OXYMEL SIMPLEX. L.D. Mel Acetatum. P.L. 1787.

*Simple Oxymel.**

This composition of honey and acetic acid has been long valued on account of its detergent qualities, and has accordingly been much used as the basis of gargles, and expectorant remedies.

OXYMEL SCILLÆ. L.D. Oxymel Scilliticum. P.L. 1720. 1745.

Oxymel of Squills.

This preparation certainly possesses considerable powers as an expectorant; especially if allowed to pass slowly over the fauces, as when applied in the form of a linctus, (*Form*: 135,) which by stimulating the top of the trachea may possibly act, by a kind of "*contiguous sympathy*," upon the pulmonary structure,† and thereby increase the activity of the exhalant vessels, and so dilute the mucus contained in the follicles as to cause it to be poured out in a less viscid form, and consequently in a state to be more easily brought up by expectoration. Its action will also admit of another explanation, but for this *see* page 105. Dose from ƒ℥ss to ƒ℥ij. In larger doses it is given for the purpose of exciting vomiting, especially in hooping cough.

PAPAVERIS CAPSULÆ. L.E.D.

(Papaver Somniferum. *Capsulæ Maturæ.*)

Poppy Capsules, or *Poppy heads.*

These capsules are employed in medicine for the purpose of affording a decoction, to be applied as an anodyne fomentation, see *Decoctum Papaveris*, and as a syrup of hypnotic qualities, see *Syrupus Papaveris.*

The seeds of the poppy capsules are not directly used for any medicinal purposes, but they yield a fixed oil which is daily met with in the market, and is frequently used to adulterate *Olive Oil*, which see. As an article of trade it is considered very inferior to the other fixed oils; it burns very badly, and yields a great quantity of smoke. To the pharmaceutic chemist it is an article of interest from the controversies to which it has given origin‡.

* Godbold's Vegetable Balsam. In the specification of the Patent for this nostrum forty-two different vegetables are directed to be distilled "for the purpose of extracting their essences, which are to be preserved separately and apart from each other, in syrups, and are to be mixed with the following gums and drugs, viz. Gum Dragon, Gum Guaiacum, Gum Arabic, and Gum Canada, these being dissolved in double distilled vinegar, with a quantity of Storax dissolved in Spirits of Wine and Oil of Cinnamon. It is to be bottled off, and kept three years before it is fit to be administered for the Cure of Consumption, or any Asthmatic Complaint." It is hardly necessary to observe, that no such directions ever are, or indeed ever could be followed; in short the "Balsam," is little else than simple oxymel. It is, however, not a little curious that amongst the forty-two plants enumerated, there should be several that would on distillation yield Prussic acid, such as the Bays. We wonder that this accidental circumstance has not been noticed, and turned to account, by some of those worthy disciples of Esculapius who live by the credulity of mankind, and, as Falstaff expresses it, "Turn diseases to a commodity."

† It is in this manner, I apprehend, that stimulating syrups will frequently remove hoarseness.

‡ Although it has been long known that the seeds of the poppy, and the oil obtained from them by expression, do not possess any of the narcotic properties of the plant, and

PILULÆ. L.E.D. *Pills.*

For general instructions respecting the formation and administration of pills, the practitioner must refer to *page* 198 of this work.

Officinal Pills.

Pilulæ Aloes Compositæ. L. Extract of Aloes, *two parts*, extract of gentian, (G) *one part*, with oil of carraway ; (E) to which syrup is unnecessarily added. It is a useful pill in habitual costiveness. *Dose*, grs. x to ʒj.

Pilulæ Aloes et Assafœtidæ. L. Powdered aloes, assafœtida (G) and soap, (L) *equal parts*. Anodyne and cathartic ; a very useful combination in dyspepsia attended with flatulence. *Dose*, grs. x.

Pilulæ Aloes cum Myrrha. L *Pilulæ Rufi*. P.L. 1745. Extract of Aloë, *two parts*, saffron and myrrh, (E) *one part*, syrup, q. s. This is a very ancient form of preparation, and is described by Rhazes. It is stimulant and cathartic. (*Form :* 11, 81, 98, 99.) *Dose*, grs. x to ʒj.*

Pilulæ Aloes cum Colocynthide. E. This pill is known by the popular name of *Pil. Coccix.* κοκκίον, signifies a seed, and the term was first applied to this preparation by Rhazes. It consists of *eight parts* of aloes and scammony ; *four* of colocynth ; and *one part* of oil of cloves, (E) and of sulphate of potass with sulphur, olim *Sal. Polycrest.* It is more powerful in its operation than the simple aloetic pills.

Pilulæ Cambogiæ Compositæ. L. Gamboge, extract of aloe, and compound powder of cinnamon *one part ;* soap *two parts ; see* page 177, and *Form :* 88.

Pilulæ Ferri Composita. L. This combination is analogous to that of Griffith's mixture. *Dose*, gr. x to ʒj. *Form :* 99. They become extremely hard by keeping. If the practitioner consult the Medicinal Dynameter, he will observe that in order to give the same quantity of Proto-carbonate of Iron as is contained in fʒiss of *Mist : Ferri comp :* he must direct ʒj of this pill mass ; which quantities will be seen to con-

that they were even baked into cakes and used as an article of food by the ancients, yet has there been in later times very considerable contention respecting the propriety and safety of using such oil. The cultivation of the poppy for the sake of the oil of its seeds, as an article of food, has been long carried on in France, Brabant, and Germany ; and more recently in Holland. At about the beginning of the 17th century, the opposition to this use of the poppy manifested itself in France, and became so violent, that the Lieutenant General of the Police of Paris ordered the medical faculty of that city to make the strictest examination concerning this point, and they accordingly reported that, as there is nothing narcotic or prejudicial to health in the oil, the use of it might be permitted. But this decision was unsatisfactory ; and popular clamour determined the Court to pass a decree in 1718, prohibiting the sale of Poppy Oil, whether mixed or unmixed ! The sale of the article, however, notwithstanding this most singular decree, was clandestinely encouraged, and it gradually increased until the year 1735, when the Court issued a severe decree, enjoining the superintendant to mix a certain quantity of the extract of Turpentine, with every cask containing 1100lbs. of this oil, of which no less than 2000 casks were consumed in Paris alone. But the secret demand for it increased until 1773, when a Soceity of Agriculture undertook to examine the question, and the result of their labours had the effect of reversing the prohibition, and of convincing the multitude that their fears were entirely unfounded, and that there was really no narcotic power, nor any secret mischief in the article.

* As these pills are liable to become hard and insoluble by being kept, it is better to keep the ingredients in powder, and to form them extemporaneously with a little syrup.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0458-9 DFG

tain, respectively, a grain and seven tenths of this of the proto-carbonate, or, one grain of Protoxide, which is equivalent. It is doubtful whether the former preparation will not prove active, in consequence of the saponaceous vehicle formed by the Myrrh and alkali in a state of solution.

Pilulæ Galbani Compositæ. L. *Pil. Gummosæ*, *P.L.* 1745. We are here presented with a combination of fœtid gums, in which assafœtida is the most potent article. Antispasmodic, and emmenagogue. *Dose* grs. x to ℈j. See *Form:* 10, 27, 98.

Pilulæ Hydrargyri. L.E.D. *Pil. Mercuriales.* P.L. 1745, vulgo, The *Blue Pill.* The mercury in this preparation, is not, as it was formerly considered, in a state of mere mechanical division, but in that of a black oxide, upon which its activity as a remedy undoubtedly depends; for mercury in its metallic state is entirely inert with regard to the living system. Various substances have at different times been triturated with the mercury, for the purpose of *extinguishing* or *killing* it, by effecting the mechanical division and subsequent oxidation of its particles, as manna, melasses, &c. *Conserve of Roses* is now generally preferred for this purpose, although Swediaur suspects that the astringent principle of this conserve invalidates the effects of the mercury, "I have," says he, "given these pills to several patients for a long time, without any symptom of salivation." Mr. Abernethy observes in his surgical works, that the *Pilulæ Hydrargyri* are uncertain in their effects; and that some of the students at the hospital on examining them, and different parcels of the conserve of roses, say, that the sulphuric acid may be discovered in each. Nor is it improbable that in making the conserve for sale, some of this acid may be added to brighten the colour; and if so, the mercurial pill which is made from it may contain in varying proportions, some of that highly deleterious compound, the *sub-sulphate of mercury.* When any of the gums are employed for *killing* the metal, the pills soon become hard and brittle, and after some time the mercury is liable to run into its metallic state. The pill-mass, when rendered thinner by the addition of a little water, and extended on a piece of paper, ought not to exhibit any metallic globules; in this examination however, we must be careful not to be betrayed by the fallacious appearance which is frequently presented by small crystals of saccharine matter. The relative proportion of mercury contained in the mass can be ascertained only by its weight. The *blue pill* is made at Apothecaries' Hall by a very ingenious machine actuated by steam, and which rubs as well as rolls the materials, and it is said the pill thus made is more active than that produced in the ordinary way. Med. Uses. It is by far the best form for the internal exhibition of mercury; where it is intended to act upon the system as an alterative, it should be administered in doses of from grs. iv to vj; if it occasion any action on the bowels, it may be conjoined with opium; sometimes a few grains of rhubarb, exhibited every morning, will impart such a tone to the intestines, as to enable them to resist the mercurial irritation. In cases where the form of pill is objectionable, it may be readily suspended by the aid of mucilage, in some aqueous vehicle; when exhibited in doses of grs. x to ℈j. it acts as a mild but efficient purgative. *Form:* 79, 106. One grain of mercury is contained in *three* grains of the mass; the proportion of metal, or oxide, in any other given quantity, is shewn at once by the Dynameter. For the specific effects of mercury, see *Ung. Hydrarg.*

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0459-7

Pilulæ Hydrargyri Sub-Muriatis Compositæ. L.E. Olim *Plummer's Pills.* They consist of *one part* of calomel and precipitated sulphuret of antimony (H) and *two parts* of guaiac (E) made into form with spirit. It is a very useful alterative, especially in cutaneous eruptions and in secondary syphilitic symptoms, particularly when affecting the skin. *Dose*, grs. v to x. Should their exhibition affect the bowels, the addition of a small proportion of Opium may be added.

Pilulæ Opiatæ. E. Opium *one part;* extract of liquorice, *seven parts;* Jamaica pepper *two parts.* It is however a compound of questionable propriety.

Pilulæ Rhei Compositæ. E. Rhubarb, aloes, and myrrh, with oil of peppermint. When such a combination is indicated, it is better to prescribe it extemporaneously: for the mass, by being kept, will become less efficacious.

Pilulæ Saponis cum Opio. L. *Pil. Opii.* P.L. 1787. By substituting soap for extract of liquorice, these pills are now rendered more soluble in the stomach, and are consequently more efficient. Five grains contain one of opium.

Pilulæ Scillæ Compositæ. L. A stimulating expectorant: but as squill is always impaired by keeping, it ought to be considered as an extemporaneous combination. It is surely injudicious thus to multiply our officinal formulæ, but it is difficult, on such occasions, to run counter to popular opinion. *Form:* 104.

PIMENTÆ BACCÆ. L.E. Pimento. D.

Myrtus Pimenta. *Baccæ.*

Pimenta Berries. Jamaica Pepper. All-spice.

Qualities. *Odour*, aromatic and agreeable, combining that of cinnamon, cloves, and nutmegs; hence the term *all*-spice. *Taste*, warm and pungent, resembling that of cloves. These qualities reside principally in the cortical part of the berry. Chemical Comp: It contains a volatile oil, very like that of cloves, resin, extractive, tannin, and gallic acid. Solubility. Water, alcohol, and æther, extract its virtues. Med. Uses. Principally to cover the disagreeable taste of other remedies; it is also a very useful adjunct to dyspeptic medicines. Ofeicinal Prep. *Aq. Piment.* L.E.D. *Ol. Piment.* L.E.D. *Pil. Opiat.* E. *Syrup. Rhamni.* L. (E)

PIPERIS LONGI BACCÆ. L.E.D.

Long Pepper.

The chemical and medical properties of this substance are similar to those of black pepper; *which see.* The varieties in the market are distinguished by the names *short* long pepper, and *long* long pepper. The native practitioners of India prescribe it in infusion, mixed with a *little* honey, as a remedy in catarrhal affections, when the chest is loaded with phlegm.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0460-9 DFG

PIPERIS NIGRI BACCÆ. L.E.D.

Black Pepper.

Chemical Composition. An oily matter, fecula, and extractive; the acrid principle of Pepper has been separated by Oersted in an alkaline form. The pepper having been digested in alcohol, muriatic acid, and afterwards water were added to the tincture, by which the resin was precipitated, while a *muriate of Pipera* remained in solution. The solution was then, after having been submitted to a certain evaporation, decomposed by pure potass, when a precipitation of *Pipera* took place. This salifiable base is nearly insoluble in cold and only very slightly soluble in boiling water. It dissolves in alcohol, and the solution has a greenish-yellow colour, which by the addition of nitric acid is rendered green. The capacity of the base for saturation appears very small. Solubility, The virtues of pepper are entirely extracted by æther and alcohol; and partially by water, 550 pints being required to extract all the sapidity of lbj of pepper. Med. Uses. It appears to be a more general and permanent stimulus than other species of equal pungency on the palate; it may be combined with bitters, and exhibited in nausea, dyspepsia, retrocedent gout, or as a stimulant in paralysis; it is also a valuable coadjutor to bark, in obstinate intermittents. An infusion made with black pepper that has been toasted, is often prescribed by the natives of India in cases of cholera morbus; and I have known it, says Dr. Ainslie, put a stop to the vomiting when many other remedies had failed. Dose, grs. v to ʒj, or more. Officinal Preparations. *Emplast. Meloes vesicat. comp.* E. *Unguent. piper. nig.* D. *White* pepper is made by separating the first skin of the berry, by soaking it in salt and water. Adulterations. The powdered husk of the mustard seed is universally mixed with powdered pepper, and is regularly sold for this purpose by the mustard manufacturer, under the technical title of P.D. (*Pepper Dust*;) there are besides other admixtures less innocent. *Whole Pepper* is also frequently factitious; artificial pepper-corns, composed of peas-meal, both white and black, are mixed with real pepper-corns, and sold as genuine pepper; the method of detecting the fraud is very simple; throw a suspected sample into water; those that are artificial will fall to powder, or be partially dissolved, while the true pepper-corns will remain whole.

PIX ABIETINA.* L. (Pinus Abies. *Resina Præparata.*)

Pix Burgundica. E. D. *Burgundy Pitch.*

This substance is procured by making incisions through the bark of the Norway Spruce fir, and afterwards boiling the flakes so obtained in water, and then straining the resin through coarse cloths under a press; whereas *frankincense* (Abietis resina) is a spontaneous exudation from it. It is now entirely confined to external use, as a rubefacient spread on leather; it is very adhesive. *Emplast: Picis comp.* L. *Emplast: Picis Burgund.* D. Adulterations. A factitious sort, manufactured in England, is often met with; it is to be distinguished by its friability, and its want of viscidity and unctuosity, and by the absence of that peculiar odour which characterises the genuine specimens.

* The Pix Arida of the late Pharmacopœia.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0461-4

PIX LIQUIDA. L.E.D. (Pinus Sylvestris.) *Tar.*

This fluid is formed from the decomposition of the resinous juice of the pine, during the slow and smothered combustion of its branches, and as a summary definition of the substance, that by Pliny cannot be surpassed, "*Pix nihil aliud quam combustæ resinæ fluxus.*" *Lib.* 23. c. 1. CHEMICAL COMPOSITION. It is found to consist of empyreumatic oil, resin, acetic acid, and some salts. SOLUBILITY. Water readily dissolves a portion of Tar, and forms a solution of the colour of Madeira wine, with a sharp empyreumatic taste. MED. USES. Tar water, under the auspices of Bishop Berkley, was formerly considered a remedy of extraordinary powers;* this opinion however has at length passed away, (*see* page 27,) and Tar is now particularly indebted for a place in the Materia Medica, to an essay by Sir Alexander Crichton, entitled, "*An Account of some Experiments made with the Vapour of boiling Tar*† *in the cure of Pulmonary Consumption.*" At the request of Sir Alexander, I was induced to make a trial of its effects, and I do not feel any hesitation in stating that the result has led me to believe that it may, in some cases, be attended with benefit. In the application of the remedy several precautions are necessary for its success. The Tar employed should be that used in the cordage of ships; to every pound of which half an ounce of sub-carbonate of potass must be added, in order to neutralize the pyroligneous acid generally found mixed with the tar, the presence of which will necessarily excite coughing; the tar thus prepared is to be placed in a suitable vessel over a lamp, and to be kept *slowly* boiling in the chamber during the night as well as the day; the vessel however ought to be cleaned and replenished every twenty-four hours, otherwise the residuum may be burnt and decomposed, a circumstance which will occasion increased cough and oppression on the chest. The ancients entertained a high opinion of the efficacy of Tar in pulmonary diseases, when internally administered; supposing it to promote expectoration, relieve dyspnœa, and check spitting of blood; Dioscorides particularly speaks of its utility in such cases; he also recommends it to be applied to ulcers, which he says it fills up and heals, whether they be situated on the surface of the body, or in the ears, throat, and other internal parts. See the chapter on "*Inhalations*," page 208. OFFICINAL PREP. *Unguent. Picis Liquidæ.* L.

* Tar water was also at one period celebrated as an antisiphylitic remedy. M. Acharius, in his work "On the Use and advantages of Tar Water in venereal Complaints," enumerates the cases of a number of patients cured by this remedy alone in the hospital of Stockholm, without any Mercury.

† Dr. Mudge in the year 1782 had recommended the fumigation of balsams, in a pamphlet on the subject of his Inhaler; little or no notice however was taken of this recommendation, a circumstance which cannot excite our surprise when we consider the extravagant terms in which the pretensions of the remedy were supported. "I believe," says he, "that much of the benefit which consumptive persons experience from sea voyages is derived from the tar vapour constantly present on board a ship!"

A Radical and Expeditious Cure for a recent Catarrhous Cough. By J. Mudge. Plymouth, 1783.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0462-0 DFG

PLUMBI SUB-CARBONAS. L.

Carbonas Plumbi, vulgo *Cerussa*. E.

Cerussa, *Sub-acetas Plumbi*. D.

Cerusse, or *White Lead*.

Chemical Composition. The composition of this substance has not until lately been well understood. and hence the different appellations bestowed upon it by the different colleges Solubility. It is insoluble in water, but soluble in pure potass. Uses. It is only employed externally, by sprinkling on excoriated parts ; the safety of such a practice however is questionable Officinal Prep. *Unguent. Ceruss.* D *Plumbi Acetas* L.E.D. (℞) Adulterations. *Chalk* may be detected by assaying its solution in cold acetic acid with oxalate of ammonia ; *Carbonate of barytes*, by adding to a portion of the same solution, sulphate of soda very largely diluted with pistilled water ; and *Sulphate of barytes*, or *Sulphate of lead*, by the insolubility of the white lead in boiling distilled vinegar.

PLUMBI OXYDUM SEMI-VITREUM. L.E.

Lithargyrum. D. *Litharge*.*

It is a yellow protoxide of lead, which has been melted and left to crystallize by cooling. It is only employed in pharmacy for forming other preparations of lead, and the following officinal plasters, *Emplast. Plumbi*. L.E.D. *Ceratum Saponis*. L. It is added to wines to remove their acidity ; for the detection of which. evaporate the suspected liquor to a thick fluid, add charcoal, and calcine in a crucible : in the space of an hour metallic points will be obtained, consisting of lead surrounded by a quantity of yellow protoxide.

PLUMBI ACETAS. L.

Cerussa Acetata. P.L. 1787. *Saccharum Saturni*. 1745.

Acetas Plumbi. E. Acetas Plumbi. D.

vulgo, Sugar of Lead.

Qualities. *Form*, irregular masses resembling lumps of sugar, being an aggregation of acicular four-sided prisms terminated by dihedral summits. which are slightly effloresecent ; by careful crystallization, it may be obtained in quadrangular prisms. *Taste*, sweet and astringent. Chemical Composition. Although it has been termed a *Super*-acetate, it appears to be a neutral salt, and that its power of reddening vegetable blues is attributable to a partial decomposition ; for when dissolved in water containing the least portion of carbonic acid, a white carbonate of lead is precipitated, and a corresponding portion of acetic acid is necessarily disengaged. The College have therefore now designated it as an *acetate*. According to the experiments of Berzelius, this salt. in its anhydrous state, consists of one proportional of oxide of lead ; so that the proportion of the metallic base is one-third of that in the *sub*-acetate. Solubility. It is dissolved in 25 parts of water, hot or cold ; it is also soluble in alcohol. When common water is employed the solution is quite turbid,

* Litharge. The word is derived from λίθος, *Lapis*, a stone, and ἄργυρος *Argentum*, Silver ; from the fact of the lead being thrown off in this state during its application for the refinement of Silver.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0463-6

unless a small proportion of acetic acid be previously added. INCOMPATIBLE SUBSTANCES. *The alkalies, alkaline earths and their carbonates; most of the acids; alum; borax; the sulphates, and muriates; soaps; all sulphurets; ammoniated, and tartarized iron; tartarized antimony; undistilled water.* The solution of *acetate of ammonia* decomposes that of this salt, in consequence of the carbonic acid which is generally diffused through it. It has lately been discovered that *Gallic acid* and *Tannin* are capable of combining with lead in solution, and of forming a perfectly insoluble substance, which falls to the bottom of the vessel; hence all vegetable astringents must be considered as incompatible with this medicine. On this account, liquors which have been kept in oak casks,* for a certain time, must be freed from lead. This explains a fact, with respect to the effect of new rum in the West Indies, of some importance. This spirit, when newly distilled, is found to contain traces of lead, derived from the leaden rims of the coppers, and the leaden worm, used for its condensation; but, by being kept about twelve months in oaken casks, it loses its deleterious properties, and no longer exhibits any traces of this metal.† Certain bodies appear likewise to be incompatible with the compounds of lead, not from the *chemical* changes they induce, but from the contrary effects they produce upon the body; thus mercury appears to invalidate their powers and to counteract their effects, as we may have observed in treating saturnine cholic. I suspect also that antimony operates in the same manner; M. Merat relates the case of an apothecary who was cured of a desperate saturnine cholic, after having taken, in the course of eight days, eighty grains of tartarized antimony. MED. USES. *I feel no hesitation in pronouncing this salt of lead to be one of the most valuable resources of physic*; from the results of numerous cases, I state with confidence that it is more efficient in stopping pulmonary and uterine hemorrhage, than any other known remedy—"*nil simile, nec secundum*,"—and that its application is equally safe and manageable; but it must not be combined with substances capable of decomposing it, nor must it be simultaneously administered with the medicines which are frequently prescribed in conjunction with it, as an *Infusion of Roses, Sulphate of magnesia, &c.* Alum has also been in some cases added to it, with the intention of increasing its astringency. It is evident that under such circumstances an insoluble and inert *Sulphate of Lead* will be produced. The experiments of Orfila confirm the truth of these views, and show that such substances act as counter-poisons for the salts of lead. According to my experience, those vegetable acids which decompose the acetate of lead, and form insoluble salts with its base, are not *medically* incompatible, when administered simultaneously with it, although no scientific physician would prescribe such a mixture; this fact is shown by the circumstance of potations, containing malic and tartaric ‡acids, not having been found to invalidate the efficacy of this salt. Whether the stomach in the first instance prevents the decomposition, and its necessary results, or allows the operation of the usual affinities, and then subsequently decomposes the insolu-

* That the oak cask imparts astringent matter to the contained spirit, is shewn by the facts enumerated under the history of Brandy, see Spiritus Tenuior.

† Sir George Baker considered the dry-belly-ache, which is common to drinkers of New Rum, in the West Indies, entirely referable to its contamination with Lead.

‡ See Note at foot of next page.

ble compound which results from them, by the abstraction and *digestion* of its vegetable constituent, are questions for future inquiry, when the laws of gastric chemistry shall be better understood, and more justly appreciated. I have also seen much benefit accrue from this medicine in protracted diarrhœa, when it has checked the bowels more effectually even than opium. M. Gaspard has communicated to the public, through the medium of Majendie's *Journal de Physiologie*, (3 numéro Juillet, 1821,) a paper upon the operation of *Acetate of Lead*, entitled "*Experiences Physiologiques et Medicales sur L'Acetate de Plomb*," in which he asserts that this metallic salt cannot be administered without risk in any dose, unless indeed it be given in vehicles which decompose it, and which, he adds, appears generally to have happened in the prescriptions of those who have given it extensively. He observes, that "it produces a slow and peculiar inflammation of the bowels, as well as of the lungs; and that it, moreover, occasions *Cholica Pictonum*." No one, I apprehend, will deny the poisonous quality of acetate of lead, any more than that of arsenic; and yet both may, by proper management, be rendered therapeutical agents of value and safety. Forms of Exhibition. In that of pill, guarded by opium; it will be prudent to recommend an abstinence from all potation, except that of cold water, or draughts, composed of diluted acetic acid, for at least an hour after the ingestion of the pill.* Dose, gr. $\frac{1}{2}$ to gr. j. *Form.* 57. Officinal Prep. *Cerat. Plumb. acetat.* L.†

POTASSA CUM CALCE. L.E.

Kali Causticum cum Calce. D.

The addition of lime to potass renders it less deliquescent, and more manageable, as an escharotic.

POTASSA FUSA. L.

Potassa. E. Kali Causticum. D.

Lapis infernalis. P.L. 1720.

Qualities. *Form*, a white brittle substance, extremely caustic and deliquescent, and possessing in an eminent degree all the properties denominated *alkaline*. Solubility. f℥j of water dissolves ℥vij: it is also soluble in alcohol. Chemical Composition. This preparation, independent of its impurities, is the *hydrated protoxide of potassium*, although in the state in which it is cast into sticks it generally contains a little *Peroxide*,‡ and therefore evolves oxygen when dissolved in water. Med. Uses. It is a most powerful caustic (*causticum commune acerrimum*), and is frequently employed to establsh an ulcer; or, instead of incision, to open a tumour. It has the advantage of other caustics, from the circum-

* I uniformly adopt this plan; the acetic acid is the best guard that can be selected to protect the salt from decomposition; even the Tartrate of Lead, which is so insoluble in water, forms with vinegar a soluble triple salt.

† Royal Preventive.—This pretended prophylactic against venereal virus is a solution of Acetate of Lead.

‡ Peroxide of Potassium is produced by heating the metal in a considerable excess of oxygen. It is an orange-coloured body, which, upon being put into water effervesces, and gives off oxygen, and is thus reduced to the state of protoxide.

stance of our being able to neutralize its powers by touching it with vinegar, and thus to arrest its progress in an instant; it is however more liable to produce a large eschar than nitrate of silver, in consequence of the chemical action of the akali upon the skin. Within the last few years, surgeons have greatly preferred the use of this caustic to that of *nitrate of silver*, in cases of organic stricture of the uretha, as acting more powerfully, and yet occasioning less irritation than the latter substance; it is also said that the part which it destroys is sooner detached and more easily eliminated. Its disposition, however, to extend its sphere of action has occasioned such a destruction of the membrane as to allow the urine to pass into the cellular substance, by which very serious effects have been produced. For this reason there are cases in which the *nitrate of silver* is still to be preferred. As an internal remedy it is only employed in solution. See *Liquor Potassæ*.*

POTASSÆ ACETAS. L. Acetas Potassæ. E.

Acetas Kali. D. *Kali Acetatum.* P.L. 1787.—*Sal diureticus.* P.L. 1745. —*Terra foliata Tartari.*—*Sal Sennerti.*—*Magisterium Purgans Tartari.* —*Sal Essentiale vini. Oleum Tartari Sennerti.*—*Sal digestivus Sylvii, &c.*

Qualities. *Form*, masses of a foliated, laminar texture, extremely deliquescent; *Odour*, slight and peculiar; *Taste*, sharp and pungent. Solubility. ʒj of distilled water at 60° dissolves 404 grains, or 100 parts of it are soluble in 105 parts of water; the solution soon undergoes spontaneous decomposition; it is soluble in four times its weight of alcohol. Chemical Composition. It consists of one proportional of *each of its components*, or *48 potass and 50 acetic acid.* Incompatible Substances. *It is decomposed by tamarinds, and most sub-acid fruits*; by almost every acid, as well as every variety of neutral salt whether *alkaline*, *acid*, or *metallic*. Med Uses. In small doses, diuretic; in larger ones, mildly cathartic Dose, ℈j to ʒj to produce the former, ʒij to ʒiij to excite the latter of these effects. Forms of Exhibition. On account of its deliquescent property it is not admissible in powders or pills, but should be always exhibited in solution. (*Form.* 108, 110, 111.) In the former editions of this work, I introduced under the present article, those views regarding the operation of saline bodies upon the kidneys, and their decomposition by the digestive organs, which I considered as capable of throwing some light upon the medicinal operation of these bodies. Having, however, in the present edition of my work devoted a chapter to the consideration of Diuretics, I have necessarily removed all my general observations upon this subject to that part of the work; I therefore entreat the reader to refer to page 95. Alibert, in speaking of the diuretic virtues of this salt, says that it is so well suited to the sensibility of the Absorbents that its administration is frequently followed by very salutary effects. (*Elémens de Thérapeutique*, *vol.* 1. *p.* 327.)

Adulterations. *Tartrate of potass* is discovered by adding a solution of tartaric acid, which will occasion with it a copious precipitate; the *sulphates*, by their forming with acetate of lead, or muriate of baryta, precipitates insoluble in acetic or muriatic acid. The brown tinge which

* Potass forms the basis of many of those preparations, sold as Depilatories; in some instances combined with Lime. Colley's Depilatory appears to consist of Quick-lime, and a portion of Sulphuret of Potass.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0466-3

it frequently exhibits depends upon the same cause as that which usually imparts colour to the *Liquor. Ammon. Acet.* This salt is also contaminated with *lead*, which arises from its having been prepared by decomposing the *acetate of lead* by means of *carbonate of potass*.

POTASSÆ CARBONAS. L.E.

Carbonate of Potass.

Qualities. *Form*, crystals which are four-sided prisms with dihedral summits, permanent in the air; *Taste*, slightly alkaline without acrimony. Chemical Composition. It is a *bi-carbonate*, consisting of two proportionals of potass; and in its crystalline form it also contains water equal to one proportional. Solubility. It is soluble in 4 parts of cold, and in 5-6ths of its weight of boiling water, in which it is partially decomposed, carbonic acid being emitted during the solution; it is quite insoluble in alcohol. Med. Uses. In cases where an alkali is indicated, this preparation offers an agreeable and efficient remedy; and experience has shewn that its additional proportion of carbonic acid does not in the least invalidate its alkaline agency. In disordered states of the digestive functions, alkalies frequently act with surprising effect; in calculous affections their value has been already noticed (see *Liquor Potassæ*), and the stomach appears to bear the protracted exhibition of the carbonate of potass or soda, with more temper than it does that of any other alkaline combination; and on account of the increased quantity of carbonic acid which this salt contains, it is preferable for effervescing draughts. (See *Acid. Citric.* and *Form.* 123, 168.) Incompatible Substances. *Acids* and *acidulous salts; borax; muriate of ammonia; acetate of ammonia; alum; sulphate of magnesia; lime-water; nitrate of silver; ammoniated copper; muriate of iron; sub-muriate and oxy-muriate of mercury; acetate of lead; tartarized antimony; tartarized iron; the sulphates of zinc, copper, iron, &c.* Dose, grs. x to 3ss.

POTASSÆ NITRAS. L.E. Nitrum. D.

Nitre or *Salt Petre.*

Qualities. *Form*, crystals which are six-sided prisms usually terminated by dihedral summits. *Taste*, bitter and sharp with a sensation of cold. Chemical Composition. It consists of one proportional of nitric acid, and one proportional of potass. Solubility. It dissolves in seven parts of water at 60°, and in its own weight at 212°. Its solubility is considerably increased by adding muriate of soda to the water; its solution is attended with a great reduction of temperature: it is quite insoluble in alcohol. Incompatible Substances. *Alum; sulphate of magnesia; sulphuric acid; the sulphates of zinc, copper, and iron;* according to the usual laws of affinity, it should be also decomposed by *sulphate of soda;* this however only takes place at the temperature of 32°, and then but partially. Med. Uses. Refrigerant, in which case, the draught should be swallowed immediately after the solution of the salt is complete, for if it be allowed to stand for some time, its effect with regard to cooling is not nearly so evident (see *Form.* 138, 144); as a diuretic, its powers are too inconsiderable to be employed, except in combination (*Form.* 102, 109, 115, 170); a solution of 3j to f℥vj of rose water forms a good detergent gargle, and a small portion allowed to dissolve slowly in

the mouth, will frequently remove an incipient inflammation of the tonsils : for its *modus operandi* as a diuretic, see *Potassæ Acetas*. Dose, grs. x to xv, as a diuretic or refrigerant ; grs. xxv to xl are aperient, and in large doses it excites vomiting, bloody stools, convulsions, and even death. The best anditotes are opium and aromatics. Impurities. As it occurs from the hand of nature it is far from pure, and even by art it is freed with difficulty from sea salt ; the presence and quantity of which in any specimen may be learnt by adding nitrate of silver to its solution as long as any precipitate is produced.

POTASSÆ SUB-CARBONAS. L.E.

Sub-Carbonas Kali. E.

Kali Præparatum, P.L. 1787. *Sal Absinthii. Sal Tartari.* 1745.

Before the nature of this salt was well understood, it received various appellations according to the different methods by which it was procured, and it was supposed to possess as many different virtues, as *Salt of Wormwood, Salt of Tartar, Salt of Bean Stalks, &c.*

Qualities. *Form*, coarse white grains, so deliquescent, that by exposure to air they form a dense solution, (*Oleum Tartari per deliquium*, P.L. 1720.) Taste, alkaline and urinous * Chemical Composition. This salt, although far from being pure, is sufficiently so for every pharmaceutical purpose. It consists of one proportional of acid and one proportional of potass, with variable quantities of *sulphate of potass, muriate of potass, siliceous earth, alumina*, together with the *oxides of iron, and manganese*. Solubility. It is dissolved by twice its weight of water ; the residue, *if any, may be considered as impurity ; it is insoluble* in alcohol ; with oils it combines, and forms soaps. Incompatible Substances. They are enumerated under *Potassæ Carbonas*. Med. Uses. Antacid, and diuretic, (*Form.* 101, 107, 129). but it is far less pleasant than the carbonate ; it is principally used for making saline draughts, see *Acid. Citric.* and *Form.* 107. Dose, grs. x. to 3ss. Officinal Prep. *Potassæ Acetas*, L.E.D. (℥) *Liquor Potassæ* L.E.D. (ʒ) *Potassæ Sulphuretum* (℥) L.E.D. *Potassæ Tart.* L.E.D. (℥) *Liquor Arsenicalis* (℥ L.) Adulterations. Its degree of purity may be estimated by the quantity of nitric acid, of a given density, requisite for the saturation of a given weight. The purest *sub-carbonate* is that obtained by incinerating *cream of tartar*, since most of the impurities are decomposed by the heat during the process, (*Sub-carbonas Potassæ Purissimus.* E.) ; it however generally contains lime.

* Sal Prunelle. Nitre, when coloured purple like a plum, has been long esteemed in Germany as a powerful medicine, under this name.

† M. Chevreul supposes the urinous taste attributed to fixed alkaline bases not to belong to these substances, but to the ammonia, which is set at liberty by their action on the ammoniacal salts contained in the saliva ; the proofs of which, he says, may be derived from the facts that the sensation disappears upon pressing the nostrils; and that the same odour is perceived when we smell to a mixture of recent saliva and fixed alkali, made in a small glass or porcelaine capsule. (See my work on Medical Chemistry, § 8.)

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0468-5 DFG

POTASSÆ SULPHAS. L.E. Sulphas Kali. D.

Kali Vitriolatum, P.L. 1787.

Tartarum Vitriolatum, 1745, and 1720.

Sal de duobus, &c.

Qualities. *Form*, crystals which are right rectangular (but not square) prisms, modified on the edges and angles; or double six-sided pyramids with short intervening prisms, which are macles, or hemitrope crystals; they are slightly efflorescent, and when heated they decrepitate. Solubility. f℥j of water dissolves only grs 24: the salt is insoluble in alcohol. Incompatible Substances. It is partially decomposed by the nitric and muriatic acids, in which case, a portion of the base being saturated, a corresponding portion of *bi-sulphate* results; this fact illustrates a chemical law of some importance, viz. *that a substance less weakly attracted by another than a third, will sometimes precipitate this third from its combination with the second, in cases wherein a* super, *or* sub-*salt is readily formed.** The history of tartrate of potass will furnish farther illustrations. (*See* page 157.) Sulphate of potass, when in solution, is entirely decomposed by *lime* and *its compounds*; by *oxy-muriate of mercury*; *nitrate of silver*; and by *acetate* and *sub-acetate of lead*. Med. Uses. On account of its insolubility, it does not possess much activity as a purgative, but is said to be powerfully deobstruent; it should be exhibited in the form of powder, and in conjunction with rhubarb, or some other purgative medicine. Dose, grs. x to ℥ss. *Form.* 94. From its hardness and insolubility, it is a most eligible substance for triturating and dividing powders. Officinal Prep. *Pulv. Ipecac. co.* L.E.D. (M) Under the name *Sulphas Potassæ cum Sulphure*, the Edinburgh college retains the preparation formerly known by the name *Sal Polycrest* (*Salt of many virtues*); and as it is produced by deflagrating nitre with sulphur, the product, besides sulphate of potass, contains *bi-sulphate* and *sulphuret of potass*. It possesses no superiority over the common sulphate.

POTASSÆ SUPER-SULPHAS. L.

Sal Enixum of Commerce.

Qualities. *Crystals*, long hexangular prisms; *Taste*, sour and slightly bitter. Chemical Composition. It is a bi-sulphate, consisting of two proportionals of acid, and one proportional of base. Solubility. It is soluble in twice its weight of water, as well as in alcohol. Med. Uses. It affords a convenient mode of exhibiting sulphuric acid combined with a saline purgative, in a solid form; as it is more soluble, so is it more active than the sulphate. Dose, grs x to ℥ij. It forms a grateful adjunct to rhubarb. See *Form.* 85.

POTASSÆ SULPHURETUM. L.E.

Sulphuretum Kali. D.

Kali Sulphuretum, P.L. 1787. *Hepar Sulphuris.*

Qualities. *Form*, a hard brittle mass; *Colour*, liver brown, hence the old name of *hepar*; *Taste*, acrid and bitter; *Odour*, none when dry.

* See my "Elements of Medical Chemistry," page 157.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0469-3

but if moistened, it yields the stench of sulphuretted hydrogen. CHEMICAL COMPOSITION. I consider this substance as a mixture of Sulphate of Potass, with variable quantities of Sulphuret and Bi-Sulphuret of Potassium.* INCOMPATIBLE SUBSTANCES. It is instantly decomposed by water, the oxygen of which forms Potass with the Potassium; while its hydrogen, combining with the sulphur, produces Sulphuretted hydrogen, part of which escapes, and another part forms, with the excess of Sulphur, Bi-Sulphuretted hydrogen; this latter body uniting with the base, produces what has been termed an *Hydroguretted Sulphuret*, but which might be more properly called an *Hydro-bi-Sulphuret*; upon adding an acid to the solution, a quantity of Sulphur is thrown down, Sulphuretted hydrogen is evolved, and a salt of Potass remains in solution. Metallic salts also decompose it, the metal falling down as a Sulphuret, or Hydro-sulphuret. MEDICINAL USES. It presents us with a form in which sulphur is soluble in water; it is diaphoretic, and has been found advantageous in cutaneous affections. (*Form.* 118,) and in arthritic and rheumatic complaints; while, from its known chemical action on metallic salts, it has been proposed as an antidote to such poisons. Its solution has been lately recommended as a lotion for the itch of infants, and in some cases it has been known to succeed after the sulphur ointment had failed.†

POTASSÆ SUPER-TARTRAS. L.E.

TARTARUM. CRYSTALLI. E.

Super-Tartrate of Potass. Crystals of Tartar.

QUALITIES. *Form*, small irregular brittle crystals, which when reduced to powder are termed *cream of tartar*. *Taste*, harsh and acid CHEMICAL COMPOSITION. *It is a bi-tartrate, consisting of two proportionals of acid and one proportional of potass.* SOLUBILITY. It requires 120 parts of water at 60°, and 30 parts at 212°, for its solution; it is slightly soluble in alcohol. The watery solution of this salt was first observed by Berthollet to undergo a spontaneous decomposition by keeping, during which a mucous matter is deposited, and there remains a solution of carbonate of potass coloured with a little oil. *It* has long been regarded a pharmaceutical desideratum to increase the solubility of *cream of tartar*; Vogel discovered that it might be accomplished by combining it with boracic acid, and accordingly a formula has been introduced into the Codex Medicamentarius of Paris, for preparing a "*Tartras Acidulus Potassæ Solubilis, admixto Acido Boracico.*" The following is the process. Let thirty parts of boracic acid, and twenty parts of distilled water be heated together in a silver dish; as soon as this has been effected, add, in divided portions, 120 parts of super tartrate of potass, taking care to shake the mixture continually; the whole will soon liquefy, ("*mire liquescent*,") and by continuing the heat, a pulverulent mass will result. As it is extremely deliquescent it must be carefully preserved from the contact of the air; it dissolves in its own weight of water at 55°, and in half its weight at 212°. It is probable that the re-

* See my Work on Medical Chemistry, p. 605.

† I may take this opportunity to state that Sulphuretted Hydrogen, in a state of simple solution, or in combination with other bodies, possesses considerable powers, as a remedy in many cutaneous disorders, of a chronic character. The "Gas-Water," or that which remains after the gas, used for illumination, has passed through the purifier, and which consists of Hydro-Sulphuret and *Hydro-bi-Sulphuret* of Lime, has been used with great success in such cases.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0470-4 DFG

sult is a new salt, in which the boracic and tartaric acids exist in combination,* but grant even that the chemical identity of the super-tartrate is preserved inviolate in the compound, I would ask what medical advantage can possibly attend the discovery? The peculiar value of cream of tartar depends doubtless upon its comparative insolubility, as I have already stated at *page* 177 of this work; modify this, and you will instantly change the medicinal effects of the salt; for like the neutral tartrate it will act upon the bowels, and therefore cease to undergo those changes *in transitu* which are essential to its characteristic operation. Alum also has been observed by Berthollet to have in some measure the same effect in increasing the solubility of cream of tartar. INCOMPATIBLE SUBSTANCES. *Alkalies* and *alkaline earths*; the *mineral acids*, *&c.* MED. USES. In doses of 3iv to 3vj, it acts as a hydragogue cathartic, producing a considerable discharge of serous fluid into the intestines; when however it is often repeated, it is liable to occasion debility of the digestive organs, and consequent emaciation: in smaller doses it acts as a diuretic (*Form.* 112,) 3j in oj of boiling water, flavoured with lemon peel and sugar, forms when cool an agreeable beverage well known by the name of *Imperial*. A *Cream of Tartar Whey* may be made, by adding to a pint of milk (when it begins to boil) 3ij of *Cream of Tartar*; the pan must then be removed from the fire, the whole suffered to cool, and the *whey* separated from the curd by straining; this whey, diluted with warm water, furnishes an excellent drink in Dropsy. As it decomposes the carbonate of potass, the union of these salts will afford a very pleasant purgative draught. (*Form.* 82.) OFFICINAL PREPARATIONS. *Pulv. Jalap. comp.* E (**B M**) *Pulv. Scammon.* E. *Pulv. Sennæ comp.* L. *Ferrum Tartarizatum*, L (**I**) *Antimonium Tartarizatum*. L.E.D. (**I**) *Soda Tartarizata*, L.E.D. (**I**) ADULTERATIONS. Super-sulphate of potass (*Sal Enixum*,) is the substance with which tartar is usually adulterated; it may be detected by its superior solubility, and by the solution affording with muriate of baryta a precipitate insoluble in muriatic acid.†

POTASSÆ TARTRAS L. TARTRAS POTASSÆ. Olim, Tartarum Solubile. E. TARTRAS KALI. D.

Kali Tartarizatum. P. L. 1787.

Tartarum Solubile. P.L. 1745.

QUALITIES. *Form*; this salt, although ordered to be crystallized, is generally kept in its granular form. *Taste*, bitter and cool. CHEMICAL COMPOSITION. It consists of one proportional of acid and one proportional of base. SOLUBILITY. When in its crystalline form it is soluble in its own weight of water, but in its ordinary granular form, 4 parts are required for its solution; hence, compared with the insoluble super-tartrate, it has justly acquired the name of *soluble* tartar; when long kept in solution, its acid is decomposed, and its alkali remains in a state of a *sub-carbonate*. It is also readily soluble in alcohol. INCOMPATIBLE SUBSTANCES. *Magnesia*, *baryta*, and *lime*; *acetate* and *sub-acetate of lead*,

* It may be termed a Boro-tartrate.

† ESSENTIAL SALT OF LEMONS. The preparation sold under this name, for the purpose of removing iron moulds from linen, consists of cream of tartar, and super-oxalate of potass, or salt of sorrel, in equal proportions.

Universitäts- und Landesbibliothek Düsseldorf urn:nbn:de:hbz:061:2-147636-p0471-0

and *nitrate of silver* decompose it. All acids, even the *carbonic*,* and *acidulous salts*, *tamarinds*, and other *sub-acid vegetables*, by neutralizing a proportion of the base, convert it into the state of super-tartrate; this fact offers another illustration of the chemical law of affinity, explained under the head of *sulphate of potass*. The practitioner should bear this in his recollection, for I have frequently seen a dose of *soluble tartar* directed in the acidulated *infusion of roses*; the result was of course very different from that which the author of the prescription intended to produce. Med. Uses. It is a mild and efficient purgative, and forms a very valuable adjunct to re-inous purgatives or to senna, the griping properties of which it corrects by accelerating their operation. *Form.* 70. Dose, 3*j* to ℥j, in solution.

PULVERES. L.E.D. *Powders.*

For the administration and advantages of this form of preparation, see page 195. The following Officinal Formulæ offer some valuable combinations.

Pulvis Aloes Compositus. L. Pulvis Aloes cum Guaiaco D. It consists of aloes *three parts*, guaiacum *two* (♁), and compound powder of cinnamon *one part* (☉). It combines sudorific and purgative effects. *Dose*, grs. x to ℈j. See *Form.* 80.

Pulvis Aloes cum Canella. D. and P.L. 1807. Aloes *four parts*, white canella (☿) *one part*. It is known in the shops by the name of *Hiera Picra*. The compound is more adapted for the form of pills than that of powder. It is very generally used by the lower classes, infused in gin. *Dose* grs. x to ℈j.

Pulvis Antimonialis. L.D. *Oxidum Antimonii cum phosphate Calcis.* E. This preparation was introduced into the Pharmacopœia, as the succedaneum of the celebrated *fever powder of Dr. James*, the composition of which was ascertained by Dr. George Pearson. (*Phil. Trans.* lxxxi. 317.) It consists of 43 parts of the phosphate of lime, mixed, or perhaps chemically combined, with 57 parts of oxide of antimony, of which a portion is vitrified; and it is probable, that the difference of the two remedies depends principally upon the quantity of oxide which is vitrified: the specification of the original medicine is worded with all the ambiguity of an ancient oracle, and cannot be prepared by the process as it is described.† Experience has established the fact, that *James's Powder* is less active than its imitation; it affects the bowels and stomach very slightly, and passes off more readily by perspiration; in general however the difference is so inconsiderable that we need not regret the want of the original receipt ‡ As it is quite insoluble in water, it should be given

* See page 188.

† His specification, lodged in Chancery, is as follows: "Take Antimony, calcine it with a continued protracted heat, in a flat unglazed vessel, adding to it from time to time a sufficient quantity of any animal oil and salt, dephlegmated; then boil it in melted nitre for a considerable time, and separate the powder from the nitre by dissolving it in water."

James's Analeptic Pills. These consist of James's powder, gum ammoniacum, and the pill of aloes with myrrh, (Pil. Rufi) equal parts, with a sufficient quantity of the tincture of castor to make a mass.

‡ In consequence of the antimonial powder having proved inert in the hands of Dr. Elliotson, although exhibited to the amount of a hundred grains for a dose, Mr. Phillips was induced to examine more particularly into the nature of the oxide which

in powder or made into pills. It is diaphoretic, alterative, emetic, or purgative, according to the extent of the dose and the state of the patient; in combination it offers several valuable resources to the intelligent practitioner. (See *Form.* 119, 121, 125, 129, 134. But it may be fairly questioned whether this remedy has not been far too highly appreciated. Dr. James was certainly very successful in its use, but it must not be forgotten that he usually combined it with some mercurial, and always followed it up with large doses of bark.

Pulvis Cinnamomi Compositus. L. Cinnamon bark *four*, cardamom seeds (**B**) *three*, ginger root (**B**) *two*, long pepper (**B**) *one part*. It is principally used to give warmth to other preparations, e. g. *Pulv. Aloes comp* L.D.

Pulvis Contrayervæ Compositus. L. Contrayerva, *five*, prepared shells, *eighteen parts* (**M**). Dose, grs. x to xl. It is said to be stimulant and diaphoretic.

Pulvis Cornu Usti cum Opio. L. Opium *one part*, burnt hartshorn *eight*, powdered cochineal *one part*. Ten grains contain one of opium.

Pulvis Cretæ Compositus. Prepared chalk *twelve parts*, tormentil root (**G**), acacia gum (**M**), of each *six*, cinnamon bark *eight* (**E**), long pepper (**E**) *one part*. It is antacid, astringent, and carminative. *Dose*, grs. v to ℈j.

Pulvis Cretæ Compositus cum Opio. L. Compound powder of chalk *thirty-nine parts*, opium *one part*. *Form.* 151.

Pulvis Ipecacuanhæ Compositus. L.E D Ipecacuan *one part*, opium (**H**) *one part*, sulphate of potass (**M**) *eight parts*. This combination has been long established in practice, as a valuable sudorific, under the name of *Dover's Powder*. It affords one of the best examples of the power which one medicine possesses of so changing the action of another, as to produce a remedy of new properties; in this combination the opium is so modified, that it may be given with perfect safety and advantage in inflammatory affections accompanied with increased vascular action: it would seem that whilst the opium increases the force of the circulation, the ipecacuan relaxes the exhalant vessels, and causes a copious diaphoresis: the sulphate of potass is also an important ingredient, for experience has fully proved that ipecucuan and opium, in the same proportions, have not so powerful an effect without it; its action must be purely mechanical, dividing and mixing the active particles more intimately, and it appears that the success of the remedy depends very much upon its being finely powdered. *Dose*, grs. v. to ℈j. diffused in gruel, or in the form of a bolus. (See *Form.* 120, 121, 122.) The saline constituent in the original

enters into its composition. "After the well established fact," says he, "that peroxide of antimony is nearly or totally inert, it appears to me, that if proof could be obtained that the oxide of antimony is in this state, the deficiency of power in the Pulvis Antimonialis would be accounted for." He then proceeds to detail his experiments, from which he deduces the composition of this preparation to be as follows:

Peroxide of Antimony	35
Phosphate of Lime	65
	100

which exist together in a simple state of mixture. Until the subject be elucidated by farther experiments, it will be difficult for the chemist to persuade the physician, that he can never have derived any benefit from the exhibition of Antimonial Powder, although I am by no means inclined to concede to it that extraordinary degree of virtue which many practitioners are so eager to maintain.

Dover's Powder, was the result of the deflagration of nitre, and was therefore deliquescent; its dose was as much as from 40 to 70 grains. In the *Codex* of Paris, this compound is directed to be prepared by melting together *four parts* of sulphate of potass, with an equal proportion of nitrate of potass; to which when nearly cold is to be added, and well mixed by triture, *one part* of pulverized extract of opium; the powders of Ipecacuan and liquorice root, of each *one part*, are to be added last. It is evident that the proportions of opium and ipecacuan in this combination, are less than those in ours, and yet it is said to be more powerfully diaphoretic on account of the nitre. An arrangement, which is indebted for its medicinal virtue to a similar mode of operation is presented in *Form.* 130.

Pulvis Scammoniæ Compositus. L. Scammony and hard extract of jalap, of each *four parts*, ginger root (℈) *one part*. The Edinburgh preparation of the same name differs very materially in composition, its ingredients being scammony and cream of tartar in *equal parts*.

Pulvis Tragacanthæ Compositus. L. Powdered Tragacanth, acacia gum, and starch, of each *one part*; refined sugar, *two parts*. From what has been already stated under the head of mucilage of tragacanth, it appears to be a superfluous, if not an injudicious demulcent; and since starch is insoluble in cold water, the object for introducing it is not very obvious. *Form.* 120.

Powders should be preserved in opaque green bottles, as they are materially affected by the action of light and air. Many of the compound ones should be considered as extemporaneous, and ought to be prepared only when they are required. The practitioner is also cautioned against purchasing any medicine in its powdered form, for so universal is the system of adulteration, that regular formulæ are observed in the wholesale houses for sophisticating powders, and Mr. Gray, in his "*Supplement to the Pharmacopœias*," has given several specimens, under the titles of "*Pulveres Reducti.*"

PYRETHRI RADIX. L.E.D.

(Anthemis Pyrethrum. *Radix.*)

Pellitory Root.

Qualities. The dried root is inodorous, but upon being chewed, it soon produces a pungent and peculiar sensation. Solubility. Alcohol, æther, and boiling water extract its virtues. Chemical Composition. *M. Gautier* has lately shewn that the peculiar pungency of the root depends on a fixed oil, which resides in vesicles in the bark. Med. Uses. As a sialagogue, especially in cases of tooth-ache, and in paralysis of the tongue and muscles of the throat. (*Form.* 143). It also constitutes the basis of a very valuable gargle, in use at St. Bartholomew's Hospital, for relaxation of the uvula and soft palate, as well as in certain cases of deafness depending upon an enlarged state of the tonsils. It is made by boiling ℥ss of the bruised root in oj of distilled water, until the fluid is reduced to one half; to which, when strained and cold, f℥ij of *Liquor Ammoniæ* are to be added.

PYROLA UMBELLATA.* *Ground Holly.*

Although this plant has not yet found its way into the materia medica

* This plant is esteemed by the American Indians as a universal remedy, and is al-

of the Pharmacopœia, its credited virtues entitle it to some notice in the present work. It was first brought into repute in this country by Dr. Somerville (*Med: Chirug: Trans: Vol. 5*). It is bitter, and consists of Resin, gum-resin, tannin, and bitter extractive. [Its virtues are extracted both by alcohol and water. In its effects upon the system, the pyrola is both tonic and diuretic. It is more especially, however, as a diuretic that it is celebrated. Both in Europe and in the United States, it has been administered with much success in dropsy. In nephritis and hematuria it has also been used with decided advantage, producing effects very similar to those of the Uva Ursi. Dr. Chapman represents it as being of service in cases of scrofula; and by the elder Dr. Barton it was much thought of as an antilithic. It may be given in tincture in doses of from ʒj to ʒij; or in infusion made by pouring one pint of boiling water upon ʒj of the plant, in doses of from ʒj to ʒiv.]

QUASSIA. L.E.D. (Quassia Excelsa. *Lignum.*)

Quassia.

This wood owes all its properties to a peculiar bitter principle, which has been examined by Dr. Thomson and named *Quassin;* it is solid, slightly transparent, and of a yellowish brown colour. (See *Infusum Quassiæ.*) It is said to owe its name to a West Indian negro, called Quassi, who first used it in fevers.

QUERCUS CORTEX. L.E.D.

(Quercus Pedunculata. *Cortex.*)

Oak Bark.

Qualities. *Odour*, none; *taste*, rough and astringent. Chemical Composition. We are indebted to Sir H. Davy for a knowledge of this subject; he found that an ounce of the inner cortical part of young oak bark afforded by lixivation 111 grains of solid matter, of which 77 were *tannin;* and the cellular integument, or middle-coloured part, only yielded 43 grains of solid matter, of which 19 were *tannin;* and the epidermis furnished scarcely any quantity of *tannin* or extractive; hence the bark should be selected from the smaller branches of the oak where the epidermis is still thin. Experience has, moreover, shewn that the quantity of *tannin* varies considerably, not only according to the age and size of the trees, but according to the season at which they are *barked;* thus, the bark cut in spring contains, according to *Beguin*,* four times more of the astringent principle, than that which is obtained in winter. Med. Uses. All its properties depend upon the presence of *tannin*, it is therefore only valuable as a powerful astringent; it is accordingly employed

ways carried about with them. The members of the profession have doubtless heard of an irregular practitioner, who has persuaded a certain number of persons in this metropolis, that he possesses remedies, obtained from the American Indians, by which he is enabled to *cure* Scrofula in its worst forms; it is to this Empiric that I alluded in the note at page 33; and it may be worthy of notice that the plant upon which he relies for success, is the Pyrola Umbellata.

* Philosophical Transactions, 1799.