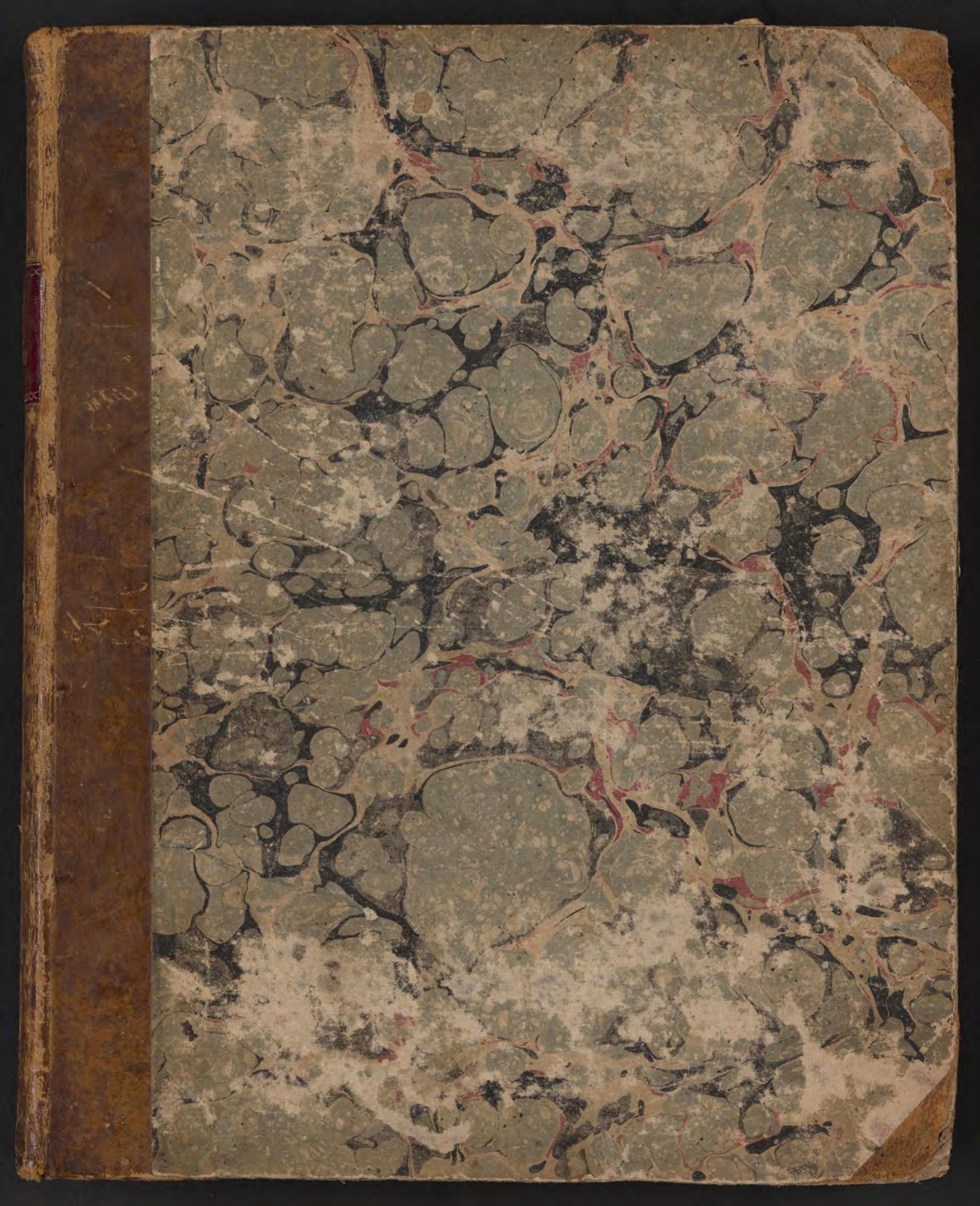

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Wm. Elmer
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+ The doctrine of signatures had a very great effect in finding out the virtues of the different articles made use of in Medicine.

Materia Medica.

Of the Means of acquiring a knowledge of the Materials used in Medicine.

(Introduction.) It is my intention to shew the manner in which you are to acquire a knowledge of the different articles made use of in Medicine.

Man seems irresistibly compelled to use certain medicinal articles, which are salutary to him. +

I proceed to treat of those means which men either in civilized or savage life have had recourse to in finding out the virtues of Plants.

There are four kinds. (viz.)

By Chemical Resolution
By Botanical Affinity
By Experience, and
By their Sensible Qualities.

I. Of Chemical Resolution.

By Chemical Resolution I mean, the separating of one part of a body from another without destroying its virtues.

By

"By such a resolution we find some virtues in bodies which in their concentrated state were concealed from us." (says the celebrated Doctor Cullen.) The business of Chemical Resolution itself, is but of little importance to us in finding out the virtues of bodies. This I infer from the experiments made by the Abbe Fontana, who by chemical analysis could not find any difference between the poison of a viper, and that of Gum Arabic.

The study of Chemistry is of great importance in the Science of Medicine. It was the opinion of our ancient Physicians that Chemistry alone would lead us to the knowledge of the properties of bodies. But it is my opinion, and I believe of most of our modern Physicians, that Chemistry alone is not sufficient, but we must have recourse to Materia Medica, Botany &c.

There is unquestionably a very intimate connection between Materia Medica & Botany.

The second mode of finding out the virtues of plants, is

II. Botanical Affinity.

By Botanical Affinity, I mean that resemblance which is found to subsist between the fructification of different plants.

It is supposed that if plants agree in

their

The Verbascum or Mullein is a narcotic: a decoction of it which is frequently given in diarrhoea and dysenteries, generally pro-duces sleep. If a fish or any other ani-mal be put into an infusion ~~of~~ it ~~kills~~ it almost instantaneously.

The root of the Strawberry is very astring-ent: in the fruit ~~there~~ is nothing like astrin-gency: hence the fruit & roots of plants are frequently different in their nature.

their fructification; they will be found to possess the same virtues. In Linnaus' fifteenth Class called Tetradynamia, almost all the plants are related to each other, by some external properties, which is called the Botanical Affinity. When we examine them we find them all possessed of the same properties (viz:) antiscorbutics, excepting one.

All the articles known by the name of Grasses, to which belong the wheat, rye, Indian Corn, barley &c.a & the different grasses are found to be of the same structure, and by chemical analysis produce the same virtues. Only one of them are poisonous, (viz) Lolium.

Botanical Affinity is therefore not a sufficient guide, to shew us the virtues of Plants.

I am in the next place to enquire how far the Sensible Qualities are sufficient to point to us their Medical Qualities? —

III. Sensible Qualities.

By the sensible Quality I mean the smell, taste, and colour of Plants. —

The ancients judged of their virtues by the smell, and taste; thus the parsley and Celery, having the same smell and taste, were supposed by them to have the same virtues.

The

III.

The olfactory nerves of the Indians are much more exquisite than those of civilized men.

Some of the most poisonous plants are destitute of both taste and smell.

In the year 1802 in the presence of several Gentlemen, I took from the vesicles of a Rattle-Snake, a quantity of venomous matter to the amount of five & six drops, some of which I put into my mouth, it immediately spread all over the mouth and fauces, and I felt a great heat, and alarming symptoms as I supposed, so much so that I had recourse to the warm water several times through the day: it however terminated without any in-jurious consequences.

The Abbe Fontana who tried the same experiment before me, was attended with very different symptoms, he says it was insipid, and caused a sense of coldness in his mouth, which was very different from the effects it produced upon me.

Whole systems of our science have been founded upon the taste and smell in dis-covering the virtues of vegetables and animals.

I myself believe that by attending strictly to the taste and smell, a tolerabell correct idea of the virtues of vegetables may be obtained.

Among

Among the classes of taste, we have one which is called the Nauseous but it is too general; we know that many of them are possessed of very different virtues. I therefore hold these things to be erroneous to judge of plants from these qualities only.

There is a greater diversity in odours, than in taste, or colours. It is impossible to bring them into a certain natural class. —

Linnaeus's pupil Bauhin divided them as follows.

1. Aromatic, as the cinnamon, cloves &c.
2. Fragantia as the Geranium,
3. Ambrosia, as the Musk
4. Oleacea, as the Garlick, Onion
5. Copish, as the Herb Robert
6. Bitter -- as Opium, Henbane
7. Nauseous, as the white Hellebore.

The ~~three~~ four first are very natural and I cannot object to them. The fifth and sixth are very improper. The last aught to be rejected entirely. I think I can add two classes which are very natural & proper (viz) the Poignant, as in the Mustard, & the Bitter, as in the Colocquintida or bitter Apple. I believe all bitter substances has this bitter smell.

The olfactory nerves are very different in different people. —

With

The pallid coloured vegetables are insipid (says Linnaeus) this I believe is not true.

Hemlock is entirely inactive when it grows in places secluded from the air.

+ The yellow Plum & raspberry are not bitter.

The colours of plants therefore cannot be considered as an unerring guide in discovering the virtues of plants.

With regard to Minerals the odour seems to be but little in shewing us the virtues of them.

Opium and Digitalis lead us to very great errors with respect to their taste. Opium has something of a ~~bitterish taste~~, like those medicines which we use as bitter tonics: but if we were to use it as such our patients would fall victims to it. In like manner Digitalis has a much more bitter ~~taste~~, and is of course more likely to lead us into error.

Celery when exposed to the light which occasions its green colour, is a very powerful diuretic, but when blanched, ~~that~~ is kept from the light, becomes white and is not powerful.

The green coloured vegetables are said to possess a crude taste. In the yellow colour according to Linnaeus, their juices are bitter. as Turmeric. If Linnaeus had said they were bitter and acrid both it would have been better. In the red the juices are of an acrid ~~taste~~. The white colour of a sweet taste. The black colour very ungrateful: the black currant is as wholesome as the red: but the smell is ungrateful, as every one knows, who has seen them. —

I believe to be the same in all animals and vegetables.

Lin-

Linnaus divides Medicines into — nervina, muscularia and viscera. —

The nervina are such medicines as act upon the nerves.

The muscularia are supposed to act entirely upon the muscles, which he divides into, such as give tone to the fibres, and such as absterge. —

The viscera are those which act upon the viscera only. —

Imperfect as this system is, it is the germ upon which many others are laid.

The term specifics as applied to Medicines, I think might be very well supplied by the term Idiopathetic, by it I mean those medicines which act upon one part in preference to another. thus Saccharum Saturni is an idiopathetic medicine by its peculiar action upon the bloodvessels. Arsenic is an idiopathetic from its acting upon the cellular substance.

Doctor Darwin divides medicines into seven Classes. — (viz) nutrientia, incitantia, secernentia, sorbentia, invertentia, revertentia and torpentia. —

To

To the first belongs all the different kinds of Animals. To the second belongs Opium & Stramonium. To the third those things which irritate the secretory vessels as cathartics diu-retics, errhines &c^a. To the fourth those things which increase cutaneous absorption, and all other kinds of absorption: as bloodletting & mercury. To the fifth those things which invert the motions of the different parts, as Emetics, violent errhines &c^a. To the sixth those things which restore the inverted order as oil &c^a — To the seventh & last all the different sedatives, as veal broth, carbonic acid gas &c^a — — I shall not follow Doctor Darwin's arrangement because I believe that some of his classes are synony-mous viz: incitantia and secementia.

All medicines increase the glandular secretions.

Doctor Cullen's arrangement is far superior to Doctor Darwins, however much of it appears to be borrowed from Linnaeus. In treating of vegetables I shall not follow the botanical arrangement, but as I believe Dr. Cullen to be the most correct method I shall in some measure follow his arrange-ment.

Having

*Of the Materia Alimentaria

+ It is doubtful with me whether an acid is nutritious: and I shall add some other substances to those enumerated by Dr. Cullen viz) Gums, Mucilage, Water Calcareous Earth, Carbon and Light, believing them to contain a considerable portion of nutriment.

Having finished in my last lecture the different methods of dividing medicines into classes, I proceed in the next place to consider the general division of Medicines.

All writers have agreed to divide them into two general heads, viz the Materia Medica, & Materia Alimentaria

*. We shall first consider the Materia Alimentaria, or that branch which considers the effects of Aliments. In many cases the taking of either solids or fluids aliments are of more use than medicines.

In treating of aliments I shall not confine myself to the quantity and quality of the nutriment contained in certain aliments, but shall depart from it in some instances. By aliments we mean those substances which when taken into the body nourish the parts.

There is certainly some difficulty in disposing of the different aliments; for example Tea and Coffee are considered as Aliments, but they are certainly medicinal articles.

According to Dr Cullen aliments contain three principles, viz. an acid, a saccharine, and an Oil. ±

An acid abounds in almost all vegetables. An acid is one of the principal

ingredients

ingredients of one of the fluids in the human body viz: the blood. Doctor Cullen thinks that the fossil acids pass through the fluids, & that they irritate ulcers and sores. I do not believe with him that they pass through the fluids, but through the solids. "How it is with the phosphoric acid, acid of borax whether they act in the above way, I do not know but I think they act in the same way with the fossile acids" (says Dr. Cullen) I believe that some of these acids enter into the system, as the phosphoric acid, from its being contained in vegetables, as the wheat rye, indian corn &c. and in the bones, and thus through all the fluids. I am however inclined to adopt a considerable part of Doctor Cullen's Theory.-

Dr Cullen thinks that unless acescent food is taken the scurvy would be universal but this is certainly not true, for in many countries people live entirely without it; and have not the scurvy. It has been supposed by other writers as well as Dr Cullen that it is owing to the taking of vegetables which forms the acetous fermentation, that diges-tion is carried on. But the experiments of the Abbe Spallanzani, Mr. J. Hunter, and others prove that it is owing to the gastric juice that digestion is carried on, and not by acetous fermentation. I doubt whether an acid

fermentation

fermentation ever takes place in an healthy state of the stomach. We know from actual experiments that the putrefaction of the blood does not take place during the circulation. (for an account of these experiments I refer you to Dr. Seybert's Inaugural dissertation.)

The experiments of Dr. Bland in the year 1792 sufficiently prove that digestion is not carried on by any kind of putrefactive fermentation. To Dr. Bland we are indebted for the first correct statement of the nature of Digestion.

To conclude therefore if it is the gastric juice which causes digestion it must be carried on during life, and certainly does not continue to be secreted after death. I cannot consider the bile as an excrementitious matter with other authors. I shall however resume this subject in another place.

The whole business of digestion is not carried on in the stomach ~~before~~ but it is necessary that it should pass through the smaller intestines, and perhaps duodenum and jejunum before it forms perfect chyle.

Whether chyle is perfectly formed in those animals which have the bile ~~is~~ thrown immediately into the stomach has not yet been ascertained. The formation of chyle is

therefore

therefore formed in animals that have their digestion in the small intestines chiefly.

In fishes the business of digestion is carried on in the Oesophagus. In some as the Carp the food is contained both in the stomach and Oesophagus, and digestion is carried on in both, but the most rapid in the stomach.

I. Of Sugar.

Doctor Cullen is doubtful whether this substance when taken in its simple state is alimentary. I shall in the first place speak of its nutritious properties.

1. Of its Nutritious Properties.

The fig into which is a great quantity of saccharine matter is very nutritious. Sugar when uncombined is very nutritious for Indians are well acquainted with the nutritious quality of sugar; when they are going to make a long journey, in order to take as little food as possible, they mix Indian meal and honey together which they take with them, knowing it is so nutritious that they can live upon it much longer than upon any other kind of food.

The

44

The farinaceous vegetables contain a great quantity of saccharine matter.

Mr. Clark has ascertained that wheat, rye &c. when young contains a great quantity of saccharine matter, but when it becomes old it loses the greater part of it. The same has also been found in peas, beans &c. —

I proceed in the next place to consider the nutritious properties of sugar which have been ascertained from experiments.

It is no doubt true that the West India slaves grow fat upon the use of it.

Dr. Boerhaave asserts that an excessive quantity of sugar emaciates the body, instead of increasing its size.

That the use of sugar does produce plethora, I am certain from my own observations. I have often advised weakly persons to sweeten their drinks well and found it attended with great benefit to them.

Besides being nutritious to man it is also to other animals. It is the practice in some parts to fatten horses upon it.

It is a very powerful anthelmintic.

Sugar is most decidedly one of the most nutritious articles, and contains more saccharine

matter

matter than any other substance we are yet acquainted with. It is also much easier kept than any other saccharine substance. It is an excellent preventative for the scurvy. It has been observed by some Physicians that the plague and putrid fevers are very seldom in those countries where great quantities of sugar or other saccharine substances are consumed.

It is certainly an antiseptic or resister of putrid or pestilential diseases. Mr. Pringle's idea of its being a preventative of the putrid fevers, is ill founded.

The scurvy is sometimes produced by a vegetable diet. A vegetable diet will not cure the Leprosy as some suppose. The Leprosy and Syphilis are only modifications of the same disease.

Sugar perhaps exists in all vegetables, but it has not yet been detected in them all by Chemists. The mushroom & fungous plants are said to contain no saccharine matter, but I believe they do, & that bees extract a great deal of honey from them. The Mosses (according to Dr. Fordyce) are said to contain no Sugar, but I believe they do also.

Sugar is found in the animal as well

as

as vegetable article: it exists in milk, honey, and perhaps in the healthy blood.

It has been obtained from persons labouring under Diabetes Melites. Mondenus relates a case of Diabetes, which lasted about ninety days, during which time the patient passed forty pints of urine daily.

Sugar has certainly a diuretic effect upon many people, and perhaps upon all at certain times, especially honey. –

It is supposed by some that the sweetness of the urine in Diabetes is generated from the morbid state of the kidneys.

Dr Pemberton thinks it is generated in the stomach and intestines. But I believe it arises from the heart & arteries. It is therefore probable that the cause of the sweetness in diabetes is from the blood. –

In arthritic diseases a large quantity of saccharine is contained in the serum of the blood: as I have witnessed in myself. –

For a chemical analysis of sugar I must refer you to books on Chemistry. According to Mr Cruikshank it consists of 28 of carbon, 8 of hydrogen and 64 of Oxygen.

The sweetness of sugar is decidedly owing to its oxygen, for when deprived of it, it has no sweetness. We have found

sugar

sugar in the animal and vegetable kingdom and some late Chemists say in the mineral kingdom.

The effects of sugar or saccharine matters are very advantageous in Dyspepsia. In cases of calculus and Gravel it has long been found very useful. The anthelmintic powers of sugar is certainly very great. It is the common opinion that sugar is injurious to the teeth. Those who eat large quantities of saccharine matter have very white teeth, and I believe if the teeth are sound, they are not injurious. Cremor Tartar has a very injurious effect upon the teeth.

II. Of Honey.

Honey may be considered as a vegetable substance. It is much less analogous to sugar than Dr Cullen and some other writers have imagined. It contains much less nutriment than sugar; and is also found to be composed of more substances than sugar; it contains carbon, hydrogen oxygen and a mucilaginous substance.

Honey has in all ages been recommended for Cough. There is often attached to

honey

honey an anodyne or narcotic quality.

It is by some recommended in the Asthma of which we cannot doubt its efficacy. Dr. Hume tells us that he cured himself of the Asthma by the use of this medicine. It has also been found very beneficial in gravelly complaints.

The honey dew which is to be seen in Virginia is an animal excretion. -

III. Of Oil.

I have no hesitation in supposing that oil and oleaceous vegetables are very nutritious. The principal oily farinaceous seeds, as the pea, bean &c. are certainly very nutritious. The oil which is taken into our system is intimately mixed with the fluids. The lymphatics is the ultimum moriens.

In the soporose state of the animalia hybernacea, the heart and bloodvessels are kept in motion, their life is not interrupted; that the fat is absorbed during this torpid state I have no doubt; because in the Spring they generally come out very poor, as I have observed in the Rattle Snake.

It is supposed by some naturalists that those bloodless animals, that is those that have

no

+ Of Gums.

no red blood are supplied with fat or oil which nourishes them.

The nutritious quality of butter is I believe known to every body. Pure butter with bread will nourish a person for a long time, without taking any other kind of food.

As this article does not stimulate the blood vessels, I have always allowed my patients to use it in small quantities, altho' they are kept upon a spare diet. The nutritious quality of the oleaceous substances is known in London, by their giving their geese and ducks the scraps of Tallow &c. for several weeks before they kill them.

Man is the most omnivorous animal we are acquainted with.

The mucilaginous quality of vegetables, and the Gums deserve our notice.

Almost all those substances which have no colour, are insipid and inodorous are called by the name of Gums. +. The mucilage of some of the Gums are very nutritious. The Moors live almost entirely upon Gum Arabic & water. The nutritious quality of Gum Arabic especially is known to Physicians in many diseases as Phthisis Pulmonalis, diseases of the Bladder &c.

Gums.

Gums contain carbon, oxygen, hydrogen, azote and lime.

We have not yet ascertained how far other animals will be supported like man upon gums and mucilages.

It is observed by Mr. Barlow that in those trees from which the mucilage is obtained, the bark is astringent.

The difference between gums & mucilage are ascertained by taking them. A solution of gum in water is transparent, & a solution of mucilage is opake

Water is very nutritious many persons have subsisted upon it for a long while

Carbon I believe may be considered as containing a good deal of nutritious matter. We have sufficient proofs that the nutritious quality of carbon is certain in animals, as in poultry and hogs. It enters largely into the composition of sugar.

It is certainly one of the nutritive parts of our elementary matter. The calcareous earth and the phosphate of lime constitute a great part of our solids.

The calcareous earths, the phosphate of lime, and phosphoric acid is obtained from our aliments. Wheat that has been sown upon ground which has been limed, is much more farinaceous, than that which is

sown

sower upon ~~lime~~ ground that has not been limed. plants

Experiments prove that ~~lime to~~ absorb, solution of iron, copper &c. and that calcareous earth is also absorbed. Calcareous earths have a great affinity for moisture.

Light is very nutritious and assists very much in supporting our system. It increases the functions of respiration, digestion &c. It has also a very great effect upon the colour and visage of Man

It acts as a very powerful stimulus upon plants. The whiteness of the leaf or colour of plants in the dark is supposed to be owing to the great accumulation of oxygen. When the action of light is applied it stimulates it, and changes its colour. Light has no effect upon the fungous plants.

It has a very great effect upon ~~the taste~~ of plants.

Digitalis cultivated in a shady place is far superior to that which is cultivated in a light place.

Negro children when first born are white but by the action of light upon it becomes black.

Materia Medica.

We now pass on to consider the Materia Medica properly so called: and this is not only the most important and most extensive branch of our Science: but it is also the most difficult task, to arrange the different articles according to their virtues.

Dr. Cullen, Spielman, & others have began their Systems by the name of Astringentia. I shall follow after them & begin in the same way; because I believe that it is a very proper lead to class some Medicines, under as the Galls, Kino, Succ: Saturni &c. But still I am of opinion that the Materia Medica would not suffer any loss, were this head entirely banished: and it is probable that at some future period I shall leave it out entirely & substitute another in its place.

Class I. Astringentia.

According to Dr. Cullen (and I adopt his opinion) astringents are defined to be "those medicines which when applied to the body, causes contraction and condensation of the solids. By what means the contraction and condensation is produced in

the

the solids is not ascertained it is probably by absorption, and perhaps an attraction of the solids for the astringent".

I must confess however that I am not satisfied with this learned man's opinion He supposes they act the same upon dead matter as upon living. In order to shew you the difference between living and dead matter it will not be improper to mention the use of that common process tanning. The Oak Bark made use of is composed of two substances - the first called tan, the second a peculiar extract. The hides when put into the Vat take up both the tan & the extract; in consequence of this the hide becomes more dense, and much heavier, putrefaction is prevented, and it receives its colour from the tan.

Upon the living body their operations are very different from what they are upon the dead. I admit the fact that certain fluids applied to the body will be absorbed, and I believe that some astringents may be absorbed. Dr. Mussey's experiments prove it satisfactorily: He observes that the Madder which he applied to his body was absorbed, but this is a very

mild

mild astringent: and therefore does not prove that powerful astringents may be absorbed. The human body by laying in astringents a length of time may become tanned like leather, and thus preserve the internal parts from putrefaction. A case of this kind I once saw myself in my passage to France - a body lying under some Moss, the skin had become completely tanned and the internal parts were preserved natural. it had lain there for half a century.

Mr. J. Moore says that the Bark Bark has no astringent effect upon the living body. This he attempted to prove by putting one hand into a decoction of the Bark first hot and afterwards cold, & he could not perceive that it produced any contraction. I do not embrace the opinion entertained by Mr. Moore, for I believe that some astringents when applied to the skin will produce a contraction of the fibres. Thus if a piece of Alum when applied to the tongue, diminishes the increase of salivation, this is owing to a contraction of the fibres of the tongue, by the absorption of the Alum, and it is spread over the mouth and fauces. Some of them act by corrugating the skin, & contracting the

parts.

Astringents act first upon the solids, and then upon the fluids. —

parts without being absorbed. I have known the swallowing of two tamarind stones which are very astringent produce constipation for several days. In what manner they operate I know not. That they are sometimes carried into the circulation, I believe may happen; but from their producing evident effects soon after they are taken, is rather a proof with me that they are not generally carried into the circulation by absorption — for instance Sacch: Saturni will frequently prevent a hemorrhage from the Uterus in less than twenty minutes after it has been taken: it certainly cannot have been carried into the circulation in so short a period. — I am rather inclined to believe with Dr Cullen that it must be owing to the impressions made upon the stomach and intestines, which are communicated, through the solids to the most distant parts: but in what way I know not.

Astringents are very useful in hemorrhages from the Uterus, Lungs, Nose, and from the Prima Via. Doctor Heberdie supposes them to be useful only in hemorrhages from the Primavia.

To prevent vegetables from bleeding, as-

-tringent

astringent substances are found to prove effectual: as burnt alum, solution of copperas &c., applied to the wounded surface.

The nature of astringents consist of an earthy base and an acid. Most of them may be made to be purgatives.

To the Chemists we are now accurately indebted for the nature of astringents. The potatoe in its wild state is very bitter and is an astringent. It was formerly supposed that the Gallic acid was the basis of all Astringents: but it is now ascertained that other acids combined with an earth produce an astringents.

We discover the effects of astringents in the sense of constriction which they exert upon the parts to which they are applied. The presence of astringents may also be detected, by applying a solution of the Sulphate of Iron, the colour will be changed to a Black or Blue. Common Tea has a very astringent effect.

I shall now treat of the pharmaceutical preparations.

The vegetable astringents will be found most efficacious when taken in their

simple

simple state. Resinous substances are insoluble in the stomach; but if combined with gums or mucilage they are rendered soluble. (This was first discovered by Dr. Lee of Edinburgh). Sometimes when the stomach is debilitated it will reject astringents in a solid form, and hence it becomes necessary to give it either in Decoction, Tincture or Infusion. Water extracts the largest proportion, then the Vinous or Spirituous by means of Infusion: sometimes decoction extracts the largest quantities. My method is to pour boiling water upon a certain quantity, stir it well & decant it off immediately: this I call the "hot infusion".

I proceed to mention the diseases in which astringents are used.

They have been recommended by the vulgar as well as by Physicians as the most efficacious means of curing Intermittent Fevers. In general they are not so useful in a simple state as when they are combined. They have been recommended in Debility - also in Cachexiae. Dr. Cullen says that in the forming state of Dropsy they are useful, but I must confess I am of a very different opinion they certainly are injurious in its early stage.

In some cases they are useful I have used the Peruvian Bark, in one case of a young

young woman who soon after parturition became dropsical. I took some blood from the arm according to the strength and fullness of the pulse. She then took the Peruvian bark & was very soon cured. I am persuaded that in some cases where fever is present, astringents & tonics are the best remedies that can be used. I once cured a case of Hydrocele from Gout by applying sinapisms to the inside of the ancles. I once had a case of Typhus Fever attended with dropsy of the Abdomen & Scrotum, which was cured by the use of Bark, Wine, Opium and Camphor.

Astringents have been recommended in all extraordinary evacuations. They are especially employed in hemorrhages from different parts. Hemorrhages are either active or passive. In active hemorrhages astringents are for the most part injurious. In passive hemorrhages they are found very beneficial. In some of those cases where physicians have recommended astringent medicines, the use of the Lancet I think would be much better, I mean hemorrhages from the intestines. It is owing to an increased action of the arteries and veins of that part. I think I once saved the life of a patient who

had

had a profuse hemorrhage from the Rectum I opened a vein from the arm, during the hemorrhage, and cured him. In the management of hemorrhages the astringents are the most useful of all other medicines. I am however doubtful as to the cause of the astringents stopping hemorrhage.

Dysentery and Diarrhoea I believe very often arise from the same remote cause. It is often found effectual to give astringents in both these cases. Some physicians use the Peruvian Bark in the dysentery: but I shall mention the impropriety of this treatment when I come to speak upon the Bark. I believe when it purges it may be useful.

Diarrhoea is generally cured by astringents, it appears to be owing to a relaxation of the intestines, in that case astringents are proper. But when it arises from a febrile action in the system they are injurious, the best remedies are bleeding, low diet and blisters. In chronic inflammatory diarrhoea blisters often repeated are useful.

In arthritic diarrhoea astringents are for the most part injurious; bleeding and a thin spare diet, is sometimes useful: but in general a blister or sinapisms to the ancles are most succesful.

There is a disease among the female sex

+ When attended with fever

sex in which astringents have been recommended in all ages and countries. I mean that of Leucorrhoea, it is a discharge of a mucous whitish appearance, but sometimes of a yellow-ish appearance approaching to something like gonorrhoea: and it is a very difficult matter to distinguish it from the other. Dr Cullen says that forty different kinds of astringents have been used without success. I am however not altogether of his opinion, I have used astringents with considerable success, but they are sometimes very injurious. This disease is often attended with a great deal of fever, & when this is the case, astringents are not successful. But where it is unattended with fever or inflammation they are very beneficial.

I have in several cases applied blisters to the Lumbar Region, with the effect of removing the disease in a very short time.†

In serous discharges from the Urethra in the Male, astringents are useful. In Gonorrhoea when unattended with fever, or inflammation or chordee, they are most beneficial. I have known leucorrhoea to be so exactly like Gonorrhoea that it could not be distinguished from it.

Diabetes is a disease which we are not yet perfectly acquainted with. it appears

to

to be owing to a relaxation of the Kidneys In this disease astringents have been used but I believe when it is attended with fever they are injurious. When attended with thirst, anxiety, & fever it is owing to a debility of the Kidneys. A man who discharged about thirty pounds per day of urine, was cured by an Emetic. which caused vomiting and profuse sweat. in this case the disease was blended with bilious affections & sickness at the stomach. All the astringents in the world would not have cured it. I once cured a Gentleman of this disease by exhibiting Nitre with Tartar Emetic, so as to produce nausea, by a low diet and by bloodletting.

In Pyrosis which is nearly allied to Diabetes, astringents are useful.

In Colliquative Sweats they are found very useful.

Dr Cullen says that the Uva Ursi and some other astringents have a very powerful attraction for acids and that they are very useful in calculous cases, by acting as tonics. I am not satisfied with the opinion but I shall speak more of it when I come to treat upon Uva Ursi.

The good effects of Uva Ursi in calculous

and

I. + Of the Vegetable Astringents.

and nephritic complaints are in a certain degree owing to their astringency.

I attended a person who laboured under a Nephritis at several different times: he took the Uva Ursi in tea, and in powder, & with the effect of discharging calculi only when he took the medicine. -

I. Of Particular Astringents.

You will observe Dr. Cullen speaks of Astringents under the heads of Mineral & Vegetable Astringents. I shall differ from him and treat of them under the heads of Vegetable and Tonics. I shall first speak of the Astringency of Vegetables: there are but few plants which have not some astringency. I am however at a loss how to begin. Dr. Cullen begins with them according to their Botanical Affinity; which I cannot comply with. I shall begin and arrange according to their degree of astringency, beginning with the strongest. and first of the

+ 1. Cortex Quercii. The bark of some of the species of Quercus, as you are all well acquainted, are much used in the process of Tanning. Dr. Cullen tells us he has often used the bak Bark in powder, with very good

success

success in Intermittents. The bark of many of the American Oaks may be classed among the most valuable astringents, and I believe they are not much inferior to the Peruvian Bark. I have used them externally in Gangrene with as good success as the Peruvian Bark.

The Spanish Oak of our Country appears to come the nearest to the English Oak, it is much the best & by far the strongest we have. The Chesnut Oak is a powerful astringent & an excellent substitute for the Peruvian Bark.

Dr. Roberts of Virginia has used the Chesnut Oak in powder with as good success as the Peruvian Bark, by exhibiting it in much larger doses.

The White Oak is next in point of astringency.

2. – Gallæ. – The nut gall is a peculiar substance formed upon the Oak by an Insect called Silex Every gall is the habitation of certain Insects: and is made by a short bodied fly of a brown colour with four red wings; It looks something like a Musquetoe. It is supposed that the insect punctures the bark and deposits a fluid which prevents the sap from running, and causes it to enlarge.

The Galls are destitute of smell, but are very astringent. Water and Spirit of

Wine

℞. = Pulv. Gallar: - grs x
Aquæ fontis - - - - ℥viij
Syr: Simp - - q.s. ~~M~~

Dose ℥ß. ter die.

℞ = Pulv. Gallar: - - - - ℥ß.
~~Aqua~~ - - - - - - ℔j.
Sp: Vin: Gall: - - - - ℥ij ~~M~~

Dose ℥ß. sex die

Wine ~~extract~~ their astringency. Galls have been used by some practitioners in hamorrhoids by mixing them with Lard & forming an Ointment. In cases of Blind Piles it has been found useful. When high up in the Rectum injections of Galls may be used with advantage. When the hamorrhoids arise in the prevalency of Malignant Fevers, astringents are hurtful. Bleeding, low diet, and mild purgatives are most beneficial. In cases of Flatus from a relaxation of the parts the following prescription has been found beneficial.
℞. Pulv: Gallar: grs X Aqua ℥viij Syr. Simp: q. s. ~~M.~~ ℥ss to be taken at a dose three or four times a day. Dr. Swediaur recommends a strong infusion to be injected up the Urethra in cases of Gleet.

In cases of Diarhoea I have found when very obstinate, and would not yield to all the other astringents: that an infusion of galls sometimes proved successful. The method in which I used it is to pour boiling water upon the powdered galls, strain them & then add a small portion of Brandy (viz).
℞ Pulv: Gallar ℥ss. Aqua lbj. Ferv: Vin: Gall: ℥ij ~~M.~~ ℥ss to be taken five or six times a day. I generally give Laudanum along with it. –

The use of our Native Galls I learned from Dr. Kuhn of this City. I have used them frequently and with success.

Gum –

℞ = Gum Kino - - -
Pulv. G: Arab: - - ℥iij
Lauch: Alb: aa
Aquæ - - - ℥viij
Dose ℥j ter die

℞: - Kino - - - grs 42
Gentian - - - - 64
Opium - - - j
Dose viij -

3d. Gum Kino. The Gum Kino is next entitled to our attention as a powerful and important astringent. We are not yet well acquainted with the manner in which it is obtained. The chemical effects, and the taste evidently proves it to be a powerful astringent. It is destitute of smell, and both Water and Spirit of Wine, dissolve and partake of its colour. It resembles a little the Sanguis Draconis, but it is very different, the latter is not soluble in Water, and does not impart an astringent taste to the Tongue. One drachm of the Kino given in twenty four hours is generally sufficient. I generally make use of the following formula. ℞. Gum Kino, Pulv: G: Arab: & Sacch: Alb: ana ℥iij. rub them together in a marble mortar, and gradually add Aquæ ℥viij. - ℥j to be given at a time. There are several diseases in which this medicine is used.

Dr. Fothergill recommends it very highly in Intermittents. In some cases of Ague which resisted the Peruvian Bark, (he says) the Kino succeeded in curing. I have never employed it in Tincture in Intermittents but I have used it in substance, and in combination with Columbo, & Opium, or Gentian with very good success. In 1804 I first used it in this form. ℞. Kino grs 42. Gentian grs 54 Opium grs ij. M. Ft. Dos: viij. -

Dr. Cullen speaks favourably of Kino

℞. Gum Rino --- ℥iij
Opium --- ℥.ß
Mucil. Q. Arab --- q.s. ~~misce~~
Pil. ij.

Kino in Diarhoea, and in hemorhages esp-
-cially after parturition: & says he has found
it very effectual. Dr. Cullen & Dr. Fothergill
have used it in Leucorhoea, but unsuccessfully
I have never used in this disease except in a
certain manner. It has been used with
considerable advantage in Gonorhoea. Mr.
Benjamin Bell says he has used it with success
in this disease. I have myself employed it
with very great advantage: and I know of but
one objection to it and that is its staining the
Linen: which is certainly a great objection to
those who wish the disease to be kept secret.

In Diabetes this medicine has also been
used with advantage. I do not speak of it
from my own experience: but from that of
Dr. Pemberton who recommends it very highly
& says he has found it very efficacious. In
Pyrosis it is also recommended by Doctor
Pemberton, in the following manner. ℞. Kinogm ℥
Opium gr. ß. Mucil: q: ~~that~~: q. s. ~~Aqua~~ Pil: ij. —
In one case which came under my own
notice I used the medicine with complete success.

It is one of the most important medicines
we can employ in practice: when we
can obtain in its pure state.

Alum and the Preparations of Lead
are the only two astringents, I shall treat of
from the Mineral Kingdom. —

Catechu

4. Catechu or Terra Japonica. It is not an Earth but an inspissated juice: and is supposed to be the product of the Mimosa or Sensitive Plant. It is of a dark red colour, and of a bitter & astringent taste: it resembles very much the Kino, and is sometimes taken for it: When pure it is of a gummous nature, completely soluble in water, and extremely brittle. It is very seldom employed in practice in our Country. It is used mostly by the French Physicians. In different countries it has been employed in diarrhoea, leucorrhoea, uterine hemorrhages &c. but I have never used it any of these cases. Some have used it in wounds but I do not approve of it. In some species of Ulcers, especially those of an Indolent kind, astringents are useful, by stimulating the system it promotes good pus. This medicine has been used with advantage in such cases. I have never employed it. The preparation of the shops is ℞. Catechu ℥ij. Cinnam: ℥ij Sp: Vin: Gall: ℔j: ~~℔o~~ —

5. Viscum or Mistletoe. It is called a parasitic plant. The berries of this fruit, is eaten by the Birds (especially the Robin) and is deposited with their faces by accident upon the branches of trees: where it immediately takes root, upon which it lives, and climbs up the tree. It is mostly found in this Country clinging to the

Gum

II. Of the Native Astringents

Gum or Apple Tree. I have never employed it in practice. It does not derive its astringency from the tree on which it grows: but from its own living power. It is unquestionably a powerful astringent; - the whole of it has been used, but the bark contains the most astringency. It may be given at about ℥ss for a dose.

Along with its astringency it has bitterness hence it might be very well classed among the Tonics. It has undoubtedly been found useful in Epilepsy. Dr Cullen asserts that he has found it useful in this disease. I have heard of a case in Delaware which was cured by the use of this medicine.

Having spoken of the most important vegetable astringents, I pass on in the next place to consider the Native Astringents.

Among the indigenous plants of our Country there are some which require our attention and one of the most important, is the

1. Geranium Maculatum. The root is the most astringent part, the leaves are sometimes used but they are not so astringent. It has been used in Cholera Infantum with very good success. I have found it advantageous in this disease: the root should be boiled in Milk; and a portion of it given to the Child several times in the day. I can say nothing of the styptic powers of this plant but I have no doubt from publications it is

very

very useful in hemorrhages, when given internally.

2. Eucharium Americanum, or Alum Root, – It is possessed of considerable astringent properties. The powder of it is said by some to be successful in curing Cancer. This however I think is not true I can say nothing about it, having never employed it. 3. The Virginica Broom Rape has been used with success in Cancer. it grows near this City. The whole plant is very astringent and has a considerable bitterish taste. It grows abundantly in Pittsburg It was this powder that Dr. Martin used in combination with arsenic, with which he cured cancers with so much success. In old Ulcers it is sometimes very efficacious.

4. Tormentilla Erectans, of Europe, it is very much like the Geranium; it also bears some resemblance to the Cinquefoil of our Country. It is a pure astringent – It is used in England in the process of tanning.

Before the discovery of the Peruvian Bark it was used in Intermittents. It is often used in combination with Gentian &c

It is supposed to be very useful in Abortions combined with other Astringents.

Cortex

5. Cortex Granatorum, or the rind of Pomegranate. Is a considerable astringent. It has been given in decoction in cases of Malaria. I know nothing of it myself. but must refer you to Books. –

6. Arbutus Uva Ursi. It is a native of Europe, and is found also in some parts of the United States. & Canada. Jersey &c

The Uva Ursi is with great propriety ranked among the astringents: it has a bitterish taste The infusion or decoction of Uva Ursi when mixed with Sulph. Ferri strikes a black colour. It is possessed of a considerable gummous matter. Its effects upon the pulse are very inconsiderable; so little that we should place it among the inertia of our medicines. It is however a powerful medicine & a considerable stimulant. It is found useful in almost all those cases where other astringents have been used. In the Intermittents of delicate people it has been used with advantage. I think it may be used advantageously in Dyspepsia. It has been found useful in Leucorrhoea. In Gonorrhoea it will no doubt be found very useful. I have used it in some cases of long standing with good success. I once tried it in a case of long standing accompanied with a swelling of the Testis, which had resisted all other medicines

medicines, and it proved an effectual remedy
Mr Benjamin Bell speaks very highly of it
in this disease, (he says) it may be begun
with ʒj a day in powder, and be increased to
℥ss three times a day, and it will very soon
become effectual. I think it is very useful
in some of the diseases of the bladder and
urethra: especially in the disease of Catarrhus
Vesicæ: and in those affections of the bladder
in which the prostrate gland is not diseased
it is of great use: I have frequently directed
my patient to carry the leaves in his pocket
and chew them very often, beside taking the
powder, & with the happiest effect. It should
be given in about ℥ss three times a day &
may be increased to the extent of ℥ij per
day, but it seldom fails in producing
nausea. In pulmonary consump-
tion the Uva Ursi has been supposed
by some to be very efficacious, but I can
say nothing from my own experience.
The London Physicians praise it very
much in the sweating stage of consump-
-tion, it is probable it has the same effect
that other Tonics would have. -
The Uva Ursi is very valuable in
nephritic complaints; it certainly deserves
our attention as an Antilithic. It
no specifics

possesses a remarkable property in relieving strangury from Blisters. This was first discovered by Mr. John Mitchell. I had a case of Hepatitis in which blisters produced strangury. - I therefore gave the uva Ursi a few hours before the blister was taken off & there was no strangury.

It will not be amiss to mention some of the acerb fruits, as the unripe persimmon, agrimonia, argentina, caryophillata, cinquefoil, &c. all of which were formerly in use, but are now laid aside. I shall therefore refer you to books for their medical virtues. - The Orobanche Virginica I refer you to my printed essay upon this plant. -

7. Rubia Tinctorum or Madder. It is not in my opinion possessed of much astringency. It is much more used as a colouring matter than an Astringent. As an Emmenagogue its powers are very great. Madder tinges the bones of a red colour, it tinges the bones of young and growing animals, much easier than old: by feeding animals upon it their bones soon become coloured. It remains a considerable

time

Of the Mineral Astringents

time in the bones, but after a while it is lost, owing no doubt to absorption.

Madder colours the milk of animals. It is possessed of but little active powers. By some writers it has recommended in the disease of Rickets. It has also been recommended in Icterus, but I am doubtful of its efficacy. As Icterus appears to be owing to stones in the Biliary duct, - madder certainly can have no effect in dissolving them.

8. Yellow Resin, of Botany Bay is lately been introduced into Europe and is highly recommended: I know nothing of it having never seen it.

I have now finished the subject of Vegetable Astringents and shall next proceed to consider the two Mineral Astringents, (viz) Alum & Sacch: Saturni. The rest of the Minerals I shall treat of under the head of Tonics.

1. Alum, for its chemical history I refer you to the Lectures on Chemistry. It is a neutral salt formed by the Sulphuric Acid & Alumina with a portion of Potash.

It

It is properly speaking a Super Sulphate of Alumine & Potash. Vast quantities of it have been found in different parts. Alum was supposed formerly to be the most common in mineral waters, but it is now found not to be the case. It is certainly one of the most powerful astringents

It is used in the process of tanning in some countries. It has been used both externally and internally in many diseases. It has been given by Dr Cullen in Intermittents combined with nutmeg. Dr Lind says that next to the Peruvian Bark he has found no medicine so successful in Intermittents, as alum combined with nutmeg. it is however disagreeable to the stomach. It is used by some combined with canella. I have myself employed it in Intermittents, combined with Colombo and Gentian.

It has been exhibited in small doses in Cholera Morbus, and Diarrhoea, with success. In the cholera which is so prevalent among children in this City, I have used alum with Laudanum to a very great advantage. Some physicians make

use

use of it in hemorrhages as hæmptysis and Uterine hemorrhages. In hæmptysis says Dr. Cullen it is not useful, but in Uterine Hemorrhages it is certainly very efficacious. He says it should be given in very small doses. In urgent cases the doses must be given frequently & increased he began with v grains & increased to ℈ss in a day: but I have found v grains to be a sufficient quantity. It should be rubbed down along with Gum ~~Arabic~~ & Sugar.

It appears to me that the stimulating plan of ~~treatment~~ in Uterine Hemorrhages is very injurious: also the use of Tonics, such as bark, iron &c. Nothing appears to me so effectual as low diet, gestation, abstinence from venery & from the use of coffee, in the disease called frequens Menstruatio. I have used alum in combination with Galls with very good success in menorrhagia.

℞. Aluminis ℥j.
Pulv: Gallar: ℥ß
Aquæ ℥viij ~~℔ss~~ Or make the alum & Galls into eight powders: & let four of them be taken in ~~twenty~~ four hours: when it purges as it sometimes does laudanum should be given. In Leucorrhœa, it is

sometimes

sometimes found very useful. It has also been found successful in Gonorrhoea the simple infusion of Alum grs v. to ℥j: ℥v. or Rose Water, is frequently used, but a better injection is made by adding the Galls to the Infusion. Mr. B. Bell recommends to boil one ounce of Oak Bark in twenty ounces of water down to sixteen, & then add ʒiij of Alum. I have never used it in this way.

On the authority of the celebrated Dr. Meade this medicine has been used with efficacy in Diabetes. It has been found very successful in this City. Dr Pistan informed me that he had a case some time ago which was completely cured by the use of alum whey. Dr Darwin supposes it acts by absorbing & stimulating the Vessels of the Bladder.

Of the External Use of Alum.

Alum often enters into the composition of Gargles. In diseases of the Tonsils nothing has been found more successful than a solution of Alum. It has also been used with advantage in putrid sore throat

The external use of alum in hemorrhages has been found beneficial. In inflammations

of

of the Eyes it has been found very useful
Dr Cullen has found ~~has~~ found from two
to five grains in an ounce of water a very
good collyrium.

Preparations of Alum.

Coagulum Aluminosa. It is a
preparation worthy of your notice: it is
made by agitating the white of an Egg
with powder of Alum: and is used in dis-
-eases of the Tonsils, in Ophthalmia &c.
It coagulates milk, and bloods.

Serum Aluminosa or Alum Whey
This is made by boiling ~~two~~ drachm of
Alum in one pound of Milk: if a little
sugar be added to it, it is more agreeable.

When exhibited in substance it
should be given first in small doses from
three to five grains and may be increased to
~~twenty~~: for an adult. It is said that
when it is long continued it produces con-
-striction of the Intestines & habitual costiveness.
this I do not believe, it more frequently pro-
-duces purging.

As to the Modus Operandi of Alum
it

it is unknown: it is probable it acts by its astringent principle, and secondarily in allaying the heat: very similar to that of Lead. Its effects upon the pulse has not been taken notice of by Physicians.

2. Armenian Bole. Its basis is Argill and it is combined with iron which gives its colour; and a small quantity of Sulphuric Acid. It is somewhat allied to Alum in its properties. It is seldom used now. I shall therefore say no more about it. Alum generally is preferred to it. —

3. Plumbum. This is unquestionably an important and invaluable remedy. I shall in the first place.

1. Take notice of its preparations.
2. Its effects upon the system
3. Its use in the cure of Diseases.

1. Of its preparations.

Lead in combination with the Acetic Acid forms the Extract of Lead.

The Super Acetate of Lead, or what is commonly known under the name of Sugar of Lead

Lead is friendly to Vegetation.

Lead is white lead in combination with the acetic acid. The celebrated Extract of Goulards, is a strong solution of Vinegar and Lead. It is made by boiling vinegar and litharge and then pouring off the solution.

2. Of the Effects of Lead upon the System. — —

One of its dreadful effects is that disease known by the name of Colica Pictonum. This affection often terminates in great pain and palsy of the limbs. It is generally brought on by taking lead internally by cyder, new rum, sweet wines &c. Wines are frequently adulterated with lead. The colica pictonum is not always produced in this way. It is brought on in painters from handling warm types, - it effects potters from the use they make of it in glazing. Those who work in lead mines are very subject to it. It acts by the volatilized particles being taken into the stomach with the food; I believe it does not effect the system untill sometime after it has been used. For a much more particular account I refer you

to

to the Lectures on the Practice of Medicine.
I shall mention a few circumstances concerning the cure of it. The bowels should be first emptied, bleeding is seldom necessary. The Bleum Pilini is the best purgative: Large doses of Calomel are sometimes preferable. Opium must be given to the relief of the pain: but it should not be given untill after the bowels are opened. It sometimes acts promptly as a purgative. I have found that after all the other remedies have failed in opening the bowels; that cold water thrown upon the extremities has been very effectual I have also employed the Tincture of Guaiac blisters & warm bath with success. —

Another effect of Lead is to produce Gutta Serena. — Its effects are not always to produce colic & paralysis - but it frequently produces general Rheumatism. Those who work in lead mines are in the habit of taking Cam in the morning instead of butter, which prevents the effects of the Lead. It has become a very general practice with those who work in lead to take a table spoonful

of

of Oleum Olivarum before they go to work in order to counteract the effects of lead. which it does completely. —

The Malic Acid frequently produces similar effects with lead.

Lead is much more deleterious in some constitutions than in others. The Sacch. Saturni when taken in too large doses produces vomiting and purging. The observations which I have made shew that although lead is deleterious, yet the evils which have been ascribed to it, are not all of them true. I have found from many experiments that lead in certain doses is not injurious to vegetables: but if given too largely it proves deleterious.

Of the Diseases in which Lead is employed. —

I. Of the External.

Mr. Goulard's extract of Lead mixed with a poultice of bread & milk has been found beneficial in many cases. It has been used with advantage in hernia humoralis, or swelled Testicle. I have found a

a strong solution of Glauber's Salts mixed with a poultice an excellent remedy. -

It has been used in Ophthalmia, in pimples upon the face, and in discuss-ing tumors with success. It has been used by some in Erysipelas, but I have seen it produce Gangrene in those cases. I would therefore advise it to be used with very great caution in this disease.

Upon the whole I am inclined to believe that the Extract & Saccharine Matter are most useful in inflammation from ex-ternal causes.

Scrophula. In this disease this medicine has been used in combination with mercury; & with advantage. but if there are many scrophulous sores it should be carefully used.

Gonorhoea. Injections of Sugar of Lead are generally used in this disease; but physicians differ very much in opin-ion respecting the strength of the injection.

I seldom use more than ten grains to eight or ten ounces of Water. The tincture Litargyri is sometimes used in injections from twenty four to thirty drops in eight

ounces

ounces of Water. In Gonorrhoea of long standing, injections made strong as ℥ss to eight ounces of Water, are generally sufficient: but this sometimes produce Hernia Humoralis. I believe this seldom happens after the injections are used very mild.

Leucorrhoea. The Sacch: Saturni given internally in this disease has been found very beneficial.

Febris Intermittens. The exhibition of Lead in this disease has been used with success. I do not speak of this from my own experience having never employed it. I have been informed by a Physician from the Country that he has employed it in small doses with very good success.

Epilepsia. It has been employed in this disease especially among Infants. It was used by Dr. Rush in a case in the Pennsylvania Hospital, but was not successful, I afterwards used the Stramonium with the same case & perfected a cure. I cannot say from my own experience much about its efficacy in

Epilepsy

Epilepsy: but I do not think it will be found much more efficacious than some other Tonics.

Pertussis. This medicine has been used with success in London by some of the physicians. I have never employed it myself, & can therefore say nothing about it

Tetanus. The celebrated Dr. John Hunter, proposed the Sacch. Saturni to be given in this disease: and placing the patient at the same time in an Ice House. I believe he never tried the experiment. — Mr. Clutterbuck made use of it & he says very effectually, but he gave it in just small doses, that I can hardly believe he was successful in curing it: he gave in doses of one grain twice in twenty four hours.

Mania. It has been used in maniacal cases by many physicians with success. I have never employed it. Morgagni mentions that he has used it in many cases with evident advantage.

Cholera

Cholera Infantum. Lead has been found serviceable in cholera in some places I received a letter from a Gentleman in South Carolina, who says he has cured several cases with it. I have not used it myself.

Diarrhoea. In those cases which resist the effects of kino, galls &c. I have found the Sacc. Saturni very useful. I employed it in the Pennsylvania Hospital with complete success after all the other remedies had failed. In inflammatory affections attended with local pain, this medicine has been employed by some physicians with success. I have not used it in the last affection.

Phthisis Pulmonalis. Some physicians have used Sac. Sat. & have performed cures with it. I have never given it in this disease but I have given it in Hæmoptysis with success, which frequently occurs in this disease, and have protracted the life of the patient by it.

Pyrosis. In this disease I think it highly probable the Sac. Saturni might be with very good success, but it is not much employed. —

Hemorrhages

Hemorrhages of Red Blood. Dr. Heberdie says that he thinks the Sacch. Saturni may be called a specific in internal hemorrhages. Dr. Reynolds used it in cases of Uterine Hemorrhage combined with Laudanum with complete success. In the case of a young Gentleman with hemoptysis he used it also with success, in a dose of Sac. Saturn. gr. j. Cons. Rosar. gr. IV & Laudanum gt. iij. made into one pill: the dose was increased & the patient entirely recovered in a very short time. In another case of Uterine Hemorrhage he gave it in doses of gr. ½ with gt. IV of Laudanum.

Uterine Hemorrhages are certainly of the active kind that is from an increased action of the arterial system. The Sac. Saturni is certainly an excellent remedy in those cases. It is one of the most important articles of the Materia Medica, & especially in hemorrhages from the intestines and uterus. In no instance that I have used has it failed in being useful. and I assure you I have seldom found it injurious. In cases of threatened Abortion, this medicine has been used with advantage

advantage: I have used myself in some cases without success, excepting that of checking the hemorrhage: and in some cases I have used it again with complete success. I was called to a Lady in the third month of her pregnancy, who had a violent uterine hemorrhage which threatened abortion: when I first saw her she was very much debilitated & her pulse was scarcely perceptible: & the hemorrhage continue very profuse. I gave her immediately three grains of Secch. Saturn. combined with one grain of Opium, and in five minutes after it was taken, her pulse began to rise, & in a very short time the hem-orrhage ceased & she soon got well. Mr. John Burns says that this medicine will have no effect unless it produces sick-ness. - this I cannot believe: - I have found it a very useful remedy not only in active but also in passive hemorrhages, as in Melena, & Hematuria which are certainly hemorrhages of the passive kind. I was called to a Gentleman some years ago labouring under a violent hematuria from improper treatment for a Gonorrhea which he had, I found him with a very small pulse, his extremities cold: & a profuse discharge of blood

from

from the Glans Penis, I immediately gave him a large dose of Sac. Saturni, and with the effect of stopping the hemorrhage in a very short time. The application of cold by means of ice, ice water &c. have been used in cases of Uterine Hemorrhage: but they are certainly not so successful as the Sacch: Saturni.

Of the Modus Operandi of Lead.

With respect to this part of my subject I am not yet satisfied: It appears to act in some measure by reducing the frequency, force and tension of the pulse. It seems to operate in the same way with general bloodletting: but this is not all it certainly acts much sooner than bloodletting. The preparations of Lead are often more successful in stopping hemorrhages than general bloodletting, purging and digitalis. – They very often cure Leucorrhoea unattended with fever, after bloodletting & purging would not. In passive hemorrhages as hematuria, melena &c. the Sac: Saturn: is an important remedy. –

There must be some other property besides that of lowering the pulse: It appears to

to have a double action: it acts also by its astringency. I cannot say in what manner it produces its effects in hemorrhages: it has a secret action which like all other medicines we have we are not able yet to find out. The experiments of Doctor Thomas Smith upon Lead I think are very valuable. & go to prove in some measure the manner of its operation. He applied a solution of the Muriate of Soda to the cut extremity of the crural nerve of a large frog, (& many other animals) which immediately produced violent convulsions in the muscles of the leg & foot: after a short time he washed the solution entirely from the part with tepid water, & applied a solution of Sac: Saturni, to the part, & with the effect of immediately stopping the convulsions: he repeated the solution of Mur: of Soda with the effect of bringing on the convulsions again & as soon as the solution of Sac: Saturni was reapplied again they were instantly stopped.

This certainly proves the sedative effects of Lead.

I have generally made use of Opium in combination with the Sacct: Saturni. The dose should be regulated according to the strength and age of the patient and the

the constitution. The largest quantity I have ever given was eight grains in combination with one grain of Opium in an alarming case of Cholera, & with complete success. In general two grains is the medium dose to be given three times a day, — five grains may be given twice a day. Dr. Boerhaave says that the solution of Lead when long continued is apt to produce consumption.

We come next to speak of

II. Tonics. Under the second head of Vegetable Astringents I think it proper to consider those ~~vegetables~~ the head of tonics. By tonics I mean a set of medicines which whether taken internally or administered externally increases the strength of the patient, without increasing the heat of the system. I do not mean administering strength merely; but in some instances lowering the strength. Dr Darwin calls this class sorbentia instead of tonics. Dr Gregory objects to the word tonic and makes use of the word Roborans. — It seems to be the opinion of some of our ancient physicians

that

*They increase the force of the circulation & produce exhilaration of the nervous system in a similar manner with stimulants.

*It acts upon the Cellular Membrane

II

that this class of Medicines act upon the Muscular system exclusively. I hope however to prove hereafter that they also act upon the heart and bloodvessels in a great degree and also upon the nerves.+ With respect to tonics we may I think receive considerable advantage from attending to their influence upon other animals beside man. They exert peculiar effects upon Vegetables: this I know from experience. It is certain they do not exert their influence upon the muscles only but upon all parts of the body. *

Dr. Cullen supposes tonics to consist in the bitter principle exclusively. I am not of his opinion, many of the laxatives and other medicines act as tonics, besides bitters, also riding on horseback, cold, certain passions and affections of the mind, as joy fear, anger, love, ambition, &c., all act as tonics in some instances. Pain is very often a powerful tonic, it gives us courage. The tonic powers of some medicines as bark are increased by adding a bitter as the Serp: Virg: a Camphor; &c. The Carbonate of Ammonia and Carbon Ammoniacum are very powerful tonics; although they have nothing of the bitter principle. In regard to medicines strictly so called a question may be asked whether those medicines which are astringents and bitter are tonics. This is a question I am

am not able to solve. I do not however think it is necessary that astringents and bitters are always necessary to produce a tonic. Dr Cullen supposes that bitters do not act as stimulants, because they do not increase the frequency of the pulse, nor the force of the circulation. I cannot agree with him in this. I am confident they do both increase the frequency of the pulse & the force of the circulation. In the summer season when the stomach is de-bilitated a draught of cold water ap-pears to be one of the best tonics. Many experiments prove that Barks, and some others are certainly considerable stimulants I differ entirely from Dr Cullen, I believe all the bitters act as stimulants in different degrees. Bitters act in part by their stim-ulating quality.

I am in the next place to take notice of the Diseases in which tonics are used. They are used both externally and internally:- They have been used in cleansing foul ulcers, and with some advantage: also in checking Gangrene: and in fomentations for discussing tumours. Bitters are said to possess

a

a narcotic quality. Dr. Cullen says they increase the appetite and promote digestion by giving tone to the muscular fibres of the Stomach. I must confess I am not satisfied with the manner in which it produces its effects. I however must differ from Dr. Cullen: for I suppose they act by stimulating the vessels which throughout the Gastric Juice, and increase its quantity.

It is used in many diseases with very great advantage, as in Dyspepsia, Chlorosis &c. — In Constipation arising from a sedentary occupation, bitters are found to be purgatives. They sometimes act as Diuretics: for this reason they are sometimes employed in Dropsy. Dr. Cullen denies their diuretic effects: — Digitalis is a bitter & is also a considerable diuretic - this one example I think sufficient to prove their diuretic properties. They have been used with advantage in Intermittents, Continued Fevers, and Typhus: They are sudorifics this Dr. Cullen also doubts. They have been used in dysentery, colic, mollities Ossium, Chlorosis and Gout. Of the bitters which are

First. (a) Of Individual Tonics

+ 1. Gentiana Lutea.

which are deleterious are Opium, some of the lactescent vegetables, bitter almond &c. The most pure and intense bitters may be used for a long time without producing any deleterious effects.

Having finished the subject of the General History of Tonics. I proceed in the next place to speak of Individual Tonics. They are principally derived from the Vegetable and Mineral Kingdom. I shall in the first place speak of the Vegetable: and shall treat 1. Of the pure bitters. 2. Of those bitters which have an astringent substance combined with them. 3. Of the stimulating as Cascarilla &c.

(a) I. Gentiana. There are many different species of this article. The Gentian of the shops is the Gentiana Lutea or Yellow Gentian, a native of England It has a long slender root of a brownish colour, it has a very bitter taste and is much more bitter than Quassia. An infusion of Gentian is much better than the spirituous extract. Many virtues have been assisted to it in diseases

of

of the stomach, in debility and in nervous diseases. The Gentian is commonly used in a vinous or spirituous menstruum.

The Yellow Gentian has long been given to prevent the inflammatory symptoms of Gout. Dr Linn says it has been given with success in calculous cases. Some writers have asserted that the febrifuge powers of this medicine is greater than that of the Bark. It has been given in Intermittents with success. Dr. Lind says that ten or twenty grains of Gentian taken an hour or two after a large dose of Tinct: Sacra, has been found successful in Intermittents. Mr Senac says he has found it in injurious. I have for a long time made use of the Gentian in substance, that is in powder, and its tonic effects I think are nearly equal to the Colombo. It has been highly recommended in Scrophula, & in Worms. It is one of the most important of the bitter articles. I have given in Leucorrhoea, and in Dyspepsia, the following prescription with the happiest effects.

℞. Pulv: Gentian: grs v.
Rubig: Ferri - grs v M to be taken five or six times in a day. —

Gentiana

2. Gentiana Centaurea, or Lesser Centaury. It is principally the leaves and stalk of the plant which is made use of. Professor Murray prefers this plant to the Gentiana Lutea. It acts as a powerful cathartic when taken to the extent of two drachms at a dose. It is however a powerful tonic; - and it has been recommended as a febrifuge. It has been used in Gouty affections with advantage, - also by some physicians in Jaundice. There are a number of kinds to be found in our Country: and it is but little inferior to the Gentian of the Old World.

3. Gentiana Angustifolia or Colic Root of Virginia & most of the South-ern States is an excellent bitter: it is very powerful, and is well worthy of investigation

The Centaury which is brought to our Markets and sold for that article was formerly supposed to be the same with that of the Old World: But I have found that it is very different, but it is little inferior to that of Europe.

It

It is the plant called Cheironia Angularis.

II. Frazera Officinalis or Colombo of Kentucky, Genesee & Ohio are little inferior to the colombo of our shops. it is a very pure bitter. I found it in Genesee. The root is sometimes as large as a man's arm.

III. Quassia. There are three kinds of which we are acquainted – the Quassia Amara Quassia Polygamia & Quassia Simaruba.

1st Quassia Amara. Is a tree of a moderate size and grows in South America It is said to have little or no smell. – The whole of the plant possesses the bitter the bark however contains the most. It is a stronger bitter than either the Colombo, Gentian or Lichen Islandicus. It was first used in the obstinate intermittents of Surinam. It was first discovered by a Negro Slave by the name of Quassy, from whence it took its name. It has been used with success in Intermittents, continued & bilious fevers. Mr. Long recommends it in dropsy & fevers. Dr. Lettson of London says that in diseases of the stomach & nervous diseases the Quassia has

has a very good effect, especially when he combined it with the Super Sulphate of Lime. It has been recommended in Gout. In calculous cases it has also been used with success. In dyspepsia & laxity of the intestines after dysentery it has been used with advantage. I have frequently employed it in practice & I think it is one of the most important bitters we have. I have generally made use of the watery infusion — patients will continue much longer upon it, than upon any other of the bitters.

II Quassia Polygamia. It is so nearly allied to the other that I can scarcely tell them apart. It grows in the West Indies. I have never employed it It is said to be a very powerful bitter & is used with success in many diseases as Dyspepsia, Chlorosis, Amenorrhea &c.

III Quassia Simaruba. This grows to the size of a large tree: & is to be found in the Island of St. Domingo: and in South America. The bark of this tree does not possess any astringent quality. It is a pure and simple bitter; water and spirits of wine both extract its virtues.

It

It is recommended in all those diseases in which bitters are commonly used. It is most commonly used in Dysentery. The epi-demic dysentery of France yielded to this bitter only. We are told that it is not to be used in the early stages of Dysentery. It is in the third stage of this disease that is where there is no fever, but little tenesmus that it should be given. Doctor Cullen has used it with success in diarhoea and dysentery to the extent of from two to three cured in twenty four hours. Habitual colics attended with bloody stools & fever this medicine has been given with advantage I have never used it myself.

IV. Colombo. This article of the Red Continent has long been known: It was mentioned by Francisco as long ago as the year 1765. I formerly supposed it to be a species of Gentian: but it is a mis-take - it is now pretty nearly ascertained that it is a species of Menespermous or Moon Seed: and it is a native of Africa. — It is a strong and not disagreeable bitter, it has a pungent taste. It gives out its bit-ter to spirits more than water. It is much less stimulating than many other bitters.

It

Its use in Diseases. It has been used with many other bitters in preventing Intermittents. The intermittent in which colombo is the most useful, is where the chills & fever are light, and the person of a delicate constitution. It appears to me to be extremely well adapted to pulmonary consumption. I generally give it in infusion during apyrexia. Dr. Cullen says that he used in dyspepsia with evident advantage I have also used it with success in this disease, but it must be given in large doses, and long persisted in. I give it in powder combined with some of the preparations of Iron:— Doctor Percival asserts that when astringents are injurious in dysentery the colombo is useful. It has been but little employed in the United States: it is however useful in some cases of Dysentery. In diseases of the stomach and bowels it has been found of great service. In Cholera Morbus, bilious vomitings and in severe vomitings it has been found useful. The dose should be varied according to the age, constitution, &c: The dose for an adult is from six to eight grains three times a day: and may be increased

to

to the extent of a scruple three times a day.
I have had but little experience with it except in substance: it may be given in infusion or tincture.

V. Zanthoriza Afifolia. It has been found in the Southern States. Its medical properties were first discovered by the late Dr Woodhouse. The bark and wood is of a yellow colour, and intensely bitter. I have made but little use of it - it is not as pure a bitter as the Columbo. It is a subject well worthy of further investigation.

VI. Hydrastis Canadensis or Yellow Root It is found in the State of Ohio. It is very much like the Zanthoriza: For a further description I refer you to my publication.

VII. Helleborus Trifolius. It is used in the States of New York & New Jersey with success in Dyspepsia & some other diseases.

VIII. Rheum Palmatum or Rhubarb: I have frequently made use of a watery infusion of this article: with great advan-
-tage.

-tage in some cases of Dyspepsia: where I wished it to act as a tonic only.

IX. Lichen Islandicus. It is found in our country: and is much employed by our Indians as an article of diet. One ounce of it boiled in ~~two~~ pints of Water yielded seven ounces of mucilage. It has a considerable bitter ~~taste~~ but is not disagreeable. It has been used in pulmonary consumption with success: and it is very highly recommended by some writers in that disease. In consumptions of general debility it is most useful by its tonic powers. ~~Its~~ virtues consist in part in the mucilage which it contains which is a very mild nutriment.

X. Chamamelum. There are several different species of it. I shall however confine myself to the flowers which are generally made use of by Physicians. The flowers have a bitter and to me a very agreeable taste. Before the Peruvian Bark was discovered the flowers of this plant was made

made use of in the cure of Intermittents. They generally gave the flowers in powder from one scruple to half a drachm at a dose When given in large quantities they act as purgatives. Sir John Pringle was very partial to an infusion of these flowers and employed them in many cases with success.

It is one of the most grateful bitter articles that can be employed in Medicine.

XI. Tanacetum. or Tansey.— This is a considerable bitter, and has a strong smell. It has been used in the Gout but without any benefit. A strong infusion of it has been used in the cure of Intermittents, and with considerable advantage.

XII. Artemisia Absinthium, or Wormwood is a very powerful bitter. and has been used with advantage in some cases. It is highly recommended by some authors.

XIII. Cortex Peruviani. It is one of those articles which was unknown in the Old World, before the discovery of America. A few years ago only two kinds of this bark were known, - we are now acquainted with more than fourteen different kinds. I shall however confine myself chiefly to the three species which is most commonly made use of by Physicians. -

I. Cinchona Lancifolia. It is called Lancifolia from its leaves being lanceolate or spear pointed, and very narrow and smooth. It is this bark which was employed by Dr. Sydenham, Morton and Pringle. It is commonly known by the name of the pale bark of the Shops: sometimes the Quill bark

II. Cinchona Oblongifolia. This is a tree of very considerable size, it has very long leaves which are oblong or elliptical. It is a native of Peru: It is this species which supplies us with the Red Bark. It is however much inferior to the cinchona lancifolia or pale bark.

Cinchona

XIII

III. Cinchona Cordifolia. This is a small tree, with its leaves rough, and heart shaped, from which it takes its name. It is a native of Peru. It is this tree which furnishes us with the Yellow Bark, and it is most commonly made use of by Physicians.

I shall now mention a few circumstances relative to the choice of this bark as to its goodness:

1. The most powerful bark is obtained from the oldest trees, and from their trunks.

2. That which is obtained from the branches or from young trees, is much weaker.

3. When cut into small pieces & dried and then packed up so as to be excluded from the air: it is much better, than when recent.

4. It keeps best in large quantities.

I refer you to the fifth volume of Thomson's Chemistry for an analysis of the Bark. It is one of those substances in which the bitter principle and astringency are combined. It is a very powerful tonic or corroborant. Its operation upon the stomach

unequivocally

unequivocally prove its tonic effects.

The modus operandi of this medicine is somewhat obscure. I must confess I do not know the manner in which it operates.

Of its use in Diseases.

In Intermittents. The first question that arises is: at what period may the bark be given with the best success in this disease When the persons are very much debilitated it should be given as soon as possible. In simple Intermittents then it is a question whether he should not wait for several paroxysms before administering the bark. Dr. Lind's Work may be read upon this subject with great advantage.

In cases where there any inflammatory symptoms I think it is necessary to bleed before administering the bark. I had in one instance in an autumnal intermittent to bleed eight times before I could give the bark, with the effect of curing the patient in a very short time. In general I believe that some evacuating medicines should be given before administering the Bark. Emetics are very improper where there is nausea, or a determination to the head: also where the patient is young plethoric. But

where

where there is a torpid state of the system and diarrhoea then they are very proper. In general however purgatives are the best for carrying off the bile. The purges which are best are Calomel alone or combined with Rhubarb. – Jalap most generally excites nausea.

In some cases I have found it very beneficial to combine rhubarb with the Bark.

It was the custom in former times to give a very large dose a short time before the paroxysm comes on, & it often proved succesful. From the experience which I have had in intermittents I believe that the exhibiting of the bark at the time when the paroxysm comes on is very injurious. In tertian fevers where there is danger of the second fit being fatal I would not hesitate to give the bark just before the coming on of the fit. I have had but little experience in Quartan fevers. Dr Clark says that the cure consists in giving as large a quantity as possible without paying any attention to the hot fit.

May the bark be administered during the hot stage? Dr Clark supposes it may. Mr Home says it should be administered after the hot stage. I think that in hot climates it may be administered in the hot stage without proving injurious. There are

many

many physicians who follow this practice of giving the bark during the hot fit. I must confess that I cannot admit it to be a safe method. I believe that when the tongue & skin are moist during the hot fit that it may be administered with entire safety. When continued for some time a portion of it is absorbed into the system.

Hitherto I have spoken only of the simple intermittents. I am now to speak of those which are attended with danger.

During the pyrexia (of this disease) or paroxysm the patient becomes somewhat apoplectic, the pulse oppressed and respiration very difficult. I would call it by the name of Tertiana Apoplectica. The bark appears to be peculiarly adapted to this kind of Intermittent it will perhaps cure by adding a purge with it. However it sometimes is necessary sometimes to bleed before exhibiting the bark, & also purge. The physician however is to place his dependence upon the liberal use of the Bark. Intermittents are not unfrequently combined with catarrhal symptoms. In those symptoms the bark given between the paroxysms is found very useful. I have never given it in this case. But I have given it with success in the Influenza

+ Pleurisy in the Head as it is vulgarly called the bark is found to be very beneficial in this disease. Copious bleeding always increases the disease

Influenza attended with Intermittents

Remittents. They require the bark in the same manner with Intermittents. They both arise from the same cause - marsh miasmata moisture and cold. - They often change one into the other. It has been said bark should not be given during the paroxysm & I have given it as my opinion that it should not in Intermittents which are regular. But in remittents after plentiful bloodletting and purging it may be given with safety +

Typhus. This disease has been supposed to arise from one cause only (viz) human effluvia: this I do not believe. As the bark is a very useful remedy in this disease yet it is necessary to know at what period to begin with it. As long as the pulse is full and tense, the eyes flushed, & symptoms of phrenitis are present, the bark should not be given. As it has sometimes remissions the bark is then to be given. When attended with delirium the bark is improper & opium is the most useful remedy.

Yellow Fever. The bark cannot be considered as

as a remedy in this disease. It has been tried but was found unsuccessful.

Plague. The bark has been used with success in this disease. I can say nothing of it myself having never seen the disease.

Synocha of Dr Cullen. This is an inflammatory disease: and a continued fever. The bark is therefore generally improper.

Rheumatism. In acute cases of this disease the bark has been given by some physicians with success. Dr Cullen says it is improper in the inflammatory stage: but after it has continued for some time, and evacuants, & diaphoretics have been used, it may then (he says) probably be useful. Of its use in acute Rheumation I cannot say much from my own experience. Dr Hogarth recommends it in rheumatism. – When it puts on the form of an Intermittent (as I have seen it do) after bleeding and purging I have found the bark an effectual remedy. In rheumatic

affections

affections of the head I have found the bark very beneficial. In the hysteric rheumatism Dr Cullen says it is useful.

Podagra. Some physicians recommend the bark as a certain remedy for this disease Dr Sydenham used it in his own case with success. It should not be continued long Dr Gardner says he has seen it produce very fatal effects. In Intermittent Gout it is very useful. I am of opinion that the only time in which it can be given is that of the irregular form attended with great debility. but I am not certain that it is safe.

Cephalalgia. The bark given in this disease during the intervals: and with judgment is a very effectual remedy.

Hemicrania. It is of a gouty origin The bark is very beneficial in this disease if judiciously administered during the intervals of the disease. It is sometimes necessary to combine a portion of Valerian with the bark.

Dysentery

Dysentery. The bark is by no means a new remedy in this disease. It was long ago made use of by physicians. Dr. Mortar made use of it during apyrexia. Dr. Cullen says it is improper during the first stage of the disease. Sir John Pringle hints at its use in this disease. I have used it only during the intermissions between the paroxysms, and I agree with Dr. Cullen that it is improper in the beginning of the disease. When attended with but little fever the bark however may be useful.

Diarrhoea Chronica. It is said by some physicians that the bark is useful in this disease. I have had no experience.

Cholera Morbus. This disease is sometimes so violent as to require cordials. When it puts on the form of an Intermittent or when it returns periodically & is ushered in with a chill. The bark is very beneficial. When intermittent the fever is most commonly a tertian. I do not believe that

there

there is a febrile disease of three days continuance that does not put on the form of an Intermittent or Remittent.

Hydrops. The bark may be so managed as to be given in this disease with success. Doctor Lind made use of it in the Intermittent form. It has sometimes intermissions when of this kind: the bark is always useful. If the dropsical symptoms return every day, or two or three days, as is sometimes the case: I myself have had cases of this kind: and have administered the bark in such cases with success.

Hydrocephalus Internus. This disease sometimes returns periodically as I have myself witnessed. When it does the bark may be exhibited with success. —

Icterus. This disease is frequently owing to a torpor of the alimentary canal. I do not distinctly know how the bark can be used in this disease: When it is accompanied with intermissions the bark may be found useful.

Phthisis

Phthisis Pulmonalis. The bark has been highly recommended by some physicians in this disease. I believe however that it is in general injurious: When it arises from an Intermittent of long continuance, to which the patient has been subject to for a long time — the bark may probably be useful When the disease is attended with vio-lent chills, the bark by preventing the chills is very useful. Arsenic however is much better for preventing the chills. In the Phthisis described by Mr. Murray in his excellent work which I recommend to all of you to read: the bark has been found very useful. It is a consumption from debility without any organic effections of the Lungs. — In tubercles of the lungs the bark is very injurious.

Hemorrhagia. In hemorrhages of red blood the bark has been highly recom-mended. If the hemorrhage be of active kind, it is certainly very injurious as in Epistaxis, Hæmoptysis. &c. I believe hemorrha-ges are most frequently of the active kind.

Hæmoptysis.

Hæmoptysis. With great reluctance would I advise you to use the bark in hæmoptysis except when it returns periodically: but there are perhaps other remedies which are much better. In its recent state the bark is very injurious. When it occurs in the last stage of phthisis: then if it be given in decoction with Elixir Citrodle it will be very useful.

Mictus Cruentus, or Bloody Urine. The bark has sometimes been found useful. It is I think generally injurious

Leucorrhœa. It has been used in this disease but I think very improperly.

Scorbutus. Doctor Rush has very properly I think called this a febrile disease: In this disease it is seldom useful. It most frequently disagrees with the stomach: When it puts on the Intermittent form the bark may be used with advantage

In Exanthemata. the bark has been used.

Variola. Dr. Cullen says it may be used only in the confluent Small Pox.

There

There is however another case, that is at the time when the eruption should appear, it does not: the patient has chills, & the system then requires stimulating in order to increase the eruption: if the bark be given the eruption immediately appears.

Morbilli. This is most commonly an inflammatory disease: and therefore requires the antiphlogistic regimen: it may sometimes be necessary to use the bark: but this is seldom the case. In the hoarseness which sometimes succeeds it particular attention is necessary. It sometimes yields to bloodletting & purging: but a contrary practice is frequently proper: as the bark opium &c.

Scarlatina Anginosa. This is very often confounded with the Measles. In the Scarlet fever which is simple without any sore throat the bark is not necessary: but when attended with sore throat & putrescent symptoms: bark, wine, opium, blisters &c. are absolutely necessary.

Varicella. It is altogether improper in this disease.

Erysipelas

Erysipelas. This is another disease in which the bark has been recommended. It however requires a very different treatment in different countries. In Scotland & Edinburgh it puts on inflammatory symptoms, and requires the antiphlogistic regimen. In London it generally assumes the form of a Typhus & requires the use of the Bark. In the United States it sometimes is inflammatory & at other times appears in the form of Typhus: and sometimes is mild as to require no particular treatment. When it assumes the form of a Typhus the bark is then necessary. I have seen it appear as a symptom of Yellow Fever. I attended a child in 1793 who had erysipelas from the puncture of a Lancet for the Small Pox. It was successfully treated by Calomel.

Pemphigus or Vesicular Fever. I have seen three or four cases of this disease in this city, all of which were females. I believe it is not an idiopathic affection but only a symptom of Erysipelas. I treated those cases by copious bleeding and purging and afterwards administered the bark with complete success.

Scrophula. The bark has been used with advantage in this disease. Dr. Thomas Bond

of

† When attended with inflammatory symptoms the bark is injurious. But when there are no inflammatory symptoms and a loss of tone of the parts the bark is very advantageous. When it arises from the poison of a rattlesnake the bark is injurious.

of this City employed it with advantage. In open scrophulous sores I have seen it useful.

Rachitis. It has been used in this disease I can say nothing about it. —

Cancer. It is said to have cured it I do not believe it ever has cured genuine cancer.

Bubo. In buboes which have been opened for some time the bark is sometimes useful in causing them to heal —

Gangrene. It is sometimes very useful to administer the Bark. ±

Of the use of the Bark in Spasmodic Affections. — — — — — — —

Epilepsia. It has sometimes been used with advantage; but in general it is attended with a plethoric state of the system: and requires the antiphlogistic regimen. Meade, Withering and some others used the bark with success in this disease. Dr Cullen says he used it with complete success in a case which returned periodically. I have sometimes prevented the paroxysm by bleeding & applying blisters or sinapisms an hour or two before the time.

Tetanus

Tetanus. I have had no experience of the bark in this disease. I must therefore refer you to Dr. Rush's publications upon this subject

Chorea Sanctæ Vitæ. In this disease the bark has been used with success by Drs Cullen and many other physicians: Sometimes it requires evacuating remedies. –

Pertussis. The bark has been found essential in this disease. It is however doubtful when is the proper time to administer it. In the early stage of the disease bleeding is certainly necessary. It is very probable that if we could prevail upon our patients to take it during the intermissions it might be advantageous. –

Asthma. It is generally connected with plethoric symptoms: in this case the bark is very injurious: but when attended with debility or returns periodically the bark is an excellent remedy.

Angina Pectoris. In this disease the bark and bitters are recommended by

a

a late writer Dr. Smith. I am however made but little use of it and therefore can say nothing about it. It is probably of Gastric Origin. —

Hysteria. The bark is said to have been used with success here, but as it is generally attended with plethoric symptoms I think it is commonly hurtful.

Melancholia. I have used it with considerable advantage.

Mania. It is sometimes found useful in certain stages of this disease

I have thus finished the subject of the use of Bark in diseases: and I have been more precise upon it because it is one of our best medicines: and I believe it is generally the case that as Physicians de-cline in life they become more and more attached to the Bark.

I am next to speak of its use when applied externally. —

I am unable to say who was the first person who recommended the external use of the bark. Some writers have recommended it

it as an Anthelmintic, to be applied externally to the abdomen in the form of poultice, with flour mustard, &c^a. — It is also recommended to be quilted in fine linen, constituting the bark jacket, and to be worn for some time. When it is difficult to administer the bark internally, which is often the case in children the use of the bark externally by means of the bark jacket is a very useful remedy in intermittents: and I have often found it successful. The bark when properly administered seldom fails in effecting a cure of intermitting and remitting fevers. — it is sometimes necessary to use mercury and arsenic but the bark I believe will very often effect a cure when the mercury & arsenic will not.

Immersing the legs of a patient in a strong decoction of bark has been found useful where deglutition is difficult, in Typhus fevers &c^a

Bark may be administered in various ways in infusion, decoction, tincture, extract or in powder. I prefer using it in powder or in what I call the hot infusion which is made by pouring boiling water upon it, letting it stand until cool, frequently stirring it, and then strain.

Of the Combinations with Bark.

The most useful combination is made by adding the Serpentaria Virginiana to it. I have

have used it with advantage in Typhus & other low fevers. It is often a good practice to combine the valerian with the bark, it is peculiarly adapted to hemicrania and other like affections. Camphor combined with it has been found useful in Typhus, confluent Small Pox &c. - From eight to ten grains of the powder of Mustard mixed with half a drachm of bark has been used with advantage in obstinate Intermittents & where there is a tendency to Typhus.

Eight or ten grains of Cayenne Pepper added to one drachm of the bark is useful in Tetanus and other like affections. The oil of Cajeput combined with the Bark, about gutt.ij to 3i of Bark has been used in pertussis, epilepsy

Opium combined with the bark is well adapted to Tetanus: & to prevent the purgative effects which bark sometimes has upon the system.

The Red Bark is the most purgative.

The bark has been used in combination with hemlock: with advantage in cancerous affections I can say nothing from my own experience.

The Volatile Alkali is sometimes combined with it, & used in Typhus & other similar diseases

Bark is often combined with the different preparations of Iron. I prefer combining it with the Rubigo Ferri, & have found it very

useful

useful in Intermittents. and in Dyspepsia It is sometimes combined with the preparations of Copper. Arsenic is sometimes used with advantage in combination with it. Calomel is sometimes used in combination with it. Also Cremor Tartari. I have sometimes combined the Carbonate of Magnesia with it in cases of dyspepsia & pyrosis. Carb: Mag: ʒj to ℥ß of Bark. The bark combined with the fossile acids has been found useful in scrofula.

XIV. Magnolia. Of this we have six different species. The Magnolia Tripetalo is a native of the United States, it is a warm and bitter tonic, somewhat astringent, & I think may be useful in Syphus. The Magnolia Glauca, is by far the most common. it is a warm & bitter tonic; and is often used by the country people in the place of Bark. The Magnolia Cucumulata is a native of Virginia: it is much inferior to the others. —

XV. Liriodendron. For a history of this Refer you to Dr P. K. Rogers' Inaugural Essay.

Cerasus.

XVI. Cerasus. This bark has been found very useful in Intermittents and is certainly a very durable tonic. I have used it with great advantage in dyspepsia & pulmonary consumption. In hectic or abscess attended with hectic fever we have proofs of its efficacy in a publication of Dr. Cutbrieth. which I refer you to. —

XVII. Salices. The different species of Willow have been found useful; it is very astringent and is antiseptic. It has been recommended in Gout, hemorrhages &c^a — It has been found useful in Intermittents Dr. Cullen says it is a very valuable medicine & may be substituted for the Peruvian Bark Dr. Haller says he has used it with success in Rickets.

XVIII. Esculus Hippocastanus. I can say nothing about from my own experience

XIX. Mahogany of the Bay of Honduras. It is sometimes used as a substitute for the bark: but it is certainly much inferior.

XX. Cornus Floridae. It has been found useful in Intermittents: it is said to be but little

Of Aromatics.

little inferior to the Peruvian Bark. It may be used in decoction, in infusion, & in powder, and it should be given in doses nearly as large as that of Peru.

XXI. Cornus Cericea or Red Willow: I can say nothing about it.

XXII. Eupatorium Perfoliata or Thoroughwort. It is a powerful astringent with some bitter. It has been found useful in a species of herpes called the James' River Ring Worm. It has been used in Intermittents with advantage.

Having finished the second Class we proceed in the next place to speak of the 3d Class. - which are those stimulating medicines, which contain but little astringency, & a considerable of an aromatic.

+

1. Aristolochia Longa, It is nearly allied to Serpentaria. It is considerably bitter and stimulating. It is much celebrated as an Emmenagogue: it is used with advantage in Gout. It forms a great part of the celebrated

celebrated Portland Powder. The following are the Ingridients. The root of Aristolochia the leaves of Chirania - - the tops of Gentian & the leaves of ~~ca~~ in powder ℥j. mix them well together. One drachm to be given every morning: and after continuing for a long time, ℥ss may be given every other morning. This powder has done more injury than any other medicine: it has been known to have destroyed the whole of the villous coat of the Stomach. I have never used it. —

2. Serpentaria Virginiani. This is the Aristolochia Serpentaria of the Ancients It is not so bitter as the Aristolochia Longi. It is found only in this Country The Serpentaria Seneca is very different from the other: it is the Polygala Seneka. The Radix Spigelii is sometimes called Snake-Root, but it is very different. The true Serpentaria Virginiani by its being aromatic, and stringy roots, differs from the other. It is more agreeable, is a pure bitter, and also contains a gummous & resinous principle. it has little or no astringency: & is a tonic.

It

It is only safe when combined with the Bark (says Dr Cullen). It has a very great effect upon the pulse. It is given in Typhus fever. Plague with great advantage. Doctor Hillary says he has used it in combination with other medicines ~~in~~ Malignant Fever & in Yellow Fever. For a further account of it I refer you to his Work. Dr Sydenham has used it in Intermitting fevers with success. The snakeroot is generally found most useful in those diseases which put on a Typhus form: and in the sinking state of Fevers.

3. <u>Croton Cascarilla.</u> It is a native of the Bahama Islands: it grows in Jamaica and many other parts of the New World. The bark is the principal part which is made use of. It is bitter and has an aromatic smell, when burnt the smell is very fragrant. It is said to produce intoxication when used to excess or when smoked. It is somewhat allied to the Serpentaria: it is a very cordial tonic. It has been highly recommended by some writers in Intermittents: & some again disapprove of its use. It however requires our attention. The powder of Cascarilla has been found useful in the plague attended with petechia. Bergius says it is an excellent remedy for hæmoptysis. I however doubt

doubt its correctness. I have made but little use of it I cannot therefore say much about it from my own experience. It is very useful when combined with the bark in Typhus & putrid fevers. In those intermittents which put on a Typhus form, it is useful. The physicians in Maryland used it with success in this last fever.

4. Angustura. It is a recent acquisition to the Materia Medica. It is a native of South America. – The powder of Angustura may be given to the extent of ½ gr. every three hours to an adult: or it may be given in infusion or decoction. It has been used with advantage in sporadic cases of Dysentery, and some have used it in Diarrhea. In ~~Intermittents~~ it has been used with considerable advantage. It is however much inferior to the Peruvian Bark. In low nervous affections Dr. Bland says it is more useful than the Peruvian Bark. In gangrenous affections of the throat it has been used very successfully. In some cases of Angina attended with scarlet eruptions, it is said to be an excellent remedy. Doctor Pearson of London says he knows no medicine of more efficacy in diseases of the Stomach than the Angustura. As a general tonic

it

it is said to be equal to any other medicine
But I believe it is much inferior to the Peruvian Bark & some others which I have mentioned
In Chlorosis it has been found useful. In some respects the Angustura is preferable to the Peruvian Bark especially to children they are much more willing to take it & it does not effect their stomach & bowels as the other sometimes does.

5. Arnica Montana. This is a native of the mountainous parts of Europe: and is somewhat allied to the Dandelion. It has been found very useful in the last stage of dysentery and in Intermittents. also in certain species of Marasmus.

6. Fumaria Officinalis. or Fumitory. It is an agreeable bitter: and has been found very useful in Lepra.

7. Lupulus. The hop is a very useful article. The best substitutes for it are the Quassia and Sweet Fern. Since the introduction of the hop into fermented liquors, the

calculous

calculous affections have become more numerous.

The famous Erasmus was severely afflicted with gravel which was brought on by the use of fermented liquors. The hop is a tonic, & is useful for drunkards: and has been used by chlorotic girls with benefit.

Porter as a medicine is peculiarly adapted to Typhus and Chlorosis: it is better than Wine by its suiting the stomach & being a greater tonic. The hop has unquestionably a narcotic principle. It is commonly used in Tincture, and is an excellent substitute for Laudanum: it frequently happens that laudanum affects the stomach of some persons so that they cannot make use of it. When this is the case the Tincture Lupulorum may be used without any ill consequences arising from it. The following formula may be used. ℞. Lupulorum ℥ss

Sp: Vini Rect. ℥viij ~~Ftr~~.

Sixty drops of this tincture is equal to about twenty drops of Laudanum.

The following is the formula of the London College. ℞. Lupulorum ℥v

Sp: Vini Rect: lbij ~~Ftr~~

Infuse for ten or twelve days & decant it.

I have now finished the subject of the Vegetable Tonics.

J.

The Rub: Ferri or Carbonate of Iron is made as follows Sulph: Ferri: ℥viij
Sub: Carb: Soda: ℥x
Aq: Bullient: ℔j.

The Flores Martiales is the Muriate of Ammonia impregnated with Iron. The dose is from four grains to a scruple made into a bolus.

The Vinum Chalybeatum is made by Macerating ℥j. of the Limatura Ferri in Vinum ℔j for several weeks. It is very useful in cases of debility & in promoting digestion. The dose is from ʒj to ℥ß - -

I proceed in the next place to speak of the Metallic Tonics. — These are iron, copper arsenic, silver, bismuth, Zinc. &c.

Metallic Tonics.

1. Ferrum. I refer you to books for its history, which I shall pass over. It is prescribed in various forms by Physicians it may however be reduced to four heads.

1. Iron in substance — as Limatura Ferri, ~~Ferrum Metallicum~~ Ferro Metallic particles, Crocus Martis. Rubigo Ferri

2. Iron in combination with saline substances — as. Sulph. Ferri.

3. Iron made into Tinctures with Spirits Wine &c. — as Tinct: Martis. Vinum Chalybeatum, Tinctura Vitriol: Ferri. and some Mineral Waters.

Dr Cullen supposes that iron cannot be dissolved in the stomach, unless an acid be combined with it, or that it is present in the stomach. I am of a very different opinion: it is very rapidly soluble by the Gastric Juice: and I believe it is never necessary that an acid should be present. By the long continued use of iron the stools become very black. The general opinion is that Iron acts as an

aperient

aperient and astringent. The word tonic I think would be better, and somewhat of a stimulant.

Of the Diseases in which Iron has been used.

Iron is much better adapted to the cure of Intermittents than the cascarilla. and in cases of simple Intermittents it is sometimes very useful. It is improper in inflammatory fevers. In Leucorrhoea the preparations of iron are very useful. I know of no disease except Retention of the Menses in which I have found the Iron more successful. In Retention of the Menses.-as this depends upon debility, no preparation is certainly more useful than preparations of iron in this disease It is certainly one of the most powerful tonics which we can use, especially when combined with some vegetable tonics as colombo, gentian &c. — The various preparations of iron have been used in hemorhages - this is of ancient date. In the hemorrhoids it is said to be very useful. The astringency of iron is not considerable, & cannot be considered of much notice in hemorhages But in some hemorhages it is useful from its tonic power as in some cases of Menorhagia. In hemorhages from the kidneys

kidneys, some of the preparations of iron are found very useful. In bloody urine which cows are sometimes subject to 60 grains of Opium & Rubigo Ferri, combined with flour & made into a bolus with water has been found useful. In Epistaxis iron is generally injurious: - lead is much better. In hemoptysis it is also injurious. - In phthisis Iron has sometimes been used with advantage. In cases of debility with a tendency to phthisis the rust of iron has been found very useful: the preparation which I make use of & which I think is best adapted to it. is iron or the Rust of Iron in combination with creta. - The hemorrhoids sometimes arise from the increased action of the vessels of the intestines: in this case the preparations are injurious: - but sometimes it arises especially in old age from a debility or laxity of the intestines, in this form, the carbonate of iron is certainly of great advantage. I have used Rubigo Ferri ten grains two or three times a day in combination with rhubarb with very great success. Dyspepsia in this disease the preparations of iron have been used with advantage - but I believe in cases where the patient is plethoric & sanguine they are certainly very injurious. In pyrosis this

medicine

medicine has been found very useful. The carbonate is the best preparation. In Hydrops, it has also been used with success: but I think where it depends upon an excess of action it proves injurious, in its farming state it may be useful. Dr. Sydenham gave it in combination with Garlick. In chronic obstructions of the Liver & Spleen. it has been found useful. I have used it in what is called the Ague Cake, with arsenic. very advantageously. In Podagra, this medicine has been recommended. It is however very injurious in the inflammatory stage of Gout. In the atonic & recedent Gout it is also injurious. In Asthma it has been highly recommended during the intermissions & paroxysms of asthma. Dr. Bree says he has used it with complete success in the intervals of Asthma. In the sanguine Plethoric it is injurious. In Cancer it has been highly recommended by the British Practitioners in this disease: It has been used both external and internal: The Carb: Ferri has been used to dress cancerous ulcers, & is said to be used with success. Iron seems to have solicited the notice of Surgeons from their

supposing

supposing this disease to be an organized body - but cancer like worms is an extraneous body. In cutaneous eruptions Dr. Bree says he has used it with success; in ~~chronic~~ cancerous affections which have a cancer appearance the preparations of iron are useful. The anthelmintic powers of iron are considerable: I shall however speak of it when I treat of Anthelmintics.

The preparations of iron exert their effects upon the stomach: which communicate it to other parts of the body. I have thought it was carried to the bloodvessels: throughout the system. Mr. Lowry says he has detected it in the Urine. In a patient who took 1150 grains in five weeks the urine was examined without detecting the least particle in it. A man under my care in the Pennsylvania Hospital took 480 grains a day for several days: his urine was examined very carefully frequently but could not detect the iron. Dr. White says that the iron taken into the stomach does not enter the lacteals. The experiments of Dr Hodge of the West Indies & of a pupil of mine Dr. Walmsley prove very satisfactorily that it can be detected in the lacteals a certain distance: but that it is not carried into the circulation: their experiments were made upon dogs: & with the Tinct of Galls. It is probable it was carried to the conglobate glands & there digested & then carried into the circulation: so that it could

not

not be detected by the Galls. I must however refer you to the dissertations for an accurate account.

I cannot however yet give up the opinion that some of the preparations of iron are carried into the circulation by the absorbents. That seems to convince me is the experiments which I have made upon plants. Have immersed the Willow, Mulberry &c. in weak solutions of iron in which they flourished & grew very well, & afterwards immersing them in a solution of Galls: I could very easily ~~that~~ the iron was absorbed by the black colour which the Galls produced in the small vessels. Iron has lately been detected in Milk. It is found in the composition of many vegetables & in the blood of all animals whether carnivorous or herbivorous. I believe it is produced by certain powers in the system. Iron is I believe a compound ~~of~~ the particles which compose it are taken into the system by means of the matters which are taken into the stomach, & by the powers of the system, (but in what way I know not) iron is formed ——

Lime silex & iron is formed by the juice of vegetables from the fluids & solids they take up ~~tho'~~ neither lime, silex, nor iron be presented to them. The quantity of iron which is necessary to be taken.

Dr. Cullen remarks that the preparations of iron often prove injurious by their being taken in small doses. He says he has found the

Carbonate

Carbonate of Iron the best preparation ~~that~~ can be used. I am of his opinion.– he begins with giving five grains at a dose for an adult increasing it as the stomach will bear & has increased it to the extent of ℥ij in a day. I commonly begin with small doses of five grains ter die, & continue it to ʒ ss. bis ter die. & it should be continued a long time. I have given it to the extent of ℥ij a day without any disadvantage

The Italians make use of the Lunatum here I find it very convenient & useful to give the iron in combination with cinnamon.. it has a much better effect, & prevents the purgative effects of the iron –

2. Cuprum. I refer you to Chemistry for its history. Dr. Cullen places this article among the class of Astringents I prefer placing it among the Tonics. It is a stimulant and certainly deserves the appellation of Tonic. In diseases from a loss of tone of the Stomach this medicine is very useful Dr. Lewis says that pure copper is indissoluble in the stomach. This is not true for it has been proved that it is rapidly soluble by the Gastric Juice. A Girl swallowed a copper & after a few days she discharged the copper per anum upon examination the letters upon it were entirely

destroyed

destroyed. Some of the preparations of copper prevent the paroxysms of Intermittents
Dr. Duncan says that copper in its metallic state has no effect upon the stomach except mechanically. The pernicious effects of copper upon the system are loss of appetite nausea, vomiting, headache, delirium, oppression at the breast, vertigo, inquietude, paralysis apoplexy, weak & small pulse, purging & sometimes costiveness &c. Such are its dreadful effects when taken into the stomach.

It exerts its effects upon other animals besides man. It is remarked that dogs who licked brass pots very seldom live long. They are generally seized with a purging which kills them. It has no effect upon birds. Copper has never been used in its metallic state as a Medicine. I forever think it might be used with advantage. It produces ptyalism. A physician was called to see a child in this city who had swallowed a cent, among other symptoms the child had a sore throat, & ptyalism soon afterwards took place which continued untill the cent came away per anum several days after. — — — I am in the next place to mention the different preparations of copper.

Briggs

3. Aerugo. or Acetate of Copper. This is copper combined in a particular manner with the acetic acid. It is made in the large way: as follows after the grapes have been prepared: they are laid down in layers one of grapes & then a layer of plates of copper: these after remaining some time oxide the copper & form the substance called acetate of Copper or Verdigrise. Another preparation is the Mel Ægyptiacum it is composed of Mel: ℥iv Vinegar ℥viij & Acet: of Copper ℥v. M. It is used as an astringent and escharotic. The Acetate of Copper is used in cases of malignant ulcers, as venereal & some affection of the bones. It was found to be one of the Ingredients which a Quack made use of in Cancers. It has been used in Gleet in the form of injection. Acet: Cupri vgrs. to Ol: Olivar ℥iv. but I think it is too stimulating. I have however not used it myself.

Ens Veneris of Mr. Boyle has been highly extolled as a Medicine

Cupreum Ammoniacum is very similar to Ens Veneris. It is made by adding ℥ij of the Sulph: Cupri to ℥iij of Vol: Sal: Ammon: M. According to the London College it is made by Sulph: Cupri ℥ß. to Carb: Ammon ℥iij: M & dry with a gentle heat. The Aqua Sapphirina is made by Cup: Ammoniac: ℥j to Aquæ ℔j: it should be filtered. It is called by the London College

Liquor

Liquor Cupri Ammoniaci. The dose is from 1/4 grain to 1 grain his die. It has been used in Epilepsy. Dr Cullen thinks it is preferable to the blue vitriol; he says he has cured epilepsy with it. Dr Darwin says he has used it in this disease but found it only in some few instances beneficial. It has certainly very stimulating effects. and it should be given in very small doses. It produces sickness, nausea vomiting, but if given properly and not upon an empty stomach: it prevents all the above symptoms. It sometimes produces ptyalism but this is an uncommon occurrence. It has been used in Dropsy with advantage. It is a considerable cathartic. Has been used in foul ulcers with advantage. I have found that Verdigris mixed with Basilicon into an Ointment has a very good effect upon old venereal ulcers. It has also been used in chancres that are foul. it may be applied either in powder in ointment or in solution.- the strength of the solution may be from two grains up to twenty to the ounce of Water. Verdegris made into an Ointment with Lard. is an excellent remedy for tinea capitis. In the different affections of the eyes the preparations of copper have been found useful.

Sulphat: Cupri. or Blue Vitriol: It is commonly called a Sulphate of Copper it is not it is a Super Sulphate of Copper. It has been

It is made by Silver ℥j. Nitric Acid ℥iv.

been highly recommended in Intermittents. It should be given in doses of ¼ grain to 1 grain three or four times a day. Mr Adair makes use of the following Pil: Cerul: gr. vj Cancella Alba ℥j: make into 80 pills. Dr. Morris used Pil: Cerul gr. iv Extract Bark: 32 grs made into 16 pills: They used them with success. In some cases where neither bark nor arsenic had any effect I have made use of the Pil: Cerul. combined with Ginger & with success. It has the best effects when it produces nausea

It has been employed as a remedy for gleets and Gonorrhoea in injections. I formerly used it myself but have now laid it aside having found it very difficult to manage.

It has been used in Uterine Hemorrhages & Hemoptysis. I have never used it myself.

3. <u>Argentum</u>. The preparation generally made use of is the Argentum Nitratum. It has long been employed as an escharotic. I generally apply it to the sores by means of a hair pencil & as soon as I apply it wash it off immediately with clear water, it stops the pain instantly: I by so doing the patient will submit to having it repeated as often as you please. It has been employed in the form of pills in dropsy called Pil: Lenrose. but they are now out of use

it

A solution of the Nitrate of Silver has been found useful in ulcers. It is used by practitioners as an exterrotic. In the species of ulcer called herpes or ring worm it has been found useful. Sometimes the solution of the Muriate of Mercury is sufficient or the Unguentum Citrineum. but often the sol. of Silver is resorted to. The Nitrate of Silver is supposed to be the most powerful antiseptic known. if solved in 12.00 times its weight of water it will preserve meat for a long time.

In the ~~United States~~ this medicine has been but little used in Epilepsy. There are however some cases on record in which it has been found useful. I have used it myself in the Pennsylvania Hospital but without any particular good effect. In two cases I think it was somewhat beneficial. It may be given to a very great extent without any injury. It has been given to the extent of twelve grains three times a day. I have myself given it to the extent of six grains three times a day. I generally begin with small doses with 1/8 of a grain to six. In Angina Pectoris this medicine has been given with advantage. I have read of a case which was completely cured by this medicine

4. Lineum. It is never used in its metallic state. —

Flowers —

Flores Zinci. It is formed by exposing the metal to a red heat, it takes fire & burns with a white flame, & forms an oxide of Zinc, which is the flowers of Zinc. This medicine was first brought into use by Gaubius who was very successful in curing Epilepsy with it. It has been used in the Pennsylvania Hospital in Epilepsy: but with little advantage. It has been used in Hysteria with considerable advantage. Dr. Duncan relates a very interesting case he cured by this medicine. This medicine has been found useful in sordid ulcers

Sulphat. Zinci or Zincum Vitriolatum of Bergman. There are two kinds the Sulphated & Super Sulphate of Zinc. The latter is the kind generally employed in practice - it is the common White Vitriol of the Shops. It is given as a tonic in many diseases. It enters into the combination of the Duffia drink which has been found so useful in Hysteria. I have generally given it in combination with colombo, gentian &c. Colombo grs vj to Sulph. Zinci grs ij. — It has been used in Epilepsy with success. I have used it myself with advantage. It has been employed as a remedy in Pertussis - it lessens the violent convulsive motions of the system. It appears to act principally by its emetic quality

I have found it useful when it did not produce nausea, but only acted as a tonic. I have given it in solution in this disease with advantage. Sulph. Zinc: ℈j to Aquæ ℥iv. two or three tea-spoonfuls two or three times a day to a child of four or five years old: with the addition of the Pectoral Mixture. The super sulphate of Zinc is found very useful in Gonorrhœa. but it should not be made very strong I use this Sulph. Zinc. grs vj Sac: Sat: grs iij to Aquæ ℥viij in the recent state. It has been used in Ophthalmia in the proportion of ten grains to Aquæ ℥viij.

Acetate of Zinc. It has been used in Ophthalmia as an Emetic. it acts as Emetic when given from five to ten grains. It is said to be superior in Gonorrhœa in the form of injection to the Sulph. Zinc. To a solution of Sulph: Zinc in 8 times its weight of Water add a solution of Acetate of Lead in twice its weight of water & an acetate of Zinc is formed. I have never used it unconbined with any other Medicine. —

5. Bismuth. I can say nothing about it from my own experience. In England the magistery of bismuth has been used with advantage in dis-eases of the stomach, & in spasmodic affections. It has lately been used in New York with advantage The White Oxide of Bismuth ~~or Magistery~~ is given in doses of v grains to an adult —

~~Argentum~~ 6. Stannum. The principal properties of Tin are its anthelmintic powers: it acts wholly mechanically: for when given in an impalpable powder: it has no effect: it must therefore be given in the form of Limatura Stanni. It is said to be antispasmodic and has been used in Epilepsy with advantage: but in that case the disease arose from worms. I am doubtful whether it ought to be considered as a Tonic: its powers are very feeble. —

7. Arsenicum. It is one of the most powerful articles in the Materia Medica. It is placed by the chemists among the semi metallic bodies. To Brandt & Macquer we are indebted for its analysis. The pure or Regulus of Arsenic is of a blackish grey colour: when exposed to heat it is oxyded & forms the Oxide of Arsenic. It has little or no effect in its metallic state & is never used in medicine. The oxyde of Arsenic has a caustic taste and is the most poisonous substance both to man & animals that we are acquainted with. The preparation of Doctor Fowler's which he calls the Mineral Solution is very much used. It is made by boiling Arsenic and Alkali in a 24 grains in a flask to Aqua lbj add half the water & afterwards gradually add water by

— fine

sufficient to make a pint: One ounce of this contains four grains of Arsenic. The doses directed by Dr. Fowler are too large: patients can seldom bear that quantity: I generally begin with very small doses: so as not to affect the stomach in the least at first: to a child of four years old three drops in a day is quite enough to begin with. Dr. Darwin made use of a saturated solution of Arsenic. My favourite method is to give it in substance to adults, made into pills with Opium & Honey or Molasses; each pill containing 1/10 of a grain of arsenic & 1/4 of a grain of Opium and give the patient three of them in a day. —

℞. Arsenicum gr. j.
Pulv: & Opii gr. iv Ft Pil: xij Ut: ter die
Cons: Rosar. q. s.

I have found this preparation successful in Intermittents: & I think is far preferable to Fowler's Solution. In Intermittents I have not found it necessary to go beyond three grains of this medicine it is sufficient to cure the disease; & if it does not by that time it will do no good & may be discontinued. I have exhibited it in some cases without its producing any good effects. I ascribed it to this circumstance that in those intermittents there was a great tendency to Typhus. In the Summer of 1808 I gave it in the Pennsylvania Hospital in some of which it had no effect

and

and they were cured by administering the Sulphate of Copper. The time for giving this medicine should be between the paroxysms, & during apyrexia. The same rules should be observed as in administering the bark. It commonly shews its good effects in a very short time in the system, by diminishing the violence & duration of the chill. If the fever has been of long continuance I think the bark answers a better purpose than the arsenic. It is of great importance in some instances I think to combine the bark and arsenic together. Although I have placed arsenic among the tonics: yet I do not believe that it produces its effects by giving strength or tone to the system: the patient is generally left languid after its use. It frequently produces edematous swelling accompanied with a livid aspect & bluish appearance of the skin. It shews that it acts specifically upon the tela cellulosa: it is most frequently seen upon the face or the backs of the hands & on the legs. I do not assert that it does not cure intermittents without producing oedema: for I know it sometimes does — but it most commonly produces general oedema. In Intermitting headaches where the bark has been used without success: I have employed arsenic with some advantage

advantage. Dr. Fowler says he has employed his solution to the extent of twenty or thirty drops in the day with great advantage. Arsenic may most properly be ranked among the debilitating medicines and not among the corroborant or tonics. Doctor Darwin supposes the arsenic to act by its stimulating the stomach into stronger action & preventing the torpor of any part of the system. I am of a very contrary opinion. When arsenic produces nausea it is a certain sign that it is producing its beneficial effects. It sometimes given to produce vomiting by the British Physicians

I shall sum up what I have said in the following manner.

1. It often cures Intermittents with as much safety & as soon as the bark will.
2. In some cases where the bark fails the arsenic will cure.
3. Even when it does not cure the disease it prepares the system for the reception of the bark by its reducing the inflammatory action

From what I can learn arsenic is not adapted to the Spotted Fever of the New England States. —

The oedema produced by this medicine generally goes off in a short time spontaneously.

It

As arsenic is a very deleterious medicine some have supposed that it lays the foundation of incurable diseases. It is remarked by Macquer and others that it produces pulmonary consumption. I do not believe this: for I have never known it in any instance in which I have given it to produce any permanent injury: and I have given it to children & adults of every age & description and to those who were predisposed to pulmonary consumption without any injury. I therefore believe it is ill founded. Consumptions frequently arise from Intermittents. I think it was probable the cases mentioned by Macquer should be attributed to this cause rather than to the Arsenic.

Arsenic has been given in Hectic Fever & I formerly thought I was the first person who had given it in this disease: but I find that some authors have mentioned it before. I have given it in several cases of hectic with very great advantage: & especially in those cases where the bark could not be taken by the patient.

Dr Shaw of Germantown says that the only medicine which prevents his chills of hectic which he was subject to was the arsenic pills which I prescribed for him. It is most useful in those cases of hectic which are accompanied with chills —

Rheumatism

Rheumatism. In this disease the arsenic has been advantageously administered. Having employed it myself in this disease I can confidently assert its good effects: It is useful especially in Sciatica: it generally produced oedema & soon afforded relief. In several cases of chronic rheumatism in which Dr. Parke made use of this medicine he found it very beneficial: & he concludes it to be most useful in those cases. I have used it most frequently in acute rheumatism: & I think it is much better adapted to this kind than to that of the chronic.

Gout. In that kind which is irregular I have given the arsenic with success: in my own case I have taken it with the happiest effects. I have observed that it generally depresses the pulse and diminishes the heat of the body.

Dr. Darwin mentions a case of intermitting pulse with a palpitation of the heart which he cured by giving his saturated solution of arsenic.

Angina Pectoris. It has been used with advantage: Many cases are related which have been cured by arsenic. I think it might be used with advantage in Asthma.

In

+ I was led to make use of Opium in combi-
-nation with arsenic, from the good effects it
produced when in combination with lead.

In Epilepsy it has been used with advantage. Vermes it has been employed. — I have never used it. In chronic obstructions of the Liver & Spleen it has been used with advantage. It seems to act something like Mercury. I never knew it used in Hepatitis but I think it might be used with advantage after Mercury & Nitric Acid have failed: — As to the subject of arsenic curing cancers, I can say but little from my own experience: the use of it in cancer is not a new remedy.

Cancer. The famous powder of Plunkitt contains a portion of arsenic. He however in some instances did harm, but in general he was very successful in curing cancers. There are many other cancer powders all of which contain arsenic. The famous Dr Martin's powder contained arsenic. It has been given internally in cancer in order to lessen the pain. I generally employ opium in combination with the arsenic, but where it is ~~attended with~~ irritability the opium should be laid aside. In Cancer of the Womb. The arsenic should be employed ~~topically~~. —

In Scrophulous swellings of the neck. the arsenic has been given internally with advantage I have used it myself with advantage. Where there is a discharge from ulcers it is very

beneficial

beneficial used both externally & internally
It is a powerful suppurative medicine when taken
internally. In ulcers succeeding Buboes
which do not yield to Mercury the arsenic has
been used with advantage. It should be given
internally either in pill or solution & the sore should
be washed with it. It is found very bene-
-ficial in some diseases of the skin: it is some-
-what hazardous to use it! & imprudently used it
has been known to produce Apoplexy: it must
therefore be used very cautiously.

7. Arsenicum Tartarizatum. This is
made by Oxide of Arsenic & Cren: Tart. ana ℥ij add
Aq: Pure ℔j. apply heat & afterwards evaporate.
It is used seriatim with advantage.
Great caution is necessary in examining the
dead bodies supposed to be destroyed by arsenic
the Garlick odour is not always a sufficient test
I refer you to Chemistry for the diff. tests. —

8. Acidum Sulphuricum. This is certain-
-ly entitled to our attention as a tonic. It is
in almost daily use by all Physicians in the
form of Elix: Vitriol. It seems to be well
suited to those cases of debility in which we
give the Bitters: and we often combine it with
the bark in those diseases, & in consumption
with great advantage. It is highly re-
-commended

recommended in Epilepsy. I have never employed it myself in this disease. In spasmodic affections it has been used successfully. Doctor Hamin mentions a case of Singultus in which he used it in combination with Aq: Menthae with complete success. The Elixir Vitrioli is much praised by Physicians in fluor Albus: and I have used it myself with great advantage in this disease. In Hemorrhages. Dr. Sydenham speaks of a case of hematuria which he cured in a very short time with the dilute Sulphuric Acid. It is useful in uterine hemorrhages - from pregnant women, also hemorrhages from Small Pox &c. it has been used I have used it myself in those diseases with advantage. In Edinburgh it has been found that Sulph: Acid: given internally for a long time has cured the Itch. An Ointment made Sulph: Acid ℥j: Axung: ℥i: has been found useful in Rheumatism.

8. Acidum Muriaticum. This acid has been found very beneficial in dyspeptic cases and some other affections: The dose is from five to ten drops three or four times a day in a glass of water. Some of the Physicians of Baltimore have used it with success in Icterus. I can say nothing about it from my own experience. In the shape of Gargle with Q. Arabic it has been found useful in Angina Maligna.

Acid

9. Acidum Nitricum. This is sometimes given in small doses as to act as a tonic. It is said to cure venereal ulcers & syphilis I have given it to the extent of one ounce & better in a day, and I have never known it to salivate neither do I believe it will cure syphilis. The experiments of Dr. Pribleau upon venereal patients with this acid are in point: it had the effect of healing up the ulcers but did not eradicate the disease: they all relapsed again, & were with great difficulty cured by the use of Mercury. It has been found useful in cutaneous affections: and in a case of Lepra which is now under my care, where neither arsenic, corrosive sublimate &c. have had no effect: the Nitric Acid which she is now taking appears to have some effect in removing it: the dose which she has arrived to is 200 gutts in a day. It has been used with advantage in Hepatitis by Dr. Wistar. —

10. Muriat: Sodæ. This is unquestionably one of our most valuable tonics. This is very obvious in the use of salted provisions. Children when recovering from Cholera naturally want salted provisions: & they are found more

more useful than the bark or colombo. In the low states of Typhus fever the use of salted meat is very proper. It is certainly very useful in some cases of Hæmoptysis. It has been said that the long continued use of salt produces scurvy: this is sometimes the case. – It is said to produce calculi. I have found the Nur: acid very advantageous in calculous complaints. It is said salt injures the teeth. In Iceland the teeth are very fine they eat no salt. But in Lapland where they consume a great quantity of salt. The teeth are also very fine. it therefore cannot be owing to the salt. Salt is not only beneficial to man but to cattle also. In the disease of Bronchocele or Goitre a warm strong solution of Nur Soda, externally applied is very useful. A saline atmosphere is injurious to consumptive patients or those who are predisposed to it: – the motion of the ship the diff: of climate, diet &c: constitute the benefit of a sea voyage in consumptive patients

11. <u>Lime</u>. Pure lime that is lime deprived of its carbonic acid is soluble in water

When given internally it acts as a tonic I have given it in dyspepsia & pyrosis with very

very good success in the form of lime water. It may be given a wine glass full of lime water with the same portion of milk combined with it. In cases of vomiting given in this way I have found it very useful when other remedies have failed. I never saw it cure but one case of black vomit & that was by the patient taking it in the form of white wash: & it had the effect of curing the patient: the only case of an adult in which I have known a recovery after vomiting has taken place. In chronic diarrhea lime water & milk have been found useful. It has also been found useful in Gleets & Gonorrhea in combination with Gum Arabic & in Leucorrhea & Flux Albus as an injection with or without milk. It has been used as a wash externally to old ulcers. Lime water & sweet oil have been found useful in Burns.

Muri: Calcis. It is more of a tonic than pure lime. It is made by dissolving the Carb: of lime in Muriatic Acid. It is highly recommended in scrofula, beginning with small doses from 8 to 16 drops ter die in a glass of water. I have found it useful only

only in ~~cases~~ open cases of Scrofula. but Dr. J. P. Griffith says he has found it most useful in occult cases: he has probably used it much more than I have. It has been used in Bronchocele or Goitre, with great advantage. I have employed it myself with advantage in one case Persons about 15 years of age to begin with 5 drops.

12. Barytes. It is one of the primitive earths and is generally found in nature combined with Sulphuric Acid or Carbonic forming Carbonate, or Sulphate of Barytes. It is generally used in combination with Muriatic Acid forming Muriatic Barytes. This is used in Scrofulous diseases with advantage. The dose is from five drops up to twenty three times a day. It is found useful in some cases of Hectic fever. When exhibited in large doses it produces nausea, vomiting, vertigo, tremors &c. It sometimes proves diuretic and diaphoretic. It has been found useful in Cancer, - also in cutaneous eruptions & obs ulcers of the Legs. especially syphilitic ulcers.

We have now finished the subject of Tonics: we are next to consider the subject of Stimulants. —

Lecture

Section IV. Incitantia.

In what manner stimulants act upon the system: I cannot yet satisfactorily determine. The opinion of Dr. Darwin seems to me to be the most plausible one I therefore refer you to his Zoonomia

By Stimulants I mean first those medicines which excite the vigorous action of the moving powers, increase the force of the circulation, augment the heat of the body, and raise the powers of sensation. and do not produce any evacuation.

Secondly those which are less stimulant and also produce evacuation.

I. Sal: Vol: Ammonia. or Vol: Alkali

It is certainly one of the indispensable articles of the Materia Medica. Dr. Beaton places his stimulants as follows the highest and most powerful is Opium, next Æther, vol: alkali, musk, ardent spirits. I place Æther first, next spirits, vol: alkali musk and opium last.

The stimulating quality of vol: alkali is

obvious

obvious to all.
It is the opinion of some that this substance is of animal origin: but I believe it is now well ascertained that it may be obtained from vegetables also.

Febris Intermittens. In this disease it has been used by several physicians with great advantage: it has been given just before the paroxysm with success: and some have given it during the hot fit combined with opium so as to produce sweating. In those Intermittents which have a tendency to Typhus it is very useful in combination with the Bark. In Typhus, hospital, camp or Gail fevers it is used with success. It is spoken highly of by Pringle. Huxham &c. It is not adapted to the first stage of Typhus but to the third stage which is attended with great prostration of the system, subsultus tendinum &c. and should be administered during the remissions: for there is generally an exacerbation once in 24 hours.

In Puerperal fever, after the inflammatory symptoms have passed off: I have found this medicine very useful: especially when there is a tendency to Typhus. In petechial fevers it is sometimes used. It does much harm when given in inflammatory diseases of the Brain. In administering this medicine & other stimulants

stimulants. it must always be done during the intermissions. In some cases of pneumonia it is found useful, especially in some cases which in their early stages have a tendency to Typhus. in these cases the depleting remedies are very injurious. In common pneumonia after bleeding and purging, when the patient is very feeble with subsultus tendinum. the alkali is of great service not only for its stimulating effects: but also for its expectorant quality. Sir Jno. Pringle recommends it in some cases of pleurisy. It has been found very useful in the declining stage of pulmonary consumption: when the strength is failing very fast. In the hoarseness which succeeds the Measles: I have found it very useful. I generally make use of a watery solution. In pertussis it has been used with advantage. In pyrosis it has been found useful by its absorbing the fluid and neutralizing the stomach. In Dysentery some physicians have used it with success: it may be given where there is a tendency to Typhus. In chronic diarrhoea it is found useful. I have never employed it in cholica pictonum but I think it might be used with advantage. In Rheumatism it has been prescribed. I have used it in this disease with considerable advantage

+ It effects are more permanent when given in substance

Animals frequently recover from the bite of serpents without any assistance. this I have myself witnessed

advantage. In prescribing it as a cordial it ought to be given to the extent of ℥ss in a day. In Hemiplegia it is sometimes found useful in irregular gout where we make use of stimulants such as opium, ether &c. The vol: alkali has been found of great advantage. In Hydrops it has been found useful as a diuretic, either in the form of Vol: Tinct: Guaiacum in pills: or the Watery solution. In the East Indies a preparation of Ammonia called Cau de Luce, was supposed to be a specific for the poison of an animal. Many persons have supposed the Vol: Alkali to be a specific against the venom of Serpents. But the experiments of the Abbe Fontana prove that it had no effect whatever he gave it internally & also applied it externally. It has been used both externally & internally in ulcerous affections: also in venereal ulcers, cancer & scrophula. My favourite preparation is by rubbing down Carb: Ammon: ℥j: Gum Arab: ℥ij Succ: Alb: ℥ij with Aquæ ℥viij to ℥x. In cases of Angina Maligna where there is a tendency to typhus it is useful.

2. <u>Moschatum</u>. It is much more stimulating than opium. Dr Cullen says it a

most powerful & an indispensable article of the Materia Medica. This article is taken from an animal of a peculiar kind, some-what relied to the Goat & Deer: it is a native of Africa. we derive it from the male only: & from one particular place only: that is close by the navel. It is of a dark reddish colour either brown or black it has a strong bitter fragrant smell & so strong when fresh as to produce blood from the nose: Owing to its being a very ex-pensive article it is frequently adulterated. It is the most odoriferous substance in nature to the touch it has the feeling of an oleaginous matter, it is inflammable: & is composed of resin, gelatine: and also a saline matter. I cannot say any thing about its effects upon the pulse. In large doses it generally produces a frequency & fullness of the pulse excites a gentle diaphoresis & raises the spirits. It is found very useful in asthmatic affections of the stomach. it was first re-commended in this disease by Sir Mc Pringle Dr Cullen says he has used it in this case with very good success in large doses from ss to xxx grains. v grains is a small dose. —

In Tetanus it has been used with advantage it first allays the convulsive spasms & afterwards stops

Artificial Musk is made by putting
Nitric Acid Zijß. to Ol. Rect. Succin. Zj. —

stops them entirely. In other convulsive dis-
-eases it used with advantage. The use of
Musk in Hydrophobia was derived from the
Chinese: they say that combined with tartar
emetic it proves an effectual cure. I how-
-ever seldom think it proves effectual. It
has been used in Asthma & in Pertussis. In Colica
Pictonum Dr. Hillary says he has used it combined
with opium to great advantage. I have never
used it. It has been found very useful in
Mania. In tremors, subsultus tendinum &
other affections attending the low nervous fevers
it with very great benefit. it not only relieves
the affection but allays the fever. In
Small Pox attended with fever & debility it
used with advantage. In gangrene this
medicine has been used in London & is highly re-
-commended. Musk is very much adulterated
& for that reason it does not always prove
effectual: that which has a strong smell
& has a mealy or granular feel when rubbed
upon the fingers is genuine. The dose is
from v grains up to xx or xxx three or four
times a day. —

Narcotica

Opium appears to contain three substances (viz.) a gum, resin & some faculant matter. The faculant matter is entirely neutral. The resin & gum are nearly in equal proportions, forming at most eight parts out of twelve. The other four is the faculent matter.

Narcotica. Papaveracea.

Opium. It is the product of a species of poppy called papaver somniferum. It is not a native of our country but of the East. It is generally imported from the Levant. This invaluable article is prepared in many places & is consumed in large quantities. It is extracted either by boiling or by making incisions into the head of the Poppy. Dr. Crump supposes its black colour to be to the knife by which the incisions were made. but Dr. Mettauer of Virginia has proved that it is of the same colour when the incisions are made with clear sharp glass. & that it is owing to the light. — It seldom comes to us pure but is adulterated with the expressed juice: & sometimes with the juice of the Lettuce & with many other substances. Its astringency resides principally in the resinous parts: & the bitter principle exists in both the gum & resin but mostly in the resin: the narcotic property exists in both. Opium is a gum resin: the gum is soluble in water, the resin is not soluble in Water but in Spirits. I have now finished the Natural & Chemical History of Opium, & I proceed in the next place to speak

Of

Of the Effects of Opium upon the living system when externally applied.

When Opium is applied to the Eye, the inside of the nose, or to a delicate part or to any part where the cuticle is off, it first produces a sense of heat, pain, inflammation and diminishing the sensibility of the part. It irritates the Nose and produces meezing.

The experiments of Dr Cromp prove very satisfactorily its stimulating effects. He made a solution of Opium in boiling water; and when cool dropped a little into the Eye, which immediately produced a sense of heat, making a flow of tears, and some inflammation. He also snuffed some powdered Opium up his nose, and he says it produced a sensation like that of weak snuff.

When applied externally it allays pain and lessens sensibility. Dr Whytt of Edinburgh says in sickness of the stomach, attended with considerable pain, where patients were not able to take Opium internally: he applied it externally to the epigastric region with complete success. It acts not only upon the parts to which it is applied, but it also acts upon the nerves near it. The

Opium

Opium plaister applied to the cheek often cures the toothache. It acts more as a seda-tive when externally applied, than when given internally. Spirits of Wine extracts more of the powers from Opium than any other fluid. — From my own observations I believe opium externally applied has a very good effect in allaying pain.

It has been used by almost all physicians for many years either in the form of Laudanum or Opium itself. — When it is applied to a burn or scald when the cuticle is off: it produces drowsiness, coma & sometimes death. The ointment of Stramonium applied to the surface of a blister produces very injurious effects. It appears to be a first cousin to Opium. —

Opium when used internally produces the following effects upon the Vital Functions. The heart and arteries are quickened, the pulse at first becomes quicker and more frequent but afterwards it is slower: it also effects the respiration: and when taken in large quan-tities it produces apoplexy. Some physicians apart that it lessens the force and frequency of the pulse: while others say that it first increases it. The experiments of Dr. Coomp I think sufficiently establish the fact that its

its effects are first stimulant and afterwards sedative. I have no doubt from the experience which I have had of opium upon myself: that its primary effect is to increase the pulse: and to increase the heat of the system in ten minutes after it is taken. In every experiment which Dr. Crump made upon himself: it increased his pulse ten beats: in about thirty minutes after it was taken: and in about sixty or eighty minutes after he had taken the pulse was reduced several beats below its natural standard.

Doctor Bard also made some experiments with opium, and contends for its sedative effects. But his experiments are very exceptionable: The reason why he supposes it to be a sedative is, that he did not take any notice of its operations upon the pulse, untill one hour after he had administered: if he had observed it at first, he would have no doubt found it much more frequent than usual. It certainly increases the heat of the Body.

The tinnitus aurium which opium sometimes produces proves to me its stimulating effects. I have seen it produce obtuseness of hearing in some persons who take small quantities at night to procure sleep, from its occasioning a determination of the blood to the Brain.

Opium when used internally produces

considerable

considerable effects upon the Natural Functions. –

Opium when taken in large doses is frequently found to diminish the Appetite. According to Dr. Cromp the secretions and excretions of all parts except perspiration are diminished: I believe however that they are increased. – Opium has been taken in times of famine in order to satisfy the cravings of the Appetite. It frequently weakens and impairs digestion, and produces nausea and vomiting. One grain of opium given to a person not accustomed to it will effect the digestive process. It lepens the intestinal evacuations, and induces costiveness: this however does not take place in a tapir of the intestines: it has proved laxative in Colica Pictonum and in diarhoea. Very large doses frequently prove laxative. Opium is remarkable for producing a discharge of flatus from the intestines

Is opium a diuretic? This is doubted by some physicians. I believe it ~~is~~ sometimes acts as a diuretic: and it has been used in Ascites for that purpose. It is said by some that opium produces ptyalism. I have given it to a very large extent, but have never seen it produce this effect: I am therefore doubtful whether it ever does produce such an effect.

I think it very probable that if opium is given after

after mercury has been used without producing salivation: that the opium might thus excite a ptyalism, by stimulating the parts so as to cause the mercury to take effect. Opium increases the perspiration: it is also a considerable expectorant. Opium very frequently produces considerable itching upon the skin: this may sometimes be prevented by drinking balm tea or coffee along with it. In some persons an eruption appears very soon after the itching, which generally subsides as soon as the opium is discontinued. It has produced abscesses or small boils upon the skin: it always produced this effect in the Wife of the late Judge Smith of Trenton, in New Jersey. Dr. Haller says that opium may be smelled in the perspiration.

Of its effects upon the Arterial System.

It always produces hilarity and sprightliness, it increases the venereal desires in all animals: and produces erection of the penis at death. all this arises from its stimulating effects. After hilarity and delirium have passed away, dullness, torpor & sleep follow: if large doses have been taken there is a diminution of sensibility, vertigo, tremors sleep, coma and frequently death. Many persons say that the effects of Opium upon them

then is very much like that produced by Wine or Ardent Spirits. The effects of Opium upon young children who have never taken it before is to produce great hilarity. —

Whole nations frequently make use of Opium in large quantities. Doctor Russell says he has known one person to take three drachms of solid opium in a day. Other authors mention cases in which persons have taken ten drachms in a day. Vinegar taken after a large dose of opium frequently lessens its deleterious effects. The first effects of opium are certainly to produce the same effects upon the system as Wine, Brandy &c —

Of its effects upon the Animal Functions.

Doctor Crump forced an aqueous solution of Opium into the Eye of a Dog: which occasioned great pain, watering of the eyes, and redness much the same as in the human eye. He also made some experiments upon rabbits and other animals. and the effects which it produced upon them evidently prove its stimulating effects. I shall finish this subject by relating the appearances upon dissection of a person who died from taking too large a quantity of Opium. On opening the stomach it was

found

found very much inflamed: and corroded in several places: the whole of the intestines were also considerably inflamed: on opening the brain there was no appearance of disease to be observed: the stomach & the intestines were the only parts which were diseased.

Of the use of Opium in Diseases.

Febris Intermittens. The use of Opium in this disease is not of modern date. Galen mentions it in his writings. Doctor Lind says that the effects of opium in Intermittents are more certain than in any other disease. He says he has known it to cure the most obstinate intermittents, by administering it during the hot fit. I think it should be given just before the coming on of the paroxysm, and never during the hot fit. It produces pleasant and refreshing sleep, and the patient awakes in a profuse sweat, which carries off the fever and it never returns again. I believe however that Dr. Lind's method is not altogether safe. It often proves injurious when given in the hot fit. I have seen it produce delirium, and increase the fever. and where there is a determination to the brain it is certainly injurious. In hot climates it is probable that it may not prove

injurious

injurious because there is a greater determination of the disease to the skin by producing sweats. As Dr. Lind lived in a warm climate it is very probable that it did not prove injurious when he gave it during the hot stage.

If laudanum be given in a cup of strong coffee, it certainly increases its good effects by making it more stimulating & less soporific. especially if it be given just before the coming on of the paroxysm. and it is found to be an excellent remedy. Dover's Powder which contains a portion of Opium has been found useful if given sometime before the paroxysm comes on. Opium combined with the Bark is found to increase its beneficial effects. I think it is a combination very proper where there is a tendency to Typhus.

Hemicrania. In this disease opium has been used with great advantage. This disease is often an arthritic affection. but it very frequently arises from an Intermittent determined to the head.

Continued Fevers. Dr. Cullen divides them into three kinds. synocha. typhus & synochus. The synochus which is our autumnal remitting fever. and Typhus are

diseases

diseases of very great excitement. Opium is certainly very injurious if given in the beginning of these diseases, especially if given in large quantities as Doctor Brown directs. When the inflammatory fevers are accompanied with coma and delirium, in this case, bleeding, purges and blisters cure it; and no one will doubt that opium is injurious in this case. But there are true fevers as in the Typhus, in which delirium comes on: when the administration of cordials, such as bark, wine, opium &c. are attended with very good success: and no physicians I think would hesitate to employ it. Opium combined with Camphor has been found to produce a determination of the disease to the skin. Dr. Campbell made use of this combination in diseases of low Typhus with very good success. In the delirium which has a tendency to mania opium is found very useful. In wakefulness before delirium opium has also been used with advantage. In subsultus tendinum it has been used with success. Diarhoea is often a symptom of continued fevers: it often appears as a symptom of Typhus: it is therefore best to restrain it: this may be done by combining opium with some astringent medicine. The bowels however should not be kept in a costive state. I have had

an

an opportunity of seeing many cases of Typhus. I of trying the effects of Opium in curing it. it removes the sinking pulse, and removes more than any other medicine the delirium, tremors and subsultus tendinum which frequently takes place. The opium should be administered constantly, before one dose has lost its effects, another should be administered: so that the stimulus of it may be kept constantly in the system.

Yellow Fever. In this disease opium has been found useful. I however believe it to be injurious in the first stage of the disease it generally increases the pain in the head & back: it also failed in preventing vomiting and increased the affections of the Liver: and produced costiveness. In convalescence from this disease I have found opium generally disagreeable to the patient. I do not however assert that it is never benficial in yellow fever: for I have in many instances seen it used with very good success.

Plague. Opium is said to have produced very good effects in this disease. I however believe it is injurious: but I can say nothing about it from my own experience.

Of

Of the Use and Abuse of Opium in

Phlegmasia. In inflammation of different parts Opium has been used with success: but I believe it is best in general to bleed and follow the antiphlogistic plan. In cases of Iterus from obstructions by gall stones, opium after bleeding, relieves the pain and facilitates the passage of the stone. In the suppurative stage of inflammation opium is found very useful. In pneumonic inflammation after bleeding, blisters purges &c. opium may sometimes be used with advantage. In its forming state it is certainly very injurious: but of great advantage after the inflammation has subsided. In pneumonia repeated bleedings are necessary in its latter stage opium combined with mucilaginous medicines is very useful. In peripneumonia notha of old people small & frequent bleedings, blisters &c. are much better opium: which is generally injurious. In catarrhal affections bloodletting ought to be first used with purges: but after the inflammatory symptoms are removed opium is useful. The preparation I generally make use of is the pectoral mixture it is certainly an excellent preparation & very frequently proves effectual when opium in its solid state or laudanum have no good effect.

tritha

Asthma. In this disease opium is injurious: it causes the breathing to be more difficult: but if combined with ipecacuanah it is sometimes found useful. Asthma sometimes arises from Gout.

Nephritis. In this disease opium is found useful: it relieves the pain and eases the passage of the stone through the renal ducts

Rheumatism. It is properly divided into acute and chronic. In the former bleeding and sudorific medicines are necessary, but if it be attended with paroxysms bark & other tonics are proper. Of all the stimulating remedies made use of that in the form of Dover's powder is much the best - Pulv: Opii & Ipecac: aa ℥i: Sulph: Potash: ℥i. Rub them well together. ten grains of this powder contains one of opium & one of ipecacuanah: - it may be given to the extent of ten or fifteen grains every three hours I do not advise you always to adhere to this formula. Frequently combine two grains of Ipecac: with one of Opium: sometimes combine Nitre 5 or 6 grains with it. & sometimes Gum Arabic or Sugar

The patient should wear flannel and lay between blankets during the use of this medicine. No drink

should

should be taken (whilst using it) for it is apt to vomit untill after the sweat has broken out: or till thirty or forty minutes after taking it. When the sweat breaks out the patient may take some warm drink freely. Opium is always injurious in all those diseases which are inflammatory if it does not produce sweat, - except it be in those cases of rheumatism which is attended with in-
-termissions. Ipecacuanha is the best pre-
-ventative against the bad effects of large doses of Opium taken into the stomach.

In Inflammatory Gout. the use of opium is injurious: but when it effects the stomach and in the colic from Gout opium has been found useful I have used it myself with great advantage in those cases. The use of Ginger in this disease is an excellent remedy: I have used it in infusion or boiled in water or milk. In the sick headache which is extremely distressing it sometimes goes off spontaneously by vomiting of bile from the stomach: It is certainly very frequently cured by the use of a strong dose of Laudanum in strong coffee.

Diabetes. This is sometimes of gouty origin I when it is the use of opium is beneficial.

Ophthalmia. Mr. Ware says he has found that a few drops of laudanum dropt into the eye is frequently an excellent remedy -

Strasburg

Anasarca. In this disease opium has been found useful from its diaphoretic effects.

Ischuria. In this disease large doses of Opium has been found very advantageous I can say nothing from my own experience. In difficult and painful menstruation opium has been found beneficial. Dover's Powder answers the purpose extremely well. by its diaphoretic effects.

Exanthemata. In these affections opium has been found useful. In Small Pox Dr. Sydenham in his time used opium with great advantage: — where there is a tendency to convul-sions opium is found very beneficial: in the suppurative stage it is also used with success. In the confluent small pox opium is frequently used with success. After the inflammatory symp-toms have passed off the use of opium is very beneficial

Morbilli. Dr Heberden made use of Opium in this disease: but it is probable it was not attended with inflammatory symptoms It is now but little used. I sometimes employ it in the form of the pectoral mixture. In the hoarseness succeeding the measles opium is found useful. I can say nothing about it in Scarlatina

Arsenic

Atrginosa. In Hemorhages that are truly active opium is found useful. in allaying the irritability. & it acts as an astringent. Opium in combination with ipecacuanha has been found very useful in Uterine Hemorhages even when bleeding & the sugar of lead fails. I have often found this preparation effectual. I generally give ¼ gr. of Opium to 1 gr. or ½ of Ipecacuanha every two or three hours. Opium is a very good remedy in cases of abortion: in general I think it should be combined with Ipecacuanha. the nausea which it excites is of great benefit. I believe opium is seldom administered internally in cases of Hemorhoids. It is in general injurious by its producing costiveness & irritating the colon and other intestines. Opium externally applied to the parts has been found of great advantage in the form of Laudanum & poultice.

Epistaxis. This is frequently an active hemorhage. I have never given opium alone in this disease but generally in combination with Sac. Saturni.

Hæmoptysis. I believe in this disease all stimulating remedies are injurious. bleeding, cool air, low diet & blisters are most useful. sometimes opium is necessary. I generally make use of the Pectoral Mixture. It is however a nice point to determine when is the proper time for giving it. I have never known

the pectoral mixture to be attended with any bad effects. I believe however it generally does more or less harm.

In Phthisis Pulmonalis. In this disease little can be done but palliative remedies. It is however certain that opium is absolutely necessary. Small & frequent doses are very useful. I generally use the Pectoral Mixture.

Dysenteria. Opium has been used by almost all physicians in this disease. Dr. Sydenham made use of opium in the cure of dysentery & with success. In my practice I have used opium with very good success: the dysentery is very often kept up by irritation in the intestinal canal, this opium soon relieves and is the only remedy which cures. I often employ it in the form of Dover's Powder with very good success. whether the disease be acute or chronic: it is useful from its diaphoretic effects. Opium in glysters has been found useful in this disease

Diarrhoea. It has been used with advantage in combination with chalk, kino, cinnamon &c. In cholera opium is found useful. There is no disease in which I have given opium with so much advantage as in cholera. In violent cases it should be administered in large doses to the extent of from five to six grains in a day.

Tetanus

Tetanus. I can say but little concerning the effects of opium in this disease from my own experience! Physicians differ very much in their treatment of this disease. It has been given to the extent of twenty ounces of laudanum in 24 hours with advantage: and in another case of a negro who took 150 grains in 17 days in this disease & was cured by it. Bark & wine have been used in this disease: but I believe opium is most beneficial. Opium externally applied has been found useful in Tetanus. Dr Freimes applied to the jaws: and to the feet in combination with camphor. It however cannot be used without giving enormous doses of opium from ten to twenty grains in a day.

Hydrophobia. It is somewhat allied to Tetanus: Opium has frequently been used, but it seldom cures this disease: it most commonly ends in death. It certainly arises from stimulating effects. Boerhaave says it should be treated as an inflammatory disease: by blood-letting ad deliquium animi. I have seen hydrophobia arising from hysteria cured by Opium and by Assafetida. In a case which was treated at Lancaster with tobacco, the patient was prevailed upon to drink water: but he died.

Chorea In this disease opium has been found very advantageous. —

Epilepsy

Epilepsy. Opium has been used in this disease Authors differ very much in their opinions respecting its use. When it is attended with plethora, opium is injurious: but in cases of debility, and when attended with irritability and has paroxysms: the administering of opium before the fit comes on has been found very beneficial. —

Hysteria. In this affection where there is not a tendency to plethora: opium is frequently beneficial. In Hysteria depending upon the passions of the mind, opium is absolutely necessary. It may be given by the mouth or by enemata.

Palpitatio Cordis. This sometimes depends upon organic affection: when it does opium is injurious. But it most frequently does not then opium is very beneficial. In asthma when it does not depend upon congestion in the lungs: and if it be spasmodic or catarrhal opium may be used with great advantage. Asthma is often an ~~arthritic~~ affection, when this is the case opium is useful.

Pertussis. When this is attended with considerable fever bloodletting is necessary, and opium

opium in very small doses in the form of the Pectoral Mixture is also useful: especially in the second stage after the fever has subsided the mixture is very beneficial.

Pyrosis. I can say but little about it. Opium generally relieves the fit but does not cure it.

Cholica. In this disease bloodletting and purges are first to be used, and then opium may be administered with great advantage: and when it is attended with vomiting: the opium relieves it.

In cholica biliosa, after depleting remedies have been used, opium is also useful.

Colica Pictonum. In this disease opium should be given in very large doses. -

Hernia Incarcerata. In this disease some surgeons have found opium very beneficial in removing the stricture: but I believe copious bleeding is found to be much more beneficial.

Mania. Opium is said to have cured this disease. I believe however it seldom produces a cure: it is frequently very useful but I never saw it cure a case of Mania. It is

is a very precarious remedy in mania. In puerperal mania. I have found it very useful In Mania from ~~Ardent~~ Spirits I have found it a very good practice to diminish gradually the drink and give laudanum which I also gradually diminish and give along with it the Tinct. Capsicum.

Gangrene. Mr Pott says he has found no medicine so effectual as opium in curing this disease. In ulcers of a bad kind opium has been found useful.

Cancer. I know nothing of the use of Opium from my own experience. I believe however it is injurious in this disease.

Syphilis. In this disease opium it is said has produced a cure: but this I believe is ill founded: it sometimes cures after mercury has been given: by giving it in small doses, but it never cures of itself. In injections for Gonorrhoea opium has been used with advantage: but I now seldom use it. In Chordee opium is frequently absolutely necessary. Laudanum is found very useful in checking salivation to the extent of ℥j to ℔j of Water which the patient is to gargle his mouth with frequently.

frequently about milk warm. I also give the solid opium internally to the extent of two or three grains: and it has the effect of checking the discharge very soon: I sometimes make use of Dover's Powder. I believe I was the first person who employed opium in checking salivation. – I believe the application of cold to the parts is very injurious. –

Order 2.° Class
Luridae. Narcotica.

Hyosciamus Niger or Black Henbane

This is an important medicine: but it is not a native of America. I have seen it growing in the United States: but I believe it was brought there by some means. In Virginia it is called Devil's Cabbage. It is a powerful stimulant. – large quantities of it taken internally produces very injurious effects it effects the eyes producing dimness of sight it effects the countenance, it produces eruptions diarrhea, risus sardonicus &c. but seldom has proved fatal. The vapour arising from henbane is very powerful it produces delirium, giddiness, frightful dreams &c. It very frequently proves laxative, & sometimes it

it acts as a diuretic:- but it does not al-
-ways produce these effects it sometimes causes
costiveness. It is certainly a very powerful
stimulus. I have frequently prescribed it
as an anodyne, and I think it may be given
with as much ~~more~~ safety ~~than~~ as opium; and in
those who cannot opium the henbane is very
useful. it does not produce any bad effects
& it suits the patient very well.

In Convulsions the extract of henbane has
been successful where opium has failed. by
giving it in very large doses. It should be
begun with one grain at a time and increased
gradually.

In Mania Epilepsy and Insanity henbane
has been used. and has been very successful
in several cases. where it was given in very
large doses. In Amentia from fever
henbane has effected a cure. In Palpitatio
cordis it has also been found useful.

In Hæmoptysis it has always been used
with very great advantage.

Puerperal Mania. In this disease the
extract of henbane may be used with very
great success; it answers the purpose much
better than Opium. Dr Fothergill cured se-
-veral cases by the use of it. Dr Cullen says
that

that it is apt to produce delirium: I never believe it does not do it oftener than Opium.

In Tic douloureux it has been found useful.

Pertussis. In this affection henbane has been used with success.

Chorea - Henbane has been administered with success in this disease. I have used it myself in this case with success.

Henbane has been given to the extent of seven or eight grains in a day without any injury: It has been given to the extent of forty grains but it proved injurious. - I know of no two medicines so nearly allied to each other as Opium and Henbane - —

Datura Stramonium. It is a very common plant in North America: it is called by many names, as Jamestown Weed, stink weed and in ~~Virginia~~ ~~States~~ Island it is called henbane. The smell of it is disagreeable to every one. Some cattle eat it - as goats, sheep and cows - hogs also eat it but it always makes them drunk. The ~~extract~~ of stramonium is said to be a sedative: this I believe is not true: it certainly acts as a stimulant: it is used by many physicians, to accelerate the pulse

produce

& produce sweat. It is a powerful stimulus & more so I think than Opium. One grain of the powdered leaves of Stramonium raised the pulse of a man aged 20 years in sixty five minutes after it was taken from 72 to 80 beats per minute

It is said to have produced salivation, this I never observed myself: but some authors mention it — It is said to produce two diseases Tetanus and Hydrophobia. This article was taken by mistake by some soldiers: it produced in some tetanus in others hydrophobia: some of them recovered but many of them died. —

It has been used in various diseases with some success

Mania. It has been employed by some physicians with very great benefit. Dr. Gredding used it in mania giving about two grains at a dose but he never cured it. The tincture of the seeds of Stramonium is said to be a more powerful anodyne than Opium

Bergius says that Stramonium with an issue in the neck often cures Mania. I have tried this practice with considerable success in the Pennsylvania Hospital. Doctor Archer of Maryland says he has used the stramonium with considerable effect in Epilepsy. He gave two grains every four hours which is a very

very bold practice untill some sensible effects are produced. The patient should be kept upon a low diet, & small & frequent bleedings along with it. I must however say that I differ from Dr. Archer. I have given it in Epilepsy and in Epileptic Mania with very good success.— sometimes it cured. at other times altho' it did not cure yet it produced very good effects. I generally begin with one grain of the extract twice a day & increase it gradually. I have given it in some instances in which it produced no good effects but rather proved injurious. When epilepsy is attended with symptoms of turgescence in the brain the stramonium should not be given.

In <u>Mania</u>. I have used it with considerable success. In one or two cases in the Pennsylvania Hospital, it was successful. One was in a woman aged 30 years who had been deranged for 6 years was completely cured by the stramonium, after having tried all the other remedies. I began with giving two grains at night & increased it one grain every night: after having taken to the extent of thirty five grains in a day she got well.

Stramonium has been found useful in Mania a Potu. It has been employed in Dropsy, with

with very great advantage. The seeds and ~~extract~~ have been used in old syphilitic ulcers in order to allay the irritation and with success. Stramonium has been used in cancerous ulcers externally applied in combination with arsenic: and was supposed to be an effectual remedy, but I do not know that it ever produced a cure. I believe it has never been given internally. In local inflammation from gout stramonium in combination with milk or boiled in it: has been used with some advantage: but I think it is a dangerous remedy. The inflammatory symptoms should be subdued by the anti-phlogistic regimen. An Ointment of the Stramonium has been used in pruritus or violent itching with advantage, but it is a dangerous remedy. The Ung: Stramonium applied to the surface of a blister produces very bad effects. The best method of preparing the extract is as follows: The leaves should be gathered from the plant about the month of July or August; they are then to be put into a flannel bag, bruised and squeezed into a broad shallow earthen or pewter basin it is then to be placed in a room in which the sun has shone into; but not in the sun, or

then

then let it evaporate to the consistence of extract it should then be put by in vessels well stopped.

I generally begin with giving this medicine in doses to an adult of one grain two or three times a day: and in two or three days after I increase it two or three grains per day. & thus continue increasing pro re nata. When taken in large quantities it produces great dilatation of the pupil: and I once saw it produce a paralysis of the eyelid: this however yielded very readily to a blister applied in its vicinity. It sometimes however produces boils, these are not injurious.

Datura Ferox. This species is a native of India. - the seeds are said to be poisonous: it produces a sort of delirium: thieves are said to give it to those whom they wish to rob. It is closely allied to the other. —

Solanum Nigrum. or Night Shade This is a narcotic. and it grows plentifully in Virginia. it produces sleep, allays pain and when given in large doses it purges. It is nearly allied to Stramonium I have never used it myself — —

Solanum

Sir Walter Raleigh first introduced it into Great Britain.

Solanum Dulcamara or Bitter Sweet. It has been used in this city by the French Physicians in Syphilis. It has been known to salivate. –

Nicotiana or Tobacco. The emetic and diuretic effects of this medicine will be considered in another place. It is called Nicotiana in honour of John Nicott who first introduced it into France. It is a plant peculiar to America. It was formerly held in great regard by the Indians as a sacred vegetable and they ingrafted it in their religious ceremonies. King James the first, said that if he was invite the Devil to dine with him he would set before him three dishes. 1. A pig 2. Mustard & 3 A pipe of Tobacco for the devil to digest. Such was his antipathy to tobacco that he called it the essence of hell, and fit only for the devil to stew. I have heard of injections of Tobacco being used in Hydrophobia with success. It has also been found useful in cholica. – In incarcerated hernia it has been found very successful, in enabling the surgeon to reduce the hernia without an operation. The infusion has been used to

resuscitate

resuscitate persons apparently dead: and there are some cases on record in which it has proved successful. —

Digitalis. It is a narcotic: and is very certainly a stimulant. - it is more stimulating than Opium. It often proves injurious in dropsy from its stimulating effects. I shall speak more particularly of this article under another head - see -

Order 3?

Umbellifera.

Conium Maculatum - Cicuta or Hemlock. It is a native of certain parts of Europe: but I believe it is not indigenous in America. It has very much the appearance of Fennel. It may be known from the four following circumstances 1. Its growing in around barns & houses in dry situations. 2 By the green under surface of the leaf: 3. By its peculiar, murine (or mouse like) smell 4. By the iron coloured spots which are to be found upon the stock, after it has attained its growth. It is poisonous to animals: Goats eat it without injury; as well as they do the Stramonium.

This is supposed to be the plant which the Greeks used to destroy some of their most valuable citizens

citizens: it produces death very easily and gradually. It contains vitriolated tartar. The effects which hemlock produce upon the system are anxiety, dyspnoea, nausea, vomiting vertigo, aptonia, madness, delirium, convulsion blindness, salivation and death. It is said to produce salivation: this I once saw it occasion in my own practice. The extract of hemlock is said to have cured cancerous ulcers & scirhus It has been given both externally & internally in the cancer and scirhus: but some physicians say it is injurious. In genuine cancer it seldom produces a cure: but in sordid venereal ulcers it is said to be of great benefit. I have used it cancer of the rectum: by giving pills internally, and a decoction injected by a syringe into the Rectum: it had a very good palliative effect, it relieved the pain ~~[illegible]~~ the appearance of the discharge. — There are some ulcers in which the hemlock proves more advantageous than any other medicine. It is generally used as a wash or in a poultice.

I once saw the hemlock used in Lepra in the Pennsylvania Hospital: it produced some good effects, but the patient fell a victim to the disease. It has been used in many herpetic eruptions with considerable advantage.

In Tic Doloureux. The hemlock has been given with

with some benefit. I have given it myself with success.

In Syphilis the hemlock has been used with some success. In ulcers from bubo it has been successful in the form of poultice. In Gonorrhoea Doctor Butter says hemlock has made a cure - In Chronic Rheumatism it has been administered with success. I have given it myself with considerable advantage

In Scrophula. It has been said to be of great advantage. I have employed it myself. In Gangrene of the penis, some have given it with considerable success. I believe opium is much better.

Different preparations are made use of

The best method of preparing the leaves are to gather them in June or July pick out the smallest leaves, & the stalk & throw them away dry the remainder in a gradual heat. then put them into a bag made of brown paper, and excluded from the light, - or powder them & put into a bottle well corked & in a dark place.

The dose after given in powder is from ten to fifteen grains, & increase gradually -

In phthisis pulmonalis this article has been used

used by some, by inhaling ether impregnated with the hemlock. and it is said with success. I can say nothing from my own experience. It I have been informed been used in Icterus with advantage. I can say nothing about it.

In Pertussis. This medicine is recommended by Doctor Butter he says he has found it very successful. For a child under 6 months, he gave ½ grain at a dose, for 1 year old, one grain, soon increasing ½ grain every year. There is a very great difference between the strength and virtues of the different preparations of hemlock

Whenever a patient takes this medicine to a great extent, when he begins a new parcel he should begin with half the quantity of the former dose: for some parcels are twice as strong as others.

Subnarcotica. By which I mean such articles as are in part only narotic.

Under this head I can to speak of the ord

Order.- Pomacea.

Lauro Cerasus. It is a species of Plum or Cherry. It is the Prunus Lauro Cerasus. of Linnaeus it is the laurel of Europe and not the Laurel of our Country. Doctor Collen

Cullen says it is a very powerful sedative he is certainly mistaken: although I have had but little experience upon it myself: I however suppose it to be a considerable stimulant: The convulsions which it produces is owing I believe entirely to its stimulating effects. It has been but little employed in practice. It is very deleterious & very injurious when given in too large doses: therefore very great care should be taken in administering it. —

Camphora. Doctor Cullen supposes this article to be a sedative: on the contrary I believe it to be a stimulant. The reason why it is not more used in medicine is because its effects is not sufficiently known. It is taken from the Laurus Camphora of Linnaeus. It is very nearly allied to the common Sassafras and Spice Wood of our country: and camphor can be obtained from them: but in a much smaller quantity than from the other.. The oil of Sassafras seems to be very similar to the Camphor. It grows spontaneously in the island of Japan: it is a native of the Cape of Good Hope. Sumatra &c.

Camphor often occasions nausea and has a bitter taste. when it is exposed it evaporates & loses

considerable

considerably. If it be put into glass bottles well corked & hermetically sealed it preserves it completely. It is partly soluble in water: but is dissolved by Alcohol: If powdered & mixed with Gum arabic it may be suspended in water. It is said to be dissolved in water impregnated with carbonic acid gas. The best method of using it is in the form of Julep: with Myrt, G. Arabic & Sugar —

Camphoric acid unites readily with earths and Alkalies.

Of the Effects of Camphor upon Insects.

If a piece of Camphor be placed at the hole of Pismires: it will kill them as soon as they come near it. Camphor destroys all insects except that very troublesome little animal the Moth — here it has no effect when put among clothes for to preserve them from the effects of this animal — It has a great effect upon frogs: it destroys insects without destroying their organization. It effects birds and quadrupeds with tremors, convulsions &c: sometimes it produced nausea & vomiting.

In those animals that were killed by Camphor, the stomach was found very much inflamed, an effusion of bile & the brain inflamed

From what has been said I think it is clearly proved that camphor is a stimulant. It appears to act chiefly upon the nervous system, but I also believe

believe that a portion of it is absorbed into the circulation. it has been perceived in the perspiration of persons. Camphor externally applied to frogs was found to produce the milk in the women. It produces inflammation of the stomach. It acts by destroying irritability & sensibility. It will revive plants.

Of the effects of Camphor upon the human body --

Camphor when taken into the stomach according to many experiments which have been made, causes a sense of heat, nausea, vomiting delirium, yawning and sleep, vertigo and complete intoxication. It reduces the heat of the body. it is said to reduce the frequency of the pulse to produce great prostration of strength, coma, tinnitus auricum, tremors &c.

The greater part of the old physicians supposed camphor to be of a cold nature, that is that it acts as a sedative. I have given it myself in many instances. and I have always found its effects upon the system to be stimulant. Upon the skin, eyes &c. it produces a redness and it acts as a stimulant.

The experiments, of Mons, Carminati and others made upon frogs & other animals, sufficiently prove its stimulating effects.

Of

Of the Effects of Camphor in Diseases.

Febris Intermittens. I am surprised that this medicine is not more used in this disease. The active powers of this medicine are certainly very great. I would advise it to be given before the fit, in the quantity of 8 or 10 grains at a dose. As a remedy for Intermittents I have never employed it. It has been employed in Nervous Diseases attended with mania, and great wakefulness with very good success.

Camphor is found out of the body to be an antiseptic from this circumstance it has been used in what are called putrid fevers - Doctor Huxham says that in the putrid malignant fevers, camphor was the most useful medicine he made use of by its exciting diaphoresis. Opium combined with camphor promoted its diaphoretic effects: and Dr. Huxham says it was the only sudorific. In gangrenous affections the camphor has been used both externally and internally with considerable advantage. In gangrenous affections of the Uterus and other internal parts, a solution of Camphor injected into the part, was found very useful. I suppose the good effects of Camphor in those diseases not to be owing to its antiseptic properties but to its stimulating effects.

In Ulcers it has been used with considerable

success

success. In ulcers of the feet and toes, and in the gan-
-grene which takes place after typhus fever, it has
been found of very great benefit. I have myself used
it in this case with very good success. In some parts
of the United States, a poultice made with bread, and a
decoction of the bark of the roots of Lafrafras, (which is
nearly allied to Camphor) has been used in Gangrene
with considerable effect. It has been used in con-
-fluent Small Pox, with great benefit. It is supposed to
act specifically upon the variolous matter, and it is
directed to wash the eyes in a solution of camphor to
prevent them from being affected also the fauces and
throat which it is said was attended with con-
-siderable success.

Sulphur prevents the variolous & vaccine
matter from taking effect. -

In Inflammatory Diseases camphor has
been used both in the local & general inflammation
In acute inflammatory diseases it has been used
by some physicians. I cannot however think it
was a successful remedy. When combined with
nitre it is said to produce a diaphoresis - it
should be given during the remission. Doctor
Hoffman says he has cured inflammatory diseases
with this medicine.

In Puerperal Fever it has been used. I must
however guard you against using it - in general it
requires

requires bloodletting and purges &c. and I have frequently to make use of bloodletting very liberally and must ascribe the cure of it to the liberal use of the Lancet in many instances. Sometimes however it requires a very different treatment, & then the camphor may be found beneficial. —

In Acute Rheumatism has been found useful Doctor Cullen says he has found it useful in removing pains from the muscles and joints. The Camphorated liniment has been used in the Gout. but whenever it is applied to the extremities to remove the Gout, it translates it to the head and internal parts which frequently prove fatal. A case of this kind has occurred in my own practice. I was called to see a black man who by the advice of his mistress rubbed some Opodeldock, upon his arm which was affected with rheumatic pain as he supposed, but which was Gout, he went to bed, as usual, and the next morning was found dead in his bed, from the gout being translated to the Pericardium & producing convulsions.

In Arthritic constitutions camphor should be externally applied with great caution. The powers of camphor in repelling the pain of Gout are remarkable, when the stomach is effected with gout & camphor be applied, ~~to it~~, it translates it to the feet. & vice versa. In Lumbago Camphor has been found useful. A solution of it in hot water has relieved rheumatic pains.

In

In Gonorrhoea, and in Chordee it has been found useful. In Bronchocele & Goitre this medicine has been used with considerable advantage. I believe it arises from the same causes as Intermittents. The camphorated liniment applied to swelling is found beneficial. In spasmodic diseases as Epilepsy it has been found useful. In Chorea Sancti Viti the camphor has been successfully used. I do not know that it has been much employed in Tetanus. I believe however it of some advantage in this disease. In spasmodic affections of the Oesophagus, camphor in solution has been beneficially employed. Also in Asthmatic paroxysms it has been found useful. In Ascites it has been used with advantage. Doctor Percival says he has employed it with success. I have never employed it. In painful menstruation it has been found advantageous.

In Mania camphor has been employed, & it was made use of many years ago: & it has been found advantageous. In Furor Uterinus or Nymphomania camphor has been used. - but I believe this disease generally depends upon a plethoric state of the system, and that depletion generally cures it. I once saw a case in the Pennsylvania Hospital many years ago which was successfully treated by Dr. Bond by monstrous depletion, - bloodletting, purges &c.

It

It not only effects young people, but instances are recorded of its attacking women considerably advanced in years. Camphor often succeeds in relieving delirium. I have seen it cure when bloodletting fails. I have given it in Mania without any good effects being produced. In Melancholia I have succeeded in curing it with Camphor: the took to the extent of ½ per day, & was completely cured and became perfectly reasonable. In Burns, camphor in combination with Gum Arabic has been found very advantageous. Camphor combined with the drastic purges prevents the acrimony of the latter. Camphor combined with Opium in Ulcers has done good. Camphor & Opium have been found useful in preventing sleep from being too profound. When joined with the Peruvian Bark it is found to make it more efficacious: & I believe it is very advantageous in Nervous Diseases. When combined with Mercury it renders the latter more mild in its operations. It is said to make Mercury more effectual in curing eruptions of the herpetic kind. It is said to increase the virtues of the latter medicine in Syphilis. I think that mercury should always salivate in order to effect a perfect cure of Syphilis. In a cancerous affection of the scrotum, I have employed the camphor with mercurial ointment; with very good success. - after having used

the

the mercurial ointment, & taken considerable quantities internally without effect. The combined ointment cured him & it never returned. Camphor ℥ss to ℥ij to ℥j of Mercury. Camphor is said to mitigate the disagreeable effects of a large dose of squills. It is said to destroy the effects of Cantharides. it prevents the strangury which sometimes arise from blisters. But some authors say that camphor produces strangury. I cannot however believe it. I have often employed it & never seen any such effect from it. I find the best method of preventing strangury is by applying hot water in bladders or bottles to the pubis: this does not always succeed; but a cataplasm of Mustard to the ancles I have always found an effectual mode of relieving it.

Camphor is an article of great power, it should therefore be began with in small doses: about 5 or 6 grains & increasing to ℥j in a day. The best method of using it is in balls.

Coniferæ. This is an order which includes a great variety of articles. such as turpentines balsams &c.

Pinus Larich. The turpentine which is obtained from this tree, produces inflammation when applied to the skin. By some authors it is recommended to be applied to fresh wounds: but owing to its stimulating effect it often proves injurious.

Pinus Terebinth.

Oleum Terebinthina. This has of late years been very much recommended in the cure of Burns. Mr. Kentish first invented this method, and it has been found advantageous. I can say nothing about it from my own experience. When we wish to give it internally we must mix it with some bland substance, such as honey, sugar &c. – or it may be given in pills – but it is very apt to produce heat in the stomach – when in large doses it proves purgative. Injections of the oil of turpentine have been found useful in allaying the vomiting in malignant fevers. Turpentine is a considerable diuretic. In Gleet this medicine has been used with advantage. Dr Cullen says it acts by inducing inflammation in the urethra from fifteen to twenty drops of balsam: copaiv: or turpentine may be given two or three times a day with advantage. I generally give it in pills. In Fluor albus it has been found useful. It has been employed with advantage in Ascites. Dr Hutchinson of this state cured a case of dropsy of the abdomen by administering the turpentine in pills. In Hydrothorax it has been given with advantage. In Hydropic cases it has been found useful by rubbing it upon the spine. In the stomach it produces heat, & in large doses strangury. In Sciatica Dr Home made use of the following recipe with success – R: Terebi: ℥ij Honey ℥j: Wine – ℥ij to be taken none at night

In

In internal hemorrhages it has been given with advantage, by mixing it with the yolk of an Egg. & then diluted with water. Turpentine in combination with Ipecacuanah has been used in North Carolina with success in diarrhoea. In Tænia it has been found useful. Turpentine when introduced into the ear relieves deafness. Garlick is more powerful.

Pix Burgundica. It has been found useful in deafness – It should be wrapped up in gauze and then introduced into the ear. it produces slight inflammation, and derganamation, and rouses the parts from their torpidity, which is believe frequently the cause of deafness. The Burgundy Pitch plaister has been highly recommended in tænia capitis.

Pix Liquida or Tar – It is half burnt turpentine. It is to most persons more disagreeable to the stomach, than turpentine. The tar ointment has been found very useful in herpetic eruptions. Tar has been much celebrated as a pectoral in Asthma & Consumption, either made into pills with finely powdered Elecampane: or the Tar Water – This is made by putting a quart of tar into a gallon of Water, and letting it stand 3 or 4 days. the scum is then to be taken off & then it may be drank. It promotes secretion. increases the appetite. It is useful in dyspepsia. also in Scurvy. Tar is found to

to contain a considerable quantity of benzoic acid

Balsam Copaiva. It is obtained from the Balsamum Copaifera of Linnaeus. In its virtues is nearly allied to the Turpentines. It has been very much recommended in ulcers of the lungs.

It has been most beneficially employed in Gleet. It sits better upon the stomach than turpentine especially if it be taken in Wine. In large doses it proves purgative. In Gonorrhoea it has been found useful in the form of injection ℞. Colomel 4 to 8 grs. Bals. Copaiv 50 to 80 gutt. Gum. Acat. ℥ij Aquae ℥ to ℥j. A syringe full injected two, three or four times a day. I have used this injection in chronic gonorrhoea frequently & with advantage.

In Haemorrhoids the Bals: copaiva has been found useful

In Arthritic affections it has been given with considerable advantage –

Balsam Peruviani. It is of a stronger nature than the other: – it is the produce of a tree which grows in Mexico. It has a very fragrant smell & is of a blackish colour. In wounds of the Nerves this balsam has done good – We are told it has been used with advantage in phthisis pulmonalis.

Gum Guaiacum

Gum Guaiacum. The tree which furnishes us with this article is the Guaiacum Officinalis of Linnaeus - it is a native of the West Indies - Lignum Vitae it is frequently termed. The outer part of the wood is hard & heavy of a pale yellow colour, deeper within & has a bitterish taste. The Spiritous tincture is of a deep brown or reddish colour. It is commonly called Gum Guaiac but it is not a gum but a resin - it is of a greenish colour outside & darker within - It was the principal remedy made use of in ancient times for the cure of Syphilis: before the use of Mercury was known; it certainly in many instances performed a cure. Mr. Bell speaks very highly of it in the cure of Syphilis & several other authors. Mr. Hunter says he has used it in obstinate ulcers in Syphilis with advantage. In Gout it has been used with advantage. It is the simple tincture of our Shops which is generally used. It is made as follows Gum Guaiac: Zii. ℞: Vin. Gall: lbj: M. Digest for 12 days & strain. The Vol. Tinct: Guaiac. is made Guaiac Zij ℞: Amon lbj: Digest for several days & strain. This has been used with advantage in Gout. When the patient cannot bear the taste, by combining it with an equal quantity of milk it is rendered very agreeable. Dr Cullen says that the use of this medicine in the Gout, produced Apoplexy, Urthrum - Palsy &c. This I cannot think is owing

to

to the Guaiac, but to the gout terminating in those diseases which it is very apt to do. For in this country this medicine is not used much in the Gout often terminates in Apoplexy, Palsy &c. I have used the watery solution in Rheumatism with advantage. ℞. Guaiac: ℥ß. G. tragac. ʒij Lacti Ammon: ʒij Aquæ ℥x - a table spoonfull 4 or 5 times in the hours. The former is the method recommended by Bergius - I give it as follows. ℞ Gum. Guaiac: ℥ß. tragac. Lact. Amm ana ℥ß. Aquæ ℥x ℥ß 4 or 5 times a day. The Gum Guaiac: is certainly an improper medicine to be given whilst the Gout is present - but when it becomes atonic & produces symptoms, of Hydrothorax, Palsy &c. It is certainly very useful, as I have found from my own experience. In Colica Pictonum it has been recommended. I made use of it when physician to the Dispensary, & with considerable advantage I used the watery solution. - In Dyspepsia this medicine has been found useful especially in what I call Arthritic dyspepsia. Dr Heusor says he has used it with very great advantage (in the Gail) in combination with iron. He made use of the following preparation. Guaiac 5 grs. Rad. Ferri ℥ grs. & Pip. Rub: 5 grs. at a dose. - but there cases when attended with costiveness. In dropsical effections this medicine has been found useful it may be used in

† It is obtained from a species of "Mimosa"

† See Dr. Bree's Work on Asthma.

in powder, pills, decoction or watery solution. It may be given from ten to fifteen grains three or four times a day.

Gum: Myrrh. + This is a gum resin of a reddish brown colour, it has a delightful smell somewhat aromatic. It is a native of Arabia It shews an evident stimulant effect upon the stomach; when taken in large doses it produces a frequency of the pulse & a sense of heat of the whole body. + By some practitioners this medicine has been used in Intermittents. In Angina Maligna, the myrrh & bark in combination has been found more useful than the bark alone. The pectoral qualities of myrrh has been much extolled by many authors, especially in Britain: and has been used in pulmonary affections. It has been used in the suppurative stage of phthisis with advantage It has been used by surgeons externally applied to Ulcers, from its antiseptic & balsamic qualities with success. In Chlorosis it has been used with considerable advantage. The virtues of this medicine are best extracted by Spirits. —

Liliaceae

Siliquosa. By the siliquosa are meant an extensive number of plants which have a siliquose or pod which contains their seed. I shall speak of but two of them. (viz) Mustard and Horse Radish. They have been very highly recommended in many diseases taken internally. Bergius says he has found them useful in vernal intermittents especially when combined with the bark. Mr. Caliyar speaks very highly of the powder of mustard given ~~in~~ internally in putrid fevers. They are much recommended in chronic rheumatism.

Semen Sinapis. This medicine in powder in Intermittents with advantage. In rheumatism of the chronic kind this medicine is highly recommended; the unbruised seed is to be given to the quantity of a table spoonful two or three times a day. In this case it does not produce heat, and proves gently laxative - but when given in powder it produces vomiting. I have given it unbruised in rheumatism with very great advantage. I have found that one drachm of powdered mustard infused in a ~~pint~~ gill of warm water; of the clear liquor drank ~~a table~~ two spoonful at a time, to allay vomiting, when all other remedies have failed.

Cochlearia

Cochlearia Armoracia or Horse Radish.

This has been recommended in Rheumatism & Gout. it is something of a diuretic. It is therefore in some instances found useful in Dropsy. but where there is much fever it should not be given: but only in cases of great general debility. In Dropsy of the Pericardium it has been given with complete success. I once cured a case of Hydrothorax, by giving a very strong infusion of Horse Radish. In Scurvy this medicine has been found useful.

The external use of Mustard & Horse Radish is very important. The mustard is commonly applied in powder combined with flour & mixed into a paste with vinegar. When we wish it to prove rubefacient - it should be made with two thirds of Mustard, & one third of flour, & good strong vinegar They stimulate the part, produce pain, & if kept on long enough will produce vesication; they produce much more pain than blisters, they are therefore to be preferred to blisters in many cases. In paralytic affections attended with cold feet the application of sinapisms to them is found very advantageous by creating a new action in the system. In convulsions the application of sinapisms to the wrists & ancles are very useful - especially in convulsions from dentition I have found them very successful. In croup or hives I have applied them to the neck with much

more

more advantage than blisters. In Cerebralis Anginosa I have found them very useful. In Vertigo I have employed them with advantage by applying them to the ancles. In strangury sinapisms applied to the ancles are generally effectual in removing it. In Epilepsy I have employed them with some advantage: I have frequently prevented the expected paroxysms by applying sinapisms about an hour before the fit was expected. In Cholera Morbus they have been used with advantage, they should be applied to the calves of the legs and ancles. I never lost an adult in this disease where I made use of the Sinapisms. In Intermittents they have been found useful. In Aphrodisia mustard applications are sometimes useful: by a decoction of the part immersed in it.

Radix, Mezereon. It is a native of Germany & other parts of Britain. It is used in Decoction & is known by the name of the Lisbon Diet Drink. it has been long in use for the cure of Syphilis. The preparation was first made known to us by Dr. Russel: it is the following. Mezereon, ℥ß. Sarsaparilla & Red Saunders aa ℥iij Rad Glycyrr. ℥ß. Quaere ℥ij Aquae ℔ij. It owes its principal activity to the Mezereon. Dr. Russel used this decoction with very great advantage in Syphilis. Dr. Monro

It acts principally by preventing meat

Monro has used it but found it beneficial only where mercury had been given or in combination with mercury. It is said to be an excellent remedy for Glandular Swellings. In old venereal ulcers where this medicine fails we must have recourse to opium, bark, cordials, &c. Bark is found to be very beneficial in producing a cure of old venereal ulcers after mercury has been given.

In Hernia Humoralis the decoction of Mezereon has been found useful. It certainly cannot be beneficial in the inflammatory stage: it must be used only after the inflammatory symptoms have subsided. It has been given in cases of difficult deglutition with success. I think it might be useful in stammering.

The bark of the Mezereon when applied to the skin excites a blister. The fresh bark should be bruised in vinegar & applied in the same manner as a blister.

Valeriana. It is a native of Britain and of various parts of Europe. It is a stimulant and has nothing of a narcotic power. It is very closely to musk, castor &c. It is only the root which is employed in medicine: it has

has a strong and agreeable smell to some, to others it has not. it has a remarkable effect upon cats. It is a diaphoretic, diuretic, and somewhat of a purgative - it has sometimes produced vomiting. — In Epilepsy it has been used by some physicians with very good success. Dr. Cullen says he has used it in Epilepsy, and other spasmodic diseases, with very great advantage. I have used the valerian a great deal in Epilepsy in the Pennsylvania Hospital, but it had no effect. I have in my private practice made use of it very successfully. In Chorea Sancti Viti this medicine has been used with very great advantage. In periodical headache it has been found useful. - I have used it in hemicrania with very great advantage, by combining it with the bark. - Mr. Fordyce combines valerian bark, the volatile Sal: Ammoniac together, making it into a syrup or electuary with syrup of Ginger.

The valerian has been recommended in dimness of sight, and amaurosis, to the extent of half a drachm three times a day with advantage. - Amaurosis may sometimes depend upon affections of the stomach when this is the case the

valerian

valerian may be useful. In putrid fevers it has been found useful. In constipation it has been found very useful. it acts as a very mild purgative It should be given in substance from ℈i to ℥iss dis.

Castoreum. It is a peculiar substance of a very odoriferous nature: and is contained in four oval sacs situated between the anus & penis of a species of Beaver. the two upper sacs contain the best. The best kind comes from Russia, an inferior kind from Dantwich: and a tolerable good from America. This article has been employed in all those diseases in which Musk has been used. It has been employed in Typhus Fever, Epilepsy &c. with great advantage. It is given in doses from ten grains up to one drachm The Tincture of Castor made with Spirits is much the best. Castor is possessed of a narcotic power.

Crocus. I cannot say any thing concerning it from my own experience. It is an article extremely common: and very much is

in use among the old women: it is however very inert. Its medicinal properties may be extracted either by water, spirits or wine. Doctor Monro says it raises the spirits and allays pain, and is also gently anodyne.

The great character of Saffron in authors is that it exhilarates the spirits - this may perhaps be the reason why the old women make so much use of it. Doctor Cullen thinks very lightly of this medicine.

Stimulantia.

Evacuantia.

I. Errhina. They are those medicines which when applied to the nose, irritate the schneiderian membrane: and produce a discharge of a watery fluid or mucus from the nose. The evacuation which attends errhines is often accompanied with sneezing: but sometimes without. Errhines often go no farther than to restore the natural evacuation: sometimes to increase the discharge of the mucous follicles. – The use of errhines in Odontalgia is sometimes found very beneficial – especially when it arises from rheumatic affections. In Ophthalmia they are frequently found very beneficial. In Hydrocephalus Internus errhines have been used but I do not know that they do any good. Dr. Percival thinks they are sometimes useful – they have not been employed in this city. Mercurial Errhines I think might be used with success in Epilepsy, where there is a determination to the head: especially if combined with tobacco.

The

The best preparation is equal parts of the Sulphate of Mercury (Turbeth Mineral) and Snuff well mixed together. It should be used for several days. It sometimes produces ptyalism.

Deafness in many instances appears to be owing frequently to an obstruction of the Eustachian Tube. - the entrance into the funnel becomes swelled: this species is frequently incurable. I have cured it by bleeding, and by errhines of Mercury, Snuff and Tobacco. In Amaurosis or Gutta Serena the mercurial snuff has been found useful - Turbeth Mineral ten grains to one drachm of Pulvis Sternutatorius. I have used the mercurial snuff in this disease with considerable advantage. When it depends upon an organic affection of the Brain or from Syphilis a cure is seldom effected. The Gutta Serena from Lead is sometimes cured by the use of Mercurial Purges. Gutta Serena sometimes comes on suddenly, when it does the mercurial snuff: together with a seton behind the neck, I have found to make an effectual cure: a case of this kind occurred in my own practice I was cured by these remedies. It is an universal opinion that the pupil does not contract in Gutta Serena - but I have certainly

is

in one or two cases seen it contract. Errhines are divided into Mineral and Vegetable.

1. Of the Mineral Errhines. But few have been discovered among the Mineral. The principal are the Turbeth Mineral: and it is the most important of any - it frequently produces salivation. A solution of White Vitriol in water snuffed up the nose produces sneezing. - The vapours of Quicksilver also produce sneezing.

2. Of the Vegetable Errhines. The Beta Vulgaris or Common Beet is mentioned by writers as a sternutatory: - The juice of it snuffed up the nose has been found useful in Otalgia. The Asarum Europeum or Asarabacca or Colts-foot is a considerable errhine. When used in large quantities it proves very violent, but when used in small quantities it is found very beneficial in removing large watery secretions from the nose. The asarum is the basis of the pulvis sternutatorius. The powder of Phytolacca or Pokeweed is a considerable errhine. Dry Squills is also an errhine. The Nicotianum or Tobacco is a very good errhine which many of you know from experience. Tobacco in water

way it may be taken produces its narcotic effects in some manner upon the system. Dr. Cullen says it produces dyspepsia and pain.

Snuff besides containing tobacco has frequently mixed with it Potash, or Sal Ammoniac, and very frequently finely powdered Glass. — When snuffing is left off very suddenly by persons who have been accustomed to use it very freely, sometimes produces very violent diseases such as Apoplexy, Epilepsy, Cephalalgia &c. and they are to be cured only by the patient returning to his former habit of snuffing. The Digitalis sometimes produces sternutatory effects.

The Euphorbium or Sneeze Weed is a very powerful errhine — and if great care be not taken it produces inflammation of the nose which sometimes becomes so violent as to produce hemorrhage. Mr. Boyle says he has ~~cured~~ seen two cases of Cataract cured by the use of Euphorbium as an Errhine, by an empirical practitioner. The Veratrum Album or White Hellebore is a very powerful errhine. It is a native of our own country. The Helleniar Autumnale is a very great errhine, it is found in about this city. when applied to the nostrils it excites great irritation and

sneezing

sneezing. I cannot conclude this subject without mentioning that I believe that the use of errhines are too much neglected -

II. Scialigoga. They are those medicines which when taken into the mouth or stomach increase the discharge of saliva. They are divided into external and internal. The external are certain acrid articles which increase the excretion of saliva. The salivary medicines and errhines are very much allied to each other. Many of the errhines beside producing sneezing frequently produce a discharge of saliva. The Anthemis Pyrethrum or Pellitory of Spain is often made use of as a sialigogue - the root is the part generally made use of - it is an extremely acrid plant. In England it has been given with advantage Nicotianum or Tobacco when chewed acts as a sialagogue. The Imperatorium or Master Wort is said to be a sialagogue, I know nothing of it from my own experience. Camphor when taken into the mouth excites a considerable

discharge

discharge of saliva. The Horse Radish Doctor Cullen says is a very powerful sialagogue. The Zanthoxylon is a native of this part - it is a considerable sialigogue - its salivary powers are contained in the bark and berries - it is used in Syphilis with some advantage - In Rheumatism it is a very good medicine - I have employed it myself with advantage in the Pennsylvania Hospital The Polygala Seneka is a sialagogue - if the root be chewed for a short time it produces a copious flow of saliva. It is very useful in Odontalgic Rheumatism.

The internal Sialagogues are in the first Mercury. In fevers the use of Mercury is of ancient date. It was used in Intermittents and many other fevers many hundred years ago. Mercury is now used in the cure of intermittents - but I am doubtful whether it does not do harm - it is not the proper remedy the bark is the only true remedy. - Mercury appears to be most useful in remitting fevers. In Typhus fever mercury has been given but I have not made use of it - as I have generally been successful in curing it by opium, bark, wine &c.

2

In Yellow Fever the mercury is much recommended I have never seen nor heard of a patient dying of the Yellow Fever who was salivated before the black vomit came on. In my own hands mercury has certainly been of great advantage in this disease - but I do not think that it should be the only medicine made use of in this disease.

In Dysentery mercury has been very highly recommended especially by Dr Clark who has been very successful with it. He generally gave calomel combined with opium. I have used it myself in some cases of this disease with advantage; but in some instances I have found it injurious if it does not take effect in two or three days the medicine should be laid aside, for if it be continued it will prove injurious. It is a very precarious remedy and I would not advise any of you to use it upon my authority: it has very often proved injurious in my own hands. Have found the use of Ipecacuanha advantageous. In Dysentery combined with Scurvy the use of Mercury is very injurious.

In Diarrhoea, it is often employed - it seems best adapted to chronic diarrhoea which seafaring people are subject to. I have found blisters very useful applied to the belly & ankles kept running for some time. —

In

In Phthisis Pulmonalis. I have made use of Mercury but cannot say a great deal about it. I have never cured pulmonary consumption myself by the use of Mercury. but many physicians have found it useful

In the Cynanche Maligna or ulcerous sore throat this medicine was long ago made use of. it was given so as to produce salivation. I have frequently given it combined with Ipecacuanah so as to produce vomiting with advantage. and I have frequently given the Sulphate of Mercury so as to vomit with very good success I can recommend it to your attention.

Cynanche Trachealis is a disease which is very common to Children. It is either idiopathic or symptomatic. The idiopathic is much easier cured - the symptomatic when it arises from a translation of disease is very hard to cure. In this disease calomel has been used with advantage. I generally combine calomel and ipecacuanah, together. Calomel is certainly one of the best medicines that can be used in this disease. The Corrosive Sublimate has been used with advantage. Dr. Archer of Maryland says he uses it by dissolving it in water & giving it guttatim according to the age of the patient.

In

In Rheumatism mercury has frequently been used. I cannot say much respecting it. There are many cases of rheumatism which require the use of mercury so as to excite salivation in order to cure it I have frequently used it with advantage. In Rheumatism from Syphilis mercury combined with Opium is the only remedy. In suppressed Gonorrhea a violent rheumatism is sometimes produced: but it is always cured by the gonorrhea returning. I have seen several cases of this kind. they are only to be cured by Mercury.

In Gout this medicine is but little used. A salivation has cured the disease

In Pneumonia mercury is seldom found useful It is however in some cases used with advantage.

Hepatitis is an inflammation of the Liver, In its commencement it should be treated as a disease of inflammation, with the antiphlogistic regimen as V.S. blisters, purges &c. The use of mercury has been found of great advantage and is now much used and is said to be successful. It should be used so as to excite a salivation. It is certainly an inflammatory disease in its first stage require bloodletting first, afterwards Mercury.

In Goitre mercury has been found very useful. In some instances it has cured the disease in others it is only retarded.

In Hydrops mercury has been used for a long time

It

It is most beneficial and most succesful in anasarca - It is not so succesful in ascites.

In Hydrocephalus Internus, mercury is very beneficial - it most commonly affects children. It is often connected with scrophula. I have seen several cases in this City. I have found bloodletting & blisters the most effectual remedy.

In Epilepsy this medicine has been used but it is rarely an effectual remedy.

In Tetanus it is found very useful. If salivation can be excited before the violent symptoms come on it never fails in preventing them.

In Hydrophobia mercury has been given with great advantage - there is great fallacy attending the use of medicine. I believe that persons bitten by dogs supposed to be mad very often have no symptoms of hydrophobia. In those cases if mercury has been given it is supposed that the salivation which is excited has prevented it; when it is very probable that if no medicine had been given it would have terminated in the same way. I however believe that it has frequently prevented hydrophobia - but the salivation should not be brought on too soon. The symptoms of Hydrophobia frequently do not make their appearance untile forty or fifty days after the person has been bitten. — Mercury has been used in the bite

of

of poisonous serpents with considerable advantage

In Spasmodic affections the use of mercury has been found advantageous. Doctor Hoome gave a patient labouring under a spasm of the Oesophagus two grains of mercury every night untill a salivation was produced and cured the patient.

In Hypochondriasis mercury has been found useful I have generally found the pil. caruleei the most beneficial in this case.

In Mania it has been used and I wish I could say that it is a succesful remedy in curing it. I have employed it in many cases - in some with advantage - in others without any effect.

In Palsy I have found mercury very beneficial - it is used by many physicians with very great advantage.

In Colica Pictonum mercury has been used. Calomel given in such quantities as to open the bowels freely and not produce ptyalism is most generally found succesful. Sometimes it is necessary to produce ptyalism: & I think it best.

In Amaurosis this medicine has been recommended with some succes. When it arises from Syphilis which it often does, mercury is certainly peculiarly adapted to the cure of this disease. The oxygenated muriate of mercury or corrosive sublimate has been very much recommended in this disease

The

The following prescription has been found very successful in curing this disease. ℞. Cor: Sol: gr ij Vit: Ether. ʒij M. Take gt. x ter die in a teaspoonful of Milk.

In Surditas mercury has been used & in some cases with advantage. There are several cases related authors in which it proved a complete cure. But I have tried it in some instances without any advantage.

In Scrophula it has been used with advantage in scrophulous consumption it has been found a very advantageous remedy. It sometimes arises from syphilis the use of mercury is then beneficial. In strumous swellings of the neck the external use of the Unguent. Mercurialis has been used with advantage. The bark combined with corrosive sublimate has been used with advantage in scrophula.

In Cancer it has been found useful. Goch says he has cured a cancer of the Nose by the use of the oxygenated Muriate of Mercury. There are also several other cases related which have been cured It is highly probable that they were not genuine cancers, but some kind of venereal ulcers. In the Venereal Disease mercury is the principal remedy for curing it & I believe that genuine syphilis has never been cured by any other remedies In Gonorrhoea this medicine is seldom used. I

sometimes

℞. Calomel ppt. grs x
Pulv. G. Opii — grs. ij
Pulv. G. Arab. ℥ij
Aqua ℥ℹ. M.

sometimes make use of the mercurial injection.
℞. Calomel grs x Pulv. G. Opii grs ij. Pulv. G. Acat. ℥ij
rub them well together in a mortar & then add gradu-
-ally Aqua ℥j. -

In Frambœsia or Yaws this medicine has been given with advantage. I have never seen but one case of this kind & that I cured by the use of Mercury.

In Lepra this medicine has sometimes been used with advantage, but it very frequently fails. The Hydrargyrus Nitratum Ruber given in-
-ternally I think might be found useful. Camphor I think might be used with advantage

In Cutaneous affections mercury is frequently used In psora this medicine has been used. in the following manner Mur: Hydrarg: grs viij ex p to Aq: Calcis ℔j: it is called Aqua Phagadenica.

In Tænia Capitis it has been found useful I have always found the solution of the Muriate of Mercury in Lime Water or the Ung: Citrinum to prove an effectual cure. Sometimes when all these medicines fail. I have learnt from an empir-
-ical practitioner the use of our common laurel the (Kalmia latifolia) with advantage. - from two to iij grains to be given two or three times a day. It cannot be taken longer than two or three days before it pro-
-duces a disagreeable sensation upon the skin.

itching

itching &c. - and a strong decoction of it to be used externally as a wash. The dose to a child four or five years old is one grain twice a day. It very often cures when all the others fail. Sometimes an eruption arises from a blister, when it does the aqua phagadenica cures it. The Rhus or Lemacot frequently produces very injurious effects by poisoning persons. I have found out a remedy which cures it effectually - that is a solution of corrosive sublimate in common water or lime water. It not only cures the disease but it destroys the susceptibility of the system to the disease. ℞ Ca: Sub gr.s in to Aqua ℥viij ft. This solution has frequently cured it in 24 hours.

Of the preparations of Mercury.

Mercury is sometimes found native, it has neither taste, nor smell is ponderous and of a bluish appearance. Mercury is absorbed both externally and internally. It was formerly given in its running state. When given in large doses it passes through the intestines without being changed.

In order that this medicine should be active it should be either chemically or mechanically divided. There are four methods of preparing & using it.

1. By

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℞. Hydrargri ℥j
Gum Arab. ℥ij
Aqua ℥i. Rub them well
together in a mortar then add Syr. Sing. ℥ß.
Aqua — ℥iij then ℥ß mane et vespere

1. By its being converted into vapour. 2. By Calcination. 3. By being triturated. & 4. By being combined with acids.

Mercury is in some respects soluble in water. & is sometimes used as an anthelmintic in this way

1. The vapour of Mercury. The fumes of the Sulphate of Mercury also of Cinnabar have been recommended in venereal ulcers – it does not produce salivation as soon as the mercury when given internally

2. By Trituration. When mercury is triturated with some unctuous substance, it renders it very easy to be rubbed into the system. The best preparation of this kind is the Mercurial Pill commonly called the Blue Pill. It is made by rubbing down the mercury with rhubarb or some such substance until the globules entirely disappear. I think it is far preferable to the Calomel pill. – it excites salivation sooner & is not so apt to rear off by stools.

In cutaneous eruptions, in old venereal chancres & ulcers in the mouth the blue pill is not to be depended upon, the saline preparations should be preferred – but it is often necessary to change the medicine from one preparation to another. Mr. Plenck of Vienna recommends the combination of Mercury with Gum Arabic. He recommends the following recipe.† Mercury rubbed down with

hogs lard & a small portion of suet forms what is called the Unguentum Mercurialis. In order to make it unite the easier the Ol. Terebinth or Balsam Copaiva is mixed with them: but it is found that they stimulate the parts upon which they are rubbed too much. In the winter season the mixing of the mercury with hogs lard is sufficient but in summer the mixture becomes liquid and the mercury is revived: it is therefore necessary to add suet in the summer. An excellent method has lately been made use of & answers the purpose extremely well. - agitating the mercury in a phial with a portion of very rancid sweet oil.

The ointment should be rubbed on the skin untill the whole is absorbed & cannot be seen.

3. By Calcination. It was formerly supposed that the calcined had a much better effect than all the others. This is however now laid aside. The principal preparation that is made use of is the Hydrargyrus Nitratus Ruber. This medicine I think produces salivation sooner than any other, but it is not to be preferred. It is probably of most advantage in old venereal ulcers. It is a very active medicine & must be used with great caution.

4. Of the Saline preparations. 1. Of the combinations of the Sulphuric Acid with Mercury. The principal one is the Sulphate of Mercury. It produces the general

effects

effects of other Mercurials. As an entire Work you enter treating upon that subject it had produced very good effects in my practice. With the Muriatic Acid mercury is combined forming the oxygenated muriate of mercury or corrosive sublimate. This preparation is not liked by some. I have used it myself & I think it a very valuable medicine. In the venereal disease of children it is certainly an excellent medicine. The medicine should be given in very small doses at first & should be continued a long time. A solution of sublimate in lime water is an excellent preparation especially in cutaneous & herpetic eruptions & in tænia capitis. Calomel is mercury combined with muriatic acid leaving an excess of mercury & is of course much milder than the corrosive sublimate. This medicine however is very apt to purge & I cannot think it is so good as the Blue Pill or Sublimate. But as a purgative it is one of the best medicines that can be employed. Some of the preparations of Mercury with Nitric Acid are useful. One of which I have mentioned is the Hyd: Nit: Rub:. Another is the Mercurius Cinerious. The Unguent: Citrinum is another preparation of Mercury & Nitric Acid. It is an excellent ointment in eruptions. A new medicine has lately been made use of in Petersburgh in Russia called the <u>Mercurial Soap</u>. The Hydrargyrum

Phosphuretum

Phosphuretum or Phosphate of Mercury has been used in inveterate venereal ulcers in extremis & is said to be very useful. The following recipe

℞. Phosp: Mercur. grs. iv Lacct: Alb: grs fifty.
Pulv. Cinnam: grs. fiv. Pulf. pulv viij - Take one powder nane et vespere untill it produces ptyalism

A Quack Medicine sold by the name of Ward's White Drop is a preparation of mercury & nitric acid also Reyser's Pills is a preparation made by dissolving calcined mercury in vinegar & made up with wheat flour & manna.

Of the Modus Operandi of Mercury

The ancient opinion was that it acted as an universal evacuant. Dr Cullen supposes it to act as an evacuant, but has a specific quality attached to it by which it effects the salivary glands. Doctor Swediaur says that in curing the Venereal Disease it acts by mixing with the poison of the disease in the blood & neutralizing it. Mr John Hunter says it acts by counteracting the venereal action, and creating a new action in the system. Although this last theory is very ingenious and plausible, yet I cannot admit it: for I should suppose that other medicines which produce violent irritation ought to cure it, which we know is not the case. Mr Hunter supposes it to be a peculiar irritation. That it acts as an antidote I have no

no doubt, but in what way I know not. It is certainly a specific. It was the opinion of Doctor Barry & others, that it acted mechanically. I believe when mercury is taken for a long time it is absorbed into the system. I become every day more and more convinced that mercury does not act chemically in destroying the venereal poison.

Copper. Some of the preparations of copper have been known to salivate.

Lead. I have never seen it produce salivation myself. but there are many facts recorded in which it has produced profuse salivation.

Antimony. has frequently salivated I have known a salivation to be kept up for a considerable length of time from its use.

Arsenic. I believe frequently produces a salivation. I have never seen a perfect salivation from it, but so much as to make the gums very tender.

Oxygen Gas will produce salivation
Oxygenated Lard has also produced it.

II. Animal Kingdom

Captain Cooke's Crew were salivated by eating a certain species of fish - a species of Medusa.

III

III. Vegetable Kingdom.

Camphor has produced a salivation
Opium it has been observed will produce a salivation.
Conium Maculatum has often salivated I have once seen it myself and there are many cases related by authors
Solanum Dulcamara, Stramonium Hyoscyamus, Scilla, Asafoetida Zanthoriza, Seneca and Ipecacuanha given in small doses have been known to produce salivation.

III Emetica

Emetics are those medicines which when taken into the stomach, increase the peristaltic motion of the intestines, and cause vomiting. Dr. Duncan divided them into four classes.

1. Irritating ~~Evacuants~~ Emetics such as the Sulph: Zinc et Cupri –
2. Evacuating Emetics such as Ipecacuanha Tartarus &c –

3. Heating Emetics such as Horse Radish, Mustard.
4. Narcotic Emetics as tobacco & digitalis.

I cannot adopt this opinion. I believe all medicines act by irritating & by evacuating

Another division of them is into

1. Relaxing Emetics as Warm Water
2. Resolvent Emetics as Tart. Emetic, Squills &c.
3. Warm Emetics as Ipecacuanah
4. Drastic Emetics as White Hellebore, Turbeth Mineral, Tobacco &c.

I do not admit of any of these divisions I shall divide them into two great heads, (viz) Mineral and Vegetable

I. Of the Vegetable, from this class we derive most of our best emetics.

Ipecacuanah is the most important vegetable emetic we are yet acquainted with. It was ~~not~~ known to Sydenham. Although it has been a long while in practice, yet it is but lately that we have ascertained from what plant it is obtained. It grows in Brazil and also in South America. It is the root which is employed in practice. Its properties were first supposed to reside in the bark, but it is now found that the wood possesses this property in a

considerable

considerable quantity. It is employed either in fusion in wine or in substance: the latter is generally the best method. It is one of the most safe and certain emetics we are acquainted with. One grain frequently produces nausea and vomiting: if it be good. The Vinum Ipecacuanae is made by putting ℥ij of Rad. Ipecac. into lbij of Spanish White Wine fifteen or twenty drops of it will generally produce a child.

Ipecacuanah has been highly recommended in Intermittents. In Dysentery it has been found useful, it proves a gentle emetic & purgative. Mr. Clark used an infusion of it with very great advantage, it first vomits afterwards proves gently purgative. I have used it in both recent & chronic cases with success: it is much better adapted to some cases than others. I never made use of the tincture ~~but~~ infusion, but only the powder.

I generally use the following formula

℞. Rad: Ipecac: grs xij. Pulv. G. Cepii grs ij.
Cretæ ppt. grs xxiv M. ft. Dos: viij. One powder to be given every two or three hours, as the stomach will bear so as not to produce vomiting. —

Ipecacuanah is best adapted to those cases which have a considerable blood discharged mixed with faeces. In the dysentery running on to Lyphus, or when attended with scyballa, I should not think it useful. Is it not a wise provision of nature to cause nausea at the time of conception so as to prevent hemorrhage from the uterus.

Mr.

Mr. Murray says that Ipecacuanah is useful from its antispasmodic effects. I am certain it is the most relaxing and antispasmodic medicine we are acquainted with. In a violent case of Uterine Hemorrhage to which I was called I prepared three grains of Ipecacuanah & one of Opium, made into two pills, & gave one of them immediately and the other to be taken one hour afterwards, if the first had no effect. In a short time after taking the first one the disease increased: but in about half an hour it suddenly ceased and she had a great deal of nausea: it was therefore not necessary to take the other. I have found it advantageous to combine Ipecacuanah, Opium & Saccharum Saturni together.

It is supposed by some that ipecacuanah is beneficial only when it acts as a purgative: this I do not admit. Doctor Moseley supposes its beneficial effects to arise from its determining the humours to the skin. In those cases in which I have employed it has never produced any purgative effects, - neither have I observed that it promoted diaphoresis. Its mode of operation appears to me is unknown.

I have found emetics very useful in Incarcerated Hernia. The famous surgeon Richie of Europe cured several violent cases of incarcerated hernia by the use of Ipecacuanah.

In <u>Hernia Humoralis</u> the use of emetics have been found in some cases of great benefit. It is however frequently injurious: it may be treated much more successfully by bleeding & local applications

Emetics

Emetics have been used in discussing buboes from a venereal origin. A sea voyage has cured them. They act by stimulating the lymphatics and causing them to absorb the matter.

Emetics have been found useful in the poison from the bite of serpents. Doctor Morse says he has exhibited them with advantage in those diseases. In Singultus emetics have been used with some advantage. I cannot assert that it has a specific action in the cure of Dysentery.

In Rheumatism emetics have been found useful.

In Dropsy it has been much used, especially in Anasarca: given in the form of Dover's Powder. I have used it myself in some cases and with advantage.

In Phthisis Pulmonalis if it be given in small doses so as to keep up a gentle nausea and spitting it is found beneficial. I generally give it in combination with Creta (viz.) Ipecac grs. ij Creta ppt. grs. xv ℞. I give this powder three or four times a day. Have found it very beneficial.

Asthma. On this subject I would advise you to read Doctor Athenoide's paper: he says no medicine removes the spasms so effectually as Ipecacuanah: he gave from three to five grains every morning. I have given it in the same dose for a long time with considerable advantage: it sometimes

prove slightly emetic at first. but it very soon becomes more pleasant. In the humoral asthma it is found useful. The smell of Ipecacuanah has produced asthma in many persons. it always produces it in Dr. Jones of Maryland. —

In the Confluent Small Pox I have used it with very great advantage.

In Cynanche Trachealis the use of Ipecacuanah is very beneficial. I have given it in combination with calomel with advantage. Next to Jurlett Mineral it is the best preparation we are acquainted with- it is far preferable to the antimonials

In Cholic it is used with some advantage

In Hysteria it has been found beneficial.

Ipecacuannah has a very great power in preventing the debilitating effects of Opium. In several cases where persons have taken Opium either by accident or designedly. if Ipecacuannah be given immediately it produces prompt relief. and prevents the narcotic effects of the Opium.

Its common dose is from ten to twelve grains.

Spiræa Trifoliata or Indian Physic.

It is very common in Virginia. It may be given so as to prove a tonic or an emetic. The root of it is similar to Ipecacuannah. Its emetic quality resides principally in the bark and to a

certain

certain extent in the leaves and wood. When powdered it resembles Ipecacuanhaat very much and is I think very little inferior to it. It is used in the country in decoction or in Tea. I generally make use of it in powder: its dose is from one scruple to half a drachm. for an adult. It is a very good substitute for Ipecacuanhaat in all diseases

Asarum Europæum or Asarabacca. It is called Colts foot or Wild Ginger in Virginia. It possesses some emetic properties in doses of about one scruple. It is a very moderate & manageable emetic, Both the leaves and root are used. It is used as an expectorant in pertussis.

Scilla Maritima. This is a medicine of very great importance as a diuretic: of which we shall speak hereafter. It is an emetic, diuretic and an expectorant. It is a considerable emetic By drying it loses four fifths of its weight. Twenty grains of the recent root is only equal to about four grains of the dry. The dose for an emetic is about four grains. – The Oxymel of Squills is very much used in Cynanche Trachealis. It was the favourite emetic of Doctor Morton. It is but little used as an emetic at present, but as an expectorant and nauseu it is much used.

Scutellaria

Nicotiana or Tobacco is a considerable emetic but is little used for that purpose, and not so much as I think it deserves. It is a powerful diuretic When externally applied it proves emetic. By mixing the leaves with vinegar and applying them to the pit of the stomach. I have known to act very promptly as an emetic. In persons who have taken large doses of laudanum, I have applied the infusion of Tobacco externally with com-plete success.

Siliquosa. The principal articles of this class which are in use, are Mustard and Horse Radish. They may be made to act as prompt emetics. An infusion of Mustard or Horse Radish has been found useful in cases where laudanum has been taken. One drachm to about two wine glasses of water proves emetic. A weak infusion prevents vomiting, as I have mentioned

One drachm of fresh made mustard given to a child of five or six years old in the forming state of Cynanche trachealis has cured it completely it does not produce vomiting.

Mineral Emetics.

Of the preparations of Copper.

The Super Sulphate of Copper is a very power-ful emetic. Doctor Simmons condemns the use

of

of antimonials in pulmonary consumption, and recommends very highly the Sup. Sulph. Cupri. because he says it acts much more quickly, and acts upon the stomach only. I believe two grains are generally sufficient to cause full vomiting.

Doctor Spalding says he has used it in Remarkably so as to produce nausea with advantage.

Great caution should be used in administering this medicine. It sometimes vomits with severity I have used it frequently and generally find it a manageable emetic. In Cynanche Trachealis this emetic has been given with great advantage. To a child of three years old the following preparation may be given Sulph. Cupri grs viij Aquæ ℥viij give two teaspoonfulls every fifteen minutes until it operates. Equal parts of Tart. Emetic and Sulph. Cupri mixed together and five grains of it taken at a dose, without any liquid, forms what is called the dry vomit: — after it has operated brandy should be given.

Super Sulphas Zinci or White Vitriol is an emetic which acts very promptly: but it sometimes does not prove effectual. It is given from five to ten grains. and I have given it myself to the extent of half a drachm. in cases of Laudanum taken internally. I think the Ipecacuanah preferable to it & therefore do not make much use of it. Doctor Moreley recommends it very highly in pertussis: he made use

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Dr. Moreley's Citriolic Solution

℞ – Sup: Sulph: ~~Ferri~~ .. ℥ij

Pulv: Alumnis – – – ℥j.

Cocinilla – – – grs iij

Aq: Bullientis – ℔j. ~~℔~~

The dose for an adult ℥ß – for a child of 6 Months ℥j.

use of the medicine in solution. I have made use of his preparation with considerable advantage especially in phthisis pulmonalis. both in the Pennsylvania Hospital & in private practice. The great advantage of this preparation over other medicines is that it does not debilitate the patient, neither does it fatigue him or produce sweating. I find it most convenient to leave out the alum it makes it a more prompt emetic: when it contains the alum, it proves purgative & is most useful in diarrhea and dysentery.

All the saline preparations of mercury if given in large doses prove emetic. The oxygenated muriate of mercury or corrosive sublimate dissolved in water acts as an emetic: ~~In doses if four or five grains it proves emetic~~. In Hernia Humoralis it has been used with advantage.

Sulphas Mercurius or Turbeth Mineral is the principal mercurial emetic: and one which I think very favourably of. It is very active and vomits very speedily. In doses of four or five grains it proves a prompt emetic. In Angina Maligna I have given it with advantage as an emetic & so as to produce a ptyalism: to a child of three or four years old I give about two grains. I have used the Turbeth Mineral in combination with Pulv. Squillæ in cases of dropsy, especially of hydrothorax with

with very great advantage.

Antimony. From the inequality of the different preparations of this medicine, it is necessary to begin with very small doses. The Tart: Antimon: is given from one grain to five. The best way is to give it in divided doses. By dissolving four grains in eight ounces of water, let the patient take a table spoonful every fifteen minutes until it operates

Vinum Antimonium is well known to you all. It is very excellent for children when well made: but as it is often badly made, it is not always safe.

Hermes Mineral. is a considerable emetic: and is very much used by the French Physicians. It is I believe a useful emetic The common dose for an emetic is from two to three grains.

James' Powder. The precise composition of this powder is not known: It is supposed to consist of phosphate of lime & antimony. It is superior to any antimonial preparation we are acquainted with. The dose from 5 to 12 grains.

There are many more antimonials which might be mentioned but time will not permit. —

Cathartics

Cathartics are those medicines which when taken into the stomach evacuate the intes-
-tines downwards. Cathartics, emetics and bloodletting are the natural remedies for disease
They have a very decided effect upon the fre-
-quency and fullness of the pulse and in di-
-minishing the heat of the body: they
are necessary in all fevers. Cathartics
when well managed frequently produce
sleep - they have a considerable effect
upon the mind: - a close application to
study prevents or delays the operation of a
cathartic. Their operation is very extensive
The dose of a cathartic is very variable. The
same dose of purgative medicine will effect
the same person differently at different times:
Obstructed perspiration frequently produces
purging. The application of cold to the extremi-
-ties. often removes obstinate costiveness: it is an
excellent remedy for delicate women and persons
afflicted with Gout. In a case of Colica Pictonum
which occurred in the Pennsylvania Hospital
I found the pouring of cold water upon the ex-
-tremities, to produce stools very frequently
but this practice requires caution and is not
always

always proper. Riding on Horseback sometimes causes constipation: but it most frequently produces other effects. I do not believe with Doctor Cullen that Sal: Glaub: produces inflammation I never knew of its producing those effects.

Oleum Ricini. This is a very important cathartic and a very excellent one. The dose for an adult is a large ~~table~~ spoonfull, & we however require one ounce. This medicine may be employed in all cases where purgative medicines necessary. It causes but little griping & is therefore preferable to Jalap. In cases of Hemorrhoids it is the most effectual remedy. In cases of Dysentery this purgative is excellent. In Colica Pictonum it is said to be a specific but I do not believe it. If given in large doses it often produces great relief: but it sometimes requires much more active purges such as calomel &c. The manner of taking it is necessary to attend to. Children take it best when mixed with molasses, honey &c. Adults will take it best in wine or brandy. some especially the French take it in milk or in strong coffee. I generally use it in the following formula ℞ – ℞: Ricini ℥ij Aquæ ℥iij ℔: Anis & Laud Alb: ana ℥ij ~~℞~~ ℥ss to be taken two or three times a day – with Laudanum if necessary. –

Rhubarb

Rhubarb. This is not a very powerful purgative. It frequently a large dose to purge - as it is a mild and easy cathartic it is very proper for children, and I generally use it. It has a nauseous taste but sits well on the stomach. It is preferable to Jalap because it is not so apt to produce vomiting or griping. When combined with calomel it is a certain purgative I generally give Rhubarb grs. xxx to Calomel grs. v to an adult. It is somewhat astringent: and is preferable to other purgatives in not being necessary to increase the dose. It acts sometimes as a diuretic. Rhubarb is one of those substances which is absorbed into the circulation. -

Juglans. - White Walnut or Butternut. This medicine is generally used in the form of an extract: and is very nearly allied to Rhubarb. It is one of those cathartics which sits very easily upon the stomach and does not produce griping. It frequently operates in doses of about eight grains. It has been found useful in Dysentery. It may be prepared by drying the bark & powdering it: The dose is from twenty to thirty grains.

Cornhulen

Convolvulus Jalapi or Jalap. It is a native of South America. The root has hardly any smell. I think it is a very improper purga-tive for children because it is apt to gripe & vomit. For the adult jalap is an excellent purgative. Its dose is from fifteen to thirty grains. The jalap in powder is the best preparation - it is an excel-lent anthelmintic when combined with calomel.

Podophyllum Peltatum or May Apple. In its purgative qualities it is very nearly allied to Jalap: the root is principally used. The powder of the root combined with calomel is an excellent cathartic. It is peculiarly suited to some of the Intermittents and Remitting Fevers. in about twenty grains for a dose. It is said that it does not require so much bark to cure the disease after the use of this medicine. Its taste is nauseous, but it is not so apt to gripe as jalap - it is think a more powerful purgative than jalap. It is most active in the Spring and the proper time to collect it is when the apple is yellow: and the leaves are turning yellow; the root may be dried and pul-verised - the extract is sometimes and is found very advantageous.

Helleboros

+ Lee's Pills.. Calomel, Jalap. Aloes
Gamboge & Extract of Buck Bean.

Helleborus Niger. It is obtained from Germany and some parts of Europe. The dose is from ten to twenty grains. It is supposed to be an excellent purgative in Melancholia and it was much used by the ancients for this disease. —

Gamboge. This is I think in every instance a powerful purgative. It is derived from the plants. It Pho Port. It is an excellent purgative made into pills of two or three grains. When other purgatives fail it often succeeds. If combined with an equal quantity of calomel it is a certain purgative.

Aloe Perfoliata. or Aloes is a gum resin of a blackish colour, shining fracture & of a bitterest taste. It is unquestionably a very important medicine especially when combined with calomel. It is seldom used alone - It enters into the composition of Anderson's and Lee's Pills. They are certainly the best cathartics we are acquainted with. Aloes is one of those cathartics that has a specific effect upon the lower part of the intestines. It is given as an emmagogue for that purpose.

Scammony. I can say very little about it. The dose is from three to 8 grains - it is never taken by

by itself but in combination with other medicines

Cologuintida. or Colocynth. This is the most drastic purgative we have. The dose is from four to ten grains it is seldom given by itself If given in large doses by itself, it sometimes produces bloody stools. it is so irritable to the intestines

Sulphur, is in many cases an excellent purgative. In persons of a delicate constitution it is very excellent: & in cases of hemorrhoids: it is also useful to children. The only objection to it is its disagreeable smell which it occasions.

Sulphas Soda. or Glauber's Salt; is an excellent cathartic, and is one that is most commonly made use of. The dose is from half an ounce to one ounce.

Sulphas Magnesia or Epsom Salt: is a very mild cathartic: & is often found very useful.

Sulphas Potassa. or Vitriolated Tartar. is very frequently used especially by the French. It is used as a purgative in doses of one ounce or more. — —

Diuretics.

Diuretica.

Diuretics are those medicines which act upon the urinary organs only increasing the discharge of urine.

Polygala Seneka. It is a considerable diuretic; - when given in large doses to children it is a purgative. It is an excellent diuretic in cases of ascites. It may be given in large doses. it is sometimes apt to produce inflammation in the fauces owing to its acrimony. I prefer giving it in powder or in strong decoction.

Digitalis Purpurea or Foxglove. is a considerable diuretic. The leaves are the most active part. It is a narcotic and considerably stimulant. Its primary effects are to increase the frequency and fullness of the pulse: a glow in the countenance, & burning in the hands &c. It has been used with advantage in mania, not by its diuretic effects but by the nausea which it excites. In Epilepsy I have used it with advantage. In phthisis pulmonalis it is used by some. I have used it but with very little advantage. it

does

does more harm than good: I have not found it in any case of phthisis useful. In pneumonia I have given it with advantage. In acute Rheumatism I have given it combined with nitre with very great advantage. In cases of dropsy it is an excellent medicine, but caution is necessary in the use of it. In Ascites, I have seldom found it of advantage when it is attended with visceral obstruction. In Hydrothorax and in Anasarca I have given it with considerable advantage, but perhaps not more so than squills. The most advantageous method of using it is in powder in doses of from half a grain to two grains two or three times a day. It may be used either in decoction or saturated tincture. I sometimes combine it with Opium: it is also sometimes combined with mercury. It is necessary that the patient should drink very freely during the use of this medicine. —

It does but little good in Asthma. It is said to be useful in Hydrocephalus. I cannot say any thing about it. The dose of the tincture is from six to ten drops twice in a day in a little water & gradually increase the dose —

In Dysuria this medicine has been found useful. I have used it with very great advantage in this disease: & in total suppression of urine with very great success. —

Scilliana

Doctor Fowler's Solution

℞ Arsenicus: ℈ss: ℥j:

~~Aqua~~ — lbj: Boil it & let it stand one hour & add — Sp: Vin: Rect: ℥ij ~~&c~~ —

xv gutt: at a dose, & increase. —

Nicotiana or Tobacco is a considerable diuretic I refer you to Doctor Fowler's publication for a history of it. I have used it but very little myself. It is generally used in infusion.

Scilla or Squill. It is a very great diuretic ~~As~~ it is a very active medicine it is necessary to begin with very small doses. I have said before ~~that~~ from four to five grains acted as an emetic. I generally begin with doses of one grain three times a day as a diuretic. I sometimes combine it with Calomel or Herbett Mineral. It commonly produces nausea, which is a proof ~~that~~ it will act as a diuretic. It is highly stimulant and more acrid than Tobacco or Digitalis. and is therefore more liable to produce inflammation.

~~Crocus Sativus~~
Colchicum Autumnale or Meadow Saffron is considered as a diuretic medicine

Opium when it is taken in very large doses is a considerable diuretic.

Artichoke is a diuretic. I have never used it.

Helleborus Niger possesses diuretic properties.

Gambogia is somewhat of a diuretic. I can say nothing about it from my own experience.

Liliaceae

Siliquosa. An infusion of Mustard or Horse-Radish are considerable diuretics.

All the alliaceous plants as the Garlick Onion Leek &c. are diuretic, and of considerable use in dropsy, when it arises from a torpidity of the absorbents.

Coniferæ. Many of the articles belonging to this class are diuretics. The Balsam Copaiva is a considerable diuretic.

Nitras Potassæ is a considerable diuretic

Cantharides. possesses diuretic properties.

Antilithica.

They are such medicines as prevent the formation of calculi: or tend to relieve the symptoms of calculi. A very considerable number of the medicines I have spoken of under the name of bitter tonics are said to possess the powers of alleviating the symptoms of calculi. Those most commonly used are Quassia, gentian, centaury, camomile &c.

They

They have a powerful effect in relieving the symptoms, & are therefore useful. Among the astringent vegetables Uva Ursi is highly recommended. Its dose is generally from six to eight grains three or four times a day - A large dose is ʒß two or three times a day. It is an excellent medicine: and it favours the expulsion of small calculi. In Hematuria I have found this medicine very beneficial. It sometimes produces bad effects. I have seen it produce a catarrhus vesicæ. I have also known it in one case to produce a tightness or stricture across the thorax. It is certainly the best medicine that can be employed in alleviating and preventing the formation of calculi. But I do not pretend to say that it is a solvent, or has any power of breaking down calculi.

The Winter Green is said to produce similar effects. A number of other astringents have been used but they are of much less consequence.

Tea is somewhat allied to the Uva Ursi & possesses some antilithic properties.

Digitalis has been used with advantage in Ischuria.

The alliaceous plants are much used in Britain as antilithics, such as the onion, garlic &c. I can say nothing from my own observations

Many

Many of the terebinthinate medicines have been recommended, but I can say nothing of them from my own experience.

Muriaticum Acidum. It was supposed formerly that the use of salted provisions promoted the formation of calculi: this however is found to be false. It is now certainly known that the muriate of soda does not exist in calculi. The muriatic acid has been given to alleviate the symptoms and with advantage I have used it in one case and with considerable benefit to the patient.

Carbonas Sodæ is highly recommended by some writers as an antilithic. I can say but little about it myself.

Carbonas Potassæ. is also used as an antilithic.

Emmenagoga.

They are such medicines which seem to have a specific effect upon the Uterus; and produces that action of the uterus which is necessary to health. The function of menstruation

seems

seems to be governed entirely by climate.
Those articles most commonly used are the diff-
-erent preparations of iron - They are most bene-
-ficial in retention of the Menses attended
with flaccidity. I generally make use of the
Rubigo Ferri in combination with the Bl: Sabina.

Chamomile flowers have been given with advan-
-tage as emenagogue. Ale the different vege-
-table bitters, as gentian, centaury &c are
found useful.

The Cold Bath has been used with success
In making use of this remedy, the constitution
of the patient should be consulted: if there is
any tendency to pulmonary affection it should
not be used.

A bath of salt brine has also been found
useful as an emenagogue.

Exercise properly regulated is absolutely
necessary to the health of the system: a
sedentary life is injurious.

Matrimony is sometimes an excellent remedy

Mercury is a very useful emenagogue
Doctor Cullen says the continued use of mer-
-cury has cured many cases of suppression of
the menses —

Campher

Camphor has been very beneficially employed in painful menstruation. - it is also much used as an emenagogue. I have never employed it myself.

Polygala Senekea is a very powerful medicine and has been very beneficial employed in retention of the menses.

The Pennyroyal is also used as an emenagogue That which grows in our country is very different in its botanical properties from that of England but its virtues are very similar.

The Rosmarinus Officinalis has been used with advantage in chlorosis.

Asafoetida it has been said is well adapted to this disease.

Some of the alliaceous medicines have been used as a remedy for chlorosis.

The Juniperus Sabina is the most important emenagogue. - and is very often made use of by females to promote abortion. It is an universal stimulant, & increases all the glandular secretions.

The Red Cedar is very similar to the Sabina.

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