine.

PULVIS ROBORANS.
Strengthening powder.

Take of

Extract of Peruvian bark, twelve grains;

Salt of steel, eight grains;
Oil of cinnamon, one drop;
Fine sugar, half a dram.

Having mixed the oil with the sugar, add the other ingredients, and grind the whole well together, for two doses.

This medicine has a much better title to the appellation of a strengthener than those usually met with under that name in dispensaries. In lax habits, debilities of the nervous system, the weaknesses peculiar to either sex, it has excellent effects.

PULVIS SOLUTIVUS.
Laxative powder.

Take of

Sena, twenty-five grains;
Vitriolated tartar, five grains.
Reduce them into powder.

This gentle laxative may be usefully taken in costive habits, and occasionally repeated.

PULVIS ad STRUMAS.
Powder against the evil.

Take of

Burnt sponge, one scruple;
Nitre,
Coralline,

Fine sugar, each half a scruple.

Reduce them into powder.

In serophulus disorders and obstructions of the glands, this medicine is generally of good service: it opens and deterges the minute vessels, and carries off the offending matter by urine. Dr Mead informs us, in his *Monitu medica*, that he has very frequently experienced its good effects: he used to

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give

give the quantity above prescribed twice a day, with three or four glasses of the less compounded lime water along with each dose: if the patient was much emaciated, the lime water was mixed with an equal quantity of milk.

S E C T. II.

E L E C T A R I E S.

Electaries are composed chiefly of powders mixed up with syrups, &c. into such a consistence, that the powders may not separate in keeping, that a dose may be easily taken up on the point of a knife, and not prove too stiff to swallow.

Electaries receive chiefly the milder alterative medicines, and such as are not ungrateful to the palate. The more powerful drugs, as cathartics, emetics, opiates, and the like, are not trusted in this form, on account of the uncertainty of the dose; disgustful ones, acrids, bitters, fetids, cannot be conveniently taken in it; nor is the form of an electary well fitted for the more ponderous substances, as mercurials, these being apt to subside in keeping, unless the composition is made too stiff.

The lighter powders require thrice their weight of honey, or syrup boiled to the thickness of honey, to make them into the consistence of an electary; of syrups of the common consistence, twice the weight of the powders is sufficient.

Where the common syrups are employed, it is necessary to add likewise a little conserve, to prevent the compound from drying too soon. Electaries of Peruvian bark for instance, made up with syrup alone, will often in a days time grow too dry for taking.

Some powders, especially those of the less grateful kind, are more conveniently made up with mucilages than with either syrups, honey or conserve. The three latter stick about the mouth and fauces, and thus occasion the taste of the medicine to remain for a considerable time; whilst mucilages pass freely, without leaving any taste in the mouth. A little soft extract of liquorice, joined to the mucilage, renders the composition sufficiently grateful, without the inconveniences of the more adhesive sweets.

The quantity of an electary prescribed at a time, is rarely less than an ounce, or more than three ounces.

ELECTARIUM ALEXETERIUM.
Alexeterial electary.

Take of

Confection of kermes, one dram;

Candied ginger, six drams;

Contryerva root,

Virginian snakeroot, each one dram;

Syrup of orange peel, as much as is sufficient to make the other ingredients into the consistence of an electary.

This is a moderately warm electary, contrived by Boerhaave for raising and recruiting the strength in low fevers, where the pulse is sunk, and the patient languid and dejected. It may be taken to the quantity of half a dram every four or five hours, with any proper julep.

ELECTARIUM
ANTEPILEPTICUM.*Ante.*

Antiepileptic electary.

Take of

Peruvian bark, one ounce;
Wild valerian root, two drams;
Syrup of orange peel, a sufficient
quantity to reduce the others
into an electary.

This medicine has been frequently prescribed by Dr. Mead, in epileptic cases, with good success. One dram is to be taken every morning and evening, for three months together; after which, to confirm the cure and prevent a relapse, the same dose is to be repeated for three or four days before every new and full moon for a considerable time.

ELECTARIUM
ANTIDYSENTERICUM.

Antidysenteric electary.

Take of

Yellow wax, three drams;
Sperma ceti, two drams;
Conserve of red roses, an ounce
and a half;
Oil of almonds, half an ounce;
Balsamic syrup, a sufficient quantity.

Let the wax and sperma ceti be melted in the oil, over a gentle fire, and then mixed with the conserve and syrup.

Where sharp irritating humours have eroded the intestines, and laid open the mouths of the blood vessels, this soft, healing electary is one of the most effectual remedies. Fluxes of long standing, which had been contracted in the Indies, and had yielded nothing to medicines of the restraining kind, have been removed by this, which supplies the natural mucus of the bowels that the flux has carried off, heals the excoriations, and obtunds the acrimonious humours.

ELECTARIUM ALTERANS.
Alterative electary.

Take of

Crude antimony, finely levigated,
three drams;
Resin of guaiacum, two drams;
Oil of saffras, six drops;
Conserve of red roses, one ounce
and a half;
Balsamic syrup, as much as is sufficient.

Grind the resin and the levigated antimony well together; and having mixed these with the oil (dropt on a little sugar) and the conserve, let the whole be softened with the syrup into a due consistence.

This is as effectual a medicine as can well be contrived in this form, against cutaneous foulnesses, obstructions of the glands, and impurities of the blood and juices. Dispensatory writers in general, lay the principal stress, in compositions of this kind, upon the calx, ceruse, or cinnabar of antimony, preparations which are far inferior to the crude mineral, and very ill deserve the great character which has been usually given of them. The bulk of a nutmeg of this electary may be taken every morning and evening, with a little lime water, or any proper medicated ale.

ELECTARIUM AROMATICUM.
Aromatic electary.

Take of

The aromatic species, one dram
and a half;
Conserve of lavender, two ounces.
Syrup of orange peel, a sufficient
quantity.

Make them into an electary.

This warm, cordial medicine is of good use in nervous complaints and decays of constitution. The bulk of a small nutmeg may be taken two or three times a-day, with a glass of wine, or any other proper liquor, after it.

ELEC-

ELECTARIUM BALSAMICUM.

Balsamic electary.

Take of

Locatelli's balsam, two ounces;
Conserve of red roses, three ounces;

Balsamic syrup, as much as is sufficient to make them into an electary.

This composition is looked upon as a good internal vulnerary, and recommended in such coughs as give suspicion of tubercles and ulcerations of the lungs. The dose is half a dram, which is to be occasionally repeated according to the urgency of the symptoms. Balsam of sulphur, where its assistance is thought necessary, may be added, in the proportion of half an ounce to the quantity of electary above directed.

ELECTARIUM DEOBSTRUENS.

Deobstruent electary.

Take of

Gum ammoniacum,
Hard soap, each one dram;
Powder'd squills, one scruple;
Conserve of orange peel, half an ounce;

Syrup of ginger, as much as is sufficient to reduce the other ingredients into the consistence of an electary.

Where the breast is oppressed by thick phlegm, or the viscera obstructed, this electary, taken twice or thrice a day in the quantity of a nutmeg at a time, is of singular service: it dissolves and attenuates the viscid humours, opens the small vessels, and promotes all the natural secretions.

ELECTARIUM CHALYBEATUM.

Chalybeat electary.

Take of

Salt of steel, two drams;
Candied nutmegs,

Candied ginger, each half an ounce;

Oil of cinnamon, five drops;
Conserve of orange peel, one ounce;

Balsamic syrup, as much as is sufficient to make them into an electary.

This electary is calculated for warming and invigorating the habit, restoring a due tone and elasticity to the vessels, and promoting the circulation when weak and languid. In phlegmatic persons, of a pale complexion, it is an excellent strengthener and restorative; but ought never to be used in sanguine constitutions, where the vessels are full and distended. The dose is about the bulk of a nutmeg, twice a day: moderate exercise ought to accompany its use.

ELECTARIUM EMMENAGOGUM.

Emmenagogue electary.

Take of

Salt of steel, two drams;
Saffron, half a dram;
Conserve of wood sorrel, two ounces;

Syrup of lemon juice, as much as is sufficient to make them into an electary.

Or,

Take of

Black hellebore, three drams;
Myrrh, two drams;
Conserve of scurvy grass, two ounces;

Syrup of ginger, a sufficient quantity to reduce them into an electary.

Both these compositions are very effectual in chlorotic disorders, and suppressions of the uterine discharges. Their different uses may be understood from what has been said already of the virtues of steel and hellebore. The dose is the quantity of a small nutmeg, which is

to

to be taken twice a day, with moderate exercise.

ELECTARIUM INCRASSANS.
Incrassating electary.

Take of

Gum tragacanth,
Pulp of fresh comfry root, each
one ounce;
Conserve of mallows, half an
ounce;
Syrup of marshmallows, as much
as is sufficient to reduce the
whole into the consistence of
an electary.

This electary, taken to the quantity of a chestnut, three or four times a day, along with a milk diet, incrassates thin serous humours, obtunds their acrimony and irritating quality, and checks the immoderate heat and motion of the blood: these properties render it highly beneficial in hectic disorders, in coughs proceeding from thin tickling rheums, in fluxes and heat of urine, where the natural mucus of the parts is abraded.

ELECTARIUM PECTORALE.
Pectoral electary.

Take of

Starch, six drams;
Powdered liquorice, four drams;
Florence orris root, two drams;
Conserve of red roses, half an
ounce;
Oil of aniseed, ten drops;
Balsamic syrup, as much as is
sufficient to make the whole
into an electary.

This electary is calculated not only for sheathing acrimonious humours, but likewise for strengthening the pulmonary vessels, and promoting the expectoration of such phlegm as, without some assistance of this kind, could not easily be voided. It may be taken occasionally, to the bulk of a nutmeg at a time.

ELECTARIUM PARALYTICUM.
Paralytic electary.

Take of

Mustard seed,
Conserve of rosemary tops, each
one ounce;
Compound spirit of lavender,
two drams.

Beat the mustard seed with a little water, that the pulp may be pressed through a hair sieve; then mix with it the conserve and the spirit.

This is a very efficacious medicine for paralytic disorders, tremors and numbness of the limbs, the decays accompanying old age, and in all cases where the solids require to be stimulated, or sluggish stagnant juices to be put in motion. It ought to be taken every morning and evening, or oftner, to the bulk of a large nutmeg; with a glass of rich wine, or any proper julep, after it.

ELECTARIUM PERUVIANUM.
Peruvian electary.

Take of

Extract of Peruvian bark, one
ounce;
Extract of logwood,
Extract of liquorice, each half
an ounce;
Mucilage of quince seeds, as
much as is sufficient to reduce
the other ingredients into the
consistence of an electary.

This is a very agreeable form for the exhibition of Peruvian bark to those who are more than ordinarily offended with its taste; the substances here joined effectually covering its taste, at the same time that they coincide with it in virtue. The composition is a very elegant and pleasant one, and well deserves a place in the shops: it may either be given in the form of a bolus or electary, in the dose of a
dram

dram or more; or dissolved in any suitable liquor into a draught.

ELECTARIUM PURGANS,
ACIDUM.

An acid, purgative electary.

Take of

Pulp of tamarinds, two ounces;
Crystals of tartar, two drams.
Make them into an electary.

This is an excellent, mild, cooling laxative in hot bilious dispositions, or inflammatory diseases. The bulk of a nutmeg may be taken every hour, or oftner, till it begins to operate, or the same quantity may be taken once a day occasionally in dry costive habits.

ELECTARIUM REFRIGERANS.

Cooling electary.

Take of

Conserve of wood sorrel, one ounce;

Pulp of tamarinds, half an ounce;
Weak spirit of vitriol, as much as is sufficient to give a grateful acidity.

Syrup of lemon juice, as much as will reduce the whole into the consistence of a soft electary.

In hot, febrile, or inflammatory distempers, when the mouth and fauces are dry and parched, the bulk of a siberd of this electary, taken occasionally, and kept in the mouth till it dissolves, will excellently cool and moisten them.

S E C T. III.

B O L U S E S.

Boluses differ little in consistence from electaries, being only somewhat stiffer, so as to retain their figure without spreading or falling flat.

This form is very convenient for the exhibition of the more powerful medicines, which require their dose to be exactly adjusted, as the stronger alexipharmacs, cathartics, and opiates. As boluses are chiefly intended for immediate use; volatile salts, and other materials, which, if the mass was to be kept, would exhale or swell it, are frequently admitted into them.

The quantity of a bolus ought not to exceed two drams: if the ingredients are of the lighter kind, even this will be too bulky to be commodiously swallowed down.

The lighter powders are made up with syrup: half a dram of the powder, that of bark for instance, with as much syrup as will bring it to a due consistence, makes a bolus sufficiently large.

The more ponderous powders, as the mercurial ones, are best made up with conserve; syrups, or other substances less consistent, scarce holding them together.

The testaceous powders also require an addition of conserve: tho' if made up with this alone, they would be too bulky. A scruple of the powder, and an equal weight of conserve, with as much syrup as will reduce them to a due consistence, form a bolus of a proper size.

BOLUS ALEXIPHARMACUS.

Alexipharmac bolus.

Take of

1.
Compound powder of contrayer-
va, half a scruple;

Syrup of wild poppies, a sufficient quantity to make it into a bolus.

Take of

2.
Contrayerva root, half a scruple;
Syrup

Syrup of saffron, as much as is sufficient.

Make them into a bolus.

Take of 3.
Virginian snake root, fifteen grains;
Confection of kermes, as much as is sufficient.

Mix and make them into a bolus.

Take of 4.
Virginian snake root,
Contrayerva root, each eight grains;
Saffron, three grains;
Syrup of meconium, a sufficient quantity to reduce them into a bolus.

Take of 5.
Camphor,
Saffron, each five grains;
Confection of kermes, as much as will reduce them into a due consistence.

Take of 6.
Camphor,
Nitre, each fifteen grains;
Syrup of clove-july flowers, as much as will make them into a bolus.

Take of 7.
Musk,
The cordial confection, each twelve grains;
Make them into a bolus.

Take of 8.
Musk,
Salt of hartshorn, each ten grains;
Camphor six grains;
Syrup of saffron, a sufficient quantity.
Make them into a bolus.

This elegant set of alexipharmacs contains compositions of different degrees of strength, according to

their order, from the weakest that has any considerable effect at all, to the strongest that can be ventured on. The two last are medicines of great power, and have sometimes taken place even in the last stage of malignant fevers, after hiccups, convulsions, and twitchings of the tendons had come on.

BOLUS CATHARTICUS.

Purgative bolus.

Take of 1.
Rhubarb, half a dram;
Solutive syrup of roses, a sufficient quantity to make a bolus.

Take of 2.
Jalap, half a dram;
Syrup of buckthorn, as much as is sufficient to make a bolus.

Take of 3.
Scammony, twelve grains;
Soluble tartar, one scruple;
Soft extract of liquorice, a sufficient quantity.

Let the scammony be well ground with the soluble tartar, then add the extract, and make them into a bolus.

Take of 4.
Jalap, one scruple;
Scammony,
Crabs eyes, each half a scruple;
Syrup of buckthorn, a sufficient quantity.

Let the jalap, scammony, and crabs eyes be well triturated together, and then formed into a bolus with the syrup.

Take of 5.
Elaterium, two grains;
Extract of jalap, half a scruple;
Crystals of tartar, half a dram;
Syrup of orange peel, a sufficient quantity to make them into a bolus.

The

The first of these compositions is a mild cathartic; the second and third are strong ones; and the two last violent.

BOLUS CATHARTICUS cum MERCURIO.

Purgative bolus with mercury.

Take of

Jalap, one scruple;
Mercurius dulcis, five grains;
Solutive syrup of roses, as much as is sufficient to make them into a bolus.

Take of 2.

Gamboge,
Mercurius dulcis,
Aromatic species, each half a scruple;
Syrup of buckthorn, a sufficient quantity to make a bolus.

The first of these compositions is a safe and mild cathartic; the second is considerably stronger.

BOLUS DIURETICUS.

Diuretic bolus.

Take of 1.

Fresh squills, six grains;
Compound powder of arum, ten grains;
Ginger, five grains;
Syrup of orange peel, a sufficient quantity.

Make them into a bolus.

Take of 2.

Cantharides, four grains;
Thebaic extract, half a grain;
Nitro, one scruple;
Balsamic syrup, a sufficient quantity.

Make them into a bolus.

The first of these compositions is recommended by Dr. Mead, to be taken every morning, in hydropic cases, for promoting urine. He observes, that in these disorders diu-

retic medicines vary greatly in their effects, those, which answer sufficiently in one person, failing in another; and that the squill and its preparations are of all others those which most generally succeed.

The virtues of the second may be understood from what has been already said of cantharides, in page 105. The ingredients here joined to the fly are those which have been found the most effectually to abate its virulence.

BOLUS AD DYSENTERIAM.

Bolus against the dysentery.

Take of

The cordial confection,
French bole, each one scruple;
Thebaic extract, one grain.

Make them into a bolus.

This composition is excellently well calculated for the purpose expressed in its title. Dr Mead assures us, that he has never found any one medicine more effectual, either for restraining the flux, or healing the exulcerated membranes.

BOLUS EMETICUS.

Emetic bolus.

Take of 1.

Ipecacoanha, one scruple;
Syrup of sugar, a sufficient quantity to make a bolus.

Take of 2.

White vitriol, twenty five grains;
Conserve of roses, as much as will make it into a bolus.

Take of 3.

White vitriol, one scruple;
Emetic tartar, two grains;
Conserve of hips, as much as will make them into a bolus.

The first of these boluses is a very mild emetic: the two others are stronger, and quicker in operation.

BOLUS

BOLUS EMMENAGOGUS.

Emmenagogue bolus.

Take of

1. Socotorine aloes, eight grains ;
- Saffron, four grains ;
- Guinea pepper, two grains ;
- Oil of favin, two drops ;
- Conserve of rue, as much as is sufficient to reduce them into a due consistence.

Take of

2. Salt of steel, six grains ;
 - Myrrh, half a scruple ;
 - Cordial confection, fifteen grains ;
- Make them into a bolus.

Take of

3. Black hellebore root, eight grains ;
- Fresh squills, four grains ;
- Essential oil of pepper-mint, one drop ;
- Conserve of orange peel, as much as is sufficient to make them into a bolus.

All these are medicines of great power for promoting or exciting the menstrual flux, and other evacuations from the uterus. The two first are calculated for lax, phlegmatic habits ; the third, for persons of a sanguine temperament.

BOLUS FEBRIFUGUS.

Febrifuge bolus.

Take of

- Peruvian bark, one scruple ;
Cascarilla, half a scruple ;
Mucilage of quince seed, a sufficient quantity to make them into a bolus.

This elegant composition is excellently well adapted to the cure of intermittent fevers ; and may be given in cases where the Peruvian bark by itself would be less proper. Where aromatics, chalybeats, biters, &c. are also requisite, they are either to be premised, or occasionally interposed. See page 416.

BOLUS HYSTERICUS.

Hysterie bolus.

Take of

- Musk,
Asafœtida, each six grains ;
Castor, half a scruple ;
Syrup of saffron, as much as is sufficient to make them into a bolus.

This medicine is a very well contrived one for the purpose expressed in its title. It is of great service both in hysterical and hypochondriacal disorders ; and gives relief in the depressions, faintings, flatulent colics, head aches, and other symptoms attending them. It may be taken twice a day, along with any suitable liquor.

BOLUS ILIACUS.

Iliac bolus.

Take of

- Cathartic extract, one scruple ;
Thebaic extract, one grain ;
- Make them into a bolus.

This bolus is prescribed by Dr. Mead, for easing the pain, and procuring stools, in the iliac passion, and dry belly ache ; where the irritating cathartics, exhibited by themselves, are thrown up by vomit. The use of this medicine is to be preceded by plentiful bleeding, and accompanied with purgative glysters of the more acrid kind ; and its operation promoted by infusion of senna, mixed with a little of the elixir salutis, or tincture of senna.

BOLUS IPECACOANHÆ.

Bolus of ipecacoanha.

Take of

- Ipecacoanha, four grains ;
Aromatic species, fifteen grains ;
Syrup of orange peel, a sufficient quantity to make them into a bolus.

Ipecacoanha, thus exhibited in small

small doses, from an emetic, becomes a powerful alterative, of great service in obstructions of the viscera, and generally more effectual in the cure of dysenteries, than when given in such doses as to excite vomiting.

BOLUS RHEUMATICUS.*Rheumatic bolus.*

Take of

Extract of guaiacum, ten grains;
Mercurius dulcis, one grain;
Oil of turpentine, one drop;
Confectio cardiaca, fifteen grains;

Make them into a bolus.

This medicine is of singular efficacy in rheumatisms, and old pains and aches of the limbs. Exciting a gentle diaphoresis is a mark of its taking due effect; to promote which, the patient ought to keep warm, and drink suitable warm liquors.

BOLUS SCILLITICUS.*Scillitic bolus.*

Take of

Fresh squills, one scruple;
Aromatic species, half a scruple;
Oil of pepper-mint, one drop.

Beat them well together into a uniform mass, of a due consistence for a bolus.

This is a warm, stimulating, and attenuating medicine; and may be

given to great advantage in all cases where the natural secretions are obstructed or suppressed from a viscosity or sluggishness of the juices. The efficacy of the squills is promoted by the additional ingredients, which at the same time warm and strengthen the stomach and intestines, and prevent the composition from being thrown up by vomit, which this quantity of squills, given by itself, would in many constitutions be.

BOLUS SUDORIFICUS.*Sudorific bolus.*

Take of

Camphor, ten grains;
Thebaic extract one grain;
Syrup of orange peel, a sufficient quantity to reduce them into a bolus.

This medicine is one of the most effectual and certain sudorifics, scarce ever failing to excite a copious sweat. In all cases, where this intention is to be answered, whether acute or chronic, it may be given to great advantage.

BOLUS TEREBINTHINATUS.*Turpentine bolus.*

Take of

Chio turpentine, one dram;
Powdered liquorice, a sufficient quantity.

S E C T. IV.

P I L L S.

TO this form are peculiarly adapted those drugs which operate in a small dose; and whose nauseous and offensive taste or smell require them to be concealed from the palate, lest they should procure unwished for effects rather than salutary ones.

Pills dissolve the most difficultly

in the stomach, and produce the most gradual and lasting effects, of all the internal forms. This is in some cases of great advantage; in others it is a quality not at all desirable, and sometimes may even be of dangerous consequence, particularly with regard to emetics, which if they pass the stomach undissolved,

dissolved, and afterwards exert themselves in the intestines, operate as violent cathartics. Hence emetics are, among us, scarce ever exhibited in pills, upon account of the slowness of solution. Hence we are directed to add to the resinous and difficultly soluble substances, saponaceous ones, in order to promote their solution, and prevent their passing off without any sensible effect.

Gummy - resins and inspissated juices, are sometimes soft enough to be made into pills, without addition: where any moisture is requisite, spirit of wine is more proper than syrups, conserves, or the like; as it unites more readily with them, and does not sensibly increase their bulk. Light, dry powders require syrup, or mucilages; and the more ponderous, as the mercurial and other metallic preparations, thick honey, conserve or extracts.

Light powders require about half their weight of syrup; of honey, about three fourths their weight, to reduce them into a due consistence for forming pills. Half a dram of the mass will make five or six pills of a moderate size.

PILULÆ ALEXETERIÆ.

Alexetereal pills.

Take of
1.
Virginian snakeroot,
Contraeryva root, each one scruple;
Syrup of saffron, as much as is sufficient to reduce them into a mass of a due consistence for being formed into pills.

Take of
2.
Musk,
Flowers of benzoine, each one scruple;
Balsam of Peru, a sufficient quantity to reduce them into a proper consistence for pills.
Though the form of pills is in

general an incommodious one for substances of the alexipharmac kind; yet where the patient is prejudiced against other forms, either of these compositions may be had recourse to, without any fear of their failing in the effects usually produced by medicines of this class. The quantity of each, here prescribed, may be made into twelve pills; which are to be taken at two or three doses, at the interval of six or eight hours, or less, according to the exigence of the case.

PILULÆ ANTIFEBRILES.

Antifebrile pills.

Take of
Myrrh, three ounces;
Venice soap, four drams;
Turpentine, one dram.
Mix, and make them into pills of three grains each.

This is an excellent medicine for obstructions of the viscera, indigestion, and other disorders proceeding from the præmature stopping of intermittent fevers by Peruvian bark: Boerhaave frequently prescribed it in these cases, with extraordinary success. Five pills are to be taken for a dose, three times a day, about an hour before meals, for a fortnight.

PILULÆ ASTHMATICÆ.

Asthmatic pills.

Take of
1.
Squills, dried and powdered, one scruple;
Gum ammoniacum, two scruples;
Balsam of sulphur, as much as is sufficient to make them into a mass.

Take of
2.
Strained storax, two scruples;
Flowers of sulphur, washed,
Flowers of benzoine, each one scruple;
Balsamic syrup, a sufficient quantity to reduce them into a mass.

Mix Take

Take of
 Socotorine aloes,
 Saffron, each two scruples;
 Thebaic extract, six grains;
 Balsam of Peru, as much as will
 reduce them into a due consistence.

Take of
 Thebaic extract, one grain;
 Extract of saffron, four grains.
 Make them into a mass.

The three first of these compositions may be formed into twenty-four pills each; four of which are a moderate dose; the fourth may be made into one or two pills, for a single dose. They are all medicines of great efficacy in old coughs and asthmas, either for preventing defluxions of thin rheum upon the breast and lungs, attenuating and promoting the expectoration of thick tenacious matter, or relaxing and opening the passages, so as to give a greater liberty of breathing. The particular cases in which each of these medicines is proper, may be easily understood from consulting their respective ingredients, in the first part of this work.

PILULÆ CATHARTICÆ.

Cathartic pills.

Take of
 Socotorine aloes, one dram;
 Aromatic species, half a dram;
 Scammony, one scruple;
 Soft extract of liquorice, as much as is sufficient to reduce them into a mass of a due consistence.

This composition is a warm purgative, and may be usefully taken in any cases where medicines of that class are indicated; whether for removing the crudities, &c. after a surfeit or debauch; or preventing arthritic, and other diseases frequent among those who live high. The quantity here prescribed, may be made into thirty pills;

of which five or six are to be taken for a dose.

PILULÆ DIURETICÆ.

Diuretic pills.

Take of
 Venice soap, two drams;
 Salt of amber,
 Nitre, each half a dram;
 Oil of juniper berries, ten drops.
 Beat them into a mass.

Take of
 Cantharides in fine powder, sixteen grains;
 Thebaic extract, four grains;
 Nitre, one dram;
 Venice turpentine, as much as will make them into a mass.

In obstinate obstructions of the urinary passages, where softening and diluting liquors, and the milder acrid medicines, prove ineffectual; recourse may be had to these powerful stimulants. The quantity of each, directed above, may be made into forty pills; of which five are a sufficient dose; but the utmost caution is requisite in exhibiting the latter. See page 105.

PILULÆ AD DYSENTERIAM.

Pills against the dysentery.

Take of
 Yellow wax, half an ounce;
 Sperma ceti,
 Japan earth, each one dram;
 Oil of cinnamon, twelve drops.
 Make them into a mass.

This is a very effectual medicine for the purpose expressed in its title; at the same time strengthening the intestines, and covering them with a soft mucus, which defends them from being irritated by the acrimony of the humors. Each half dram of the mass may be formed into five or six pills for one dose.

PILULÆ HYSTERICÆ.

Hysteric

Mix, and make them into a mass, for twenty pills; the dose of which is from one to six.

Take of 3.
Mercurius dulcis, half a scruple;
Camphor, half a dram;
Soft extract of guaiacum, as much as is sufficient to make them into a mass, which is to be formed into twenty pills: the dose is from one to six.

Take of 4.
Mercurius dulcis, half a scruple;
Venice turpentine, as much as will reduce it into a mass of a proper consistence; which is to be formed into five pills, for as many doses.

Take of 5.
Calcined mercury, commonly called præcipitate per se,
Thebaic extract, each two grains;
Balsam of Peru, as much as will make them into a mass; which is to be formed into two pills, for two doses.

Take of 6.
Mercurius dulcis, half a scruple;
Crude antimony, finely levigated, one dram;
Balsam of Peru, as much as will reduce them into a mass.
This is to be formed into ten pills; of which the dose is from one to three.

Take of 7.
Mercurius dulcis,
Precipitated sulphur of antimony, each five grains;
Socotorine aloes, fifteen grains;
Balsamic syrup, a sufficient quantity to reduce them into a mass; which is to be made into five pills, for as many doses.

The general virtues of mercurial

2

medicines have already been sufficiently explained in the two foregoing parts. The above compositions are the most certain and efficacious (and at the same time the safest) of all the mercurials we have met with; and take place in very obstinate cases, whether scrophulous, leprous, or venereal: some of these are the secrets of celebrated empirics, now first revealed to the public; with which they have performed cures, in vain expected from other remedies.

The method of managing the above mercurial medicines, as alteratives, to the greatest advantage, is to give small doses every morning and evening; and rather prolong the time of continuing their use, than increase the dose. The patient ought to keep warm, and drink of warm diaphoretic liquors, as infusion of sassafras, decoction of the woods, the simple or compound lime waters, or the like; there are nevertheless many examples (several within our own knowledge) of inveterate cutaneous and venereal diseases being cured by them, where no such regimen was observed.

PILULÆ ROBORANTES.

Strengthening pills.

Take of
Hard extract of Peruvian bark, one dram;
Salt of steel, one scruple;
Oil of cinnamon, five drops;
Balsam of Peru, as much as will reduce them into a mass.

In a lax state of the fibres, debilities of the nervous system, and some decays of constitution; this composition is a most effectual strengthener and restorative: it sometimes takes place in obstinate female fluors, and inveterate gleets of the other sex, which elude the force of the common remedies. If the quantity above prescribed is made

made into twenty pills, four of these may be taken for a dose, and repeated twice a day.

PILULÆ C SPERMATE CETI.

Sperma ceti pills.

Take of

Sperma ceti, one dram;
White sugar candy in powder,
two drams;
Balsamic syrup, as much as is
sufficient.

Grind the sperma ceti with the sugar, till they are perfectly mixed; then adding the syrup, rub them with a warm pestle into an uniform mass.

Where sperma ceti cannot be commodiously exhibited in any other form, three or four moderate sized pills made from this mass, may be taken two or three times a day. They stand recommended as excellent vulneraries, of great ser-

vice in internal bruises, erosions of the viscera, by thin acrimonious humors, injuries occasioned by delivery, pleurifies, tickling coughs, and other like disorders.

PILULÆ STOMACHICÆ.

Stomachic pills.

Take of

Aromatic species,
Extract of gentian, each one
dram;
Extract of Peruvian bark, half a
dram;

Elixir of aloes, as much as will
reduce them into a mass.

These pills are serviceable for warming and strengthening a weak cold stomach, expelling flatulencies, and promoting digestion. If ten pills are made out of a dram of the mass, two may be taken thrice a day, about an hour before meals.

S E C T. V.

TROCHES, and TABLETS or LOZENGES.

THESE are solid preparations, formed into little cakes, or masses of different figures; intended to dissolve slowly; and generally made agreeable to the palate. See page 460.

TABELLÆ ANTACIDÆ.

Antacid lozenges.

Take of

Prepared white chalk, four
drams;
Candied ginger, three drams;
Cinnamon, one dram;
Fine sugar, dissolved in water,
as much as is sufficient to re-
duce the whole into a due con-
sistence for being formed into
lozenges.

One or two lozenges from this
composition may be taken at dis-

cretion, in that uneasy sensation at the stomach called the heartburn, and other complaints arising from a preternatural acid in the first passages.

TABELLÆ ANTHELMINTICÆ.

Anthelmintic sugar-cakes.

Take of

1.
Powdered tin, half a dram;
Fine sugar, half an ounce;
Rose water, a sufficient quantity
to make them into a mass for
tablets.

Take of

2.
Scammony,
Mercurius dulcis, each four grains;
Fine sugar, half an ounce;
Rose water, a sufficient quantity
to make them into tablets.

M m 3

These

These compositions are calculated for children, who are not easily prevailed on to take anthelmintic medicines in less agreeable forms. If the first is made use of, it must be repeated three or four mornings successively, after which a purge is to be taken: the second, if it requires repetition, is to be given only every other morning. The proportions of the ingredients are to be varied, according to the age and strength of the patient.

TROCHISCI NERVINI.
Nerve troches.

Take of
Compound spirit of lavender, sixty drops;
Oil of cinnamon,
Oil of rosemary, each four drops;
Florence orrice root, two drams;
Fine sugar, one ounce;
Mucilage of gum tragacanth, as much as will reduce them into a mass, which is to be formed into troches of about half a scruple.

One or two of these troches, taken occasionally, and suffered to dissolve in the mouth, prove serviceable to those who are subject to headachs, vertigo's, paralytic, and other nervous disorders. Warm aromatic medicines, given in this form and manner, are supposed from their slow dissolution in the mouth, to affect the nervous system more immediately than if received at once into the stomach.

TABELLÆ PURGANTES.
Purging lozenges.

Take of
Jalap, three drams;
Scammony, two drams;
Calcined hartshorn, half an ounce;
Fresh orange peel, three drams;
Fine sugar, eight ounces;

Rose water, as much as will form them into lozenges.

This composition is an agreeable, and in some cases a very useful purgative. The dose, to children, is from half a dram to a dram or more; to adults, from one dram to five.

TROCHISCI SIALAGOGI.
Sialagogue troches.

Take of
Pellitory of Spain, half an ounce;
Mastic, two drams;
Oil of cloves and marjoram, each one dram;
Yellow wax, a sufficient quantity.
Make them into troches or pellets.
One of these troches is to be occasionally held in the mouth, and chewed, to promote a discharge of saliva; which they effect by warming and stimulating the salivary glands.

TROCHISCI STOMACHICI.
Stomachic troches.

Take of
Hard extract of Peruvian bark, one dram;
Oil of cinnamon,
Oil of mint, each ten drops;
Fine sugar, four ounces.
Make them into troches, with mucilage of gum tragacanth.
These troches are of service for warming and strengthening the stomach, expelling flatulencies, and promoting digestion: for these purposes they are as effectual as any thing that can well be contrived in this form.

TROCHISCI SUAVEOLENTES.
Sweet-smelling troches.

Take of
Strained storax, one scruple;
Ambergris, fifteen grains;
Musk, seven grains;
Oil of cinnamon, six drops;
Fine

Fine sugar, one ounce.
Make them into small troches with
mucilage of gum Arabic.

These are of service where the
breath smells disagreeably, from
rotten teeth, or other causes.

S E C T. VI.

L I N C T U S ' S.

Linctus's or lochoch, are soft
unctuous preparations, of dif-
ferent consistences, but never so
thin as a syrup, or so thick as an
electary.

They are generally composed of
expressed oils, mixed with syrups,
and other like substances. In mak-
ing them, the syrup is first to be
mixed with a little sugar, and then
briskly beat up, in a mortar, with
the oil; which will thus readily
incorporate, especially if the syrup
is of the acid kind. Two ounces
of syrup, a dram of sugar, and an
ounce of expressed oil, make a
linctus of a due consistence; which
may be made thicker at pleasure
by adding more oil, or thinner by
an increase of the syrup.

Any oily substance, as Locatelli's
balsam, sperma ceti, &c. may like-
wise be reduced into this form:
and instead of sugar, powders more
agreeable to the intention of emol-
lients or pectorals, may be used;

as the compound powder of gum
tragacanth, or the white or black
bechic troches of the shops. But
the form at best is very unightly
and disagreeable, and substances of
this kind render it more so.

The present practice has almost
entirely rejected these inelegant
compositions, and has very little
dependance upon the extraordi-
nary virtues formerly attributed to
them in diseases of the breast and
lungs. Their real effects are, to
soften and relax the solids; to ob-
tund the acrimonious humours which
by tickling and irritating the throat
provoke coughing; and promote
the expectoration (if an excretion
from the throat or stomach may be
so called) of viscid phlegm lodged
there. It would be needless to in-
sert any particular forms of these
kinds of compositions here; as we
have already given a sufficient va-
riety in the foregoing part.

S E C T. VII.

*Decoctions and infusions in water; medicated wheys, ales, wines;
and tinctures in vinous spirits.*

THE substances reducible into
these forms are very nume-
rous; greatest part of the simples
of the vegetable kingdom, several
of the animal, and some also of the
mineral, giving out their virtues to
one or other of the menstrua here
enumerated.

The advantages of these kinds of

preparations are sufficiently obvi-
ous; the medicinal parts of the sub-
ject being here separated from the
earthy ones, which are at best use-
less, and to weak stomachs offen-
sive; and likewise enabled, by
their being already dissolved, to
produce their effect more quick-
ly and with greater certainty: In

many cases, the real efficacy of the medicine is likewise promoted by this management; the fluid which it is combined with, carrying it farther into the habit than it would be capable of passing by itself.

Some substances yield their virtues only to aqueous liquors; others to spirituous ones; and not a few to both. For simples of this last class, the indication of cure directs the choice of the menstruum: where large dilution is required, weak watery infusions or decoctions are to be used; where an additional warmth and pungency are proper, the spirituous tinctures.

INFUSUM ALCALINUM.

Alcaline infusion.

Take of
Salt of tartar, half an ounce;
Saffron, half a dram;
Liquorice root, two ounces;
Water, three pints.

Let them stand together in a warm place for eight or ten hours, and then strain out the liquor for use.

This infusion is of service in a lentor or visciduity of the blood and juices, the consequence of an obstructed perspiration, and oftentimes the origin of inflammatory distempers: it attenuates thick humors, promotes perspiration, urine, and all the natural secretions. It is to be taken warm, in little quantities at a time, but frequently repeated.

INFUSUM AMARUM.

Bitter infusion.

Take of
Carduus leaves, dried, one ounce;
Common water, twelve ounces;
Spirituous orange peel water, four ounces.

Digest them without heat for six hours, and then filter the liquor through paper.

This is an agreeable light bitter,

sets easier upon the stomach than perhaps any other medicine, and consequently is of great service in cases where the grosser bitters would set uneasy, or be rejected.

THEA ANTIPHTHISICA.

Antiphthical tea.

Take of
Avens root, two ounces;
Male speedwell,
Ground-ivy, each one ounce and a half;
Liquorice, one ounce;
Sweet fennel seeds, three drams.

These ingredients are to be cut, bruised, and well mixed together; and half an ounce of the composition infused for a few minutes, in five or six tea cups full of boiling water. In consumptive cases and disorders of the breast, one cup of the infusion, with a tea spoonful of honey, may be drank every hour. After the same manner, medicated teas may be prepared from other vegetable substances, as chamemel flowers, linseed, orange peel, fumitory, &c.

APOZEMA APERIENS.

Aperient apozem.

Take of
Rhubarb,
Madder, each three drams;
Salt of tartar, two drams;
Water, three pints.

Boil them together for an hour, and having strained out the decoction, add to it three ounces of syrup of ginger.

This is a very powerful aperient and attenuating medicine, of great service in icterical and hydropic cases. The dose is three ounces, which may be repeated thrice a day.

DECOCTUM TERRÆ JAPONICÆ.

Decoction of Japan earth.

Take of

Japan

Japan earth, two drams;
 Spirituous cinnamon water,
 Syrup of quinces, each two
 ounces;
 Common water, one pint.

Boil the common water with the
 Japan earth, till about one fourth
 of the liquor is wasted; then
 suffer the decoction to settle,
 and having poured off the clear
 part, add to it the spirituous wa-
 ter and the syrup.

This decoction is a very agree-
 able and useful medicine in all
 kinds of fluxes that are not critical
 or symptomatic, and in a weak,
 lax state of the intestines. A spoon-
 ful or two may be taken every
 hour or oftner: thus managed, it
 produces much better effects than
 if larger doses are given at once.

DECOCTUM FEBRIFUGUM.
A febrifuge decoction.

Take of
 Chamemel flowers, dried, two
 ounces;
 Salt of tartar, two drams;
 Water, three pints.

Boil the water with the chamemel
 flowers, till one pint of the li-
 quor is wasted; then strain out
 the remaining decoction, and
 dissolve in it the alkaline salt.

In a thick viscid state of the blood
 and juices, and obstructions of the
 abdominal viscera, a quarter of a
 pint of this decoction, taken three
 or four times a day, has sometimes
 removed intermittent fevers, after
 the Peruvian bark had been tried
 in vain.

SERUM SOLUTIVUM.
Laxative whey.

Take of
 Damask rose buds, fresh, one
 ounce;
 Whey, two pints.
 Steep them together for a night,

and then strain out the whey for
 use.

Whey, thus impregnated with
 the virtues of the damask rose, ope-
 rates very gently by stool, and for
 this purpose is held by some in
 great esteem. Its action may be
 quickened, and its taste rendered
 more agreeable, by the addition of
 a suitable proportion of crystals of
 tartar.

SERUM SINAPINUM.
Mustard whey.

Take of
 Mustard seed, bruised, three
 spoonfuls;
 Cows milk, two pints.
 Set the milk over the fire to boil,
 and add to it the mustard seed,
 that a curd may be formed, from
 which the whey is to be careful-
 ly separated.

This is a not inelegant form for
 the exhibition of mustard seed; its
 pungency, and medicinal virtues
 depending thereon, being in great
 measure communicated to the whey.

CEREVISIA AMARA.
Bitter ale.

Take of
 Gentian root,
 Lemon peel, fresh, each four
 ounces;
 Long pepper, one ounce;
 Ale, one gallon.
 Let them steep together without
 heat.

This is an agreeable bitter sto-
 machic ale, much superior to the
 common purls, or any of the com-
 positions of this kind to be met
 with in the extemporaneous recipe
 writers.

CEREVISIA BUTLERI.
Dr. Butler's ale.

Take of
 Betony,
 Sage,

Agri-

Agrimony,
Garden scurvy-grafs,
Roman wormwood, each three
handfuls;
Elecampane roots,
Horfe-radish roots, each four
ounces;
New ale, four gallons.

The herbs and roots are to be put
in a bag, and hung in the ale
while it works.

This liquor has so far obtained
among the common people, as to
have been frequently made and
sold in public houses. It is used
in the spring, for purifying the
blood, and preventing scorbutic
disorders.

VINUM GUAJACINUM.
Guaiacum wine.

Take of
Guaiacum wood,
Yellow faunders, each two ounces;
Orange peel, dried,
Lesser cardamom seeds, each one
ounce;
Mountain wine, one gallon.

Let them steep together for a week,
and then strain out the wine for
use.

This is a moderately warm and
corroborating wine. It does good
service in nervous weakneses, in
decays of constitution from cold pi-
tuitous humours; and proves an ex-
cellent preservative against rheu-
matic and arthritic complaints.
Two ounces, or an ordinary wine
glass, may be taken two or three
times a day, and continued for a
month or two.

VINUM GUAJACINUM cum
HELLEBORO.

Guaiacum wine with hellebore.

Take of
Guaiacum wood,
Black hellebore root, each two
ounces;
Lesser cardamom seeds,

Orange peel, dried, each one
ounce;

Mountain wine, four pints;

Let these ingredients steep together
for a week or longer, and then
strain out the wine for use.

This is a warm stimulating, de-
obstruent wine. It may be used
to good advantage in cold phleg-
matic habits, where the humors
stagnate in the remote vessels, and
where there is a disposition to gouty,
rheumatic, or hydropic disorders.
It is to be taken chiefly over night,
in such small doses as not to run off
by stool.

VINUM AROMATICUM.
Aromatic wine.

Take of
Cloves,
Ginger, each half an ounce;
Cinnamon,
Nutmegs, each one ounce;
Canary wine, six pints.

Beat the spices into a coarse pow-
der, and steep them in the wine
for some days; then pass the li-
quor through a strainer.

This wine is a very high cordial,
and greatly commended for warm-
ing the habit and strengthening the
nervous system. It is so hot of the
spices as not to be taken without
dilution, and only in small quanti-
ties at a time. Mixed with a little
lemon juice, and a large propor-
tion of milk, it forms a pleasant
and useful whey in low fevers.

VINUM SCORBUTICUM.
Scorbutic wine.

Take of
Garden scurvy grafs, one hand-
ful;
Horfe radish root, scraped, half
an ounce;
Winter's bark, two drams;
Mountain wine, two pints.

Let them steep together in the cold
for three days.

This wine is so far impregnated with the virtues of the ingredients, as to do considerable service in scorbutic habits. It is used chiefly in the spring, in the quantity of a common wine glass two or three times a day.

VINUM SCORBUTICUM
MUNTINGII.

Muntingius's scorbutic wine.

Take of

The roots of the greater water dock, six ounces;
Gentian root,
Liquorice,
Cinnamon,
Black pepper,
Mace, each three ounces;
Saffron, two ounces;
Mountain wine, sixteen pints;
Strong vinegar, four pints;
Yolks of three fresh eggs.

Reduce the roots and spices into a gross powder, and pour on them the wine, vinegar, and yolks of the eggs: digest the whole in a close vessel, with a gentle warmth, for three days; and then strain out the liquor for use.

The author of this composition recommends it as a medicine of infallible efficacy against inveterate scurvies, and all kinds of scorbutic complaints, particularly such as are not accompanied with a fever or inflammation: even palsies, and the venereal lues, he says, have yielded to it. The dose is from three to six ounces, to be taken in the morning on an empty stomach, and continued for fourteen or twenty days, or longer: some quantity of it is likewise to be mixed with the patient's common drink, which he directs to be either good Rhenish wine, or sound malt liquors not too new. If the patient complains of heat, dryness, a violent cough, or where there are any symptoms

of a consumption, the black pepper is ordered to be omitted, and the liquorice increased in its room to six ounces.

A composition differing from the above only in the omission of vinegar, and employing spirit of wine for the menstruum, is said to have come lately into esteem at Paris, against the gout.

VINUM PERUVIANUM.

Wine of Peruvian bark.

Take of

Peruvian bark, in powder, two ounces;

Rough red wine, two pints.

Digest them together in a circulatory vessel, with a moderate heat, for forty-eight hours, occasionally shaking the vessel: then suffer the whole to cool, and pass the wine through a strainer.

This is the preparation of bark made use of by Sir Robert Tabor or Talbot (an English gentleman residing in France) who was one of the first that retrieved the character of the medicine itself, at the time that some ill consequences following its imprudent use, had brought it into disesteem. He kept this preparation a secret, till Lewis XIV. purchased it for a considerable sum, and communicated it to the public. It was not however the preparation, but a proper method of exhibiting the medicine, upon which the success of his practice depended. See page 178. It appears from experience, that this wine is less certain in the cure of agues, than the bark given in substance. It nevertheless has its uses, in those intermittent fevers where a large quantity of the bark is not necessary; and is particularly serviceable in a laxity and debility of the stomach and intestines.

TINC-

TINCTURA CANTHARIDUM
D. MEAD.*Dr. Mead's tincture of cantharides.*

Take of

Rhubard, three drams;
 Gum guaiacum, one dram and a
 half;
 Lac, one dram;
 Cantharides, bruised, two drams;
 Cochineal, half a dram;
 Rectified spirit of wine, a pint
 and a half.

Digest and strain.

Venerable disorders, especially
 where the stronger cathartics have
 been imprudently made use of in
 the cure, are not unfrequently suc-
 ceeded by a weakness of the semi-
 nal vessels, and a constant gleet-
 ing of mucous matter, both from the
 vesiculae feminales, and the pro-

state glands. The cure of this ob-
 stinate complaint is usually attempt-
 ed by balsamics; but for the most
 part with little success. This tinc-
 ture is of a more powerful kind,
 and takes place even where the dis-
 order is of very long standing, and
 the parts extremely relaxed: Dr.
 Mead, after large experience of its
 happy effects, for many years, in
 his private practice, recommended
 it to several physicians and sur-
 geons, and has now communicated
 it to the public. The mean dose
 is thirty drops, which may be in-
 creased to fifty, or as many as can
 be ventured on without endanger-
 ing a difficulty of urine. It is to
 be taken every morning and even-
 ing, in a glass of warm water.

S E C T. VIII.

M I X T U R E S ;

including juleps, draughts, and emulsions.

A JULEP is an agreeable liquor,
 designed as a vehicle for me-
 dicines of greater efficacy, or to be
 drank after them, or to be taken
 occasionally as an auxiliary.

The basis of juleps is generally
 common water, or a simple distill-
 ed water, with one fourth, or one
 third its quantity of some distilled
 spirituous water: this mixture is
 sweetened with sugar, or any pro-
 per syrup; and sometimes acidulat-
 ed with a few drops of any of the
 vegetable or mineral acids, or im-
 pregnated with other medicines
 suitable to the intention; care be-
 ing had that these additions be such
 as will not render the compound
 unsightly or unpalatable.

The quantity of a julep usually
 prescribed at a time, is about eight
 or ten ounces.

The quantity of a DRAUGHT
 very rarely exceeds three ounces,
 the whole being intended for one
 dose. This form receives medici-
 nes of considerable efficacy, as
 cathartics, opiates, &c. whether
 soluble in water, as extracts or
 salts; or indissoluble, as powders;
 without much regard to their pala-
 tableness; and in these respects
 principally draughts differ from ju-
 leps.

EMULSIONS are white milky li-
 quors, generally prepared by grind-
 ing the oily seeds of plants, or ker-
 nels of fruits, along with common
 water, or any agreeable simple di-
 stilled water. In this process, the
 oil of the subject is, by the media-
 tion of the other matter, united
 with the aqueous fluid; and hence
 they

they possess some share of the emollient virtue of the pure oil, with this advantage, that they are agreeable to the palate, not apt to turn rancid or acrimonious by the heat of the body (which the pure oils in some inflammatory cases may do) and likewise, that by the oil being thus intimately combined and diluted with an aqueous vehicle, it passes easier and farther into the habit.

Emulsions, besides their use as medicines themselves, are excellent vehicles for certain substances which cannot otherwise be so conveniently exhibited in a liquid form. Thus camphor, triturated with almonds readily unites with water into an emulsion, and in this form is conveyed into the remotest parts of the body, with sufficient efficacy to answer intentions of moment, at the same time that its heat and pungency are softened by the unctuousity of the almonds.

Several of the gummy-resins, as ammoniacum, galbanum, myrrh, and others, are reducible into emulsions, or milky liquors, by trituration with water alone; the resinous part being rendered dissoluble by the mediation of the gummy. The resinous juices, balsams, turpentine, &c. are likewise rendered miscible with water into similar liquors, by the assistance of the yolk of an egg; and in some cases, particularly in venereal disorders of the urinary passages, may in this form be exhibited to good advantage.

JULEPUM ALEXIPHARMACUM.

Alexipharmac julep.

Take of

1. Simple alexeterial water, six ounces;
- Spirituos alexeterial water, two ounces;

Syrup of clove-july-flowers, two drams.

Mix them together.

Take of

2. Simple alexeterial water, six ounces;
- Spirituos alexeterial water with vinegar, two ounces;
- Syrup of lemon juice, two drams.

Mix them together.

Take of

3. Camphor, one dram;
- Fine sugar, half an ounce;
- Vinegar, one pint.

Let the camphor be ground first with a little rectified spirit of wine, and afterwards with the sugar, till they are perfectly mixed; then gradually pour on the vinegar, previously made warm.

The first of these juleps is to accompany the use of the alexipharmac powders, boluses, &c. already prescribed. The third is a medicine of considerable efficacy, and frequently produces notable effects without the assistance of any other: camphor thus combined with vegetable acids, proves serviceable in cases where this warm drug by itself would be less proper; and at the same time becomes more agreeable both to the palate and stomach.

JULEPUM CARDIACUM.

Cordial julep.

Take of

1. Simple cinnamon water, six ounces;
- Simple orange peel water, each three ounces;
- Nutmeg water, two ounces;
- Syrup of orange peel, half an ounce.

Mix them together.

Take of

2.

Black

Black cherry water, six ounces;
Cardamom seed water, two
ounces;
Compound spirit of lavender,
Syrup of saffron, each two drams.
Mix them together.

JULEPUM CARMINATIVUM.
Carminative julep.

Take of 1.
Fennel seed water, six ounces;
Compound juniper water, two
ounces;
Syrup of clove-july-flowers, half
an ounce.

2.
Jamaica pepper water, six ounces;
Compound aniseed water, two
ounces;
Syrup of orange peel, half an
ounce.

3.
Dill-feed water, six ounces;
Compound caraway water, two
ounces;
Syrup of ginger, half an ounce.

JULEPUM HYSTERICUM.
Hysteric julep.

Take of 1.
Simple penny-royal water,
Castor water, each three ounces;
Spirituos penny-royal water, two
ounces;
Simple syrup two drams.

2.
Simple alexetereal water, six
ounces;
Cardamom seed water, two
ounces;
Compound spirit of lavender,
Volatile aromatic spirit, each one
dram;
Syrup of clove july-flowers, half
an ounce.

3.
Dill-feed water, four ounces;
Simple pepper mint water, two
ounces;
Tincture of cardamoms,
Syrup of ginger, each two drams.

JULEPUM REFRIGERANS.
A cooling julep.

Take of
Rhenish wine, five ounces;
Damask rose water, two ounces;
Seville orange juice,
Syrup of violets, each six drams.

JULEPUM STOMACHICUM.
Stomachic julep.

Take of 1.
Simple mint water, six ounces;
Spirituos mint water, two ounces;
Syrup of saffron, two drams.

2.
Tincture of mint, six ounces;
Cardamom seed water, two
ounces;
Simple syrup, half an ounce.

3.
Simple cinnamon water, six
ounces;
Nutmeg water,
Stomachic tincture, each one
ounce;
Syrup of orange peel, half an
ounce.

The titles of these mixtures ex-
press the intentions for which they
are calculated: five or six spoonfuls
of either may be taken occasional-
ly, or used as vehicles and diluters
of medicines of greater efficacy.

HAUSTUS CATHARTICUS.
Cathartic draught.

Take of 1.
Scammony, fourteen grains;
Spirit of rosemary, two drams;
Syrup of buckthorn, six drams.
Grind the scammony with the spi-
rit in a glass mortar, and when
perfectly incorporated, mix in
the syrup.

2.
Take of
Jalap, in powder, one scruple;
Ipecacoanha, three grains;
Compound juniper water, one
ounce;
Infusion of linseed, an ounce and
half
Simple

Simple syrup, one dram.
Mix them together.

Both these compositions are strong cathartics, yet for the most part easy and safe in operation. They are calculated chiefly for hydropic cases, in which they procure copious evacuations, without weakening or fatiguing the patient so much as many other medicines of this kind.

HAUSTUS CATHARTICUS SALINUS.
Saline cathartic draught.

Take of

Glauber's cathartic salt,
Manna, each six drams;
Boiling water, three ounces;
Tincture of cardamoms, one dram.

Dissolve the salt and manna in the water, and having strained off the liquor, add to it the tincture of cardamoms.

This is a very elegant and agreeable saline purgative. Tincture of cardamoms is one of the best additions to liquors of this kind, or to the purging mineral waters, for rendering them acceptable to the stomach.

HAUSTUS DIURETICUS.
Diuretic draught.

Take of

Oxymel of squills, one dram and a half;
Simple cinnamon water, one ounce;
Compound spirit of lavender,
Syrup of orange peel, each one dram.

Mix them together.

Take of

Vinegar of squills, one dram (or one dram and a half);
Salt of wormwood, half a dram;
Lemon juice, six drams;
Simple cinnamon water, an ounce and a half;

Spirituos pepper mint water,
half an ounce;

Syrup of orange peel, one dram.
Let the salt of wormwood and lemon juice be first mixed together, and then add to them the other ingredients.

These elegant and efficacious compositions are commended, and frequently prescribed, by Dr. Mead, for promoting urine in hydropic cases. He directs them to be taken every night, or oftner, according to the urgency of the symptoms. The squill, one of the most powerful diuretics, is by the additions here joined to it, rendered not only more grateful to the palate and stomach, but likewise enabled more effectually to answer the purposes intended by it.

HAUSTUS ANODYNO-DIURETICUS.
An anodyne diuretic draught.

Take of

Ley of tartar, half a dram;
Thebaic tincture, forty drops;
Pepper mint water, one ounce;
Simple cinnamon water, half an ounce;
Spirituos cinnamon water, two drams;
Syrup of marshmallows, one dram.

Mix them together.

Though practitioners have rarely ventured to exhibit opium in dropsies; yet in those which are accompanied with great pain, this anodyne drug, by easing the pain, and removing the stricture of the passages, which painful sensations always occasion, proves a medicine of great service, excellently promoting the urinary discharge. Dr. Mead has given a remarkable instance of the good effects of the mixture above prescribed, in a person labouring under an ascites and tympany at the same time, where the pain was intolerable, the

thirst intense, and the urine in very small quantity: the stronger purgatives increased the distemper; soap, alkaline salts, nitre, and other diuretics, were tried in vain: this draught (when the patient seemed to be beyond any assistance from medicine) procured unexpected relief, not only a gentle sleep, and truce from the pain, but likewise a copious discharge of urine: by repeating the medicine, for a little time, every eight hours, and afterwards using corroborants, the cure was perfectly completed.

HAUSTUS OLEOSUS.
Oily draught.

Take of

Oil of almonds,
Syrup of marshmallows, each
half an ounce;
Simple cinnamon water, two
ounces.

Mix them together.

Draughts of this kind are used for obtunding acrimonious humors, and softening and lubricating the solids. They are similar in virtue to the linctus's already spoken of, and to most people more agreeable. They may be occasionally rendered more penetrating, detergent, and saponaceous, by the addition of soap leys, or volatile spirits.

MISTURA ANTIEMETICA, SALINA.
Saline antiemetic mixture.

Take of

Salt of wormwood, half a dram;
Lemon juice, six drams;
Simple cinnamon water, one
ounce;
Fine sugar, one scruple.

Mix them together.

This mixture is frequently prescribed, not only for the purpose expressed in its title, but likewise as a saline aperient in icterical, inflammatory, and other disorders, where medicines of that class are proper.

MISTURA SALINA CATHARTICA
ET DIURETICA.

*Cathartic and diuretic saline
mixture.*

Take of

Salt of tartar, two drams;
Distilled vinegar, five ounces;
Cinnamon water, one ounce;
Fine sugar, two drams.

Mix them together.

This mixture evacuates plentifully both by stool and urine, without griping or fatiguing the patient. I have frequently given it in hydropic cases, with excellent success. It is to be taken in a morning, at two doses, at the interval of an hour or two.

MISTURA CARDIACA.
Cordial mixture.

Take of

Simple cinnamon water, four
ounces;
Spirituos cinnamon water, two
ounces;
Extract of saffron, one scruple;
Confection of kermes, six drams.

Mix them together.

In great languors and depressions, a spoonful of this rich cordial mixture, may be taken every half hour.

EMULSIO PURGANS.
A purging emulsion.

Take of

Sweet almonds, blanched, two
drams;
Fine sugar, one dram;
Gum Arabic, half a dram;
Scammony, twelve grains;
Simple cinnamon water, one
ounce.

Dissolve the gum in the cinnamon water, and having ground the scammony with the almonds and sugar, pour on the liquor by little at a time, continuing to grind them together, so as to make them into an emulsion.

S E C T.

III.
CA

S E C T. IX.

P L A S T E R S, O I N T M E N T S, &c.

Plasters are composed chiefly of oily and unctuous substances, united with powders, into such a consistence, that the compound may remain firm in the cold, without sticking to the fingers; that it may be soft and pliable in a small heat; and that by the warmth of the human body it be so tenacious, as readily to adhere both to the part on which it is applied, and to the substance on which it is spread.

There is however a difference in the consistence of plasters, according to the purposes they are to be applied to: thus, such as are intended for the breast and stomach, should be very soft and yielding; whilst those designed for the limbs are made firmer and more adhesive. An ounce of expressed oil, an ounce of yellow wax, and half an ounce of any proper powder, will make a plaster of the first consistence; for a hard one, an ounce more of wax, and half an ounce more of powder, may be added. Plasters may likewise be made of resins, gummy-resins, &c. without wax,

especially in extemporaneous prescription: for officinals, these compositions are less proper, as they soon grow too soft in keeping, and fall flat in a warm air. It rarely happens, however, that there is any occasion for prescribing extemporaneous plasters, the shops being supplied with a sufficient number to answer every useful purpose that can be expected from applications of this kind.

Ointments and liniments differ from plasters little otherwise than in consistence. Any of the officinal plasters, diluted with so much oil as will reduce it to the thickness of stiff honey, forms an ointment: by farther increasing the oil, it becomes a liniment. As a sufficient variety of these and other external medicines are described in the preceding part, and in the appendix to this, it is needless to give farther directions here for their composition, or to insert any particular forms.

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APPENDIX.

Pharmacopœia Pauperum:

CONTAINING

A Collection of cheap and efficacious MEDICINES,
made use of in the Hospitals of LONDON and
EDINBURGH, and the ARMY.

AQUA ALEXETERIA
nosocomii Edinburgensis.
Alexeterial water.

TAKE of
Elder flowers, moderately
dried, three pounds;
Angelica leaves, fresh, two pounds;
Water, a sufficient quantity.
Draw off by distillation three gal-
lons.

AQUA ANTIHYSTERICA, ejusdem.
Antihysterical water.

Take of
Wild valerian root, one pound
and a half;
Lovage seed, half a pound;
Savin, three ounces;
Proof spirit, two gallons.
Let them steep together for four days,
and then distil off two gallons.

This water is composed of the
more unexceptionable ingredients
of the *agua bryoniæ* of the Edin-
burgh pharmacopœia; and pro-
mises to be as serviceable an anti-
hysterical, as any of the more labo-
rious compositions of this kind.

AQUA AROMATICA, ejusdem.
Aromatic water.

Take of
Canela alba, half a pound;
Lemon peel, fresh, four ounces;
Lesser cardamom seeds, two
ounces;
Proof spirit, two gallons.
Let these ingredients steep together
four days, and then draw off
two gallons by distillation.

This is a very elegant aromatic
water,

water, cheaper and more simple than the *aqua mirabilis*, whose place it is intended to supply. It nevertheless seems still rather too dear for the purposes of an hospital: the following well deserves to be introduced in its room.

Take of

Jamaica pepper, half a pound;
Proof spirit, three gallons;
Water, a sufficient quantity.

Draw off by distillation three gallons.

This water is far more agreeable than a simple water drawn from the same spice; and has long had a place among the cordials, both of the distiller and apothecary.

AQUA EPIDEMIA, Edinb.
Plague water.

Take of

Masterwort roots, a pound and a half;
Angelica seeds,
Elder flowers, each half a pound;
Proof spirit, three gallons;
Water, a sufficient quantity.

Steep the other ingredients in the spirit for four days, and then distil off two gallons and a half; to which add half a gallon of distilled vinegar.

This is an elegant substitute for the more compounded, though not more efficacious, *aqua tberiacalis*. It keeps better than the *aqua alexiteria cum aceto* of the shops; which advantage is owing to its not being drawn so low.

AQUA OPHTHALMICA, Edinb.
Eye-water.

Take of

White vitriol, half an ounce;
Water four pints.
Boil them till the vitriol is dissolved, and filter the liquor.

Where the eyes are watery or inflamed, this simple solution of white vitriol is a very useful application: the slighter inflammations will frequently yield to this medicine, without any other assistance: in the more violent ones, venesection and cathartics are to be premised to its use.

AQUA PICEA, Edinb.
Tar water.

Take of

Tar, two pounds;
Water, one gallon.

Stir them strongly together with a wooden rod; and after standing to settle for two days, pour off the water for use.

Tar water has lately been recommended to the world as a certain and safe medicine in almost all diseases; a slow, yet effectual alterative in cachexies, scurvies, chlorotic, hysterical, hypochondriacal, and other chronical complaints; and a sudden remedy in acute distempers which demand immediate relief, as pleurifies, peripneumonies, the small pox, and all kinds of fevers in general. The medicine, though certainly far inferior to the character that has been given of it, is doubtless in many cases of considerable utility: it sensibly raises the pulse; and occasions some considerable evacuation, generally by perspiration or urine, though sometimes by stool or vomit: hence it is supposed to act by increasing the *vis vitæ*, and enabling nature to expel the morbid humors.

We shall here insert, from the first public recommender of this liquor (bishop Berkeley) some observations on the manner of using it. "Tar water, when right, is
" not paler than French, nor
" deeper coloured than Spanish
N n z " white

“ white wine, and full as clear ; of the stomach ; and likewise in
 “ if there be not a spirit very ten- the fluor albus. See page 513.
 “ sibly perceived in drinking, you
 “ may conclude the tar water is
 “ not good. It may be drank ei-
 “ ther cold or warm : in colics, I
 “ take it to be best warm. . As to
 “ the quantity in common chroni-
 “ cal indispositions, a pint a day
 “ may suffice, taken on an empty
 “ stomach, at two or four times,
 “ to wit night and morning, and
 “ about two hours after dinner and
 “ breakfast: more may be taken
 “ by strong stomachs. But those
 “ who labour under great and in-
 “ veterate maladies, must drink a
 “ greater quantity, at least a quart
 “ every twenty-four hours: all of
 “ this class must have much pa-
 “ tience and perseverance in the
 “ use of this, as well as of all
 “ other medicines, which though
 “ sore, must yet, in the nature of
 “ things, be slow in the cure of in-
 “ veterate chronical disorders. In
 “ acute cases, fevers of all kinds,
 “ it must be drank in bed warm,
 “ and in great quantity (the fever
 “ still enabling the patient to drink)
 “ perhaps a pint every hour, which
 “ I have known to work surpriz-
 “ ing cures. But it works so
 “ quick, and gives such spirits,
 “ that the patients often think
 “ themselves cured before the fe-
 “ ver hath quite left them.”

BALSANUM ANODYNUM, Edinb.
Anodyne balsam.

Take of
 The saponaceous balsam, called
 opodeldoc, one pound and a
 half ;
 Liquid laudanum, half a pound.
 Mix them together.

This composition is taken from
 Bates. It is used externally, for
 easing arthritic pains, restraining
 vomiting, and other like disorders

BOLUS ALEXETERIUS, Edinb.
Alexeterial bolus.

Take of
 Virginian snakeroot, fifteen
 grains ;
 Castor, ten grains ;
 Camphor, three grains ;
 Syrup of sugar, as much as is
 sufficient.
 Mix and make them into a bolus.

This bolus is given, as an alexi-
 pharmac, in low fevers, and re-
 peated every six hours or oftner,
 according to the urgency of the
 symptoms.

BOLUS EX ALUMINE,
 Nofocom. Lusitanic. Lond.
Alum bolus.

Take of
 Alum, fifteen grains ;
 Extract of Peruvian bark,
 Nutmeg, each ten grains ;
 Simple syrup, as much as will
 reduce them into a proper con-
 sistence for a bolus.

This composition is a very strong
 astringent, and as such is used with
 success in violent uterine hæmorrha-
 gies, and other immoderate secre-
 tions which require to be speedily
 restrained. It may be taken twice
 a day ; or if the flux is very vio-
 lent, every four or six hours till it
 abates.

Alum is frequently apt to occa-
 sion violent pains of the bowels ; it
 may therefore be proper to begin
 with lesser doses than that here pre-
 scribed ; and increase it by degrees
 as far as the patient can bear it
 without inconvenience.

BOLUS ANTIDYSENTERICUS.
Antidysenteric bolus.

Take of
 London

its action, but likewise prevent its setting uneasy on the stomach.

BOLUS DIURETICUS, Edinb.
Diuretic bolus.

Take of
White soap, two scruples;
Essential oil of juniper berries,
from ten to twenty drops.
Make them into a bolus.

This is a very powerful detergent, aperient, and diuretic. It is frequently exhibited with success in hydropic cases; and in such icterical disorders as arise from a visciditv of the bile, or obstructions of the biliary ducts, which are usually accompanied with costiveness and whitish stools; in jaundices proceeding from a too great attenuation of the bile (which are attended with a looseness and yellow stools) medicines of this kind are manifestly improper.

BOLUS E GAMBOGIA, SIVE HYDRAGOGUS, Lufit.

Gamboge, or hydragogue bolus.

Take of
Gamboge,
Crystals of tartar, each half a scruple;
Syrup of buckthorn, a sufficient quantity to reduce them into a bolus.

This bolus is a strong cathartic, and as such is commonly given in hydropic cases, once or twice a week; according as the patient can bear its operation. The crystals of tartar prevent the gamboge from proving emetic, or producing the ill effects which it would be apt to do by itself.

BOLUS GUAIACINUS, Edinb.
Guaiacum bolus.

Take of
Extract of guaiacum, two scruples;

Salt of hartshorn, seven grains;
Simple syrup, a sufficient quantity.

Make them into a bolus.

In chronical rheumatisms, whether the remains of a rheumatic fever, or a continuation of pains that proceeded at first from neglected colds, this bolus has generally good effects. It is to be taken once a week, or oftner, the patient keeping warm, and drinking warm liquors, to promote its operation as a cathartic and diaphoretic. Its use ought to be accompanied by venesection, which is to be repeated every eight or ten days as long as the blood is sily. This medicine is likewise exhibited in sciatic, arthritic, and other pains not accompanied with a siness of blood; in these it much more frequently fails than in the true rheumatism.

BOLUS JALAPPE, SIVE PURGANS,
Jalap, or purging bolus.

Take of
Jalap, one ounce;
Jamaica pepper,
Crystals of tartar, each one dram;
Syrup of buckthorn, as much as will reduce them into a mass of a due consistence.

Two scruples of this mass may be made into a bolus for one dose. It is a purgative of sufficient efficacy, and almost universally mild and safe.

BOLUS JALAPPE CUM MERCURIO,
Edinb.

Jalap bolus with mercury.

Take of
Choice jalap, one scruple;
Calomel, from five to ten grains;
Simple syrup, as much as will make them into a bolus.

This likewise is an effectual and safe

safe cathartic, and may be used in cutaneous disorders, dropsies, and other diseases, where mercurial purgatives are proper.

BOLUS IPECACOANHÆ.
Bolus of ipecacoanha.

Take of
Ipecacoanha, five grains;
Syrup of orange peel, as much as will make it into a bolus.

In dysenteries, a vomit of ipecacoanha, given after bleeding, removes the sickness of the stomach generally complained of in the beginning of this disease. The emetic is observed to be the more efficacious in proportion to the evacuation of bile; and to succeed best when it also operates by stool. Both these effects are more certain, when instead of the usual dose, only the quantity here directed is given at a time, and repeated twice or thrice in the same day, till a vomit or purging come on; which usually happens before, or soon after the third dose. Fifteen grains, given in this manner, generally evacuate more than thirty taken at once.

BOLUS MERCURIALIS, Edinb.
Mercurial bolus.

Take of
Calomel, from five to fifteen grains;
Conserve of roses, half a dram.
Mix and make them into a bolus.

This bolus is given every night, or oftner, for raising a salivation, in venereal, and other disorders, which require that herculean operation. It is likewise taken at night as an alterative, to be carried off next morning by a cathartic: mercurials exhibited in this manner, have better effects than when joined with purgatives directly.

BOLUS MERCURIALIS
EMETICUS, Lufit.
Emetic mercurial bolus.

Take of
Yellow emetic mercury, six grains;
Conserve of roses, a sufficient quantity.
Mix them into a bolus.

This strong emetic is given in venereal and leprous diseases; particularly in the case of foul ulcers of long standing, the cleansing and cure of which are frequently promoted by it. The violence of its operation limits its use to robust constitutions.

BOLUS PECTORALIS, Edinb.
Pectoral bolus.

Take of
Sperma ceti, fifteen grains;
Gum ammoniacum, ten grains;
Salt of hartshorn, seven grains;
Simple syrup, as much as is sufficient.
Mix and make them into a bolus.

In colds of long standing, old coughs, asthmas, and beginning consumptions, this bolus generally gives relief, especially if bleeding is premised, and repeated, if necessary, at proper intervals.

BOLUS RHEI CUM MERCURIO,
Edinb.

Bolus of rhubarb with mercury.
Take of
Choice rhubarb, twenty - five grains;
Calomel, five grains;
Simple syrup, as much as will form them into a bolus.

This is a very mild mercurial purgative. It is given to destroy worms, and in cachectic, chlorotic, and other like disorders.

BOLUS THERIACALIS, Edinb.
Troacle bolus.

Take of

Theriaca, two scruples;
Salt of hartshorn, seven grains;
Camphor, three grains.
Mix and form them into a bolus.

Camphor and salt of hartshorn when thus joined with opiates, have in many cases better effects than if exhibited by themselves, their diaphoretic virtues being greatly promoted by the relaxation which the opium occasions. The quantity of theriaca in this bolus contains somewhat more than a quarter of a grain of opium.

CATAPLASMA AROMATICUM,
Edinb.

A warm aromatic cataplasim.

Take of

Long birthwort roots,
Bay berries,
Scordium leaves,
Cummin seeds,
Myrrh, each four ounces;
Jamaica pepper, two ounces;
Honey, thrice the weight of the powders.

Mix, and make them into a poultice, according to art.

CATAPLASMA DISCUTIENS, Edinb.
Discutient cataplasim.

Take of

Barley meal, six ounces;
Fresh hemlock, well bruised, two ounces;
Crude sal ammoniac, half an ounce;
Vinegar, a sufficient quantity.

Boil the meal and the hemlock leaves for a little time in the vinegar, and then mix with them the sal ammoniac.

CATAPLASMA EMOLLIENS, Edinb.
Emollient cataplasim.

Take of

Crumb of bread, eight ounces;

White soap, one ounce;
Cows milk, fresh, a sufficient quantity.

Boil them a little together.

CATAPLASMA SUPPURANS, Edinb.
Suppurating cataplasim.

This is made by adding to the foregoing, of

Raw onions, bruised, one ounce and a half;
Basilicum ointment, one ounce.

CATAPLASMA STOMACHICUM,
Edinb.

Stomachic cataplasim.

Take of

The aromatic cataplasim, one ounce;
Expressed oil of mace, two drams;
Anodyne balsam, as much as is sufficient to reduce them into a proper consistence.

CATAPLASMA CAMPHORATUM,
Edinb.

Camphorated cataplasim.

Take of

Aromatic cataplasim, one ounce;
Camphor, one dram.

Mix them together.

CATAPLASMA ISCHIADICUM.
Ischiadic cataplasim.

Take of

Mustard seed, half a pound;
White pepper,
Ginger, each one dram;
Simple oxymel, as much as will reduce them into a cataplasim.

The use of these compositions may be easily understood from their titles. It may be proper to observe, with regard to this last, that it is a very stimulating application, and frequently vesicates the skin.

CERVISIA APERIENS, Edinb.
Aperient ale.

Take of

Mustard

Mustard seed, unbruised, ten ounces;
 Long birthwort root, six ounces;
 Lesser centaury tops, two ounces;
 Savin tops, one ounce;
 New small ale, ten gallons.

This is an useful aperient diet-drink in cachectic and chlorotic indispositions, and in all cases where obstructions begin to form in the viscera. It is to be taken to the quantity of half a pint at a time, twice a day.

CERVISIA CEPHALICA, Edinb.
Cephalic ale.

Take of
 Wild valerian root, ten ounces;
 Mustard seed, whole, six ounces;
 Virginian snakeroot, two ounces;
 Rosemary, or sage, three ounces;
 New small ale, ten gallons.

The ingredients of this composition are all of the warm and stimulating kind; and consequently tend to invigorate the nervous system, and promote the circulation of the fluids. In palsies, epilepsies, and vertigoes, some benefit may be expected from this liquor used as common drink.

CERVISIA DIURETICA.
Diuretic ale.

Take of 1.
 Mustard seed, whole,
 Juniperberries, each eight ounces;
 Wild carrot seed, three ounces;
 Common wormwood, two ounces;
 New small ale, ten gallons.

Take of 2.
 Broom tops,
 Mustard seed, each sixteen ounces;
 Flower-de-luce roots,
 Sharp-pointed dock roots, each twelve ounces;
 Winter's bark,
 Elder bark,

Wild carrot seeds,
 Juniper berries, each two pounds;
 New strong ale, twelve gallons.

In hydropic cases, and corpulent scorbutic habits, these aperient and diuretic liquors are very useful diet-drinks. Half a pint of either may be taken two or three times a day.

CERVISIA AD SCORBUTICOS, Edinb.
Scorbutic ale.

Take of
 Horse-radish root, fresh, one pound;
 Sharp pointed dock roots, half a pound;
 Canela alba, two ounces;
 Buckbean leaves, fresh, eight ounces; or dried, three ounces;
 New small ale, ten gallons.

In scorbutic disorders, and impurities of the blood and juices, this liquor, used as common drink, generally does good service. All the ingredients are very effectual for the intention, and well suited to the form.

COLLYRIUM ALBUM, Edinb.
The white collyrium.

Take of
 Rose water, six ounces;
 White troches of Razi, or compound powder of ceruse, one dram;
 White vitriol, ten grains.
 Mix them together according to art.

This is a very useful collyrium in inflammations and desfluxions of thin acrid humors on the eyes. See the remark on the eye water, page 547.

COLLYRIUM ALUMINOSUM, Edinb.
Alum collyrium.

Take of
 Alum, half a dram;

The

The white of one egg.
Agitate them well together.

The slighter inflammations of the eyes, occasioned by dust, exposure to the sun, or other like causes, are generally removed by fomenting them with warm milk and water, and washing them with the foregoing collyrium. Where the complaint is more violent, this preparation, after the inflammation has yielded a little to bleeding, is one of the best external remedies. It is to be spread on lint, and applied at bed-time.

CONFECTIO ROBORANS, Edinb.
Strengthening confectio.

Take of
Bole armenic, prepared, three ounces;
Tormentil root,
Nutmeg,
Olibanum, each two ounces;
Opium, purified, one dram and a half;
Syrup of dry roses, thrice the weight of the powders.

Mix them together, according to art.

This is an elegant succedaneum to the *electarium e scordio*, or *diascordium*, of the shops; not inferior in efficacy, though far less compounded. In diarrhœas and dysenteries, after suitable evacuations, it proves a medicine of great utility; especially if given in small doses, and frequently repeated: half an ounce of the composition contains one grain of opium.

DECOCTUM ANTIFEBRILE.
Antifebrile decoction.

Take of
Virginian snakeroot, bruised,
Peruvian bark, in powder, each three drams;
Water, one pint.

Boil them to half a pint, and having strained off the liquor, mix with it, of
Spirituos cinnamon water, an ounce and a half;
Syrup of clove july-flowers, two drams.

In the putrid malignant fever, arising from foul air in crowded hospitals and jails, this medicine is given with remarkable success. In the low state of this dangerous disease, when the pulse, before quick, begins to sink, the stupor to increase, and petechiæ to appear; it is one of the most effectual remedies for supporting the *vis vitæ*, promoting a critical diaphoresis, and correcting the putrid humors. Four spoonfuls of the decoction are to be taken every four or six hours; and moderate quantities of wine, or cordial boluses with volatile salts, interposed at proper intervals.

DECOCTUM ANTIHECTICUM,
Edinb.

Antihæctic decoction.

Take of
Comfry root,
Eryngo root, each half an ounce;
Conserve of roses, two ounces;
Dulcified spirit of vitriol, forty drops;
Water, three pints.

Boil the water with the roots and the conserve, till one pint is wasted; then strain off the remaining liquor, and add to it the dulcified spirit.

This decoction is usefully given in hæctic cases, where thin acrimonious humors abound, and in beginning consumptions. The dose is a quarter of a pint, to be taken two or three times a day.

DECOCTUM ASTRINGENS, [Edinb.
Astringent decoction.

Take

Take of

Tormentil root, one ounce ;
 Granate peel,
 Plantane leaves, each half an
 ounce ;
 Syrup of dry roses, one ounce ;
 Water, three pints.

Boil the water with the tormentil,
 granate peel, and plantane, till
 one pint is wasted, adding the
 cinnamon towards the end : then
 strain off the decoction, and mix
 with it the syrup.

The title of this preparation
 sufficiently expresses its virtues. The
 dose, in fluxes where the morbid
 matter has been evacuated, and as-
 tringency is the only indication, is
 about a quarter of a pint three or
 four times a day.

DECOCTUM BARDANÆ, Edinb.
Decoction of burdock.

Take of

Burdock roots, two ounces ;
 Vitriolated tartar, one dram ;
 Water, three pints.

Boil the water with the roots, fo
 long, that the liquor when strain-
 ed may amount only to a quart ;
 to which add the vitriolated tar-
 tar.

This decoction is drank to the
 quantity of a pint a day, as a mild
 aperient, diuretic, and sweetner,
 in scorbutic and rheumatic com-
 plaints.

DECOCTUM CAMPICHENSE, Edinb.
Decoction of logwood.

Take of

Shavings of logwood, three
 ounces ;
 Cinnamon two drams ;
 Water, four pints.

Boil the water with the logwood
 till half the liquor is wasted, add-
 ing the cinnamon towards the

end of the boiling ; then strain
 out the decoction for use.

This is an agreeable, mild, re-
 stringent medicine. It is given in
 diarrhœas, and other fluxes, where
 stronger astringents would be im-
 proper or unsafe, in doses of a quar-
 ter of a pint three or four times a
 day. It generally tinges the stools
 red, which has occasioned some to
 be alarmed, as if the colour pro-
 ceeded from a discharge of blood :
 the patient therefore is to be cau-
 tioned against any surprize on that
 account.

DECOCTUM COMMUNE, Edinb.
Common decoction.

Take of

Mallow leaves,
 Chamemel flowers, each one
 ounce ;
 Water, six pints.

Boil them to four pints, and strain
 out the liquor.

This decoction is used only for
 glysters, and as a soft emollient fo-
 mentation.

DECOCTUM DIURETICUM,
Diuretic decoction.

Take of

1.
 Parsley, or fennel roots, one
 ounce ;
 Wild carrot seeds, three drams ;
 Pellitory of the wall, half an
 ounce ;
 Raisins, two ounces ;
 Nitre, one dram ;
 Water, three pints.

Boil the water with the roots, seeds,
 pellitory, and raisins, so long
 that there may be only two pints
 of liquor after straining ; in
 which dissolve the nitre.

Take of

2.
 Grass roots, two ounces ;
 Sorrel,

Sorrel, or wood sorrel leaves,
one handful;

Tamarinds, an ounce and a
half;

Nitre, two drams;

Barley water, three pints.

Boil the roots in the barley water,
till one pint of the liquor is wasted,
adding towards the end the sor-
rel, tamarinds, and nitre; then
strain out the apozem for use.

Take of

3.
Marshmallow roots, fresh, one
pound;

Fennel roots, half a pound;

Nitre, half an ounce;

Water, one gallon.

Boil the water with the roots, till
one fourth of the liquor is wast-
ed: then strain off the remain-
ing decoction, and dissolve in it
the nitre.

These cooling aperient liquors
are used as common drink for pro-
moting urine in nephritic diseases.
They may be taken with safety, and
often with good effect, in inflam-
matory cases, where the hot stimu-
lating diuretics would be manifestly
prejudicial.

DECOCTUM PERUVIANUM, Lufit.
Peruvian decoction.

Take of

Peruvian bark, in powder, two
ounces;

Water, three pints.

Boil them together, till one pint of
the liquor is wasted, and then
strain off the remaining decoction
for use.

This decoction should be passed
only through a coarse strainer, and
drank whilst turbid: if suffered to
stand till clear, the more efficacious
parts of the bark will subside. We
have formerly observed, that the
virtues of this drug consist chiefly

in its resinous substance, which tho'
it may be totally melted out by the
heat of boiling water, remains only
partially suspended in that men-
struum.

DECOCTUM SENEKÆ, Edinb.

Decoction of seneka.

Take of

Seneka rattlesnake root, one
ounce;

Water, a pint and a half.

Boil to one pint, and strain.

The virtues of this decoction
will be easily understood from those
of the root which it is prepared
from. See page 206. The dose,
in hydropic cases, and rheumatic,
or arthritic complaints, is two
ounces, to be repeated three or
four times a day, according to its
effect.

DECOCTUM VULNERARIUM, Edinb.
Vulnerary decoction.

Take of

The herb groundivy,

Plantane leaves,

White sugar, each half an ounce;

Water, three pints.

Boil the herbs in the water, so long,
that there may be only two pints
of strained liquor; in which dis-
solve the sugar.

The herbs which give virtue to
this decoction, have long been ce-
lebrated as specifics for the cure of
internal contusions and ulcerations,
of coughs and pulmonary phtisies
proceeding either from bruises, or
an erosion of the viscera from a
spontaneous acrimony of the hu-
mors. Though the real virtues of
these plants fall short of the cha-
racter which has been usually given
of them, yet experience has shewn
that they are superior to numerous
others which have been very strong-
ly

ly recommended. The decoction of them, here prescribed, is taken to the quantity of a pint a day.

ELECTARIUM ACIDUM,
Acid electary.

Take of

Conserve of wood-forrel, four ounces;
Creme of tartar, six drams;
Vitriolated tartar, two drams;
Syrup of lemon juice, a sufficient quantity to make them into an electary.

In inflammatory distempers proceeding from acrid bile, in putrid feurvies, or any disorders arising from an alcaliscent state of the animal juices, this agreeable acid electary proves an useful cooler, aperient and laxative, at the same time correcting the preternatural disposition of the food and juices in the first passages. The quantity of a nutmeg may be taken two or three times a day, or oftner.

ELECTUARIUM
ANTIDYSENTERICUM, Edinb.
Antidysenteric electary.

Take of

The strengthening confection, one ounce;
Locatelli's balsam, half an ounce;
Choice rhubarb, two drams;
Syrup of marshmallows, a sufficient quantity.

Dissolve the balsam in the yolk of an egg, and then mix with it the other ingredients.

This electary is excellently well calculated for the cure of dysenteries; as it tends not only to moderate the discharge, but likewise to ease the gripes which always accompany this distemper, and to heal the excoriations of the bowels; the rhubarb at the same time, in some measure, guarding against a

dangerous retention, or accumulation of the morbid humors. The effects of this ingredient, however, when thus taken in small doses in conjunction with others of a different quality, are not considerable enough to supersede the use of evacuations before this medicine is ventured on: one or more full doses of rhubarb ought in most cases to precede its use. The dose of this composition is the bulk of a large nutmeg, to be taken once or twice a day, according to the urgency of of the symptoms.

ELECTUARIUM
BALSAMICUM, Edinb.

Balsamic electary.

Take of

Conserve of roses, two ounces;
Locatelli's balsam, one ounce.

Dissolve the balsam in the yolk of an egg, and then mix therewith the conserve.

This electary is used in such coughs and disorders of the breast as give suspicion of any internal ulcerations; in the vomica, or suppuration in the stomach, which sometimes happens after dysenteries; and where there is an erosion or rupture of the blood vessels, as in hæmoptoes. In these cases, the bulk of a nutmeg is to be taken for a dose twice or thrice a day.

ELECTUARIUM CEPHALICUM,
Edinb.

Cephalic electary.

Take of

Wild valerian root,
Mistleoe of the oak, each one ounce;
Simple syrup, a sufficient quantity.

Make them into an electary.

The bulk of a large nutmeg of this electary is given three or four times

times a day, in epilepsies, vertigo's, and other like complaints; with good success. Though the virtues ascribed to the mistletoe are greatly to be disputed, yet the valerian root, a medicine of undoubted efficacy in these disorders, is here in sufficient quantity to answer considerable purposes.

ELECTARIUM CHALYBEATUM, Luf.
Chalybeat electary.

Take of

Rust of steel, six drams;
Candied ginger, one ounce;
Conserve of orange peel, three ounces;
Syrup of orange peel, as much as will reduce them into a proper consistence.

This elegant chalybeat medicine is given to good advantage, not only in cachectic and chlorotic cases, and menstrual obstructions; but likewise in low hysteric, and melancholic disorders; and for warming and invigorating the habit in great debilities and decays of constitution. In either of these intentions the bulk of a nutmeg is to be taken twice a day, and its effects promoted by moderate exercise.

ELECTARIUM AD GONORRHOEAM,
Electary for a gonorrhœa.

Take of

1.
Lenitive electary, three ounces;
Jalap, three drams;
Nitre, one dram and a half;
Simple syrup, a sufficient quantity to make them into an electary.

Take of

2.
Lenitive electary, one pound;
Balsam of copaiva, half a pound;
Rhubarb,
Gum guaiacum,

Nitre, each four ounces;
Syrup of orange peel, as much as will reduce them into a proper consistence for an electary.

The first of these compositions is a cooling laxative, or gently purgative medicine, calculated for the relief of the inflammation and tension of the urinary passages, which always accompany a virulent gonorrhœa: in this intention, a dram and a half is directed to be taken every morning and evening. The second is designed for strengthening the parts, after the virulence is expelled, and the heat and inflammation have ceased: the bulk of a nutmeg may be taken twice or thrice a day.

ELECTARIUM E GUMMI
GUAIACO, Lufit.

Electary of gum guaiacum.

Take of

Gum guaiacum,
Compound powder of arum,
Canella alba, each six drams;
Conserve of scurvy grafs, two ounces;
Syrup of orange peel, as much as will bring them into a proper consistence.

In chronical rheumatisms, pains, and aches in general, that are not accompanied with inflammation, and some kinds of paralytic numbnesses, this warm stimulating electary has frequently good effects; especially if properly assisted by other remedies. The quantity of a nutmeg may be taken twice a day.

ELECTARIUM EX HELLEBORO
NIGRO, Lufit.

Electary of black hellebore.

Take of

Black hellebore root,

Extract

Extract of favin,
Compound powder of myrrh,
each half an ounce ;
Canella alba, two drams ;
Syrup of orange peel, as much
as is sufficient.

Mix and make them into an electary.

This electary is calculated for promoting the natural evacuations from the uterus: for this purpose, in persons of a plethoric sanguine temperament, it is a medicine of great power; but rarely answers so well in lax phlegmatic habits. In these last, any of the soluble preparations of steel will be attended with the same success which the hellebore is in the former. The mean dose of the composition here prescribed is half a dram.

ELECTUARIUM LENITIVUM, Edinb.
Lenitive electary.

Take of

Polypody roots, three ounces ;
Sena, two ounces ;
Pulp of French prunes, one pound ;
Pulp of casta fistularis,
Pulp of tamarinds, each half a pound ;
Coriander seeds, half an ounce ;
White sugar, four pounds ;
Water, six pints.

Boil the water with the polypody, till two pints are wasted, adding, towards the end, the sena and coriander seeds: then strain off the liquor, and boil it again with the sugar, to the consistence of a thick syrup, which is to be mixed with the pulps into an electary.

This electary is taken occasionally, to the bulk of a walnut or more, as a gentle laxative in costive habits. It is likewise frequently used in glysters, for which purpose

it is more convenient than those which have powders in their compositions.

This preparation is more simple than that of the officinal pharmacopœia of Edinburgh, already described in page 477. The process is well contrived, except with regard to the coriander seeds, the virtues of which are in a great measure lost by the long boiling. The other ingredients are not injured by that operation; the polypody roots, in particular, are improved by it: these roots in substance have a nauseous, sweet, subacid taste; and an ungrateful, though weak, smell: water boiled with them for a little time becomes impregnated only with their sweetish matter, and their smell; on continuing the cotion, the smell is lost, and the liquor proves almost simply sweet. Spirit of wine has a quite contrary effect on this drug: it extracts the nauseous matter as well as the sweet, and in inspissation loses this latter, and retains only the former.

ELECTUARIUM AD NEPHRITICOS,
Edinb.

Nephritic electary.

Take of

Lenitive electary, an ounce and a half ;
Venice turpentine, one ounce ;
Eggshells prepared, half an ounce ;
Choice rhubarb, one dram ;
Syrup of marshmallows, as much as is sufficient.

Dissolve the turpentine in the yolk of an egg, and then mix the whole together, according to art, so as to make thereof an electary.

This composition is extremely well contrived for cleansing the urinary passages in nephritic disorders. Turpentine, properly divided by earthy

earthy powders, is a safe, and, at the same time, one of the most powerful diuretics that can in these cases be ventured on: the rhubarb and laxative electary are very useful additions; for the belly ought here to be always kept open, tho' the stronger purgatives are very improper. A dram of the electary may be taken once or twice a day, along with an infusion of marshmallow roots, sweetened with a spoonful of honey.

ELECTARIUM E CORTICE
PERUVIANO.

Electary of Peruvian bark.

Take of

1.
Peruvian bark, three ounces;
Cascarilla, half an ounce;
Syrup of orange peel, a sufficient quantity.

2.
Peruvian bark, three ounces;
Virginian snake root, one ounce;
Syrup of orange peel, a sufficient quantity.

3.
Peruvian bark, three ounces;
Crude sal ammoniac, three drams;
Syrup of lemon juice, a sufficient quantity.

4.
Peruvian bark, three ounces;
Colcothar of vitriol, six drams;
Simple syrup, a sufficient quantity.

5.
Peruvian bark, three ounces;
Alum, one ounce;
Syrup of lemon juice, as much as is sufficient.

All these compositions are very elegant and efficacious in the intentions for which they are designed. The first is calculated for common

intermittent fevers, in the cure of which, the virtues of the bark are greatly assisted by the cascarilla. The second and third are given in those intermittents, which happen in cachectic habits, and persons subject to obstructions of the viscera, where the bark by itself, on account of its great astringency, would be prejudicial. The fourth is a good strengthener in laxities of the solids and decays of constitution; and the fifth, a powerful styptic in fluxes and hæmorrhagies, particularly in the diabetes and fluor albus. The bulk of a nutmeg of each may be taken at a time, and repeated according to the exigency of the case.

ELECTARIUM SAPONACEUM, LUSIT.
Saponaceous electary.

Take of

Hard Spanish soap, two ounces;
Pareira brava, one ounce;
Rhubarb,
Gum of aloes, each three drams;
Syrup of orange peel, a sufficient quantity.

Mix and make them into an electary.

In jaundices arising from an obstruction of the biliary ducts, or a viscidosity of the bile itself, this aperient and attenuating electary proves generally a very effectual remedy. Those icterical cases in which this medicine is proper, may be easily distinguished by the stools, which are of a whitish or ash colour, and voided with difficulty. The dose is from half a dram to a dram, twice a day.

How far the pareira brava in this composition contributes to its virtues, we shall not take upon us to determine. Some have recommended this root, as a most powerful attenuant, in a great variety of disorders (see page 176.) whilst others look

look upon it as not superior, if equal, to the common aperient roots (page 229.) The sensible qualities of the pareira discover little foundation for the great character given of it; and a competency of fair trials of its virtue is as yet wanting. It is admitted into the pharmacopœia of Edinburgh; but the London college have not thought it worthy of a place in theirs.

ELECTUARIUM SISTENS, Edinb.
Binding electary.

Take of
The strengthening confection, two ounces;
Extract of logwood, one ounce;
Syrup of dry roses, as much as will reduce them into a proper consistence for an electary.

This electary is excellently well calculated for the relief of dysenteries, and other intestinal fluxes, after the acrid humors have been duly evacuated by mild cathartics, &c. See the *mixtura antidyentericæ*, to be described hereafter in their place. The quantity of a nutmeg may be taken every four or five hours.

ELECTARIUM e SULPHURE, Luf.
Electary of sulphur.

Take of
Flowers of sulphur, half an ounce;
Lenitive electary, two ounces;
Syrup of marshmallows, a sufficient quantity to make them into an electary.

This electary is calculated against the piles, and generally distinguished in the hospitals by the title of *electarium hæmorrhoidale*: where the disorder is accompanied with febrile or inflammatory symptoms, some nitre is occasionally added, in

the proportion of two drams, to the quantity here directed. It may be given from a dram to half an ounce at a time.

ELIXIR STOMACHICUM, Edinb.
Stomachic elixir.

Take of
Gentian root, one ounce;
Seville orange peel, one ounce and a half;
Cochineal, half a dram;
Proof spirit, two pints.
Let them steep together for two days, and then strain out the elixir for use.

This is a very elegant and agreeable stomachic bitter, and as such is given in loss of appetite, indigestion, and other like complaints, to the quantity of a spoonful, or half an ounce, at a time.

ELIXIR VITRIOLI, Edinb.
Elixir of vitriol.

Take of
Stomachic elixir, one pound;
Oil of vitriol, four ounces.
Drop the acid by little and little into the stomachic elixir, and then filter the mixture through paper.

In great weakneses, or relaxations of the stomach, particularly those which proceed from debauches or high feeding, or where there is any tendency to inflammation, this acid elixir is a medicine of great service, and has not unfrequently taken place after simple bitters had failed. The dose is thirty drops, to be taken twice a day in any convenient vehicle.

It has been doubted by some whether the acid elixirs of vitriol, as they are called, are to be looked upon in any other light than as a mixture of the vitriolic acid with vinous spirits; the acid precipitating what the spirit had

○ ○ before

before taken up from the other ingredients. But altho' it must be admitted, that upon adding the acid to the spirituous tincture, a copious precipitation ensues; yet so much of the bitters, which the spirit was impregnated with, still remains suspended, as to be manifestly sensible to the taste.

EMPLASTRUM ANODYNO-DISCUITIENS, Luf.

An anodyne and discutient plaster.

Take of

Cumin plaster, two ounces;
Camphor, three drams;
Thebaic extract, one dram and half;

Grind the camphor, with some drops of oil olive, into a very subtile powder, and then mix it with the other ingredients, according to art, into a plaster.

EMPLASTRUM CALIDUM, Edinb.
Warm plaster.

Take of

Gum plaster, one ounce;
Blistering plaster, two drams.
Melt them together over a gentle fire.

EMPLASTRUM CEREUM, Edinb.
Wax plaster.

Take of

Yellow wax, four pounds;
White resin, two pounds;
Suet, one pound and a half.
Melt them together.

EMPLASTRUM DEFENSIVUM,
Defensive plaster.

Take of

Litharge prepared, two pounds;
Oil olive, four pounds;
Bole armenic, prepared,
Yellow wax, each six ounces;
Olibanum,
Venice turpentine, each four ounces;

Dragons blood in powder, two ounces;
Boil the oil with the litharge, till they have almost acquired the consistence of a plaster; then melt therein the wax and olibanum; and afterwards add the bole, dragons blood, and turpentine.

EMPLASTRUM EPISPASTICUM,
Edinb.

Blistering plaster.

Take of

Burgundy pitch, twenty ounces;
Venice turpentine,
Cantharides in powder, each six ounces.

Make them into a plaster.

EMPLASTRUM GUMMOSUM,
Edinb.

Gum plaster.

Take of

Palm oil, four pounds;
Litharge prepared,
Gum ammoniacum,
Galbanum, each one pound and a half;

Boil the oil with the litharge, till they have almost acquired the consistence of a plaster, to which add the ammoniacum and galbanum.

EMPLASTRUM STOMACHICUM,
Edinb.

Stomach plaster.

Take of

Yellow wax, eight ounces
Tacamahacca in powder,
Palm oil, each four ounces;
Cloves in powder, two ounces;
Expressed oil of mace, one ounce and a half.

Melt the wax and tacamahacca with the palm oil, and mix therewith, according to art, the cloves, and oil of mace, so as to make the whole into a plaster; which, when

when spread, is to be rubbed over with a few drops of essential oil of mint.

EMPLASTRUM SUPPURANS,

Edinb.

Suppurating plaster.

Take of

Gum plaster, an ounce and a half;

Burgundy pitch, half an ounce.

Melt them together.

The uses of these compositions may be sufficiently understood from their titles. We shall only observe, that the gum plaster is a good discutient, and supplies the place of the officinal *emplastrum commune*, or *diachylon, cum gummi*: that the warm plaster is a very stimulating application, of great use in all fixt pains, whether of the limbs, or internal parts, as in the rheumatism, sciatica, gout, dysenteries, pleurisy: and that such pains as do not yield to this, are frequently removed by the blistering plaster. In simple pleurisy, a large blister laid on the side affected, after bleeding, is the most successful remedy: applied to any other place, it might stimulate and increase the disease; but by acting directly upon the part, it resolves the obstruction, and thereby removes the fever. In peripneumonies also, blisters are most to be relied upon after bleeding. See Dr. Pringle's excellent observations on the diseases of the army, page 172, &c. where the reader will meet with full satisfaction with regard to the use of blisters both in acute and chronic diseases.

EMULSIO CAMPHORATA, Edinb.

Camphorated emulsion.

Take of

Camphor, one scruple;

Sweet almonds, four;

Rue water, four ounces;

Plague water,

Simple syrup, each one ounce.

Grind the camphor with the almonds, and add by degrees the rue water, so as to make them into an emulsion; with which mingle the plague water and the syrup.

This is a very convenient form for the exhibition of camphor, the unctuous quality of the almonds covering its acrimony, at the same time that it is rendered miscible with the animal juices. In fevers which require the assistance of this powerful diaphoretic drug, a spoonful of this emulsion is usefully taken every three or four hours.

EMULSIO OLEOSA, Luf.

Oily emulsion.

Take of

Oil olive, a quarter of a pint;

Spirit of hartshorn, two drams;

Simple penny royal water, twelve ounces;

Pectoral syrup, an ounce and a half;

Mix them together.

This composition is calculated against recent colds, for alleviating the cough, and promoting expectoration: in these cases, oily and mucilaginous substances by themselves (after bleeding) are of good service, tho' much more effectual when thus combined with volatile spirits. Where the complaints are of long standing, these kinds of medicines have no place; nor is their use in any case to be long continued, as they relax the stomach, pall the appetite, and increase the disorder.

ENEMA DE AMYLO, Edinb.

Starch glyster.

Take of

O o 2

Gelly

Gelly of starch, four ounces;
Linseed oil, half an ounce.
Liquefy the gelly over a gentle
fire, and then mix in the oil.
Forty drops of liquid laudanum
are sometimes added.

ENEMA ANODYNUM, five
OPIATUM,
Anodyne or opiate glyster.
Edinb.

Take of
Infusion of linseed, six ounces;
Liquid laudanum, forty drops.

Luf.
Mutton broth, five ounces;
Thebaic extract, three grains.

ENEMA ANTICOLICUM, Edinb.
Glyster against the colic.

Take of
Common decoction, half a pint;
Tinctura sacra, one ounce;
Common salt, one dram;
Linseed oil, two ounces.
Mix them together.

ENEMA ASTRINGENS, Edinb.
Astringent glyster.

Take of
Lime water, ten ounces;
Strengthening confection, half
an ounce.
Mix them together for a glyster, of
which one half is to be injected
at a time.

ENEMA ASTRINGENS
BALSAMICUM, Edinb.
Astringent balsamic glyster.
This is made by adding to the fore-
going half an ounce of Locatelli's
balsam, dissolved in the yolk of
an egg.

ENEMA COMMUNE, Luf.
Common glyster.

Take of
Common decoction, twelve
ounces;

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Lenitive electary, one ounce;
Common salt, half an ounce;
Oil olive, two ounces.
Mix them together.

ENEMA DOMESTICUM, Edinb.
Domestic glyster.

Take of
Cows milk, half a pint;
Brown sugar,
Oil olive, each one ounce.
Mix them together.

ENEMA EMOLLIENS, Edinb.
Emollient glyster.

Take of
Palm oil, an ounce and a half;
Cows milk, half a pound.
Let the oil be beat up with the
yolk of one egg, and then add
the milk.

ENEMA FOETIDUM, Edinb.
Fetid glyster.

Take of
Asafetida, two drams;
Rue,
Savin, each half an ounce;
Oil olive, one ounce;
Oil of amber, half a dram;
Water, one pint and a half.
Boil the water with the rue and sa-
vin, till half a pint is waied;
then strain off the remaining de-
coction, and mix with it the asa-
fetida and the oils. Half the
quantity of the composition here
directed, is to be injected at a
time.

ENEMA PURGANS, Edinb.
Purging glyster.

Take of
Common decoction, half a pint;
White soap, one ounce;
Syrup of buckthorn, an ounce
and a half.
Mix them together.

ENEMA TEREBINTHINATUM,
Edinb.

Turpen-

Turpentine glyster.

Take of
Common decoction, ten ounces;
Venice turpentine (dissolved in
the yolk of an egg) half an
ounce;
Linseed oil, one ounce.
Mix them together.

The uses of these compositions are sufficiently obvious from their titles. The starch, anodyne, emollient and astringent glysters, are used in dysenteries, and other alvine fluxes, to strengthen the tone of the intestines, defend them from being corroded by the acrimonious humors, to heal their exulcerations, and ease the pains which accompany these disorders. The turpentine glyster is injected in nephritic cases; the fetid in hysteric ones. The others are calculated for unloading the intestines of their contents, where the exhibition of purgatives in other forms is improper, or unsafe.

Glysters have been looked upon by some as mere topical applications, whose operation was confined to the intestines into which they are received. But experience has shewn, that in many cases their action is extended much farther: thus the turpentine glyster, above described, promotes the discharge by the kidneys, and communicates to the urine a violet smell; and the anodyne glyster proves narcotic, as if a moderate dose of opium had been swallowed: persons have been inebriated by spirituous glysters; and some affirm, that life has been supported for several days, by those of a nutritious kind.

EXPRESSIO MILLEPEDARUM,
Edinb.

Expression of millepedes.

Take of

Live millepedes, three ounces;
Fennel water, one pint;
Compound horse radish water,
half a pint;
Beat the millepedes in a mortar,
gradually pouring on the waters;
and then strongly press out the
liquor.

This liquor is supposed to be a good aperient and diuretic; and in these intentions is given in the jaundice, asthma, infarctions of the breast, and other like disorders: the dose is two ounces, twice a day.

FOTUS ANODYNUS, Edinb.

Anodyne fomentation.

Take of
Garden poppy heads, one ounce;
Elder flowers, half an ounce;
Water, three pints.
Boil them till one pint is wasted,
and then strain out the liquor for
use.

FOTUS AROMATICUS, Edinb.

Aromatic fomentation.

Take of
Cloves,
Mace, each one dram;
Red wine, one pint.
Boil them a little and strain off the
liquor.

FOTUS ROBORANS, Edinb.

Strengthening fomentation.

Take of
Oak bark, one ounce;
Granate peel, half an ounce;
Alum, two drams;
Forge water (that is, water in
which red hot iron has been
several times quenched) three
pints.
Boil the water with the oak bark
and granate peel, to the con-
sumption of one third; then
strain the remaining decoction,
and dissolve in it the alum.

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These

These liquors are designed chiefly, as their titles express, for external use, to be rubbed warm on the skin. The first is applied to tumefied and inflamed parts, as in the erysipelas and piles, for easing the pain; which it effects, not by means of the opiate matter of the poppy heads, but by the warm fluid softening and relaxing the skin. The second extends its action farther: the pains of the bowels which accompany dysenteries and diarrhoeas, colicky pains, uneasiness at the stomach, and retchings to vomit, are greatly relieved, and not infrequently removed by it. The third is a strong astringent liquor, and in this intention is used, as an injection in the fluor albus.

GARGARISMA ASTRINGENS,
Edinb.

Astringent gargarism.

Take of
Oak bark, one ounce;
Alum, one dram;
Honey of roses, one ounce;
Water, a pint and a half.

Boil the water with the oak bark, till such time as the liquor, when strained, will amount only to one pint; to which add the alum and the honey.

GARGARISMA COMMUNE,
Luf.

Common gargarism.

Take of
Tincture of roses, one pint;
Honey of roses, two ounces.
Mix them together.

Take of
Water, six ounces;
Nitre, one dram;
Honey of roses, one ounce.

Mix them together. Where acids are requisite, forty drops of the weak spirit of vitriol are added to this composition.

GARGARISMA DETERGENS,
Luf.

Detergent gargarism.

Take of
Emollient decoction, one pint;
Tincture of myrrh, one ounce;
Honey, an ounce and a half.
Mix them together.

GARGARISMA EMOLLIENS,
Luf.

Emollient gargarism.

Take of
Marshmallow root, two ounces;
Figs, four in number;
Water, three pints.
Boil them till one pint is wasted, and then strain the liquor.

These liquors are used for washing the mouth and fauces; the first, where the parts are extremely relaxed; the second and third, where ulcerations require to be deterged, or the excretion of thick viscid saliva promoted; and the fourth, where the mouth is dry, parched and rigid, to moisten and soften it.

In some cases, volatile spirits may be advantageously joined to these kinds of preparations. Dr. Pringle informs us, that in the inflammatory quinsy, or strangulation of the fauces, he has observed little benefit arising from the common gargles; that such as were of an acid nature seemed to do more harm than good, by contracting the emunctories of the saliva and mucus, and thickening those humors; that a decoction of figs in milk and water seemed to have a contrary effect, especially if some spirit of sal ammoniac was added, by which the saliva was made thinner, and the glands brought to secrete more freely, a circumstance always conducive to the cure.

HAUSTUS DIAPHORETICUS,
Edinb.

Diaphoretic draught.

Take

Take of
Spirit of Mindererus,
Syrup of meconium, each half
an ounce;
Salt of hartshorn, five grains.
Mix them together.

This draught is a very powerful diaphoretic, more certain in its effects than the medicines given in this intention in a solid form. In the beginning of inflammatory fevers, after bleeding, it is one of the surest febrifuges: theriaca, and other warm substances usually employed, if they fail in bringing out a sweat, increase the fever; whilst this saline preparation operates without heat.

HAUSTUS DIURETICUS, Luf.
Diuretic draught.

Take of 1.
Diuretic salt, two scruples;
Oxymel of squills, one dram by
measure;
Water, an ounce and a half.
Mix them together.

Take of 2.
Tincture of cantharides, fifteen
drops;
Salt of wormwood, half a dram;
Lemon juice, six drams;
Simple penny royal water, an
ounce and a half;
Simple syrup, two drams.
Mix them together.

Both these are medicines of great efficacy for the purpose expressed in the title. The first, called in the hospital *militior*, is given in drops, where a plentiful flux of urine is of primary consequence to the cure. The second, very justly distinguished by the appellation *fortior*, is ventured on in those cases only where the urinary passages are obstructed by viscid mucus, and where medicines of a less stimulat-

ing kind have been tried without success.

INFUSUM ANTISCORBUTICUM,
Edinb.

Antiscorbutic infusion.

Take of
Buckbean leaves, two ounces;
Seville orange, half an ounce;
Compound horse radish water,
four ounces;
Common water, four pints.

Let the common water, boiling, be poured on the buckbean and orange, and suffered to stand in a close vessel for a night; then strain out the liquor, and add to it the horse radish water.

This infusion is a very useful, and sufficiently elegant antiscorbutic; buckbean appears from experience to be one of the most efficacious of the herbs of that class; the ingredients here joined to it alleviate its ill flavour, and at the same time promote its virtue. A quarter of a pint of the liquor may be taken three or four times a day.

INFUSUM CEPHALICUM, Edinb.
Cephalic infusion.

Take of
Wild valerian root, two ounces;
Rosemary, or sage, half an
ounce;
Aromatic water, four ounces;
Common water, four pints.

Let the common water be poured, boiling, on the herb and root, and suffered to stand for a night in a close vessel; then strain out the infusion, and add to it the aromatic water.

In epileptic disorders; and other like affections of the nervous system, this infusion has frequently good effects. The dose is a quarter of a pint, to be taken twice a day.

INFUSUM DIURETICUM,
Diuretic infusion.

Take of

Wormwood leaves, dried, half
an ounce;

Salt of tartar, two scruples;

Compound juniper water, two
ounces;

Common water, twelve ounces.

Pour the common water, boiling,
on the wormwood and salt of
tartar, and when grown cold,
strain off the liquor, and mix
with it the juniper water.

A long continuance of bilious
fevers, or frequent relapses into
them, bring on obstructions of the
viscera, which end in a dropsy,
jaundice, or irregular intermittent.
In these cases, this aperient alca-
line liquor is one of the most effec-
tual remedies: the quantity here
prescribed, is to be taken every
day, at three doses, and a purga-
tive occasionally interposed. If
intermittent fevers return after the
cure of the other disorders, they
are then successfully treated by the
bark.

Preparations of this kind are like-
wise of considerable use in mania-
cal disorders; in which, as Dr.
Mead observes, evacuations by the
kidneys are of greater consequence
than is generally supposed; espe-
cially if the mania is of the furious
kind, and accompanied with febrile
heat. Alcaline salts, given in
large doses, are here the most ef-
fectual diuretics.

INFUSUM LINI, Edinb.

Infusion of linseed.

Take of

Linseed, whole, two spoonfuls;

Liquorice, shaved, half an ounce;

Boiling water, four pints.

Let them stand in infusion by the
fire for some hours, and then
strain off the liquor.

An ounce of coltsfoot leaves is
sometimes added to these ingre-
dients; which addition procures the
medicines the title of *pectoral infusion*.
Both infusions are soft, emollient,
mucilaginous liquors; and as such
they are directed in defluxions of
thin acrid rheums, and erosions of
the vessels. They are given to the
quantity of a pint a day.

INFUSUM PARALYTICUM,
Paralytic infusion.

Take of

Horse radish root, shaved,

Mustard seed, bruised, each four
ounces;

Boiling water, four pints.

Let them steep together, in a close
vessel, for twenty-four hours.

This infusion is strongly impreg-
nated with the pungency of the
mustard seed and horse radish,
which by this simple process give
out the whole of their virtues.
Though the medicine is designed
chiefly (as its title expresses) for a
stimulant in paralytic complaints,
there are several other disorders in
which it may be exhibited to good
advantage; in scorbutic cases, in
particular, it promises to be a re-
medy of great utility: it generally
promotes the urinary discharge,
and if the patient is kept warm,
perspiration. The dose is half a
pint, to be taken twice a day.

INJECTIO BALSAMICA, Edinb.

Balsamic injection.

Take of

Balsam of copaiba, half an
ounce;

Lime water, six ounces;

Honey of roses, two ounces.

Let the balsam be well beat up with
the yolk of one egg; and then
gradually add the lime water and
honey.

In-

INJECTIO MERCURIALIS, Edinb.
Mercurial injection.

Take of
Quicksilver,
Balsam of copaiba, each half an ounce;
Rose water, half a pint.
Rub the quicksilver with the balsam, till they are perfectly incorporated; then mix with them the yolk of an egg, and afterwards add the rose water.

This and the foregoing preparation are designed to be injected into the urethra in virulent gonorrhœas, for cleansing and detarging the parts.

JULAPIUM AMMONIACUM, Edinb.
Ammoniacum julep.

Take of
Milk of ammoniacum, four ounces;
Syrup of squills, three ounces.
Mix them together.

Ammoniacum and squills are medicines of known efficacy in asthmatic disorders. This julep is an useful composition of these powerful drugs; and in obstinate coughs, asthmas, and oppressions at the breast, proves frequently of excellent service. Two spoonfuls are to be taken twice a day.

JULAPIUM ANTIHYSTERICUM,
Edinb.
Antihysterical julep.

Take of
Penny-royal water, four ounces;
Antihysterical water, two ounces;
Tincture of castor, two drams;
Salt of hartshorn, ten grains; or spirit of amber, one dram;
White sugar, six drams.
Mix them together.

The virtues of this composition are sufficiently obvious from its

title: the dose is two spoonfuls, to be taken twice or thrice a day.

JULAPIUM CARDIACUM, Edinb.
Cordial julep.

Take of
Alexeterial water, four ounces;
Aromatic water, two ounces;
Volatile oily spirit,
Tincture of saffron, each two drams;
White sugar, half an ounce.
Mix, and make them into a julep.

This mixture is an useful cordial in all depressions of the spirits, in the sinkings of low fevers, and the languors, to which hysterical and hypochondriacal persons are subject. An ounce, or two spoonfuls, may be taken for a dose, two or three times a day.

JULAPIUM DIAPHORETICUM,
Diaphoretic julep.

Take of
Alexeterial water, four ounces;
Spirit of Mindererus, two ounces;
Salt of hartshorn, ten grains;
White sugar, six drams.
Mix them for a julep.

This excellent composition is a very powerful sudorific, and answers its intention more effectually, and with greater certainty, than many others calculated for the same purpose.

Where a copious sweat is to be excited, as in rheumatic diseases, two spoonfuls are to be taken warm in bed every hour, or two hours, till the sweat breaks out; if warm diluting liquors are not afterwards sufficient to keep it up, the same medicine is to be occasionally repeated.

JULAPIUM DIAPHORETICUM,
ACIDUM, Edinb.
Acid

Acid diaphoretic julep.

Take of

Alexeterial water, four ounces;
 Treacle vinegar, two ounces;
 Tincture of saffron, half an
 ounce;
 Spirit of amber, one dram;
 White sugar, one ounce.
 Mix them together.

The acid quality of this diaphoretic julep renders it peculiarly adapted to those disorders in which any of the internal parts are inflamed, as in pleuritis and peripneumonies. It is given in the same dose as the preceding.

JULAPIUM DIURETICUM, Edinb.

Diuretic julep.

Take of

Spirit of Mindererus, four ounces;
 Compound horse radish water,
 two ounce;
 Syrup of marshmallows, three
 ounces.
 Mix them together.

The spirit of Mindererus is an excellent aperient saline liquor, capable of promoting evacuation either by the cutaneous pores, or the urinary passages, according to the manner of exhibiting it. We have already seen, that when taken warm in bed, it proves a powerful sudorific; especially if assisted by volatile salts, small doses of opiates, or other substances which tend to determine its action to the skin. If the patient walks about, in a cool air, it operates gently, but for the most part effectually, by urine: the additions here joined to it, correspond with this intention, and promote its operation. As this medicine excites the urinary discharge, without heating, or irritating the parts, it takes place not only in dropsies, but likewise in inflamma-

tory disorders, wherever this salutary secretion is to be promoted. It is given to the quantity of two spoonfuls, thrice a day.

A dram of spirit of amber is sometimes mixed with this julep, which nevertheless does not seem to receive from that ingredient any additional virtue: whatever virtues the salt of amber may possess (which probably are not so great as is generally supposed) the spirit is impregnated therewith in an extremely low degree; the salt not beginning to arise, till some time after the spirit, or phlegm has ceased to distil.

The dose of the spirit by itself is half an ounce, or one spoonful; and of this composition, two spoonfuls, to be taken thrice a day. In some cases, larger doses may be given to better advantage, particularly in dropsies.

JULAPIUM FOETIDUM, Edinb.

Fetid julep.

Take of

Aſa fetida, one dram and a half;
 Rue water, six ounces;
 Antihysterical water, two ounces;
 Oil of hartshorn, twenty drops;
 White sugar, ten drams.

Rub the asa fetida in the rue water till it dissolves, and having dropt the oil upon the sugar, mix the whole together.

This composition is not a little fetid and unlighty; it is nevertheless a medicine of great efficacy, not only in hypochondriacal and hysterical disorders, but likewise in asthmas, epilepsies, and nervous complaints; the dose is one spoonful, to be taken thrice a day.

It is sometimes prepared without the oil of hartshorn.

JULAPIUM HYDRAGOGUM, Edinb.

Hydragogue julep.

Take

Take of
 Chamemel flower water, six
 ounces;
 Emetic tartar, ten grains;
 Syrup of buckthorn, two ounces;
 Mix them together.

Two spoonfuls of this julep are given in hydropic cases, every two hours, till it takes sufficient effect as a purgative; which it generally does before the quantity here prescribed has been made use of. Emetic tartar, thus exhibited in small doses, and frequently repeated, prove as certain and powerful a cathartic, as it does an emetic, when given in a larger quantity at once. It operates nevertheless with sufficient ease, and rarely weakens or fatigues the patient so much, as some other purgatives, which do not occasion so large an evacuation.

JULAPIUM MOSCHATUM, Edinb.
Musk julep.

Take of
 Rose water, six ounces;
 Volatile oily spirit, one dram
 and a half;
 Musk, fifteen grains;
 White sugar, half an ounce.
 Grind the musk with the sugar, and then mix therewith the other ingredients.

In disorders where musk is proper (see page 163.) one spoonful of this julep is given three or four times a day, according to the urgency of the case. The volatile spirit (to be described hereafter in its place) excellently coincides with the musk, and promotes its virtue.

JULAPIUM SCILLITICUM, Edinb.
Scillitic julep.

Take of
 Hyssop, or fennel, water,
 Syrup of squills, each three
 ounces.

Mix them together.

In all cases where squills are serviceable, whether as a diuretic in dropsies, or as a deobstruent and expectorant in asthmas, two spoonfuls, or an ounce, of this julep, may be usefully taken twice a day.

JULAPIUM SISTENS, Edinb.
Binding julep.

Take of
 Alexeterial water, four ounces;
 Aromatic water, two ounces;
 Strengthening confection, two
 drams;
 Japan earth, in powder, one
 dram;
 Liquid laudanum, forty drops;
 White sugar, half an ounce.
 Mix them well together.

This julep is calculated against dysenteries and diarrheas; in which, after proper evacuations, it generally eases the gripes, and restrains the flux. It is to be given three or four times a day, in the quantity of a spoonful at a time.

LAC ASTRINGENS, Luf.
Astringent milk.

Take of
 Cows milk, one pint;
 Granate peel, bruised, half an
 ounce;
 Cinnamon, bruised, two drams.
 Set them over the fire, and as soon as the milk swells up, pour in a little water to make it subside; proceed in this manner, till a pint of water is thus consumed, and only a pint of liquor remains, which is to be passed through a strainer for use.

In hectic disorders, phtisies and ulcerations of the lungs, milk is frequently of good service: but it sometimes happens, that when the body stands most in need of this nutritious

tritious, as well as medicinal liquor, the intestines are too slippery to retain it. For such cases this preparation is contrived, the astringent quality with which the milk is here impregnated, strengthening the bowels, so as to prevent its running off. The quantity, above prescribed, is to be taken every day, divided into different doses at pleasure, and sweetned, if necessary, with sugar.

It may here be proper to observe, that there are not only some constitutions with which milk disagrees, but likewise some diseases in which it is highly prejudicial: such are in particular, (as Dr. Mead observes from Hippocrates) pains of the head and acute fevers, and excessive drought proceeding from thence, swellings of the præcordia, bilious fluxes, and dysenteries.

LAC FERRATUM, Edinb.

Milk impregnated with iron.

This is prepared by quenching red-hot iron in new milk, and repeating the process till one fourth of the liquor is exhaled.

The milk seems to gain by this process, little more than an empyreumatic taste. The preparation is nevertheless looked upon as lightly impregnated with the virtues of iron, and supposed to be an useful astringent in the diabetes, diarrhœa, and dysentery. It is given twice a day, to the quantity of a quarter of a pint at a time.

LAC MARTIS, Luf.

Milk of iron.

Take of

Salt of steel, one ounce;
Gum Arabic, a dram and a half;
Boiling water, one pint.

This solution of the salt of iron is very strongly impregnated with

that metal, the virtues of which have been already sufficiently explained. See page 321, &c. As this solution is of a disagreeable rough taste; and as the common salt or vitriol, of iron, generally contains a portion of metal, not fully saturated with the acid, which subsides, on standing, in form of a yellow or brownish ochre; gum Arabic is here judiciously added, to prevent that unsightly sediment, and somewhat cover the roughness of the steel.

LAUDANUM LIQUIDUM, Edinb.

Liquid laudanum.

Take of

Opium, two ounces;
Aromatic water, twenty ounces.
Digest with a gentle heat, till the opium is dissolved, and then strain out the liquor.

The proof spirit, here directed, readily and totally dissolves the opium, and proves an excellent menstruum for that drug, where the liquor is not designed to be long kept. We have already observed, that in keeping, a considerable part of the opium separates, whence the medicine becomes uncertain in point of strength; and that when opium is thus dissolved in a small quantity of fluid, the dose, which can be determined only by drops, is precarious. See page 410; and 435, where a liquid opiate is described, free from these inconveniencies. We shall here only add, that the laudanum above directed, is of the same strength, in regard to the opium, with that of the Edinburgh pharmacopœia, twenty-five drops, containing, at a medium, one grain of opium; and that the same quantity of opium is contained in twenty drops of the *sincura thebaica* of the London pharmacopœia.

LINI-

LINIMENTUM ANODYNUM, Edinb.

Anodyne liniment.

Edinb.

Take of

Nerve ointment, three ounces;

Balsam of turpentine, one ounce.

Mix them together.

LINIMENTUM HOEMORRHOIDALE,

Liniment for the piles.

Take of

Emollient ointment, two ounces;

Liquid laudanum, half an ounce;

Mix these ingredients with the yolk of an egg, and work them well together.

LINIMENTUM MERCURIALE,

Edinb.

Mercurial liniment.

Take of

Hog's lard, one ounce;

White precipitate of mercury (prepared, as directed in the Edinburgh pharmacopœia, see page 340 of this work) one dram.

Mix them together.

The titles of the three foregoing compositions are sufficiently expressive of their virtues, without any farther comment. They are all very well contrived for answering their respective intentions.

LINIMENTUM VOLATILE.

Volatile liniment.

Take of

Oil of hartshorn,

Spirit of hartshorn, each equal parts.

Mix them together.

In the inflammatory quinsy, or strangulation of the fauces, a piece of flannel, moistened with this mixture, and applied to the throat, to be renewed every four or five hours, is one of the most efficacious remedies. By means of this warm stimulating application, the

neck, and sometimes the whole body, is put into a sweat, which, after bleeding, either carries off, or lessens the inflammation. Where the skin cannot bear the acrimony of this mixture, the volatile liniment of the shops may be made trial of.

LINCTUS ACIDULUS, Luf.

Acidulous lobocho.

Take of

Conserve of red roses, two ounces;

Weak spirit of vitriol, four scruples, or as much as is sufficient to give a grateful acidity.

Mix them together.

LOHOCH BALSAMICUM, Edinb.

Balsamic lobocho.

Take of

Sperma ceti, two drams;

Balsam of Peru, forty drops;

Syrup of marshmallows, two ounces.

Let the sperma ceti and balsam be well worked up with a sufficient quantity of yolks of eggs; and then mix with them the syrup.

LOHOCH COMMUNE, Edinb.

Common lobocho.

Take of

Fresh drawn linseed oil,

Syrup of marshmallows, each two ounces.

Mix them together.

LOHOCH PECTORALE, Edinb.

Pectoral lobocho.

Take of

Sperma ceti,

White soap, each two drams;

Fresh drawn linseed oil, one ounce and a half;

Syrup of marshmallows, three ounces.

Mix them together.

LINCTUS SOLUTIVUS, Luf.

Solu-

Solutive lohoch.

Take of
Conserve of hipps, one ounce;
Solutive syrup of roses, ℥ss
Oil olive, each four ounces.
Mix, and make them into a lohoch.

Lohochs are principally made use of in disorders of the internal parts of the mouth, fauces, œsophagus, larynx, trachea, and bronchia. The acidulous lohoch (which is far the most agreeable of them, and of an elegant red colour) is given as a light restringent and detergent in phthical cates; the common lohoch, as an emollient in the aphthæ, and other like complaints; and the pectoral, in disorders of the breast. Besides, intentions of this kind, the solutive lohoch gently loosens the belly; whilst the balsamic tends to restrain immoderate fluxes, by somewhat strengthening the bowels, and defending them from the irritation of acrimonious humors.

MAGNESIA ALBA, Edinb.

White magnesia.
Take any quantity of the mother-ley of nitre, that is, the liquor which remains after the crystallization of rough nitre. Add to this a ley of potash, by degrees, as long as any precipitation ensues; and then, pouring off the liquor, carefully wash the precipitated powder with warm water.

This powder was, for several years, a celebrated secret in the hands of some particular persons abroad. Its preparation was first communicated to the public by Hoffiman, who gives it the character of an useful antacid; a safe and inoffensive laxative in doses of a dram or two, and a diaphoretic and diuretic, when given in smaller

doses of fifteen, or twenty grains. Since this time, it has had a considerable place in the practice of foreign physicians, and now begins to come into esteem among us, particularly in heartburns, and for preventing or removing the many disorders which children are so frequently thrown into from a redundancy of acid humors in the first passages: it is preferred on account of its laxative quality to the common absorbents, which (unless gentle purgatives are given occasionally to carry them off) are apt to lodge in the body, and occasion a costiveness very detrimental to infants.

Though the preparation of this medicine is now commonly known, its nature and properties are very little understood: whilst some suppose it to possess uncommon virtues, others affirm, that, when dulyedulcorated, it is in no respect different from calcined hartshorn, or any other simple animal, or vegetable earth. We apprehend the following observations will determine this affair.

Magnesia alba, when prepared in perfection, is a white and very subtle earth, perfectly void of smell or taste; of the class of those which dissolve in acids, but differing from the common earths of this kind, in dissolving into a bitterish purgative liquor: it yields with the vitriolic acid a *sal catharticus amarus*, very easily soluble in water; whilst the common absorbents form with the same acid an insipid crystalline mass, very difficult of solution. A large dose of the magnesia, if the stomach contains no acid to dissolve it, does not purge; a moderate one, if an acid is lodged there, procures several stools: the testacea, though the body abounds with acidities, very rarely loosen the belly in the least degree.

Magne-

Magnesia therefore is really different from the absorbents of the shops, or the common soluble earths. Nevertheless the mother-ley of nitre, from which it is prepared, appears both from the manner of its production and experiments made upon it, to be no other than a solution of the earthy part of vegetable ashes, &c. in a mixture of the nitrous and marine acids: it is from hence, that some have believed the magnesia (or powder separated from this liquor, and freed from the acids) to be similar to the common earths. This conclusion is too hastily drawn: for several substances, if combined with the marine acid, and afterwards perfectly separated from it, are found to have assumed properties which they had not before: thus fixed alkaline salts, which in their common state form with the vitriolic acid a vitriolated tartar, after they have been united with the marine acid, yield a salt of different qualities, the *sal catharticus Glauberi* (see page 293); and some of the soluble earths, from which only an insipid concrete was before obtainable by that acid, yield with it, after their separation from the marine, a *sal catharticus amarus* (see page 195.)

It is evident from this account, that if the magnesia shall be found to answer what some trials have given room to expect, the mother-ley of nitre is not the only substance from which it may be prepared. The reduction of the officinal absorbents, indeed, into a perfect magnesia, or soluble purgative earth, is not to be effected but by a process, which is attended with difficulty and trouble: but we have discovered similar productions easily procurable. The terrestrious matter which alkaline salts precipitate so copiously from the bitter of sea

water, from solutions of the common *sal catharticus amarus*, made from that bitter liquor, and of the salts of the purging mineral waters, are in no other respect distinguishable from it, than in possessing a greater degree of that quality for which the magnesia is particularly recommended.

MISTURA ALEXETERIA,
Alexeterial mixture.

Take of
Common water, four ounces;
Spirituos alexeterial water with vinegar,
Julep of camphor, each one ounce and a half;
Compound powder of contrayerva, four scruples;
Nitre, two scruples;
Syrup of orange peel, six drams.
Mix them together.

In hospitals and places ill aired, common inflammatory fevers sometimes change into putrid and malignant ones. To guard against any accident of this kind, it is advisable, as soon as the inflammation begins to abate, or the pulse to soften, to exhibit three or four spoonfuls of this alexipharmac mixture every six hours. Camphor seems to answer best when thus given in a liquid form; and to be most efficacious in such small doses, for abating inflammation and nervous symptoms, and likewise for promoting a gentle diaphoresis.

MISTURA ANTIDYSENTERICA.
Antidysenteric mixture.

Take of
Simple cinnamon water, seven ounces;
Spirituos cinnamon water, one ounce;
Electary of scordium with opium, half an ounce.
Mix them together.

Take

Take of 2.
 Extract of logwood, three drams;
 Tincture of Japan earth, two
 drams;
 Spirituous cinnamon water, one
 ounce;
 Common water, seven ounces.
 Dissolve the extract in the cinnamon
 water, and then add the common
 water, and the tincture.

In recent dysenteries, after the
 necessary evacuations, a spoonful
 or two of either of these mixtures
 may be given after every motion,
 or once in four or five hours: if
 the first, which is a mild opiate,
 fails of procuring rest, it is a sign
 that some of the corrupted humors
 still remain in the bowels, and that
 it is more proper to go on with the
 evacuation, than to suppress the
 flux. These medicines will some-
 times likewise take place in the last
 stage of the disease, when through
 neglect or mismanagement it has
 continued till the strength is much
 impaired, the intestines greatly re-
 laxed, and their villous coat abrad-
 ed; provided there are neither ich-
 chorous or involuntary stools, aph-
 thæ, petechiæ, hiccup, or great
 anxiety at the breast. Rhubarb,
 and these astringents, are to be so
 interposed, that at the same time
 the putrid humors are dislodged,
 the strength may be supported, and
 the intestines braced. See Dr.
 Pringle's excellent observations on
 the diseases of the army, page 254,
 & seq. where the reader will find a
 full and satisfactory history of the
 symptoms and cure of this distem-
 per, so frequent and fatal in the
 camp.

MISTURA ad PHTHISIN.

Mixture against the phtisis.

Take of 1.
 Balsam of copaiba, one dram;
 Common water, four ounces;

Spirituous cinnamon water, one
 ounce;
 Syrup of orange peel, half an
 ounce.
 Let the balsam be dissolved in a
 proper quantity of yolk of egg,
 and then mixed with the other
 ingredients.

Take of 2.
 Thebaic extract, one grain;
 Conserve of roses, half a dram.
 Mix them together. for a bolus.

Take of 3.
 Oxymel of squills, a dram and a
 half;
 Thebaic tincture, fifteen drops;
 Spirituous cinnamon water, two
 drams;
 Common water, two ounces.
 Mix them together.

In the advanced state of a con-
 sumption, we may distinguish two
 sorts of coughs, one occasioned by
 the ulcers, and the other by a thin
 rheum falling upon the fauces and
 trachea, which parts being then de-
 prived of their mucus, become ex-
 tremely sensible to irritation. It is
 this last kind, perhaps, which is
 most painful and teasing to the pa-
 tient. The same medicines are not
 proper for both.

The first sort requires balsamics,
 if the ulcer is open, and the mat-
 ter can be expectorated. For this
 purpose, the first of the above mix-
 tures is a very elegant and effectual
 formula; two spoonfuls are to be
 taken at a time, twice a day. If
 the balsam purges, two drams of
 the paregoric elixir, added to the
 quantity of the mixture here pre-
 scribed, will prevent that effect.

The other kind of cough can only
 be palliated by inkrassants; and for
 that purpose, the second of the above
 compositions is one of the most suc-
 cessful medicines. The conserve is alto-

altogether safe, and otherwise well adapted to the nature of the disease, but of weak virtues: the opiate extract is the most efficacious ingredient, but is to be given with great caution, as opiates in general are apt to heat, to bind the body, and to obstruct expectoration.

As these bad qualities are in good measure corrected by squills; as soon as the patient begins to complain of restless nights from coughing, the third mixture may be usefully exhibited at bed time.

MISTURA C VALERIANA, Luf.
Valerian mixture.

Take of
Simple pepper mint water, twelve ounces;
Wild valerian root, in powder, one ounce;
Compound spirit of lavender, half an ounce;
Syrup of orange peel, one ounce.
Mix them together.

Wild valerian root, one of the principal medicines in epilepsies and vertigo's, seems to answer better when thus exhibited in substance, than if given in form of tincture or infusion. The liquors here joined to it excellently coincide with, and by their warmth and pungency greatly improve its virtues. Two spoonfuls of the mixture may be taken twice or thrice a day.

OLEUM CAMPHORATUM, Edinb.
Camphorated oil.

Take of
Fresh drawn linseed oil, one ounce;
Camphor, half an ounce.
Mix them together.

This preparation is designed for external uses only, as an anodyne

and discutient, in cases of burns, rheumatic or gouty pains, &c. tho' camphor thus dissolved in oil might not inelegantly be exhibited internally.

PILULÆ EX ALLIO, Edinb.
Garlic pills.

Take of
Garlic,
White soap, each half an ounce;
Millepedes prepared, a sufficient quantity to reduce the other ingredients into a mass of a proper consistence for pills.

In coughs and asthmas, where the breast is oppressed by viscid phlegm, this attenuating and aperient composition is frequently of great service. If every dram of the mass is made into twelve pills, five or six of these may be taken twice a day.

PILULÆ ALOETICÆ, Edinb.
Aloetic pills.

Take of
Socotorine aloes,
White soap, each equal parts;
Thin honey as much as will bring them into a mass.

This medicine is an useful aperient in cachectic and chlorotic indispositions, and obstructions of the bowels. A scruple, or half a dram may be made into pills of a moderate size for one doze.

PILULÆ CHALYBEATÆ, Edinb.
Chalybeat pills.

Take of
Gum ammoniacum,
Extract of gentian,
Salt of steel,
Myrrh, each one ounce;
Syrup of sugar, a sufficient quantity.

Mix them together, according to art.

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In hysterical disorders, after bleeding and purging, where a sanguine and plethoric habit indicates these evacuations, chalybeat medicines are most to be relied upon; especially when joined, as in this composition, with bitters and deobstruent gums. At first taking, they are apt to increase the complaints, (as the experienced Sydenham observes) and occasion great disorders both of body and mind; which however soon go off, or may be relieved by a proper dose of opium given at bed time.

PILULÆ ECPHRACTICÆ
CHALYBEATÆ, Edinb.
Deobstruent chalybeat pills.

Take of

Socotorine aloes,
Extract of black hellebore,
Salt of steel,
Galbanum,
Myrrh, each one ounce;
Syrup of sugar, as much as is sufficient.

Beat them into a mass according to art.

PILULÆ ECPHRACTICÆ
PURGANTES, Edinb.
Purging deobstruent pills.

Take of

Socotorine aloes,
Extract of black hellebore,
Scammony, each two ounces;
Vitriolated tartar, three drams;
Essential oil of juniper berries,
one dram and a half;
Syrup of buckthorn, a sufficient quantity.

Make these ingredients into a mass, according to art.

PILULÆ GUMMOSÆ, Edinb.
Gum pills.

Take of

Afa fetida,
Wood foot,
Myrrh, each two ounces;

Oil of amber, one dram and a half;

Syrup of sugar, a sufficient quantity.

Mix, and make them into a mass, according to art.

PILULÆ MERCURIALES
LAXANTES, Edinb.

Laxative mercurial pills.

Take of

The mass of *pil. coccia*,
Gum ammoniacum, each one ounce;

Quicksilver, one ounce and a half;

Thin honey, a sufficient quantity.

Grind the quicksilver with the honey, till they are perfectly incorporated; then add the other ingredients, and mix the whole well together.

PILULÆ PACIFICÆ, Edinb.
Pacific pills.

Take of

Galbanum,
Myrrh,
White soap, each two ounces;
Opium, one ounce;
Syrup of sugar, a sufficient quantity.

Make them into a mass.

PILULÆ PECTORALES, Edinb.
Pectoral pills.

Take of

Gum ammoniacum, an ounce and a half;
Myrrh, one ounce;
Terebinthinated balsam of sulphur, one dram;
Syrup of marshmallows, a sufficient quantity.

Mix and make them into a mass.

PILULÆ SCILLITICÆ, Edinb.
Scillitic pills.

Take of

Fresh squills,

Gum

Gum ammoniacum,
Lessef cardamom seeds, each e-
qual parts;

Beat them together into a mass.

PILULÆ STOMACHICÆ, Edinb.
Stomachic pills.

Take of

Sotocorine aloes, one ounce and
a half;

Gum ammoniacum,

Myrrh, each half an ounce;

Vitriolated tartar, two drams;

Essential oil of mint, half a dram;

Syrup of sugar, as much as is
sufficient to make them into a
mass.

All the foregoing pills are im-
provements upon similar composi-
tions of the shops, which have been
already described in the second
part of this work. Their virtues
and uses are sufficiently obvious
from their titles, and the ingre-
dients they are composed of. We
shall only add, with regard to the
doses, that eight grains of the pa-
cific pills contain one grain of opi-
um; and that if a dram of each of
the other masses is formed into
twelve pills, the largest doses com-
monly given, are, of the scillitic,
three; of the chalybeat, gum, and
pectoral, four; of the deobstruent
chalybeat, mercurial, and stoma-
chic, six; and of the purgative de-
obstruent, eight. The chalybeat,
gum, pectoral, and scillitic pills,
are taken twice a day; the mercu-
rial, only every other day.

PILULÆ ASTHMATICÆ et
ICTERICÆ

Asthmatic and icterical pills.

Take of

Hard soap, three drams;

Gum ammoniacum, two drams;

Powdered squills, one dram;

Simple syrup, as much as is suffi-
cient to reduce them into a

mass of a due consistence for
being formed into pills.

The ingredients of which these
pills are composed, are of the most
powerful kind, and excellently co-
incide with, and assist one another
in attenuating or dissolving thick
viscid humors, and deterring the
vessels. Hence in jaundices aris-
ing from a lentor of the bile, or
obstructions of the biliary ducts, in
which the faces are of a clay col-
our, and voided with difficulty;
and in old stubborn coughs, asth-
mas, and the first stage of a con-
sumption, where the patient com-
plains of pains in his side, bound-
ness at the breast, or hot and rest-
less nights; this composition proves
of singular efficacy. A dram of
the mass forms ten moderate sized
pills, of which three are to be tak-
en every morning and evening.

PILULÆ PICEÆ, Edinb.

Tar pills.

Take of

Tar, any quantity at pleasure.

Mix with it as much powdered
elecampane root, as will reduce
it into a proper thickness for be-
ing formed into pills.

Tar, the resinous juice of pines
and fir trees rendered empyreu-
matic by the fire employed for ex-
tracting it, is a hot, pungent, bit-
ter substance; and by these qua-
lities seems capable, where its of-
fensiveness can be born with, of an-
swering several useful purposes in
medicine. The powder here mix-
ed with it, though of no great vir-
tue, is nevertheless a very useful
addition, not only for procuring it
a due consistence for taking, but
likewise as it divides the glutinous
texture of the tar, and thus pre-
vents its adhering to the intestines,
and promotes its solubility in the
animal juices. Each dram of the
P p 2 mass

mass is formed into twelve pills, six of which are taken every morning and evening, in disorders of the breast, phthises, scurvy, &c. They are more different in quality from tar water than might be at first expected: that nauseous draught has little heat, pungency, or bitterness; the water extracting only a small quantity of the hot oil, which becomes soluble by the mediation of the acid produced in the preparation of the tar. See page 184. Some have imagined this acid to be the only substance that gives virtue to tar water; and hence have endeavoured to introduce an acid spirit obtained from tar by distillation: but the effects of this, and all other acids, are directly contrary to those experienced either from tar water, or tar given in substance.

PILULÆ ROBORANTES, Edinb.
Strengthening pills.

Take of
Olibanum, one ounce and a half;
Styptic powder, one ounce;
Salt of steel, half an ounce;
Syrup of fugar, a sufficient quantity.

Mix and make them into a mass.

This composition is a very effectual strengthner and astringent in the fluor albus, and other like complaints. Half a dram of the mass, formed into five or six pills, is taken twice a day.

POTIO BALSAMICA, Edinb.
Balsamic potion.

Take of
Balsam of copaiba, three drams;
Essential oil of juniper berries, thirty drops;
Fennel water,
Compound horse radish water, each three ounces;

Syrup of marshmallows, two ounces.
Let the balsam and oil be well beat up with the yolk of an egg, and then mixed with the other ingredients.

This potion is given for promoting urine, deterring, and healing ulcerations of the passages: the dose is two spoonfuls, twice a day.

The author of the manufacture of drugs has discovered a more elegant method of uniting balsams with aqueous liquors, viz. by the mediation of gums or mucilages, as the mucilage of linseed, of gum Arabic, &c. If any of the native balsams or turpentine be mixed with a proper quantity of these, they readily dissolve in common water, by agitation, into a smooth and uniform milk-like liquor.

PULVIS DIAROMATON, Edinb.
Aromatic powder.

Take of
Canela alba,
Ginger, each equal parts.
Reduce them into powder.

This is a moderately warm spice, and as such is occasionally made use of, where substances of that class are necessary: the largest dose usually given at a time is one scruple. The powder is very elegant, and as useful as one compounded of the more costly spices.

PULVIS TESTACEUS CERATUS,
Edinb.
Cerated testaceous powder.

Melt any quantity of yellow wax, and keeping it over a gentle fire, sprinkle into it as much prepared oystershells as the wax will take up.

This healing and lightly restraining

gent powder is sometimes of great service in dysenteries and diarrhœas, and wherever the viscera are subject to be eroded by acrimonious humors: it is likewise supposed to be of considerable efficacy for restraining immoderate menstrual fluxes. It is given to the quantity of a dram, twice a day.

PULVIS TESTACEUS
COMPOSITUS, Edinb.

Compound testaceous powder.

Take of

Oyster-shells prepared, one pound;
White chalk, half a pound.

Mix them together.

This cheap absorbent powder is at least equally valuable, as a medicine, with the more costly and compounded crabs claw and bezoardic powders of the shops. These kinds of preparations are given from half a scruple to half a dram, for absorbing or destroying acidities in the first passages; which seems to be the only good effect that can be reasonably expected from these simple antacid earths. Nor are they perhaps so eligible even in this intention, as the alkaline salts.

It may here be proper to take notice of a quality hitherto little expected from these kinds of substances, that of strongly promoting putrefaction. Flesh mixed with a small proportion of chalk for instance, and exposed to a heat, equal to that of the human body, not only corrupts sooner than without this addition, but likewise in a far greater degree, resolving in a few days into a perfect mucus. Alkaline salts, on the other hand, both fixed and volatile, are so far from promoting putrefaction (which they have been generally supposed to do) that they resist it with a power above four times greater than that of sea salt. This quality of the absorbent powders (for the discovery of which, with many

other curious experiments on the same subject, the public are obliged to the ingenious Dr. Pringle) seems to forbid their use in all kinds of fevers, where the animal juices are already too much disposed to a putrefactive state. We have formerly observed, that, in these cases, tho' very frequently exhibited, they are at best unserviceable: perhaps their ill effects would be oftner seen, if it was not for the quantity of acids usually given in acute diseases.

PULVIS VERMIFUGUS, Edinb.

Vermifuge powder.

Take of

Tansy flowers,
Worm-seed, each three drams;
Salt of steel, one dram.

Make them into a powder.

PULVIS VERMIFUGUS
PURGANS, Edinb.

Purging vermifuge powder.

Take of

Choice rhubarb, three drams;
Scammony,
Calomel, each one dram.

Mix and make them into a powder.

The title of these compositions sufficiently expresses their use: the largest dose of each, commonly given, is half a dram: the first is repeated twice a day. The second, which is a purgative, may be taken, if necessary, once or twice in a week.

SERUM ACETOSUM, Edinb.

Vinegar whey.

Take of

Cows milk,
Common water, each one pint;
Vinegar, two spoonfuls:

Set the milk and water over the fire, and when this mixture begins to boil, add to it the vinegar; the curd, which then forms, is to be taken off.

P p 3.

SERUM

SERUM EPIDEMIUM, Edinb.

Plague water.

Take of
Cows milk, boiling, two pints;
Plague water, four ounces.
Mix, and take off the curd.

These liquors are intended to accompany the use of diaphoretic and alexipharmac medicines in fevers: the operation of which, they greatly promote, provided they are drank warm, and in considerable quantity.

SPIRITUS LAVENDULÆ
COMPOSITUS, Edinb.*Compound spirit of lavender.*

Take of
Lavender flowers, a pound and a half.
Rosemary flowers, half a pound;
Lemon peel, three ounces;
Cloves,
Cubeb,;
Shavings of red sanders, each two ounces;
Rectified spirit of wine, one gallon and a half.

Let the flowers, as soon as gathered, and the fresh peel, be committed to distillation with the spirit, in the heat of a water bath, and the operation continued till the ingredients remain dry. The cloves, cubeb, and sanders are to be steeped for two days, in the distilled spirit; which is then to be strained off from them.

This is a very elegant spirit of lavender, at least equal to any of the officinal ones formerly described: see page 374.

SPIRITUS VOLATILIS OLEOSUS,
Edinb.*Volatile oily spirit.*

Take of
Oil of rosemary,
Oil of amber, each an ounce; and

Volatile salt of sal ammoniac
eight ounces:

Proof spirit, one gallon and a half
Draw off by distillation, one gallon.

SPIRITUS VOLATILIS OLEOSUS
EXTEMPORANEUS.*Extemporaneous volatile oily spirit.*

Take of
Dulcified spirit of sal ammoniac,
one pint;
Essential oil of Jamaica pepper,
two drams.

Mix them together, that the oil may be dissolved.

Or,

Take of
Spirit of wine, highly rectified,
Spirit of sal ammoniac, each half a pint;
Essential oil of Jamaica pepper,
two drams.

Dissolve the oil in the vinous spirit, and mix this solution with the spirit of sal ammoniac: a white coagulum will be formed, which soon resolves again into a transparent liquor, depositing a quantity of a volatile oily salt.

Or,

Take of
Salt of tartar, one ounce;
Crude sal ammoniac, three ounces;
Jamaica pepper in powder,
twelve ounces;
Rectified spirit of wine, twenty-six ounces.

Let these ingredients be well mixed and shaken together; and then, having suffered the whole to settle for a little time, pour off the liquor for use.

By either of these methods, a volatile oily spirit may be made occasionally, and adapted, at pleasure,

fare, to particular purposes. Thus, in hysterical disorders, where the uterine purgations are deficient, a preparation of this kind made with rue, favin, or other like plants, proves an useful remedy; in weaknesses of the stomach, mint may be used; and in cases of flatulencies, aniseeds, or sweet fennel seeds: these last greatly cover the pungency of the volatile spirit, and render it supportable to the palate. The spirits thus made by simple mixture, are no ways inferior as medicines to those prepared by distillation: the only objection is, that they prove somewhat unightly from the tinge they receive from the oil, or drug, which they are impregnated with.

SYRUPUS EX ALTHÆA, Edinb.

Syrup of marshmallows.

Take of

Marshmallow root, three ounces;
Liquorice roots, one ounce;
English maidenhair, two ounces;
White sugar, four pounds;
Water, six pints.

Boil the water with the roots and maidenhair, till one third of the liquor is wasted; then strain the remainder, and having suffered it to settle, boil it again with the sugar, over a gentle fire, keeping it continually stirring, till it acquires the consistence of a syrup.

This syrup is less compounded than that described under the same title, in the officinal pharmacopœia of Edinburgh; but might still be rendered more simple, without any diminution of its virtue. See page 438.

THERIACA, Edinb.

Treacle.

Take of

Virginian snakeroot, eight ounces;
Wild valerian root, six ounces;
Scordium leaves, four ounces;
Cloves,

Myrrh, each three ounces;
Galbanum, two ounces;
Saffron, one ounce;
Opium, half an ounce;
Honey, thrice the weight of the powders.

Mix them together, according to art.

This is an useful substitute for the *theriaca Andromachi*, to which it is equal in efficacy, though consisting of less than one sixth part of the number of its ingredients. See page 482. Two drams and a half of the composition here prescribed, contain one grain of opium.

TINCTURA CANTHARIDUM, Edinb.

Tincture of cantharides.

Take of

Cantharides,
Camphor, each half an ounce;
Balsam of copaiba, three ounces;
Rectified spirit of wine, three pints.

Digest the cantharides in the spirit for two days; and having then filtered the tincture, digest it again in a sand heat, with the balsam; lastly, when this is dissolved, put in the camphor.

Gum guaiacum, oil of juniper berries, and cochineal, which the Edinburgh college still retain as ingredients in their tincture of cantharides, are here judiciously omitted, as being at best unnecessary articles, in a medicine limited to so small a dose; and perhaps the camphor and balsam of copaiba deserve the same fate. This tincture is of the same strength, with regard to the cantharides, as those of the shops, already described, in page 413. The largest dose usually ventured on, is thirty drops, which, in cases that require the assistance of this powerful stimulant, may be taken twice a day.

P p 4

The

The general virtues of cantharides, and the cautions necessary to be observed in the exhibition of them, have been already delivered in page 105: their uses in some particular cases may be seen under the several preparations of them. We shall here observe, that tinctures of this fly have been found of remarkable service against the leprosy; Dr. Mead assures us, from large experience, that no one remedy is more effectual in that obstinate disorder. This virtue of cantharides he attributes to their diuretic quality; the consent of the kidneys with the cutaneous glandules being so great, that the humors accumulated in the latter are capable of being easily discharged by the former, and that when the kidneys fail in their natural office, the urinary liquor sometimes transpires through the pores of the skin. During the use of the cantharides, such purgative medicines as are proper for expelling the acrid and thick humors, are to be occasionally interposed.

TINCTURA SACRA, Edinb.

Take of
Socotorine aloes, two ounces; do
Aromatic water, three pints. do
Macerate for two days, and then
strain off the tincture.

This is a judicious emendation of the *tinctura sacra* of the shops: the wine, there employed for the menstruum, acts slowly and difficultly upon the aloes, and leaves a part undissolved; whilst the spirituous liquor, here made choice of, readily and perfectly dissolves it. See page 408.

TROCHISCI SPONGIA USTA,

Lust.
Troches of burnt sponge.
Take of

Burnt sponge, one ounce;
Fine sugar, three ounces;
Mucilage of gum tragacanth, as
much as is sufficient to reduce
them into a mass of due consistence; for being formed into troches.

Burnt sponge has lately been employed for the cure of scrophulous disorders, and not unfrequently with good success. These troches are a convenient form for the exhibition of it, especially to children, who are not easily prevailed upon to take medicines in less agreeable forms.

UNGUENTUM DIGESTIVUM,
Digestive ointment.

Take of
Yellow basilicum, ʒss
Black basilicum, each eight
ounces;
Balsam of turpentine, four ounces;
Mix, and make them into an ointment.

UNGUENTUM EMOLLIENS, Edinb.
Emollient ointment.

Take of
Palm oil, four pounds;
Yellow wax, half a pound;
Linseed oil, two pints.
Liquefy them together.

UNGUENTUM MERCURIALE, Edinb.
Mercurial ointment.

Take of
Quicksilver, two ounces;
Hogslard, purified, three ounces;
Suet, one ounce.
Work them well together.

UNGUENTUM NERVINUM, Edinb.
Nerve ointment.

Take of
Oil of bays, three pounds;
Suet, two pounds;
Oil of amber, two ounces;
Mix them together.

UNGUEN-

UNGUENTUM SULPHUREUM,
Edinb.

Sulphur ointment.

Take of
Hogs lard, purified, two ounces;
Sulphur in powder, half an
ounce.

Mix them together.

UNGUENTUM TUTIÆ, Edinb.

Ointment of tutty,

Take of
Tutty prepared, half an ounce;
Fresh butter, two ounces;
White wax, one dram.

Mix them according to art.

UNGUENTUM TUTIÆ
CAMPHORATUM, Edinb.

Ointment of tutty with camphor.

Add to the foregoing ointment one
dram of camphor. It is like-
wise made with two or more
times this quantity of camphor.

Most of these compositions are
improvements upon similar ones of
the shops: see part II. chap. xxvi.
The uses of all of them are so ob-
vious as to render any comment on
them unnecessary.

UNGUENTUM PICEUM, Edinb.

Ointment of tar.

Take of

Tar,

Suet, each equal parts.

Liquefy them over the fire, stirring
them carefully together.

This ointment has been found of
considerable use against scorbutic
eruptions, and other cutaneous ma-
ladies.

UNGUENTUM PARALYTICUM,
Palsy ointment.

Take of
Hogs lard,
Oil of bays, each four ounces;

4

Strong spirit of vitriol one
ounce.

Mix, and make them into an un-
guent.

This irritating composition is
applied to numbed or paralytic
limbs: it soon reddens and inflames
the skin, and when this effect is
produced, must be taken off; after
which, the part is to be anointed
with any emollient unguent, as
that of elder.

UNGUENTUM ad PSORAM,

Ointment against the itch.

Take of

Sulphur, one ounce;

White hellebore root, in powder,
or crude sal ammoniac, two
drams;

Hogs lard, two ounces.

Mix, and make them into an oint-
ment.

Sulphur is a certain remedy for
the itch, more safe and efficacious
than mercury: for, as Dr. Pringle
very justly observes, unless a mer-
curial unktion was to touch every
part of the skin, there can be no
certainty of success; whereas, by a
sulphureous one, a cure may be
obtained by only partial unktion,
the animalcula, which occasion
this disorder, being like other in-
sects, killed by the sulphureous
steams, which exhale by the heat of
the body. As to the internal use of
mercury, which some have account-
ed a specific, there are several in-
stances of men undergoing a com-
plete salivation for the cure of the
lues venerea, without being freed
from the itch.

The quantity of ointment, above
directed, serves for four unktions:
the patient is to be rubbed every
night; but to prevent any disorder
that might arise from stopping too
many

many pores at once, a fourth part only of the body is to be rubbed at one time. Though the itch may be thus cured by one pot of ointment, it will be proper to renew the application, and to touch the parts most affected, for a few nights longer, till the second quantity is also exhausted; and in the

worst cases, to subjoin the internal use of sulphur, not with a view to purify the blood, but to diffuse the steams more certainly through the skin; there being reason to believe, that the animalcula may sometimes lye too deep to be thoroughly destroyed by external applications.

Explanation of characters and abbreviations used in prescription.

gr. }
 ũ } denotes
 ʒ } a grain.
 ʒ } a scruple.
 ℥ } a dram.
 ℥ } an ounce.
 ℔ } a pound.

ana or āā, ā, imports, that each of the ingredients preceding, are to be taken in the quantity following the word.

p. æ.	}	partes æquales	}	equal parts.
q. v.		quantum vis		as much as you please.
q. s.		quantum sufficit		as much as is sufficient.
f. a.		secundum artem		according to art; the manner of making up the medicine being left to the discretion of the compounder.
F.	stands for	fiat	that is	make or let be made.
M.		misce		mix.
B. A.		balneum arenæ		a sand bath.
B. M.		balneum mariæ		a water bath.
S. V.		spiritus vinosus		spirit of wine.
S. V. R.		spiritus vinosus rectificatus		rectified spirit of wine.
comp. or c.		compositus		compound.
C. C.		cornu cervi		hartshorn.
C. C. C.		cornu cervi calcinatum		calcined hartshorn.

TABLE

TABLE of DISEASES,

with the principal REMEDIES adapted to each.

ABORTION, *to prevent.* Peruvian bark, chalybeates, balsams, tincture of amber, tincture of lac, confection of kermes, peruvian electary: strengthening pills, strengthening powder, and all corroborants.

ABSCESS, *see* ulcers.

ACHES, *see* pains, gout, rheumatism, sciatica.

ACIDITIES *in the first passages, to correct or destroy.* Magnesia alba, chalk, crabs eyes, oyster-shells, calcined hartshorn, and such other simple earthy bodies as dissolve in acids. Chalk julep, chalk bolus, antacid lozenges, cardialgic lozenges, cardialgic troches, compound testaceous powder, compound powder of crabs claws, bezoardic powder, and other preparations, or compositions of the soluble earths. The fixt alkaline salts of wormwood and tartar; and the volatile salts, and spirits of sal ammoniac, hartshorn and foot.

ACRIMONIOUS humors, *to thicken and obtrund.* Gum tragacanth, gum arabic, ichthyocolly; marsh-mallow root, comfry root, fatyrion, linseed, quince seeds, maidenhair; solar earths; and o-

ther glutinous and mucilaginous substances. Infusion of linseed, pectoral infusion and decoction, mucilage of quince seeds, increasfating electary, compound powder and lozenges of gum tragacanth, and other preparations of the mucilaginous simples. Sperma ceti, expressed oils, and oily draughts.

AGUE, *see* intermittent fever.

ANASARCA, *see* ascites.

ANGINA. Wine, or tincture of ipecacoanha. Decoction of tamarinds with fena. Diaphoretic draught and julep. Gargarisms, mindererus's spirit. Camphorated cataplasm, volatile liniment, blistering plaster.

GANGRENOUS, *or malignant, angina.* Peruvian bark, myrrh, contrayerva root, virginian snake-root; mindererus's spirit: tincture of mint, saffron wine, cordial confection. Steams of hot vinegar, received into the throat; gargarisms, with vinegar, tincture of myrrh and honey.

ANTHONY'S FIRE, *see* erysipelas.

APHTHÆ. Balsamic lohoch, common lohoch. Emollient gargarisms. Blistering plaster.

APO-

APOPLEXY. *External applications,* blistering plaster, sinapisms, volatile spirits, volatile plaster, liniment and epithem, compound spirit of lavender. *Sternutatories,* sternutatory powder, cephalic powder, asarum, white hellebore. *Masticatories,* salagogue troches, nerve troches, pellitory of spain. *Glysters,* with honey of hellebore.

Internal medicines.

Cathartics, colocynth pills, cathartic extract, cathartic boluses. *Emetics,* antimonial wine, tincture of white hellebore. *Aromatics and Stimulants,* cloves, pepper, cardamom seeds, cubebs, nutmegs, mustard, pepper mint, rosemary, lavender, wild valerian root, compound spirit of lavender, aromatic powder, aromatic wine, guaiacum wine, cephalic ale, infusion and electary; volatile salts and spirits, aromatic and fetid; oil of hartshorn, amber, rosemary, &c.

APPETITE lost. Rhubarb; carduus, orange peel, gentian; mint, cinnamon; peruvian bark; and their preparations. Bitter infusion, ale, wine, and tincture; stomachic tincture and elixir; elixirs of vitriol; dulcified spirit of vitriol. Emetics.

ASCITES. *Cathartic draught,* cathartic bolus, bolus of jalap with mercury, tincture of jalap, hydragogue julep, lunar pills, cathartic and diuretic saline mixture, diuretic bolus, diuretic ale, decoction of seneka, diuretic julep, diuretic infusion, diuretic draught, anodyne diuretic draught, tincture of cantharides, julep of squills, salt of wormwood, salt of tartar, balsamic

potion, garlic pills, squill pills. *Strengthening pills,* bitter tincture, extract of gentian, aromatic electary, elixir of vitriol.

ASTHMA. Ammoniacum, squills, garlic, soap, millepedes, asa fetida, sulphur, saffron, eiecampne, horehound, benzoine, balsam of tolu, peru, and copaiba. Milk and julep of ammoniacum; syrup, oxymel, and pills of garlic; vinegar, oxymel julep, and pills of squills; pectoral pills, bolus, oxymel and lohoch: asthmatic pills; tar pills; paregoric elixir; fetid julep; balsams of sulphur; oil of hartshorn. Emetics. Blistering plaster. See expectoration.

ATROPHY, Steel wine, sugared steel, strengthening pills, strengthening powder; bitter infusion, wine and tincture; bitter tincture of rhubarb; stomachic pills; stomachic elixir and tincture; elixir of vitriol; wine of peruvian bark.

BELLY-ACH, dry. Iiac bolus, infusion of senna, tincture of senna, tincture of jalap; acrid glysters; aromatic fofus, and other warm fomentations and baths; cold baths.

BITE of a mad dog; pulvis antilyfus, milk.
of a viper, oil olive, rubbed warm on the part.

BLOOD, to stop, see hæmorrhage. *Spitting of blood,* see hæmoptoe. *Bloody flux,* see dysentery.

BREATH, fetid. Sweet-smelling troches, and masticatories of the odiferous resins, &c.

BRUISES, internal. Sperma ceti, Locatelli's balsam, balsamic potion,

tion, balsamic electary, vulnerary decoction, lime water, simple and compound, peruvian bark.

BURNS. Traumatic balsam, camphorated oil, camphorated spirit of wine, white ointment, camphorated white ointment, emollient ointment, ointment of calamine, the ointment called nutritum, ointment of three ingredients, ointment of elder, faturnine ointment.

CACHEXY. Chalybeat electary, chalybeat pills; bitters; bolus of rhubarb with mercury; sal polychrest; aloetic pills, tinctura sacra, elixir proprietatis, elixir of aloes; elixir of vitriol; prepared antimony; mercurial pills; emetics. *See atrophy and chlorosis.*

CARDIALGIA. Magnesia alba, and other absorbents of acidities. Sugared steel; bitter tincture of rhubarb; tinctura sacra; emetics.

CATARRH. Sulphur, balsams of sulphur, conserve of roses, antihectic decoction, balsamic electary, arabic emulsion, pectoral infusion, opiates, bitter infusion with sena, blistering plaster. *See acrimony to obtund, and expectation to promote.*

CHAPS. Oil of wax, white ointment, simple ointment, or pomatum.

CHILBLAINS. Palm oil, common or diachylon plaster; volatile epithem, warm plaster.

CHINCOUGH. Ipecacoanha, squills, rhubarb, bolus of rhubarb with mercury, mercurius dulcis, pe-

ruvian bark, ammoniacum, peregoric elixir, pectoral infusion, &c. blistering plaster.

CHLOROSIS. Strengthening pills, strengthening powder, chalybeat pills, chalybeat electary, steel wine, tinctures of steel, deobstruent pills, aromatic pills, aloetic pills, rufus's pills, tinctura sacra, elixir proprietatis, aloetic alkaline wine, extract of gentian, bitter infusion, &c. bitter tincture of rhubarb, rhubarb bolus with mercury, mercurial pills, stomachic pills, tincture and elixir, elixirs of vitriol, aperient ale, tar water, decoction of the woods, emetics.

CHOREA SANCTI VITI, *see epilepsy.*

COLIC. Bolus of rhubarb with mercury, aloetic pills, stomachic pills, tinctura sacra, bitter tincture of rhubarb, tincture of sena, bitter purging infusion, saline mixture, saline julep, aromatic distilled waters, pepper mint water, spearmint water, infusion of toasted bread, opiates. Glyster against the colic, emollient glyster, aromatic fomentation, stomachic cataplasm.

CONSUMPTION. Conserve of roses, antihectic decoction, vulnerary decoction, pectoral infusion, pectoral bolus, balsamic electary, mixture for the phthisis, ammoniacum julep, scillitic julep, balsamic lohoch, pectoral pills, tar pills, scillitic pills, lime water, simple and compound, tar water, elixir of vitriol, blistering plaster.

CONVULSIONS, *see epilepsy.*

COSTIVENESS. Tinctura sacra, aloetic pills, lenitive electary, solutive

- tive syrup of roses, solutive powder.
- COUGH.** Oily draughts, lohochs, pectoral infusion and decoction, opiates, all agglutinants. *See* asthma, chincough.
- COURSES,** *see* menses.
- CRAPULA.** Cathartic pills, emetics, tinctura sacra, aloetic pills, aromatic pills, rufus's pills, elixir of vitriol.
- CUTANEOUS foulnesses,** *see* itch, leprosy, &c.
- DEFLUXION,** *see* catarrh.
- DELIVERY,** *to promote.* Powder to promote delivery, liver and gall of the ecl, opiates, emmenagogues, *see* menses.
- DIABETES.** Alum whey, peruvian electary with alum, styptic powder, lime water, simple and compound, antihectic decoction, elixir of vitriol, dulcified spirit of vitriol, tincture of roses, colbatch's styptic powder, saturnine tincture. Mild emetics and cathartics.
- DIAPHORESIS,** *to promote;* *see* sweat.
- DIARRHOEA,** *ee* dysentery.
- DIGESTION,** *to promote.* Rhubarb, mint, peruvian bark, bitters, aromatics, aloetics, chalybeates, elixir of vitriol. *See* appetite lost.
- DROPSY,** *see* ascites and tympany.
- DYSENTERY.** Ipecacoanha, tincture and wine of ipecacoanha, cerated glass of antimony, rhubarb, bolus of rhubarb with mercury, bitter tincture of rhubarb. Decoction and extract of logwood, antidyenteric electary, bolus, pills, and mixture, binding electary, binding julep, astringent decoction, strengthening pills, diascordium, decoction of diascordium, strengthening confection, lime water, balsamic lohoch, cerated testaceous powder, opiates. Emollient, anodyne, starch, astringent, and balsamic glysters; aromatic fomentation, blistering plaster.
- DYSURRY,** *see* nephritis.
- EPILEPSY.** Wild valerian root, peruvian bark, asarum, betony, rosemary, cloves, and other aromatics, asa fetida, oil of hartshorn, oil of amber, oil of rosemary, compound spirit of lavender, spirit of hartshorn, volatile aromatic spirit, fetid aromatic spirit, fetid tincture, tincture of foot, simple and volatile tincture of valerian, castor bolus, cephalic electary, cephalic ale, cephalic infusion, antepileptic powder, antepileptic bolus, valerian mixture, fetid julep, gum pills. Emetics, cathartics. Cephalic powder, blistering plaster, epispastic ointment, sinapisms, simple and compound.
- ERYSIPELAS.** Glauber's salt, bitter purging salt, saline cathartic draught, acid electary, decoction of tamarinds, alexetereal bolus, diaphoretic draught and julep, mindererus's spirit. *Externally,* blistering plaster, camphorated cataplasm, anodyne fomentation, aromatic fomentation, camphorated spirit of wine, saturnine ointments, ointment of elder, camphorated white ointment, ointment of tutty with camphor.

Exco-

EXCORIATIONS. White ointment, ointment of calamine, pomatum, nutritum, saturnine ointment.

EXPECTORATION, to promote. E-lecampane, liquorice, florence orris root, groundivy, maiden-hair, coltsfoot, benzoine, olibanum, honey, millepedes, sperma ceti, expressed oils, garlic, squills, ammoniacum, soap, saffron, sulphur, balsams. See a-crimony, asthma, cough.

EYES, inflamed. Cathartics, mercurial pills, expression of millepedes. *Externally,* eye water; camphorated vitriolic water; eye ointment, white collyrium, alum collyrium, alum curd, razi's white troches, compound powder of cerusse, the ointments of tatty; blistering plaster, epispastic ointment.
to clear from specks and films, sapphure coloured water.

FEVERS, continued. Virginian snake-root, contrayerva, wild valerian, saffron, camphor, musk, wine, camphor julep, camphor emulsion, musk juleps, compound decoction of snakeroot, tincture of snakeroot, compound tincture of snakeroot, sudorific tincture, alexeterial water, simple and spirituous, alexipharmac bolus, alexeterial bolus, castor bolus, alexipharmac pills, alexipharmac powder, compound powder of contrayerva, alexipharmac electary, cordial mixture, cordial confection, london philonium, mithridate, theriaca.
Volatile salts, volatile spirits, spirit of mindererus, vinegar, vinegar of elder, treacle vinegar, vinegar whey, spirituous alexeterial water with vinegar, treacle water, plague whey, plague water with vinegar, camphor julep

with vinegar, alexipharmac julep, diaphoretic julep, diaphoretic draught, acid diaphoretic julep, diaphoretic bolus, decoction of tamarinds, nitrous decoction, saline antiemetic mixture.

FEVERS, intermittent. Emetics; peruvian electary, tinctures and other preparations of the peruvian bark; febrifuge decoction, alkaline infusion, rhubarb, biters, tinctura sacra, bitter tincture of rhubarb, chalybeates, sal ammoniac, saline mixture, diaphoretic bolus, diaphoretic julep, oil of amber.

FLATULENCIES. Aniseeds, ginger, carminative powder, aromatic powder and species, aromatic tincture, tincture of fena, pepper mint water, carminative juleps, compound spirit of lavender, volatile aromatic spirit; cinnamon, aniseed, juniper, and other distilled aromatic waters.

FLOODING, see abortion, and menses to restrain.

FLUOR ALBUS. Emetics of ipeca-coanha, rhubarb bolus with mercury, laxative mercurial pills, chalybeate pills, chalybeate electary, steel wine, and other preparations of iron, strengthening pills, strengthening powder, peruvian electary with alum, styptic powder, dulcified spirit of vitriol, lime water, simple and compound, balsamic potion, tincture of cantharides, tincture of amber, tincture of lac, antiphthical or saturnine tincture, colbatch's styptic powder. Strengthening fomentation, *injected.* Anodyne balsam, *applied externally.*

FLUX of the belly, see dysentery.

FRECK-

- FRECKLES.** Magistery of bismuth, magistery of tin, virgin's milk, litharge vinegar, acrid juice of anacardium.
- GANGRENE.** Peruvian bark, camphor, contrayerva, myrrh, alexiterial bolus. *Externally*, oil of turpentine, camphorated cataplasm, egyptian ointment or honey, tincture of myrrh and aloes.
- GIDDINESS,** *see vertigo.*
- GLEET,** *see fluor albus.*
- GNORRHŌEA,** *virulent.* Decoction of tamarinds with senna, laxative mercurial pills, electary for a gonorrhœa, balsamic potion; tincture of cantharides. Emollient fomentation, balsamic injection, mercurial injection.
- GOUT.** Soap, decoction of feneka, guaiacum wine, guaiacum wine with hellebore, scillitic pills. Emollient cataplasm, anodyne balsam, anodyne plaster—*gout in the stomach*, ipecacoanha, aloetics, aromatic species, aromatic tincture, compound spirit of lavender, extract of saffron, camphor, peruvian bark, bitters, chalybeates. *See sciatica, rheumatism.*
- GRAVEL,** *see nephritis.*
- GREEN SICKNESS,** *see chlorosis.*
- GRIPES,** *see colic, dry belly ach, acidities.*
- GUMS,** *foul and bleeding.* Tincture of lac, astringent gargarism.
- HÆMOPTOE.** Decoction of tamarinds, antihectic decoction, vulnerary decoction, arabic emulsion balsamic electary, the peruvian electaries without steel, lime water, dulcified spirit of vitriol, tincture of roses, antiphthical tincture, pectoral infusion, styptic powder.
- HÆMORRHAGE.** Decoction of tamarinds, nitrous decoction, purging glysters, alum water of bates, styptic water, colcothar of vitriol; dulcified spirit of vitriol, tincture of roses, antiphthical tincture, styptic powder and tincture of helvetius, styptic powder of colbatch.
- HÆMORRHŌIDS.** Flowers of sulphur, electary of sulphur, or hæmorrhoidal electary, anodyne glyster, anodyne fomentation, emollient ointment, hæmorrhoidal liniment.
- HAIR,** *to increase:* simple ointment or pomatum—*to take off,* quicklime and orpiment, made into a paste with water, and suffered to remain for a minute or two upon the part.
- HEADACH.** Embrocations with vinegar of roses, compound spirit of lavender, volatile spirits; sternutatory powder, cephalic powder, by themselves, or with a small proportion of yellow emetic mercury; cephalic plaster; blistering plaster.
- HEARTBURN,** *see cardialgia.*
- HICCUP.** Compound spirit of lavender, musk julep, cordial julep, volatile aromatic spirit, peruvian bark, opiates, tinctura sacra. *Externally*, anodyne balsam, stomachic cataplasm, camphorated cataplasm.
- HOARSENESS.** Extract of liquorice, oily draughts, balsamic lohoch, starch

starch lohoch, lohoch of sperma ceti, and all lubricating oily medicines.

HYPOCHONDRICAL and HYSTERICAL disorders. Penny-royal water, rue water, antihysterical water, castor water, oil of amber, oil of hartshorn, spirit of hartshorn, volatile aromatic spirit, compound spirit of lavender, tincture of castor, tincture of foot, tincture of peruvian bark, antihysterical julep, fetid julep, musk julep, cephalic ale, cephalic infusion, castor bolus, peruvian electaries, elixirs of vitriol, elixirs proprietatis, fetid glyster, gum pills, aloetic pills, deobstruent pills, hysterical pills, stomachic pills, chalybeat pills, chalybeat electary, and other chalybeates, rhubarb bolus with mercury, bitter tincture of rhubarb, tinctura sacra, emetics, antihysterical plaster.

JAUNDICE. Emetics, rhubarb bolus with mercury, bitter tincture of rhubarb, tinctura sacra, white soap, expression of millepedes, scillitic pills, icteric pills, icteric decoction, aperient apozem, aperient ale.

ILIAC PASSION. Cathartics and opiates; iliac bolus: acrid purgative glysters; aromatic fomentation. See colic, and dry belly ach.

IMPOSTHUME, see ulcer.

INFLAMMATION. Camphorated spirit of wine, white ointment with camphor, ointment of poplar buds, unguentum nutritum, saturnine ointment. See erysipelas.

INTERMITTENTS, see fevers intermittent.

ITCH. Sulphur, taken internally; or ointments of it applied externally. Troches of sulphur, ointment of sulphur, ointment for the itch.

KIBES. Oil of wax, unguentum nutritum, saturnine ointment, red desiccative ointment.

**KING'S EVIL, } Mercurial pills, e-
LEPROSY, } thiopic pills, golden or precipitated sulphur of antimony, medicinal regulus of antimony, tincture of cantharides, camphor, lime water simple and compound, decoction of the woods, burnt sponge, powder against the evil, balsam of guaiacum, scorbutic ale, scorbutic juices, tar water, tar pills, viper broth. Externally, mercurial ointments and plasters.**

LETHARGY, see apoplexy.

LICE, pediculi inguinales. All mercurial lotions and unguents, ointments against the itch, oil of lavender.

LOOSENESS. Rhubarb, decoction of logwood, extract of logwood, binding electary, binding julep, decoction of japan earth, diaferdium, strengthening confection peruvian electaries. See dysentery.

LOWNESS of spirits. Aromatic distilled waters, cordial julep, musk julep, cordial mixture, extract of saffron, oil of cinnamon, spirit of saffron, cordial confection, cordial electary, spirit of hartshorn, volatile aromatic spirit, compound spirit of lavender, confection of kermes, tincture of saffron, saffron wine, castor bolus.

Qq

MANIA.

MANIA. Antimonial wine, tincture of white hellebore; tincture of black hellebore, extract of black hellebore, tincture of jalap, tinctura sacra; diuretic infusion, lixivial salts, diuretic salt; asa fetida, musk, camphor, fetid julep, gum pills; blistering plaster; honey of hellebore.

MEASLES, *see* fevers.

MELANCHOLY, *see* hypochondriac disorders, *and* mania.

MENSES, *to promote.*

Aloes, black hellebore, favin, rue, squills, saffron, mustard seed, myrrh, galbanum, oil of favin, penny royal water, tinctura sacra, rufus's pills, elixir proprietatis, extract and tincture of black hellebore, aperient ale, bitter infusion, ammoniacum julep, antihysterical julep, scillitic pills; emmenagogue powder, bolus and electary; chalybeat pills, and other preparations of steel; troches of myrrh, compound powder of myrrh, compound elixir of myrrh, antihysterical water, laxative mercurial pills.

to restrain.

Alum, peruvian bark, and all its preparations, styptic powder, tincture of roses, dulcified spirit of vitriol, strengthening pills and powder.

MILK, *to repress from the breasts.*
Camphorated spirit of wine, common or diachylon plaster.

MISCARRIAGE, *see* abortion.

MORTIFICATION, *see* gangrene.

MOTHER FITS, *see* hysterical disorders.

NAUSEA, *see* vomiting.

NEPHRITIS. Hard soap, lime water, diuretic bolus, diuretic powder, diuretic decoctions, nitrous decoction, infusion of linseed, common and arabic emulsion, oil of juniper berries, oil of turpentine, nephritic decoction, common liohoh, saline mixture, balsamic potion, diuretic julep, scillitic julep, scillitic pills, dulcified spirit of nitre, dulcified spirit of salt, salt of amber, tincture of cantharides, opiates, lenitive electary, nephritic electary, tincture of senna, elixir salutis. Emollient fomentation, emollient glyster, turpentine glyster.

NUMBNESS, *see* palsey.

PAINS, *to ease.* Thebaic extract, tincture and solution; liquid laudanum, pacific pills, storax pills, saponaceous pills, castor bolus; syrup of white poppies, philonium, mithridate, theriaca, diascordium, strengthening confection, anodyne and diuretic draught, and other compositions containing opium. *Externally,* anodyne fomentation, balsam of turpentine, camphorated oil, anodyne liniment, anodyne balsam of guido, anodyne balsam of bates, anodyne plaster, nerve ointment, warm plaster, blistering plaster.

PALSEY. Garlic, arum, pellitory of spain, virginian snakeroot, wild valerian root; rosemary, rue, sage, lavender, cardamom seeds, cloves, cubebs, lovage seed, mustard seed, guaiacum, saffrafas, asa fetida, camphor, golden sulphur of antimony, antihysterical water, compound horse radish-water, antiscorbutic juices, decoction of the woods, cephalic ale, castor bolus, guaiacum bolus; antihysterical julep, diaphoretic

retic julep, diuretic julep, fetid julep, cephalic infusion, oil of hartthorn, oil of amber, spirit of hartthorn, compound spirit of lavender, salt of amber, tincture of castor, tincture of foot, fetid tincture, mustard whey, paralytic infusion, emetics, bolus of jalap with mercury, and other cathartics; fetid glyster. *Externally*, cephalic powder, sternutatory powder, balsam of turpentine, saponaceous balsam, anodyne liniment, nerve ointment, paralytic ointment, warm plaster, blistering plaster.

PERIPNEUMONY. Pectoral bolus, barley water, infusion of linseed, common lohoch, ammoniacum julep, scillitic julep, diaphoretic julep; blistering plaster.

PHLEGM viscid, to attenuate. Garlic, squills, ammoniacum, alkaline infusion. *See* asthma.

PHTHISIS, see consumption, asthma, loofeness.

PILES, see hæmorrhoids.

PLEURISY, see peripneumony.

PUTREFACTION, to prevent.

Peruvian bark, myrrh, aloes, contrayerva, horse-radish root, scurvy grass, mustard seed, fixt alkaline salts, volatile alkaline salts, and neutral salts.

to promote.

chalk, crabs claws, and other absorbent earthy bodies.

QUINSEY, see angina.

RHEUMATISM. Decoction of burdock, decoction of senecka, decoction of the woods, decoction of tamarinds, scorbutic juices, scorbutic ale, diaphoretic julep,

guaiacum bolus, rheumatic bolus, white soap, scillitic pills, mustard seed, oil of turpentine, paralytic infusion, guaiacum wine, mercurial pills. *Externally*, emollient cataplasm, anodyne balsam, balsam of turpentine, saponaceous balsam, camphorated oil, anodyne liniment, volatile liniment, saponaceous liniment, anodyne plaster, soap plaster, warm plaster, blistering plaster.

RICKETS. Ens veneris, or martial flowers; aromatic fomentation, nerve ointment.

RUPTURE. Internal corroborants. Strengthening plaster.

SCALDS, see burns.

SCALDED HEAD, see leprosy.

SCIATICA. Ischiadic cataplasm. *See* rheumatism.

SCURVY. Horse-radish, scurvy grass, mustard seed, buckbean, water dock, compound horse-radish water, scorbutic ale, scorbutic wine, muntingius's scorbutic wine, stomachic elixir, elixir of vitriol, scorbutic juices, scorbutic whey, paralytic infusion, acid elixir proprietatis, chalybeat pills, steel wine, chalybeat electary, and other preparations of iron, peruvian bark, water, tar pills; bitter infusion, simple and purging; sal polychrest, acid electary, decoction of tamarinds, bitter tincture of rhubarb, tinctura sacra, stomachic pills.

SEMINAL WEAKNESS, see fluor albus.

SLEEP, to procure. Thebaic extract, tincture and solution; and all opiates. *See* pains, to ease.

Q q 2

SMALL

SMALL POX, *see* fevers — *bloody small pox*, styptic powder, peruvian electary with alum.

SPLEEN. Deobstruent pills, scorbutic juices, cummin plaster, ammoniacum plaster with hemlock, *see* hypochondriac disorders.

SPRAINS. Common plaster, strengthening plaster, oxycroceum, aromatic fomentation.

STITCHES. Warm plaster, blistering plaster.

STOMACH, *to strengthen*. Calamus aromaticus, gentian, zedoary, ginger, rhubarb, wormwood, carduus, mint, lesser centaury, chamemel, orange peel, nutmegs, mace, cinnamon, peruvian bark, aloes, myrrh, common and pepper mint water, stomachic tincture and elixir, elixir of vitriol, elixir proprietatis, elixir of aloes, aloetic alkaline wine, extract of gentian, bitter infusions, bitter ale, bitter wine, bitter tincture, tincture of mint, tincture of peruvian bark, rhubarb bolus with mercury, aloetic pills, stomachic pills, chalybeat pills, bitter tincture of rhubarb, tinctura sacra, wine of ipecacoanha, and other emetics. *Externally*, stomachic cataplasm, stomach plaster, aromatic fomentation.

STONE. Lime water, oystershell lime water, hard soap. *See* nephritis.

SURFEIT, *see* crapula.

SWEAT, *to check*.
Elixir of vitriol, acid and sweet; dulcified spirit of vitriol: peruvian bark, and its preparations; saturnine tincture.
to promote.
Guaiacum, saffras, saffron, camphor, opium, extract and

resin of guaiacum, decoction of the woods, guaiacum bolus, diaphoretic bolus, volatile salts and spirits, mindererus's spirit, diaphoretic draught, diaphoretic julep, sudorific tincture, tincture of snakeroot simple and compound, compound decoction of snakeroot, camphor emulsion, castor bolus, golden sulphur of antimony. *See* fevers continual.

TEETH, *to cleanse*. Creme or crystals of tartar in powder, vitriolated tartar in powder — *Tooth-ach*. Essential oils, nitre, siagogogue troches.

TENESMUS, *see* dysentery.

THIRST, *to quench*. Cooling julep, acid electary.

THROAT SORE, *see* angina.

TUMORS, *to discuss*.
Litharge vinegar, sal ammoniac, mindererus's spirit, camphorated spirit of wine, discutient cataplasms, ointment of elder, gum plaster, mercurial plaster, common and diachylon plaster with gums, soap plaster, camphorated oil.
to suppurate.
Ripening cataplasm, suppurating cataplasm.

TWITCHING of the tendons. Musk, camphor, volatile salts, alexipharmac boluses.

TYMPANY. Mild cathartics, carminatives, blistering plaster.

VENEREAL disorders. *See* virulent gonorrhoea and leprosy.

VERTIGO, *see* epilepsy.

ULCERS. Traumatic balsam, Locatelli's balsam, balsam of amber, tincture

tincture of myrrh and aloes, green balsam, ointment of gum elemi, arcaeus's liniment, basilicum ointment, saturnine ointment, ointment of calamine, epulotic cerate.

VOMITING, to excite. Powder of ipecacoanha, wine and tincture of ipecacoanha, syrup of squills, white vitriol, emetic tartar, antimonial wine, tincture of white hellebore, yellow emetic mercury, verdegris.

to restrain.

Mint water, tincture of mint, saline antiemetic mixture, elixir proprietatis with acid, bitter tincture of rhubarb, tinctura sacra, dulcified spirit of vitriol, elixir of vitriol, emetics, chalybeates, opiates. *Externally,* anodyne balsam, stomachic cataplasm, stomach plaster, aromatic fomentation.

URINE, to promote. Garlic, burdock, eryngo, fennel roots, parsley roots, senecka root, squills, pellitory of the wall, chamemel flowers, wild carrot seed, sweet fennel seed, mustard seed, venice turpentine, balsam of copaiba, cantharides, millepedes, nitre, compound horse-radish water, vinegar of squills, oil of turpentine, oil of juniper berries, decoction of burdock, decoction of senecka, diuretic decoction, nitrous decoction, diuretic ale, diuretic bolus, nephritic electary, nephritic decoction,

common and arabic emulsion, expression of millepedes, saline mixture, diuretic draught, anodyne diuretic draught, diuretic julep, scillitic julep, balsamic potion, salt of tartar, salt of wormwood, diuretic salt, sal polychrest, dulcified spirit of nitre, dulcified spirit of salt, salt of amber, tincture of cantharides, scillitic pills, turpentine glyster.

URINE, involuntary. Lime water, dulcified spirit of vitriol, alum whey, peruvian electary with alum, styptic powder, antiphthical tincture.

—*bloody, see hæmorrhage.*

—*hot,* nitre, sal prunell, common and arabic emulsion, sperma ceti pills, oily draughts.

WARTS, to extirpate; all caustics.

WHITES, see fluor albus.

WIND, see flatulencies.

WORMS. Savin, tansy, wormseed, powdered tin, vitriol white and green, mercurius dulcis, rhubarb bolus with mercury, sugared mercury, sugared steel, laxative mercurial pills, vermifuge powder, purging vermifuge powder, essential oil of wormwood, anthelmintic powder, anthelmintic sugar cakes, vermifuge ointment.

WOUNDS, see ulcers.

I N D E X
OF THE
NAMES and SYNONYMA
OF
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F I N I S.

E R R A T A.

Page 70, column 1, line 31, for Raii read Gerardi. Page 355, col. 2, lin. 26, for six pints read four pints. Page 374, col. 1, lin. 18; and pag. 386, col. 1, lin. 5 from the bottom; and pag. 398, col. 1, lin. 15, from the bottom; for two read three. Pag. 358, col. 1, lin. 25; and pag. 409, col. 1, lin. 4; for four read two. Pag. 361, col. 1, lin. 6 from the bottom, dele and a half. Ibid. lin. 22. after balm add each one pound. Pag. 380, col. 2, lin. 5, after butter bur add roots one pound.

94
85
100
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ib.
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Handwritten signature or initials in cursive script, possibly reading 'L. B.' or similar.

col. 2,
and pag.
5, from
g. 409,
from the
pound.

W. B.

Handwritten cursive script on aged paper, possibly a signature or a name. The text is highly stylized and difficult to decipher. A small circular stamp or seal is visible near the center-right of the writing.

