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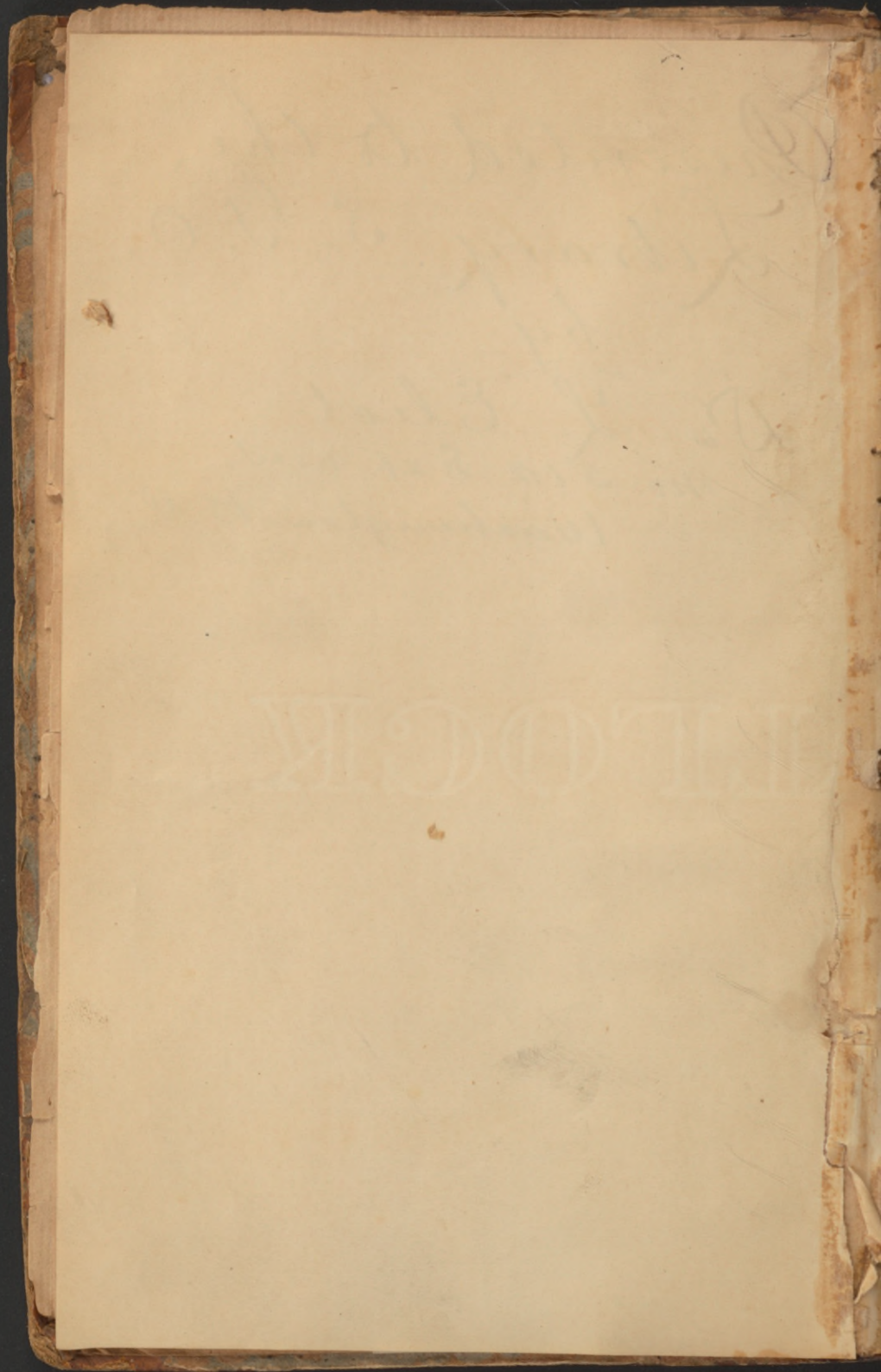
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Notes
on the
Materia Medica
taken from
A Course of Lectures
Delivered
By Adam Kuhn M.D.
Professor of Materia Medica
in the University of
Philadelphia

121874

by
Sam^l Moultony M.D.

MD.CC.LXXXVI

1786

1770

John D. ...

1770

Notes taken from a Course of Lectures on
the Materia Medica Delivered by Adam
Fleisher M. D. began November 2nd 1786^{or}
Lectures 1st & 2nd

Contained a general history of the art of Physic,
from its first origin to the present day.

He gave first an account of the art, which he
observed could not be ascribed to any one per-
-son as the inventor, as it is not possible for
the sagacity of one man to acquire knowledge
sufficient to deserve the name as an art.

Medicine seems to be covered with man, he
from his first creation must have been
subject to Diseases, Pain and Sickness would
urge him to seek Relief. Instinct would discover
some Remedies. Trials at Random would discover
others, and the observing Spontaneous Cures
must have led to an Imitation of them,

But the long life of the first Inhabitants of
the world would give ample Room for
Observation, and the knowledge thus obtain-
-ed would be handed down from father to son
and at length constituted an art of
Physic — — — — —

But

2. But untill Physic began to be Cultivat-
ed under Particular Persons, it must have
been very rude.

The first Regular accounts we have of this
art are from Egypt, Hermes Trismegistus
wrote books upon Physic which he order-
ed his Successors to follow without deviation.

He Confined the Different Diseases to different
Persons, Enjoining them not to Practise out
of the Disease allotted them and in Case they
did, if the Patient died, they were Punish'd
with Death. From Egypt Physic pass'd into
Greece and got into the hands of the Priests
of Asculapius and we may easily imagine
a great deal of Priestcraft to have been
x mixed with Medicines. This was the state
of Medicine till the time of Hippocrates
of Cos who lived about 400 Years before
Christ. His writings if taken together
appear Mediculous and absurd, but if Se-
lected some are of the utmost utility. He
was the founder of Dogmatism. He lived
to the age of 104 years and died one year
before the birth of Alexander the great. about

About 207 Years before Christ Scapion lived,
 the founder of the Empiric Sect, who rejected all reason-
 -ing in Diseases, and reported that Experience
 alone was to be trusted to. About 200 Years before
 Christ Archagathus came to Rome and had good
 success, but on account of his Surgical operations
 which all rude Nations have an aversion to, he
 together with all the Physicians was banished
 the City. In the next Century Aesculapius came
 to Rome and gained a great deal of Reputation
 by his gentle address and easy medicine -

In the Second Century after Christ Galen
 arose, a man of great abilities, he suppressed
 the Empiric and Methodist and restored the
 Ancient Dogmatism of Hippocrates, upon
 whose works he has Commented and has
 taken a great deal of pains to render him
 clear. - He wrote 500 Volumes and has
 so connected them as to form a Complete
 System of Physic, Galen long reigned the
 tyrant of Medicine, and it was long held
 to be a species of Impiety to differ from
 him. In the Seventh Century after Christ

the

4
The Savage Arabs burnt the famous library of
alexandria. The Arabs neglected all learning
till the reign of the Caliph of the race of
Abassides when learning began to be Encou-
-raged and the Greek authors to be translated, The
first books they got were Aristotle and Galen.
They were servile imitators of Galen and of
Consequence little improvement could be
expected from them. They did nothing but
Comment upon him, adding only such
* Receipts as were peculiar to their Country and
were unknown to the Greeks, as the Small
pox was not known in Europe before the Institution
of the Crusades for the recovery of the holy land,
They added the Syraps to the Materia Medica,
the art of making sugar is an Arabian
invention. — — In the fifteenth Century
Constantinople was taken by the Turks, with
the same Cruelty was exercised as before
at Alexandria. This Constantinian Catastrophe
which it was thought would have entirely
put a stop to Learning, unexpectedly proved
the Cause of its Revival, for the Greeks fled
into Italy with their Manuscripts and their
Schools

Schools. Printing also was about this time 5
invented. —

The Doctrines of Galen continued to prevail till
about the beginning of the 16th Century, when
Paracelsus first began to oppose them, and to
substitute his own in their room. He was suc-
-ceeded by Van Helmont who was a person of learn-
-ing, but a wrong headed Enthusiast, to him be-
-longs the merit of Exploding the Doctrines of
Galen, but he unhappily substituted his
own worse ones in their room. He rejected
Blood Letting and Prescribed a hot regimen
in fevers. He at length fell a Sacrifice to
his own theory and died of a Pleurisy —

In the middle of the 17th Century the Circulation
of the Blood was discovered by Harvey. after
this many new theories were introduced
into Medicine, some Physicians considered
the body as a mere hydraulic Machine
and attempted to account for every thing
on the Principles of Mathematics —

Stahl from some hints thrown out by
Plato Doleus, Webfer and others supposed
the Rational soul to Preside over the system
He therefore gave nothing but weak Medici-
-cines — — — — — The

6 The systems of Hoffman and Stahl who were contemporaries and rivals are still received in Germany —

Francis de la Boe Sylvius, who was professor at Leyden, supposed fevers to be occasioned by an Acid and Prescribed alkalis in them, This opinion is still received by some, We may readily conceive how many thousands must have fallen a sacrifice to those false theories

Lect^{3rd}

Having given a general sketch of the History of Physic, we shall now proceed to the branch in which we are to be engaged —

We shall deliver the whole we have to say under 4 heads —

- 1st The Knowledge of the Subjects Employed and their Distinction from all others —
- 2^{ndly} Their virtue in Medicine or Diet —
- 3^{rdly} The foundation of these Virtues in their sensible qualities or Chemical properties —
- 4^{thly} Their Pharmaceutical Treatment or their artificial preparation for the Purpose they are intended to answer —

As to the first the Substances Employed are of two kinds natural or Artificial, a Knowledge of

of Natural must be derived from a Knowledge of
of Natural History, which tho' neglected is of great
Importance, Had the Ancients been acquainted
with it we should not have been Engaged in
Disputes Concerning the Substances Employed
by them —

The virtues of the Medicines as laid down under
the 2nd Head will take up the greatest part of
this Course, Describing these Virtues various
methods have been pursued, some describe
them as suited to Particular Indications, others
to Particular Diseases, the first is of great Utili-
ty, the last is attended with great uncertainty —

The following books seem Particularly Calcu-
lated to assist the Student in his Inquiries on this
subject. —

Lewis in the New Dispensatory has given
us an usefull work, but it is rather the loose
disjoin'd Materials, than a proper System
of the Materia Medica. He follows the Alpha-
betical order, by which means his Subject
is so interrupted that it is impossible for
the Reader to follow him regularly, and he
is therefore fit only for Occasional Consultations,
Geoffroy has first Divided the Subjects as
got from the three Kingdoms and in the
Vegetable

Dr Vegatable he again subdivides them according to the parts of the plants made use of, a¹ roots, Herbs, Barks &c But in treating of the Individuals he has fallen into the same error and is liable to the same objections with the author of the New Dispensatory, His first and second Volumes are the Best

Linnaeus has followed the Botanical order in describing the virtues of the Substances belonging to the Materia Medica, this is somewhat better, for plants of the same order or genus have frequently been found to correspond in Medical Virtues, But this does not obtain universally;

*Carterus ranks them according to their sensible Qualities, by this means you have a number of Substances connected which correspond in Medical Virtues, but this plan is not quite sufficient and he is obliged in many places to follow indications. This method is also pursued by the Celebrated Newman

Dr Cullen distributes the medicines according to the indications they serve and therefore infers their Utility in the various diseases. This

This plan is undoubtedly the best, and it is
this I shall follow in this Course of Lectures —
His Materia Medica published here some years
ago, being taken from the notes of some per-
sons who attended his Lectures, is not so per-
fect as could be wished, but I would advise
you all to have it, as I shall make frequent
References in the Course of these Lectures —
As there are no Lectures on the Practice of Physic
this year, I shall intersperse Practical Remarks
whenever there is an opportunity, and as there
are some Disorders which cannot properly be
brought in in this manner, I shall particu-
larly consider them after the Course on the
Materia Medica — I find myself necessitat-
ed here to give you my opinion with re-
gard to the operation of Medicines in order
that you may the better understand me
hereafter — — — — —

The body is Divisible into three parts, the
simple fibre, the fluids, and the Solida viva
or moving fibres. These last are Endued with
both sensibility and irritability, with which
the two former are not — — — — —

The Extent of the Nervous power in the
System

10 System is very great, It is observable in the Muscles of Voluntary motion, and wherever muscular fibres are found in the Alimentary Canal, in the Bronchia and Lungs, in the Intestines, and in the whole Lymphatic and Absorbent Systems.

As to the State of the simple Solids, their laxity or Rigidity, these seem to be Constitutional defects and not to be operated on by Medicines, if any Change can be induced on them it is by diet, and they may be considered as out of the power of Medicines —

As to the fluids, it is evident diseases cannot be owing to their vitiated State, as acrimony comes on gradually, whereas diseases are sometimes brought on Instantaneously, and there are no Medicines which will act on the fluid by being carried into them by means of the Chyle —

We therefore must have recourse to the Solida viva or moving fibres, for the operation of Medicines, and from these diseases are to be Deduced. — The moving fibres are all connected with the Sensorium Commune or
Sens

seet of the soul, they are also Connected with
each other, of the various Concoits I shall only
mention one, that of the Stomach, which
accounts for the operation of Medicines,
The Stomach is Connected ^{1st} with the Senso-
-um Commune very remarkably & ^{2nd} with
the Viscera of the Thorax abstracting from
its Contiguity & ^{3rd} with the abdominal Viscera
& ^{4th} with the Extremities, & ^{5th} with the whole
Surface of the Body —

The Concoit of the Stomach with the Senso: Com:
is Evident in Hypochondriac Persons, whose
Disorder being seated in the Stomach grievous-
ly affects the Senso: Com: — Its Connection with
the Extremities is Evident from the Trans-
-sition of the Gout from the feet to the
Stomach and vice versa. From the Gout
fixing on the Stomach it happens that
it at length proves fatal. — The Connecti-
-on with the whole Surface of the Body is
evident from Various Considerations —

No sooner do some aliments reach the Stomach
of Particular Persons than Spots and Efflo-
-rescences appear all over the Skin —

Vomiting

Vomiting is very often occasioned by a Constriction of the Cutaneous pores, Intermittent fevers are generally occasioned by an obstructed Perspiration, In these we exhibit a Vomitus not to Empty the Stomach, but to Restore the Perspiration, This is very Evident by Emetics frequently producing the same good Effects altho' they do not operate as if they had done it — The Consent of the Stomach is very evident all over the System — These Phanormina are to be accounted for no other way than by the Supposition of the acting on the moving fibres or Nervous system. — It has been very usual to Consider the State of the secreted fluids as a Criterion of the State of the Humours, but the Various appearances of these fluids is owing more to the State of the Secreting organs than any thing Else —

Substances have been taken into the Materia Medica by instinct, accident, and Promiscuous Experiments, It is difficult to say what Substances have been taken in or are retained by reason —

The Materia Medica Comprehends all the Substances
 used in Medicine or Diet, the Pharmaceutical part
 was formerly thought to take in the whole of the
 Subject, but surely the Dietical also Deserves a
 place — Medicines may be Divided into
 three kinds —

- 1st those which act on the simple fibre —
- 2nd those which act on the moving fibre or blood vessels —
- 3rd those which act on the fluids —

Nutrientia.

Of those which act on the simple fibre the first
 Class we Consider are Nutrientia by which term
 is meant Every thing used by mankind in Food —
 Food is Obtained from the Vegetable and Animal
 Kingdoms, — (The mild, bland, insipid, and ^{odorless} ~~odorous~~
 plants are Employed for diet, While the Acid,
 bitter, and Odorous are used only in Medicine
 Those acid substances we employ in diet are
 not used as Nourishment, but only to render
 our Nourishment more Palatable, these are
 called Condiments) Here let us Enquire into
 the Cause of hunger, concerning which Vari-
 -ous theories have been formed, Hoffmann sup-
 -posed it to arise from an Acid remaining in the

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Stomach from the former meal and this he
thought was proved from the Consideration that
Acids taken into the Stomach Create or Increase
the appetite, But the Stomach being Emptied en-
tirely by Vomits Hunger Continues which single
Consideration is sufficient to refute this Hypothe-
-sis—Boerhaave, Haller and others have
thought it to arise from the folds or Plia of the
Stomach rubbing against Each other, they
reason thus when the Stomach is Empty, it
being a Muscular organ will Contract, and
the opposite Sides being brought together, the
folds by their Attrition produce Hunger, But
if we Consider that the Stomach is a Round or
Conical Organ, and consequently that its oppo-
-site Sides cannot be Approximated by any
force of its own, and also that the Stomach
is defended by a Mucous which would prevent
this Attrition, we will find that this theory
cannot hold good, To me it appears that this
appetite may be accounted for solely from the
Emptiness of the Stomach, as we find persons
in health never craving food, untill the
Stomach is relieved from load of the former
Meal, and tho we find persons sometimes
feel

feel no hunger when the stomach is empty
and at other times continually craving food
altho' the stomach is full, yet these things
never happen but in a diseased state and
instances taken from a diseased state are
not to be relied on in a healthy one —

As Food is obtained from the Animal and
Vegetable Kingdoms it has long been dis-
puted wheather an animal or Vegetable diet
is most proper for Man. We have instances
of whole Nations subsisting Entirely on Vegetables,
others live wholly on animal food. Man ap-
pears upon the whole to be designed by nature to
live on both animal and Vegetable substances,
This is confirmed both by reason and Experience
Man has not only the Canine or cutting teeth
Peculiar to Carnivorous animals, but also the
Dentes molares or grinders of the Herbivorous.
We find the intestines of Carnivorous animals
to be very short as their food is already of an
animal nature and requires no long digestion
on the contrary the Intestines of Herbivorous
animals are very long, as their food requires
a long Digestion before it can be converted
into

16. into an animal nature. The Human In-
-terines are not so long as those of the Herbivorous,
nor so short as those of the Carnivorous Animals.
We find also by Experience that a sole Vegetable
or animal Diet, brings with it many Inconve-
-niences, the one producing an Acidity and the
other putridity, which cause many and Gre-
-vious Disorders.

Of Condiments, the most general are Salt and
Sugar. The first we use with animal Food to
render it more savoury, which it not only
does, but also resists Putridity very powerfully.
Sugar is the most to be Preferred, It is very
nourishing. We may justly assert, that all
Vegetables are the more or less nourishing
According to the Quantity of Sugar they Contain.
It is also a very powerfull antiseptic. Dr Pringle
thinks the Reason of the plague and other maly-
-nant Disorders, being less frequent in Europe
of late is the more general use of Sugar, It
may be obtained from all the Gentlest Vege-
-tables. — From our Aliment when digested
is formed the Chyle, which being taken up
by the Lacteals, is by them Conveyed into
the Thoracic Duct, which opens into the

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Left Subclavian Vein where it is mixed with
the mass of the Blood, from which are form-
ed all the fluids of the human body, as urine,
bile, semen &c —

Let us now consider digestion or the conversion
of our aliments into Chyle. The liquors sub-
servient to this, are the Saliva, Gastric liquor,
bile, and Pancreatic juice. The Saliva appears
to be composed of water and a viscid matter
with the nature of which we are but little
acquainted, it is supposed to prevent moderate
fermentation in the Alimentary Canal —
It is very apt to Concret —

The Chemical Physicians have ascribed Di-
gestion to a solvent in the Stomach which
they suppose to be an Acid of the Nature of
Aqua Fortis. — The Mechanical Physicians as
Bonelli, Bellini, and others ascribed it intirely
to mechanical force, Neither were right,
tho' Perhaps both were not intirely wrong.
With a view of Determining this point
Reaumur instituted his Experiments —
He began with a Turkey; A fowl whose
Stomach is remarkably strong and
Muspular

Muscular, and which always swallows gravel
 Stones to assist Digestion, He made it swallow
 small glass tubes which he found Broken
 He then tried thin Metal ones, which were
 made flat, and so he Proceeded till he got tubes
 strong enough to resist the force of the Stomach,
 in which he enclosed grains of Barley, The
 ends of the tubes he stopped up so that nothing
 could escape unless in a fluid state —
 After two or three days he found the grains
 swelled, but not more than would have
 happened from their being soaked in any
 other liquor with the same degree of heat,
 * In this fowl therefore digestion seems to be
 carried on wholly by the strength of the
 Stomach. He then tried a Hawk, whose
 Stomach is very thin and Membranous
 and he found the thinnest tubes would
 resist its force, He enclosed in them flesh
 and found it converted into a mere jelly —
 He then tried the hard bones of an Ox and
 found them dissolved also. He next tried
 grains of Barley which he found not in
 the least altered, In this fowl then Digestion
 seems to be carried on by a solvent
 and

and that of a Particular nature, so as to 19
Dissolve flesh and even bones, but not to
have the least Effect on Vegetables —

Digestion seems to be Carried on by fermentation
of which there are three kinds, the Vinous,
Acidous, and Putrefactive, of the Vinous we
have an Instance in wine, Beer, and Cyder &c.
of the Acidous when these liquors turn sour,
of the Putrefactive in animal substances
when they begin to Putrefy, — The Vinous
and Acidous take place in the Stomach, and
the Putrefactive in the Intestines —

All our Aliment in the Stomach is Acid-
-ous, for the Stomach of all animals Coagu-
-late Milk —

Lect 3th Nov. 1786

The Bile has been Commonly supposed to
be of an alkalescent and Sponaceous nat-
-ure. — Ramsfey's Experiments refute
these theories, for when he Endeavoured to
unite oil and water by means of Bile
he Constantly found his attempts to
fail, He found that he could not succeed
with

20 with it as well as with a solution of sugar, which is not so saponaceous as a Mucilage, and that it is not Alkalient is Evident from its standing many years without becoming putrid, only emitting a musty smell.

Four parts of Vinegar added to five parts of bile produces a sweet liquor, which will not coagulate milk, tho' the least particle of Vinegar will do it, It has been commonly supposed that the bile was of service to render the Aliment absorbent of the Stomach of an Animal nature, but we can assign a better use for it, It being a bitter will prevent Immature fermentation, An Instance of Bitters preventing fermentation you have in Hops which are added to Wort to prevent the Acetous fermentation, and the bark is given in putrid disorders to prevent the Putrefaction.

The Pancreatic juice is of the same nature and use with the Saliva, viz it prevents over fermentation.

A theory has lately been formed by Stephens describing Digestion to Solution, this was founded on some Experiments made by him on an Hungarian Soldier, who refused

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Discovered the singular properties of digesting Stones
His Excrements appeared like Mortar, He for a
small gratification would permit Experiments
to be made upon him, Stephens Inhaled vari-
ous^d in tubes of silver, and Ivory perforated, which
he made him swallow and discharge by Vomits
and purges at Different times, He found the
Substances more or less dissolved according to
the time they had remained with him
neither acid nor Alkalies —

We have no reason to doubt of the truth and Accu-
racy of these Experiments, But whether infla-
mation taken from a person so essentially dif-
ferent from all the Rest of his Species ought
to be relied upon is a matter of serious Con-
sideration, — It is certain there is always an
Acid in the Stomachs with some degree of
fermentation —

Vegetable aliments are nutritious in
Proportion to the Quantity of Oil and Sugar
they contain, Rye contains more Sugar
than wheat and is therefore more nutriti-
ous to those who can Assimilate it —

Rye is very apt to ferment and hence
* Substances it

it is of service to those who are habitually
 Costive. When Costiveness is owing to laxity
 an animal diet is to be preferred, but when
 owing to rigidity the Vegetable diet is most
 necessary; Vegetable diet is hurtfull to persons
 subject to flatulencies, Animal food is not proper
 for Hypochondriacs, and persons subject to Dys-
 =sterias, and indigestion. But to prevent the bad
 Effects of animal food we should use as much
 of the Vegetable as possible, In this Purpose
 Bread and Potatoes are the best, I cannot agree
 with what Cadogan says of the bad Effects of
 Bread in these Disorders, He macerated it in
 water before the fire and found it to become
 Acid, But this is also the Case with regard
 to flesh-broths, and even flesh itself will
 become Acid before it putrefies, Bread or other
 Aliment being well chewed in the mouth
 is their mixed with the saliva, in the sto-
 =mach with the Gastric liquor, and in the
 * Intestines with bile and Pancreatic juice
 Digestion is better performed if the food is
 well blended with the saliva, A person
 therefore who is troubled with Acidity
 should

Should use Bisquit. Persons of a relaxed ²³Stomach should not drink fermented liquors of any kind, their Drink should be Stopp and water, with a little old Rum or Spirits.

Cullen in this Case recommends a solution of Common salt in four parts of Spring water with a little Spirit of Salt to Acidulate it.

I have never had an opportunity of trying this. I find from 15 to 30 Drops of Ch. Vitrioli taken two or three times a Day in a little water answers every good purpose.

All the Mineral acids answer Equally well, Dr Smith found a solution of Salt to be a very considerable Stimulus to the Animal fibres, a Vegetable diet is usefull wherever there is a tendency to putrefaction, or were there is an Inflammatory Diathesis.

The Common notion of a Dysentery being owing to the use of ripe fruits has been very destructive as it prevented the application of the Radical Cure of them, the free use of those fruits, Diptot gives an instance of eleven persons labouring under a Dysentery, nine whereof Recovered by the free use of ripe Grapes, But two fell a sacrifice to Prejudice, The
likewise

24 likewise tells us of a whole Regiment of Swiss,
that was almost entirely cut off by the same
Disease, and no Stop could be put to it.

† untill the officers purchased the Crops of sever-
al Vineyards, & sent the Soldiers into them,
after this not one more died of the disorder,
The German Soldier when seized with this dis-
-order trusts to his mixture of Vinegar and Cream
which he will swallow down in as large
Quantities as he can get, and seldom fails of
a Cure. We have a fruit in this Country very
proper for this Disease, the Water Melon, which
affords an excellent antiperistaltic liquor, and
increases the secretions both by Stool & Urine,
Not only ripe fruits, but all acids are pecu-
-liarly proper for this and all other putrid
-disorders. Dr Hillary remarks that Acidulated
drinks are very useful in Yellow Fevers.

Cholera, Diarrhoea, and Cholera are very fre-
-quent from a too great use of Vegetables.

Cholera are occasioned very readily by peas,
Cabbage &c. Persons therefore that are sub-
-ject to them should abstain from the use of
these Vegetables. These Effects seem not to
arise from their Acidity but may be
accounted

Accounted for in a better manner, these
Vegetables being of a firm Consistence will re-
-main a long time in the Stomach before they
can be digested, they will Evolve a large Quan-
-tity of Elastic air which will Distend the
Stomach and Intestines, Causing violent
pains in Particular parts; If speedy Relief is
not given this disease brings on faintings,
Convulsions, and soon terminates in Death.
The Medicines which I have found to give
the most speedy Relief is the Vol. Alkali's
One Drachm being made into 12 bolus's
or Dissolved in ℥vj of water with the Addi-
-tion of a little Opium or Laudanum if
the pain is very violent, and one Bolus or
a Table Spoonfull being taken Every hour
will generally give Relief. That it is not by
their Acidity may be proved from the
use of split pears, which being deprived
of their outer husk and consequently
rendered easier of Digestion produce no
such bad Effects. — — — — —

The Common custom of Eating Cheese with fruit
is a very good one as Cheese Especially when
old is of an animal nature and will con-
-vert the bad Effects of the fruit. — — — — —

Let.

Diarrhas also arises from a too frequent use of
 fruit, which seems to arise from the acrid
 liquor of the fruit mixing with the bile,
 and stimulating the intestines. If attended
 with no other Complaint ought not to be
 accounted a Disease, but a wholesome Eva-
 -cuation. However if it is too troublesome
 a dose of Rhubarb will generally remove it,
 Cholerae are likewise occasioned by the use of
 fruits, the Acid of which stimulating the Stomach
 and intestines causes Evacuations both by Vo-
 -miting and Purging, Warm Teas, warm water,
 and Chicken water drank plentifully will
 generally give relief by carrying off the Acid
 matter. But if the vomiting continues thro
 mere irritability of the Stomach, Laudanum
 may be given in large Doses, and must
 be repeated untill the Vomiting ceases, If the
 Person is Plethoric Bleeding will be necessary,
 lest by the violent straining and stretching a
 rupture of some of the blood Vessels in the
 Stomach, lungs, or head should be occasioned.
 Vegetable Aliment is peculiarly adapted to the
 Stomach, from which it is not only a Prefer-
 -vative but also oftentimes cures the Disease -

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Many disorders have gone under the name of
Scurvy, any Lक्षण which a Physician is at
a loss to account for is said to be owing to a
Scorbutic habit of body, By the Scurvy here
I mean what is commonly called the Sea
Scurvy - This disorder generally begins with a
Lक्षण and heaviness of the Body, which is
considerably encreased in the morning and even-
ing; especially in the morning, weakness in the
back and knees, an aversion to motion, a Change in
the natural Colour, which becomes yellow and
somewhat Green, The lips become livid, the
Gums swell and become spongy, teeth frequently
elevated bleed on the least pressure, The teeth
become yellow and at length black - The
teeth may very easily be taken out, if their
is a decayed tooth. There is generally a great
pain in the jaw-bone in that Place. The
Breath and mouth give an offensive smell,
Great pain in the joints of the Knees and
ankles, which are worse in the Evening
and morning unless the patient is
relieved by Perspiration, in which may
be said to consist the life of Scorbutic
People -

28 In the beginning there are sometimes flying
pains in the thorax, but no pains upon being
prepsd Externally - the power of the muscles is
very much relaxed. The skin appears like what
is commonly called Goose flesh, hot and Dry. -
^{In} hairy persons, at the roots of the hairs appears
Pustules, which are Red, Yellow, Purple and sub-
livid; In those that are not hairy, there appears
spots like flea-bites, Red, livid, Purple &c; Scars
from wound or Ulcers, appear Dark and livid,
Yellow and black spots appear all over the skin.
Tumours in the limbs at first moveable -
afterward they penetrate into the muscles and
become Immoveable, running along the limbs.
(Hæmorrhages from the Nose, mouth & Anus)
A swelling of the legs and feet very much like
a Dropsy, the skin is black and yellow, livid
and purple, and upon being prepsd leaves no
mark. There are no ulcers formed unless were
the skin has been lately broke, there is no
pus generated in them, but a black blood,
Sometimes they form a fungous flesh, very
Duck, which tho' taken away by medicines
or the knife will speedily sprout up again,
within

29
Within the body, the patient has no fever,
Sleeps pretty well, no head Ach, tongue natural
Except sometimes yellow, has no thirst, a
Pretty good appetite, he continues in the free
use of his senses to the last. In the advanced
stage, the pulse is very small and weak, and
beats from 70 to 90 strokes in a minute
Sometimes unequal and Intermittent, the
patient is generally Cative but not griped.
In the advanced stage there sometimes comes on
a Dysentery and Diarrhoea. Dysentery generally prove
fatal, the Diarrhoea is generally salutary, No dif-
ficulty in making water, tho' in small quantity
and high Coloure, with yellow, Brown Sediment.
The blood even at the beginning is then dis-
solved and black, the serosity is salt, sharp,
and has a yellowish, Green swimming on it.
Grievous palpitations of the heart super-
moving, tho' they generally appear well
when lying in bed. They cannot even bear
the admission of fresh air upon them,
They are very fevish and timid, even the
most courageous become pusillanimous
and as it were afraid of their own shadows -
fear

30 year and Sadness, Suddenly depress them
* Joy and hope as soon raise them. Towards
the last breathing becomes difficult and
they expire without a sigh or groan, and
can scarcely be said to feel the pangs of Death.

The Proximate Cause of the Scurvy is an accu-
-mulation and retention of putrescent matter
in the body. All our humours are continually
tending to putrefaction; but in a healthy state
there is no Inconvenience felt from our food
or drink, from these as the most Airimmonious
parts of our fluids, are carried off by urine, stool,
but principally by the insensible perspiration.
But if this perspiration is stopped by any
means and at the same time such a diet
is not used as will obviate the putrid ten-
-dency of the Humours, the consequence will
be the Scurvy. And tho' putrescency may be
said to arise from, rather than to be the cause
of the Scurvy, yet we find the Breath affected
in the very beginning of the Disease. The
secretion by urine is diminished, and Res-
-piration affected, The Scurvy more often
happens in cold than in warm climates,
because

because in the latter the Perpiration is kept up and the Putrescent matter carried out of the Body, while in the former it is retained. It is reported that Sailors in the West Indies living on the common Ship provisions enjoying good health, have Consumed even Salt in such quantities as to appear almost incredible — This putrescent matter producing the Scurvy is different from that producing putrid Fevers, Dysenteries &c. The latter are attended with Head Ache, thirst and Delirium, whereas none of these symptoms accompany the Scurvy.

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With regard to the occasional and predisposing Causes of the Scurvy they may be said to be whatever generates Putrescence or tends thereto in the human body: Cold Air, such Food as is of a putrescent nature, Difficult of Digestion or affords little nourishment — Moisture alone is not the Cause of the Scurvy, unless joined with Cold, as appears very evidently from various Considerations.

The

32 The Venetians who live in a very moist, but
at the same time warm Climate, never know
any thing of the Scurvy, scarcely by name -
The Russians and Laplanders in the north of
Europe, where in the winter the lakes and
rivers are frozen up in such a manner
that no Exhalations can arise, but were the
air is very Cold they feel the dire effects of
this Disease, With the Spring this Disease is
relieved; It appears by the Journal of the
Sever sailors who perished of the Scurvy
one after another in Greenland, that during
the 8 Months they were there, they had
but 10 Cloudy and foggy days - It likewise
appears by very accurate Journals kept
both by Sea and Land, that the Scurvy sel-
dom or never makes its appearance while
the Thermometer is above 40 Degrees, (the
living on salt provisions) but generally ap-
pears when it falls below 60 degrees -
Cold air causes the Scurvy, by checking the
Respiration and preventing the Acrimo-
-mious parts of our fluids from being
carried off by that Evacuation.

Animal food, Especially such as is Salty, ^{Con-} 33
tributes very much to this Disease, Whether
the Salt or the meat is the Cause, has been
the Cause of great Debates, Many Physicians
have accus'd Salt, and in Support of their
opinion mention the Laplanders who live
almost wholly on animal food preserv'd
by the Cold, and Seldom or never are affect-
ed with this Disease, But this Argument
is not Conclusive, as the people use Sour
milk with their Food, which obviates
the Putrid tendency thereof, There is no
Instance of Salt alone producing the
Scurvy, The Case is the same with regard
to fresh meat. It seems most probable
that neither produce it singly, but both
when Combined produce effects which
neither Separately will do, Salt renders the
meat hard and more Difficult of Digestion,
and this way it is produced by both —
Salt fish, Salt Butter, and Cheese are ^{also} very
apt to produce this Disorder, Salt butter
is generally rancid and putrescent, New
Cheese is most Difficult of Digestion, and
the old is generally putrescent if not putrid.

34 The best preservatives against the Scurvy
are a Vegetable diet and Exercise, Vegetable
diet prevents this disease by Correcting the
acid tendency of the humours. Exercise by
keeping up the perspirations, and Carrying off
the Regenerated fluids. When a person is attacked
with this disorder, Exercise will be of service—
but the only thing he will have to rely upon
is a Vegetable diet, and vegetable Acids,
which prove always Effectual, unless a per-
-son is in the last stage—The mineral Acids
will be of no service, nor any other but
such as are liable to undergo the Acetous
fermentations; Peruvian Bark (and all other
antiseptics) will be of no service without a Veg-
-etable diet, and were that to be procured, the
use of all other Medicines will be superfluous,
Unless a person begins to mend on the first
Day after he enters upon the use of a Vegetable
diet there are no hopes of his Recovery—
If he lives two Days after being brought on
shore he may Expect to get well. Vegetable
Crepes are peculiarly adapted for this Disease,
For Drink Lemonade and weak Punch
will

will be the most Preferable, The Preserved & Vegetables are also Excellent Preservatives against the Scurvy; Of this we have a remarkable Instance in Cook's second Voyage round the Globe, He carried with him great Quantities of Pickled Cabbage, and lost but five men during the whole Voyage, not one of the Scurvydolely, which he ascribes to the free use of the Pickled Cabbage and Vinegar. The other symptoms which occur are to be treated as if no Scurvy was present. The best manner of discharging the Tumors is by bathing them with some Juice or Vinegar. I have been thus particular on the Scurvy, in order to show the Effects of diet with regard to Diseases - Having been so full upon Vegetable Aliment in general, for the Properties of particular Substances, I must refer you to Cullen's Materia Medica -

(Vegetables differ in Solubility according to their texture, Those of a firm texture are of difficult Solubility. They are less Noxious in proportion as the Sugar and Oil are more intimately blended, as in the Farinacea - In nuts the oil not being well blended with the Sugar will be apt to Cause Heart Burn) We

36 We now proceed to speak of Drinks

The general use of Drink, is to supply fluid to the System, and to facilitate Digestion. Drink taken in moderate Quantities facilitates Digestion and proves nourishing - but if taken in large quantities it carries the food too soon out of the Stomach, and hence hinders nutrition - Drink keeps fluid the Lymph and other humours, and hence prevents obstructions in the Glands; Hence secretion is carried on in a proper manner, the Insensible perspiration is kept up, and the Degenerated part of our fluids evacuated before they can be Accumulated, All these ends are best attained by pure water, Various substances have been added to render it more Palatable; However it may be said in general that all substances are proper for Drink in proportion to the water they contain, Acids are very properly joined with water to Quench thirst the best -
ter, Here let us Enquire into the Causes of thirst, which may be reduced to 4 Heads
1st It is occasioned by a Defect of fluids in the System

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system, by which the secretions by the Salivary
glands will be prevented, 2^d By solid Food
Especially when taken in large Quantities —
3^d By Alkaliant aliment, Especially when
putrid, 4th by an increased action of the Heart
and Arteries, Especially if accompanied with
fevers. — Thirst is Sometimes Intolerable from
a Spasmodic Constriction of the Fauces, prevent-
ing the secretion of Saliva; As to the use of
Drinks in fevers, I think the patient may be
allowed to Drink plentifully, provided they
do not take large draughts, Large draughts
overload the Stomach, but moderate ones often
Repeated increase the secretions, supply fluid
to the system, and keeps up a gentle perspiration,
When thirst arises from a Constriction of the
Fauces, it is only to be removed by taking of
that Constriction, which may be done by
holding Acid, as Tamarinds &c in the mouth,
for these will open the secretory ducts of
the Salivary glands, and stimulate them to
Discharge Saliva; As to the drinks proper
for particular fevers; The Acidulated are best
in Inflammatory fevers; But doubtfull weather
in a Topical Inflammation, as in Pleurisy and
Empyemata, as these are generally attended
with

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with a Cough; they are also very usefull
in putrid fevers, & Dysenteries, or wherever
there is a Disposition to Putrefaction; For the
last Advant of Turnet whey, to which is
added 2 or 3℥ of Crem Tart: is a very agreeable
and usefull Drink - This may also be used to
advantage in the Measels, which require no-
thing Else; Acidulated Drinks produce no good
Effects in Nervous Disorders, as they weaken the tone
of the Stomach, which is already too much weak-
ened; In nervous fevers, Sage Tea, Balm Tea,
Wine whey, and in the advanced Stage Mustard
Whey, are highly Proper. - Acid drinks
should not be given to those who are recov-
ering from Intermittants; In the Inter-
mission and hot fit, they should use Infu-
sions of Camomile or Century; During the
Cold fit they should Drink nothing at all -
As to the use of drinks weather Cold or warm
is best; - In all topical Inflammations and
Inflammatory fevers in general, Cold drinks
should be avoided; But in low nervous,
Remittant, and Putrid fevers, they are more
proper than warm, and may be used with
Advantage; In Nervous fevers the Patients
should

Should drink freely, and it should be given³⁹
to them oftener than they ask for it.

The use of Punch in warm weather is very
Destructive, as it weakens the Stomach, and
lays the foundation for Gout, and other Disorders.
Persons in a Dropsy, should abstain from
drink as much as possible, There is gene-
rally great thirst attending this disease
arising from a Constriction of the Fauces,
which may be relieved by holding some-
thing Acid in the mouth; but no fluid
should be swallowed, or at least as little
as possible.

Let us now Consider Condiments

Condiments are all such Substances as are taken
in with our Aliment to correct its bad tenden-
cy or to render it more Palatable, or agreeable
to the Stomach; Aromatics are certain Acid
Substances which we use to render our food
more Palatable, They are generally the produce
of warm Climates; As Cinnamon, Cloves, Nut-
megs, Mace, Pepper &c

Analogous to these in the Colder Countries
are the Seed of Anise, Caraway, Fennel,

Fennel

40 Fennel and all the Sweet Herbs, They
Stimulate the Stomach, promote the Peristal-
-tic motion, are antispasmodic and antiseptic.

They ought not to be used in the Cold Countries,
where people generally live on an animal
Diet, but in the warmer Climates where
people generally live on Vegetables, they may
be used with advantage, as they are very
proper for a vegetable diet. They ought
principally to be avoided in the prime of life, as they
are apt to Destroy the tone of the Stomach, they
may be indulged in old age when the Stomach
requires a stimulus to assist digestion.

In the Northern Climates the Cress kind may
be used with Animal food, Viz: Radish, horse-
-radish, Mustard, Cresses themselves, and indeed
all the Siliquosa. These Stimulate the
Stomach, Diuretic, and Diaphoretic powers.

Leeks, Onions, and Garlic, may also be used
with Animal food; they Stimulate the
Stomach are Diuretic and Diaphoretic.

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The Condiments more generally employed, are
Salt, Vinegar, and Sugar.

Salt is most universally employed; it is the
most rapid and least apt to pall of the Condiments.

It has been said to be antiseptic, But this
seems to be Contradicted by its being used
with vegetables, and that Carnivorous Ani-
-mals are poisoned by it, tho' here it would
seem to be most necessary, whereas it is

very usefull for Graminivorous animals
and the husbandmen often gives it to them,
and sure it cannot here act by any Antisepti-
-tic Quality. It is very properly Employed

with Vegetable Food -- Animal Food preserved
with Salt is rendered hard and firm, and Conse-
-quently Difficult of Digestion --

It stimulates the Stomach, promotes the appetite
and the Excretion of the Gastric Liquor --

It has been said to produce Scurvy, but we
have said before, that it never produces it
alone; Salt is very proper for persons trou-
-bled with worms, Particularly the Tape

worm, as it has been found to kill worms
out of the Body, this is Consistent both with
Reason

As Reason and Experience, I has also been
Recommended in this City, as a Specific in
Spitting of Blood, I made trial of it in one
Case, it afforded no Relief, In another the
Complaint was Reliev'd, but this I attri-
-buted more to the use of the other Remedi-
-es Employed along with it.

In two Cases I used it with very great suc-
-cess. — Vinegar gives a grateful taste
to our Aliment, stimulates the Stomach and Ex-
-cites Appetite, It is Particularly proper with
animal Food that tends to Putrefaction, it is
also useful with Vegetable Diet, as it determines
to the Acetous fermentation; and thereby pre-
-vents the bad Effects arising from the Vinous.
Sugar cannot be Employed for the same length
of time, and in such Quantities as Common Salt,
As it soon falls the appetite, It is one of the
principle Ingredients in Vegetables, and In-
-deed the Principle of Novishment in them,
As it is a very powerfull Antiseptic and is
very properly Employed with animal Food,
In which it is better than Common Salt,
as it renders meat more Soluble —
Sugar is liable to undergoe the Vinous and
Acetous

Acidous fermentation, and hence it is ¹³Caustic=
=ble of all the bad Effects of Acrid Vegetables.
Therefore it is prejudicial for those who are
troubled with flatulencies, Indigestion, and a
prevailing Acid in the Stomach. It is very
usefull wherever there is a Rigidity or a
Disposition to putrefaction — Many disputes
have arisen about its wholesomeness — it has
been said to occasion disorders of the teeth by
its Acid sticking to and Corroding them, but
unjustly, for whole nations live on Raisins
which are more Acrid with Impurity —
Faults of this kind are imputed to it oftener
than it Deserves, Hot tea, Coffee, and the
use of Spiritous liquors may more
justly be accused. — There are two Causes
to which the Early loss of the teeth in this
Country seems principally to be owing,
the 1st is the Vicissitude of the Climate, the Al-
ternate heats and Colds, subjecting us to
Cold and Rheumatic affections of the Head
and face — the 2nd operates chiefly on the
fair sex, they being subject to Indigestions,
and Disorders of the Stomach, which we know
affect the breath and teeth —

Sugar

Sugar has been accused of Producing worms,
but it has quite a different tendency, at least
it neither contributes to the generation nor
augmentation of them, the finer the sugar
the less subject it is to the Acetous fermentation,
the Coarse is more fermentable, hence the
Coarse sugar will be more liable to produce
bad Effects, - Many have been Deterred from
the use of fine sugar, by the Quick-lime being
Employed in Refining it, but not the least
particle of lime enters the Composition of the
sugar - The fine sugar Possesses all the good
Qualities and none of the bad, The Vegetables
preserved with sugar have the same properties
with it, except the Acid as Ginger which re-
tain their own; Vinegar Preserves have no
properties different from Vinegar, except that
they are rendered difficult of Digestion, and
for this reason they should not be used by
those of a weak Stomach.

Having treated of Vegetable food, let us now
proceed to speak of Animal food -

Animal food differs from Vegetable food in
many Essential points -

1st As it is already of an animal nature it
requires

Requires only solution and mixture to be
Converted into our fluids, whereas the Vegetable
stands in need also of Assimilation, 2^{ndly} it is more
Easy of Digestion & it is more nourishing,
and 3^{rdly} it disposes to Inflammatory and putrid
Diathesis. The Consequences of a too free
use of Animal food, are all kinds of putrid
fevers, Dysentery, Scurvy &c, Animal food
is more Stimulating than Vegetable, It
gives a thicker and denser Blood, It should
therefore be avoided in Inflammatory fevers,
Apoplexis &c. and by those who are subject
to haemorrhages, Young persons, Especially
Children should use it sparingly

Those who are Employed in Mental Exercises
should abstain from meat and live upon Vegetables

The Solubility of animal food Differs according
to age, the Young being less soluble than
full grown, By full grown, I mean the most
perfect state, not when old; It also differs ac-
cording to Vigidity, and for this Reason, young
meat is less soluble than Old, as it is more
vivid; Animal food is more Soluble Accord-
ing to Alkaliness, for this Reason mutton &
Venison are very Easy of Digestion; and
hence

46 Hence the lean of fat meat, is the most
Easy of Digestion, whereas the lean of poor
meat is the most Difficult; Flesh is more
respirable according to Alkalinity, Mutton &
Venison being most Alkaline, and most
Respirable, Pigeons and fish least; Pigeons
and fish from their Vivacity and little
Alkalinity, are very Difficult of Digestion,
and therefore are improper for those of a
weak Stomach, but as they remain long in
the system, they are very Nourishing, but
should only be used by those who work hard
or use Exercise; The Solubility of meat
differs also according to the manner of
Dressing—Boiled meats are rendered
less soluble, but they give less stimulus,
Roasted meat is more soluble, and gives
more stimulus, and on account of its
stimulus it is improper in fevers—
Meat that is but little roasted is more
soluble than that which is well done,
because in the latter the oil is separat-
ed and the solid parts are more Approx-
imated, besides it is by being well
done rendered less Alkaline and this as
we have said before contributes to solubility—
Sulphur

Fried and baked meats are rendered ⁴⁷
more Difficult of Solution.

For more on the head of animal food
in general, and for the Particular kinds
of animals Employed in diet, together
with many Curious and useful remarks
on this head I must refer you to Dr
Cullens materia medica, who has
treated it so fully, that it would be only
taking up your time, to say any thing
farther on it

Lect 9th Nov: 1785

Milk is of so much use both in Medicine and
Diet, that it deserves a particular Consideration.
This Lecture shall be on the subject of Milk.
Milk is of an intermediate nature between
animals and Vegetables, In all viviparous
animals there are certain Glandular Sub-
stances called Mammae, they differ from
all other Glands in this respect that the
latter secrete constantly, the former only
at Particular times, By these the
milk is secreted — The Cause of their
secreting only at Particular times, has been

a

4^o A subject of great dispute, there is a communication between the Uterus and Mamme, owing to a communication of blood Vessels, this is evident from the pain and swelling of the Mamme at the time of the Menstrual flux - When the Epigastric Arteries are compressed, more blood is derived into the Mammary; Hence during Gestation the breasts swell, because the gravid uterus distending the Abdomen compresses the Epigastric Arteries; On the cessation of the Lochia, the breasts are also enlarged, which is owing to more blood being derived into them; The secretion is owing to a derivation of blood thro' the Epigastric Arteries to the Breasts, it is not owing to Plethoræ, because after birth the milk begins to be secreted, altho' Women then loose a great deal of blood -

And there are instances of milk being plentifully secreted, when besides the discharge of blood by the birth, women have lost several pounds of blood on account of Disorders -

The secretion is increased by suction, may there are instances of milk being

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Secreted in Virgins by Suction. If the
Child is not applied to the Breast for some
time, or if they are not suckled the Milk
will be lost. Infants should be put to the
breast soon after Delivery, to prevent Obstructions,
Cancers, and other Disorders arising from
the Retention of the Milk.

Milk Consists of three parts, Oil or Cream which
is like the Vegetable oils, and derive from
them, a Coagulable part which is of an ani-
mal nature, and water in which is dis-
solved a saline or saccharine substance.

These three may be procured separate
in the form of Butter, Cheese, and Whey.

Milk has been supposed to be taken up into
the lacteals without suffering any Change,
but this is not the Case, it is Decomposed
in the Stomach, Coagulated fermented and
then taken into the lacteals; It is not sub-
ject to the Vicious fermentation, and hence
not liable to produce flatulencies; It
is not attended with the Stimulus of Ani-
mal Food, It is hurtfull to those who are
troubled with an Acid in their Stomach
and to those recovering from Intermittent
Ages, Mares, and Human Milk are not
so Aseptant nor so Easily Coagulated as
Cows

50 Cows, Goats, and Sheep, The latter contain
near the same quantity of Cream, Coagulum,
and whey, and are very Acident —

Human and Asses milk have been preferred
to the others in Diseases — Asses milk is not so
Acident or Coagulable as Cows, it contains a
larger quantity of whey — Mares milk is simi-
lar to Asses — Human milk is not Coagulated
by Rennet, Acid, or boiling, but on standing
will separate into its parts; Persons labour-
ing under diseases very often give good Milk.

There are instances of Nurses taking Mercury
untill their mouths were sore, and the Child-
ren not being in the least affected, Nay
some Nurses have had the Venereal disease
whilst the Children continued free —

This confirms what I said above that the
secreted fluids are not a Criterion of the State
of the Humours, as they depend on the State
of the Glands. — The passions of the mind
have a considerable effect upon the Milk,
In so much that Children have been thrown
into Convulsions by sucking an Angry
Nurse — Some think milk is secreted
from the blood, others derive it Imme-
diately from the Chyle — The latter seems
to be the most Probable Opinion, from
various

Various Considerations, It differs very Considerably from the blood, - Blood is putrescent, whereas milk is Acridant, it also remarkably partakes of the Nature of our Aliment, This appears very Evident by some Experiments made by Dr Young on a bitch, whose milk he found to be more or less Acridant, according as she was fed on Animal or Vegetable diet. Vide Young de Lactia Milk is peculiarly Adapted for nourishment being of an Intermediate Nature - By boiling it is rendered less Acridant, and consequently less Laxative - It is much better when used New, than when it has long been Drawn - The milk of Mammating Animals is more Difficult of Digestion than that of the others - Milk is Acridant partaking of the nature of Vegetables, it is therefore very serviceable in the putrid and Inflammatory Diathesis, for this Butter-milk seems to be rather better, as it is more Acridant, Cooling and Laxative. - - - Milk is very serviceable in hectic fevers, Human and Asses milk are the best in Consumptions, In the palsy Turnet whey is very good, This is the safest Remedy in Internal

Internal ulcerations, in this Butther-milk
is also very useful —

A milk diet is not so good in the Gout, Especially in old people, for in these it will often bring on other Disorders which will prove fatal, Besides their Stomachs being used to stimulating food, it will not well agree with them, the Gout is often a Constitutional disorder and cannot be cured without entirely changing the state of the Humours — This is best done in young people, when the system is not too much weakened, and in these a milk diet, accompanied with a proper use of Exercise, and an Abstinence from wine, and Venery, will be of great service — A Milk diet is peculiarly proper for the Scurvy, Particularly Lewis, & Goats — Milk is very serviceable when poison has been swallowed, as it softens the Stomach and Intestines formits Acrimony, and is a very good Vehicle to carry it off — The use of it should be continued here some time, as the poison sometimes Lays hid — It is very useful in disorders of the Stomach, Disorders of the Bowels, as Diarrheas

= rheas, and Dysenteries are often cured by it,
Especially when Boiled; In these Disorders
the natural mucus of the Intestines is Absor-
= ed, the milk by its Demulcent and Glu-
= tinous quality Supplies its place —

To render it more glutinous various Sub-
= stances may be added — A woman near Gou-
= mantown, gained a great Reputation for a supposed
Specific for the Dysentery, upon Inquiry I
found she Boiled 2 or 3 Sheets of white paper
in milk, Another Domestic medicine is
 $\frac{1}{2}$ lb. of mutton Suet boiled in a pint of milk
and drank at once. Marsh-mallows & Comfrey
root, or to give it the appearance of art, Gum
Tragacanth, or Arbee, boiled in milk will also
produce good Effects, all these act by their
Glutinous and Demulcent Quality, supplying
the place of the natural mucus, as milk
when boiled is leftive, it will also act in
this manner, checking the too great and
frequent discharge of faeces — Milk is also
best adapted to change the state of the
Humours — For this reason it is of great Ser-
= vice in Scrophulous, Cancerous, and
Venereal Complaints —

54 Sect 10th Nov. 1785

In our last lecture we finished the Consideration of Nutrientia, with an account of milk — let us now take a View of what has been said in the preceding Lectures —

We have seen that all Aliment is either Vegetable or Animal, and that man was Designed to live on both, this we proved from the Structure of his teeth, Stomach, and Intestines, and by the bad Effects attending the sole use of either, and the advantages of a mixed diet — We next Considered Digestion in which we found the Saliva, Liguor Gastricus, Bile and Pancreatic Juice, were of Considerable Service; We took notice of some Hypothesis concerning it, viz. that some ascribed it to a solvent in the Stomach, others, to Mechanical force, we shewed that neither were right, the both perhaps were not Entirely right, We made it appear that Digestion was Carried on in the Human Stomach, by fermentation, which was of three kinds, the Vinous, Acetous, and Putrefactive, which were prevented from becoming too great by the Liguors above mentioned, but principally by the Bile, which acts by its Bitterness —

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We found that Vegetables were more Nourishing, in proportion to their Sugar & Oil and that they were more Easy of Digestion and less noxious, as these were more Intimately blended, — That a Vegetable Diet was improper for flatulencies, Indigestion, and Costiveness, arising from this last Cause — and for such persons, as were subject to *Hysteria & Hypochondriac Diseases, that it produced Heart Burn, Cholera, Diarrhea, and Cholera Morbus, That it was very usefull wherever there is an Inflammatory or putrid Diathesis, that in these last Cases Animal food was hurtfull, but that it was proper wherever there is a prevailing Acid —

That animal food was more soluble than Vegetable, and that it was more soluble in proportion to its Alkalinity & Acidity —

We next proceeded to speak of Condiments, We found that the Acromata, were a very improper for animal food, but that they were usefull with Vegetables, —

We found the Cereals, and Althaea were the best for Animal food, that salt was the most greatfull Condiment — and

56 and when pure distilled putrefaction —
That Sugar was Antiseptic, nourishing, and
destroyed worms, that Vinegar prevented
putrefaction, and assisted Digestion —

We then spoke of Drinks, which we found
were of use to supply fluid to the system,
and facilitate Digestion. That drink taken
in moderate Quantities facilitated Digestion,
but taken in large quantities hindered
Nourishment —

We observed also that Stupid persons who
possessed the strength of the mind to that of
the Body, should live chiefly on Vegetables,
which gave strength of Imagination —

We next considered milk which we found
to be of an intermediate nature between
Animal and Vegetable, We also pointed out
in what Cases it was to be given, and in what
to be avoided. We also shewed what milks
were preferable in Particular Cases —

The next Class we consider are Astringents —
by which term we mean such Substances,
as Approximate the parts of the Body, and
Concrease their Cohesion — Astringents are
very various, They are taken from the
mineral

Mineral and Vegetable Kingdoms — 51

They are discovered by their Coagulating and Contracting the parts, to which they are applied. The Vegetable Astringents strike a black colour on teeth, on being mixed with the preparations of Iron. They should be administered with the utmost Precaution, as the improper use of these things on hectic fevers, Rheumatic swellings &c.

Synonymous to Astringentia, are the terms Roborantia, Constringentia, Aretantia, Indur-rantia, Consolidantia, Styptica, with regard to the Solids, with regard to the fluids

Coagulantia, Incrassantia &c. Astringents extend their effects over the whole system, this has been commonly ascribed to the Circulation, that the Astringent was taken up by the blood, and by it conveyed to the most distant parts, where it produced its effects, but this will appear erroneous, if we consider that it would take some time to produce its effects, and if dispersed in the whole mass of the blood, very little could arise at any particular part, and therefore to produce any considerable

58 Considerable effect, large Quantities must be used, whereas we find that small doses taken into the Stomach, will almost Instantaneously produce their effects, at the most distant parts, We hence are led to conclude that Astringents act on the Nervous System, or moving fibres, by this means producing their effects so suddenly and at so great a distance, and not on the simple Solids or fluids. — We know the fact, but we are ignorant of the Cause, or of the manner of Operation —

Astringents are Employed internally & externally, in Haemorrhages. With regard to their Exhibition internally. If a Haemorrhage arises from the suppression of some natural Evacuation, Astringents ought not to be used, If it is from some unusual part of the body, it should not be suppressed, until the humours are brought to their natural Channel, after the natural Evacuation is restored small doses of Astringents may be given —

Unnatural discharges becoming habitual ought not suddenly to be suppressed, any unusual haemorrhage ought not suddenly to be suppressed, if the Person is of a full

Habit of body, bleeding may be employed
to give a new determination to the humours
if this is not sufficient small doses of
weak Astringents may be used, In using
Astringents we should guard against Cos-
-tiveness, and for this reason should join
weak Purgatives with the Astringents—

When an haemorrhage threatens to prove
fatal, Immediate recourse must be had
to astringents, The strongest Jossile Astring-
-ents will be Necessary in this Case, If the
Person is of a strong and Robust habit of
Body, bleeding will be Necessary, as such
Persons have generally febrile symptoms,
but if this is not the Case and the haemorrhage
is owing to a Relaxation of blood Vessels,
bleeding is improper as it will increase
the haemorrhage, and Astringents must
be used alone, Recent haemorrhages
may more safely be suppressed, than
such as have continued a long time—
Astringents should never be used in ha-
-morrhage unless the Cause which pro-
-duced them is removed—

The

60 The use of Astringents is doubtfull in Haemoptoe, for if it is checked suddenly the blood will be accumulated in the Lungs and produce dire Effects, They should not be given during the paroxysm, but may be given in small doses after it. Critical hemorrhages should not be stoped, unless they threaten death, which is seldom the Case —

Astringents act either by Contracting the Solids or Coagulating the Fluids, in either way they may suppress hemorrhages.

They are sometimes employ'd Externally in hemorrhages, but I think they are of no great service in this way, for if small vessels are injured, Dry lint and pressure will stop it much sooner, and if a large one a Ligature will be much safer — They have also been employ'd in the Cure of ulcers, which heal with Difficulty, and here they may be of service, as they contribute to the formation of good Pus, and strengthen the parts, enabling them to unite with more Ease —

Sept 11th Nov.

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Astringents are also serviceable in Gangrenes as they not only prevent, but also cure Putrefaction. An instance of this you have in the Peruvian Bark, which is Employed both Internally and Externally, It has been proposed to inject Astringents into the Abdomen with a View of curing Dropsies, but this Practice is now deservedly Rejected, for as this Disease is generally owing to a Relax State of the whole System, it would be in Vain to attempt to strengthen the Lymphatics of the Abdomen, without at the same time strengthening the whole System, They are of no Service in the Hydrops Pectoris and all Encysted Dropsies. They sometimes produce good Effects in the Anasarca, by strengthening the Relax and Debilitated habit of Body.

They are also used in Diarrheas and Dysenteries, these two are generally Confounded, however they are Different, A Diarrhea arises from Refrigeration, in it the Stools are frequent, liquid, and of the Natural Colour,

62 it is also accompanied with Gripings and bor-
-borygmia. A Dysentery is occasioned by putrid
Exhalations, in this the Stools are not so
frequent, are slimy and frothy, accompanied with
A Tenesmus, In the beginning also Dysen-
-teries are generally accompanied with Fever
Astringents should not be used in these Cases
untill the Prima Viæ are first evacuated, this
may be done by Rhubarb, and Spicuantha.
after the morbid matter is evacuated, if the
Discharge is still kept up by Irritability and
Debility, Astringents Combined with Opium
produce very good Effects. Strong Astringents
should not be given, but the weak Vegetable
ones in small Doses. — Astringents have
also been recommended in Evacuations of mucous
as Gonorrhœa, and Fluor Albus or Whites —

In the first Stage of Gonorrhœa, where there
is an Ardor Urinæ, Inflammation of the Urethra,
and Chordee, bleeding, and Cooling Medicines
are to be used. tho' even here some use
Injection of Saack: Saturn: which is one of
the most powerfull Astringents, but
this practice I think is very improper,
when

63
When the Inflammation is Abated we may use
astringents sparingly, when it is quite gone
if the running still continues we may use
astringents with safety - The Fluor Albus
generally seizes Elderly women who have
born several children, and is very often
the Cause of Barrenness - If it has continued
a long time, we must take Notice of the
Rules formerly laid down with regard to Mem-
-orrhages. We must also Enquire wheather it
is owing to an ulceration of the Uterus, or to
laxity, or to some other Cause, if it is owing
to laxity which is often the Case we may
Employ Astringents

Astringents also Excite the Excretions, this
may at first seem somewhat strange, but
if we Consider that the Suppression of Evacu-
-ations, is very often owing to a weakness and
Relaxation of the parts, Astringents by Re-
-storing Strength to the parts, will also Ex-
-cite the Evacuation. - In this manner they
act in the Chlorosis, and in Spasmus, arising
-ing from a weakened Peristaltic motion
of the Intestines

Astringents

62
Astringents have been recommended in the
Stone and Gravel—Van Swieten and De Haen—
have said that the Uva Ursi, which is a
powerfull Astringent, not only mitigates
but also oftentimes Cures the pains arising
from the Stone, whilst the Stone itself was
not in the least altered—It has been said
that all the most famous Lithontriptics
ever in use, either were, or acted as Astringents.
Of this I shall speak more fully when I come
to treat of the Virtues of Lime Water &c
The use of Astringents in Inflammations is doubtful,
The Causes of Inflammations are Various, an Increas-
ed Action, and straitness of the Vessels, thicknes
and Stagnation of the Blood, or some Exter-
-nal Stimulus—The Stagnation of the blood may
be caused by a weakness and laxity, of the
Vessels, Inflammation from an increased Action
of the Vessels generally take place in the young
and strong, and here bleeding and the Anti-
-phlogistic method are Necessary—In Old Peo-
-ple were it arises generally from laxity, Astring-
-ents may be Employed. In young people
Inflammations tend to Suppuration, and in
old to Gangrene, and in both these Cases
we

we have seen Astringents are employed ^{6.}
Having now treated of Astringents in general
and pointed out the Diseases in which they
may be employed, we will proceed to speak
of the Particular Astringents —

These are either Fossile or Vegetable, of the
Fossile there are 3 kinds Earthy, Saline, and
Metallic Substances — of the Earths there
are three kinds, Boles, Clays, & Absorbent
Earths, — Boles These are of little Consequence
and I believe might entirely be rejected, as
they are Insoluble in the fluids of our System
no Effects can be expected from them, they
have been said to act as Astringents as they
contained other Substances, e.g. Iron —

But if we want to use these Substances, we
should have Recourse to preparations of them
which are more Certain than Boles, if they
exert any effects at all in our System I be-
lieve they are bad ones, they have been
accused, and I think justly, of sticking in the
Plicae of the Stomach & Intestines, and
their forming or serving as a Nucleus for
Calculi Concretions —

Clays

Clays or Argillaceous Earths, are distinguished from Absorbent Earths, by their not ~~offering~~ ^{offering} with Acids, they are now never employed in Medicine, as they have little or no Effects —

Absorbent Earths offer service with Acids of all kind and may be used where there is a prevailing Acidity in the Stomach, They have been used in Diarrhaes, & Dysenteries; When a Diarrhoea arises from too much Acid, which frequently happens in Children, and which is disposed by the green Colour of their Stools, Absorbent Earths by neutralizing the Acid, may remove the Cause of the Disorder, but they do not act as Astringents, They are much often given with a view of purging the Body — As Dr Pingle has found them to be Septic, they are particularly improper in the Dysentery, we however, see them still prescribed in this Disorder, as the Calined hart horn in the Decoctum Album Pharmacop. Pauper. ^{Edinburg} tho' a Medicine of no advantage Chalk has been used instead of it, but its Effects are Inconsiderable, and I believe Pericious —

of Saline Substances, the Principle and p^t
I believe the only one that is an Astringent is
Alum— This is formed by the Combination
of the Vitriolic Acid, with a particular kind
of Clay. The Alum we have in our Shops is
artificially formed of this Clay, of this we have
two kinds, the Roman and the Common Alum
and whatever Difference, they may have with
regard to their use in Dying, there is certainly
none in Medicine. When found native it is
called Alumen plumosum, Alum is one of
the safest and most powerful Astringents,
as it is soluble in the fluids of our System
its operation is very quick, and it acts in
much smaller Doses, than the Vegetable
As it is endued with a Sedative Virtue
may be Employed wherever there is need
of an Astringent, joined to a Sedative, when
Metallic Astringents, by Reason of their
Stimulus are hurtfull — It has been
Employed in Inflammations of the Eyes, and
it has been thought that the white of
an Egg with which it is joined has some
Virtues, but the only one is that of giving
Consistence and Contributing to more convenient
Exhibition

68 Exhibition, Where it is owing to Debility
general bleeding is pernicious, where there
is two much blood, topical bleeding, by Cupping
or Leeches, will be Necessary, to prevent a
Rupture of the Vessels. It is very usefull in
relaxed and putrid Gums, mixed with Sage
Tea and sweetened with honey to serve as a
gargle, In this manner it is also used in Anginae,
from ulceration, and to good Effect, It has been
also applied externally, To dry up Excretions of
the Skin, as Excessive sweating under the Arm pits,
but its use here is very Precarious —

It is also very usefull in violent haemorrhages
of the uterus, it is the substance we can most
rely upon. Helvetius obtained a premium
and Pension from Louis 14th for his preparatio-
-on of Alum, He took some Sanguis Draconis &
melted it over the fire in a Ladle, to which
he added as much Alum as it would take up.

The Sanguis Draconis serves here as a Convenient
vehicle to form it into pills, In the Pharma-
copoeia: Indica: Terra japonica has been
substituted to little Effect, for the Sanguis Draconis:
The method which I have found to be best
and which I generally follow, is to form it
into

into Bolus with Conserve of Rose from 69
5 to 10 or even 15 grains in a Bolus, to
take one every hour or half hour. It has
been given in larger doses as ℥ss every hour,
but in this dose it generally excites Vom-
-miting, and as we should Endeavour to moder-
-ate and not suddenly to stop haemorrhages
small doses ought to be preferred, it has
been used in bleeding at the Nose, by dip-
-ping a tent in a very strong solution of Plum
and stuffing it up the Nostril from which
the blood issues, so as to fill it completely
at the same time holding up the head
and applying Cold Vinegar to the forehead
and back of the Neck, — It has been recom-
-mended in the Colica Putorum and Fluor
Albus. Dr Cullen has recommended it in
Diarrhaeas & Dysenteries, where he thinks
it will act, not only by its Astringent but
also by its Antiseptic Qualities, It has also
been said to produce good Effects in Intermit-
-tant fevers, when Combined with Aromat-
-ics and taken just before the fit comes on.
It has also been recommended in continued fe-
-vers, With regard to its effects in these disorders
I can say nothing as I have never made a
trial of it

We now proceed to speak of the Metallic Astringents of these the first is Copper. This is a metal soluble in our fluids it may be combined with Acids, Alkalies, & neutral Salts, there is very little Difference in the Preparations, if any, those with Alka: the most stimulant, with neutral salts the mildest, and with the Muriatic Acid the most powerful Astringent. Copper is a very powerful stimulant, and excites vomiting even in small doses, which renders the Exhibition of it very Difficult, As the Combinations with neutral salts is the mildest, they ought to be preferred, It has been used with very good success in Dropics, as it acts not only as an Astringent, but also as a Diuretic and Purgative, It has also been employed in haemorrhages and increased Evacuations. The Terrae Vitrioli is used Externally to check haemorrhages, which it does not only by Contracting the Solids, but also by Coagulating the fluids, with which it immediately comes in Contact. On account of its stimulating effects, it is very Difficult to

Exhibit it internally, Boyle recommends
the *Ens Veneris*, to be given internally to
stop Evacuations, but since his time
Physicians have spent more time in dis-
puting about the preparation of it, than
in making trials of its Efficacy, some have
said it was a preparation of Iron — Boyle
himself says it is of Copper, It may be
procured in Crystals, in the following man-
ner, Dissolve any quantity of Roman Vitriol
in distilled or rain water, thereto add the
Spt. Sal. Vol. Arno: untill it is saturated
after which pour on highly Rectified Spt.
Vini: untill nothing more will precipi-
tate, after which pour off the fluid; and
elegant small sapphire colored Crystals
will Concreted — We have in this all
the advantages of the other preparations
of Boyle's, and never any of the Mur-
matic acid mixed with the Copper —
This preparation is very useful in that
Disease of universal Scarcity, (The Ticks
as Boyle observes) —
being a very powerful Astringent. It

72 is highly Antispasmodic, and has been
used in the Epilepsy with success, I my-
self remember a Case in which it suc-
ceeded remarkably well; it may be given
from ʒi. to ʒi. v. Gradually up into a Grain, it is
best to begin with the Smallest dose, and
Increase it gradually, for it will occasion
Nausea, Vomiting & purging. Boyle recom-
mends it also as an Anodyne, and says that
it acts without the Inflammable qualities
of Opium - Experience does not seem to Con-
firm this - Boyle recommends Copper in
petechial Fevers, accompanied with Sulphu-
rus terrenum, but here its effects are doubt-
full, and it ought not to be used, until the
Medicines, that are generally found to suc-
ceed in these disorders fail, and then it may
be tried -

All the preparations of Copper destroy worms
out of the body, and there is no doubt but
they would produce the same effects with-
in the body, if they could be retained in
sufficient Quantities on the Stomach -

A single drop of it Dissolved in a Solution of ⁷⁹
Vol. Alkali: was found to vomit a Child to
whom it was Exhibited

The Roman Vitriol has lately been used in the
London Hospitals in Intermittants and fre-
-quently with good effect. The dose is from $\frac{1}{2}$ gr
to 1gr. Doses of Vitriol are in great Repute
with some, Especially in sore throats, In
the Angina Scarlantine of this Country, they
would seem to have some good effects, by Stim-
-ulating the fauces and promoting the Ex-
-cretion of mucus, but in this there is
no doubt but the Mercurial preparations
are to be preferred, particularly Turbith. Shriv.
Copper is often used in Germany to prevent
the Hydrophobia, consequent upon the bite of
a mad dog. The Physicians of Copenhagen
bestowed great encomiums upon it in this
Intention - D. Costumier the president
of the Berlin Society, assures us that it
produced very good effects. He gave $\frac{3}{4}$ of Cop-
-per filings strewed on buttered Bread at a dose
and never found it fail. - There is no doubt
of this Gentlemans Veracity but whether
the

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The Dog was mad or not in these Cases is
not Certain. — Possibly as the disease is of a Spas-
=modic nature, with violent Convulsions —
Copper may be useful, acting by its Antispas-
=modic, and Astringent nature —

It is employed in External applications in ul-
=cers, where by stimulating the Vessels it
brings on that degree of Inflammation that is
necessary for the formation of good pus,
It was employed by the Ancients as a digestive,
and Echarotic. — Mercury is now more
Commonly employed for this Purpose —

But there are Cases in which Copper is Super-
=able to Mercury, and perhaps others where
another Metal will answer better than
either * D Cullen gives you an Instance
of a Disease, very much resembling a dis-
=ease we call the Yaws, in this Mercury
was found constantly to fail, but Copper
always effected a Cure. This then should
induce every Surgeon, never to dismiss a
Difficult ulcer, until he has tried the
Virtues

* Vide D Cullen's Ma: Medic: Tom: 2 Page 36

Virtues of Copper, and if this fails he may ^{try}
try some other Metal —

It has also been employed as an Echarotic —
But I would advise you to be cautious in us-
-ing Echarotics, for by the too frequent use
of them for the Removal of fungous flesh
a good wound is converted into a very bad
- ulcer. They ought then to be used very spar-
-ingly — If they are necessary the best Prepa-
-rations are the Mel. & Ungt. Respitacum —
The Echarotics most commonly employed
are Roman Vitriol, Pursuit Plum, & the Red,
and white Precipitates —

As to the dose of Copper, taken internally no
certain rules can be laid down concerning them
for one person may take a large one when
at the same time half the quantity will
- - - - - Corrupt another — The best way is to be-
-gin with small doses, and increase them
gradually if necessary —

Iron is a metal of more frequent use than
any other, it combines with most saline
Substances, and is soluble in all Acids —
The Vegetable Acid however only Corrodes it,
but

176 but Extracts all its Medical Virtues. It may then be given in Substance, as it will be Corroded by the Acid in the Primæ Viæ, but this is always an uncertain Method, as it depends upon the Acid in the Stomach, which if the Iron does not meet with, it will produce bad Effects merely by its Mechanical Action. We had therefore better use some preparation it matters not which, as they are all possessed of similar Virtues.

When we want it in a Powder, Lemerys method is the best. Viz, to let water stand about an inch deep upon Iron filings, by which means part of them will be converted into a fine black powder, which may be separated from the rest, by shaking the Vessel, when the uncorroding filings will separate. Iron combined with the Acid of Sea Salt is the basis of the ℞. Martis of our Shops. This will combine with highly Rectified Spirit of Wine, will form Dulcified Sp. of Salt, Iron is purely astringent, without the Stimulating qualities of Copper, or the Sedative, and Delirious

ones

ones of Lead, but it is not as powerfull an
astringent as the one, nor so much of an Antispas-
-modic as the other, On account of its Astring-
-gency, it is Indicated in all Cases of Laxity
and Debility, and in Obstructions proceeding
from these Causes. It is also antispasmodic, but
ought not to be given during the Paroxysm
but may be given after it to prevent its Rec-
-urrence, It is indicated in the Hysteria on these
Accounts, and never fails unless where there
are obstructions of the Viscera, and in these
Cases, I combine Chalybs: opt. with Magnesia
It may be Combined with bitters and Aromatic
and given in very relaxed Tones of the
Stomach. It is improper in the Hypochon-
-driac dyspepsia, but it ~~may~~ ^{has} be given some-
-times in this, as it was supposed to be of
the same nature with Hysteria, but they
are very Different - In the Hysteria dyspepsia
there is a laxity of the Solis, flatulencies,
and a disordered state of the Bowels, with
loose Stools, it generally attacks women,
and is purely Spasmodic, it is generally
Incidental, it is relieved by Cold weather,
hence it is not so frequent in the Northern

As in the Southern Climates —

The Hypochondriac Disease generally attacks persons of a Melancholic Temperament, it is accompanied with a Rigidity of the Solids — Spasms, and sometimes Spasms of the Abdomen, but it is seldom purely Spasmodic, it attacks people in the decline of life, is commonly habitual, and is not so frequent in the Southern, as in the Northern Climates, they both sometimes occur in the same person. Cross has been employed in Intermittents by D. Stahl and his Followers, who laying it down as a maxim, that fever was occasioned by nature endeavouring to throw off some morbid matter from the body — and thought it not proper to disturb her in her operation, and therefore used the Peruvian bark but sparingly, they employed a very subtle Crocus Martis — but did not suppose it acted as other astringents, and even Bark itself — It is very powerfull in Chlorosis, and Suppression of the Menstrue, owing to this Cause, Suppression of Menstrue is not always

owing to Relaxation, but is sometimes
occasioned by rigidity and Spasm, In these
Cases Iron is hurtfull, It is hurtfull in all
Inflammatory Diseases, haemoptoe, and all
haemorrhages. It is injurious in all ob-
structions of the Viscera, and wherever
there is a disposition to putrefaction
The use of it ought to be avoided in Consumption
~~the~~ Plethoric habits, In Bilious dis-
eases we ought not to use it, Except in
Small Doses, In ulcers of the lungs &
Viscera, it ought not to be given, Ex-
cept very much diluted, and Accompani-
ed with a proper degree of Exercise

In these Cases the Mineral waters, which
often produce effects not to be imitated by
any preparations in our Shops, This is cer-
tainly owing to the Smallness of the
Doses as they contain nothing but Iron,
and the strongly impregnated Min-
eral waters seldom answer so well
as the weak ones which we reject

If our patient cannot have the Advan-
tage of these, we may make an
artificial

80th Artificial mineral water, by dissolving
Grain or Grv. of Sal. Mart. in 2 Quarts of
water — Iron is also a Considerable Vermis-
fuge, Chalybs opt. has been Commonly Em-
ployed for this Purpose, but the Sal. Mart.
is much preferable, as it strengthens the
Stomach, and Bowels, and prevents the
future generation of worms, I generally
give it from Grj to Grv. at a dose, mixed
with a little molasses, for Syrup, not on-
ly to conceal the taste, but because all
Sweets have the Power of Destroying
worms, — In Relaxations of the Stomach,
producing flatulencies, Indigestion, and
Cholera, Grj of Sal. Martis made into pills,
with Venetian Soap, and Occasionally a
little Rhubarb added, and taken two or
three times a day, I have found to have
very good effects. — Sal. Martis and all
the other preparations of Iron, will
give a black Colour to the
Alvina species —

Lectr

Lect. 13th 1785^m

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The Subject of this Lecture, was the Virtues of Lead, and its various preparations, and the Disorders in which it may be used, Under the head of Lead the D^r gave an account of the Colica Sutorum, which is most commonly produced by Lead, He also in this Lecture gave us the Virtues of Lime, and the Preparations thereof, Lapis Calami Tutia, & White Vitriol, which is a Composition of Lime & the Vitriolic Acid — This last he told us was sometimes used as an Emetic in the Dose of ʒj — For the want of paper, the particulars could not be taken Down, and on this Account, this Lecture is so Deficient —

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89

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63
84 Lecture 14th — 1785

The flowers of Lime were first used by Dr Glauber. They were next used in Spasmodic & Convulsive Diseases by P. Gaubius — Dr Hart upon obtaining a Doctors degree in the University of Leyden, chose for the subject of his discourse the flowers of Lime, in this he mentioned a variety of Cases, in which they had proved successfull — Dr Gaubius used them in the Chincough, Hysterics, Riccough, and Spasmus Cervicis, tho' not always with success, He says they are particularly usefull in Convulsive Coughs — They have lately been used in the Edinburgh Infirmary and it is said with success in Epilepsy — I myself have made trial of them in many Cases, but they failed in all except one — The Causes of Epilepsy are Various and the disease is often Incurable, It most frequently first appears after Violent Agitations of the mind, Various medicines have been recommended in this disease, Where it is not symptomatic, but Idiopathic, or when it is hereditary the flowers of Lime may produce good effects. — They

They are possessed of a gentle Astringent quality and by this may perhaps alter the Constitution which is to be done by slow means, and we sometimes find Nisletoe, which is a weak astringent, prove very serviceable in this Disease. The Flowers of Lime may be obtained either by — ion. or — ion. They may be obtained in the following manner, Dissolve any quantity of white Vitriol in pure water filter the Solution, and to it add a filtrated Solution of Sal. Fixi untill nothing more Precipitates; by repeated affusions of pure water wash out the saline taste, You will then have it in form of a white insipid powder, in Children under 10 Years of age it may be given in doses of ℥ss two or three times a Day, and the dose may be gradually increased.

We are in the Next place to treat of Mineral Waters. But before we Consider those it will be necessary to say something on Common Water — Water is an insipid, not inflammable, transparent, & fluid Body, there seems to be but one Species of it in Nature, Except where other Matters adhere, and are easily separable from it —

Chymist

16 Chymists have even supposed it a very simple, and Elementary production, It enters all other bodies, Metallics perhaps only excepted, It is very probable that its fluidity is owing to the quantity of Air Combined with it — It may readily be formed into Earth, and some have even supposed that this Earth was formed out of water, and is continually encasing by the waters subsiding — Water may be reduced under two Heads; simple or Common, & Mineral Water. — The first is universally mixed with some other matters, which however are not to be perceived by our Senses — Mineral Waters are so impregnated as to be easily discovered by our Senses. Common waters differ considerably from one another, The method to Judge of Common water, is the same with that to try Mineral waters, The most simple methods are by adding a solution of fixed alkali, or a solution of Silver, which are precipitated by the $\text{O} \& \text{O}$ which are generally present in the Earth — Sugar of Lead is the most subtle of any and very few

few waters will stand the test of this, we can therefore only judge from the plus & minus. Specific gravity has been reckoned a test, but improperly, as air diminishes it, and many saline Substances have the power of fixing a large quantity of air, the more air water contains, the more powerful a menstruum will it be.

Water is derived to us from the Atmosphere

Rain Water is the purest of all waters, and can only be imitated by frequent Distillations, However it is not perfectly pure,

Hail or Snow are equally pure, but as less impregnated with air, they are weaker Solvents than Ψ

Dew is another Atmospheric water, which must be more impure than the former, as they never rise high from the Earth — We know they are more putrescent than the former — Rain, Snow, & Hail fall in the greatest quantities, on mountains, Hence are formed Brooks, Rivers, & Lakes, the waters of which come nearest to the Atmospheric, in Purity, by running

DD.
A great way they may be impregnated
with various substances, the waters of lakes
do not intirely stagnate, for they general-
ly have some outlet, small lakes may
however suffer some change and become
putrescent, River waters seem to be very te-
nacious of there purity, and are scarcely
affected with other matters. Spring waters
take there rise from river waters, for
they penetrate the earth, and afterward
bleak out again in the form of Springs
They are of different degrees of purity, those
in the higher grounds are more pure, than
those in the lower, few of them however
are Entirely pure

Mineral Waters have afforded to Chemists
and Physicians of all ages, a subject of In-
-quiey, We should therefore expect to find
a good Account given of them and their
Qualities & Virtues, But as these have been
mispresented grossly, thro' ignorance,
Design, & Credulity, we must expect
little from writers, We must therefore
proceed on quite a new plan, and

Endavour

19

Endeavour to determine A priori, To do this
we must first Consider what matters may
be Combined with water, and of what Quali-
ty these matters are, and then determine
their Virtues, The matters that may be
Combined with water, may be reduced to four
heads, — Saline, Inflam^{me}able, Metallic, and
Earthy ~~and~~ matters —

1st Saline Matters, There are no acids in the
Earth to impregnate Water but the $\text{O} \& \text{O}$.
The latter is found in the Common Salt, in a
fixed Ammoniac, it is also found, but very rarely.
It is present in sea water, and some Springs
but scarcely in its simple State. The O may
be present in its separate state, but only for
a moment, as it is so ready to combine with
other matters, The water that flows out
from Coal mines, has more or less of O
which is owing to the Spirit deliquescing
in the Air, but this is hardly to be called
a mineral Spring — The Vegetable Alk.
is certainly excluded, from the fopile king-
-dom, and therefore is not found in mineral
waters — Volat. Alkali, has not been ascer-
-tained, to enter into Mineral waters in

90
A separate State, yet a Volat: Alkali has
been obtained from mineral waters by Ac-
curate Chemistry, but it seems the Result of
a Decomposition of S^epar^{is} present
there. Ammoniacs have not yet been disco-
-covered in mineral waters, The fossil Al-
-kali seems almost universally present in
mineral waters, If you consider what has
been said above, you will easily see that
Glauber, and Common Salt, are the only neu-
-trals which occur in these waters — They
are seldom pure but more commonly Com-
-bined together — Glauber Salt is not uni-
-versally present, as has been imagined, but
A Composition of S^e and Magnesia, commonly
called Sal: Glauberi spurium, has been
commonly taken for it; this gives us purg-
-ing saline waters, as at Epsum. These
waters from the figures of their Crystals
have been called Nitrous waters —

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2. Inflammables

Oil matters, Saffrta is the only fofule oil,
and we muft therefore only expect this
Sulphur, cannot be combined with waters
in a fimple ftate. But Φ . Combined with
alkali, becomes folvable in water, Sulphur-
reous waters, commonly called Stinking waters,
as thofe of Harrowgate in England, are owing
to this Φ . And the Φ however is generally
prefent in very fmall quantities, and there-
fore the virtues of this water are perhaps
not fo confiderable as has been imagined—
their virtues may be rather owing to the
alkali— Whether oils mixed with alkalis,
and forming foaps, are difolved in water
and give us faponaceous waters is ftill
Doubtfull

3. Metallics, the moft metallic matters are
Infoluble in the Acids prefent in the Earth—
Some are infoluble in their ores, others re-
quire heat, the greateft part therefore are
Excluded— Iron is the moft Common, Φ may
be Corroded by Acids, and Saline Subftances,
and is therefore prefent in fome Springs,
but

But rarely as it is precipitated by Iron, Iron
then is present in almost every Spring—
Rarely in its natural State, but frequently
Combine with Neutral Salts— Dissolved
in the ϕ it should be in the form of green
Vitriol, but we can hardly obtain it in a
green Vitriol, this is because the ϕ is ge-
nerally in a Volatile State, which is when
readily decompos'd, and then loses its power of Hold-
ing Iron solution, as this acid is rendered Volatile
by air, hence the reason for their not being Easily
kept— This volatile Spirit has been absurdly
Called *Spiritus Mundi*

Waters impregnated with ϕ are found in few
places, and by laying Glass of Iron into these Springs
the Copper is precipitated, and the Iron suspended,
hence the name of Cement Waters, Blue ϕ , has
been found in Scotland and a few other places,
but very rarely, and this for the same reason as with
the Green ϕ . It is very remarkable that we find
no waters impregnated with Lime, tho' it is
suspended by ϕ , and is precipitated by ϕ or ϕ ,
tho' White ϕ is found Native, and Lime, is
now found frequently in the Earth

Perhaps

Perhaps nevertheless, Lime is frequently present but there is a Difficulty in Discovering it, whereas ♀ & ♂ are easily discovered, The only true means to know it is present, is by taking the Residuum, of the waters, and Cementing it with Copper, and thence producing Soap
 Dr Gmelin has found Lime present in one Spring of mineral waters, in Siberia

4. Earthy Matters, These are very copiously suspended in water, independant of solution in acids. Calcareous Earths are frequently present these are intirely insipid, and are only discoverable by their Sediment, as all the Incrustating waters, these waters have frequently been used with success in Calculous Cases — Magnesia Alba is also found, — The earth of Alum is sometimes found, Crystalline earths are undoubtedly present, at least waters deposit a Crystalline Sediment, but they are never present in such quantities as to give them a peculiar Quality

Clay or Argillaceous earths is probably present, in waters, especially in those commonly called Saponaceous. Earths combined with O and forming Earthy salts give us different kinds of water —

904
1. O^r with Calcareous Earths gives us Selenites.
This gives us what is commonly called hard
waters — With Magnesia Alba, Sal. Glaub. Spiritus
this gives us what are commonly called Nitrous
waters — With the earth of Alum it forms
Alum. This occurs rarely dissolved in Water, as
it is precipitated by As; Besides alum is a rare
production of Nature — Fixed Ammonia This oc-
curs very rarely, and perhaps not at all, as the
Experiments made for this purpose, are scarce
accurate enough — Mineral waters have a-
gain been divided according to their Temperature
into Therma & Reidula, but they have no foun-
dation in Chemistry, tho' in Physic it may have
Application, It would be in vain to attempt giv-
ing you any theory for the heat of the Therma,
for we are at this time as ignorant of the Cause
as our Ancestors were

We come now to the method of determining the
Nature and Composition of Mineral waters —
This is one of the most difficult things in Che-
mistry, to do it properly you should pay
a particular Attention to the following things,
1st you should examine the water at the
head of the Spring if possible — 2nd

2nd The situation of the Spring, the nature of the
soil, and the hills and Mountains near it,
3rd Its sensible qualities, 4th Determine its
heat and weight by the Thermometer, and
Barometer, 5th Examine whether it contains
any thing Volatile, If it does the Specific
gravity is less, it will also sparkle at the
head of the Spring, and when shaken in Vessels,
when enclosed in bottles, corked tight it is
very apt to Crack them. You may get the
volatile part separate by tying a bladder to
the neck of the bottle in which it is enclosed,
and shaking the bottle frequently. After
this loop the string round the neck of the Blad-
der and separate it, you will then have
the Volatile part separate in the bladder —
6th Observe the changes it undergoes, in Open
and Close Vessels, and when applied to different
degrees of heat, the Crystals and Sediment should
be Examined, 7th Subject it to Decomposition,
if this there are 3 kinds, Evaporation, Distil-
-lation, and Precipitation, by certain Substances,
During Distillation you should frequently
Examine the Results — We judge whether
it

96 it is an Acid or Alkali (it contains) from the
taste, and from its effects on the Symp of
Violets, Acids will turn it Red, and Alkalies
Green, - We Discover Φ from the smell,
and from its turning silver black, when
cast into it, - If it contains a Oli, Earth,
it will be Decomposed upon adding a fix-
ed Alkali, or a solution of Φ in the Oli.
Chalybeate waters are Discovered by the
O^r turning black upon the addition of Galls
or any other Astringent, - If the water
contains Φ it will turn blue upon the
addition of - or us Oxalis, by adding ~~to the~~ water,
 Φ is precipitated, - If you mix the
Sediment of any mineral water with Char-
coal, and set it on fire, if it contains the
least Portion of O^r it will emit a Φ reous
Smell, - Lastly we should make an Imit-
tation of the water by art, i. e. we should
add such Substances to pure water, as we have
found the Mineral waters to contain, If we
cannot by the addition of these matters
perfectly Imitate them, we may be Cer-
tain, that we have not been perfect
in our Investigation, and that something
hath

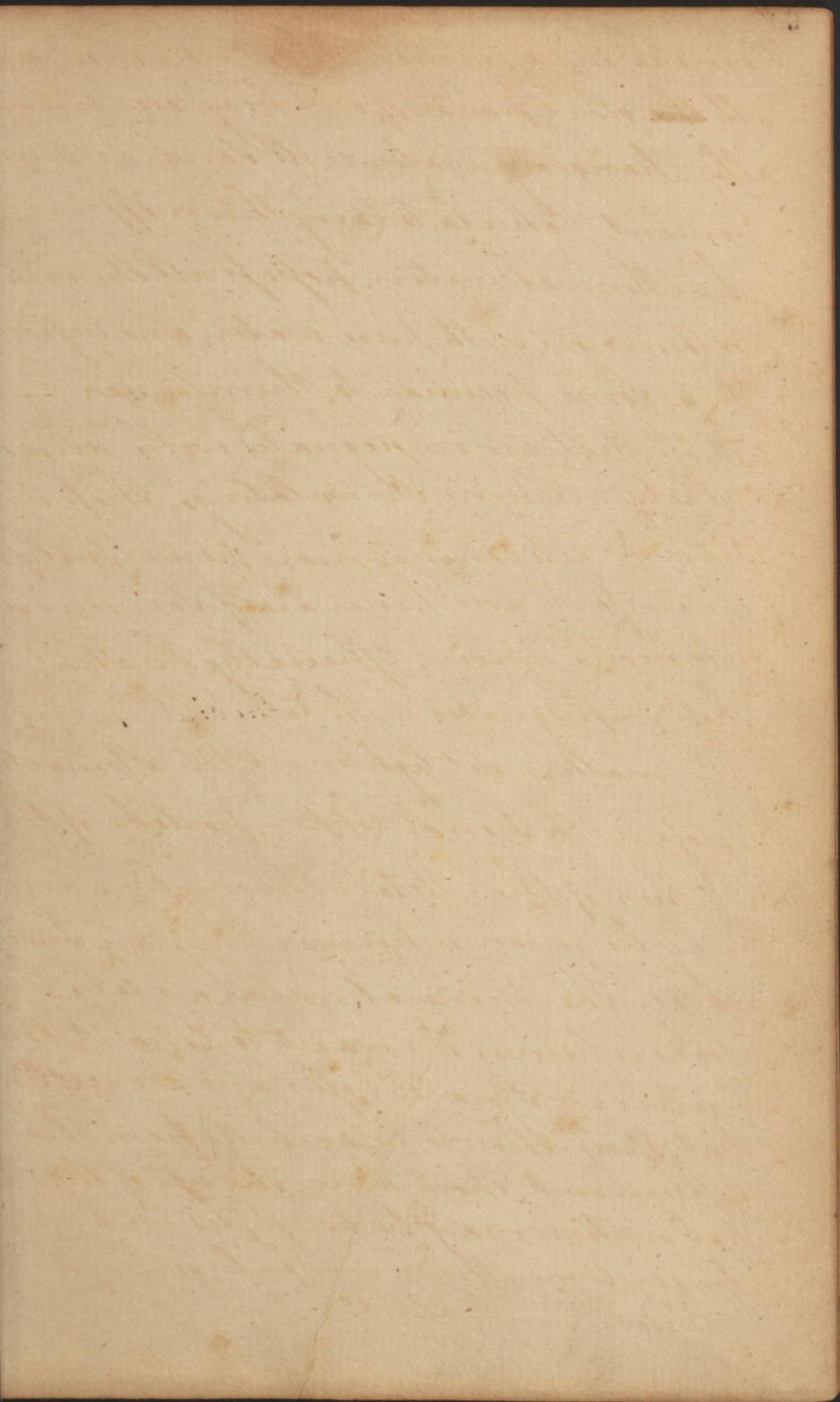
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hath escaped our notice, — The virtues of
Mineral waters, have been t'wored very
many, it would take days to Recount
the Diseases in which they have been re-
commended. They have, as was said above
been misrepresented by Ignorance, Desires,
and Credulity, — Before we can understand
the effects of Mineral water, it will be
necessary to say something on the effects
of Common water, Cold water taken into
the Stomach, acts as a powerfull sti-
mulus to the system, and Determines
very powerfully, to the surface of the
Body. It has been used by the Spanish,
and Italian Physicians In fevers to
bring them to a Crisis, It is also of service
in Chronic diseases — By its stimulus
it excites appetite and promotes Dige-
stion, and by its bulk Expedes the Ex-
pulsion of the food, and increases the
Peristaltic motion of the Intestines, By
its bulk it distends the Vessels, and
proves a stimulus to the Vasular sys-
tem, when carried into the Blood, and
promotes

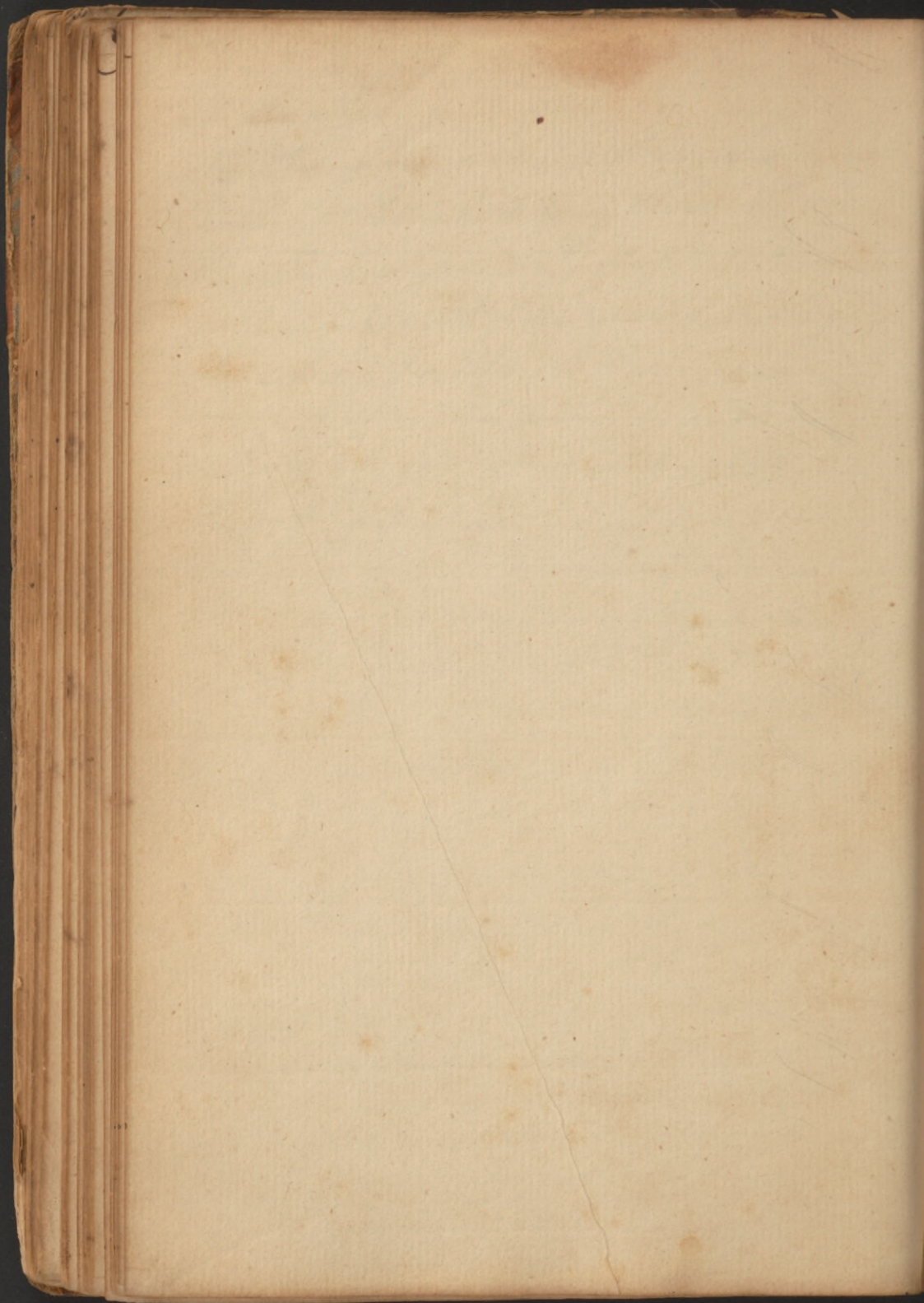
9^d Promotes the Secretions, As the humours and all ~~the~~ other parts of our body are continually Changing water will serve as a convenient Vehicle to Carry them off —

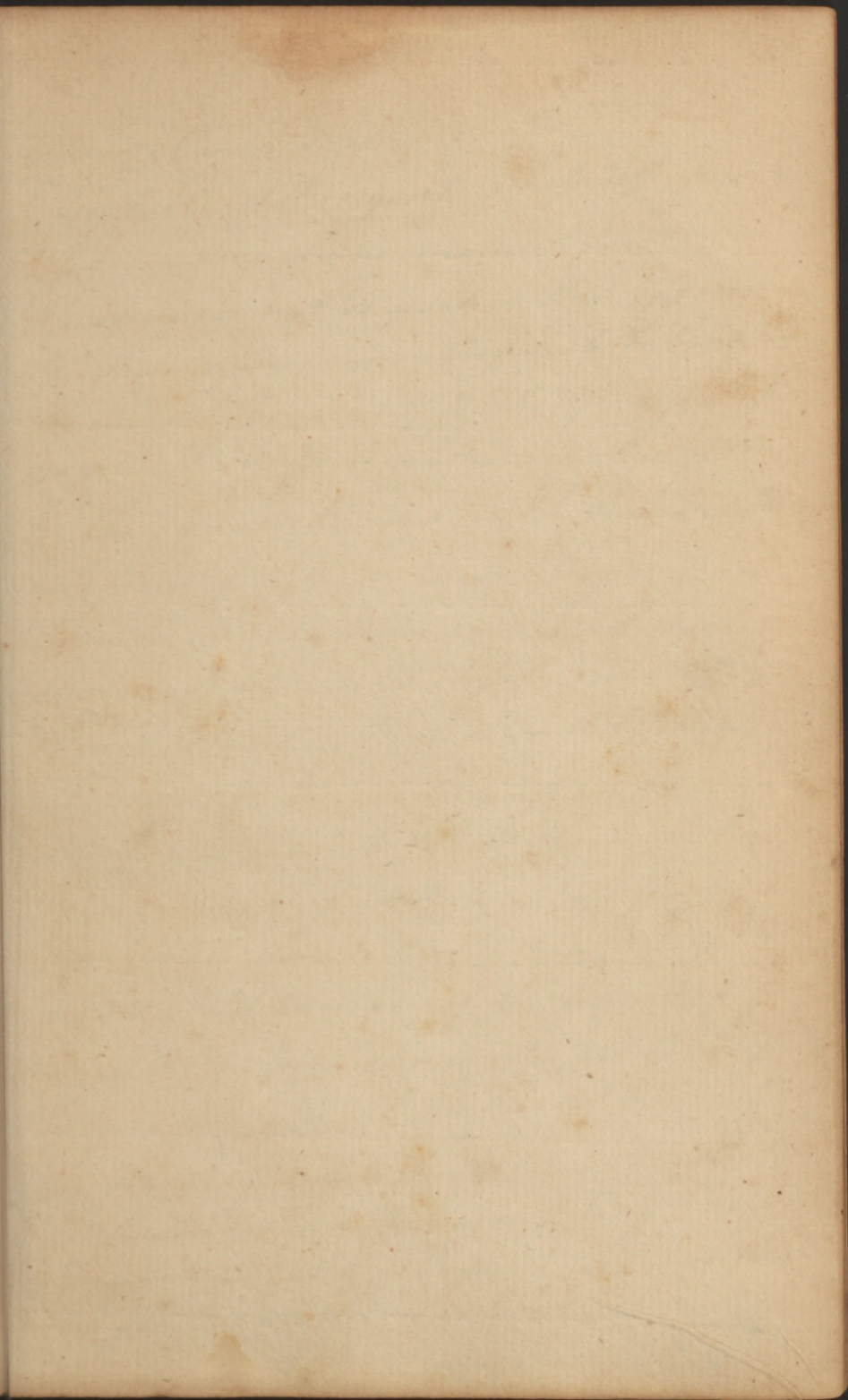
The Mineral waters, possess all the virtues in Common, with pure water, and besides these some peculiar to themselves —

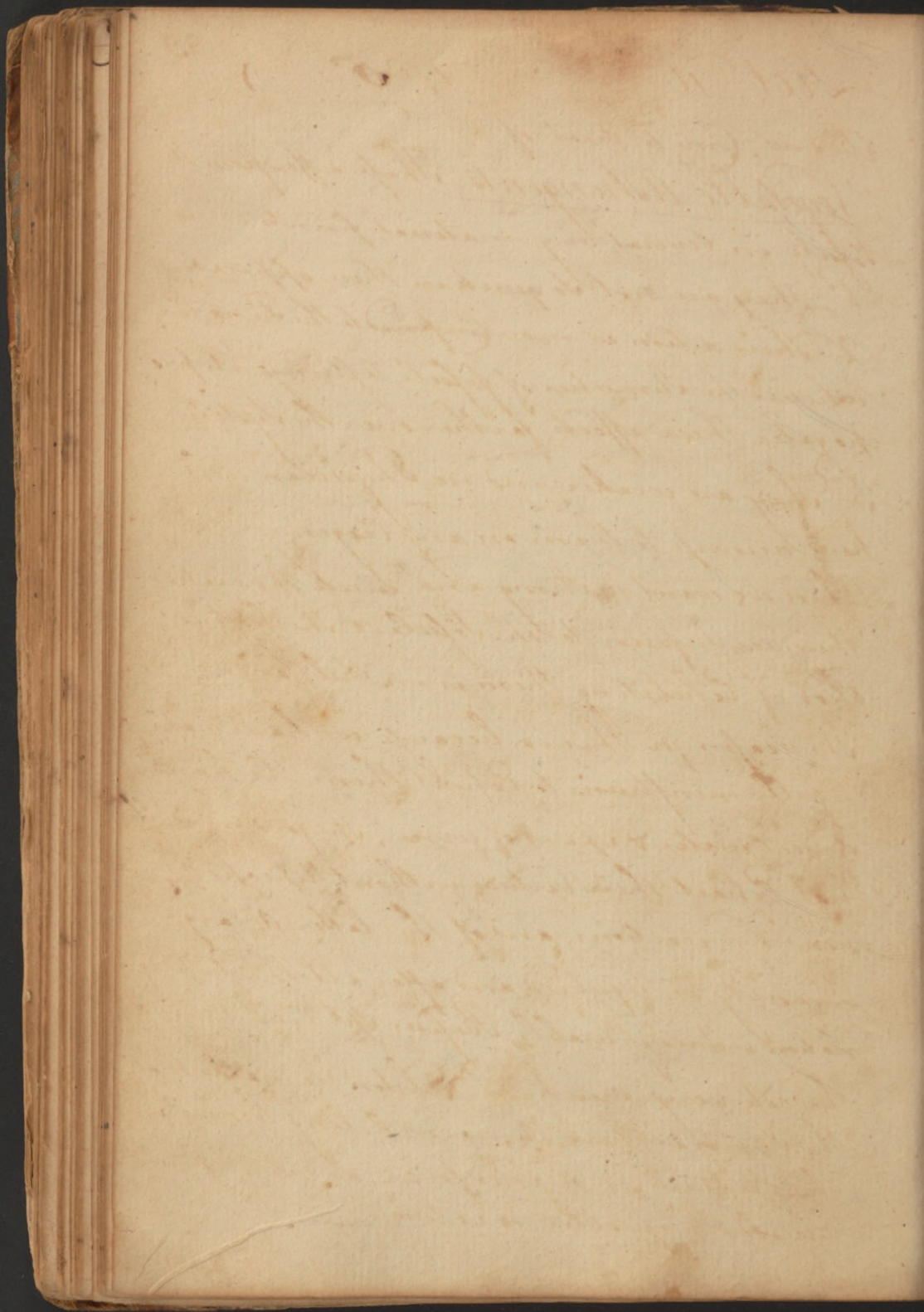
Those that are impregnated with Acids or Alkalis, are more Stimulating. Those with Oil or $\frac{f}{4}$ determine more powerfully to the surface, and hence are of service in Cutaneous Disorders, Especially the Itch —

Those impregnated with Earthial or Volatile matters sit lighter on the stomach, Those with Iron, or Copper, partake of the Virtues of the Metals themselves, and may be given whenever they are Indicated, The mineral waters are to be preferred wherever we want to exhibit the metals in small Doses, and are willing that they should be excluded from the system in a short time, The use of the Mineral waters may be protracted in a much longer time, than we could give the Metals in substance —









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We now come to treat of
Vegetable Astringents These differ from the
Fossile in several very material points —

1st They are not so quick in their operation,
2nd Their action is more confined to the *Primæ Viæ*
whereas the stimulus of fossile Astringents pro-
-pagates their effects farther over the system —

3rd They are weaker, and no Physician will
have recourse to them on any Emergency —

When we want a strong and quick operation
they are inferior to the Fossile — The best me-
-thod of exhibiting them is in substance —

The reason for this is because we have no pow-
-erfull menstruum to extract them, We have
-indeed water & Spirit of wine, The former will
-not extract their Virtues without repeated Effu-
-sions & Decoctions, and of the latter a large

Quantity is required, and after all the Impreg-
-nation is Inconspicuous, *Recept. Spt. Vini* herewith

the dose very much — Dr. Wilson remarks that
the Peruvian bark remains a long time in
the Stomach in a Solid form, and it is proba-
-ble other Vegetables do so too. —

Dr

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D'Kullen says he has seen Bark thrown up
unchanged 3 days after its exhibition, but the
Stomach must certainly have been Disordered
in this Case, In a fluid form they pass more
quickly, and are liable to undergo a fermentation
which will destroy their Astringent power -
Wherever we want the operation to be strong,
Sudden, and Certain, we should use the Spicif
Astringents, - The Vegetable Astringents are to be
preferred for gradual Changes in the Constitution -
They should be given in substance, in powders,
Pills, or Bolus. By a long and continued use of them,
we are apt to induce a habit of Costiveness, we
should therefore combine gentle purgatives
with them, for this purpose Thubarb is the
best, as it has combined with its purgative
an Astringent Quality - We should not use
such purgatives as tend to Refrigerate, for they
will relax the System, and destroy the effects
of the Astringents, - We now proceed to speak
of particular Astringents, the operation of
which you will understand, from what has
been said above - If I should be guilty of
some Emissions in treating of these, you
will

Will be at no loss, if you consider what I have¹⁰¹
already said, and as Dr Cullen has so fully treat-
ed of them, We will mention such it have
been recommended for Particular Diseases, of these
the first we shall mention is

Pentaphyllum or Cinqufoil, This is a simple
and agreeable Astringent, but a very weak one,
and therefore no great effects are to be expected
from it, Accompanied with other Astringents
it may be of Service in weak and relaxed Habits.
It may be given in form of Tea, from its agreeable-
ness as Common Drink. The Express'd juice of
it has been said to Cure the Blower Rheum.

This 9 times out of 10 is owing to a general or
partial Relaxation, It may be useful by Re-
-storing tone to the relaxed parts, Dioscorides re-
-commends a decoction of it for the tooth Ach.

Rosa The flower of this are a weak Astringent
of an agreeable odor and taste. They may be em-
-ployed in Putrid fevers, & Dysenteries, and also
to prevent the Return of Haemorrhages.

Sornerstilla is a pure Astringent, It was used in
Intermittants before the Peruvian Bark was dis-
-covered, as early as the times of Hippocrates,
and wherever the Bark is now used.

It was generally combined with bitters, for it was known that astringents joined with bitters were of service in Intermittants before it was discovered that nature had united them in the Peruvian Bark, It has been recommended for Diarrheas, and Dysenteries, as well as other Astringents. — A Decoction of it has been said to prevent Abortion, which is very often owing to Relaxation and Irritation, It may therefore be prevented by gentle Astringents. — The best method is to macerate ℥ij of Tormentil in ℔ij of Cold water, for 24 hours. A Cold infusion of Astringents, is always preferable to a warm one for the heat will often change the Qualities of the Substances. —

Rubiacina or Madder is a very weak Astringent and as such might pass unnoticed, It has been found to colour the bones of Animals that feed upon it, and those of young Animals sooner than old. It has been employed for the Rickets, but it is very improbable that a substance which renders the Animals which feed on it sluggish and heavy should produce any considerable effect in this Disease, Nature generally performs the Cure here, the Cold Bath is of very great service in it. —

Madder

Madder has been recommended in the jaundice,¹⁰³
but it possesses no virtues by which it could
possibly effect a cure, The jaundice is almost
always owing to Concretions in the Biliary
Duct, It generally goes off suddenly from the
Evacuation of the Concretion, and the medicine
which happens to be given at that time
is reckoned to perform the cure, The cure of
the jaundice is to be attempted by Solution
or Evacuation, We have not yet discovered
any Remedies which will dissolve the Con-
cretion, Evacuation is to be attempted by
Emollients, Emetics, & Cathartics, by which
the Concretion may be expelled into the
Intestines, Dr Shuter has recommended
A Decoction of Madder for the Cure of the
Erythema *tofac*: or Red pimples on the face

Ristorta is a simple and strong Astringent
It has been recommended for the tooth Ach
and for fastning loose teeth, The soundness
of the teeth is owing frequently to the Du-
-rity of the Gums

Ristort and others of this kind, by moderately
astringing the Gums, will preserve them
and consequently the teeth.

Sapothuron

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Lapathum or Dock kind. of these there are various kinds, but their virtues are nearly the same. They have been recommended in the Scurvy, and Cutaneous Eruptions. They have also been employed in the Itch, which has been thought to be owing to a scorbutic habit of body. We now know that the Itch is occasioned by small Insects, called by Linnaeus *Pediculi*, which are the same with those in damaged flowers, and that it is entirely cuticular, and can only be cured by immediate application to the part affected. A Domestic medicine for this purpose is the Lapathum Bruised and infused in milk or Cream for 24 hours and applied externally. This I have seen used with success. Whether the Ring-worm is occasioned in the same manner as the Itch is Doubtful. It may be cured by the expressed juice of Dock. — *Radix Britannica*, one of the dock kind, has been used in the Scurvy, all ill conditioned ulcers, and Cancerous ulcers of the Legs, of which Mr Golden gives an Instance in a gentleman, who after
all

all other means had been tried, was cured by an Indian of an ulcer in his leg, by applying it externally as a fomentation and drinking a Decoction of it. It often happens that after an ulcer is dignified by a Surgeon as Incurable, some old Woman will undertake and perform the Cure

The medicine which they generally use is the Dock, which is possessed of an Acrimony with its Astringency, by which it stimulates the Vessels, and favours the formation of good Pus. the use of it should be persisted in some considerable time

Fedix or Fern kind The male fern has been recommended as an Anthelmintic, Dioscorides employed it for the Tape worm in doses of ℥ss. A certain French Lady obtained a permission from the King for a Cure she proposed for the tape worm, which was found to be the Fern, it has been employed for the Cure of Rickets, and all spasmodic Complaints. It is however only a simple Astringent

Trichomanes

Trichomanes or Maiden Hair This has
 been employed for its Pectoral Virtue
 and has been given in Syrup in Consump-
 tions, But it is now properly enough neglected
Muscus or Lichen kind grows upon barren
 Rocks, & mountains, in Europe, and America.
 I have set it down on account of the
Muscus Pixidatus or Culmosp which has
 been recommended in the Chin Cough by Wil-
 lis a man much Employed in practice,
 but who on account of his exploded theories is
 perhaps not so much studied as he deserves.
 He candidly owns the Chin Cough is a dif-
 ficult case in which the Physician seldom,
 but the old woman often succeeds, The
 Remedy they generally make up of is
 the Cupress, which is a simple Astringent
 without either taste or smell, Other Af-
 stringents have been recommended for
 this purpose, Burton recommends the
 Peru: Bark, but it is generally very dif-
 ficult to make the Child take a sufficient
 Quantity of it. The Chinough is not owing
 to any Perismony in the Mucous, for
 it

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it would then have been known from
the Earliest ages, whereas we find it was not
known in France before the Year 1764, It
was probably first brought into Europe from
Asia & Africa, It is Contagious, and has this in
Common with other Contagious Disorders,
that a person is never Afflicted with it but once

= A Common Catarrh is often mistaken for
the Chincough, but may be known from it
by the following History of the Disease

The Chincough is sometimes Accompanied
with a fever, sometimes not, It comes on by
degrees, and is worse every other day, It is
at first dry, but after 10 or 12 Days an Ex-
=pectoration of Yellow Phlegm ensues, after
this the Disease increases - In the fit the
eyes swim in tears, Blood very often gushes
out of the nose and Ears, the fit continues
untill a Vomiting begins, and if it should
Cease without this Vomiting, it will soon
Return with repeated Violence, After
dinner if the Child is seized with the fit
& Coughing, it turns black in the face
sinks to the ground and is in great danger
of

102 of Suffocating, unless a Vomiting is Excited by
tickling the Uvula and fauces with a feather,
On account of this the Child should never be
left alone — As the Cause of this Disease is
a Contagious Miasmata, we have not yet
discovered any thing by which we can either
prevent or Cure this Disorder. All our attempts
therefore must be to Palliate the Disorder, &
alleviate the Symptoms — When left to
itself it will Continue for 11 or 12 weeks, may
sometimes for six Months, and the Children
generally in this Case are thrown into other
Disorders, some are Cur'd of by a hectic fever,
others are Afflicted with an Haemoptoe, this
Disease is certainly of a Convulsive and Spas-
modic Nature, If the Child is of a Robust
habit of Body, bleeding will be necessary, and
Emetics may be given on those days on which
they find themselves better. In the begin-
ning we should Employ musk, Campho: and
other Antispasmodic, When the Inflammation is
gone, and the Disease is become regular we
may give the bark, in Case the Child will
not take a sufficient quantity of it, the
Cuscuta, or some other Vegetable Astringent
may be given. —

If the disease is not cured by these means, a
Change of air becomes absolutely Necessary —
and it often happens that the disease is
Cured by Changing the Air, even for a week or more

Lect 17th. 1785

All the unripe and Aerb fruits may be
recoed Astringents, It is of no consequence
which we use, as the Virtues of all are near-
ly the same — Of these the Sloe or
Duna Sylvestris is equal to any of the
others, The best method of preparing it is
by making a Rob, like elder Rob.

In Dysentery such medicines may be used
with success, as they are moderately Ape-
-tringent, and at the same time Correct
Putrefaction. The Sloe may be employe
in it to advantage, for by its Astringency
it lessens tone to the Intestines, and also
Corrects the morbid matter, and obviates
the putrid tendency — The Aerb fruits
are not so liable to an active fermentation
as the Sweet, An Infusion of the leaves of
the Sloe has been recommended as a
Gargle

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Gargle in Spongy & ulcered Gums, and also
in the Angina when owing to Relaxation
Berberis is an Astringent of a gratefull
taste. It may be given either in Juice, Sy-
-rup, or Jelly. It is usefull wherever there
is a Disposition to putrefaction, Especially
in all fevers, Dysenteries, and Cholerae,
attended with it. Van Swieten recommends
the Inner bark as an Hydragoga
Succus Raciae & Hypocistis are hardly
known at present, They are simple and
pure Astringents, and possess no virtues
to render them preferable to the others
Catechu This is very improperly called an
Earth, as it is a Vegetable Exsiccated Juice
prepared from the fruit of the Achea Palm
Tree, It is an astringent of considerable
efficacy. It has no smell, and rather an
agreeable taste, It is serviceable in laxity
of the Gums, also in Diarrhoea, and some
Dysenteries. It is the strongest and most
powerfull vegetable Astringent, The
Dose is from ℥ss to ℥i

Scorz

Sanguis Draconis has at all times been considered as a powerfull Medicine in checking Hamorrhages, probably from its being of a Red Colour, for we find it is not possessed of any Astringency, and does not deserve a place in Medicine, its only use is to form Alum into pills.

Hypericum formerly was much esteemed in Medicine, By its taste it appears to be an Astringent, It contains a large quantity of an Essential Oil, in small Cells, It is a powerfull diuretic. The Oil has been recommended in Epileptic, and Maniac Cases, but here I do not understand how it acts, tho' there are Testimonies of its virtues in those Cases.

Lysimachia Has been recommended by De Haen in Dysenteries, given in the Dose of ʒi morning & evening, He says it cured a recent Dysentery in three Days, and an old one in three Weeks, This medicine seems to be best in old Dysenteries — With regard to the use of Astringents in Dysenteries Physicians do not agree, the Difference in Opinion seems

to arise from their confounding the Acute and Chronic Dysenteries, which however are Different. The acute is always attended with a fever and evident signs of Putrefaction in the Bowels. Its Course is generally not longer than a week or two. The Chronic is not attended with a fever, tho' sometimes with a symptomatic one but this very rarely, it lasts for several months without any evident signs of Putrefaction, these Disorders are to be treated in a Different manner, The acute is to be treated as a putrid Malignant fever, with diluent and Acid drinks, gentle laxatives, and Anodynes at night, which not only take of the Irritability of the Intestines, and the Tenesmus, but also cause a gentle Evacuation by the Skin, Especially when Combined with Opacac. or Tart. Emet. which Increase the Diaphoretic Virtue, In the Chronic we should first Endeavour to restore the Detention of the fluids to the Skin, In this Anodynes are hurtfull, as the weaker and Relax the Intestines, which are already too much weakened, In this gentle Purgatives combined with gentle purgatives may

be upfull, by ^{to} letting loose to the ¹¹³ Intestines, and
Evacuating at the same time the morbid matter,
Astringents are very hurtfull in the Acute
Dysentery

Plantago is a weak Astringent, it has however
been employed in decoction for stopping haemorrhages
Dr. Clark says he has seen haemorrhages suppressed
by this, which would not yield to seemingly more
powerfull Astringents, In Infusion it has been
employed for the fluxus Albus, Celsus recommends
a decoction of the leaves for Consumptions

Boyle has observed similar effects from the Car-
scape juice, - In this Country it is very often
used for the bite of a Rattle Snake, and other
serpents, it is used in decoction, and drunk plen-
tifully, while at the same time the wound is
fomented with it, With regard to the bites of
serpents we may observe that if the bite
is made in a Vein, so that the Venom is
Immediately conveyed into the blood, there is
no cure, When the bite is in a Muscular part
there is not so much danger, and it may be
cured by a fomentation of warm water as
well as any thing else, The danger consists
entirely in the mixture of the Venom with
the Blood,

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If the poison has been taken into the Stomach,
and afterwards mixed with the blood it is harm-
less. Rhedi; gives us an instance of a gentleman
who swallowed a glass of Viper's poison before
the Emperor Maximilian, without receiving
any bad effects from it. The people of Asia
and Africa, when bit by a serpent, sticks out
the Venom, and never are hurt by it, unless they
have sores in their Mouths by which it may
be carried into the Blood —

Polygonatum The flowers, leaves, and berries
of this, are of a very acid, and even poisonous
nature — The Root is remarkably mucilagi-
-nous, with Astringency. The Root is used
with success in haemorrhoidal swellings and
bleedings. The Dose is ℥ss boiled in milk ℥ij
to ℥ss and taken at once in the Evening —

When this Evacuation is Critical Astringents
are improper. But it is sometimes owing
to a habit of Softness, by which the Blood
being prevented from returning to the Heart, is
poured ^{out} into the Cellular membrane and
there forms Echyemeses, which are kept
up by laxity. Here after we have removed
the Softness, Astringents will be very proper,
When

When the disease is become habitual, it will be dangerous to check it when it appears but we may prevent the return thereof by a moderate use of Astringents, without any bad effects.

Sedum is a moderate astringent combine with a mucilaginous quality. Boerhaave says 3X of the expressed juice has cured the Dysentery. Boyle recommends it in the Aphthae in Children. It is very usefull in all Inflammations of the mouth and fauces, A Poultice of the leaves has been used in burns and Scalds. The expressed juice of it is recommended to take of films in the Eyes. A poultice of the leaves is used for the cure of Corns. Some have sought a Relief for these in Acid Substances, but this is very improper, for we know no Cure for Corns, but such as by obviating the hardness of the neighbouring part, will dispose the Cure to fall out. and in this intention the Sedum answers remarkably well.

Urtica when young is employed in Food. A Decoction of it is said to Cure the piles.

An infusion of the leaves, is employed in Consumptions. The juice has been used in Haemoptoe. A Remarkable property of the nettle, is that when struck against any part, it excites an Inflammation, and burning, in that part. On this account it has been employed in torpid and Paralytic Affections of the limbs, to Excite the muscular motion. This by Physicians is called Urtication.

Viscus Quercus has always been famous for the Cure of the Epilepsy. When this is owing to Irritability & Mobility, it may be cured by the use of Astringents, and in this Case the Mistletoe may be very usefull, as it changes the Constitution gradually by its Astringency - It is no matter from what tree we take it, for the Virtues are precisely the same in all. The Virtue resides chiefly in the Bark, the Dose is from ℥ss to ℥j in Substance twice a Day

Uva Ursi a species of Arbutus This has been employed in all Calculous Concretions and other disorders of the Kidneys & Bladder. It was first recommended by Linnæus, & after him by Dr De Haan. He says it

6. does not Dissolve the Stone, but mitigates the ^{pains},
Enables the patients to retain their urine,
and Changes the bad State thereof. He says
it also Cures all Suppurations of the urinary
passages, when they are not Venereal. It re-
-lieves the pains arising from the Stone, tho'
Does not Change the Stone in the least. Some-
-times it entirely removes the pains, at
other times it renders them Tolerable —

De Haage's dose is ℥ss in Powder 2 or 3 times
a day. — Frequently when the urine was
fetid, purulent, acid, and so highly Alka-
-lescent, as to Change the Syrup of Violets
Green, by the use of the *Ura Viffi* it was
brought back to its natural Colour & State.

The Symptoms attending the Stone are
not so much owing to the size and weight
of the Stone, as to the bad State of the urine
accompanying it, for we find that persons
sometimes have Calculi of a considerable
Magnitude, without feeling any Incon-
-venience from them, and at other times
persons are afflicted with all the pains
attending the Stone, without having any
Stone in the Kidneys or Bladder. When

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When the urine is fetid, purulent, Acid, and Alkaline, the use of the uva ursi is very proper. It acts probably by its astringency, restoring the tone to the secretory Organ, and enabling it to secrete a healthy fluid — It is probable that all the most famous Lithontriptics, and even lime water, act by their astringent Quality, for we frequently find Lime-water Relieve the symptoms without Changing the Stone, I have seen the Uva Ursi tried in three different Cases, In two it gave no relief but rather increased the symptoms, In one it gave relief, but the pains returned in a very short time, It is Probable that the relief which was given, in some Cases which De Haen gives, was rather owing to the Regimen Described than to the medicine, for we find that the symptoms returned when the Persons left the Hospital, and were relieved soon after they came in —

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The next Particular Astringents we are to treat of are, *Cortex Granatorum* & *Quercus*. which are strong and simple Astringents, as they are cheap and easily procured, we may apply them in External applications, as in the Proidentia Ani, in Children, the fomentation must be Cold, for when used warm it will relax as much on the one hand, as the medicines will astringe on the other, An Infusion of the Pomegranate, gives us an agreeable Gargle, in a Relaxation of the Throat.

Cortex Simarouba was first brought into Europe in 1713 from Guinea where it is highly esteemed for the Cure of the Dysentery. It was employed in France in an Epidemic Dysentery in 1740 with very great success, I employed it once with success in a Dysentery that would yield to nothing else, It was proposed as no Astringent quality. When given it excites Nausea, Vomiting and a Diaphoresis. It is of use principally in Chronic Dysenteries; The

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The Dose is ℥ij Boiled in ℔ij of water
to ℔ij and the Remainder divided into 4 Doses,
one of which is to be taken every 2 hours,
Its Virtue Arises from its Astringent quality,
restoring the Determination of the fluids
to the Skin, which is of great Consequence
in the Dysentery.

Logwood is a weak Astringent, Insoluble
in our fluids, In decoction and Extract it is
much Inferior to other Astringents, from
all which I think it may justly be Ne-
glected.

Galls are Excrencies on trees arising from
the Puncture of Insects to lay their Eggs, In
practice we confine ourselves to those of the
Oak, and get them from foreign Countries—
Their Astringency is evident from their Be-
ing preferred for the making of Ink—
They are remarkable for giving out their
virtue in solution more copiously than
any other Vegetable Astringent, They may
therefore be used in External applications,
as in the Procidencia ani in Children, They
should always be applied Cold, for the Rea-
son Above, Galls and Gentian, have cured In-
termittants, which would not yield over
to the bark.

Tungus Melitensis is a substance not known in our Shops, Linnaeus recommends it in haemorrhages, especially those of the Uterus, It is thought peculiar to the Island of Malta, but Dr Brown describes it as found in Jamaica, in his Natural History of that Island, He recommends it in all kinds of Haemorrhages in Doses from ℥ij to ℥ij to be repeated at proper Intervals, untill the effect is Produced, I have now finished Particular Astri-
-gents, and shall mention some general terms, which tho' they are not Astri-
-gents, may occasionally act as such.

1st Acids, Applied to the tongue they contract, and Corrugate the parts, The virtues of the Fossile acids are similar, and they differ only in Degree, There is a Difference between the Vegetable and Fossile, The Ve-
-getable in Opposition to the Fossile, is lia-
-ble to ferment in the Furnace Via, and to have its Acid nature Changed before it enters the Blood, The fossile Stimu-
-late the organs of Secretion, which the Vegetable cannot do, unless given in large
large

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Large quantities, There is also a difference
between the Vegetable Acids, The native
have both the Vinous, and Acetous, fermenta-
-tions to go through, and are therefore
more, liable to be changed than the
fermented. The fopile Acids are very
proper in Hemorrhages, Especially
when attended with Fever, as besides
there astringent quality, they are posse-
-sed of a Sedative Virtue, by which they
diminish the Impetus of the Blood.

2nd Austere Wines act by their Acidity, They
are liable to the same objections, with the Na-
-tive Vegetable Acid, as they have generally
undergone the Vinous fermentation but im-
-perfectly, and have still the Acetous to undergo,
By stewing them their Acidity is encreased
and they are rendered less liable to ferment,
They may serve very well as Vehicles, When
a Choice of wines is to be made, the Austere
wines are to be Preferred in some Cases, as
were we want an Antiseptic fluid, as in
the Dysenteric Cases wines are very proper,
that they are not Astringent, but when
given

given in large quantities, generally prove
 laxative,

3rd ~~Acrid~~ Bitters, When evacuations are
 owing to relaxation, may by giving a
 temporary tone to the part act as astringents,

4th Relatives may act as astringents, in stop-
 ping evacuations, when owing to irritation,
 and Spasms, by taking it off, and by diminish-
 -ing the impetus of the fluids.

5th Balsamics are reckoned astringent from
 their use in increased discharges of the Ure-
 -thral passages, as in Gleet, Gonorrhoea &c.

When given in large doses they prove lax-
 -ative, so that they cannot be with propriety
 reckoned astringent, I conceive they act in
 Gleet &c. much in the same manner as
 Cantharides, by inflaming the urinary pas-
 -sages, to which they have a natural tendency.

6th Caustics are not astringents, by this
 term we mean such substances as absorb
 moisture on the surface of the skin—
 For this purpose every dry powder may be
 employed, Powder of Chalk, Boles, and Clays,
 have been used, but these form a hard

Crust

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Cruft with the Mucus, Oatmeal is the beft
as it abforbs the Mucus better, and is not
fo apt to harden, Exiccants may be Em-
ployed, when perfpiration is fo encreafed as
to become Difagreeable, Here it would be
improper and even Dangerous, to Check the
Evacuation by Afttringents, but Exiccants
will remove the Difagreeablenes, without
obftructing the Perfpiration, They are Em-
ployed in Triffypiles, an affection of the Rete Mucofum,
where they do not act by Repelling, but by
abforbing the Acid Mucus, which caufes
the Difcafe to fpread over the Neighbouring
parts, When this diforder is confined to the
Extremities, there is not much Danger, but
when it attacks the Head, Face, and Breaft,
it is oftentimes dangerous, In it Repellents
are not to be ufed, left they fhould throw
it on fome of the Vifcera, and caufe it to prove
fatal, Oatmeal may be ufed to abforb the
moifture, which doth ever beft when Ap-
plied in a Cloth

We have now finifhed Afttringents, and
will take a Short review of what we
have Concerning them

We

We observed that astringents where such Substances as increased the Cohesion of the Solid Fibres

We observed that they acted on the Nervous system, which is evident from there producing their effects in a much shorter time, then possibly could happen by means of the Circulation

We found that astringents where indicated

1st In laxity of the Simple Solids, This we observed was generally a Constitutional defect, It may be produced by the too long application of Emollients to any particular part, in the Nicks, and where the parts have been

Overstretched, 2nd In debility of the moving fibres,

3rd In increased action of the Solids, when owing to Irritability, 4th In increased Evacuations of Blood, The Causes of these may be referred con-

-sider three heads, 1st Debility, and Relaxation, 2nd Mobility, & Irritability, 3rd Increased Action of the Heart and Arteries, In the two former

Astringents may be useful, in the latter they are hurtfull, We should always employ the least Stimulating Astringents

as Alum, When we exhibit them to prevent the Return of Hemorrhages, we should employ the weak Vegetable ones

————— 5

5. In ulcers, to bring on that degree of Inflammation, which is necessary for the formation of good Pus, 6. In particular kinds of Inflammations, they we find might be owing as well to Debility of the Vessels, as to their strength, In the former Astringents are proper, in the latter not

As the stopping of Hemorrhages, bears such a Considerable share in the use of Astringents we will here consider Hemorrhages, with their Causes, and method of Cure

A Hemorrhage is an Evacuation of pure blood, from the Vessels of a living body, Stahl and his followers Divided them into Active & Passive. The latter is always owing to some External and Violent Cause, the active is owing to an increased Action of the Vessels, which is owing to Internal Causes, The Active is either Ordinary or Extraordinary, The ordinary, is when blood Comes from a part usually subject to Hemorrhages, as the Nose, Lungs, Uterus, &c, The Extraordinary, is when it Comes from parts, from which it does not naturally issue, as the inner angle of the Eye, tip of the finger &c

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The active are also divided into the Natural and Picternatural, The Active ordinary, Natural occur only in Females, as in the Menfes, and Lochie, which are never called Hemorrhages, unless they are Incessant

The Active ordinary, Picternatural are always morbid Affections, Those of a Sanguinous temperament, are Subject to Hemorrhages, especially of the Lungs, hence these frequently die Consumptive, Those of a Sanguine, melancholy temperament, and such as lead an Indolent high life, are also Subject to them, Such as have watery Excretions, and Breakings, out in the Head when young, are frequently troubled with Hemorrhages, when old, Particular Seasons of the Year Contribute to Hemorrhages, they are more frequent about the Vernal, and Autumnal Equinoxes, They happen at every period of life, In Boys generally from the Age, from 10 to 13 years of Age, Men are more troubled with Hemoptoeis than Women, from the 10th to the 35 year of Age Women are sometimes seized with a Vomiting of Blood, generally upon the Suppression of their

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Their Menfes, tho' sometimes not, Pregnant
women are sometimes troubled with this,
The piles are Hemorrhages, which seldom ap-
pear, before the Vigour of the Body is gone off,
about the 36th Year, A melancholy temper-
-ement produces Hemorrhages, often the
Piles, men being of a more Roracious turn of
mind than women, are more Subject to them,
Women are sometimes troubled with the piles
During Pregnancy, — Women during Preg-
-nancy are subject to a Hemorrhage from
the uterus, The Hematuria, never attacks
women and seldom men, before the 60th Year
When owing to External Violence, or stones in
the Bladder or Kidneys, it is to be considered as
Passive, — A Hemorrhage sometimes comes
on suddenly, but generally it is preceded by
by the following symptoms.

Lect^o

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The symptoms generally preceding Hamorrhages, are, A sense of fulness and tension, pain about the part from which the Hamorrhage is to issue, The natural Excretions are Diminished a pale limpid dry skin, Diminished Perspiration, If the person has any ulcers, they become staltis, and Discharge little or no Pus, A Lapsitude, and an Aversion to motion, A Colic of the Intestines, wind, and borborygmi, in the Intestines, Horripilation, pains in the back, and Loins, often a Dimness of Sight, and paleness of the Countenance, The Tension increases untill the Hamorrhage breaks forth, upon the cessation of the Hamorrhage all the symptoms, Termit, It frequently becomes Periodical, and returns Daily, Monthly, Yearly &c. The Predisposing Causes are Various, the Antecedent may be refered to two Heads, 1st Such things as suddenly increase the Circulation, as Violent bodily Exercise, strong impressions on the organs of sense, External heat, the Hot Spit of a fever &c

2nd

2nd A Partial Plethora, which Precedes Al-
-most every Hemorrhage, It is owing to
a Congestion in the Vessels, this Congestion
is Caused by a general Plethora.

The Causes of general Plethora may be Re-
-duced under 3 Heads; 1st it is owing to
an Increase of Nourishment, while the
Evacuations Continue the same, for as
there is more taken in than there is Car-
-ried off, the Equilibrium will be Destroyed,
So this head may be refered a large
Quantity of Animal food, Especially
when attended with Indolence.

2nd A Diminution of the Excretions
whilst the nourishment is the same,
Here we must Consider the Quality rather
than the quantity of the Aliment—
Thus Animal food being less Perspirable
than Vegetable, will be more likely to
produce plethora than the same Quan-
-tity of Vegetable food, and Oysters, and fish,
which are the least Perspirable, will
most readily Occasion it.

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The food of young Animals has the like effects, A want of Exercise, may also be become a Cause under this Head, for without the fluids are not driven on with sufficient strength, and hence Congestions are formed in the Vessels, and the Perspiration is checked, which is also occasioned from the Cold and moisture of the Atmosphere

3^{rdly} A Suppression of usual Evacuations, to this may be refered, an advanced period of life, for on this we find the Evacuation by the Skin is suppressed, and Inwardly the Menstrua, A Plethora may arise from a Diminution of the Body, as the Loss of a Limb, for by this the blood which was formerly carried to that part, is carried into others, hence we often find Haemorrhages arise from the Loss of a Limb, A Partial plethora may be occasioned, without a general, An Increased Distribution of fluids to a particular part, this may arise from, 1st The growth of the Body, Thus before Puberty we observe haemorrhages

mff

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most frequently from the Nose, arising from
the head ceasing to grow, and the same Quan-
-tity of Blood still Derived to it, During
-mankhood we most commonly observe the
-menhages from the lungs, In old people
the perspiration being suppressed, the
fluid is Derived to the Kidneys, hence in
old people the discharge by urine is greatest
and frequently haematuria, In young
people we observe the Arterious, in old the
Venous. All these, This arises from the Differ-
-rent strength of the Arteries, When young
they are weak and lax, but when we become
Rigid, and are endued with greater strength,
hence they propell the fluids into the Veins,
2^{dly} The situation and Conformation of the
body, Thus a wrong Conformation of the Thorax
which is known by high Shoulders, long
neck, and narrow Chest, will often Occa-
-sion haemoptoisis, for here the lungs are
smaller, and as the same quantity of fluid
must pass thro' them in a given time,
as thro' the whole body, it will be more
apt to form Congestions, A Seditary life
will produce piles.

133.
A debility of a particular part, will conti-
-nue very much to haemorrhages of that
part, for as the Vessels in that place relax
they will not be able to resist the impe-
-tus of the blood, hence Congestions will be form'd,
3. ^{rdly} Local, and partial Stimuli derive a greater
quantity of fluid into the part to which they
are apply'd, then it commonly receives, hence
this head may be reckon'd Calculous Concreti-
-ons in the urinary passages, and hardened
foces in the Rectum, the first produce Ha-
-maturia, the latter Haemorrhoids; Haemorrhages
from the Uterus are often Occasion'd by part
of the Placenta remaining and acting
as a Stimulus

4th Substances taken into the body, which
have a tendency to any particular part
will often Occasion Haemorrhages, thus Ales
often produce the piles, and Diuretics often
bring on bloody urine, and Discharges
from the uterus in Pregnant Women
Emetics, will often Occasion vomitings of
blood, when strong and us'd frequently

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5th An increased action of any particular part, will also occasion Hemorrhages from that part, by producing too great a Determination of fluids to it, Thus we find Hemoptoe, most generally arises from a violent Exertion of the Lungs, in Declaiming, Singing &c. And we find women who use Copulation too frequently, are subject to Hematuria
- 6th Suppression of Evacuations, as Checking the Perspiration, Suppressing issues &c. occasions Hemorrhages, by destroying the balance and Equilibrium, so necessary to our bodies —
- 7th Whatever prevents the return of the blood thro' the Veins to the Heart may occasion Hemorrhages, Hence hardened faces in the Aethiops, Cause the piles, by compressing the Veins,
- 8th Infarctions of the Uterus, are another Cause of Hemorrhages, for they prevent the same quantity of Blood, from returning to the heart, hence Regurgitation takes place and the Equilibrium is Destroyed —
- 9th Spasmodic Constrictions of the Extremities often occasion Hemorrhages, and whatever causes Spasms, as Cold & moisture

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of the Air, Distressing Sensations of the mind
as Grief, fear &c, which often occasion piles,
Habit contributes, to continue hemorrhages
how this happens is to us a mystery, but we
know, that habit has a great share in
this as well as many other Disorders

The Proximate Cause is a Rupture of Vessels
or their Anastomosis, This may be owing
1st to Increased Circulation, 2^d to a topical
Plethora, Partial plethora acting as a sti-
-mulus, is not sufficient to produce plethora
it is generally accompanied with Spasm
How a rupture of Vessels can be produced by
plethora, is Difficult to Determine, All
that can be said on this head is but Conjec-
-tural, What to me appears Probable is
that our frame is so admirably Constructed
-ed, as to remove any Obstructions formed,
In this purpose nature will make use
even of the most Dangerous Expedients
Hemorrhages are always at hand to assist
her — The Cure of Hemorrhages must
be adapted to the Cause producing it

J—

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If it is owing to a Calculous in the urinary passages, the Cure is to be performed by taking away the Calculous, If during Pregnancy a Hemorrhage arises from the fetus stimulating the Uterus, we must deliver the Woman

Lect^r the 20th

Independant of the Cause, the Cure of Hamorrhages rests upon three Indications, 1st To diminish the Action of the heart and Arteries, and to divert the blood from the part, the first part is to be done by the Antiphlogistic Method, that is bleeding, gentle Laxatives, Cooling Drinks, Spare Diet, and an absence from light and Noise, To divert the blood from the part we commonly employ Diaphoretics, Combined with Opium,

Draughts of Cold water, or water impregnated with Acids, Clysters of pure Cold water, Blesters, Cupping, warm Pediluvia, will all tend to divert the Blood from the part

2nd To give Constriction to the ruptured Vessels

3rd To prevent the Return of the Hamorrhages, For both these purposes Astringents are commonly employed.

These

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These as we said before are of two kinds, *Fossile*,
and *Vegetable*,—As the *fossile* are more *Tuiden* and
strong in their operations, they are chiefly
to be relied upon in any *Emergency*, Those
commonly used are the Preparations of *Lead*,
and *Iron*, *Alum* when is also used with suc-
-cess in *hemorrhages* of the *Uterus*; When
the *hemorrhage* is owing to *encreased Ac-*
-tion of the *Heart* and *Arteries*, *Astringents*
should not be used until their action
is *diminifed*,—When owing to *Relaxation*,
and *Irritability*, *astringents* are proper—
when owing to *Irritability*, we should *Com-*
-bine *Opium* with the *Astringents*,—
Cold may act as an *Astringent*, in *External*
topical Applications, Thus *Cold water* or
Vinegar, applied to the *fore-Head* or *private*
parts, will suppress a *Hemorrhage* from
the *Nose*, *Astringents* are also of service
in *External Applications*, Thus an *Infusion*
of the *Bark*, will check an *Immoderate Dis-*
-charge of the *Piles*, To prevent the *return*
of the *Hemorrhage*, the person should keep
from the *Occasional Causes*, *Bleeding* has
been recommended, but it should always
be

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be in small quantities, Topical bleeding
may be very serviceable, We should to
prevent the return, also use the weaker
Vegetable Astringents in small doses —

Emollientia are such substances as relax
the Rigidity of the Solids, diminish their Cohe-
-sion, and introduce a larger quantity of moisture,
All Substances containing mucilage, Oil, or Wa-
-ter, are Emollients, Warm water will answer
every intention of emollients, Of the Particu-
-lar Emollients.

Radix Althaea is equal to any other, it may
be applied Externally, in Swellings & Inflamm-
-ation, As a Poultice, it is also used Internally,
An infusion of ℥j of the Root, in ℔ij of water
is of great Service in Acrimony of the fauces,
This is also Excellent in Chronic Dysenteries,
with Pains, and Gripings, Supplying the natural
mucus, of the Intestines, which in this dis-
-order is Abraded, A Decoction of it is employ-
-ed in Nephritic Cases, The Decoction is very
proper in violent purging Occasioned by
two severe Cathartics, acting as a Demulcent,
The Root boiled in Red wine, makes an
Excellent brush for the teeth, to preserve
and

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and keep them Clean, The root may be given to Children to Chew, when teething — and is Preferable to those Substances Commonly given, Applied Externally, it takes of the Pain arising from Blisters, and the Decoction drunk plentifully, will prevent the Stranguary, which often arises from the use of Blisters, — Applied Externally it mitigates inflammation, maturates Abscesses, and removes pain arising from them Linseed may be employed, in the same Disorders as the Althaea, Linseed Tea is of great Service in arid Urine, Nephritic pains, Coughs, Pleurisy, and all Inflammations, The meal is sometimes employed in Poultices, to Relax, maturate, and take off pains, The oil is not so apt to turn rancid as other oils, It is used Internally, and in Clysters, in Calculous Cases, and the Nephritic Colic.

Gum Arabic & Tragacanth Possess nearly the same Virtues, and indeed the Virtues of all the Emollients are so much alike, that we must determine

the

¹¹⁴⁰
The use of one in Preference to another nearly
from Convenience, Probably for Internal use, Sage,
and Salsp, will answer every good purpose
and for External the Tannacea, if there be
a Poultice of Bread and Milk, is perhaps equal
to any of the more Compounds, Especially
if oil or Tard, be added to keep it moist, and
to prevent the fissures of the Skin, which
often arise from the application of Emollients,
I said above that all Substances containing
water, oil, or mucilage, were Emollients
and that warm water would answer every
Intention to which any of the others might
be applied, this naturally leads us to the
Consideration of the Hot Bath The Ef-
fects of this are not simply emollient, they
are also Antispasmodic, and may also prove
Stimulant, The use of it was introduced in
Early times, in warm Countries, In Greece, and
Rome, it was not only used as fashionable,
but also as a Cure for many Disorders, In
the warm Countries it may be used with
advantage daily, In the Cold Countries its daily
use does not answer so well, But in these
it may be employed with considerable
advantage.

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Advantage in Medicine, We will therefore
treat as fully of it, as the Nature of the Sub-
ject will allow, — In the first place we will
consider its effects, and the manner of Opera-
tion — By a Hot Bath or Balneum, is
commonly meant, a Submersion of the Body
in warm water, We do not take it in this
limited Sense, but mean the application of
warm water to the Body in any manner —
There may be two kinds, Simple, and Impreg-
-nated waters, — We will here treat of the Ef-
-fects of simple water, as those of the Impreg-
-nated, are nearly the same —

The effects, of Hot Baths are owing to heat, and
moisture, We shall first consider these Sepa-
-rately, from which their effects when joined
together may be known —

Water dissolves the mucus with which the
skin is naturally supplied, and washes off
all uncleanness adhering to it, It opens
and distends the pores, increases the Perpi-
-ration, and prevents all diseases arising
from an obstructed Perpiration, It takes
off also the Acrimony of the Skin, which
causes diseases, It is evident that these
effects

¹⁴²
Effects must be more considerable from
warm water than Cold, It also softens and re-
laxs the Cuticle, Its effects are not confined
to the surface of the body, for it penetrates
the Scarf Skin, and Relaxes the Nerves
under the Skin, which are expanded all over
the Body, It has even been supposed to
penetrate the Skin and Muscles, and to
relax the internal parts as ligaments &c.
but this appears rather improbable, It
may however be taken up by the Absorb-
ents, and Carried into the internal parts, and
thus Relax them, By passing the Lympha-
tics, it dilutes the fluids, washes away
Acrimony and prevents Obstructions, The
warm bath has been found to have good
Effects in fevers

The effects of heat upon the body are very
considerable, these effects are proportional to the
different degrees of heat, The Common heat
of Baths, is from 80 to 112 Degrees of Fah-
renheit's Thermometer, If below no
considerable effects can be produced, and
if above 112, the use of the Bath cannot
be

be continued but a short time without pain,¹⁷⁵
Heat rarifies and expands the fluids,
mollifies the Solids, relaxes the Cuticle, and
nerves, which by sympathy produce an
universal relaxation over the Body, When
long supplied it proves a powerfull Stimu-
-lus, We may on many accounts sup-
-pose that Heat is the Stimulus to our
Body, After a person has remained a long
time in the warm bath, we find the
veins become tumid, this is owing to
the heat expanding the fluids, and re-
-laxing the Solids, and by acting as a Stim-
-ulus, Deriving a greater flow of fluids
into them - We now proceed to speak
of the Diseases, in which the Hot bath
is usefull.

By deturging and preventing Lentor, by
washing away Acrimony, and relaxing
the Skin, it staves of Obstructions, and
prevents Congestion, it is therefore good
in all diseases of the Skin and Cuticle
As it increases the Insensible perspi-
-ration, it will remove diseases arising
from obstructed Perspiration, as the
Dysentery

¹⁴⁴
Dysentery, Diarrhoea, and Colic, Many Dis-
orders tho' not owing to obstructed perspi-
ration, yet are kept up by it, these it
will remove, by its Relaxing, and De-
terging quality, It will by this means
prevent diseases arising from vitiated humours
as the Scurvy, which Might probably be pre-
vented, by the daily use of the Hot Bath

Many disorders are owing to Contagious Miasmata
taken into the body, by increasing the Perspi-
ration it will carry off these miasmata, and
thus be of service in all Contagious Diseases, as
the Pox, which tho' it will not cure of itself, yet
it will tender the Cure of it much easier to
other Remedies, It renders the body very sus-
ceptible of Cold, and therefore the use of it, is
much better in warm Climates than Cold, but
even in the warm Climates it is dangerous to
Expose the body to the air after Bathing, and
the Cold is to be avoided. Galen

It takes off all obstructions in the Skin, and
Cuticle, and is therefore useful in Phlegmons, and
all kinds of Inflammation, except the Erysipelas,
By its increasing the Circulation of the Blood
and promoting the Influx of the Nervous

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Power, it will be of use in Atrophy, On these
Accounts also it may be of service in Par-
tial Palsies, and even in an Hemiplegie, when
not owing to a Congestion of Blood in the
Brain, As it extends its effects over the whole
System, it will be serviceable in rigid Ten-
=sons and Ligaments and in Contortions, It
may also be of service in Contractions of
the fingers and toes, by promoting the In-
=flux of the Nervous power into the Extensor
muscles, and Enabling them to overcome the
Tuzid flexores, — The Hot Bath extends its
effects to the Stomach and Intestines, It will
therefore frequently remove spasmodic Constrictions
of the Uterus, As Colic which will
often yield to this when nothing Else will
relieve them, As there is a Consent between
the Kidneys and the Skin, by increasing the
Perspiration, by the Hot Bath will take off
Spasm in the Kidneys, and will often relieve
the pains arising from Asthma in the Uterus —
It is a most Efficacious Remedy, in the Hyster-
=ic and Hypochondriac Diseases, It mitigates
Spasm in every part; Its effects are not
Confined

confined merely to the muscular, but are extended also to the Circular parts, It is also used in fevers, We will therefore in the next place speak of its utility in these Cases

Lecture the 21th

The warm bath was much employed by the Ancients in fevers, amongst the Moderns D^r Gilchrist strongly recommends it, and gives us several instances in which it was used with surprising Advantage

It takes off Spasm, renders the Circulation Equable, Causes a Derivation of the fluids from the Head, It causes drowsiness, and disposes to Sleep, it also promotes the insensible perspiration

Part of the water being taken up by the Absorbents, it will act both as a Diluent and Attenuant, Pediluvia are of great advantage in topical affections of the brain, Delirium, and Subjunctus Tendinum, deriving the fluids from the Head and Brain

Pediluvia are useful in Colic of the feet which they relieve by increasing the Circulation in them

Determining

1147

Determining a greater Quantity of Blood to
them, and Increasing the Perspiration —

In fevers Persons sometimes Void large quan-
-tity of pale limpid urine, This is generally
A sign of an Approaching Detecum —

Podiviva will relieve this Symptom, It
has been Common in this Case to Cut up
animals alive, and apply them to the soles
of the feet, They act only as warm water
by heat and moisture, and the water
ought to have a preference to this and
-y other, This likewise favours much of
Rucelty, and ought not to be used on that
account — Heat and moisture when Com-
-bined prove powerfull Emollients, they
are also highly Antispasmodic, The Hot
bath is not always to be used in Inflamma-
-tory Cases, It is hurtfull in Topical Inflam-
-mations, as it proves a Stimulus under
some Circumstances — Wherever fevers
is owing to Debility, the hot Bath is
very usefull, It is Particularly usefull in
Nervous Fevers, and such fevers as depend
on universal Spasm, where we want a
moderate Stimulus combined with an
Antispasmodic

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Antispasmodic— After Child Birth, women are
Sometimes very restless, Here Opium is general-
ly given, and we cannot certainly make use
of a better Remedy in some Cases, but it some-
times proves Ineffectual, and in these Cases
the warm Bath will generally be of Service,
The Bath is generally applied to the lower
Extremities, and with Propriety both for
Convenience and Advantage, for the Spasm
is generally strongest in the feet, as they
are the most remote from the Heart, and it
may also be applied with more safety—
Where the patient cannot be moved we must
employ fomentation, This is best done by
Blankets dipt in warm water, We should
during the application take care not to wet
the Bed clothes, least the patient should take
Cold, The application may be continued for
a half hour, hour or more, as the Case re-
quires— Warm Pediluvia causes a derivation
and Revulsion from the Head, they are for
this Reason employed to preserve the Head
and face in the Small Pox, Care should be
taken in this Case not to let the patient
sit too long in the water, least by its
stimulus

Stimulus it should raise the Pulse and quicken the Circulation, and thus prove the means of producing a more plentiful Eruption. The patient also should avoid keeping his face over the water, least by relaxing that part a greater number should break out than otherwise would.

By taking of the Rigidity and tension of the part to which it is applied, it will communicate its effects to those parts which sympathize with it, hence warm bathing appears proper to promote Menstruation and hence we find it used in Suppressed Menstr. and Piles. As the warm Bath by its stimulus determines a greater flow of Blood to the part to which it is applied, it will take it off from other parts, When there is too great a Determination of Blood to the Head, Pediluvia will take it off and carry it to the feet, and hence will be of service in Delirium, Lethargy &c. Many however have objected to their use in this Case, on account of their stimulus, but this is a weak objection, for their effects as Stimuli are not certainly extended to the whole System.

As

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As some part of the water is Absorb'd, it will
pass the Lymphatic Vessels and Glands, and
wash away Acrimony, Dilute Viscidity, and
take of Obstructions in, and Clean the Glands,
Hence it is of use in the Scrophule, which is
a Disease of the Lymphatic vessels and Glands,
By a bath made of Broths or other Nourish-
ing substances, persons have been sustained
in Cases where Deglutition was obstructed —
The warm Bath has of late been much more
used than formerly, The Able Dr Nutcrack
in his Travels to Siberia observed that the
people used it in that Cold Climate for all
Diseases arising from obstructed Respiration
with great success, and with a degree of Heat
very great, — Experiments were after this
made in France, & England, to determine the
Degree of heat, which the Human frame
might bear, It was found by some Gentle-
men at London, that they could remain in
a Room heated to 210 Degrees of Fahrenheit's
Thermometer, 7/8 Minutes without any
detriment, and even that 260 degrees might
be submitted to with Tolerable Ease

This

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This shews that we can live in a degree of heat higher than that of our Body, The contrary opinion was held by Boerhaave & others, This would lead us to conclude that our frame has a power of generating Cold as well as heat. — The warm Bath is a very efficacious remedy in all diseases arising from Obstructed Respiration, and in Scrophulous, and Venereal Cases.

That there is a Considerable Absorption in bathing may be proved from an Account we have of some Sailors, who being cast away, took to the Long Boat, and being ready to perish thro' thirst, they either thro' accident or Design threw themselves into the sea, and found in a short time their thirst quenched, and had recourse to this method afterwards whenever they were thirsty.

Bay salt dried before the fire, reduced to an insensable powder, quitted in a cloth, and after being sprinkled with Vinegar, applied to the sole of the feet, and worn day & night between the stocking and the skin, has been found to relieve a violent head Ach,

and

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and Colicness of the feet, which resisted every
other Remedy, It was said in a former
Lecture that Salt was a powerful Stimu-
-lent, hence you may see that it acts
much in the same manner as the warm
Bath, by its stimulus determining the
flow of humours, and increasing the Cir-
-culation in the part, by which means
it brings on and keeps up the Perspiration
in considerable Quantity, This was impart-
-ed to me by a Physician who had for a long
time been troubled with a Head Ach, and
Colicness of his feet, for which he had taken
all the Medicines, that he had ever found
Recommended for this Purpose, but to no effect,
He applied to the most Celebrated Physicians
in Edinburgh, and London, and other places,
and was at length returning home with-
-out any Relief, when he met with an old
friend who promised to Cure him, if he
would stay with him a few days, he there-
-upon used the Salt in the manner above de-
-scribed, and in Days time the Gentleman
was perfectly Relieved of his Complaint
He afterwards Recommended it to others, who found

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found great advantage from it, I might have
recommended it in some Cases, and to good effects,
From this I would advise you never to neglect
the Experience even of old women, for
many Valuable Remedies have been found
~~not~~ first by Quacks, and Illiterate People.
We have now finished the Consideration of
Emollients, and are in the Next place to
proceed to the Consideration of these Medicines
which act on the moving fibres, of which
the first Class are the Stimulantia

Lect^{ure} the 22nd

Stimulantia

These are such Substances as Excite the Ac-
tion of the Moving fibres, and do not
operate on the Dead fibres, Of Stimulantia
there are two kinds, the direct and Indi-
-rect, By the latter we mean such
Stimuli as act on the organs of sense
by which a Perception is formed in
the Senses: Common: which by acting
there determines the Nervous power
more copiously into the whole or

A part of the Nervous System

The direct are such as act Immediately on the moving fibres, without the Sensitive Com.

With regard to their manner of Operation, Stimulants are divided into the Mechanical, where their operation Depends upon and can be Explained from their figures. And Chemical, where the operation depends upon some peculiar property of the body, with which we are unacquainted. Most of the Stimulants we employ are of the Chemical kind.

The operation of Stimulants is of 2 kinds, 1st that which is Common to the whole System, and Indiscriminately affects every fibre, 2nd that which is Confined to some particular part. The action of Stimuli is Confined to the Nervous System, We will here briefly say something on the Nerves, as they are the part on which Stimuli act, And as Dr. Moore has made some Discoveries on them w^{ch} throw great light on their Subject,

We will not touch The Anatomical Description

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Descriptions, which undoubtedly you
will have else where

Dr Monro, observes the human Species
to have more brain in Proportion to
their size, than any other Animals,
but not more Nerves, from hence he
concludes that the brain is not merely
formed for the Origin of the Nerves, &
but it is also the Seat of the Mind.

And from some Monstrous Appearances,
of Fetters, being born with little or no
brain, in which Nevertheless the
Vital & Animal functions were Car-
ried on, he supposes that all the Nerve-
ous Energy do not Originate in the
brain, but that the Nervous Energy
is generated all over the Body

He found the Diamater Surrounded
every nerve to its ultimate Ramifications
and it is Probable it served the same pur-
pose to them, that the Diapneura does
to the bones, (Insects are not furnished
with a brain.) He supposes the tone
given to a limb by stimulus as
friction.

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friction is owing to the generation of the
Nervous energy in the limb, but this
is not all for there is a Considerable
Consent between the Nervous and Vascu-
lar Systems, by which a greater Quan-
tity of fluids is Determined into the part,
He also found that the Different Nerves
formed Anastomosis, with each other by
which Connections are formed between the
Different parts of the body, independant
of the Brain, He likewise observed that
ganglions are formed by the fibres of the
Nerves being mutually blended, and
supposes their use is to generate the
Nervous Energy, The Nerves towards their
terminations run in a serpentine form,
that they more readily admit of Disten-
tion, when the Muscles act

From what has been said we may con-
clude that many diseases of the Nerves
are Entirely partial, and that they do
not Originate in the Sensor: Common
as partial palsies, and hence that they
may be Cured by partial Applications
That

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That by the Anatomizing of the Nerves
without the Seren. Conn. Various Sympathies
are formed in the Human Body, From
a Particular attention to these Anatomies
may we not be enabled to account for
the Various Sympathies which take
place, These Considerations will tend
to banish all metaphysical Reasoning,
which of late have become so fashi-
-onable in Physic

Stimulants are indicated in all Cases where
the motions of the System are Languid,
inconstant weak & Slow, - Hence they are
Indicated, 1st Where the motion of the
blood is suddenly stop'd as in fainting &c.
2nd Where there is a Sluggishness of the
Humours, as in the Cachexy, as also the
Chlorosis, a disease often arising from
~~rigor~~ from affections of the Uterus,
but may also arise from a Sluggishness
of the Humours, 3rd In Gangrenes
where owing to an Oedematous, Hydropic,
& Cachectic States of the Body,
When

^{N^o 38}
When gangrene is owing to Inflammation,
and Increased Action, Stimulants are Hurt-
-full, but when owing to a Diminished
Action Stimulants are usefull

4th In Intermittant fevers to prevent
the Return of the Cold fit, which is al-
-ways attended with Inertia

Stimulants are also Indicated in Nerve-
-vous disorders, 1st Particularly Palsies—
the Causes of Palsies are Various, in some
Cases Stimuli may prove hurtfull,
but wherever a palsy is owing to a
weakness and Inertia of the nervous
power, Stimulants are highly usefull,

2nd They are likewise indicated in Ver-
-tigo, Lethargy, Apoplexy &c, Apoplexy has
been divided into the Sanguineous, and
Serous, and the application of Stimuli
has been confined to the latter, some
mention a third Species of Apoplexy,
which they say is owing to an Inertia
of the nervous power in the Brain—

Here Stimulants are Certainly Necessary,
if there is any such Species, which
is

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Very doubtful, In the serious Apoplexy,
Stimulants may be of use applied
Externally, at a Distance from the
Head, to Cause a Convulsion, from the
Head, and in this manner they may
also be serviceable in the sanguineous
Internally employed their use is very doubtful,
3rd They are indicated in Headachs accom-
-panied with paleness, Coldness, and
Languor, of the whole Body, Particularly
when they are of a Nervous Nature
When Headach is owing to Inflammation
Stimulants are Improper, When it is
External, Blisters and other will give
Relief sometimes, but when it is Inter-
-nal, and affects the Brain, all our
efforts will generally prove Ineffectual
Stimulants are likewise Indicated in
flatulencies, Acidity, and Stagnation of
the Alimentary Canal, which are
commonly owing to weakness, They
act here by exciting the action of
the Stomach, and Intestines

The

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The Hysterical, and Hypochondriac Diseases
are often accompanied with Spasms,
Spasm &c. Stimulants are therefore
indicated in these Diseases, They act in
these as Antispasmodics, They have also
been used for the Cure of the Gout, of
their use here, I shall speak under the
Head of Bitters

Stimulants are Contra-indicated wherever
the action of the Heart and Arteries, is
too Vigorous, Hence they are improper
in all Hemorrhages, Inflammations
and fevers arising from this Cause —
But when these are owing to Debility,
as is often the Case, Stimulants are high-
ly proper — By the Constant and long
Continued use of Astringents, the Mobi-
lity, and Irritability, of the moving fi-
bres, are weakened, and their tone at
length Destroyed — We should there-
fore avoid the use of Stimulants as
much as possible, for they will De-
stroy the tone of the Stomach, and the
whole System, in the same manner
as the too free use of Wine — The

The particular Stimulants are very numerous, Dr Cullen has a great number of them, We shall here only treat of these that deserve to be employed in medicine.)— Of these the first is Melissa or Balm, The Virtues of this are very Inconsiderable, and happily for the patient, as it is the substance so universally employed, in tea, for the common drink of the Sick, An Infusion of it may be of service in fevers attended with Languor

Lavender, an infusion of this may be usefull, in diseases arising or owing to Stuita Trigida, i.e, such as are Accompanied with languor, debility, Head-ach &c. It may also be usefull in Tremblings, Paralytic Affections of any of the parts, A Dulness of hearing, and sight

Marjoram is usefull in all Cases of Languor, and Debility, and is a powerful Cephalic, It is usefull in the Stuitous Asthma, as it promotes Expectoratation

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Expectoration, and is possessed of a gentle
Antispasmodic quality, it is the strongest
of the Class except Marrubium.

Hyssop and Pennyroyal, The latter expels
flatulencies, and is a powerful Antispas-
-modic, It will promote the Menstru-
-ation, where there is Obstruction is owing to a
Spasmodic affection of the Uterus —
They are both serviceable in diseases of
the Breast, which are not attended with fever,
Many of the Mints have been employ-
-ed in Medicine, The Pepper Mint is
the best of all, The water Mint may
be employed with advantage in
Vomitings, Hiccups, Colics, and all dis-
-eases arising from flatulency or a dis-
-tention of the Abdomen by Air, Hence
it has obtained the appellation of Ste-
-machic, Pepper mint will relieve
an Obstruction of the Menstru-
-ation, when owing
-ing to Spasm.

Sage in many Cases proves a good Rem-
-edy, Sage has been employed in the same
manner

Manner, and for the same purposes with
 Balm, but as it is more efficacious Re-
 medy, we should be cautious not to Em-
 ploy it were there is any symptoms of
 Inflammation. Besides its stimulant
 it is possessed of an Astringent Quality -
 it affords a Concretion like Camphora
 Van Sweiten recommends an Infusion of
 it for night Sweats, which follow, and
 often attend other Diseases, and are
 owing to Debility, It has also been
 used in Tremblings, Palsies, Hunches &c.
 It is employed by the women to prevent
 Abortions, when become habitual, and
 is attended with good effects

Umbellifera, of these are the following,
 Anise, Caraway, Fennel, Cummin, Cori-
 =ander, Wild Carrot, and Candy Carrot, The
 part of these in which there Virtue Re-
 =sides is the Seed, The roots of the follow-
 =ing are principally employed Aniseida,
 Saxifrage, Lovage, and Italian Hartwort,
 They are all Carminative or Antispasmo-
 =dic, assist digestion, relieve Head Aches,
 arising

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Rising from Crudity, dispell flatulencies,
and Cure Colic, and other Disorders, arising
from flatulency, Angelica has
been accounted Alexapharmic, in Con-
tagious Diseases, but it has no prefer-
ence to any Diaphoretic

Anise, and Fennel, are the most Power-
full, and most Agreeable, A Tea of the
Seeds is very proper for Children who by
Reason of their Imperfection of the Milk
are troubled with flatulencies, and grip-
ings, They are much better than the
Spiritous Liquors generally given by Nurses,
The Wild Carrot has been employ'd in
all Calculous Concretions of the Kidneys,
and Bladder, but it does not dissolve the
Stone out of the Body, nor are its Diure-
tic Virtues Considerable, It seems however
to act as an Antispasmodic, mitigating
the pains arising from the Stone &
Gravel, which may be Considered as a
Spasmodic Affection, and the Symptoms
we know may be Allevated by Antif-
spasmodics.

The

The next order are the Siliquosa, of these
are Radish, Horse Radish, Mustard, all
the Cress kind, and Curvy grass

These are all employed for the Cure and Pre-
vention of the Curvy, They are the
only Stimulants, which we can employ,
with Safety in this Disease, they increase
the Evacuations by sweat, and Urine, and
correct the bad tendency of our Fluids

Mustard Seed is one of the Safest and most
efficacious medicines, taken in a dose
of one or two Table Spoonfuls a day

From ℥ʒi to ℥ʒj of Mustard in powder or
infusion, will afford us an excellent Emet:
The action of which is Confined to the Sto-
mach, without being extended over
the System, It may be worked off with
warm water, in which some mustard
has been Infused, It is principally of
Service when we only want to evac-
uate the Stomach, Mustard whey is
an excellent Remedy in Lethargy, a
Serous Apoplexy, and in all Cases of
Laziness and Debility, as in the last
Stage of a Nervous Fever

[Handwritten flourish]

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If the Emetic qualities of Mustard does
not take place, and it is Carried into the
Intestines, it will prove purgative
Some part of it will enter the Circulation, and
it will prove a powerfull Stimulus to the
system in general, encreasing the Secretions
by urine, Sweat &c. Externally applied as
in Sinapisms, they excite the motion of
the Heart and Arteries, more powerfully
and Cause a Derivation of fluids from the
part affected more effectually than Blisters.
We may often apply Sinapisms to good
effect, when our patient will not suffer
Blisters to be applied, Sinapisms however
ought not to be substituted for Blisters
in all Cases, for in Inflammatory Fevers
it is evident they will prove hurtfull,
Hoarse Radish is Possesed of similar Virtues
with the Mustard, it is employed in Infusion
in Dropics, owing to Debility, where it acts
as a Diuretic, and Stimulant, Acrops
if it has been recommended in Coughs,
hoarsness, and Particularly the Humoral
affluence, all the Sanguifica are said to
remove Hoarsness, they act by Stimu-
=lating

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Stimulating the Mucous Glands of the Trachea
The next order are the Alliacea, Garlick,
Onions, and Leeks, The Virtues of these
are similar to those of the Siliquosa,
Garlick, has been employed for the worms
Externally in Poultice, and is said to
kill them applied over the Navel, and
Soles of the feet, - Garlick is Diuretic and
Diaphoretic, It appears to be very much
like Asafetida, In the Cataracta Senilis,
A Disease arising from the Diminution
of the Natural Secretions, by which
means the Humours are thrown upon
the Breast and Lungs, all we can do is
to Palliate the Disorder, by increasing the
Respiration, For this purpose Garlick, and
Asafetida, is the best medicines we can
employ, The Garlick should be taken
morning and evening, and swallowed
whole, for by this its Virtues are better
extracted, and it will more effectually
Prove Diuretic, and Diaphoretic
Garlick has been recommended for the
Stone, but it has no effect Here

Boiled

Boiled or Toasted Onions are said to promote the Maturation of Boils and Abscesses, but they will answer no better, than any other simple agreeable Mucilage into which they are converted by Boiling, for their Acrimony is all Dissipated.

Lect, the 23rd

The next order is the Conifera of the Pinifera.
Fir, Pine, and Juniper, The virtues of these are nearly the same, and are owing to the Turpentine they contain, They are more efficacious according to the quantity of Turpentine they contain, The Fir, and Pine Tops, are very often employed in Diet Drinks to Purify the Blood —

An Infusion of them proves Diuretic, and Diaphoretic, and hence is of service in the Scurvy, eruptions, and foulnesses of the Skin, These eruptions are owing generally to obstructed Perspiration, Independantly of any Impurity in the Blood.

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It is of no Consequence, which Sir, we use, as
they all have similar Virtues.

The wood and Berries of Juniper, agree in
Virtues with the Sir, or Pine, They are much
employed as Diuretics, & Carminative.

An Infusion of Juniper Berries may be
given with advantage in Spasms, and Colics,
owing to Flatulencies, but it ought not
to be used where there is any Inflammation.

It may also be of service in the Pectus
Asthma, when not attended with Fever.
Van Helmont recommends, them for the
Dropsey, A Mob of them may be a very
good Vehicle for Diuretic Medicines,
with which it corresponds in Virtues.

An Infusion of the Berries has been recom-
mended in the Nephritis, & Calculous Con-
cretions, but very Improperly, as these
are generally attended with Inflammation.

A Spasm of the Bowels will sometimes
so much resemble a fit of the Nephritis
as to Deceive both the patient and Physi-
cian, In this Case an Infusion of Juniper
Berries, will afford relief most Effectually,
and

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And it was probably from some such
Cases, that it first obtained the Repute
of being good in the Lepthitis, Improperly—
The next order are the Balsams which
are Resinous, oily Bodies, Poriferous, and of
a Consistence between ointment and Oil,
They get these Names from their Agree-
-able Odour, and their Preventing Putrefac-
-tion, They are either native or Artificial
as also either Liquid or Dry —

Bals: Copaiba, has been much employ-
-ed, for stopping of Glects, It does not as
some have supposed, by any Astringent
quality, for when given in large Quantie-
-ties, it affords an excellent Laxative —

It is evidently a Stimulus, and has a Parti-
-cular Tendency, to the urinary passages,
Glects are generally owing to Debility—
Stimulants therefore may stop Glects
by giving a tone, and exciting Inflammation,
Bals: Copaiba may cure a Glect therefore
by bringing on a degree of Inflammation
in the urinary passages sufficient to
stop

Stop the mouths of the Glands, it ought
not however to be used untill the Inflam-
-mation has been removed, From its tenden-
-cy to the Urinary passages, it has this ad-
-vantage, that it will exert its effects
without stimulating the whole System
It is also employed for the Cure of the Stone
Album, which is often owing to a Relaxation
of the Uterus, and this by its Contiguity to
the Urinary passages may be in some
measure affected, By a long continued use
of it we may cure the Disease, even if ow-
-ing to general Relaxation

Combined with Salt of Tartar, it is recom-
-mended in the Situitous Asthma, also in
glandular Swellings and Obstructions,
We should however be Carefull not to
Exhibit it were there is any Fever

The Bals: Peru is used Externally were
a Nerve, Tendon, or Periosteum, has
been Injured or Lacerated

Internally it is used from 20 to 50 Drops
at a dose, to remove the Colica Pictorum,
and the Palsy consequent from it

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It is employed in Consumptions and Ulcers
of the Lungs, but its use in these Cases is
doubtfull, on account of the Inflammation
generally attending them, In the Petri-
-tous Asthma it is employed not im-
-properly, as it will by its Stimulus
promote Expectoration, and prove Diu-
-retic, and Diaphoretic

The Bals: Solu, is possessed of the same
Virtues, and is employed for the same Diseases,
with the Peru, Serpentine has much
the same Virtues, It has been recommend-
-ed in the Sciatica, when given in large
quantities, and persisted in for a long
time, It may be of service in habit-
-ual Costiveness, owing to Spasm, and
hence we find it given in Clysters
in Obstinate Costiveness, were it acts
as an Antispasmodic, Serpentine mix-
-ed with the Yolk of an egg, has been em-
-ployed in ulcers of the Intestines, with
Success, A fumigation of it is said to be
service in the blind piles

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Gum Guaiacum is supposed of similar
Virtues, it has been particularly recom-
mended, in Arthritis, and Rheumatic Com-
plaints, in the last it has even been
supposed to be a Specific, It acts however
by its Diaphoretic quality, Tart: Emet:
may be combined with it to strengthen
its Action, ℞ij of it Dissolved in ℞ij of
water, and ℞ij or ℞iij of Tart: Emet: added
will afford us an elegant Remedy, a Spoon-
-full of which may be taken Every 2 or
3 hours, to those who cannot take it
in this way, it may be given in Pills—
We should be cautious not to use it where
there is any Inflammation, it is therefore
Principally of Service in Chronic Rheu-
-matism, and in these it is sometimes
very Serviceable.

Musk, is an Exudation of some Vegetable
Substances, collected by insects like Bees,
and by them Hardened, up in the hollow
Junks of trees, Taken in large quantities
it stimulates the Stomach and System
in general.

H

1714
It affects the urinary passages much in the same manner as the Balsams, It was the substance employed by the Ancients to preserve their dead bodies, externally applied it resists Putrefaction, and hence is used in foul and Putrescent ulcers, and to prevent and cure Gangrenes, Internally taken it will not cure Putrid Disorders, It has been reckoned Emmenagogue, but it has no Particular Virtues, acting as all other Stimulants — Gum Benzoin has generally been reckoned Pectoral, The Saline substance, commonly called the Flowers is reckoned remarkably so, but its use is rather Hypothetical when given in the Common dose from ℥ij to ℥v, We must give it in doses of ℥xxv or ℥xx, to obtain any certain effects from it, and even in this dose they are Inconsiderable —

The next Substances are the Woods Of these the first is Guaiacum, This has commonly been reckoned very efficacious in Venereal Cases, but the effects appear to be owing to the sweating and

Emaciation

1757

Emaciating process accompanying it up
The method of using it was as follows 3℥
of the wood was infused or macerated in ℔ij
of water for 24 hours, and then boiled untill
one half was evaporated, The patient was
put into a Warm Room, and Drank
plentifully of the Decoction warm, and
by this means excited a sweat, He con-
tinued the use of it for 24 Days, All this
time he lived on a very spare thin diet,
drinking frequently of a weak infusion
of the wood, It is probable that warm
water woud in this manner answer
equally well.

Sassapar, has been employed in the
same manner and for the same intention,
with Guaiac; the best method of using
it is in infusion, A continued use of
it may be of service in Cachexy, Flou
Albis, and Blotches of the Skin

Sassaparella, was used for the same
purposes and in the same manner with
Guaiac: and was frequently combined with it,
it

It was however neglected untill M^r Fodge
 again introduced it into Practice on the
 following Occasion, A Surgeon at London
 had done great Service in Venereal Cases
 by what is called the Lisbon Diet Drink,
 the Preparation of which he kept a Secret,
 Many Conjectures were formed Concerning it,
 and amongst others it was thought to
 be a Decoction of Sarsaparilla, This was
 therefore tried and found to be of Service par-
 -ticularly in Chronic venereal Complaints,
 where Mercury had been previously giv-
 -en, without which it did not answer so well,
 Where a Salivation had been employed
 without effect, where there were ulcers, pain,
 in the Bones &c, the Sarsaparilla was
 found good, It is however much Inferior
 to the Lisbon Diet Drink, for this will
 Cure all venereal Complaints, whether
 Mercury has preceded its Exhibition
 or no. The Cortex Mezoreon, approach-
 -es nearest to the Lisbon Diet Drink
 in Virtues.

It is often found efficacious in removing
Venereal Exostoses, and pains in the Bones.
Take of Cort. Mezer: and Licuorice root each
℥iij; boil them in 3℔ of water untill
℥lb: is evaporated, Let the patient take
this Quantity every 24 Hours. and in
six weeks time he may expect a Cure.

Rad: Contrayeva has been reckoned Dia-
phoretic, and Alexipharmic in Contagious
Diseases, It is also given in low Nervous
fevers, to support the Vis Vita, and pro-
mote sweat in Doses from 5 to 10 grains
every 2 or 3 Hours, It may be given to
one ℥j without any sensible effect,
and hence appears to be of little use
but to trifle with, and to confirm the old
usage, if it does no good, it will do no harm.

We have now finished what could be
recor'd, according to Botanical Analogy.

The following agree in sensible qualities,
Aromatics. are such substances as join
to an Acid, Pungent Taste, a fragrant
Odour of the agreeable kind. They are
all

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All possessed of an Essential Oil, and specifically heavier than water, and are in general Productions of the Torrid Zone
Cinnamon is the most agreeable and best Cordial Stimulant in all Cases of Languor. The oil of it is very good in Languor and Debility, arising from Autumnal Intermitts. We should always Chuse the oil that rises toward the end of the Process, It is frequently added to Purgatives to prevent the Spasms arising from their use, It is also added to Rhubarb to increase its purgative Quality, It is the safest and most agreeable Stimulus, to bring in Women. It is also Carminative, and is therefore useful for Children who are troubled with Grippings, and Flatulencies. When a Suppression of Menstrue, is owing to Spasms, an Infusion of Cinnamon is a safe and Effectual Remedy.
Cloves, are more Acid and Stimulating, The oil is sometimes added to Stimulating Medicines, A Drop of the Oil is also employed in the Tooth Ach, to

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To destroy the Sensibility of the Nerve, It
is also used in Paralytic affections of the Tongue.
They are also employed externally in
Colics, Vomittings, and Hiccups, They are
usefull applyed to the Stomach of Infants
when Troubled with Flatulencies, A Tea
of them may also be used in these Cases
when they are not attended with Fever.

Nutmegs, when fresh and recent are Pos-
-sessed of a Narcotic, and stupifying quality,
From this and their Astringent quality
they are usefull in Diarrheas, and Dysenteries,
They are also usefull in Debility of the Stomach
Mace is possessed nearly of the same Virtues
as the Nutmeg, and is a production of the same
tree

Pepper, when finely powdered will Ex-
-cite Hiccups, A Table Spoonfull of it, is
taken unbruised, in a glass of Rum by the
Country People, to prevent the Cold Fit
of an Intermittant, which it very often
Does, but if it does not the patient is
sure to suffer for it when the Hot Fit
comes on.

Serpentaria Virginiana, is a powerfull
 Stimulant, Combined with some aromatic
 Flavour. It powerfully Resists Putrefac-
 -tion, and hence is employ'd in Malignant fevers.
 In the beginning of these fevers, where there
 is an Inflammatory state, Stimulants are
 hurtfull, but in the Decline when the
 Constitution is weakened they become Ne-
 -cessary, and hence Snake Root is one of
 the Best Remedies we can Employ —
 It is also an excellent Remedy in Autumnal
 Intermittants, It is likewise an excellent
 Preservative against Contagious Diseases,
 It is hurtfull generally in Venereal Inter-
 -mittents, on account of the Inflammation
 which generally takes place in these,
 Snake Root Tea is very good in Autumnal
 Remittants, This is likewise excellent
 in nervous fevers, It ought only to be
 used when there is no Inflammation.
 It may however be employ'd where
 a fever is combined with Inflammatory
 symptoms, provided it is of the
 Intermittant kind —

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It is usefull for the Nausea attending Au=
=thurnal Remittants &c. A strong infusion
of it is very serviceable for the violent
Viccups attending Remittants, It is a
Powerfull Antiseptic and strongly Re=
=sists Putrefaction

Ginseng is in great Esteem in China,
where they think it will prevent and
cure all Diseases and prolong life, they
value it so high, as to give 3 poundes of
Silver for one of this, it is however a
Medicine of little or no Efficacy, It may
make an agreeable and safe masticatory
much preferable to the More Nauseous Tobacco,
Cascarilla has been employed in putrid,
and malignant fevers, It has likewise
been recommended in Intermitants, but
it is by no means equal to the Peruvian
Bark, Digner, employed it in the Dysen=
=tery, Besides its Stimulating quality, it
is likewise supposed of an Astringent and
Narcotic Virtue, it may therefore proba=
=bly be of Service in Chronic Dysenteries.

Sect 24

Lect: the 21th

The next let that agree in sensible qualities are Bitters. — Wormwood, this as well as other Bitters has been generally reckoned serviceable for Worms, but on no good foundation, for worms will live a considerable time in Bitters without showing any uneasiness — A long continued use of Bitters, however by giving tone to the Intestines, may prevent the future generation of Worms — It has always been esteemed for its Diuretic Virtues, and hence has been employed in Dropsy. This virtue may be increased considerably by combining it with Sal. Tart. An infusion of it combined with this is one of the best medicines we can employ in the Dropsy. It has been used for the Cure of the Jaundice, but can have little or no effect in removing the Obstructions, on which this Disorder depends, it may however be useful by its bitterness supplying the place of the Bile, A Decoction of it with Common Salt, is employed Externally in Gangrenes —

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A long use of it affects the eyes with an uneasy
Dupress, weakness, and Inflammation, attended
with Head Ache, These effects seem to depend
on its Narcotic quality.

Carduus Benedictus, was formerly employed
for Intermittants, where the bark is now given,
In the beginning of Intermittants, where bark
cannot be given, an infusion of *Carduus*
benedictus, may be employed to Advantage

Camomile was the substance most gene-
rally employed where the bark is now be-
fore that was discovered, It prepares all the
Virtues of bitters. *Camomile Tea* may used
with advantage, in Intermittant & Remittant
fevers, where there is a tendency to putrefaction
Acting by its Antiseptic Virtues, It prepares
this virtue in common with all bitters as
well as of checking fermentation, *Camomile*
Tea is very proper to work of a Vomit, as it
does not relax the Stomach so much as warm
water, and likewise acts as a Diaphoretic

Sarsilly, is said to preserve animal bodies
from Putrefaction, The women employ it
for the Hysterics, They also use it as a
Pediuvium to promote the Menstrual discharge

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It is a Diuretic, and is therefore employed in
the Dropsy, in the same manner as wormwood,
The seeds are reckoned good for the worms, but
are no better than other Bitters, —

Orange Peel, contains a large portion of
Essential Oil. It appears to be heating and
stimulating, It is very usefull in Spasms
and flatulencies, arising from Indigestion were
there is no fever —

Leper Centuary, and Gentian, are very pure
bitters, Gentian is said to strengthen the stomach
and excite appetite, A continued use of it
will destroy the tone of the stomach, The
Root is employed in fistulous ulcers, as a
Tent to keep open the lips, and prevent their
growing together, An Infusion of Centaury will
answer the same purpose, of Camomile Tea,
Centaury, and Gentian are employed in
Intermittents, but they are much inferior
to the Peruvian Bark —

Columbo Root, is a strong pure bitter, and
a powerfull stimulant, I have found it
serviceable in checking bilious vomit-
ings, in Intermittent fevers, when the
Stomach

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Stomach was very irritable, and the Vomiting would not yield to the medicines generally given in such Cases, The dose is ℥ss, infused in half a pint of boiling water, and two table Spoonfulls to be taken every 2 or 3 Hours, I have found it successfull in this way in several Cases, It is likewise said to be a powerfull Antiseptic, but I have never Experienced its effects in this way, The Gentian approaches nearest to it in Virtues, All these however are much Inferior to the famous,

Peruvian Bark This was first made known to the Governour of Lima by the Natives, He Communicated it to the Count of Chincor whose Lady lay ill of an Intermittant in 1630, It was by him first brought into Europe in 1640, In 1649 a Jesuit brought a large quantity of it to Rome, where it was sold by their Fathers at an exorbitant price, and hence it obtained the name of the Jesuits Bark. It was however afterwards neglected untill

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Untill 1679 when it was again employed
by Sir Robert Talbot, who kept it a se-
-cret, and performed wonders with it
Louis the 14th purchased the secret from
Sir Robert, for a premium of 2000 Guineas,
and Pension of 160 Guineas ^{a year} during life
since which time it been universally employ'd.
Good bark may be known by its weight,
freshness, bitterness, and shining appen-
-ance when Broke, but the best me-
-thod is by making a decoction of it in
Rain water, when if the Decoction becomes
Thick, and Deposits a white Sediment it is good,
It is a bitter combined with an Astringent,
joined to an Aromatic, It does not act by
any specific property, as is commonly sup-
-posed, for its operation may be explained
from its properties, and were it possible
for us to make by art, a bitter combined
with an Astringency, joined to an Aromatic
it is possible it would answer every
purpose of the Bark, It is usefull in
those diseases, in which there is a
General

General or Partial debility, but is hurtful in those attended with Rigidity, Plethora, and Inflammatory Symptoms.

Hence in Vernal Intermittants which are generally accompanied with an Inflammatory Diathesis, the bark is hurtful. But in Autumnal, which are attended with Debility, and Putrescency the Bark is useful. When obstructions are owing to Relaxation & Debility, the bark is useful, but when they are occasioned by rigidity, as a too vigorous action of the heart & Arteries, it is hurtful. The best method of giving it is in substance from ℥ʒ to ℥ʒj at a dose to be repeated every 2 or 3 hours, or oftener according to Necessity. In decoction or Infusion, it does not answer so well as the operation is not certain on account of its being more apt to turn off by stool, or urine, than when given in substance, and defeat our Intentions,

The

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The Bark is indicated in all Periodical
Spasmodic affections, which depend on Mo-
-bility, and Irritability of the system
It acts here by restoring tone to the system
We should avoid the use of it where there
is any Inflammation, untill this is re-
-moved, thus the Chin Cough may be cured
by a Periodical Administration of the Bark,
On those days, in which the fever is Mode-
-rate, but its use is very improper dur-
-ing the Paroxysm, in which there is a
Constriction already formed, and here it
will do mischief, The Bark is also useful
in Periodical Colic, In Epilepsies, which
depend upon mobility, and Irritability,
the bark may sometimes be of service
by taking of the Relaxation and restor-
-ing tone to the system, - It is also of
great service in Gangrenes, that are ow-
-ing to Relaxation, and Debility of the
Solids, no regard should be paid here to
the quantity, but it should be taken
as often and in as large doses as the Mo-
-mach will bear, from ℥ʒ to ℥i may
be

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be given every $\frac{1}{4}$ or $\frac{1}{2}$ hour, it may
also be employed in fermentation &c
externally at the same time, It acts here
by strengthening, and exciting the action
of the sound parts, and thus causing
a separation of that which is mortified

Gangrenes are sometimes owing to In-
flammation, and an increased action of
the Heart and arteries, here bark is high-
ly Improper, and Acidulated diluted drink
are the best Remedies

Inflammation as was said in a former
Lecture, may be owing to a Relaxation
and Debility of the Solids, in this Case the
bark may be employed with Advantage,
But where it is owing to an increased
action of the Heart, and Arteries, the
use of the Bark is evidently highly Impro-
per. — The principle and most Uni-
versal use of the bark has been for the
Cure of Intermittant & Remittant fevers,
in which it even has been thought to be
a Specific, Its virtues however manifestly
depend upon its bitterness combined with
astringency, joined to an Acria

Bitter

190
Bitters, and Astringents have in all ages
been employed for the Cure of these Disorders,
And I have as I said before seen a Mixture
of Galls and Gentian, Cure an Inter-
mittent, in which the bark has been
tried to no Purpose — Various opinions
have been framed concerning the Cause
of Intermittents, The Ancients placed
it in a morbid matter within the
Body, exciting the fit, and thought the
Disease was to be cured by Evacuating
this morbid matter, But this will
evidently appear to be ill founded, if we
Consider that the Disease may be cured
without any Evacuation, as by giving
Anodynes before the fit used to come on,
And that Evacuations alone will not
Cure the Disease, Emetics do not Cure this
Disease by Evacuating the Contents of the
Stomach, for we find they will answer
as well if not better, when they do not
provoke vomiting, as when they do —
And the Bark does not encrease any
Evacuations, and yet performs the Cure

Other

Others place the Cause in an Accumulation and lentor of the humours in the Extreme Vessels, on the Skin, But is quite the Contrary, for we find such an Accumulation takes place in the Viscera

A third opinion is that this disease is a Nervous affection, with a spasmodic Constriction, of the Vessels on the Skin, and hence places the Cause in the Nervous System. This Opinion seem most probable, and many argumments may be adduced in favour of it, The medicines employed to Cure the disease are of an Antispasmodic nature, Affections of the mind will often Cure this Disease, they will also sometimes produce it, Nervous fevers often become intermittants, and Vice Versa, some have endeavoured to place the Cause in an inertia of the Nervous fluid, The regular return of the Paroxysms, has afforded a matter of Speculation at all times, Many opinions have been formed to account for it, some have lately attempted to do it from habit - This however will appear false if we consider that to render it habitual it must

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must have continued for a considerable time
and that Custom can regulate the 1st and 2^d
Paroxysms, These however are the most re-
gular, and the fits afterwards become more
irregular, whereas if the return was owing
to habit, the longer they continued, the more
regular they should become, untill they should
at length become as constant as the motion
of a Clock — The bark should not be used in
intermittents, untill we have restored the
determination of the fluids to the skin —
Emetics generally precede the exhibition of the
bark to produce this determination to the skin,
which they will more effectually do if a dose
of Laudanum be given after they have operated
It is likewise usefull to prescribe natural Salts
as Diaphoretics, In general we may observe
that autumnal Intermittents are more tedious
then the Vernal, The Autumnal are generally
attended with putrid symptoms, and the Vernal
with Inflammatory, The bark is best Calculat-
ed for the Autumnal, As soon as a person is
seized with a fit he should be put to Bed,
During the Cold fit he should drink nothing
at all, but if he has a nausea and Inclination
to vomit, he should encourage it by drinking
warm water —

by which means the fluids which before
 were accumulated in the Viscera will be Detrac-
 = ming to the Skin, and thus relieve the Paroxysm
 During the hot fit he should Drink Acidu-
 = lated Diluted Drinks, During the Intervall
 = sion the patient should avoid the use of
 all such things, as tend to Refrigerate
 His Diet should principally be Animal
 Broth, with Vegetables well boiled, If the
 patient is troubled with flatulencies, and
 pains in the back, and loins we may
 give a gentle Purgative, If the Paroxysm in
 the fifth day, is not worse than the preceding,
 the successive Paroxysms become milder we
 may expect our patient will have a speedy
 recovery, Especially if Eruptions appear about
 this time, under the Nose and about the
 Lips, and the urine Deposits a Catarrhical se-
 = diment, If our patient is weak and the Pa-
 = roxysms, is long and violent, we should make
 no delay but administer the bark immediately
 to prevent the following Paroxysm, We should
 give it in as large quantities as is possible
 the nearer we can give it to the fit the
 more effectual it will be, We may order
 from ℞i to ℞j to be taken every hour or
 half hour, We should always give it in
 substance

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Substance if possible, where the Stomach will
not retain it in substance, we may employ
infusion in large quantities, After we have pre-
vented a Paroxysm, we must next endeavour
to prevent Relapses, For this purpose the
patient should take a few doses of Bark for
some time after the disease has left him
Especially on those days on which the dis-
ease used to return - Persons Inhabiting a
low marshy situation, are more subject to
Relapses, than others, for these therefore a
Change of Air is necessary, or at least they
should confine themselves to the upper Sta-
-ries of the house, - Relapses are more com-
-mon in Autumn, than in Spring, Every
thing that weakens and Inwaters the body,
will dispose to them, Every thing of this
kind should therefore be avoided, Intermit-
-tents resembling other diseases are cured
by the use of the bark, Vide Tapot
The Bark has been unjustly accused
of Changing Intermitents into
Dropsey, Jaundice &c

The bark is employed with safety, and advantage in Remittant and Intermittent Fevers, which are accompanied with a Putrid Diathesis, (Cough) It acts in these as a powerfull Antiseptic. Whether it is usefull in putrid fevers which are without Interruption is Doubtfull, It may act as an antiseptic in the *Purina* via, but as it does not enter the Circulation, it cannot extend its effects over the System, (D. Hilary) It however we employ it in the beginning of Putrid Fevers, it will prevent their future progress, It may also preserve healthy persons from the Contagion, after the Putridity has advanced and has entered the Circulation vegetable acids ~~the best~~ with Acidulated, diluted drinks, are the best Remedies we can employ — They may be accompanied with the use of the Bark, Here it will answer best in Infusion, Especially in wine, as we want its antiseptic virtues without its Stimulating ones, in Camp fevers Nervous fevers tending to Putrefaction, when the fluids are affected

Affected, Medicines which act on the *Pima Via* are not so good as Antiseptics, here Vinous Infusions or Decoctions of bark are most proper. Bark is also indicated in Hemoptoe, and other Hemorrhages, When they are owing to an Incessant action of the heart and Arteries the use of the Bark is dangerous; But when they are owing to Relaxation, and Debility, the bark is a safe and advantageous Remedy, It is employed to prevent the Return of hemorrhages, which it does by giving tone to the System, and strengthening the Relaxed Vessels. The bark is an excellent Remedy for weak and feeble Constitutions, or for weakness of any part of the Body, Chewing to the quantity of an ounce a week will be sufficient in these Cases, It is also very proper in this manner for persons who are subject to Inflammations of the Throat upon taking Cold. The bark is likewise employed in bad ulcers to produce good & Laudable Pus, It acts here by exciting that degree of Inflammation which is necessary for the formation of good Pus.

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The Bark is also employed in the small Pox, probably from observing its good effect in ulcers, to make the Puscles fill, and bring the Disorder to a happy issue, We should employ it carefully in the disorder, immediately after the eruption of the pustules, It is only be employed with safety where the Constitution, is so much weakened and debilitated, that nature cannot struggle with the Disease, but sink in Contest, Here it will raise the Pulp, and produce that degree of Inflammation necessary to produce pus, In this Case some Physicians employ wine, and even were there is a Delirium, - If Petechie or purple Spots appear we must have immediate Recour to the Bark, Where an Inflammatory Diathesis, or too vigorous an action of the heart and Arteries, takes place, the use of the bark is certainly highly improper, here Antiphlogistics, & bleeding, - The Bark is by many used in the Suppuratory fever, but its use here is rather doubtful - This is occasioned by the pus being absorbed, and taken into the blood, The best method ^{is} to carry it off
by

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by gentle purgatives, and employ Acid drinks
and Antiseptics — The Bark has been
employed with success in Scrophulous sores
and ulcers, these are generally owing to Relax-
-ation and flaccidity of the vessels of the sys-
-tem in general, the bark is therefore of
service, by giving tone and strength — This
however is a disorder, often not to be cured
by medicines, and hence the bark fails
sometimes of performing a cure —

The Bark has been said to cure Cancerous
Complaints, but very probably an ulcer
of a bad quality has been mistaken
for a Cancer, and it may be doubted
whether the bark ever succeeded in a
Cancer, On account of its Efficacy in
ulcers, some have thought of extend-
-ing the use of the bark to internal
ulcers, and for this Reason have employ-
-ed it in the Consumption, — It must
however evidently be hurtful in this
Case on account of the Inflammatory
State which accompanies it —

It has likewise been recommended in A-
-phritic Cases, but it answers no better than
any simple Astringent, It has also been
extolled for the Cure of the gout, We shall
speak of the use of this and other Medicines
in this Disorder Presently—The bark
may be employed with advantage in the
Rickets if accompanied with a proper
Regimen and the use of the Cold Bath—

This is a Disease in which the greatest
Relaxation takes place, and extends even
to the bones of the Body, The patient Can-
-not expect ever to recover perfectly, at least
with regard to shape and figure, but by a
proper use of Astringents, with the Cold bath
Solid Animal food, right dry Cold Air, the
Disorder may be Considerably Relieved—

The Pharmaceutical treatment of the
bark has been partly delivered already—
We should give it in substance if pos-
-sible, and in as large quantities as
the Stomach will Bore—

Where

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Where the patient either cannot or will not
take the powder, we may give it in infu-
-sion, either in a watery or spiritous Li-
-quor, the best probably is wine Cold infu-
-sion is best, for by boiling it loses its
astringency, Brandy better retain
more of the Astringent properties of the
bark than those made of wine

The Extract has been thought to be of
superior strength, but the most that can
be said of it, is that it is Equal in Virtue
to the bark and therefore we must
give it in the same Quantity with
the bark in substance

The Red bark is of more Efficacy than
the Common Bark, with regard to its sen-
-sible qualities, it is evidently stronger,
It appears to answer the Description of
the Bark first employed in Europe
which was of superior Virtues to that
used afterwards, Dr Saunders who has
written a treatise on it thinks it is
the same bark with the Common, only
that

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that it is taken from older trees, and
here is stronger, in the same manner
as Oak bark which is stronger when
taken from old trees than from young,
I have employed it ever since we have
been able to procure a sufficient quanti-
-ty of it. I have found it cure Intermittents
in a short time, in which large quan-
-tities of the Common bark, had been taken
to no purpose, I do not recollect ever to
have been disappointed in my expecta-
-tions from it. A Root has lately been
Discovered in Surinam, which is said
to rival, or even to excell the Bark
in the cure of Intermittent, and Malignant
Fever. It is called Radix Quassia
from a Negro named Quassi, who first
discovered it, from this it is likewise
called the Quassi Bitter. It is the strong-
-est and purest bitter in nature.

D'Warner of antique, says it has been em-
-ployed with success in all kinds of Pu-
-trel, Intermittent, and Intermittent fevers.

when

Where the bark had failed, The patients te-
tain it better on their Stomachs than the
bark, — In Surinam the Inhabitants em-
ploy it as a preservative, from the Dange-
rious remittants so Common there

It may be given either in substance or
infusion from ℥℥ to ℥i for a Dose, it yields
its qualities either to water or wine

When employed as a preventative it may
be taken in a vinous Infusion

Acorus verus or our Common Calamus is
a Stimulant and Astringent, It approaches
in virtues to the bark, It is possessed of
more aromatic acromony, and Essen-
tial Oil than the Bark, On account of
its stimulus, it is employed to excite the
appetite, and assist Digestion, It is usefull
in Cholera, and flatulencies, arising from
Indigestion, It may be usefull in the
Catarrha vesicæ, and Asthma Pituitosum,
by promoting Expectoration, which it
does by its Stimulating Virtues

Silvius says he employed a Decoction

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of it in wine, for suppression of Urine
with success, It may be of service in Pa-
ralytic affections, It may be given Combin-
ed with steel, in a relaxed tone of the Stomach.
Chamaepitys, This with other bitters form
the Gout powder, commonly called the Duke
of Portlands powder, because he published
the Recipe, after it had cured him of a pain-
full Hereditary Gout, Take of Aristolochia,
Gentian, tops and Leaves, Germanander, the
tops of ground pine, and Centuary, each
an equal quantity, Reduce these into a
fine powder, A Dram of this is to be taken
every morning, and the person is to fast
for an hour and half after taking it, for
three months, after this the person is
to take $\frac{3}{4}$ of a Dram every morning
for three months more, After this he
is to take $\frac{1}{2}$ a dram every morning for
six Months longer, After this it will be
sufficient to take $\frac{3}{4}$ every other morn-
ing, This Course must be continued for two
Years before the person is to Expect any Be-
nefit from it - Bitters have at all times
been

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been employed for the Cure of the Gout, even
by the Ancients. They distinguished the Gout
into the Sanguineous, Bilious, and Pituitous,
In the Sanguineous they used the Sacret freely,
In the Bilious also they Purg'd, and in all Em-
-ployed Stimulating, Gripping Purgers, afterwards
they put the patient on a Course of Atma-
-chi Bitters, which they generally gave in the
form of an Electuary, with Honey, ʒij R Day,
for 12 months, with a Purg' Every 2 or 3
months. They did not however give these
indiscriminately to every Constitution, but
allow'd them to be hurtfull to those of a
bilious, and usefull for those of a Phlegma-
-tic Constitution, Almost all who used the
Duke of Portlands powder, died Apoplectic,
in a few years, after being freed from the
Gout, as happened to himself, and many
others in England. Dr Cullen remarks
that the same happened to 12 Gentlemen
who used it in Scotland, Dr Gaubius re-
-marks the like consequences in Holland,
and Calius Aurelianus, takes notice of
the

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the like effects in his time — By the use of
bitters, the tone of the Stomach, is destroyed,
and it seems as if it was rendered incap-
-ble of throwing the Gout upon the Ex-
-tremities, and thus it falls upon other parts
as the Brain, Instance of a Gentleman in Italy

The natural and salutary appearance of
the Gout, is in the Extremities, in a topical
swelling and Inflammation, Nothing therefore
should be attempted for this, unless we could
at the same time ^{intitely} eradicate the Disorder

This is not to be done by medicines —
Something of the kind may be done by a
proper use of Exercise, and a strict Regi-
-men, as a milk diet, this may some-
-times cure the Disorder, but it ought on-
-ly to be attempted in young persons, and
those of a strong and healthy Constitution

The Proximate Cause of this Disorder has
been long inquired after, Many opini-
-ons have been ^{formed} concerning it, but none
are sufficient, for they will not account
for all the Phenomena which occur

The

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The most Probable is that it is lodged in the nervous system, for if it was lodged in the simple Solids or Fluids, it could not have escaped the accurate Inquiries made after it, This is also supported, from the disease being brought on by such things as affect the nervous system (Substances concealed) and also from the quick transition of the Gout from one part to another. — Vide a Case in London Med: Essays —

Lecture 26th

The next Substances are, Dandelion, Indive, Lettice, and Succory, These have constantly been supposed of a Cooling nature, but for no other Reason, than our using them as Salads, They have been recommended for resolving obstructions in the Liver and other Viscera of the Abdomen, Boerhaave, Van Swieten and others, say they have employed the expressed Juice of Succory & Dandelion, with good effects in these Cases, The Dandelion, and Succory are supposed of similar Virtues —
They should be taken in large quantities

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to produce their effects, and persevered in a
considerable time, a Coffee Cupfull 2 or 3 times
a Day. — Indian Turnep in its recent
state is very Acid, and if taken in large
quantities, it is even said to be Deleterious,
Vinegar is said to be the best Antidote for
it. It loses its Acrimony, by drying, Dri-
-ing, or Roasting, and is then employed
as food by the natives of this Continent —
When taken in a moderate quantity it
stimulates the Stomach, excites Appetite
and promotes digestion. On account of
its Diuretic Virtues, it is employed in Drop-
-sies, and on account of its pectoral Virtues,
in the Asthma pituitosum. It is likewise
employed in Paralytic affections, both
internally and Externally, and sometimes
in Intermittants, from $\mathcal{G}\mathcal{X}$ to $\mathcal{G}\mathcal{X}\mathcal{X}$ at a
dose — Master wort affords a good Masti-
-catory for the tooth Ach, It is also employ-
-ed in Paralytic affections. The root pow-
-dered is said to Cure Intermittants —

Mixed

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Mixed with Hogs tarr it will Cure Ring-
-worms, It is a very Acid Stimulus were
such is required, - All the kinds of Oxiz
are very Acid, the Acrimony & Efidesprin-
-cipally in the Root

The Florentine Oxiz is a very strong Cathartic,
not only Causing Sneezing when taken
into the Nose, but also Inflammation of
the Nose and Head - Internally where it
proves a very strong Cathartic, it is used
as an Hydragogue (Vide Coub. med. Gay in Dupuy)
The root is to be macerated in Cold water,
which the patient is to employ as Common
drink - For this purpose our Common water
Flag, answers very well, M^r Colden has
found it to be a very strong Cathartic, and
Diuretic

Wine is a powerful Stimulent, the too
liberal use of it is hurtfull, by incrating
the System, and disposing to the Stone & Gout,
If use moderately it excites the Action of the
Stomach, raises the Spirits, and banishes
Sorrow and Care

But

But after the use of it, the person finds himself
 Relax'd, and Debilitated, in proportion as his
 spirits were before raised by the use of it—
 We are not ^{however} to speak of its Common use as
 a part of diet, but of its virtues as a Me-
 dicine, — Properly administered, it may
 prove an Excellent remedy in many
 Diseases—It is of service in all Cases of
 weakness & Languor, It is of service in Indi-
 gestion, and sweats of the Stomach, in
 Hypochondriac. It assists digestion by
 Exciting the Stomach into Action upon its
 Contents, and thus we find, nothing sooner
 relieves the oppression ^{arising from} ~~after~~ a full meal
 than a glass or two of wine after it—
 It is very good for hypochondriacs, It is
 an Excellent medicine and Cordial,
 were the strength by Chronic Diseases—
 It is also Excellent in some fevers, Fevers are
 Divided into two kinds, 1st those which are at-
 tended with Languor & Debility, and where
 the action of the heart and Arteries is too
 weak and Low—

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2nd The Inflammatory, when the Action of the Heart and Arteries is too Vigorous, Under the former we comprehend all Nervous, Malignant, and Putrid Fevers. There wine is an Excellent Remedy, as it Resists Putrefaction excites the too languid motion of the Heart and Arteries, and Encreases the Strength of the Patient, Where Miliary eruptions appear wine properly administered, not so as to heat the Body, is one of the best medicines we can employ, It is also very good to take of the Lettlesleep, attending these Diseases - A Delirium and Redness of the eyes, are no uncommon Symptoms, in nervous disorders, these are Occasioned by a weakened Circulation, Wine therefore by encreasing the Circulation will be of service in these Cases, if it encreases the heat & Delirium, it is not to be Continued - Wine is also very usefull in the last Stage of an Inflammatory fever, in which the Patient is generally weak - In the beginning of Inflammatory fevers the use of wine is improper on account of

of its Increasing the action of the Heart
and Arteries, which is already too Vigorous—
Wine is also employed with advantage in
the Small Pox, where it acts much in the
same manner as the Bark. With regard
to the quantity to be given, one bottle a day
will generally be sufficient, but such per-
sons as have been used to a large quantity
of it, in Common, must take more than
a person who uses it sparingly, or perhaps
not at all in Common Diet. It should
generally be given in a weak Negus, or
in a Diluted form, it supports the Vir
vita, & acts as an Antispasmodic & Antiseptic,
Burgandy, Claret, & Chereish, are the
best Antiseptics. The heating wines as
Madera, Port &c, are the best to preserve
against Contagious & Epidemic fevers,
of the usefulness of wines in Contagious
diseases, there was a remarkable In-
stance, during the plague at Marseilles,
when the Physicians of the place be-
ing all dead, it was necessary to order
a

A fresh supply from Paris, these thinking
 fear was the Cause of the Contagion, Determined
 to keep themselves always gay
 with wine, this they did, and by these means
 Preserved themselves; and as many others as
 would take the same method with themselves,
 whose Preservation however depended more
 upon the Antiseptic Qualities of the wine,
 than their high Spirits.

Malt Liquors, are more nutritious, more
 acescent, more laxative, and flatulent
 than Wine, They are very proper for the
 Cure of, and Preservation from the Scurvy
 Where there is a Debility of the Organs of
 Digestion, they are extremely hurtfull,
 causing, flatulencies, Spasms, and the
 whole train of evils attending Indigestion,
 and an acescent fermentation in the Stomach,
Animal Stimulants These are but few,
 as animals are made up of mild, bland,
 substances, and are themselves of a mild
 nature. Some of the secret fluids are
 however of an Acid Nature, these shall
 be

be mentioned under the head of Evacuants
 the most Powerfull are the Cantherides
 These are Commonly employed in External
 Applications, from their Acrimony acting
 as Stimulants, to raise blisters and inflame
 the skin, which they do by exciting
 an Inflammation, in the part to which
 they are applied, I shall here only treat
 of their use and operation when taken
 Internally, (The Ancients, Hippocrates & others)
 supposed the Acrimony to be lodged in the
 Head, wings, and feet, and accordingly de-
 prived them of these, that they might
 give them with more safety

But this is a mistaken notion, for the
 acrimony is found to be lodged in one part
 as much as another, Cantherides were
 employed for Internal purposes, before they
 were used Externally, Hippocrates employed
 them in Hydopic Cases, and as a Remedy to
 promote the Menstrual Discharge

They are found to have a Particular tendency
 to the urinary passages, and even discharge
 blood from those parts

D. Grainger

²¹⁴
Dr Grainger, in *Coen. Med. Essay.* recommends
a Combination of Cantharides and Alkaline
Salts for the Dropsy, and in Intractable Gleet,
Grewell employed them in ulcers of the
Kidneys, and Bladder, in the Gout, and in
Calculous Concretions in the Kidneys he
always combined Camphire with them, In
large doses they are very hurtfull, and will
even prove fatal, by exciting a Violent Inflam-
-mation of the Oesophagus, Stomach, and In-
-testines, They will also Cause a violent
Stranguary, Bloody urine, Constriction of
the Penis &c, they will affect the Testis
Cause continual Erections, Swelling of
the Scrotum, and discharges of Blood
and so destroy the Patient

In moderate doses they do not affect the
Stomach, and Intestines, but stimulate
the urinary passage only, This seems
to be owing to their being kept, in a Dif-
-fused state before they arrive, where from
their Connection to a particular part
of the Blood, they are in a manner
Concentrated

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Concentrated and thus can act more powerfully, This seems to be confirmed by their not always affecting the Kidneys when given in a diluted form, Gyps in substance has occasioned Stranguary, but more by chance than Design.

They do not always prove Diuretic. In Nephritic Cases they must be hurtfull, on account of the Inflammation they Excite. They are said to be usefull sometimes in stopping Glects, and the Fluor albus, which they do by exciting ^{an} Inflammation in the Parts, but their effects here are Doubtfull, as we cannot Determine the Degree of Inflammation, on account of their Diuretic Qualities. They have been supposed a Diaphoretic, and hence have been recommended by A Mead for the Leprosy, but we must not expect any great affect from them in this Disease. They have also been supposed Expectant, and therefore

were

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Were employed by Burton for the Chir-
-cough, but he always combined bark,
and Camphire, with them, to prevent
there bad effects, which were of more
service than the Cantharides, They are
at best a Precarious, and in many Cases
Dangerous Remedy, and ought to be
employed with the greatest Care, and
indeed they should never be used, where
we can get any other Remedy, to An-
-swer our Purpose

Millepedes have been employed for various
Pipidors, - Diacridos employed them as
Diuretics in the Dropsy, and in Obstruc-
-tions of the Viscera, Jandive &c

Boyle says the use of them will Sharp-
-en, and Clear the eye sight, in the first
Symptoms of a Cataract

They have been recommended in Sup-
-pression of Urine, and in Constrictions of
the Kidneys, owing to Calculous Concretions,
where they are supposed even to dissolve
the Stone (Lauzinbergius) They infect
Contain

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contain a stimulus, of the same undeter-
-mined nature as Cantharides, to which
however, they are vastly inferior in pow-
-er, I have seen them exhibited in the
Chlorosis, and Scrophula for a sufficient
length of time, without observing any con-
-siderable, or certain effects from them.

They have been employed in long Nervous
fevers, but if they have any effects they are
Imperceptible, if we produce any effects it
is owing to the wine in which the insects
are taken. They are given in substance
from ℞pt. ʒij for a dose, or the expressed Juice
of 50 or 60 Animals in a glass of wine.
Coccinella produces no great effects as a Me-
-dicine, it is said to be Diaphoretic, but
very large Doses are required to produce
this effect, there only use is to give an agree-
-able Colour to our formula.

Vipers have been employed for the Cure
of various disorders, and our Rattle Snake
also for the same, they have been em-
-ployed in Disorders of the Skin as the
Elephantiasis, Mead recommends them
in the Leprosy, The powder in wine
and

and the Broth of Vipers, has been used in
the jaundice, and other Obstructions of the
Viscera, It however possesses no superior
Virtues to any other Stimulent, Hoffman,
says he found himself disappointed when-
ever he used it; The Volatile Salt is
said to prevent the bad effects of the Bite,
if in quantity of ℥ij Broth, of the pure
Vol. Alk. The Fat is said to be usefull
in Disorders of the Eyes, Hans Meernintra
and that it will cure the Bite of the Ani-
mal, if rubb'd on the wound, Oil of
Almond or any other oil, will answer
just as well, The broth is recommended
as a high Restorative, and fine Nourish-
er, It affords an Alkaliescent rich nutri-
ment, In A Relaxed Stomach
The Rattle Snake is possess'd of the
same Virtues

Cold Bath) is considered as belonging to the Class of Stimulants — It stimulates and gives strength to the Whole Body it acts a considerable tonic The use of the Cold bath was first made ^{in medicine} use of by Hippocrates — Many Physicians prefer the salt water to any other they say the salt that is contained in the Water fixes to the Skin & Stimulates it and washes of the Impurities But where a Tonic is only required the Spring water is the best — The Cold Bath may be applied in two ways first by plunging into the Water and remaining in a short time or Secondly by what is called the Shower Bath where the Water is received in form of a Shower — The Skin has such a Connection with every other part of the Body that pleasure or pain produced upon it is extended over the Whole System In the Application of the Cold Bath the Skin becomes constricted and Pall owing to the Blood deserting the Vessels on the Surface and being determined to the Internal parts The Remaining in the Bath too Long is attended with great danger owing to the Blood accumulating in the Large Blood ^{Vessels} and endangering a Rupture of them or inducing a Reaction so Violent as to Carry off the Patient — This sometimes happens when the Cold bath is applied to one that is very warm or sweating —

The Cold Bath acts the same on Animals as it does on inanimate Bodies by constringing the fibres the do not act in this manner on the Internal parts for they all retain their Nature at warmth the have no action on the fluids but by the Reaction produced in consequence of the bloods being determined from the Surface to the heart — The Cold Bath acts chiefly on the Solid. Viva: — too ~~tense~~ Lax or too Rigid habit of body is hurtfull especially in the blood vessels and Muscular System the Muscular System is kept tense by the Part around and by the Tension of the Blood Vessels Bleeding does not act from crivulsion but from the Relaxation produced. and by it means relieves Spasm at a distance from where the Blood was taken and thus 320 of blood taken at once in a Pleurisy is better then 30 taken at different times — we are not to account for the Tension of the Blood vessels or the momentum of the Blood but from the Influx of the Nervous fluid The Stomach is so connected with other parts of the Body that the well being of it depends upon the State of the Stomach and Intestines — A man that is Customed to take a dram every morning finds himself very much out of order if he happens to miss a morning but as soon as he swallows his liquor he is Restored to his former lively State and in the same manner a per

person that happens to miss a Meal or does not get it at its Usual time he becomes feeble and Unfit for business of any kind & but as ^{soon as} he has got the Meal in his Stomach he is restored to his former State Owing to ~~the~~ ^{the} emptiness of the Stomach extending a disagreeable sensation over the Whole Body — The Stomach is also affected by Impressions made upon the Skin as a Blister applyed to the Skin Increases the tension of the Whole system owing to an increased influx of the Nervous Power — As warm water takes of tension it is no more than Natural to suppose that Cold Water increases the Tension of a part. — The Cold Bath is of use in Laxity of all kind as in Lax habits there is always an increase of Irritability and Sensibility this ~~the~~ is Mostly the Case with females

we seldom meet with an Increase of Irritability or Sensibility ^{in Robust, hearty Men} which chiefly effect the Bellies of Muscles the Stomach and Intestines — The Cold bath acting on the Solid. Viv. producing an Influx of Nervous fluid into the different organs — In Hysteria or Epilepsy attended with Irritability & Mobility the Cold Bath is of the Utmost Use Particularly the Hysteria disease as the

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are chiefly diseases of warm Climates but
in the Hypochondriac disease which is a
disease of the Cold Climates in this the Cold
Bath is not Indicated Infants is often
affected with Epileptic fits & when there
is accompanied with Laxity the Cold bath
is very proper - Palsy is owing to a
diminished Nervous Power in a Particu-
lar part these Medicines that Will restore
the influx of the Nervous Power will answer
Extremely well this is the nature of the
Cold Bath - Madness and Mania has
been cured by what is called the Drop Bath
where the Water is applyed Drop by Drop
Intermittent is brought on by any thing
that constricts the Vessels on the Surface
and Determine the Fluids to the Heart the
causes are analogous to the Effects of the
Cold Bath - There has been instances of the
Worst of Quartans being Cured by the applica-
tion of the Cold Bath - It is generally re-
commended by Galen in the Cure of Ardent Fe-
vers Doct. Dehan has described an Epi-
demical fever that carried off many which
was relieved by the Application of this
Medicine - I do not see a more effectual
Remedy in the Bilious fever than the Cold
Bath applyed during the Accession - A
chronic

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choone Head Ach may be occasioned by Va-
rious causes if it is Lodged inside of ^{the} Cranium
it is not to be removed by medicine. But if
what is called the ^{Chronic} head Ach ^{and} the Cold Bath
an excellent Remedy and has very promising
effects — This Medicine has been famous in
the Cure of Arthritic Complaint Bartholinus
gives a account of a Man affected with the
Gout plunging his hands and feet into snow
and Relieved by it — But this I think
is a dangerous Method as nothing ought
to be employed that would tend to drive
the Gout from the Extremities — Cold Bath
is an excellent Medicine in Calculous Com-
plaints. — Calculous concretions is mostly
attended with a Laxity of the Kidneys which
I think constitutes the Chief part of the Pre-
disposing Cause and Restricting ^{the} Vessels
on the Surface it will be extended to the
Kidneys and enable them ^{to} throw off the
Calculous matter and prevent an Accu-
mulation — An inability to retain ^{the}
Urine ^{owing} to a Palsy of the Neck of the Bladder
the Cold Bath is of Use in this Case as ^{is}
it is owing to a palsy of the Muscular
Coat of the Bladder — The Cold bath is
of some Service in Nocturnal Pollution
and in all Seminal Weaknesses as in
this case there is mostly a Laxity of the V.
Venuela

Vesicula Seminalis It is likewise of the utmost use in Gleet in Violent Chronic Colics the Recovery of health has been effected by this Remedy — In certiveness it has been used with success it is also used in Strengthening the Whole Body which has been debilitated by wearing too Warm Clothing — — —

Lect. 28th

Cold Bath is likewise of use to Infants to prevent and Cure most of the Diseases incident to that age — It was said by some^r the disease of infants was chiefly owing to an Acid in the Alimentary Canal, ^{and gave Absorbents to remove it} but this is not the cause of the disease but only the Effect The Cause of the most of the diseases of Infants is owing to a debility of the Prima Via which favours an Accumulation of Acid and What will restore them is the Method to be employed This effectually done by the Cold Bath — Rickets is a disease in Children is sometimes affected the Cause of it is a debility of the Moving fibre whereby Cartilage or Perostium is incapable of depositing Matter proper to form Bone the Cold Bath both removes the Cause and Obviates the effects of this disease — — —

The Cold Bath is attended with bad Consequences where Rigidity of the System is present

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Cold Bath has been recommended for the Cure
of the Pulmonary consumption but this
is at least a doubtful if not a dangerous Me-
thod - the Consumption is often brought on by
an Hemoptoe the Cold Bath by drawing the
Blood from the Extremes Parts towards ^{the} Viscera
and endangers a Rupture of some of the Vessels
the Consumption is sometimes attended with
Symptoms nearly nearly ^{like} the Hypochondriac
Disease, which has been taken for the Plethoric
and has been cured by the Cold Bath ^{which} is
I suppose the reason that the Cold Bath has
be recommended in the Cure of Consumption of
the Lunge - What I have said above on
Consumption may be applyed to Hemoptoe
The Cold Bath will likewise be hurtfull in all
Cases of Inflammation - Inflammation most
ly affect those of the Robust kind -
We should be Carefull also how we recommend
the Use of the Cold Bath to Plethoric patients for
by determining the fluids to the Internal parts
there is a danger of Bursting the Vessels - -

Sedatives are such substances as are op-
posite to Stimulants the diminish Motion
in the System and the force of the Pro-
ving Power - - - -

Opium is a medicine of peculiar Ef-
ficacy - Not only have the Antients dis-
puted whether it was cold or hot but We
are at this moment disputing whether it
acts chiefly as a Sedative or Stimulant
Galen

Galen^{us} says it acts as a Cooling Medicine while Plato says it is heating others says it is both Stimulating & Sedative — Some have imagined that Opium acts by rarefying the Blood while others adopt a Contrary opinion — Trallus does not deny that Opium does sometimes effect the Nerves but mostly rarefies the Blood ^{or} is effected by a Volatile Principle contained in the Opium But if we were to recollect what a small quantity of Opium is taken at a dose and what a small quantity that dose that has of the active Quality we would soon see the fault of this kind of reasoning its action depends upon its being fixed to the inner coat of the Stomach and producing some change in the Nervous System that this is the case is certain because patients have Vomited up the Pill the day after he had taken it. the Pill having answered the purpose for which it was taken — in this case it could not have acted on the Blood — If one Grain of Opium would rarefy the Blood to so great a degree as it has been supposed to have done to what an enormous Bulk must the Blood be increased to by taking two or three drachms — Haller supposed that it acted by rendering the Blood more Thick —
 some

Some say that the Blood of the Turks that fell in Battle was ~~rather~~ thinner than other Peoples but this was not the Case. Opium may by debilitating the Solids and Render them incapable of Acting on the fluids in a proper manner — Monro. White & proves by Experiments that Opium acts upon the Brain but the Mode of operation is uncertain. Monro's Experiments prove that it may be taken up by the Lymphatics but does not act ~~on~~ By Rarefying the Blood but taking of the Sensibility of the Nerves — Opium not only affects the Nervous System in general but affect only the Nerves of the Part to which it is applyed without taking any effect upon the Brain — — — —

Another Question is whether Opium Excites the Action of the Heart and Arteries or on the contrary diminishes it Tralles says it accelerates the Pulse Haller also says. it quickens the Circulation. But if the Action of the Heart & Arteries is owing to their Sensibility and Irritability^{ity} the Opium by taking of the Sensibility & Irritability must diminish the Action^{of the heart} and the Peristaltic^{motion}

* Monro opened a frog took out the heart and injected a solution of ~~it~~ into the Intestines and found that it had the same effect upon that Animal as it would if the heart was still in — — —

motion of the Intestines is Moderated in the
 same manner It appears from Doct White
 experiments that injecting Opium in the
 Intestines of an Animal It died sooner than
 if the Brain and Spinal Marrow was ta-
 ken away — It is beyond doubt that the
 Action of Opium is entirely on the Nervous
 System — Opium indeed may be of use
 in the Colic when it is owing to debility
 not by acting as a Stimulant but by ta-
 king of the Pain and removing spasmodic
 Constrictions of the Intestines it will restore
 the Heat to an Animal that has been de-
 minished by Vomiting by stopping the Vo-
 miting and alleviating the Pain that attend
 incipient Vomiting — Opium in some cases
 will prove Stimulant but it would be im-
 proper to think that this is always the Case
 We may as well say it is always a cathar-
 tic for by the Use of it a patient may get a
 Stool when many other things fail it acts
 by leaving the Bowels more Irritable and more
 Susceptible of Stimulus & by taking of the
 constriction ^{to} that may happen to be the cause
 of Continence To the Irritability or Quantity
 of Blood in the Laxer blood Vessels the bad
 effects of Exhibiting Opium in the In-
 flammation is to be ascribed to — It re-
 laxes and debilitates the Solida Van Swi-
 eden says it may be given to diminish
 heat

Surham advises it in a Pleurisy or Peripneumony it is certain that opium cannot increase the heat in this case for it would be fatal to the Patient it has been observed that by applying a Thermometer to the Body of a Patient the Mercury has fell — —

Effects of Opium upon the Body) most persons become cheerful after the dose of Opium. The Pulse slower and smaller the Body cooler all secretions but Perspiration diminished the Body calmer Perspiration less frequent it alleviates pain refreshes the Body and induces Sleep — —

The general effects may be easily accounted for by diminishing the Sensibility and Irritability.

The Particular Operation) the mind becomes cheerful by taking of disagreeable impressions too full doses of opium makes a person more dull and heavy owing to the sedative effects being too great — Laud. Liquid in some cases increases Vomiting a froth full of Opium would be cast up when Diacodium would remain on the Stomach owing to the different Constitution of the different Persons —

We should not confine ourselves to a particular quantity of Opium tho a grain is mostly enough

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ought to increase our dose according to the
Urgency of the Symptoms

How the Pulse becomes slower & fuller) what
ever diminishes the Irritability and sensi-
bility of the heart will of consequence di-
minish the Number of Pulsations the
fullness of the Pulse is owing to the Relax-
ation and Great quantity of Blood in $\frac{1}{2}$
Large Vessels - - -

It Diminishes Heat) the Heat of all Ani-
mal Bodies depends upon the Circulation
and if this Circulation is diminished $\frac{1}{2}$
Heat of the Body must of consequence be less
It diminishes all secretions but Perspirati-
on When the Vessels of the Secretory organs
is relaxed

Opium renders the Body Costive, by taking
of Sensibility & Irritability of the Intestines
by which means $\frac{1}{2}$ are not so much affected
by the Stimulus of the faeces the Mucosa
and the fluid parts absorbed the remain-
der becoming hard

Lect. 29.th -

Opium renders Respiration less frequent by taking of Irritation. Scallus says that Respiration is much quickened by taking Opium and this would be the case if the Circulation was quickened which it certainly is not Opium acting entirely as a sedative. The Blood Vessels in all parts of the Body is very much distended owing to the passage of the blood thro the Lungs being impeded the Blood is no more determined to the head than any ^{extremes} other parts of the Body and this in consequence of a diminished Respiration Redness of the Skin is owing to the large quantity of red Blood poured into the Extreme Vessels - Opium Alleviates Pain resolves Spasms Reproves ^{and induces sleep} a fatigued Latent by taking of the Sensibility and Irritability while the Mind is busy with external Objects Sleep is a stranger - Sleep is not a constant effects but sometimes Stupor-delirium Watchfulness - but after the Narcotic effects of Opium is over the Sensibility & Irritability returns the body feels heavy dull and Torpid Opium given in large quantities enervates the Whole system and Relaxes the Body - -

We have now shown that the operations of Opium is chiefly on the Nervous system and not by rarifying the Blood as it was thought by some of Opium

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Opium is frequently Used as a palliative or Remo-
ver of painfull sensations — Pain may be
considered as of three kinds Inflamm: Distension
Spasm and Irritation —

For pain from inflammatory distension
Opium is of doubtfull effect by favouring
an Accumulation of Blood in the Large
Blood Vessels — In Inflammatory diseases that
Depend for their Solution on a particular
excretion as in the Puerisy we are to
take care how we recommend Opium for by
checking this it may be attended with bad
consequences . it therefore when administer
in this case ought to be combined with Squil.
In the Acute Rheumatism it is doubtfull in
its operation The Chronic Rheumatism
it is of use in the Tooth Ach it does not
only diminish Sensibility but in time de-
stroyes the Nerves — It may be given to
mitigate pain in the Goutte when Sym-
toms of Inflammation is not Present
In Suppuration Opium is of Use in Re-
lieving Pain. it may likewise be given
in the Small pox to compose the Patient
In pain Arising from Spasm as in ^{the} Fla-
tulent Colic the Bowels to be evacuated
but if the Pulse is full the Urine high
coloured Heat in the Bowels there is a

a danger of an Inflammation of ^{the} Intestines
 in this case instead of Opium it requires the
 Antiphlogistic Regimen - in the Colera ^{is} Opium
 is a Sovain Remedy the Patient is drunk
 first Large quantities of Chicken Water in
 order to wash out the Stomach the Opiate
 to be taken afterwards Opium is of Use in
 the Bellous Colic by diminishing the Se-
 cretion of Bile. The ~~Spasmodic~~ Spasmodic is owing
 to Spasm which totally stops the
 Passage an evacuation must be had and
 this cannot be done without first alay'g
 the Spasm which is to be done with a
 dose of Opium in this case I frequently
 combine Opium with a Vomit - In the
 Dry Belly Ach or Colicca Diuturna the
 Opium may be employed for by taking
 off Spasm entirely removes ^{is} Discon-
 Opium may be used in Spasmodic Aff-
 ection of the Stomach but it is not to be
 continued for any length of time In Spasm-
 odic affections of the Uterus Opium is found
 Usefull - Opium alleviates the Pains at-
 tending Women after Labour when taken
 in the beginning of them but after the Pain
 has continued sometime there is reason to
 fear an Inflammation in which case Opium
 would be hurtfull Besides Opium in ^{the}
 (cold) cold application to the Abdomen would
 be attended with good Consequences

Those pains which are call'd false are ef-
 fectually removed by Opium which does
 not prevent the real Labour pain from
 coming on. To prevent Abortion Opium
 may be given after a few ounces of Blood
 has been taken from the Patient - Opium
 is of Use in $\frac{c}{2}$ Paroxisms of a Hep. hetic
 after Blood has been drawn and a Glyster
 or two being administr'd - fomentations
 apply'd to the Part is most effectual this
 should be put into a warm bath several
 Times during the Paroxism - This of urine
 $\frac{c}{2}$ $\frac{c}{2}$ $\frac{c}{2}$ Stone irritates the Neck of Bladder
 and prevents an accumulation of Urine the
 Patient having a constant desire to make Wa-
 ter. This may be remedied by a dose of Opium
 by taking of the Irritability of the Bladder
 and giving the Urine a Time to collect which
 may stand a Chance (if the Stone is small) to
 wash it away - In the Tetanus Opisthot.
 in $\frac{c}{2}$ Lockjaw is occasioned by irritation
 produced by the Puncture of Lesion of a Nerve
 when it can be done the Joint ought to come
 off but if this cannot be done the Medicine
 found most effectual is Opium the dose in
 this case ought to be large there has been instan-
 ces of several Draughts being given before
 it produced any effect - It has been Rec-
 ommended to Astmatic People - Astma are of
 2 kinds 1 the Spasmodic 2 Humoral the
 former is to be treated by antispasmodics
 the

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the latter Stimulating Medicines the former is
periodical the latter comes on Irregularly and
continues a length of time - Opium is never
given in the Asthma only as a paticative and
I think would be better Administered with an
emetick - Opium has been given to relieve
head Ach - but if it proceeds from a disor-
dered state of the Stomach Emetick ^{or} Vomacik.
are the proper Medicines - If from debili-
ty Cortex and other Tonics should be given
but when it is Nervous Opium is the Pro-
per Medicine for making use of an Emetick
It may be proper to combine Opium th
Ipecacuan in this Case - -

Pain arising from Irritation opium is of
use only to mitigate Pain - Cancers we
may order Opium to give Relief Honey
likewise be used while while other means
are made use of to destroy the Cancer
Opium may be given to mitigate noctur-
nal Pains attending ledus Suppuration
and likewise to alleviate the Cough in Pulm:
Consumptions

It has been employed for the Cure of Inter-
mitting fevers taken about half an hour
before the Set it acts as an antispasmodic
Honey likewise be given after a Vomick

Opium may be given in a Nervous fever
to compose the Patient

In diarrhoeas and dysentery opium may
be proper but not before the Bile is
properly evacuated it may be given
^{combined} with small doses of an Emetic in the
Evening and the Neutral Salts in the Morn-
ing mild Purgatives is to be preferred to
Acid as the Acid Stimulate the Intestines
while the Mild will act as a Sedative
and in some lubricate the Intestines

Opium in catarrhus Influsions is at best
ambiguous except combined with Squills &c
to obviate its bad effects — Cough in the
Measels is owing to the Eruption in the Fauces
irritating the Parts the Patient in this case ought
to be bled and also Laxative Drinks is Cough
to be mitigated by a decoction of Marsh Mal-
lowes. Syr. Pop: &c but when this cannot
be done recourse must be had to Opium
to relieve the Cough and take off Irritation
from the Lungs The Patient will then Expec-
torate freely —

Opium in hemorrhages acts as an Antispasmodic & diminishing the Action of the heart and Arteries and by that means checks and Stops hemorrhage in hemorrh: from the Uterus Glysters of Warm water and Laud Liquid should be injected when the hemorrhage is owing to an irritability - But when an increased Action of the heart and arteries is the Cause Bleeding is the proper remedy - but when owing to relaxation opium is hurtfull ^{but} opium may be used in these Cases to give temporary relief untill proper medicines can be given but as soon as the Effects of the Opium is over it returns with as much Violence as before ————— Opium in the Venereal disease is supposed to be infallible in any Case - the Physicians of the Army have employed it with the Greatest Success in large quantities as 10 or 12 grains in a day the Ulcers being washed by a Weak Solution of the Opium - In my own practice I have Used Opium with the greatest Success - I have entirely cured the Gonorrhoea by giving one grain of Opium Night and Morning combined with ℞ Pulv. Gum: Arab: in the Cure of the True Syphilis I mostly combine it with Corrosive Sublimat or Calomel -

Lect. th 30. January 2nd 1786
Cicuta there is several Plants that has been called *Cicuta* the *Cicuta* of *Stork* is of *Conium Macularium* there is another called by *Linnaeus* (*Cicuta Aquatica*) It is the *Conium* we shall take notice of here It has been extolled as a good Remedy to discuss *Scrophulous Tumors* & has by some been found of Use internally It has also been said to be of Use *Cancerous Affections* - *Cancers* are of 3 kinds 1 *Genuinis* 2 *Fungoid* 3. *Scrophulous* — 1 *Genuinis* it is the most common it first appears of the Size of a *Pear* its hard to the Touch it will continue Long in this State without causing Pain it sometime feels like an *Almond* sometimes like a *hazelnut* it appear at other times to the feel like a *Tendon* or the End of a *Cord* at the beginning it appears perfectly Smooth but after it has continued sometime it becomes *Rough* the mostly remain single & and Solitary in the Breast - while this ^{kind} continues small it may be easily moved about except it adheres to the *Pectoral Muscle* or other parts that lie under - or if it lies close to the *skin* it mostly adheres to it and forms *Wrinkles* on it - When this *Cancer* Breaks there is a discharge of *Putrid Bloody Saries* the Edges hard and *Ulcers* afford good *Heal* in this kind of *Cancer* the *Mineral Waters* act in the same manner as *mercury* & *pooves Syngous*

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Luxuriant when the Tumor begins to Shrink
there is no hope of Dissolving it while it
continues small it is frequently without
Pain - there is sometimes a small degree of
Pain during Menstruation but this does
not continue Long but soon goes off - but
Those which resemble Tendon or Pack thread
are mostly Painfull in this Species of the
Disease the Hemloe is not attended with
any good effect it is often Usefull in the
Scrophulous Cancer & in the Scrophula itself
But in the Genuine Cancer it is hurtfull
It kills the Pain ~~for a short time~~ ~~but it soon return~~
for a short time but it soon return with
redoubled Violence - The Hemloe acts in its
case by irritating the ^{Cancer} ~~Scrophulous~~ and of
consequence aggravates. A Cancer is seldom
or ever cured when Under the Armpit ow-
ing to the Number & Large blood Vessels in
the Part - Cancers in the Breast are fre-
quently Brought on by affections of the
Mind in Women - there is a Connection be-
tween the Mind & breasts

in 99 cases out of 100 this Species of Cancer is
Local and may be taken out by the knife
and

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and Ichthius may remain a long time and
become cancerous at last - The only ~~remedy~~ remedy
is excoriation Guy's Powder or in some cases Ar-
senic the Cancer should be entirely removed for
if the smallest part of the Cancer is left it
will bring it on a fresh - - this disease ne-
ver affect the Whole System - -

Cancer Fungus: this Species of Cancer
mostly attend Fat Lusty Women with
Large breasts It begins like the Genuine
but is not so hard but more Spongy ⁱⁿ
it breaks out it is very different its grow-
wth is much quicker the genuine Cancer
will remain a great time very small
but this Species of Cancer in a Short time
grows to the Size of a mans head ^{when it Breaks} it mo-
ostly breaks in several Places & Pours
out a Bloody Serum and from those
apertures the Fungus is pushed out ^{it}
has the appearance of a Sheeps Liver and in
shape sometimes like a Mulberry and at
other times like a Collyflower they are
sometimes hard like Cartilages the Edges
of wound is Irregular and puffed up
the running amazingly profuse they
are Strangulated at their base the Sub-
sularny Glands are never affected in Fun-
gus Cancer is not confined to the ^{Breast} ~~head~~ but
- affects

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affects the Back arms Legs &c. the Genures
affects the Crown of the head - Lips &c. - A per-
son was affected with a Cancer of the Breast
in consequence of letting the Milk stagnate
the only thing that Promised Relief was yo-
ng Puppies to suck the breast which occa-
sion'd great pain at first but it became
less violent every time the Puppies were
applied till at length she was perfectly
Cured the Puppies mostly died after the Op-
eration till after the Cancer began to grow
more easy the then remained Alive. Toads
has been apply'd to cancers of the Breast th
succes by sucking - The Toad should be ap-
plyed to the Breast but should first be put
in a bag made of Lawn - -

The Scrophulous Cancers undoubtedly owe
their origin to an Internal Cause and Most-
ly to the Venereal Disease remaining in the
Blood (Scrophulous Swelling) in the Ele-
phantiasis the Glands are indurated which
is probably owing to Scrophulous habit
of Body - - -

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By the term Scrophulous I mean Large & small Tumors in the Breast under the Arm Pit on the Neck under the Throat &c are sometimes red sometimes inclining to Blue at other times like the Elephantiasis and sometimes like a Ringworm - They are occasioned by cohabitation with impure People sometimes they feel like a tendow or like the end of a Pack thread under the skin these are evidently an indurated Lymphatic Vain - It is a disease that is handed down by a person to all their Posterity & it is no wonder that they are so obstinate to remove As difficult as they are to Cure they are as difficult to distinguish - The Scrophulous requires & yields to mercurial Purgations but the Genuine & fungous Cancer does not give way but is aggravated by them And in the Genuine external applications will sometimes remove the disease but in the Scrophulous never - Scrophulous takes place mostly in Unhealthy Patients but it is Genuine in people apparently in health The Lump in those of the Scrophulous is not quite so hard as in the Genuine nor is there any Pain felt in the Part untill it breaks in Scrophulous breast when they become hard they adhere to the skin and Muffle these Lumps are many in number placed in the whole

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Map resembles a small Crab they spread themselves up and down the Breast & over towards the Muscula Pectoris Major Anticus the Puls appears to adhere fast to the breast They are not brought on by affections of the Mind as the Genuerius is sometimes but is supposed to arise from contusion. The Patient face is of a sallow Lead Colour puffed up eye lids and a scabby appearance of the Skin Tumors in the Groins armpits &c The Inflammation is allways greater when they are Extirpated then it was before they appear in different parts of the Body at the same time in some places the Sore resembles Bacon and sometimes Fungous & sometimes it is covered with a dry Scurf The small tumors are frequently discurfed by Mercurial Protoperations & Poultices they have been cured by a long Course of Mercury taken Internally & applyed Externally - It is in this Species of Cancer & in this only that hemlock is of any Use In the Cancer Genuerius & Fungous it is not only Useles but certainly hurtfull Cancers in the breast allways originate from a Schirhus that is at first Movable - So that whatever Swelling occurs that do not Originate from a Schirhus let the Symptoms be ever Violent and Bad they are not to be called Cancero Baron Blomer

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are most liable to be affected by this Species of Cancer. People that wear tight Stays
a make too free Use of Sp. Liquors are also
liable to be affected with this disease Indu-
rations from Stagnant Milk in the Breasts
which become as hard as Cartilage may
be dissolved sometimes but Mostly suppurate
in this Case it is proper to apply Ext. Water.
& Emol. Poult. - Women Predisposed should
follow such a Course that their Nerves sh.
not be weakened by it and should suc-
cle their own Children this will not pre-
vent the disease but prevent its raging
immediately upon the Breast I have
told you before that if it is not all ex-
terpated will return with more Violence
than before - Some People assert they are
infectious others deny it say they are
not but from several Cases that I have
seen and Read it appears to me that open
Cancers are at least infectious the Sores if
succed Cancerous Sores expired Immediately
by after the Operation - From the
difference in the Construction of Breast we
may easily know why men are Seldom
affected with Cancers in the Breast - Wo-
man are Seldom affected with Cancers of
Lips &c - [The Characteristic Difference
between a Venereal Ulcer & Cancer Venere-
al

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al Ulcers and Tumors are of different ap-
pearances and may be reduced to three
kind 1 Ulcerated P 2 Gangrenated
3 hard from the Perostium - The first
may be distinguished by the Whitish Stuff
like Bacon in the Venereal disease the
begin to swell and inflame very soon
Second Gangrenated puts on a most
frightfull appearance the destroy the
parts in every direction Corroding
Bottom & Sides. But they feel more
soft the Edges not so Irregular as in
Cancer the Mortification which accom-
pany Venereal Ulcers of this species dis-
tinguishes them from Cancers 3 Hard-
ones that proceed from the Perostium
A Case that I shall relate will give you
a notion of the Symptoms that attend
species of Ven. Ulcer A Man Aged 40 had
shooting Pain in one of his breasts attend-
ed with a soreness the Breast was indura-
ted & there was an Elevation of the ribs the
other breast was hard and movable He
took the Corros. Sublimat internally & apply-
ed a strong watery Solution Externally
Pain left him and in a few days he was
entirely relieved all but a small Tumor
that remained which was made to Sup-
purate and healed very soon In Scrophu-
lous Cancers internal Medicines are Request
Cancers

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in Scrophulous Cancers Cancers in $\frac{2}{3}$ Tongue
full hard they are Very Red and some
times Blue Venereal Ulcers feel soft they
are of a Yellow Colour inclining to Red &
sometimes Green & they soon gangrenate
Cancers on the Lips are mostly slow in their
Progress the lip becomes dry & Chapped they
are covered with white Plaques the Papillæ
Rise high and have sometime Reflexed
Edges Ven. Ulcers in the Mouth make as
much progress in a few Weeks as Can-
cers do in as many Months Years - If
from what I have said you will not
be able to distinguish the Cancer from
the Venereal Ulcer the following Method
is infalible - Cover the Ulcer with Ca-
sorel & a sticking Plaster over it If it is
Venereal the sore will mend but if it is
a Cancer it will be aggravated by the Ap-
plication - From what I have said
you will understand that the Genuine
& Fungous Cancer is entirely Local and
is to be cured by Extirpation by the knife
or by Guy's Powder And that the Scrophu-
lous Cancer is An affection of the Whole Sym-
phatic System & it may be cured by the
Use of Extract of Hemlock & is the only spe-
cies of Cancer that yields to the Hemlock -



In The internal Use of Arsenic for the cure of Cancers 49th of Pure white and shining Arsenic is to be dissolved in ℥ij of distilled Water and a table Spoonfull to be taken every day for the first Week 2 Table Spoonfulls may be given the Second week 3 on the third Week and after he has taken it for a Short time and finds no inconveniencs from he may Increase the Quantity of Arsenic to ℥ dissolved in a Quort of distilled Water — Doct^r Justamond has apply'd in a Variety of Cases Plunkets Remedy has the same effects as Guys Powder Doct^r Justamond Accuses it of bringing on Spasmodic affections of the Muscles and particularly those of the Eyes It is most certain that Guys Powder is not effectual in all Cases Doct^r Biscain never considered this Remedy as infalable & when ever the Knife can be Used it should be prefer'd to the Caustic — but when the Cancer is so situated that it would be inconvenient & even dangerous the Caustic should be prefer'd the Basis of which is Arsenic every successful attempt to extirpate the Cancer, asowater it and the Slightest and easiest applications
made

made to incurable Cancers the Better
 Arsenic is the Basis of Doct. Martini Pow-
 der and is the Active Remedy - The Mild-
 est way of Applying Arsenic is in Solu-
 tion it may frequently be applyed in ill-
 conditioned Ulcers with Success - when
 we apply the Arsenic it should not be
 upon Large Surfaces at a time. ~~With~~
~~out~~ - Whether would not Opium alleviate
 the Pain from the the Use of Arsenic
 The Celebrated Surgeon Sydenham gives us a
 Case where a Person was destroy'd of her
 Reason by the Use of Arsenic - Belladon-
 na has been applyed with good effects
 in some cases of the Scrophulous Cancer
 but are hurtfull in the Genuine and Fun-
 gous Cancer. - - -

Rhosclyamus this confuses the head as
 much as Spirituous Liquors it has
 been apply in Cataracts & Dysenterry
 it has the same effects as Opium but
 does not check the discharge in dysen-
 terry as much as opii - - -

Nicciana it possess a singular Nar-
 cotic Stimulating and Purging Quality
 it is an Emet & Disposes to Sleep but
 by long use it becomes habitual and has
 none of those effects

The Principle way of using tobacco is in the form of Glysters in this way it is of Use in Colic pains Strangulated Hernias Tympanites &c. The Glyster ought to be continued till a sickness is felt at Stomach we have many Cases when Tobacco has been of use in the discharging of hard tumors -

Laural appears to possess a Poisonous Quality this has been proved by experiments made upon Beasts - As the Hemlock will not injure Cows but is a Poison to Man But Laural by several Facts is proved to be a Poison to the Human Constitution -

Tea & Coffee - Tea is ^{more} highly sedative & Narcotic when fresh than when kept some time especially to weak Stomachs some suppose the Bad effects of Tea is owing to the large Quantity of warm Water taken in with it but they are greatly Mistaken for the Weakening the tone of the Stomach the Spasmodic affections attending the Use of it is owing entirely to the Tea - both the Bohea and Green Tea are products of the same plant. The Virtues of Coffee may be attributed to the Empurumatic Oil formed by Roasting it - It has been used in ~~some~~ ^{more} moderate diseases

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but is hurtfull in dyspepsia and
Flatulenti - I attribute many Ner-
vous Diseases to the Use of Tea and
Coffee & It is highly probable that
tea and coffee has had their share in
rendering the Nervous diseases more
frequent now than they were some
years ago when Tea and Coffee was
not used so much as it is at present.

Saffron the Real Medical Virtues of
Medicine has not been given It is by some
said to be a Medicine of Superior efficacy &
Virtue while others suppose it is of little
Consequence in the Materia Medica -
Doct. Boerhaave has supposed it to be an
excellent Medicine to strengthen the Nerves
Its Action is like Opium Saffron apply'd to
Stomach Relieves Vomiting -

The best class of Medicines are
Antispasmodics are those Medicines
that relieve Spasm - Spasm is of 2
kinds the 1st is strictly speaking what
is called Spasm the 2^d Convulsion -
Hysteria it affects both the Body &
Mind there is ^{no} disorder that this will
not immitate - This disorder is pe-
culiar to Women but Men is sometimes
affected with it -

The Symptoms that occurs in Hysteria never preserves any certain Rule or Type, but are different in different persons and sometimes even in the same person -

The Patient is first affected with Tremors in the Limbs Loss of sight a Sense of Cold and Chills upon the Countenance Pale and Flush

the Urine is pail and Lymphed and in small Quantities - and a Sense as if a Ball was moving from the Abdomen towards the diaphragma by several convolutions as if it followed the Course of the Intestines - The Situation of the Pectus is so constructed that a Glyster pipe could have no admittance
 Difficulty of Breathing Palpitation
 Strong Pulse a Singing noise in the Ears
 and a delirium comes on before the Patient falls into deep Sleep - but before it Sleep the Glabrus Hystericus rises up to the Upper End of the Oesophagus and produces a Sense of Suffocation the Voice is lost - the Puls grows slower the Sight grows Dim and at last she falls into a Profound Sleep and recovers with deep Sighs the Eyes open the Puls becomes fuller and she returns to her
 senses

sense After the Paroxysm is over they
 mostly complain of a pain in y^e head
 The Hysteria is mostly attended with
 convulsion the Body is distorted, with
 a faltering Speech the Senses mostly re-
 mains in some degree and they remem-
 ber what passed during the Paroxysm.
 These are mostly preceded by a sense of
 Cold about the Os Pubis and in this
 way the Fits continue recurring at In-
 tervals till death or till they are re-
 mitted by Proper Medicines - and the
 feet feel Cold likewise there is a fal-
 tering in the Speech and they general-
 ly talk of things that is not in being
 they beat their Breast - Involuntary
 Laughing & Crying some lay in a Com-
 matorn State the Pulse appears som-
 times to be entirely lost and in some
 cases they are in such a Condition as to
 appear like death - and it is not seldom
 there is a severe Sense & Dull pain of
 the Head sometimes it affects one Side
 of the Head only sometimes the Other
 together with a fullness of the Head
 with a strong Pulsation of the Arter-
 ies Violent Pain in different Parts of
 the

the Intestines Sometimes they are af-
 fected with Vomiting other times with
 Colic some a desire to make water in
 some it returns Periodically Others
 have no more then Palpitations and
 faintings in the time the Fit ought
 to return when a patient is subject
 to Hysteria and is attacked with of
 this disease they mostly feel some of
 the Symptoms of Hysteria - The more
 Violent the Paroxism the more short is
 duration - during the interval some
 enjoy perfect health some with head
 Ach- &c. Most Authors say Hysteria
 and the Hypochondriac Disease are the
 same but to me there appears to be a great
 difference - The description of Persons af-
 fected with these diseases are of different
 Temperatures and of Different Sex
 Hypochondriac Disease always attacks
 the Melancholly Anxious & those
 fond of Solitude & they that are mostly
 troubled with Dreams Hysteria those
 of a contrary habit it seldom proves
 fatal persons are sometimes seized wth
 Apoplexy by which they are Carried off
 this

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This disease (the hysteric) is very Ob-
stinate it mostly affects the Patient
till the Day of her death -

Cure Indication is 1.st to remove or guard
against Occasional Causes 2.nd to relieve &
Mitigate the Symptoms 3.rd to prevent a
Return Ind: 2.nd when the symptoms are ^{any slight} no
occasion for Remedies But if they are
Swere the Spasm Great & the Patient
Plethoric Bleeding may be Used this is
indicated when the Respiration is dif-
ficult and Signs of an Approaching Coma
tho we ought always to Bleed with
Caution as it is only a Palliative &
~~only~~ tends to weaken the Patient - the
Remedies applyed ought always to be
exhibited at the Beginning of a Fit.

Lect. ^{or} 30th

In the 2.nd indication the Class of Anti-
spasmodics is Necessary & Vol: Salts &
Spirits Empurumatic Oils & Ocher -
These are Chiefly Used before or during
the Paroxysm - as there is sometimes a
Sensation Cold arising from a Particu-
lar part towards the Head which when it

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it arrives at the Patient is always ^{Terred}
with a fit this may be prevented by ty-
ing a Ligature above the Cold Part. —

A Radical Cure of the Hysteria Depends
upon Tonics and Astringents it is in
cases of Mobility & Debility that Tonics
is indicated the Restore and increasing
tone of the Whole System and Remove
Debility we should administer them
with Caution in sanguine Habits &
where there are Visceral Obstructions
it is best to give them in small and
repeated doses Chalybeate Waters is a
Usefull Medicine Aurb & Auster Wine
is of the Utmost Use in Hysteria Cold
Bathing is one of the Most effectual Re-
medies by Issues and Scatons we may
Relieve the Disease many Violent af-
fections of the Mind has Cured the Hys-
teria- affections of the Mind will not
only remove but produce Nervous dis-
eases Notwithstanding all we have
said it sometimes happens that all
Medicines Proves ineffectual the Cure
in this case ought to Depend upon the
Cold Bath & Proper Regimen —
Asafetida this Gum has been in
use

a Long time it is a good Antispasmodic Stimulus & Diaphoretic & Derritic it Yields its Virtues both to Water and Sp. Vin. A Weak Stomach will not retain it in a Crude State but will soon be Ejected by Vomit: but in these Cases it may be Used in Solution ʒss of the Gum Dissolv'd in ʒviij or ʒviij of Water it is of Great Service in flatulent & Spasmodic Colic administered in Glysters It has likewise been recommended in fever Particularly of the Nervous but there is antispasmodic more effectual than Apsatidus - It has likewise been recommended in Catarrh. Senilis but its good Effects here is owing to its diaphoretic Quality

it has likewise been recommended in destroying worms in the Bowels

it has been esteemed an emmenog as it stimulates the Pectum from which it is communicated to the Uterus & in
this

this manner it acts as an Emenezog
 Gum: Ammon is a weaker Anti-
 spasmodic than Apocynida but is
 a Good Promoter of Expectoration -
 'Volatile Alkali' these are the Salt of Horn
 Horn and of Sal Ammoniac they differ
 from each other very little the Sal Corro^{xi}
 contains more of the Empereumatic Oil ^{or}
 that from Sal: Ammoniac they are both
 Antispasmodic joined with a Stimulic
 They are indicated in the last Stage of Nervous
 Fever If the Patient has a diarrhoea I most-
 ly combine it with Opii but if he is for-
 tive I combine it with Tart Emetic It
 generally renders the Pulse Slower & fuller
 It is known to occasion a heat and bu-
 rning in the Stomach but this is sel-
 dom the Case - Its use is not confined
 to the Nervous fever but it is indicated
 in the Last Stage of an Inflammatory
 Fever Particularly the Pleurey when
 the expectoration is diminished In flatu-
 lent and Spasmodic affections of the Intes-
 tines if there is Pain Opium may be com-
 bined with it & likewise when the Stom-
 ach has been affected - Volatile Alkali has
 been

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ben Used with benefit in the Wane
during Gout when it has seized upon
Stomach in this Case Sinapisms ought
to be applyed to the Soles of the feet &
Old Brandy Used internally -

Castor is applyed ⁱⁿ the same inten-
tion as Asafatida I have not often ap-
plyed Castor when I have Recommended it
it is when the Patient cannot take Af-
safatida and then I combine it wth Opium
Musk this being a very expensive Medicine
I have not give it a fair Trial but it is
evidently an Antispasmodic it enters into
the Composition of the China's Hydrophobia
Powder which is a combination of Musk
and Cinnabar - - -

Other is an antispasmodic it is of Con-
siderable Use in Spasmodic and Arthritic
complaints of the Stomach it has also been
Applyed to the head for the Cure of the head
Ach with Success - It is a Very Volatile Me-
dicine its effects are but short the dose should
Largely & frequently repeated - -

Ol. Succin British & Harlem Oil has
been Applyed as Antispasmodic External
ly with Success they have been Used with
Success in the Tooth Ach. &c -

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Camphire Natural History It is a
Substance sui Generis It bears some affinity
to Essential Oil It is Soluble in Alcoh
hol it differs from Essential Oil in being
always solid It cannot be decomposed
by distillation It differs from Essential
Oils in not Effervescing with Acids The
Plant that Camphire is obtained from
grows Spontaneous in every part of China
It is a species of the Laural It comes
near in smell and sensible Qualities to
our Bay Berries Camphire is of a Volatile
Penetrating and Inflammable Nature
It imparts a heat to the Fauces Stomach
&c It has in this account thought to
be Stimulant - - -

Lect. 35

Camphire) Doct: Tralles & Haller ^{supposes} that the
Camphire dissolves the Blood and by that
means brings on Procopiation they say
that People become thin And Emaciated
from the Use of Camphire - But if we con-
sider the small Quantity that is taken
and Undergoes the Action of the digestive
Organs and then mixed with such a large
Quantity of fluids it would be absurd to
say that It acted By Dissolving the Blood
some say it is most effectual Combined ^{the}
with _{the}

Opium - The Penetrating Quality of Camphire
 is proved by several Experiments. A
 Solution of it was embred by an Application
 The Legs of a Frog was macerated in a Solu-
 tion of Camphire by Doct. Monro. and then
 macerated in Sp. Vin & it smelt Strong of
 the Camphire - It does not act as deapho-
 retic by its Stimulating Quality - As An-
 tispasmodic Lelas Spasms on the Ex-
 treme Vessels by this means produce
 Sweat Camphor being an Antispasmodic
 it certainly must act in this Manner
 Camphire is ^{in all Cases} of the ^{same} Antispasmodic
 are Indicated - Doct. Pringle has made
 many experiments to prove the Antisepti-
~~tic~~ ^{and} shows that gr.ij would keep
 Meat from Putrefaction longer than gr.60
 of Common Salt but his Experiments
 has ^{not} been repeated often enough to draw
 a Conclusion but experiments made by
 other People since him prove that it does
 Preserve animal Substances from Putrefac-
 tion when living or dead the Purification
 of Camphire is upon the Nerves of the
 Stomach - tho it resist Putrefaction it
 has no the Power of taking it off -
 Diseases in which Camphor is Indicated
 It has been Recommended as a Usefull Medicine

in Hysteria Disease & When these are ²⁶³
purely spasmodic the Camphor certainly
is of Use. It has also been Used with
Success in Maniacle Cases Camphor has
likewise been Used in Epilepsy the per-
haps it is not indicated in one case out of
ten It has been frequently and generally
Used in fever some recommend it in ev-
ery Species of Fever while others confine
it to Putrid fevers it has also been re-
commended in Nervous fever Camphor has
been given with Success in Puerperal
Fever in the Erisipelas it is of the g-
reatest Success it has also been given
with benefit in Pleurey & Peripneumony
In All External Inflammations It
is of Use in the Stopping of the Menis ^{or}
is owing to spasm As it is found to be of
Service in Inflammation I should think
it would be of Use in the Gonorrhoea In the
Hypochondriac disease it has been of Service
combined with Opium - from what has
been said it evidently appears to be an
Antispasmodic The Dose ought to be ʒ or
ʒʒ. Mostly combine it with Tart emetic
with Nithrid: or Opium when used in
the Dysentery Camphor when given In-
ternally should always be very finely
Powdered

Powdered or it is apt to float in the fluids of the Stomach and irritate the upper mouth of the Stomach - -

Those Medicines which act on the fluids - Medicines as well as diet. Effects the blood which may proceed by Children sucking Nurses under a course of Medicines and being affected with $\frac{1}{2}$ of Medicines the Nurse had taken -

Attenuants by this Term I mean those Medicines which correct the too great Lentor or Viscosity of the fluids - The Principle Attenuant is

Water when taken Cold into the Stomach it Stimulates it Promotes digestion & assists the solution of the Aliment It restores the determination of the fluids to the Skin It is hurtfull in all Inflammatory disorders but is of the utmost Use in Serous and Putrid it Refreshes the fatigued Body &c -

Warm Water is directly opposite to Cold it relaxes the Stomach and of consequence the Whole System It acts as a deluent They both have the same effects after they reach the Intestines
They

they stimulate the Intestines by their Bulk and remove from them all Stagnant Matter It should be swallowed in large Quantities to have this Effect I have chiefly ordered a Pint of Cold Water every Morning in Hypochond. Cases &c It has a Considerable Effect in the Viscera by its bulk it stimulates them and increases the different Secretions Water is perhaps the only attenuant Alkalies have been by Physicians employed as Attenuants but they appear to me to have little of that Effect as they meet with an Acid in the Stomach they will become Neutralized If they are in a Caustic State they are rendered mild by the Fixed Air that is extracted from the Aliment the Produce thereof acts by their action on the Solids -
 Lime ^{in the form of the Stone} water operation is similar to that of Uva Ursae - Lime Water has frequently cured the Fluor Albus it has been given with success in the Chronic Dysentery If it should Grip it should be combined with Milk It has also been recommended with success in Scroph.

Scrophulous complaints it is necessary
 in this case to combine it with large
 Quantities of Milk It has also been re-
 commended in low intermitting fevers
 in ^{the} Hypochondriac Disease it has been
 found of great success - The Lime Water
 in all bad conditioned Ulcers. When com-
 bined with Ol. Amygdal is a good Appli-
 cation in Scalds & Burns. Corrosive
 Sublimate dissolved in Lime Water fo-
 rms Aqua Phagadenica - -

Soap is a combination of Oil and an Al-
 kaline Salt it is very often employed
 in Medicine and has been called an At-
 tenuant Soap has been employed in Ob-
 structions of the Viscera when given in a
 large quantity it purges - Water in w^{ch}
 Soap has been dissolved was supposed to
 be more effectual in obviating the
 effects of Poison than Pure Water - It
 has been recommended in what is called
 Glutinosa Spontaneous when combin-
 ed with bitters and Tonics - Soap
 has sometimes been prescribed in A-
 cidities of the Præna Vie It has also
 been

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been recommended in Calcaneous Complaints
when taken to the dose of half an Ounce
per Day - Fluxham supposes that Soap
taken in Large Quantities favours the
coming on of the Consumption in
those that are predisposed to this Com-
plaint - Soap dissolved in is
one of the Best applications to in-
durations of the breast & If it is di-
solved in a proper Menstruum it is
one of the best Medicines to Inject into
to Tubercles Ulcers - -

Lect^r: 36th

Inspissantia are such Remedies as
give the fluids a proper consistence w^{ch}
they are too thin a State but whether any
Medicines have this Effect is doubtful

Demulcents are such Medicines as de-
fend the parts from Acrimony these are -
1st Gum Arabic is one of the Most
Pure and Simple Mucilages it is indi-
cated in all thin and Acid Reflex-
ions such as Catarrh. Gonorrhoea &c
it may be United with Olemiz with
benefit - - - - -

2^d *Tragacanth* is of the same Nature as *Gum Arabic*. It is of Use in all Hemorrhages owing to Irritation by drinking quantities of water with it dissolved in it acts by sheathing it Acrimony and taking of Irritation and by this means removing the Hemorrhage— — —

Ichthocola agrees much with the Gums in its qualities It is an animal Mucus and is more Nutritious than the Gums it is not so good as the gums in dysentery it is liable to become rancid & act as a Stimulus— &c— — —

The next Class of Medicines are the Antacida they are said to prevent Acidity from forming in the Stomach but it is generally known never to Prevail Beyond the Intestines and but Seldom beyond the Stomach there is in some cases when the Stomach is Scirrhus or debilitated an Acid Produced nearly as strong as any of the Mineral Acids — The medicines made use of

use of as Antacids are 1st Absorbents
 these are Magnesia: Gabs Eyes & Chalk
 Chalk perhaps is as good as any of
 them they have no other effect than
 they Absorb the Acid and remove it
 for the Present Time - whenever
 there is flatulency in the Stomach
 Magnesia is improper - - -

Errhines are such Medicines as Stimu-
 late the inner membrane of the Nose &
 excite sneezing - they may sometimes be
 of Use in particular affections of the
 head - the Errhines chiefly employ'd
 are Turpith Mineral Asarum and
 Tobacco - by stimulating the Mem-
 brane and exciting a flow of Mucus
 they may be of Use in proportion to
 the discharge - Habit destroys the
 Effects of Errhines: Persons strong-
 ly accustomed to the Use of Tobacco is
 sooner Lon a Meal than miss the
 Pipe people often smoke and sneeze
 when they are not the least affected
 with it these ^{facts} are made more per-
 ceptible and obvious to shew that
 the most pernicious matters may
 become

become habitual & the Stimulated the
 Stimulate the Salivary Glands and pro-
 mote both Secretion and Excretion -
 There cannot much be said on the Practice
 of Smoking and Chewing Tobacco It
 is an Indelicate one and must prove
 hurtfull to delicate habits by its
 Narcotic Quality

Asarabacca

Turpeth Mineral is the Most acrid
 of this Class and should be used with
 great caution - Errhina has been used
 in Aphoria especially that Species of it
 that is denominated Serous - but this
 is a dangerous method may by forc-
 ing the Blood so Violently into the Vef-
 sels of the Brain endanger a Rupture
 Expectorantia are those medicines
 which increase the discharge of Mucus
 from the Lungs Expectorants as they
 Stimulate the Secretory Vessels and in
 crease

increase the Excretion of Mucus in
 the Lungs they must be of Precarious
 effect in some diseases of the Breast
 The Chief expectorants made use of in
 Medicine are Glyster Ground Ivy Pe-
 rny Royal these act by Stimulating
 the Lungs and must in some cases be
 Precarious Elecampane is still more
 of a Stimulus & Squills are still
 more acrid and disagreeable Pectorals
 are given in every affection of the Breast
 The diseases of the Breast are all brot
 under 3 heads namely inflammation
 Obstruction & Spasm in all these Ca-
 ses expectoration produces the best
 solution of the disease in Inflamm-
 mation in Peripneumonia Pleurisy &
 Consumption the Cure is to depend
 upon the proper Use of the Antiphlo-
 gistic regimen Pectorals in this Case
 is precarious expectoration is best
 produced by small doses of Tart Emul:
 Syrups and Oily emulsions may Pa-
 liate the Symptoms but adds nothing
 to the Cure of the disease in some ca-
 ses

creas the Secretion of Saliva No
 Medicinis Posses this Quality when
 taken Internally but Mercury. -

Mercury its action depends intirely
 on its Stimulating Quality During
 the Most Copious Use of Mercury in-
 ternally it is not found to have
 any other effect then might be ex-
 pected from its Stimulating Qua-
 lity It acts on the Intestines & Its
 chief action is on the Salivary Glands
 & is the Principle Medicine of this
 effect mercury acts upon the Sto-
 mach when any of the Acid Pra-
 paration is given but on the In-
 testines when a mild one is given
 but both acid and mild Pass
 into the blood sometimes the Acid
 stimulates the excretories of $\frac{1}{2}$ Skin
 the mild passes of by the Salivary
 Glands Its effects depends upon a
 Chemical Action or Property a sti-
~~ment~~ of any kind applied to the
 Salivary Glands woud have $\frac{1}{2}$ same
 effect as the Mercury - an Emet. of
 Turpitu

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Turpeth Mineral Produces a Slight
Salivation by passing over them and
Stimulating them the Saliva that
flows from a Patient under a Sali-
vation has a Very disagreeable fetid
Smell the Fumes of Mercury applied
to the Nerves produce Sopor Palsy
&c this occurs but seldom then their
effects is entirely Narcotic

Its Use in diseases and first in
Venereal Disease this is divided in-
to two species the Gonorrhoea &
Confirmed Lues - & First of the
Gonorrhoea is a local disease Confi-
ned entirely to the Urethra & sel-
dom extending as far as the Pro-
state Gland and without Ulcers in
any part so that Mercury in this
Case can be of little service The Me-
thod I find to be mostly effectual is
a solution of the Caustic Alkali In-
jected into the Urethra in the Very
first stage of the disease before the In-
flammation comes on in the com-
mon method we order the Anti-phlo-
gistic

gister regimen and sometimes Bleeding Injections of Oil & Mercurial Ointment dissolved in oil & Acid Purgatives should never be given. It is necessary to keep the Body open. Oil Rucini Fomentation of warm water to the part when the Ardor Urine is Violent it will also alleviate the Cordes Topical bleeding to the Part may sometimes contribute to remove the Inflammation when the Inflammation is gone the Gleet may be remedied by the solution of Vitriol Alb. injected into the Urethra the Ought to drink quantities of Mild Liquors such as Milk &c in my own practice I have dropped the Use of Injections but rely upon the Antiphlogistic Method — —

Lect. ^{1st} ~~2nd~~ th 37

Of the Confirmed Lues or Pox there are instances of its being in the habit without shewing its effects, and Children has been infected by a Nurse in which the disease never shew'd any effects — When it appears with
Buboes

Buboes Spots or Efflorescence on the
 the Skin Pains in the head which
 is always more violent when the
 Body is heated Puscles appears on
 the Skin of a Yellow colour Ulcers
 on the Extremities & Palate Loss of Sight
 difficulty of hearing - In this case
 the Mercury has been a Serviceable
 Remedy upon the whole the Most
 simple the Preparations of Mercury
 is the Best tho sometimes the Acid
 Preparations will cure the Disease
 If the disease is chiefly seated in
 exterior Parts the Acid Preparations
 are the best but if some of the In-
 ternal parts is affected the Mild
 Preparations is to be preferred a Sa-
 livation produced by Sublimat^e
 is always more violent than ^{or}
 it is produced by a Mild Prepara-
 tion if Sublimat^e is combined with
 opium it determines More effec-
 tually to the surface and is of great
 or Service than when given in its
 simple

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Synaple state - Alkaline Salt is a
remedy when too much Sublimat^e
is swallowed so that if we mix Soap
or Alkali to corros Sublimat^e it would
destroy the effects We should always
avoid Salivation as it is a very disagreeable
companion - Salivation is only a cri-
terion to know when the Mercury is
received into the Halit we should
always use the Warm bath to di-
termine to the Skin - when there
Buboes Mercurial Friction about 2
inches below the buboes should be ap-
plied by applying the ointment below
the Bubo there is greater benefit by
applying it immediately to the part
affected as the Absorbents that take up
the Mercury applyed in this way di-
rectly throught the Glands of the Part.
some Physicians say that Buboes ought
to be made to suppurate and by it
means to discharge the Viri but this
is a mistaken notion for by bringing
a buboe to suppurate there is a
loss

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Large Surface of Matter exposed to the
Absorbents and must of consequence
retard the Cure — Mercury tho a
sovereign remedy in the Venereal D.^o
is not the only one the Lisbon Diet
drink has been known to cure the
disease & there are a great many Roots
in this County that has in number-
less Cases cured this disorder There is
a species of the Lobelia that has been
known ~~to~~ to cure the Pox the Method
of Using it is to take about 6 of the
Plants wash them clean then Boil them
in ^{Wij} of Water and let the Patient take
a Large draught every morning and to
drink it throughout the day for his com-
mon drink the Ulcers are also to be wash-
ed in this decoction if the disease is
obstinate they commonly add a few
Roots of the Ranunculus which will
both Vomit & Purge and if what has
been said can be relied upon can we
not say that there are ^{in the Vegetable kingdom} medicines as
effectual in the cure of the Venereal
Disease

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Disease as Mercury - Mercury has been highly recommended in the Cure of the bite of a Mad Dog & its Use in this case has been confirmed

Mercury given internally and apply'd externally may in some cases ^{Remove} prevent the Hydrophobia it ought to be apply'd early in the bite and continued till till a Salivation ensues - But from Late observations made by Doct. Jⁿ Fisher-gill proves that neither mercury nor any other Remedy is a Certain Cure in this disease Whether the Caustic Alkali will cure this disease or not is yet to be determined - Mercury has been employ'd in all kinds of obstructions and Sores - with success in Schirrhus obstruction of the Viscera it has been attended with the best effects - Mercury is almost effectual Remedy in Chronic ^{Suppurations} affections of the Liver and in all old foul Ulcers and Sores Crude Mercury has been recommended to ^{be} used in some particular obstructions of the ^{Viscera}

Mercur given to the quantity of 2 or 3 Pounds at a dose. but this is a Precarious method - Mercury is also attend with the best effects in a disorder known by the name of the Yaws

The Yaws is a disease that resembles the Venereal Disease very much but is a very different disease from the Venereal

The Patient first complains of a pain in his throat difficulty of Swallowing Dry mouth swelling under the Lower Jaw Sores at the Root of the Tongue ^{and} extend down the throat Ulcers all over the Skin sometimes the Mouth, and Scurvy is only effected at other times there is only a swelling in the Groin & sometimes the Patient feels Nocturnal Pains which shew that it is of great affinity to the Venereal Disease - The Yaws are more infectious than the Pox
*The same method of treatment is to be follow'd in the Yaws as was directed in the Venereal Disease - - -

The Fleves Doct: Cullen has treated ^{of} this disease under the head of *Cynanchus Ichochialis*.

Trachialis it is particularly incident to Children it seldom attacks them after the 7th or 8th Year of their Age It chiefly attacks those that appear to be of the Best constitution - the Children first become drowsy and heavy, a little hoarseness the Pulse quick, flushing in the face soreness at the upper end of the Trachea this way the Patient continues two or 3 days when all the Symptoms becomes more Violent

The Symptoms mostly remit & return with redoubled Violence and the Patient is in danger of being suffocated the Patient appears so easy during the Remission as to flatter himself that he is perfectly free from the disease but there is still a difficulty of Breathing we are never to consider the disease as cured till all the Symptoms disappear -
 Appearance on dissection after Death in some cases there is a Quantity of Mucus

Mucus stopping up the Trachea and in other cases this Mucus is hardened into a membrane that stretches across the Trachea the Cause of this disease is a White Thick membranous Crust surrounding and stopping up the Passage entirely This Membrane is of such a Texture that it may be Macerated in Water two or three days without being softened - We shall now inquire how this membrane comes to be formed we know all young Animals abound with Mucus to supply the various Wastes of the Body

The Proximate cause of this disease is a too great secretion of Mucus in the Trachea the thinner parts being carried off by Respiration the remainder becomes thick and solid & forms that membrane that is discovered after dissection - Some have supposed it to be occasioned by Spasmodic disease but that this is not its case appears from several Arguments

Anti

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Acute spasmodic affections of the Lungs
is always preceded by or accompanied th
a discharge of limpid Urine but this
is not the Case in the Hives In spas-
modic affections of the Lungs the Vo-
ice is not affected but in the Hives it
is one of the Pathognomonic Symptoms
The Hives is always accompanied by a
flow of a Large quantity of Mucus the
Spasmodic affection Never and lastly
we conclude that it is not Spasmodic
the Predisposing cause a Robust habit of
Body and the Exciting or occasional Cause
is any thing that relaxes the Secretory
Organs The hoarseness &c is owing to a
collection of Mucus in the Trachea &
Mucus obstructing in the Lungs ac-
counts for the difficulty of Breathing
Red face &c -----
The disease to be divided into 2 Stages
1st

2 when we see that the Breathing is ^{not}

very difficult the Pulse full &c we may not be much Alarmed the first favorable Symptom is the Cough becoming strong - - -

Bleeding is very seldom to be Used, Blister is not of great benefit Vomits has been given in this disease but they are not of so much Use as has been assigned to them the Increase the Secretion of mucus in the Trachea and cannot produce the good effects Ascribed to them - Purges are of more service by far than Vomits the Stimulate the Intestines and divert the Mucus from the Trachea - Calomel is the Best Medicine yet known in the Cure of this disease it ought to be given in large doses and frequently repeated but ^{as} the membrane is perfectly formed Remedies of this kind is too late except it can be brought away entirely ^{or} may be done which may be done by vomiting coughing and Bron-
cho-tomy

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Bronchotomy Last emet has been gi-
ven with success to excite Vomiting -
Long Pepper has been applied with suc-
cess to excite Coughing - -

Lect. ^r 20th

Emetics and in the first place of the
Preparations of Antimony whose chief ac-
tion is an Emetic that it may be said
to be Cathartic Diaphoretic and Diuret-
ic It is divided into Crude & Regulus
Its efficacy all depends upon the regulus
this Regulus cannot act on the Human
Body before it is converted into a Saline
Preparation - For the Crude Antimo-
ny the Sulphur is not to be acted up-
on by our fluids and is in some cases
entirely inert It may in some
cases be efficacious tho it is a doubt-
full Remedy when we Use the Crude
Antimony we should Always prefer
the Tops of the Cones as they contain
more of the Regulus than any other part
Emet

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Vin Emetic and Tart Emetic in the
Antimony combined with the Vegetable
Acids Tart Emet is to be preferred as it
will answer in any case where Antimony
is indicated - The Preparations of this the
decem has been made Use of in many di-
seases - Antimony has no action upon
the Fluids but is entire confined to the
Solids It acts as a Stimulus on the
Stomach but this is not the Only part
that Antimony acts upon it Passes
through the Pylorus into the Intestines
and there acts as a Cathartic Physicians
have long been trying to obtain a Pre-
paration whose action was confined en-
tirely to the Intestines but to no pur-
pose Its chief action is on the Stomach
and is from thence communicated over the
Whole System If we intend to have
its purgative effects without the Emetic
it should always be given in small doses
The Saline Preparations of Antimony
if given in solution acts as an Emetic
sooner than when given in any other
form it prove Sudorific from ~~the~~ ^{the} con-
cent of the Stomach with other part of

of the Body It may also in some Cases prove diuretic The Butter of Antimony combined with Sal Ammon act as a Diuretic Some of the Preparations has been supposed Expecto- rant and particularly the Ferrous Mineral but it will not excite Expectoration any more than what might be expected from a common Emetic - -

Diseases in which Antimony is Indicated] The Chief effect produced by it depends upon its Emetic Virtue Vomits constitute a great part of the Modern Practice - This Medicine has been always recommended as a febrifuge & too much cannot be said in its favor as good medicine in fever Physicians thought that it cured fever by its evacuating Quality But this is erroneous for we find fevers in some cases cured without any evacuation as for instance in the Rheumatism and other Inflammatory fevers I have shewn you before that medicine may prove Antispasmodic and Diaphoretic merely by its action on the Stomach - when the Sweat
 1 Breaks

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out in consequence of taking an timo-
ny it mostly continues 2 or 3 hours the
Pulse at first becomes quick and if there
^{is a} delirium it is augmented, but after the
Sweat begins to flow the Pulse becomes
Slower and the Delirium Relieved this
is its operation in continual fevers
It ought always to be given in Quan-
tities sufficient to excite Nausea or a
Small degree of Vomiting when we want
its Sudorific Effects—Antimonial Pre-
parations is sometimes given in Inter-
mitting fevers with success it ought
always to be given before the Paroxysm
it relieves or puts of the Symptoms &
brings an irregular intermittent to a
Regular type we may in this case give
it either in Solution or Substance Tart
Emet is not the only preparation of Anti-
mony that is used for this purpose
all the Preparations answers the same
purpose but in a different degree
I have frequently seen James's Powder
given with success in the Hospitals in
Edinburgh but sometimes it failed of
producing

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producing its effects if It meets ^{with}
an Acid in the Stomach it acts Violently
but ^{if} it does not meet with this Acid it
is of little or no effect. Tart emet is cer-
tainly more Shure and effectual The Ce-
lebrated Riverius made Use of a Medicine
which is at this ^{time} known by the name of
Antiquarium Riverius its antimony
combined with a certain proportion of
(Mercury) this is a Valuable medi-
cine in the Bilious Fever especially
if it Purge - The Celebrated Do^r Hut-
ham prefers the Antimonial Wine
to any of the ^{other} Preparations of Antimony
but this is certainly a more uncertain
Preparation than Tart Emet as there
is a great difference with regard to
the Sourness of the Wine employed
in making the Vin Antimonii so I
think I may conclude that Tart E-
met is the Best Preparation of An-
timony now in Use - Antimonial
Preparations has been Recommended
of dysentery these ^{were supposed} depend upon its
effects as an Emet & Purgative but
these

these do not depend upon their E-
 metic Power but the Cure sometimes
 depends upon their Diaphoretic Vir-
 tue - The Sagacious Sydenham said
 the dysentery was a fever thrown
 upon the Bowels - for what is more
 frequent when the Perspiration is ob-
 structed for the fluids to be determined
 in upon the Bowels and produce A
 diarrhoea and if this obstructed Perspi-
 ration happens in the Summer a Dys-
 sentery is produced - Doct^r. Baker has
 found the Tart eretic more effectual in
 the Cure of dysentery than the Ipecacuan-
 na which was supposed to be a Spei-
 fic - Vitrum Antimonium has been
 cryed up for the Cure of this disease but
 it is almost insupportable in the ourglic-
 ids and at any rate its effects are more
 doubtful than Tart Emetic as this Me-
 dicine in the dysentery gives a New di-
 termination to the fluids it stands to
 reason it would be of Use in other dis-
 eases. The Vitrum Antimonium has
 been

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Been Used in Hemorrhages of the Uterus
Its use in this case depends upon its
diaphoretic Quality determining to it
skin and taking off the determination
to the Uterus - In Hemorrhage and Dis-
sentery it will be more effectual if
combined with Opium than either of them
single - The Diaphoretic Effects is further
proved by the Various Eruptions of the
skin it is scarcely necessary to mention
that Antimony is one of the Most effectual
Remedys in these Cases but the best
preparations in Eruptions of the skin
are those that is Least apt to Purge as
Antimony does not act on the Fluids
it must certainly in this Case produce
its effects by its action on the Solids
As the Preparations of Antimony has
such Various effects as Emetic Cath-
artic Sudorific &c I think we may con-
sider it as one of the Best Medicines in
our Materia Medica - & I am not under
the Least apprehensions but Children
may

may take it as well as Adults as Children does not bear any Evacuation so well as Vomits There is but one inconvenience that attend the use of Emetics & that is the Weaken the Stomach — — —

Specacuanha is a Root a product of America it has been given with Success in dysentery and has been supposed a Specific in this disease Its action is quicker than that of Tart Emetic and may be used where Speedy Vomiting is Required Doses from 5 to 20 grains — —

Large and seldom draughts of Water is better to work it off than small & Repeated frequently Camomile is preferable to Warm Water — — —

We order Emetics 1st to prevent fever & to be given in the Beginning of fever 2^d in the Eruptive fever of Small Pox & Measels when there is no topical Inflammation

they are also indicated in intermitting immediately after the Paroxysm The french

Physicians direct it in Apoplexy ²⁹³ but
this is a Precarious method. After a de-
bauch and an Acid Glyster should be
Administred at the same time when
it is owing to the Stomach being over Load-
ed Pulse weak Breathing hot and diffi-
cult - Emetics are of use in convulsions
occasioned by Worms in the Bowels they
are also indicated where Patients have
swallowed Poisons of a Vegetable Na-
ture they should Excite Violent Vomi-
ting after the Vomiting is excited he
should Drink Large Quantities of Wa-
ter Acidulated with Wine Vinegar
But if he has swallowed Arsenic Vo-
mits has been improper in this Case
Warm Water Melted Butter Oil &c
should be administred as speedy as
possible to sheath the Specula of
Arsenic - If Corrosive Sublimate is swal-
lowed the Alkaline Salt should be ad-
ministred which will decompose the
Sublimate by uniting with the Muri-
atic ^{Acid} ~~Salts~~ Doct. Robinson has shewn
that they are employ'd with success
in

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in Hemopto Physicians have generally
recommended Sea Voyages, but these are thought
to produce their Effects by the Vomiting
occasioned by the Sea Sickness — —

Vomits are improper to those of Weak
ly Constitution the should not be gi-
ven to Hysterical Patients especially
during the Paroxysm nor are the pro-
per in Violent Agitations of the Mind
Nor during the Menstrual Period
nor in persons dispos'd to Apoplexy
nor in those who have hernia — —

Lect: 39th

Cathartics comprise all those substan-
ces that increase the Evacuations by St-
ool they evacuate the Contents of the Sto-
mach the Excite the Peristaltic Motion
of the Intestines and invites the Fluids
from other Parts and increase Absorpti-
on and are on this Account of Use in
the dropsy They invite the Blood into
the Descending Aorta and Relieve head Ach
a

A Long and frequent Use diminish ^{it}
 tone of the Intestines They are not of much
 use in Inflammatory disorders They by
 Irritating the Rectum Produce Piles -

Cathartics is divided into 2 kinds 1 The gen-
 tle Laxatives or what are called Ecoprotics
 they operate without Stimulating the
 Rectum & 2^d Draotic or Stimulating -

Under the head of Gentle are 1 Fruits such
 as Tamarinds Prunes &c In Inflamm-
 matory Cases Gentle Laxatives is Proper
 The following decoction is very proper
 for that Purpose Zij of Prunes & Tam-
 rinds Water Zij and some of the Ex-
 pressed Juice of ~~Black~~ ^{Black} Cherry's The Next
 is manna & Sugar - Manna is little
 Superior to Sugar and is liable to ferm-
 entation in the Stomach Next in Or-
 der are all Mild Bland and Express'd Oils
 Castor Oil is a most excellent ^{and safe} Laxative
 The seed from which the Oil is Express-
 ed is an Acid Poison Collic Pectoris
 is as I said before generated by Particles
 of Lead taken into the Body The Oil
 by

by enveloping those Saturnine Particles Generally Cure the Disease Also Generally Safe without being dejected It evacuates the Contents of the Intestines without Irritating In the Hyperic & Hypochondriac disease there is not a Purgative to be compared ^{to} it It is one of the Best in Habitual Constipation It is likewise the most effectual and Best Laxative in the Piles Sulph is also a mild Laxative and has been Prescribed in the Piles but is not to be compared to Ol. Ricini Mustard is a good Cathart in Paralytic Complaints Soap is a Laxative but not a certain one. Next in Order of the Mild Purgatives is the Neutral Salts such as Sal: Glauber & Epsom The Common Glauber Salts differs in no other degree from the Epsom than being more Clear and free from Impurities The Irritation from these Salts is confined to the Bowels the have been given ⁱⁿ

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in fever and in the Pleur they all possess a Sedative Quality They ought to be given in small doses there is not a Better Medicine in Inflammatory disorders on account of their Sedative Quality Neutral Salts are improper in all flatulent distensions of the Bowels They are likewise impropor in Hysteria & Hypochondriac Patients & given in the Gout it frequently Causes an Attack of the Stomach

2nd Acid Purgatives 1st Aloe is a Purge of a Particular Quality when taken in small Doses it does not Grip For the Hypochond: Disease Aloe affords a good Laxative It when taken in a large Dose produces the Pile It stimulates the Rectum which Stimulus is Communicated^{to} the Uterus and brings on an Attack of the Menses Its Use ought always to be confined to Scarly Secretion of Bile — The Balsamic Purgative is chiefly indicated in Spasmodic

Cases without fever. —

Rhubarb this is a Valuable drug in some cases when it is good it is of a Redish Yellow Colour dry & Brittle & Compact in Shape Resembling a horses hoof It should be Variegated Rhubarb has been recommended in dysentery on account of its astringent Laxative Quality but it certainly in this Case is of little Consequence but is of Use in the Diarrhoea & Fluor ^{in the} Albus. ^{Colic} Rhubarb may be employ'd with Sweet Rhubarb Pills or Tincture of Rhubarb is a good medicine Subject to those Subject to Flatulence & Cardialgie & Stomach Peculiarly proper for the diseases of Children

Fol: Sene: these are of the Acid and Stimulating kind best given in infusion in warm Water with the Addition of Coriander seeds or Orange Peel which covers the Smell and taste It is Inferior to most other

other Purgatives

Jalap is the Safest and most Effectual
of the Stimulating kind of Cathartics
It purges without any or little Stim-
ulus Jalap acts as a diuretic and is
Used in Hydropic Complaints Thought
in this Case to be combined with Calo-
mel and given in the Early Stages of
the disease - - -

Scammony is the Juice of a Plant
in Cleppa Pure Scammony is of Light
of a shining appearance when broke
It is of Various Colours Scammony has
been recommended as an Hydragog Vari-
ous methods has been made Use of to
Under this Medicine Milder but with
slight Effect - - -

Diuretics) by Diuretics I mean
those Medicines than increase the dis-
charge of Urine and are indicated in
Dropsies - - -

The Proximate Cause of Dropsies are
various

either those which depend upon the
 State of the Fluids or those which
 depend upon the State of the Solids or
 Vessels and first of those that depend
 upon the State of the fluids the flu-
 ids are liable to be changed by large
 Quantities of Water taken in by w^{ch}
 their bulk is increased & by the Stop-
 page of Evacuations or Secretions as
 Obstructions of the Urinary passages
 & Obstructed perspiration both of
 which often occur in producing the
 Dropsy the fluids may be increas-
 ed not only by the Quantities of drink
 but by improper assimilation of
 food The Suppression of Excretions
 is not always the Cause but som-
 times the effect of the dropsy par-
 ticularly those of their Aqueous*
 & another cause may be when the
 *a rupture of a Lymphatic and a
 paralytic affection of the Veins - fluids

fluids are disposed to recede from each other when their bulk is not increased under this head we may include Dropsies arising from profuse Hemorrhages as unnatural discharges from the Uterus or hemorrhoidal Vessels by these long continued Evacuations a large Portion of Red Globules is taken off & the Remainder rendered less Viscid Analogous to this is the Dropsy produced by Hydatides Of those Causes that depend upon the State of Solids the first proceeds from a Relaxation & obstruction of the Exhaling Arteries hence the Excretions will be lessened 2^d another thing that tends to obstruct return of the Venous blood as Ligature Polypic or affections of the Coats of the Veins themselves I once saw a fatal Dropsy produced from a Rupture of one of the Coats of the Jugular Veins The 3^d Cause is Inflammation of the Viscera particularly of the Lungs producing Hydrothorax 4th Cause is obstruction of the Liver

ver producing Ascites & Anasarca 5th

A Venous Plethora is a frequent cause hence it is that old people are so subject to dropsies this may be owing to a want of Power to promote Motion in the Vessels and proper Circulation of the Blood - The last case may also be owing to a diminished absorption hence it is sometimes Relieved by Vomits in 12 or 18 hours a determination to the Skin and Sore to the Absorbents being Restored this cause is what produces the Edematous Swelling of the Lower extremities viz by the Venous obstruction of the affording Blood

6th the last cause of Dropsy may arise from an Obstruction of the Lymphatics but this seldom happens - -

Cure must be varied according to the Cause therefore no general Indication can be given But whether the disease depend upon the State of the fluids or Solids Diuretics are proper & generally necessary to procure a temporary Relief by melagating the symptoms till Remedies Adopted to

the Cause may be given towards effecting
 a cure Evacuations by vomit and Stool
 weaken the Patient more then diuretic
 which last dont allways have effect
 but when they do are salutary of the Diu-
 retic to be employed - of these the Cau-
 tic fix'd Alkali or Alkaline salt is the
 most Powerfull diuretic now in use
 ℞ of which may be dissolved in ℥℞ of a
 decoction of worm wood and Sassafras which
 increases its diuretic Quality and tends
 to remove obstructions in the Viscera. Som-
 thing analagous to this is the Ashes of Broom-
 ℞ infusion in Rhinisk Wine has been much
 employ'd as a diuretic but is nothing better
 then the common Ashes of Oak Wood all
 Emetic and purgatives Particularly Jal-
 lab & Speacacanna by boiling becomes
 strong Diuretic Snake root in the different
 preparations in which it is used proves
 either Emetic Purgative Diaphoretic or Di-
 uretic and often given in Pleurisy in su-
 ch a manner as to produce expectora-
 tion which is the salutary Crisis of the Com-
 plaint Mustard, Horse Radish and the different
 kinds of Crepus are perhaps the best diuretics par-
 ticularly in scorbutic patients they may be used in
 infusion but the best Preparation of them is Mustard
 Why this is excellent to excite a gentle Stimulus also.

Antiseptics) There are few or none of the Medicines that belong to this Class but what has been Treated off Before -

Putrid Disorders are all nearly if same in their Nature and Cause and what is said of one may serve for all. The same Cause will in one produce a Putrid fever in another a Angina Maligna and in a third a Dysentery we shall first speak of the Occasional Cause and then of the Proximate - All the Animal Fluids have a tendency to putrefaction and would certainly run into it if it was not prevented by Proper Remedies - The Humors of our Body is more or less Putrescent according to the nature of our Aliment Unsavoury and Impure food has a tendency to Produce Putrefactions Persons of a strong habit of Body is more

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liable to be attacked with Putrid di-
seases than those of a thin and spare
Habit Violent Exercise may act as an
Occasional Cause Spt. Liquors - food
of difficult Digestion may also act
as an Occasional Cause Exposure to
the Rays of the Sun - While the
Excretions and Secretions are properly
performed the Patient will enjoy
Health but an Obstruction of them
may act as a Remote Cause Persons
warm in bed suddenly exposed to Cold
Evening Dew & Exposure to Cold after
a hot day Particular affections of the
Mind diminishes Respiration Long
continued Watchings Putrid Exhal-
ations - Warm & Moist Air has no
tendency to produce Putrid Fevers
but will occasion Intermittents.
Doct^r. Lind says Persons are more healthy
at Sea than they are at Land The
higher the Ships on the Coast of Guinea
the more healthy & vice versa From
what

what has been said I think we may
 assert that Moist and Cold will not
 produce Putrid fever without it is
 combined with Putrid Exhalations
 When certain parts of the Earth is o-
 verflowed with Water there is no such
 thing as a Putrid Fermentation takes
 Place and the Inhabitants are all
 healthy and at the same time
 those that live by rapid Streams are
 healthy. Those that live near Stagnant
 Waters are Unhealthy—from
 All these observations I think we may
 conclude that the Proximate Cause of
 Putrid Disorders consists in a putrid
 ferment taken in or generated within
 the Body and converting the fluids
 into its own Nature ——— Some
 People have doubted whether Putrid fe-
 vers are allway infectious And to
 me it appears that No person can
 be infected except he is exposed to the
 same

same Occasional Cause - all Putrid disorders are similar in their and ^{causes} ^{1st} Indication ^{to} evacuate the Stomach & Bowels
 2^d We give remedies that resist the Retroactive Tendency, then restore Tone to the System - Bleeding should never be employed unless we are certain of an Inflammatory Diathesis
 Vomets have been used in Putrid disorders but Doct. Haller says ^{1st} there is a constant Nausea Present in these Cases and that ^{with in} Camemil Tea ^{is} ^{the} best to evacuate the Contents of the Stomach without Administering any Emetic
 Stimulating Purgatives should be avoided Decoctions of Sassafras should be given to keep the Body open & Liment Glysters would be of service
 But we should always guard against a diarrhoea but if this should happen Cinamon may be taken in small doses but if this should fail a small Quantity of Bark & Terra

Terra Japonica — (Blisters) when there is a topical affection Blisters is of Use as in the Angina Maligna They Irritate the External and by \bar{y} means Relieve the Internal Parts. But I must own that I have not seen the Good Effects that has been Ascribed to them they are said to bring on Gangrene and this is the only objection I have to them —

But to Resist Putrefaction all the Medicines and Drinks directed above should be employed together with the Elixer Vitriol and Bark The Bark should be Used in Large Quantities and as much as the Patient's Stomach will bear if his Stomach will not contain the Bark it should be given Clysters - Wine ought also to be employed If the has a Wild Raving Look the head should be Shaved and washed with Spirit Warm Fomentations is of Use in These Cases & In the Ulcerous
sore

Sore Throat Do^r. Fothergill recom-
 mend a gargle to be made Use of
 composed of Barley Water Vinegar
 & Honey and should be Injected into
 the Throat - In Putrid fevers Cold drinks
 may be allowed Persons labouring
 under a Putrid ^{disease} mostly have a g^r
 eat aversion to food but they should
 always be forced to take some Nour-
 ishment as it will Produce a
 fermentation in the Stomach and
 correct Putrefaction All ripe fruits
 should be Used - -

His Linen and Bedcloths should
 be changed He should take a few
 doses of Rhei Gentle Exercise should
 be made Use Cold Bath. &c. -

Blisters or Epispastics by Epis-
 pastics are to be Understood those
 substances which increase the Action
 of the Vessels in those Parts of the Sur-
 face of the Body to which they are
 applyed

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applied in such a Manner as to pro-
duce an Afflux of fluids there

From the Use of Epispastic Medicines
the following direct effects are produ-
ced 1st they excite Pain 2^d they increase
the Quantity of Fluids circulating thro-
rough the part to which they are ap-
plied 3rd they produce a discharge in
form of Serosity^{ly} in the form of Pus

The Changes induced in the System
from the Primary effects of Epispastics
are 1st attention to the Sensation of
Pain Excited by the Application of
Epispastics 2nd an Increased excitement
in the Nervous Energy throughout the
System in general 3rd an uncommon
determination of Blood to the Part par-
ticularly acted upon 4th a diminution
of the Quantity of Blood passing through
the Blood Vessels of the Neighbourhood
of those in which the flow of Blood is
increased & A Permanent change in
the Mode of Circulation A diminution
in the Quantity of circulating fluids
And

And a particular Demerition of the
serous part of the Blood -

The different articles refered to the
Class of Epispastics may be distri-
buted in the three following orders

1st Epispastica Rubefacientia as Ex-
amples of which may be mentioned
Senae Volatile Alkali

2nd Epispastica Vesicantia (Cantharidin)

3rd Epispastica Suppurantia such
as Issues and Setons -

The Indications w^{ch} Epispastics is Ca-
pable of fulfilling may be derived
from the three following sources

1st from their Acting on the Nervous
energy -

a To diminish Violent Pains b To take off
the Effects of Uncommon Sensibility
c To Remove Torpor -

2nd From their Altering the Balance of
Circulation Hence they be employed

a To diminish the Impetus of Blood
against any part Morbidly affected

b To diminish a Morbid Increase in
action of Vessels in the Neighbour-
hood of those to which they are Apply

3^d From their Producing evacuation
hence they may be employed

a To diminish the Quantity of Cir-
culating fluids when too great ~~for~~ ^{is}
state of the System at that Time

b To evacuate morbid accumulations of
Serum —

These Indications may be confirm-
ed and Illustrated from Practical ob-
servations concerning the Use of Epi-
spastics in cases of Tooth Ach Fla-
morrhagy, Apoplexy Ophthalmia
Hepatitis and Hydrocephalus —

The Principal circumstances Res-
pecting the Choice of Orders in the
Class of Epispastics may be deduced
from the following observations con-
cerning each — —

I Epispastica Rubefacientia The In-
dividuals refer'd to this Order from
their nature are not extensively ap-
plicable to answer the Purpose for th
the Class may be employed They are fit-
ed to fulfill some Indications from
an action on the Nervous system They
and

are Preferable to other Epiſtaſtics for the Removal of Torpor when ſuddenly required they may alſo ſometimes be employed to fulfill Indications as changing the Mode of Circulation but they are rarely with this Intention preferable to the other orders - From the degree of effect they produce they are applicable to thoſe caſes where ſlight and tranſitory Changes are Wanted - The Conſtitutions to which they are principally adapted ~~are~~ dry Span habits thoſe which would be hurt by any degree of Evacuation & thoſe much debilitated by long continued diſeaſes - - - - -

2nd Epiſtaſtica Viſcantia The Individuals belonging to this Order are from their nature adapted for all ^{the} Indications to be answered by ^{it} Claps they are particularly preferable to all others where evacuation is ſuddenly wanted - from the degree of Effect ^{it} Produce they may be employed where ^{the}

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where the highest changes are required they will scarce admit of being adapted to those cases where slight changes only are proper. The Constitutions to which this order of Epispastics are chiefly adapted are the serum for Phlegmatic those in the Prime of life and those who are affected with acute diseases - -

3^d Epispastica Aspirantia The Individuals referred to this order are from their nature adapted to fulfill those indications which may be answered by a change in the determination of the Blood they are frequently of remarkable service for diminishing the Impetus of the Blood in parts morbidly affected They may also be used with advantage to diminish the Morbid of Action in neighbouring Vessels if a considerable effect be not suddenly required They may be used likewise for some purposes

how to be answered by evacuation They are not adapted to diminish the Quantity of Circulating fluids But they may be of service for evacuating Serous Accumulations they are chiefly of Use for this purpose when they are deep Seated or in their nature such that they cannot be easily acted upon the Constitutions to which they are adapted in preference to other Epispastics are the Aged the Irritable and those Labouring under Chronic Complaints —

The cautions to be observed in the Employment of Epispastics as depreved from their nature chiefly respect the Pain which is occasioned by their action especially when that has no tendency to remove the complaints against ^{wh} they are used The Inflammation they excite in a part to which they are applied And the Strangury which is a frequent attendant of their Operation, the Conditions of the System ^{wh} chiefly require attention in their employ

employment are the female Sex Lax
and Phlegmatic habits The Circum-
stances chiefly to be observed with
regard to the Regimen necessary during
the Clasp respect the accommodation
of the Diet and temperature to the di-
sease of the Patient the Use of demulcents
and diluents and the Length of the Ap-
plication of the order of Visicantia The
treatment of the Part after they are re-
moved and the continuance of spi-
ritic Applications when the order
of suppurantia are employed—

The different individuals belong-
ing to this Class of Medicines are
chiefly contra-indicated by the
presence of the following morbid
States a high degree of irritability
in the system in general Morbid
Spesitude of the Blood or a general
immaturity of the fluids—

Blisters are of Use in fevers accompa-
nied with head ach & particularly
Coma Trid Plurisy when & Peripneumony

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mony when the Pulse has been re-
duced by bleeding Blisters are of the
Utmost Use They are of little use
in the beginning of a Continual Fe-
ver When there is a Subtler Ten-
dium and when delirium comes
on slowly they are of No service and
frequently highly injurious They
lessen the pain of an Inflamed Part -
When applied in hepatitis Blisters
lower the Pulse sooner than Bleeding
It was formerly a fashion to apply
Blisters to the ^{Back} but this is very in-
convenient and they are Very diffi-
cult to heal To the head they give
the Least Pain but they should never
be applyed here when there are any
Pimples as the Cantharid: will be ab-
sorbed and occasion Strangury They
are at present mostly applyed to the
Thighs Legs & Wrists and in this case
seldom produce Strangury Blisters
sometimes produce Tenismus this must
be obviated by drinking large Quantities
of

of Demulcent Drink when a Strangury is produced nothing will remove it so effectually as Laudanum given to the dose of 40 Drops Fomentations to the Os Pubis will be of Use in this Case In the Angina Putrid: Blisters to the part affected is attended with the best effects In the Angina Inflammatoria after Bleeding they are of Use When the Glands are affected only Gargles are of the greatest benefit - In the Angina Cordalis Wine &c should be made Use of along with Gargle of Decoction of Bark - Blisters are effectual in ^{the} Tooth ache If it proceeds from a Rheumatic Affection But if the Tooth is decayed and the Os Cariop: does not relieve the Pain it should be Extracted - In Inflammation of the Eyes Blisters are suitable In the sciatica Blisters are of the utmost service They should be large &

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Repeated three or four times or kept
open for some time - In a Retrograda-
tion of the Gout Blisters should be ap-
plied and continued till the Gouty
Paroxysm is over and if the Patient
is plethoric he should loose a qu-
antity of Blood The Blisters should
be applyed to the feet

When the Lungs is Loaded with Mucus
Blisters applyed between the Shoulders
will be of Service - They are also of
Service in *Colica Trictonem* applyed
to the thighs and they are equally
of Service in all Spasmodic Complai-
nts Hemorrhages is also cured by
Blisters which ^{Relief} is owing to their An-
tispasmodic Quality In Paralytic
affections of the Bladder or any Epis-
tastic applyed to the Os Sacrum gene-
rally Relieves the Complaint

There also of Use in the Apoplexy

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Emmenegogo, It will in this case be proper to explain the Nature and cause of the Menstris - This Evacuation has got the name of Menstrual flux Menstris Catamenia & Flowers The Use of this evacuation is to prepare the System for the Nourishment of the fetus as there being a greater Quantity of Blood than is necessary to nourishment of one Person - Some say that this evacuation is owing to the Influence of the Moon but the first Experiment that prove this is not the case is that some have a Return of the Menstris in 20 days after the ^{Preceding} Attain others 30 days 2^d if this evacuation is owing to the Moon Women ought to have it all at the same time but I dont suppose there is an hour in the Year that there is not some one Menstruating Others say it is owing to a ferment but

but how could a ferment ^{be} dormant
 in the habit 15 years without pro-
 ducing its effects besides fermenta-
 tion changes the Quality of the Blood
 but it is well known that this is not
 the Case Astruc says it is owing to the
 peculiar Structure of ^{the} Uterus But
 as dissection has not shown this to
 be the Case it cannot be admitted A
 General Plethoric state of the System
^{is generally} ~~is~~ supported by Haller & Friend to
 be the Cause of the Menstruation for say they
 as a fetus ~~is~~ to be nourished a greater
 Quantity of Blood than is necessary for
 the Nourishment of herself is formed

but there are many women that are put
 to hard Labour that have a Periodical
 Return of the Menstruation & the Menstruation hap-
 pen in Girls where there is no degree
 of Plethora and taking a few ounces
 of

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Blood from a Perion that contains from
25 to 30 Pounds & Women labouring Un-
der Diseases and that are much de-
bilated Menstruates as Usual It
is likewise sometimes necessary to take
away some Blood to bring on Menstrua-
tion — The Menstris according to my
opinion arise from a Plethora of
in Uterus which is Peculiar to the
Sex & as a fetus is to be nourished by
the Vessels of the Uterus it is situa-
ted in a Capacious Pelvis —

About the 14th or 15th Year of the Girls
Age the Blood begins to Issue out in
small Quantities and continue ^{it}
in this State 2 or 3 days and when
the Vessels are freed from their Load ^{it}
contract at the succeeding Period the
flow of blood is more quick and the
Vessels are more easily dilated and
if

Paroxismo mostly observes a Regular Period. and those Periodical Returns is accounted from Habit In the same Manner that Periodical Movements are kept Up in other Parts of the Body - The Immediate cause of the menses is a distension of the Uterine Vessels independant of a General Plethora - We Judge of the Approach of the Menses in a girl by the following Signs the Breasts grow Tumid there is a pain felt in the Lumbar Region the Legs are affected with Oedematous Swellings there is Loss of Appetite with Paleness of the Countenance these Symptoms occur for two or three of the first Returns of the Menses when they Generally return without Pain or other Troublesome Symptoms & continues untill the 40 the 45 or even the 50th Year when they begin to diminish. this is the

most critical Period of a womans life
 if they survive this they generally are
 less subject to disease after it than
 Men at that Age At about 50 they
 generally cease this is owing to the
 Circulation being weaker the fibres
 more rigid and the nerves less sensible
 so that an Accumulation and disten-
 sion of the Vessels do not take Place
 the Inconveniences and danger attend-
 ing a stoppage of this discharge is
 in proportion to the Suddenness
 these are not owing to a plethore but
 a change of Balance which the System
 at Length becomes habituated to —
 We are next to consider the diseases
 attending this discharge these are di-
 vided into three heads 1.st when it does
 not appear at the proper time 2.^d when
 does appear at the proper time and is
 suppressed 3.^d when it is too Copious
 and then may be denominated a Hemor-
 rhage

Of the first when at the Age of 14 or 15
 Years if the Menses do not appear all
 the symptoms Usual at their approach
 are aggravated and the Patient falls in-
 to a Chlorosis the symptoms of Which
 are a dullness drowsiness Pale ness
 lower Eructations Vomiting of Acids
 her breathing is Laborious and Dif-
 ficult with a continual desire for
 Chalk Coals Ashes or any testaceous sub-
 stances The Cause is first to be sought
 for in a fault of the Uterus particular-
 ly in a relaxed state of it Our Indica-
 tions of Cure are first to be strength-
 ened & Increase the Tone of the Solids The
 2nd to promote this discharge but caution
 is necessary as to the manner we must
 be carefull & endeavour to Lead & not to
 drive Stimulants will be necessary
 but we must be carefull of the Choice
 of them as an hemorrhage might be
 occasioned from the Lungs by the Use
 of

show that are strong & excite the Vigorous action of the heart & Arteries as well as that of ~~the~~ ^{the} Menoes If the Situation & circumstances of ^a Girl will allow she must be removed to the Country ride on horse back use Stas-taceous Powders Gentle Purgatives and an Animal diet by this Time will be restored to the system & the Digestion be assisted we may then use Tonic Remedies We here employ the Peruvian Bark & all the preparations of Steel in preference to any other Tonic The Various Mineral Waters may be of service & lastly the Cold bath sh^d be employed to complete the Cure*

The Second disease accompanying the Menoes is a suppression of them This differs from the Case of those where it never had flowed Its Remote Cause is owing to passions of the Mind

* this Course is to be taken with a Girl that has never had the menoes -

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as Anger Terror Grief Joy & the like
to which may be added moist Air a
too plentiful Use of Acids but the
particular Cause and what happens
9 times out of 10 is Cold which they
are affected with by walking on damp
floors & washing in Cold water during
the flow of the Menstrue - The Proximate
Cause or two the first is Laxity &
Debility of the Solids in general
and particularly of the Uterus -
The second Proximate Cause is a Spor-
adic constriction of the Vessels of
that organ - By the first viz Laxity
&c a Languid Circulation is occasion-
ed the Pulse is Languid & there is a
want of Force to propell the Blood
through the Remote Capillary Vessels
hence it is no wonder that obstruc-
tion take Place in the Small Vessels
of the Uterus - The Cure must depend
upon restoring tone to the Solids In
the second Bleeding and the Antiphlo-
gistic

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gistic remedies are indicated by bleeding
we diminish the Quantity of the Fluids
so that if they do not appear we avoid
the Usual Inconveniences of Plethora.
Warm Pediluvium should be made
Use of for a considerable time as it there-
by proves a Considerable Stimulus to
the Relaxed Vessels of the Uterus and Pro-
duces an Increased action of the Heart
& Arteries It is also serviceable to ease
the Pains but it would be safer to
Bleed first Warm fomentations should
also be applied to the pubis of the An-
tispartmodis commonly Used in this
Case I prefer Opium I have often known
a good Dose of Laudanum bring on
the discharge immediately when the
most Celebrated Emmenagoges have fail-
ed the Patient should Use a spare diet
& avoid Cold the Remedies should be
Used at the Usual Periods of the dis-
charge when this obstruction and Sup-
pression is owing to debility a differ-
ent Method of Cure will be necessary We

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are then to employ such Remedies as
strengthen the Solids and increase the
impetuosity of the fluids for this purpose
Emetics are of Use but above all Cathart-
ics We here employ the Gums Castor Oil
& Aloe This has a particular Quality
of Stimulating the Rectum and commu-
nicating its effects to the Uterus - Tonics
are used with Stimulants as Mustard
and bark Steel & Bitters of all kinds
will be Usefull Electricity has been known
to produce this discharge almost
instantaneously Exercise Particularly
Riding on horse back is Usefull Mineral
Water May be drank - The Diet
should be Light and Nourishing con-
sisting chiefly of animal food with
the moderate Use of Wine and as soon
as it is safe the Cold Bath will be of
eminent Service when the discharge
ceases at the Usual Period we must
then submit to the Established Laws
of Nature But if it stops suddenly
the Evils I mentioned in the for-
mer

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our part are here to be expected The
Third disorder that I mentioned as at-
tending the Menstrua is when the dis-
charge is too Copious and when the pe-
riods return more frequent than Usual
the Proximate Causes are first Plethora
second Laxity & the third Irrita-
tion that Plethora can produce too
copious a discharge is not doubted as
well as other Hemorrhages we may
easily tell when the Cause is a pletho-
ra by the hardness strength and full-
ness of the Pulse difficult breathing
& thirst the relaxed state of the Vessels
giving no resistance the Blood easi-
ly bursts thro' Extremities this Ple-
thora may be owing to an Indolent
life and sleep living together with
a suppression of the Natural Secre-
tions - the Cause of this Laxity is hard
labour an Indolent life warm ba-
thing weak and watery diet the
Use of Stoves to the feet in Cold Weather

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A warm Indiscreet A third cause is
Irritation occasioning strong Oscillations
of the Vessels of the Uterus whence a greater
quantity of Blood is determined to
that Organ which produces a too fre-
quent and Copious discharge This Irri-
tation may be of two kinds 1.st That
which arises from the Use of Acid Me-
dicines too great a degree of Caution or
Stimulus of Venereal Venus - 2.nd It may
arise from too great a degree of Irritation
in the System in general & of the U-
terus in particular Those hemorrhages
that arise from part of the Placenta
being retained we shall have to speak
of here after As to the Cure of Hemorrhages
from the Uterus if it is owing to
Pléthora we must diminish the Quan-
tity of fluids by bleeding & Gentle Ca-
thartics the Patient should Use a Spare
Diet Cool Air & Rest If from Pularati-
on first by astringents as the Bark
if these are not sufficient Alum must
be given in substance & Allum Weng-
Cloths

Cloths wet in Cold Water may be ap-
 plied to the Pulse & Pubis if there
 fail Injections of Cold Water or Strong
 decoctions of Oak Bark injected Cold
 and thrown into the Uterus the Re-
 turn is to be prevented by the Use of
 gentle Astringents and the drink
 should be Clarret & water moderate
 exercise must be Used as the Pati-
 ent is able to bear It If it is owing
 to Irritation the Cause must be re-
 moved & the Increased Sensibility of
 the Part diminished by the Use of O-
 pium for this purpose Glyster of
 Starch and Opium may be employ'd
 with Advantage—

Law Elit

Anthelmintics are those Remedies that are intended to destroy worms & expell them from the Body - Tho' Worms are not in themselves a disease ^{but} they are the Cause of a Variety of diseases They ought therefore to be removed as quick as possible as they share the Aliment and deprive the body of part of its nourishment - some have supposed that these worms are generated by putrefaction ^{but that is not the Case} for we know that the worm is continued ~~in~~ the same manner as an Elephant or a Whale we take the Eggs of the Worms in by our drink and food & we every day of our Lives swallow thousands of these Eggs - but it is not every body affected with Worms

Persons of a Lax habit of Body are most subject to worms and Vice Versa the Robust and Strong lip Subject -

There are 4 kinds of worms that affect

The Human body The first are what
 are called the Ascariides then are White
 and Pointed at Both Extremities they
 are chiefly situated in the Rectum
 & Lumbicals. these resemble the com-
 mon fish worm but are White $\frac{1}{4}$ or $\frac{1}{2}$
 Inches long 3rd Tenia or Tape Worm
 these are of considerable Length with
 articulations when the Articulations
 are separated each Piece is called a Go-
 ard Worm which in time becomes a
 perfect tenia or tape worm they in
 this respect resemble the Polypus very
 much for if you cut this Animal in
 as many Pieces as you will every
 piece will become a perfect Polypus
 There are instances of Tape worms of
 100 Yards in Length and it is not Un-
 common to find them from 10 to 100 feet
 long As are the Ascariides Lumbracoides they
 are of the length of the Round worm but
 they are sharp at both ends - There are
 other worms besides these in some cases
 present in the body but these are None

The disorders arising from worms are various as well as numerous 1^o They share the food with the Patient and hence the ravenous Appetite 2 they form a Nidus which distends the Intestines in a particular part & a spasmodic contraction of these Parts takes place in consequence this Excrement Un-dergoing Putrefaction Produces diarrhea and they may in some cases pene-trate the Abdomen — Worms are In-jured by Garlic Sugar-Liquorish Salt Meats &c the Irritate the Bowels and produce griping Borboregma Diarha-a &c by the Connexion of the Bowels wth other Parts they Produce Palpitation of the heart Epileptic fits Twitching of the Tendons &c & there is not a dis-ease that cannot be imputed to Worms in the Intestines — —

The Symptoms denoting the Presence of Worms are An Unhealthy disagree-able countenance Blue Ring round ^{the} Eyes Itching at the Nose Voracious Appetite When Asleep the Sleep is dis-turbed

with Twitching the Patient appears
 as if it was after Swallowing in its
 Sleep Grinding its Teeth Sometime
 Hallowing out in its Sleep and lies
 continually on its Stomach In wak-
 ing in the morning there is faint-
 ness takes Place Stinking breath
 a rumbling noise in the Abdomen
 and sometimes the Abdomen is Turrid
 the Patient is sometimes affected with
 diarrhoea at other times Costive Abuse
 of Sucking in the Bowels Irritation
 in the Rectum tenesmus some become
 almost Mad others foolish some are
 attended with convulsions other say
 Rigid as if the Whole dead and Recover
 with Convulsions but all these Symptoms
 do not occur in the same person at the
 same time - After considering the Sym-
 ptoms as they attend worms in general
 we shall Proceed to speak of the Sym-
 ptoms that attend each in Particular
 and first of the Tape Worm in this
 1020

case there is a sense of Sucking in ^e
 Bowels attended with motion & Pain
 in one Side Griping but what is
 a sure proof is the Voiding of Hoard
 worms — Ascarides their habitation
 being in the Rectum they occasion
 Tenesmus — Remedies for destroy
 and Expell Worms may be divided in-
 to 2 kinds 1.st Those that act as a Poi-
son and immediately destroy them
 2nd those that make their place of Abode
 disagreeable these are Bitters as Worm-
 wood &c but these will seldom answer
 without having some more powerfull sub-
 stance added to them But Bitters by
 strengthening the Tone of the Intestines
 they may destroy worms and prevent
 a generation of them — Purgatives of ma-
 ny kinds destroy worms 1.st by increas-
 ing the Peristaltic motion of the intest-
 ines and carrying off the Worms in ^e
 manner 2nd by diluting the contents of
 the Intestines and loosening their hold
 them

then they are easily carried off - But
 Purgings answers better to carry off the
 Worms after they have been killed by
 other substances - POISONS are divi-
 ded into Mineral & Vegetable Mine-
 ral are all Saline Substances Acids Al-
 kalis and Neutrals but these will not
 kill worms except they are applied in
 a very concentrated State which can
 not with convenience be done - Sul-
 phure destroy worms of all kinds
 Drinking large Quantities of water $\frac{1}{4}$
 contains Hepatic Air But they are
 all inferior to either Mercury, Sin,
Copper, Iron Mercury has been given
 in various forms Water has been
 made use of to destroy worms in ^a
 a Quantity of Crude Mercury has been
 boiled but this Preparation will do
 no more service than the same Quan-
 tity of Water would do as the Water
 in which the Duckbills has been
 boiled has no power of dissolving it in
 it.

crude state some have employed & perhaps mineral but all the good consequences attending this preparation is owing to the Sulphure it contains.

The Principle and most effectual Preparations of Mercury are Calomel & Mer: Corros: Sublimat^e Calomel may be given by itself or combined with Purgatives - Corros: Sublimat^e may be given in the form of Pills and there is scarcely a Medicine more Powerfull than this but it must not be given in debilitated and Irritable Intestines

Preparation of Copper might be a good Medicine to destroy but they cannot be given in sufficient dose as they excite Vomiting Tin as a Vermifuge has been given in powder and was supposed by some to act entirely mechanical by irritating and grinding the Worm Tin is liable to be dissolved in the fluids of our Stomach and must act as a poison and not Section; We know it contains a Quantity of Arsenic to which all its effects in destroying worms are owing

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Iron and all its Preparations ha been
given for the Cure of Worms and they
are more likely to come to the Intestines
unchanged and Custome to them
The Preparations of Iron that I mostly Use
is the Prepared Steel and Sal Martis Of ʒ
Prepared Steel I give ʒ. 10 or 30 grains at
at a dose according to the age or constituti-
on of the Patient and Sal Martis ʒ. or ʒ.
Vegetables have a power of destroying W-
orms out of the Body and I think cannot
fail of having an anthelmentic proper-
ty when taken Internally - All Fetid
Plants Garlic applied to the Stomach
Wrists &c has been known to expell Worms
from the Body and has the same ef-
fect when taken internally - Pink Root
Spizelia, Bears Foot &c - Carolina Pink
Root is one of the best Vermifuge Medicines
that I have Used but sometimes it has
a Narcotic Quality ʒ. may be given
in substance Bears foot is one of the
strongest vermifuge medicines that we
are acquainted with it is very power-
full and should be given in small Do-
ses -

947

-see - Spigelia grows wild in the west Indies and is used with success by the Negro's and Indians they say it is as effectual in destroying worms as Q Bark is in curing the Intermitting fever this medicine is as effectual in producing Sleep as Opium - The external shell of the common Walnut has been recommended in the Cure of Worms & I think it may be attended with good success - Cow-Itch is much recommended for destroying of Worms Its operation is entirely mechanical by Irritating the Worms with its sharp Points kill them it is commonly administered in Syrup or Molasses - Horse Hair cut fine has also been given to destroy Worms it acts in the same manner as Cow-Itch - Oils were also given to destroy Worms and were supposed to stop up the Pore of this Animal which led to the organs of Respiration but it is well known that these animals have no such organs ~~and~~ We know that out of the body will live a considerable time

We have now given the general Method of Cure but But every species of them require a different method of Treatment Ascariides are within the reach of Glysters - Milk & Molapo or Sugar the Best for this purpose Gentle Laxatives or a Glyster of Duckoilur extingquish'd with Honey may be administered In the Round Worm the Medicine ought to be administered in the Morning about 8 It is best administered in Milk if soon after the Medicine is given he feels a Pain & Convulsions it is a Sign that they are endeavouring to penetrate the Abdomen In this case the Abdomen should be rubb'd with Petro-leum

The Patient should take Gentle Laxatives as the Tincture of Rhubarb or Sol Martis is as effectual as any But if the Presence of Worms should be attended with fever we should recommend those medicines that are proper for Worms & for the Fever at the same time

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times such are the Camphorated Ju-
lic - Worms are frequently destroyed
by Salt taken in Molasses

Tenia or tape Worm this is got clear
off with great difficulty and it some-
times happens that they Elude the Effects
of all Medicines Hung Beef Salt fish &c
has been Prescribed as a Vermifuge the
Sources the Worms to desert the Super-
ior part of the Intestines and go down
to the Lower parts a British Purge of
Jallap then with Large Quantities
of Cold Water will stand a Chance of
expelling them from the Body Cold Wa-
ter will render them Motionless at
some places they give Petroleum and a
Purge immediately after it with Suc-
cess in the Removal of the tape Worm
I relieved a gentleman of a Large Tape-
worm by giving him Prepared Steel
℥ss at a Dose every Morning

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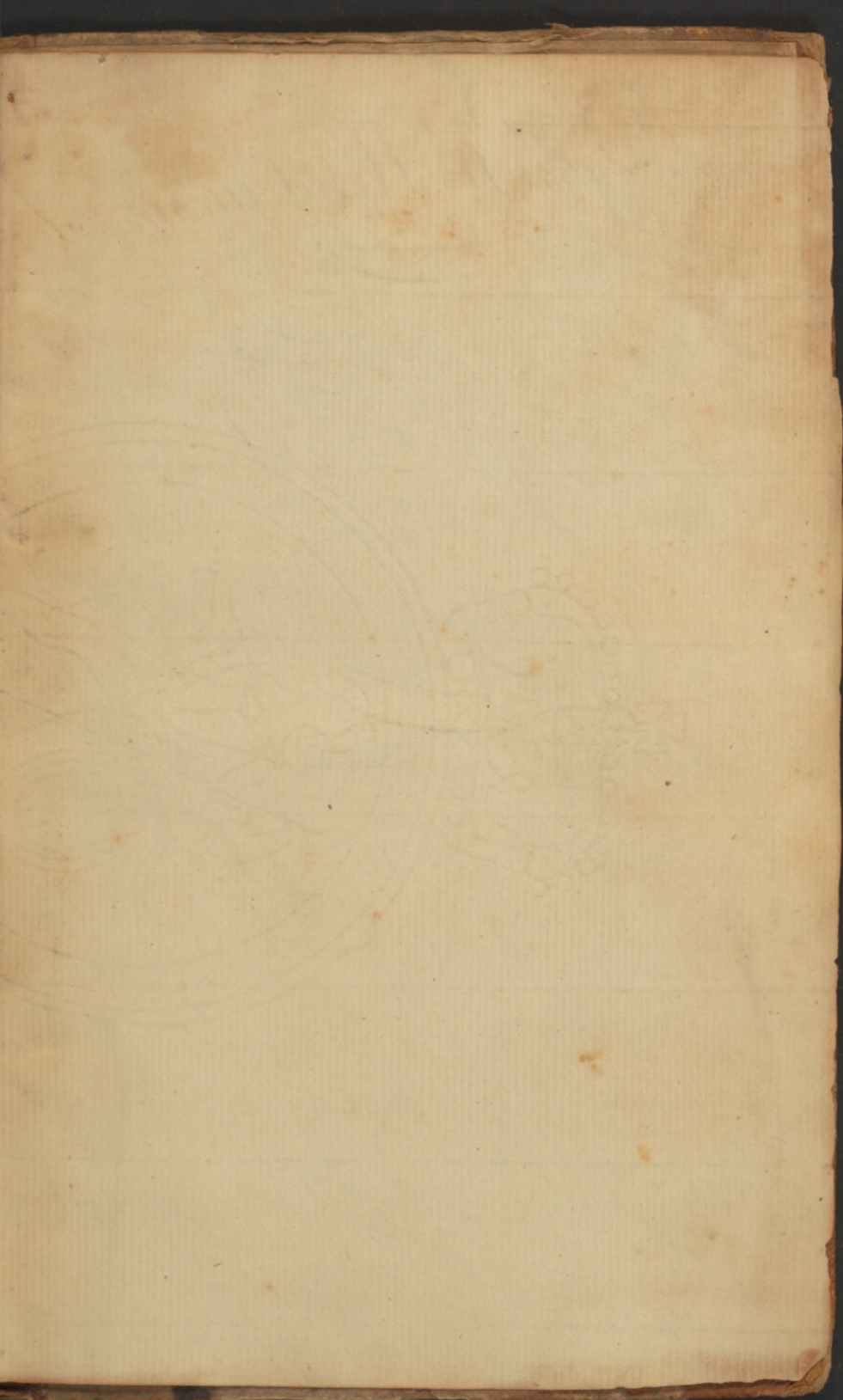
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18306.

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