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Lorenzo N. Henderson

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Notes on Lectures on the Theory & Practice of Medicine, delivered by Daniel Drake — 1830-1—

On organic & inorganic life — animate & inanimate beings.

Life is dependent on organization — both as put to this organization — how did it originate — as respects minerals chemical attractions exert a considerable influence in their organizations. It has produced the crystalline forms. This constitutes the vital powers — On formation of sulphate of soda. There is an affinity between sulphuric acid & soda — & a new body is formed — having certain figures &c.

On animal life there must be something else added

is organization. This is Not
Some thing which we call
Vital force. It will act it
is motion & keeps in play
all the organs. To under-
stand this machine we
must take it a part &
examine each peculiarity.
In all Nat: N is a point
wh we can take hold
of & contemplate this
object. But in
human Mechanism we
dont know where to
begin. It is a Number
less no of parts - each bearing
as great an importance
to the whole. The same
substance is found every
where. If we cut in any
part pain is prod: & blood

will flow - Here blood &
nerves are every where. Ema-
ciation takes place in all our
organs - Here absorbents - dwell
every where. But all these
are cemented by the cellular
tissue. Thus then blood vessels
nerves, absorbants & cellular
membrane, and found every where
Now when you to abstract from
the human body. the blood vessels nerves & what will
you have left. A mere caput
mortuum. Nothing wanted
to present life. All the
figures wch you will find
in books, are found in these
three universal ones wch I have
spoken - They are all modi-
fications of these same.
I might with some few dis-
agree.

The blood vessels are all
connected - all seeming to or-

ifinale & terminate at the heart- completing a complete circle- There is continually two columns of blood- one going from & the other returning to the heart. & then again every time it con: with the heart & spiritual nature- either directly or indirectly- no matter how remote the part- even to the extremities of the hair- when it is sensible it must be nervous-

When we turn our attention to the human system we often find it a convolution of veins, arteries, nerves &c- Take away the fibrous annex & yet one we will find, think & have- The circulation will go on- Take away the

anacy & you will have
an animal capable of ex-
isting & performing in some
degree the part which we
now do.

The various conductors
of the blood vessels nerves &c.
may be compared to a hol-
low tree & its branches. All
forming & constituting or-
gans, performing their pro-
per functions. They and
the component parts of
all our organs.

We know in the embryo
is a fluid mass - that from
this substance is evolved &c. I do
not mean to say in the
veins & heart sent from it
branches like the branches
of a tree - but that they
are finally connected &
& constitute one whole.

You might enquire into the
relative importance of the
two objects - How what can
the animal exalt to?
If we view ourselves as
intelligent being & worship the
pleasing mind - & how common
with intellectual gratification -
we would say that
the heaven of the Lord
is enjoying & that the
blood vessels were to
supply their wants - but
here we to consider our
social relations. That
this was the great end
of our being we might
be led to this conclusion -
The vegetable tribes seems
wholly employed in forming
& obtaining this fluid -
When we consider the destiny
of man - his future hopes

his fair imagination. We might consider the nervous system his very thing. This gives him the eye that sees the mind that thinks & feels. The nervous, absorbent system is and but mere subordinate agents. The mere slaves of the nervous system. This is the high, the dignified, grand function of man. Take out the nervous mat: for a animal body & you reduce man to a mere plant - or in the lowest rank of the chain of creation.

In taking this a priori view this seems to me the most useful way of coming at the organization of the human body. You must not

Project each to you. Contin-
plain each of you unless
find him modification
of the same thing - modif:
of the set of tissues. In
this mod: not only diff:
of form results but also
diff in function. But
is this diff: of form or
interlacing the orth cause
of the diff: of funct:? This
may be the orth remote
cause, but it is not
the approximate cause.
That susceptibility vol 2
how before spoke of. Has
end and modif: of func-
tionities. One part is
unsusceptible to one impres-
sion another to a diff: sus-
ceptibility to impressions.
It is a modified suscepti-

bility. The villous tissue has been called the primary tissue of the body. The nerves & muscles appear to have something else added. The skin & the first covering membranes being a kind of cellular tissue. The skin is only the part of the tegumentary membranes. for when we come to the mouth & we find the mucous membrane changed, it has lost its covering & is changed in a mucous surface - covered with villi & a villous coat. This is universal as relates to the skin but in relation to this organ it is returned, as the kidneys. This has an modification of one great system. The skin is totally uniform - some parts are thicker than others. The mucous membranes are not so regular in thickness - The vital properties are various.

The extent of these membranes is very great. The lips present with the first change of mucous membrane from skin -

It lines the nostrils. the lachrymal passages. stomach. intestines &c. It may be lost entirely in the serous system. This probably takes place in chylous tubes. At the mouth of the glottis the epithelium ceases & mucous membrane. & from this point it extends over the bronchial tubes & their ramifications and astonishingly great. At the pelvis begins an epithelium which lines the mucous membrane. & lines the ureters. the bladder. the urethra, & up to the Kidneys. terminating in its pelvis. In passing to the mucous membranes of lungs we might begin at the nares. This is the schneiderian lining &c. The cachymal duct. the conjunctiva of the eye &

can also has no external
tegumentary membrane. This
is rather a dripping in of the
skin. Has a mucous membrane.

Now between the mucous
membrane & the tegumentary
ment: we has a variety of
organs.

To Pass we must
differ to understand pathology. Internally we have no
nervous membrane: it is notherwise but condensed cellular
admitting only blood-
& destined to perform no
particular function. We have
no in the pulmonic chambers. No
brain. No nerves. They are
complete trap. The consti-
a covering for the viscera
especially in the abdomen.
So when anyone of the
organs come in contact it
is like the contact of two

full bap. A fluid en-
ters from the out-
ward. While the mu-
cous mucus & skin are
exposed to the contact of
foreign agents, the serous
membranes entirely ex-
cluded from external
objects. But when
subjected to the external
world they become di-
seased. They are many
other systems, but to dis-
cuss is not my part to
treat of. I will now
remark on some
of the most prominent.
The mucous epithe
of the glandular organs.
as with the skin shall
have often to do. The
are composed of vesicles.

To me belong the liver, spleen, kidneys &c. They are said to be peculiar glands but we can find no such thing. Minutely we will find it composed of peculiar vessels. I need only going to supply these peculiar processes. The liver is made up of the vessels of the vena porta, hepatic veins & artery, portal biliary &c, bound together by cellular membr. They are glands about the mouth, called the salivary glands. They are nothing more than vessels rolled up & bound up with cellular tissue. In books we are presented with the vascular system. Now what are we to think when we read these peculiar & [illegible] glands that they are made up of these very vessels

These vessels are made up of the first primary tissue. The heart is made up of the muscular tissues. We are to look upon the human body as composed of a no: of hydraulic tubes rolled & convoluted into various forms. Therefore in studying these different tissues of wh I have been speaking, you have been but studying the nervous tissue. It matters no matter where you begin. The same remark applies to the nervous system. In proportion as the depths become smaller the amount of nervous matter wh they are in contact become greater & greater. Therefore wh you have been

study my Rose Lyons upon hand not been neglecting the nervous tissues. For if you strike those organs out of existence you will have no nervous tissue to study.

Besides these three of the subordinate tissues. We have the osseous tissues. They consist of cellular or vascular tissue, filled up with a combination of the phosphate of lime. The muscular - the fibrous - the tissues are complified in the same manner - the analytical elements vary in the proportion. These appropriate make up the animal body. All the diff: organs are nothing more nor less or many respects inorganic matter - They have no degree of elasticity about them do you? They therefore must have had a capacity diff: while performing the functions, from organic matter this we term life.

A drop of prussic acid put on

the tongues are destroy life -
This soon produces an disor-
ganization - all remains whole -
yet the consequences have
been death of the vital functions

Nothing is more mysterious
than the principle of active
life & the manner by which it
is destroyed & must apart
as I have mentioned. There
is a power or capability to
being acted on & producing
certain operations & functions.
We are as ignorant of this
power, as the power which built
up these structures. Now
this capacity - is found in no
particular part but it is uni-
versal. If any part had
it not it would be
an exception. It might be
cut off. If Mr Hancock may
be hair, Nails &c. Various
demons have been outlawed
to except this capacity
as excitability, contractility,

sensibility? Why has been so many terms used to express it? A person is said to be irritable when he is easily caused by the actions of other persons are not offended. He is said to be easily excited. By our own feelings we judge of this. The propriety of it by our consciousness. The words contractility expresses the power to contract or shortening of a substance alone. The word sensibility has been used to express the part or parts of those parts which are capable of having cognizance of certain impressions. There is no certain principle to which sensibility is referred. Because that calls the sensibility of the heart organic sensibility. a sensibility to the heart. No reaction is

able to shew to me two
of any one of these senses.
They are in all the body
and are numerous. Some
have a partiality for one
more than an other sections. They
are all reducible to simple
we call living - when two
living potash with oxyg:
acid - we say there is a dis:
position to unite. Why one
potash do so with soda &c.
we only know the fact we
dont know the cause. An
electrotic act on the skin.
sensibility - pour oil or
water on it & no pain
is experienced. Here there
is a capability of acting
on - in these substances.
different subs: produce
diff: effects when applied
to diff: parts. This
is what creates life.

diff: of sensibility.

It is sufficient for us to know that this capacity of being acted upon, this susceptibility exists every where thro our bodies.

Now I wld like to know if there is any one or: gan to wh this capability is referrable. This seems in some degree to exist in the cellular tissue. This forms a coating into all the organs & tissues. This came from the parent. It might seem that all the sensibility of the system generally depended. They first had it because they were made up from it - but once having it they no longer depend upon. The cellular tissue seems particularly to have lost its sensibility to excision &c. & in some measure to assimilated matter -

We have no reason to suppose
the absorbent vessels supply
this principle. The carry
off the excrementitious matter.
Therefore they cannot be the
depositories & communica-
tors of this capability. Nor
can it rest in the veins -
They carry the blood which
is no longer fit to remain
in the organs. The venous
blood cannot sustain this
dependence. There are
but two systems on which
the capacity can depend
the arterial & the nerves
The brain & spinal marrow
are from which the
nerves are sent off -
Direct experiments
to know this opinion
as correct. Cut off the

supply of arterial blood
to the part &c - The same
may be said of the nerves -
Therefore it is evident that
the systems and essentials
necessary to keep up the
principles of life - but is
it the blood or is it
the tubes it carries the
blood? - The arteries and
veins being but canals or pipes
to carry onward the
columns of blood. Stagna-
tion or when taken place
in one part its velocity
may be lost - but still
it goes onward up hill
& down hill until it
reaches the centers radicals
& carry it back to the
heart. Now it is more
than probable that the
blood will pervade the

Whole system, keeps up & maintains his capability of the organs of being acted on. If it is deranged in an organ, that organ loses its function - & if allowed to remain, the organ dies - The blood must be circulating - it must be passing onward. There is no such a thing as detention of blood - it must be made to circulate by means of the veins - But the same blood may be returned to the organs to perform the same task - It must previous to do this return to the lungs - There it becomes decarbonized or it commences [illegible] it throws out into the atmosphere

th of charcoal. We must
suppose the blood is ex-
posed to the lungs and
comes out as it is for
coming this capacity, but
at this is the first process

Now we come to the
nervous system. The nervous
matter is composed of a
substance material arranged in cords
The brain, the cerebellum
the cerebrum & medulla &c
all compose of this white fibrous
principle & juices. The
nerves, the brain &c are
enveloped by strong tendinous
membrane. The envelopes
may be compose to the
fascia. You will say the
the nervous power is not
resident in these tunics
but must reside in the

pulpy mat:- This nerves
mat: like the blood is
continuous & uninterrup:
ted. Not like the blood
to remain motionless.
The Medulla oblongata seems
to correspond to the heart.
All the nerves seem to or:
iginate from this part.
This seems there centre of
origin. If we cut across
below this point & all
life below is cut off.
Innervation is destroyed.
But if you slice up the
brain above, the nerves will
not lose the power of ac-
tion (i e) not below.
But as to function of the
nerves seems to be of a
specific. 1°. From this centre
there seems to be something

undulating. We conclude the nervous system is not the seat of sensation. The quantity of undulating matter given to different parts is different. Some parts hence are more sensible than others. It is now sending in me it influences to the organs of speaking while to other parts it is doing it more opening. What is this matter? It is the pulpy nervous matter. It cannot it is evident undulate & like a cord transmit its influences. How it is effected? We dont know but we are forcibly led to say it must be something. We cant direct our minds of this opinion. My finger receives a sensation. This is communicated to the brain. It

must be something that is
transmitted - Is it electricity
or galvanism - If it be
either of these it must act
diff. from wh it is kept
to flow among animal
animate bodies - If it is
galvanism there must be
something to modify - but I
cannot see how a dose
of prussic acid drunk
into the stomach & wh
it is removed into the
organs is more likely
to affect the heart
than if
this fluid - But what
is it not take cognisance
of these transmissions - I
wd wish it wd again radiate
it to all parts - We may
if we admit nerves influ.
to be owing to galvanism

there must be something a just real more added. So in calling it perception, we do not at all. but call it consciousness - & refer it to intellect. Yet many of these sensations - placed without consciousness - Therefore they cannot wholly be referred to that principle we call soul - to thereby faculty - Even this in case no one, especially if the long food of talky who have the least sense.

This principle cannot be cognizance of body. Therefore we must ever remain ignorant of it. I prefer to use the word nerves instead - This merely expresses to fact without attempting to explain its operation. This adaptions proceed to organs, to the blood - This we

arterial influence it sanguineous.
Now these two will absolutely
necessary to the excitability of also
the system. If these be destroyed
the acts of life disappear.
I wld make a further remark
on the terms irritability, excitability,
contractility &c. We are
now speaking of functions in
perfect health. To use the
term irritability in reference
to a healthy function: does
seem to be absurd. This
cannot with propriety be called
a irritability. Or as the
irritation to a normal one:
seems very improper.
I wld not use the terms
excitability here. When an
organ is capable of being
acted on we say it is
excitable. Irritation I
wld only refer to a

morbid action. I also object to contrality. Whatever the Dif. we may concieve to take place without contiguous elongations, we should want terms to express correctly many functions or impressions I object therefore always to the term excitability in preference to any Nos.

When you are awake attention has an unequal distribution. Not only numerous divided we find more blood in our organ or impression. This is also applicable to remembering by order. Some parts are largely employed by men, the most sparingly. Stress in the conception the better remembered are remembered by us the more

are conveyed to a part.
The nerves endowing them
around the & follow-
ing. And this tells you
we cannot demonstrate
them in many parts. But
by physiological investi-
gations difficulty. when we
come to the capillary ves-
sels the nerves & vessels be-
come so infinitely small
that we cant separate
one from the other.
In most part where
ever blood is most nu-
merous there is nerves are
also. This is another
evidence that the nerves
are in performance in
action of life. In bone
we find but few nerves
& blood vessels. Shews no
necessity for life &c.

influences.

I think it safe to say that in studying at it with hypnotism we can certainly make some advancement. It is under from what has been said that the animal functions are dependent on those two influences of the great Mendulla Oblongata in the organs & tissues. But whether the nervous life is a sound is a question we can't say. But it does do away for the time being the Mendulla. Any organ or body has its own peculiar modification of functions & excitability. To consider the finest cartilaginous parts in the human can be traced physiologic

ouils. In this way we will obtain ye most useful & correct Knowledge. This Knowld: of esentials is of immense import: to ye Physician. both in Metd: in practice &c. & in Toxicology - without this Knowld: we could neer be classificat of poisons agents -

Some parts of ye body are more liable to take on the pl: of sensation than others In some parts impress: may be made & we dont take cognizance. Fiction made one ye surface of ye skin with ye hand may give rise to pleasurable feelings - when the impress: is more acute & rather deep may give rise to pain &

some organs when application of cert. kind is made sooner excite sensation. This takes place in the joints by pressure with pointed instruments & twisting them. In pain is very great. This seems to have been me: it is pressure of the limbs. that we did avoid wounding them.

The parts of perception in most acute animals have not only the largest amount of sensibility. If you cut off the supply of air in suitable animals. Many animals will bear to have parts removed, that will be killed if cut off & all new organs of the higher animals capable of new

excitability. From this fact we might be led to conclude excitability did not depend on the blood & nerves. If we suppose an independent influence on independent of nerves & blood &c. The excitability of a body is necessary to its moving on of the blood. It is a peculiar matter & this supplies excitability. We must conclude that when it is great excitability there must be a great supply of blood & nerves. Both you bring an external agent to an organ you excite the vascular system & the nervous influence. From example the excitement of the organ & if the agent act upon the influence

you bring the body in contact
It will seem as if it is by
stimulation that a cond:
an organ calls to him a
greater amt: of nervous
blood. You excite a part
& alcohol in blood is
determined to that part
there is an increase of nerv:
influ: - But if you had
previously cut off the nerv:
supply that part you will have
no increased flow of
blood to that part. This
will show how the nerv:
influ exhalts the state of
excitement.

Dr Lane just seen it.
The nerves & arts: are both
alike: to an increase of
excitement - We have
seen that diff: parts of
the body have diff: degrees

If acid: - we are also
led to the law of the
part is most united &
accident will be de-
termined in two parts.
We shall therefore
more fully consider
next: now the conse-
quences of the organ
to the mode of the
organ is not compat-
ible for it in
its living mode. That
is, is a kind of inward
Odata - It performs a
function; but it is not
one of a healthy act-
ion, is accordance
with Nature function in
the parts of the bodies
than in those of

heavy has this one
the prudent who is
most efficient. If just is
speedy. Thus is circ: of
blood is great. In new
life is speedy. Thus is
machine is most liable
to get out of order. This
same law is applicable
to all complicated machinery. Thus history
has supplied by a ready
more complicated is the
formed and improved
just: now can not
know as does pleas. for
many thing was prepared.
If you will to know
the part may likely to
take as this: open your
books to physicky

I think you will find
that we have many un-
in the former & others.
We have the latter
most clear proofs &
actions. & we are sure
but often use terms in-
& especially. Of these proofs
we cannot always take
cognizance of ~~the proofs~~.
They are beyond our senses.

It was while I was
here to pray before we
shall worship we were born
again that the cardinal of
the blood. The blood is
poured out of the mother
[illegible] &c. It has become
[illegible] person of the new form
[illegible]. The blood from

a great quantity of our bodies.
For part: acct: of the blood
I refer you to prof: Jones
Lectures. The reader of course refers
to it. The blood has 3 approx:
elements. a watery part &
a coarse coagulable part. & red
globules. The blood of animals
is made up of all the elements
It is remarkably homogeneous
& has a tendency to keep
that is a uniform condition
It is made up from the chyle
& lacteals from the mouth. Big
boa must have these parts.
Of organic beings each system
to animals vegetables are
the element of vegetables but
to support animal bodies
organized ones is necessary.
The element is first taken
in mouth & is swallowed
& taken into the stomach
in the human intestines

a fluid from amid tod. it
then passes into bowels. the
nutr. particles are then absorbed
& passes into venous system.
the blood passes first to right
side into the lungs & then into
the left side of the heart.
It is always necessary for it
to pass thro' the lungs to
be fitted for nutrition.

Of the various animals we
live on animal food & those
we live on vegetable are said
not fitted much differently in the
blood. This the diff. from bad
nutr. taken in. It is the
part of animal function to
decompose & form new bodies
out of non-nutritious taken
in. A change is made in
the compound. This is well
exactly seen, in calipers
efficacia - assimilation
all of it are necessary to
form of blood.

we behold now. but changes &c.

When we look more in
other deep we find &c- Now
in blood circ: thro' in whole
body- In whole body our
eyes can not work more
than a reasoned map.
Show wh it is carried to ea
parts for what is it? It
is for osmosis: to connect her
with his animal economy:
A continued series of decomposi:
cond: takes place. All parts
have previously existed in the
blood- There is no albumen
of blood- we find many of its
parts composed of this sub:
& we have have many, sub:
formed & selaine, this is not
more than modification of
albumen- The elements, or
the various dispositions of the body
are to be found in the blood-
What a dam pleasing in body is
not: Now has an exhalation
out of blood a little alters

in it from. The const: reproduction.

We have secretions, as the mucous in mouth & stomach &c. The pancreatic juice. We cannot work at animal economy without beholding secretion. In all the ornt: of the body we find fluids thrown out. These all have a relation similar to that of nutrition to the blood. The secretion will answer purpose of the gross nutrient matter is better than the serum of the blood. In urea we find foreign & engenderin principles, hydrogen &c all are found to exist in the fabric of the blood. They are all secretions. Some of them may be called excretions as the bile, & the fluid which answers to chyme & chyle. These are not excrementitious.

The fact: that we have

descended make up those of the body. The act: of nourishment mat: compel it constantly to undergo new changes & we see it in various directions. So that the animal functions presents a complicated composition of mat:.

We have 5 senses of relations — we say we see — Thus we have a sensation of a specific kind — the sense of touch. This is not more than we have a modification of sensation & we see consciousness. You will observe that a small portion of the body is appropriated to these functions. But I take it is the function of nutrition to keep in repair this division. If the optic nerve is unable to transmit the impression this must be done either to the

Nature fonct: in h part-
Now wt is it th brings about
this homfostasis- some wise
tells us it is from wants
of con: in the cap: vessels-
But hear another: who tells
you there is no cont: in
these vessels. It seems to
me that in men wh: of
the blood thro the vessels are
not only to nutrition &c. tho
are now: but tubes &c
cannot conceive of any purpose
the cont: of these tubes wh-
equal distrib: may take
place. I frequently do- but
we know h ni is a part
of a viscous life- But
if you can assign a fonct:
to perform an additional
part this is an unequal
distribution of the blood-
If you take a tube
into the mouth & make

cate it. Thus is an afflux of
blood to that part. You
have an increased function
when aliments are taken into
the stomach. Now it must
happen that the heart, which
is called upon to increased
function. This is a concurrence
of nutritious fluid to that
part. A greater amount of
blood is sent out in a given
time, & the nervous energy is
is also thrown out. This is
necessary for the standard to
act on the food. When we
have it is called an excite-
ment when have an increase
of nervous influence to that
part. & also of arterial
blood. When the end for
which it was designed to function
again returns to its pro-
standard of action. When
this has taken place in

in one organ it takes place in another.

Now we will at a future time come to make an application of all that I have said. We cannot. You will find that we cannot have disease without disorder disease & appearance. Dis! comes out to be NOTHING but an improper distribution of their ~~Solidity~~ Fluidity.

When one organ is disordered its function & that organ may be affected in various modes.

The animal machine is wonderfully complicated. & all these are brought in to a mobile play by a disorder of one of its parts. Hence you will see how complicated the phenomena of disease will be. But we do we mean by the phenom:

of disease? is it more than its symptoms - The organs continued to act but they are not acted as are in accordance with the funct: of other organs - Hence you will see these must vary in diff: parts of the body.

Dr Rush defined disease to be morbid action. This is not exactly right yet it is not at all wrong - Disease has not that unvaried act: of unity.

How did this morbid funct: have all from the organ on which the morbid action was made? This is the question which has long agitated the med: world. This is a question little understood by the profession.

I call your att: to the blood. because the blood is obvious & palpable to us - It is not in the blood that the disease exists. The animal machine. It is proposed under each

cond: a large amount of
blood is required to a part.
as in the muscles in preform:
ing loco motion &c. But still
it is nec" for the circ: of blood
that be uniform & uninterrupted.
In a skin the blood is thro
from the external cutaneous
surface upon the internal
viscera. This is wh takes
place wh cold or moist:
ure is applied to cutaneous
surf: Then the is a mainte:
of an equal distribu: of
blood. Then dis: is com:
to internal parts by ex:
ternal causes. I dont
sup: it any change in the
blood itself or any change
in the excitability of the
system. It is only a transi:

ing off the blood from the
external parts to accommodate the
the internal organs. Hence the
frequent morbid actions.

Let us now consider the
change that takes place in
the blood itself. It is the law
of our economy that the blood
should be kept in a uniform
condition. If an organ re-
ceive blood of a certain quality
differ from that of its healthy
action this will avoid it is
evident in the organ. That
the blood is frequently changed
is unquestionable. Suppose an
animal food is used for
a long time as is often the
case on ship board, the min-
ute particles of the blood
will not be that requisite
for healthy action. Hence

you will have discharged
up from this cause. The
first obj: of the blood is
nutrition - excretion & se-
cretion and exhalation. Ex-
cretion takes place from
the Kidneys - exhal: from
the lungs & skin. If any
of these functi: is impeded
a retention does take
place from the Kidneys -
The excrementitious mat:
which they were designed to
be drawn off by urine re-
tained & this urine mix-
ing with the blood & be-
comes a poison to the
whole system. Hence
the production of disease
a local cause first
affecting it finally the

The skin performs an excretory
funct:. The mat: thus thrown
off is excrementitious. If this
excrement: is retained & the skin
dont perform its funct:— it
is taken along with the blood
& this is then brought to the
lungs and may be said to
perspire to the pulmonary
exhalation. From retention
of bile— it is absorbed into the
blood & becomes as we may say
a poison to the funct: of life.
The blood loses its nat: ar-
dent— the urine becomes a
tinge of yellow.

The funct: of skin &
Kidneys now as above
explained. This may be
easily proved by the following
cases cited from Dunglison. There are
numerous instances of the

Correct performance for
one another. When the Ner-
vous are extirpated the heat
dies away. The particles of
the urine is carried off
thro' the circulating -
During cold the exhal-
exhalation is small & the
flow of urine great. This
fact arises from a vica-
rious link for a large
amount of blood been
thrown on the internal
organs & hence the elimi-
nation of urine is greater
than usual -

The condition we have come
to - are 1st that the blood is
deflected from one part to
another. this is effected - 2d
that from the dilatation of

nutrition from unwholesome al;
the blood becomes vitiated & dis: is brought on. 3°. Not when the excreting organ is defected in its funct:- The excrementitious mat: not thrown off & is retained in the blood gives rise to morbid action.

Dis: may arise from an acc: of blood in the sinous canal. as in the vena cava. You will observe another cause by which an imp: exists in a part. Sup: we have wife: about the head & coolies and will subsist & finally communicate dis: by the passage by nervous influence & the second amount of blood first to pass [illegible] through from the ignorant by bodies plus

in condito canal. This may
serve to elucidate the case you
put to me yesterday. I
spoke of a great illumi-
nating torpor as in
Kirkmus &c. This I observed
to you was the cause of dis-
There are cases analogous
to this — As when the
internal surface of the
vein becomes inflamed.
& pus is thrown out. This
pus is then carried into
the circ: & produces general
dis:- This is not from
the shock it receives
by the wound but from
nothing more than a
foreign substance in the blood
& circ: with the blood &
reaches the heart into
the brain & in this way
frequently proves fatal -

How does this is a case somewhat analogous to what I pointed out yesterday.

The appearance of the blood we draw from a person diseased.

The cupped, the buffy coat of you all know is indicative of inflammatory action. I have seen this appearance of the blood induced in a few hours by the spasmodic influence of the eye which also gives rise to it. This appearance arises from some decomposition of the fibrin found in the blood. All goes to show that the influence has wrought out an effect of a morbid kind on the mass of blood. This is a matter of importance for it the kind of morbid

Organism can produce No
how much ought it to
demand our attention.
Who can predict how soon
a Rein: should hy-
pothesis is not the cause
of the general dis[illegible]. Or
this I think we have a
great deal to learn.
Acting on an all the
functions it will undoubtedly
excite a morbid action.
The blood & on are com-
bined to the presence
of all the organs. it
seems to regulate the
functions & maintains
the excitability of all
parts - On it are all
these dependent. More
& pneumonia may be expected
to this season & severe
inflammations. Let us con-

it must of course be
of a more or less morbid nature
& can not be brought on by
this state of the blood. May
not most general & worst
diseases be owing to this state
of the blood. We shall
have occasion to
refer to these opinions
in the course of our lectures. Contemplate these;
& either make them your
own or nothing objected that
I think I shall be able
to answer. (L. N. H.)

We shall next consider
the sympathetic actions of the
nervous system. This is
called sympathy. This is
a word of very extensive
use which we call vascular
& nervous. The various parts
of the body are associated
by mutual connection.

When there are distinct
organs they seem to
distinct sovereign states -
we have no facts in no
mount all concurring to
the same funct. Now
we have is an understand=
ing of actions in the parts we
an amare the is an as=
sociation of action & nervous
this understanding - This
we may be said of he
eye - The iris is fitted to
diff. shades of light - the
eye acts duly in various
distances. How do the
different funct. in the
the duodenum, & act
sympathetically - Or more
the first the nervous sys=
tem. You will see that
the nervous funct. are

various organs & orders them to act in concert. The nerves sensat: the sensat: tells the muscl: & associated action. Many parts are associated in mastication, deglutition, respiration, heart &c. In resp: the muscles must be an assist: if the heart & lungs have their own muscles. This goes on whether there is or not. All these part and org: com: by nerves. You may trace all out & show how each is connected in this way.

Now what is digestion? It is nothing more and nothing less, &c of this association of action. Nothing more & nothing nervous influence. Now this power acts in digest: &c we cannot tell

We only know that the brain depend on it as influence. I can know of what use we have this part to it relation of this organ we call of association. You will perceive the difficulty before I this object of the organ from that is not arising from various influence.

But here we must guard against two much generalization - It would now be right to object to one principle organ may be refused by sympathy. Upon this I must be guard you how will conceive the use of this - That the brain, the centre of this perception - & all kind action - This new

centre near the medulla oblongata. Now if this part be injured all the parts will be disturbed in function. The union is not obtained. The muscles are unclasped. This is not effected by sympathy. It shows you that pain is a power in that central power which is sent out to the actions or calls into action all these parts. A limb is this part produces instantaneous. This is not a case of sympathy. It is from external nerves coming to this centre of act; the disturbing power which is radiated from this centre upon all parts. When this part is disturbed life entirely ceases. If the heart is injured or torn out life is lost. Pain does. This is not caused

by sympathy. A tumor may arise & press on a nerve. This will give rise to pain below. The pain is referred in front. This is not by sympathy. It is referred to the nerve. Illustr. Pain in the leg. Sympathy can only exist when there is a nervous influence. We may inflict lesion to any part or portion without affecting the part. In the part which has an increase of power beyond it is an additional quantity of nutriment sent to the part.

Sympathetic phenomena are from blows to the cerebral surface. Pressure

the acid affects the system sympathetically. I have already referred to how cases which are not the effects of sympathy. This is a case I wish you to recollect. This is a thing distinct from what we term sympathies.

There are parts of the body more nearly called into sympathy than parts of the animal economy. Into these details we cannot go with at present. That I have shown with this: the various nerves which proceed to the system may appear to be affected, but this arises from being the only nerves. There is another thing I wish to direct your attention to. This is a subject on which we cannot go too much into detail.

tinual cause. No funct.
is susceptible of maint. itself
It is dependent on some oth
cause. If it be insulated
this funct. immediately
ceases. It is a law of animal
economy that the hyper
stimulus be supp. by blood
from the heart. If this be
cut off they no longer
perform their funct. It
is nec. to this existence
therefore that the heart
shd exist. to maint. the
funct. Consequently when
there is a failure of the
act. of heart this must
be a failure in the part
supp. There is a reason
given for heart consti
tutionality. It is exerted

The venous hyperæmia and
dropsy by the act. of heart.
Then view taken on an in-
flammation from decom-
a given amount of blood
from a weak act. of
the hydrophobia heart. The
is a dependence of func-
Show that disease in this
man is induced.

We find the heart can
be moved & stimulated.
If an injection is excited in
a limb - or a move-
ment. be stimulated by
alcoholic drinks - The
heart will take on
an excited act. & will
throw out with greater
energy the blood. In the
diff. diseases - & in this

Dis: will be excited in
these distant parts. Here
the heart is by sympathetic
affected bring into morbid
action in distant parts
awakening in them morbid
This last is not a direct
sympt: action. It is
only a secondary effect.
There are two principles
you observed in this de-
action concerned. If you
can: operate - use Dr: do
you may weaken the
inordinate act: & he
heart you allay the
irritation in the distant
parts.

All the dis: tions
from irritation at the
heart & big dis: at

too much or too little
blood. If the heart be=
coming tanified in act: we have
a congestive state of the system.
an oppressed debilitated state.
This as you have this is
taken on from the cardiac
effect.

There is a strong sim=
ilarity of this which we re=
fer to the brain. In speak=
of the brain I have a
direct reference to the
medulla oblongata. Let
us consid this for a moment.
If you slit open the cer=
ebellum of the head the
animal must fall to
the ground. This boundary
from the blood vessels
making its extremity=
becomes the true land

When a tonique is applied to a limb. This effect arises from the want of blood to circulate in the centre of nerves. You all know persons if the quantity of blood be small and to his part the will be a want of acids. On the other hand if the quantity be too large the will be languor - disordered functions &c. This is a kind of Hydrocephalus effect.

Wh. the heart is pinched in an animal. Immediately it is disordered. This organ depended upon by no parts. it is not from the [illegible] of the

parts must be heard. The
muscles as you are all
aware when the brain
is no longer able to send
out the nervous influ-
There is a complex machi-
cal of nervous power.
The function of the brain
and distinguished from mind
by its material. Stimuli. Then
locomotion from the want
of this nervous influence
to be effected. If there be
a great irritation in the
brain from any cause
& all the parts are called
into morbid action. Fe-
ver is a universal phenom.
This cant be called
sympathy but it is
a morbid influence com-
municated to the

Measles from a peculiar
State of the nervous in-
fluence from an excessive
degree of excitement. With
respect to contagious com-
plaints and the heat, it
is not that both should
act in a certain manner upon
the body. If the simple
will is shed by one on the
other by inoculation or in
a certain quantity be
taken in, it excites
the one will communicate
morbid fomes to the
other. If the disease
of the one may be
by contagion. Thus
by various Rules will
arise up- constitu-
tional symptoms. Diseases

All this is to be extended
of the function to and=
of the. We see with exam
ine the respi. funct &
the circulation. Sup.
Here is an obst. to the
passage of the blood thro'
the lungs. There will be
a damming up of the
blood in the right side
of the heart. Anemia
will take place. Blood
which is accumulated in
the abdom. viscera. in the
liver &c. This will be
a measure of the secret.
of bile. You will all
see this is not a dyspep.
action. It is the depen
dence of the action of the
organs upon each other.

From this effect you may have effusions from the pericardium &c. Then will be pallidness of the ascending aorta - the face will be flushed & compressed of the brain. producing apoplexy but will be found to be dependent on disease of the heart.

Suppose there is disease of the lungs &c & the blood is not properly aerated from disease about the flow of the blood from not being accompanied & assisted by the heart to the heart which principally the body is brought into morbid action from not being aerated by an unhealthy

1760 1960 3
1460 1920

Idiopathic is the first affⁿ which results from a remote cause. This is an original & primary affⁿ. All those affections which arise from this are <u>sympathetic</u>.

Much dispute has arisen from about the existence of idiopathic fever some affⁿ fevers to depend upon local influence & always being <u>symptomatic</u>.

Most affⁿ are consequences one upon another. Diⁿ takes place & this originates diⁿ in other parts. General predisposition may take place in diⁿ before any entire the whole system is known unto diⁿ. & thus there will be a train of consecutive diⁿ throughout the system.

Every diⁿ state is the cause of an effect exciting diⁿ action in many ways. Sometimes we have examples of this first affⁿ setting wide while the

Apoplexia attack may go on
to destroy the life of the patient
Indeed in most cases of
fever death takes place
from the secondary affection.
You will have seen how
use of the terms of Diathesis
& Zymotic are not of
much importance. Suppose
a chill take place. The
first impression is made on the
stomach. This impression is
soon to the brain. The
2nd secondary effects. The parts
supplied with the 3rd 4th & 5th pair
of nerves. The impression on
the brain is sent out on
the nerves supplying the
muscles & vessels is produced.
The action of the heart
is increased & action. An
increased quantity of blood
is sent to the brain. Paralysis
is brought on of one
side. Lesion has taken

placed in the brain & is the immediate cause of death. Now is one to know how to note the first effect: is from the last, the cause of death.

You have much about general & local diseases. General dis: could dis: of the vascular. nervous. &c diseases. This is constitutional disease. A dis: is called local & confined to a particular part. We have no dis: which is universal & it is general when confined to those general systems we have mentioned.

Hunter first adv: the word: has no dis: cannot exist in the economy at the same time. This doctrine always correct. Two dis: of plans may be added as the same dis: & two dis: causes

existing dis: in each. but it would seem the two causes acting on the same organ, would not excite the king of morbid action. Hence you see Hunter's law as respects one organ or tissue is correct enough. This is true of the vascular, the lymphatic nervous tissues.

When however we call a local dis: is existing in a part it is difficult to set up a new disease & another dis: old one arises the primary will subside. Two great actions cannot take place at the same time. Locomotion, muscular power & digestion cannot be fully accomplished at the same time. &c.

motion is performed with diff: during the process of digestion.

But the mind is not satisfied with the fact. It would enquire into the cause. This cause about which I have been speaking has not been fully explained in the books on physiology. One of our most talented Therapeutic principles is instructive in this case. If when one organ is diseased you can excite diseased action in another part but similar: part to the part of life. This cannot always be effected & indeed not without danger at all times - You will moderate just the painful morbid action - you

bring down the action of the
heart & thus by the general
Then you may see the
good derivative effects.
Most likely it in Med.
seems to me to be over
looked in the friendly &
not one hand bear speaking.

It is well to attach
some definite idea to
the terms strength debility
tone, action &c. If a
man is capable of exerting
great muscular action
he is said to exert great
strength. Strength con-
sidered when applied to
organs is it capability
of action. Great strength
of stomach implies
great digestive power.
Great strength of heart
would be its power to

and the blood with force & continuance to all parts of the body. Weakness in the ability is capacity to perform different functions (work) & yet his digestive functions as strong as they had during convalescence.

I wish to direct your attention to the temperament. I wish you to study the influence it has upon the disease. There are three - Sanguine which consists in a free development of the organic activity - & fullness of blood - Activity of the mind and subject to acute disease - The bilious temperament you are old with - The symptoms of this is the phlegmatic -

The action of the heart is
irregular. it readily forces the
nervous system is easily
excited. The heart is
unable to send out the
blood This is called the
nervous temperament. Those
who have the bilious temperament
the action of the heart is
called has in the phlegmatic
they are supposed to be
some dis: as both the last
temperaments. It is apt
to terminate in the melancholic
habit. The
treatment required
in these dif: temperaments is
different and necessary depletion
called that as the Phren-
ological. Dr Curries has written
the most philosophical
work on this subject.

I will see some

thing about it is its muscular contractility & its contractility. Consequently it is a power which has built up our bodies. This constitutes what we call the living phenomena. The heart contracts from the stimulus of blood & its action is capable of continued action. Variations from this action arise from unnatural stimuli. Remove this exciting stimuli & the heart comes to act according to its accustomed habits. The conservative power of a lake is to keep itself within its bounds of its mouth - to keep its surface smooth. If storms arise to ruffle its surface. if canoes & boats overset its quality is in owing to it conservative power to its ordained bounds. The current

Definitions &c.

Nervous Irritation is one of your
terms I am not to hear. You
use that word so frequently. Nor
is it easy to understand its
meaning. The word irritation
is not matter it indicates a
mode of existence. Hence no
diff: of understanding — By
Nerv: excit: we mean a mode
of existence diff: from its healthy
mode of action existence. How
then can we desc: this departure
from healthy action. we see
the remote results of this ac-
tion — of its primary source
we know nothing about it —
we know no more about it
than how take place the
contr: of two substances. If Nerv
be pain we say there is nerv:
irritation — If Nerv be coldness
of part we say this is a
defective action in the part
arising from nerv: excit: —

we say he complains of the part is hot & painful. In some states there will be accumulations of blood & pain also be from it nervous irritation. By nervous irritation we mean a defective or an increase of nervous influence. with either defects & increased circ: in the part. When there is an accumulation of blood in a part without pain & we do we call it? — plethora or congestion. When there is a defective nerv: act: in part with acc: of fluids we call it congestion. You will perceive that this condition is a secondary effect & depends on something to be influenced by the nervous system. When a part is congested you will generally find the cause of the vital change in a part. It may

continues for a time & after disappears. & the part regains its healthy action - Yet the phenomena may come - & then be pain, throbbing, pain exaltation & sensibility &c you say my heart is inflamed you now drop & modify the terms nervous & congestion - It might be called a state of high irritation. inflam: congestion - nervous irritation & inflam: - This may be brought on by reaction of the part - perhaps the very acc: of blood in the part may be owing to the excitability of the part that inflam: &c is set up - Nutrition, the chemical action &c not in a state of health take place in the part & are now prevented -

Just as the morbid actions of sensation & we you be held in lunatics - these you easily distinguish from your healthy emotional functions - As the hand in the part you discover other alterations taking place - as ulcerations &c. wh you talk to be secretions wh is one from an healthy action - You have just &c. After having found that's nation produces in part & returns to a healthy function - You will perceive alterations &c. Such is a river wh after having overflowed its banks again returning to a channel tho' changed in its boundary still serves as for the flows of its waters

By Janie Dixeard -

Supposing organs may have
pain ~~in them~~ from dyspepsia. The departure of the
healthy functions of organs may
be so gradual as not to
be observed. finally pain
arises to discard. When we
call organic disease
any case has a morbid
nutrition in the part. Pain
will often not be increased
action. In form of blood
in a part & pain not
now speak. But to define
the meaning of the terms &
ascertain necessary before
we account for heart of
functional disease.

We will again speak
of the act. The blood
which goes with the artery is
entered to supply the organs &

to supply a secretion with
Lactic Acid is this organ.
This Lactic Acid in every
organ or part blood is conveyed.
Anatomy has not pointed
out how blood going to
a part - the part if wh
Organ for to supply to or-
gan & another to supply its
secretions. They can't dis-
tinguish the vessels wh
perform these functions
but knowing an organ
needs a necessary supp:
of blood, its secretions and
and diseases. The same
change Lactic Acid if to
Ammonia - to animal has
natural. The nervous
influence in the part is
either too great or too
small in the organ. Most
frequently & imaging in this and

consequence of morbid de-
ections in the part. If the
part has become vitiated
in its func: by inflam:
action it will be our
aim to subdue the infl:
action. I next call
your attention to Spasm.
This is a cont: of some part
place in unnatural fibres
of a part. It is a law of
muscular fibres to relax &
contract. It is the law
of the heart to cont: &
expand. Now as
long as the muscular fibres
cont: to act: in a regu:
manner in accordance to the
ordained func:. The
part is in a healthy
condition. But when
the cont: take place

morbidly & in some case constantly & we only be called we call it disease. In some instances prolonged disease terminates in death. This we call Chronic disease. Thus and nervous diseases connected with disorder action. This we can in one of nervous debility. A man has a local disease giving rise to his general disease.

To be a physician in the actual acceptation of the word it becomes us to consider further the morbid actions of the animal machine

You will readily perceive that we should labour under difficulty were we to go on to consider particular diseases before we are completely acquainted with

some general principles. On this subject I would wish you to think, even as dull & cloudy as the day is. One of the best modes of studying a subject is to be obliged to make others understand it. He, who undertakes to teach will always himself be the greatest learner. Make this subject a matter of thought for yourselves. This is a matter yet sub judice.

This subject includes a classification of the Materia Medica. One person may use one medicine of a particular class & another a different of the same class each being governed in his prescription by the same principle & each will obtain the same result. It is this generalization of medicines &

disease to which I direct your attention.

It is true all diseases present us in their origin & progress with a peculiar kind of morbid or pathological action called inflammatory action — To relieve this affection we must use means to subvert this inflammatory action — We must first endeavour to moderate it — You will then perceive with me the reality that exists in what I have said. You will understand the utility of considering the means that are in our reach — No matter when this inflammatory or pathological action is to whether throughout the system or only in a particular part.

This subject, however does not admit of a severe classi-

fication - I believe subjects are often made obscure by an attempt in the commencement at a nice classification. It is always necessary for us to take a birds eye view before we can attempt to methodize upon a subject - This I have all along avoided -

We will now consider the means used for reducing this inflammatory diathesis - That which we met with in most cases of inflammatory fever.

In the first place all active life & disfunctions depend on certain stimuli. They are these, light, caloric, food, the atmosphere, air which surrounds us & constantly acts upon us. It is on these & a variety of others

which keeps up & displays this active principle we call life. When any one of these or all together act inordinately disease in some one of our organs will be developed. When you find disease set up in the body, dont stop to enquire how it was got up. The first thing to which you will direct your attention, is the enquiry of what keeps up this active life. Look to the light, the sound food drink &c. You must diminish the action of the heart. Restrain exercise. You must submit your patients to a deprivation of all these natural stimuli. if you would wish to reduced inflammatory action, let it be situated where ever it may.

The second mode of reduction is by

Abstractions- This is effected by taking something from the blood- The functions of which would keep up this forced organism- In the first instant something is withheld in the latter something is to be taken away- Abstraction is effected by bloodletting- You may take it either out of the veins, arteries, the capillaries When the part is within our reach we can effect this object by topical bloodletting by means of leeches, cups &c, provided there be not much general excitement when the inflammatory organism is general- The brain engorged & when it is radiating its in-

fluence on the system. like the lightening now dancing from cloud to cloud & then darting upon the earth with deadly fury.

Bloodletting is not the only mode of abstraction. You must abstract the caloric from the body. I now speak of cold applications. I now speak of withdrawing the caloric, not depriving the body of it. Another is to remove from the tegumentary surface every thing which can irritate it, as clothing, bandages &c. The mucous surface is of more importance to be considered than the tegumentary tissues.

I speak of removing the irritating matters which may be lying in the intestinal canal & stomach. This if left to remain, may be the cause of keeping up the inflammatory organism throughout the system. The excrementitious matters which the natural functions have deposited there, must always be removed. This when the system is in a healthy state never excites diseased action, but when it is labouring under any affection it becomes an additional irritant.

The next mode of subduing this inflammatory organism is by Diluents - That is pouring upon the mouth or skin, water either cold or warm

& mingling it with some mu=
cilaginous matter. You may
think this a very inefficient
means, but as you go out to prac=
tice for yourselves you will obtain
Aliments to be of the greatest utility.
The absorption of mucous fluids into
the blood is of immense import=
ance. This will produce the
effect which I am proposing
by being admitted into the blood.
& thereby diminishing the inflammation

The next are the refrigerents. They
are refutable acids. The neutral
salts, as nitrate of potash in
dilute solution & acids taken
largely into the body will tend
to diminish the heat of the
body. No matter what you
may hear respecting these

substances acting as irritants on the external surfaces exciting inflammation - All such ideas I cast to the winds - I know well by observation & experience you may in this way refrigerate the system & lower the inflammatory excitement. He who merely looks at the effects of the remedies on the eyes or the tongue, or the external skin he may delight you by his theoretical reasoning - by his a priori deductions but rather, much rather let us take observation & experience for our guides & we will find these articles of great & astonishing importance.

You will observe that the

consideration of these means now
will be of service to us when we
come to treat of particular diseases
pleurisy &c - It will relieve us
from running into minute
details - Thus if there be inflam=
mation of the brain, the abstraction
will be imperiously called for -
So inflam: of the pleura refrigeri=
ants will be indicated &c

Well I know some of you
are thinking that I have
neglected or forgotten the most
material part of our means -
These are Evacuants - They
are they which augment &
restore in various parts &
organs - You will observe as
you increase secretion or ex=
halation you lessen the acting
organism - for example if you

promote the secretion of the mind
If, if you do not give water
&c you diminish so much
the sanguineous mass - By
Deobstruents are meant cathar-
tics, diaphoretics - Scalaponfs,
diuretic &c - They are depla-
tories - They are abstractents -
but their action is complicated
while they are bringing about
a depletory effect they are
producing others - You may
excite the intestinal canal
by cathartics, to throw out
an increased quantity of secre-
tion - but in doing this they excite
bring on an excitement throughout
the system. This is an irritation
& not an effect of abstrac-

tion to lower the diseased excit=
ment. They augment the excit=
ment before they allay the
increased morbid excitment.
Now it will be necessary for
you to use your depletory means
first. Some suppose by lowering
the excitement by abstracting blood
diseased action may be arrested. but
this can seldom be effected. To
effect this you must increase the
secretions from the secreting organs.

Now when you excite an or=
gan to increased secretion you are
restoring which before was not
in existence. Now remember dys=
pathy is only a morbid as=
sociation. If you can restore
to any one organ to its healthy
action it will it will then

carry its healthy influence into all the organs affected - This is one of the happy effects of Galvanism - This is a kind of derivative action - This communicate its effects from or= gan to organ all over the sys= tem -

I attach great importance to this subject - Though I am compelled to hasten through with it, but I wish you to think on this subject for yourselves -

We come now to that of that class of nervous, purely so called -

or jam to a heavy action
You must apply the bandage
as at present with the Rib
by mustard & carpets -
By these you are enabled
to act on the dyspeptic.
Now the Dyspepsia at
present we have abstrac-
tions - when we apply the
mask for a time after -
we use the pleasing sensa-
tion a reference to the
glucose upon - & its injur-
ious effect - Now mark just
so does it judicial ex-
citement.

Now we are to
speak of Medicated bon-
bons - Chocolate and Cocoa Sweet
meats - Oil with Rose
and Aperients Clarified
Honey Gums, Glycerine

as arsenic, mercury - do
they hand and visitate
by the word often in ac-
cordance with his own -
A[illegible] we have Mi
powers can be applied
for wise than with
great advantage. They
have been called Lord
& what not -

Lastly I owe you
att: to manners. They
after have stated me
in French care manes-
sions - They are happy
inspired in the cure of many
diseases - They are a
complicated clap wt
I am a stranger to Lord
[illegible] circumstance of the spread

Why can not he [illegible] advantage in [illegible] action. This class is much blended but exactly. Dr Morphia with an example of this. The resembles of Apl of July of Mrs Apl & Lewis is very striking. This is an absence of the mind combined with each other

Of the anatomical & physiological views of the digestive organs.

In every case of disease it is indispensable to consider the anat. & physiological knowledge of the part affected. It is necessary to have an image of both the diseased & healthy condition of an organ morbidly affected. Let us now turn our attention to the anat. & phys. of digestion

organs. In all animals there is a sack called the stomach & an intestinal canal & with these there is associated other glandular organs which aid necessary to the process of digestion & when they are in a morbid state the digestive functions are disordered. Thus we have the masticatory organs - viz & a mucous membrane supplied with nerves possessed of a peculiar sensibility as the 2d branch of the 5th pair of nerves. Next we have deglutition. The muscles concerned in this process are various & complicated. The glosso pharyngeal nerves supply most part. The next is digestion. The oesophagus is concerned principally in this. Supplied

the coeliac artery, which terminates in three arteries. These are three offsets of this organ. I shall principally confine the purpose. The next process that takes place is digestion. Digestion only partly takes place in the stomach. The food undergoes some change in this organ - called the seat of digestion. This organ has a specific sensibility - which excites the desire for food - which principally situated about the cardiac orifice. This nerve is the pneumogastric. Supplied with blood by the coronary arteries. The food is lodged in the cardiac orifice. As fast as it is formed into chyme it is deposited in the pyloric portion. Hence transmitted into the duodenum. This power

of transformation exists in the hepatic plexus & this part of the stomach is supplied by a different artery. Now Tom is the superfluous watery part only. I believe it is absorbed by the lymphatics & hence conveyed immediately into the blood. It is this alone conveys the peculiar smell of asparagus into the urine almost immediately after it is taken. Were this watery part to remain in the stomach the gastric liquor would be too much diluted. Digestion takes place on the outside surface of the substance in the stomach - it is melted down like a snowball in the hand. This is an example of the condensation known by the name of digestion.

The pylorus expands & admits the chyme to pass this to the duod: It is now formed into chyle by the action of the bile & pancreatic juices - After the secretion has taken place from the duodenum it will be excited & this excites the liver & pancreas. The parts are supplied with nerves from the hepatic & celiac plexus - This is called duodenal digestion. Now come to the ileum & small intestines - Here the chyle is completed & its nutritious particles are absorbed. The parts are supplied from the mysenteric plexus - & with blood by the mesenteric arteries - Ileo and next large to the great intestine - Has the process of peculiarities

-ates peace - And more
accumulation matter is
lodged in them - It is re-
tained here for some pur-
pose - The accumulation
here act as excitants - to
keep up action life - Nerves
are found to be <u>excitants</u> - The
have inside a supply of the
sanguiane nerves and supply
by nerves from the spinal
column - And we have
nerves of animal of sensi-
bility - in the other portion
they are principally organs
of organic life possessing
little sensibility - Most
sensibility should be more
obtuse it is need to excite
the motion and to the ac-
tivation of spaces &c -

These parts never perform their functions without being in a certain state. There is nervous & sanguineous influx into them. This is effected by the stimulus lying on the mucous surface. If food is long denied these organs become excited even a desire. When the stomach is at last empty & its tunic is a disposition to an erection or [illegible]. The brain & heart are excited. There is high excitement in these parts while it is diminished in other parts. For the function of transforming the food this is necessary. The brain & heart are kept stimulated & the animal

gastric juice is thrown out
It is necessary to prevent as
many distances to stimulate
the stomach by food to
keep up an excite in the
act of digestion - It is a
mistaken notion in modern
physiology to suppose
digestion can be improved
by abstinence - The natural
excited organism is however
directed in the commencement
of the existence - In subsequent
periods in life - the
mistake seems in the
necessity to excite to meet
the changes of the former
matter -

The organ is so far worthy
of our attention as the stomach -
Its relations with other organs of

various - Its dependent organs are the liver, pancreas, duodenum - You will have noticed a canal in epigastric centre - This includes the liver, spleen, duodenum, pancreas - These are connected by continuity of tissue mucous membrane and connected by other - These I have named, and the associated organs of the stomach Continuous sympathy of structure has often taught reason - They are also connected by a mucous membrane with the epiploic of Winslow the spleen - These are connected in another way - They are all supplied by the same artery - They are all supplied with blood from this artery - it branches into a no: of branches You see how intimately these parts are connected together - But they are connected by means

of the nervous system. They are principally supplied by the great sympathetic & the pneumogastric nerves. There is a plexus around the cardiac orifice of the stomach containing numerous ganglia which communicate with the cardiac nerves. This is called the "cardiac plexus". Now you see how easily these organs may be sympathetically affected. With respect to abdominal viscera which digestion is said to be transmitted by the function of the immediate viscera to other organs.

You will find that the cardiac portion is supplied by the Semilunar plexus. The pyloric extremity receives many branches from the cardiac plexus. Now it is the "liver" knows when the chyme is passing from one portion of

the stomach to the liver. The
liver is provided with the
other organs I have named.
I refer now to the peculiar
circulation denominated
the portal. The blood con-
veyed in this vessel from
all the abdominal viscera
with the exception of the liv-
er. to which it is sent. The gall
bladder sends its blood into
this portion of the circulation.
According to my recollection
the blood of the liver is sent
into the vena cava. but not all of
it. the gall bladder does not. All
the blood from these viscera
unites in a short trunk call-
ed the vena portae. This ves-
sels are widely ramified
ing through the liver. Now
you have in the liver the
ramification of the hepatic

alty, the veins & of the two
kinds. Hence you have
three kinds of blood in
the liver.

Now you will observe that
the small intest: the liver &
are connect: by the veins
& duct. Besides there is the
portal connect. &c. So
much for the immediate
conn: of these parts.

We now will consid: the
remote conn: of the stomach.
Look at them with conn:
mastication, deglutition. &
This connect: is by the pneu-
mogastric — The pharynx, phar-
ynx & the brain, connect: digest:
with the stomach. The blood
now: lifts to the organs will
they supply. ~~Some time~~
heard it said that is

Efficacy in anemia in laryngeal
& pharyngeal affections
in dis: of stomach we have
in the oesophagus affs: existing
conjt &c. By means of the
3rd pair of nerves wh go
to supply the lungs
&c. From wh the stomach
& affs: - In which action
may become impd by means
of the nerves & give rise
to dyspnœa. Hence we can
readily see as much de com:
motion with indigestion.
And this may take place
in a contrary manner. We
may have an impaired
com: to the brain & head pro-
duced by this organ or the
last mentioned disease. We
have in cardiac pulsations of
the ~~hypochondriac~~ lower region nerves wh

forms a connection between the head & stomach & the again have been connected by means of the sympathetic nerves. And upon the heart is easily excited in affection of the stomach. & thus the amount of blood sent to the stomach. This also takes place when the process of digestion is going on. The amount of blood sent out is greatly increased.

It is seems to be a law of the animal economy that when you excite an organ in one part you excite the action of the nerves supplying this part. Apply this you excite the stomach

thoughts — The head you
will observe will be exclu-
sive nerves & sanguin-
ous organs for the just
for this the consent
of the Mind. The brain is
stimulated in proportion
to the quantity of blood sent
to the head thus urged.
It is this that gives rise to
that comfortable glow we
often perceive a short
time after eating when
hurried after dinner —

The stomach is ap-
propriated unto the kidneys
& the pelvis by his hand
Lines of nerves — This part
by sympathetic. Thus the
stomach may either be
influenced upon these or-

fans. But the stomach has branches from the intercostals & has sympt: the stomach & abdom: viscera & the skin for which reason the most intercostal nerves. Hence you see how affs: of the stomach, are easily excited in the skin & vice versa.

There is not: of greater value to you than the study we now are engaged in. Yesterday we found the Sympathetic was bound by the nervous system with all parts of the body. It is intimately connected with the abdom: viscera the brain & heart & muscles, except the perinæum organs & the stomach & secondary organs. They are not just formed especially the brain, but it is the commander in chief of all the other organs. Like an

army ab hoc bene raised up
by recruiting officers. Here are but
subordinate as to the organs to
the brain, & when the army is
completed there is appointed a
general. Hence the brain tho'
the last organ built up in the
animal economy, yet is paramount
upon it only the command of the
whole. The action of the brain
& heart is nec: to the peace
of all the organs. The exercise
& stimulus of exercise
is by means of the brain & the
whole system may be excited.
The same may be said of
the act: of the acoustic nerves
& the skin. The is a suscep-
tibility in the skin to be acted
upon by heat. yet a
multitude of things may
not excite any sensible motion in
bodies. The lungs have a
susceptibility to the act: of cer-
tain foreign agents. The skin is
an act: agent for misfunc-
tions of the bowels & ki-

In all Mus. Diseases Muscular Irritability is partial.

Now you would conclude a priori, that Mus. must be of some grand centers of excitability. You will be led to the conclusion that all active life is a state of excitement. Every part of the body is subject to the excitement of external agents. The nervous system is endowed as to the susceptibility of many agents. Hence arises the great dignity & power of the stomach. This gives it a station in the animal economy next to that of the brain. Only second in importance with them.

The stomach has not some sensibility to every external agent. I don't know that it can be effected by light. Sound appears to act on it as much effecting the sch[illegible]

membrain. Of all the functions of the body the stomach is acted upon by the greatest No: of agents. It is not on the functions of life alone that influenced. It is the part of the body: which the ordinary life may exert its influence. Connected with this is the act: of certain agents-vicious: acting to life. It is a little surprised to learn of so many things that have to be included. The eye only to light, that can be found. In taking to chronic diseases the stomach is exercised by many agents. Man is endowed with powers of living in every climate & country - in every situation - for maintaining life. Lives on the surface of the earth: which exercises in him the action of life. Yet there are many agents into life which are

not capable of sustaining such
actions. Now we observe
that the substances which are necessary to
the sustenance of life are
often combined or associated
with the noxious substances.
Indeed noxious & injurious substances
under certain circumstances seem to
be nearly necessary. Thus
the system may be poisoned
by flesh & yet animal
& vegetable & antimony
Our object is to study facts
& not largely speculate.

Some persons look upon
disease as excited by various
agents that it is necessary
in the case of being thrown into
a state of disease. Now we
must make it the study
of our life if we wish to
live in health in a state
of peace. That we must
avoid sustaining many injuries
into disease. This
is carrying it to this point

Jas. The God of Nature has not created this in the way. Every organ he has given to its natural stimuli - It is the law of the animal economy that every organ as the stomach should be stimulated. The appetite which excites us to take nourishment into the stomach proves the contrary of the views of these modern pathologists - If the young man who has never trained beyond the journey of his city - whose muscles have not been exercised by exercise - more or less ~~able~~ ~~to~~ bear fatigue. How he who has been trained in his country & long habituated to exercise?

The stomach is the organ of digestion - & the organ of ~~digestion~~ assimilation. Keeping in or accompanying action the heart & brain & transmitting nutriment to for all over

Dyspepsia or Indigestion.

We come now to consider a train of the morbid states of the stomach. It is implicated in many diseases and cannot consider it necessary for us to do more than to point out the proper & physiological function of stomach. To this morbid state, we direct at present our attention. If an injurious action is excited in the stomach its function is destroyed or impaired. The action of the heart is excited. This we should not call indigestion or dyspepsia. On this subject I shall for your values. I would inform you how many diseases may be temporarily disordered & you will see how many diseases be excluded from what is termed dyspepsia. This seems to be nothing more than an impaired state of the digestive functions during

from some organic dis:- These
reasons have made Mr Stom
Dyspepsia perplexing to the
Student of Medicine - If you
can find it if it is not an
impl: dr he will desire to
know the approximate cause-
while we recognise the influence
of gastro-enteritis - dis: liver &c
we must consider Dyspepsia
as a dis: distinct from either
of these. I think post mortem
examinations could present
us with no lesions in any
organs. This I think constitutes
Dyspepsia. It is an idiopathic
affection - It is a disease of
digestion in the mid: period
of life - Rare ap: in childhood
generally ap: after puberty -
& continues until the 33 or
36 year. A dis: of endures
about 10 years. All I mean
to say. It means individ:
- especially in city & those engaged

in the highest walks of life
are from the 16 to the 36 yrs
exposed to the most horrid
symptoms - & if at any
time the stomach of his
examined it will exhibit
no traces of organic lesion.

Now is it true: for me
to assume the symptoms -
might I not desire you
to know our experience. Yet
as you may not all
have experienced this mal-
ady - I will state some
of the symptoms which char-
acterise & diagnosticate this Malady -
It is truly a paroxysmal
dis - This violent raging &
shaking I am led to think
arises without any cause
either from indigestible food
or any thing else. This is a
circumstance (I dont call it
a fact) of which you should

complains of being miser-
able, if you like him he has
been transgressing a limit
lyon. He dies not trust
you for he knows he has
not. The paroxysms has
come on frequently once
on during 15 years let the
Patient do as he will.
Hence I infer that this
is not a disease de
novo. but being purely dis-
of habit.

Symptoms- Heart burn-
a coroding - a feeling of cold
in the stomach - sometimes a
feeling of acidity. a desire of
distention - a desire for some
thing stimulant - a feeling
as if the Stomach con-
tained a hard body, as
marbles - of pressing & weigh-
ing it down. a ravenous

appetite - It is a mistake
often to say a loss of appe-
tite is a symptom of
dyspepsia - There is some
times nausea & even
vomiting but this seldom
occurs. There is flatulen
cy - This arises from the
food not being properly
digested Burning sensa-
tion. Chyme & chyle is formed
in many instances but is of
an acrid kind - This may
give rise to the symptom
I have mentioned - There
is costiveness of the bowels
sometimes light coloured
& again dark coloured
stools - Sometimes diarrhoea
&c - All this is indica-
tive of a deranged state
of the liver. This deranged
state of the liver & organs

to be a consequent or a
connection with the dis.-
There is occasionally fecal
accumulation of abdomen. The
often rapidly progresses effu-
sion & Dropsy from and
in progressed state of the pro-
cess ensues. Generally tender-
ness of epigastrium. Urine
often effected. Skin dry.
hands & feet cold. Per-
spiration must reduced.
Skin shrunken - face pale -
eyes sunken - cheek bones
protruding - Dry the mouth
& sordes. This I cannot
explain unless it be from
a sympathy of this organ
with the stomach. The
mouth is apt to be dry-
effected thirst. The heart
is effected - pulse languid

comparably empty - frequent
& fluttering often - Often
not more frequent than
natural - seldom or
never indicate febrile
or inflammatory action - The
expression of the eye is
dull - Spasm solidandy -
a twitching of the eye
lids - In the muscles gen-
eral lassitude - Irritabi-
lity of purpose & relaxed
fretfulness - & in some
persons Hypochondriasis -
When these symptoms in
some portion reach ato-
tum a maximum & pass
off the individual has
had a paroxysm - If
the disease is connected with
this if [illegible] in [illegible]
with the other imperfect

If the disease is not symptomatic after the patient appears to be a great buoyancy of body & mental functions - he feels as if he had escaped from a thousand ills - he feels as Gulliver felt when he escaped from the Lilliputians:

The disease is general sensibility & the children seem most liable to it.

It is said to be the malady of two of Seneca's daughters in consequence of the disease in this city. There is some consideration to these views.

Causes - It would be indelicate to indicate to you even what has been said to give rise to this malady would take up too much of your time - Many causes produce - Many causes

disorder the digestion.- There is a cause in the united States wh excite a great influence in producing the dis.- 1st. Luxurious & stimulating articles of diet & drink- gastric depletion & stimulation- The I take to be one of the remote cause of Dyspepsia- Not that ever person wh lives luxuriously becomes dispeptic but the dis: is oft incident to such persons- Stimulating diet & drink bring on an inflam: of some part of the system & may fix on the inflam: of some of mucous membrane of stomach- But as I said yesterday inflammation & irritation dont actually constitute indigestion- But we may have an inflam: dyspeptic- but this is nothing

more than chronic gastritis- dia this alone constit indigestion why do we at all use the term dyspepsia- I dont think it to view the matter in this light is of any importance- It is difficult to distinguish from inflam:- If we admit dyspepsia to consist in different degrees of irr: or inflam: we will frequent be at a loss- I believe dyspepsia may exist & does without inflam: yet it may accord with this state. The cause & symptoms mentioned in dyspeptic affections may give rise to inflam: action- I wish you to consider whether these are two distinct maladies? Many diseases may be connected with inflam: action yet still this dont show these to be dependant on inflam:- Of this kind is Hysteria- of in

This Dyspepsia is necessary.

2nd Articles of diet & drink which are not stimulant but which are indigestable. Which lie in the stomach without produced chemical changes &c. One of these is short cakes or hot biscuit. These are differently acted on by the gastric juices. & I have known men who called themselves half horse half alligator fellow who said they could not digest these.

3rd The use of stimulating drinks as tea, coffee, & ardent spirits. I am compelled that tea is one of the causes of dyspepsia. It wakes the nerves energy. It influences actions to look the moral & physical man. It increases

the mental & corporeal functions - It dont degrade the man, but refines his feelings It enlivens conversation & increases mans fitness for the social state. Black tea is less stimulating - but the stimulation of wh Coffee is attended with a decrease of the exalted state - & will leave the person in an irritated state - This dont depend on the circulation. It is an influencing of all the organs & functions. & below that the use of these beverages in students &c & in females are rapidly carried to excess In the Lecture on temperament it is not as high as it is effect - Coffee is up to Rum head -

Spiritous drinks do frequently produce inflammation of the stomach, but this is not always its effect. This is evident from the difficulty with which intemperate habits have stopped. Yet most certainly this is one of the most powerful producers of that inflammation by any which introduction to the kind of dyspepsia

2d Cause is tobacco. In Hamburg I have been told by a person that no dock could continue smoking. The Netherlands & German around the country is very low & damp. & that which this is the situation the people are generally lean

copk cyanatic - By such persons tobacco may be used with impunity. I have heard it said of a company of Dutch soldiers who had to light their pipes before he made the charge & made it with the pipes in their mouths. The injurious effects of tobacco: those arise from its increasing the flow of salivas. This is not the juice wh. supl. the digestive functions - The true modus operandi is the nervous irritation induced in the system wh. gives rise to its injurious effects in cases the digestive funct.s - The habit of smoking in young men I think gives rise to the maladies I have been speaking -

In the 5th place sedentary habits. Exercise is next to all our functions. Running is said to be the best way of taking exercise. The abdomen is applied. The diaphragm is actively excited.

Atmospheric vicissitudes. An atmosphere is cold & damp is apt to produce a fit of dyspepsia. The functions of the skin is affected & it & the bowels the nerves the stomach & the intestines & joints are affected.

Ygly. Malaria. I can't show you this but we presume there is something thrown out from the earth during summer & autumn. In tropical countries malaria is most abundant

+ fevers are frequent dysen-
teria is very common. I
have seen persons who were
very affected with this mala-
dy, recover from it when
removing to situations wh
were exempt from mias-
matic fevers.

Dy- Great muscular
& mental exertion. When
the muscular system is active pow-
erfully the blood is diverted
to them from the internal
organs. The nervous energy
is increased in the muscles
& skin, while it is withdra-
wn from the stomach &
bowels & the usual
digestive &c. Hence you see
a peculiar kind of exer-
cise is always necessary for
studious & patient wh so
has recourse from want of it

9th The passions & anxiety. Such affections seem to affect the stomach & in a dyspeptic habit will bring on a paroxysm of dyspepsia. & in many instances will produce it.

10th Intense application of the mind. It seems to divert the nervous influence from the stomach. This is connected generally with sedentary habits. There is in such persons a deficient peristaltic action of the bowels which in the first place, will cause flatulence & affect the stomach & affect it.

In civilized lifes we find all the causes combined. & have called the a disease peculiar to civ-

Medical Society. It is here we met with first rate wine, brandy, beer &c. The finest & most trained musicians. The noblest efforts of the mind are hailed here found.

In our last lecture we came to the conclusion that this disease is closely connected with the nervous system & that these disturbances are made in the stomach. Not that the stomach is always primarily acted upon. It may be secondarily affected.

Now when you examine a paralytic of this malady you will find various parts affected. Various symptoms will be developed during the paralysis - which disappear with it. Sometimes it happens that

organ remove from the stom:
from a nat: debility or dis:-
nian this make it liable
to disordered functi:- during
the paroxysm- The functi:
& disorder of the stomach will
be transmitted to this im-
portant organ & it will be
violently excited- & when
the organ is repeatedly acted
on in this way, permanent
disease may thus be
pathologically developed- Dys=
pepsia in itself is not a
mortal dis:- but it may
be involved other organs so
as to be the primary but
not the ultimate cause of
death-

When an Intermittent
is a well balanced con-
stitution one unimpaired

the chances of being dis-
-ceased by it as when it happens
in persons with weak or-
-gans &c.

I will enumerate the
dis: growing out of this
malady. We come now
to the application of the
manner of the propagation
of disease, formerly treated
of by me. I will now
apply those principles.

Let us look to the
bowels bowels. The pancreas,
liver, spleen &c. Now you
will understand how the
stom: can affect the bow-
-els & liver - first by being
lined by a similar mem-
-brane - it is bound up to the
just as the skin is cont: -
Torpor in the stomach is

in this way com: to the
bowels - & constipation is
brought on wh will re=
main after the stom: has
recovered its healthy action
On the veins & arteries
the liver becomes torpid in
action - It may recover
from this state when the
primary cause is removed
but often it will pass
into tubercles. Of the stom=
ach suffers from gastritis
the lungs may suffer
from inflam: - may
suppurate - may become
indurated. During this
state we may sometimes
find it to think we have
from the first mistaken
our diagnostic symptoms

I have intimated that the urinary organs is of= ten in dyspeptic dis:- It may be increased in quantity- calculus de= posits may take place- dia:betes may be brought on from disordered di= gestion- This secondary affection often demands constant attention- There are primary affections demanding attention- When your patient has dyspepsia you should always direct your att:n to these organs &c.

In the upper portion of the alimentary system you have the oesophagus larynx & mouth- These are found in the oesophagus- Stricture is less

Dom'l met with - This dis: is in some cases as incurable as dyspepsia. But with respect to the stomach it is often seriously affected in this dis- An inflam: will be discovered here - there will be a dyspep- there will be an organic enlargement of the bowels, sometimes terminating in ulceration - In the mouth we have various appearing - Ulcers often found to discharge pus from the mucous - I have known a person lose a pint in one day who had during life suffered with dyspepsia - The breath

& pain of more chronic affection - This arises from the action of the particles acting on the parts of the mouth. We have also ulcers in the mouth & throat - These ulcers are usually pronounced & foetid - The breath is offensive being the first - The mineral & vegetable acids are applicable to such ulcers -

You are all aware of the different chronic dyspeptic consumptions - You are acquainted in the lungs an affection called chronic bronchitis - we have pleurisy - & tubercular phthisis - giving rise to hectic fevers - Dyspepsia may awaken any one of these disorders

I have known persons
long afflicted with organic
unmedicable diseases of the
heart, primary affn. was
removed. In dyspeptic
affn. you should always
examine the state of its
existence. The necessary
therefore &c.

The maladies of the
heart are numerous.
They are functional & organic.
In their first the
is great palpitation.
may exist for a long
time in the heart. They
often arise from sympathy
with the stomach. Such as
hypertrophy of the organ
ossification &c of the valves
An organic affn. may be

developed from sympathetic action. as from sympathy with disordered digestion.

The eye sympathizes with the stomach - Suffers severely results from dyspeptic disturbance - it may occur in over work. The conjunctiva of assumes a chronic inflam: from impaired digestion - about the orbit of the eye - there is an acute pain above the eye & often over the whole head - this is termed direct head ache - This is essentially the dis: of dyspeptics - The patient has disturbed dreams - & awakes up & dont know whether he was asleep or not - he awakes in the morning - the pain

4 severe - cant get up - in the evening takes a cup of tea - afterwards feels well & remains so he had vomited often it comes on in the evening - debility of an acid mat: relieves him he goes to bed - in the morning awakes & feels well - This is purely a neuralgic Dis:- a derivative malady of the digestion -

We come now to Dis: of the brain Inception & Progression Epilepsia - Hypochondriasis Hysteria &c I have seen epileptics come on in persons of great intellectual function - I have seen hemicrania of an irregular

Colon Kind rising from
his Bed- This comes on in
Persons of nervous temperament
There will be a numbness
of the side- it does not
amount to complete hemi-
plegia- both as part to
Sensation- in the Person
who talk to you but
will take you for an
other person- he does not
mind if you are in the
room you are- he will
tell you you are not the
Physician he sent for- he
will tell you he knows a
thing or two- I collected
a case in which a young
man fell into his state of
Delirium connected with
epilepsy- he had been in
the naval engagement

the second or board. he
brought the person around
where the sailors. the cap-
tain of the vessel had
been killed - Mishinaja
& made some pathetic and
characteristic declaration with him - The
vessel had been taken - This
he conceived - & held out
his hand to some one of
us as if giving up his sword
He said he was fatigued
& desired to be left on
the deck & wrapped
in his coloney - he ordered
one of the sailors to give
him a drink - a mistake
& had made the new
book, tho' during his ser-
vice he had sometimes
refused it - he returned
to his former [illegible]

about 20 minutes afterwards

We have seen that the liver is nervously bound with the stomach. Hence whenever there is pain in the stomach you will find pain in the liver. Now if you have a morbid action in the stomach. when the stomach absorbs alcoholic drinks do you not find pain in the portal vein: & be taken into the liver to excite a morbid action there. Hence you see that in the first place alcohol excites the stomach & this is sympathetic with liver. Then again the liver is directly excited by the alcoholic fluid.

The liver & dont only consider an organ meng of secretion but also of elimination &c.

With respect to the continent. wh is brought by the sympathetic action then by the funct: of digestion being imperfect & then again thro' the intervention of the liver not throwing out a sufficient of bile &c.

The Kidneys & stomach are hand to hand by means of nerves. If the nerves wh go to the stom: are tied. those wh go to the Kidneys are also tied & a state of dyspepsia the stomach are not the

heart, & also the chyle. The
kidnies are eliminating or-
gan - therefore what is re-
tained in the blood is left
thrown out - the fixed
acids in the stomach, now
the kidnies will secrete an
acid - if there be a great
moderation of acid in
the stomach you will find
it in the urine, in cir-
& it will be thrown out
by the skin & eliminat-
ing organs - & air
passes to the lungs the
stom & the lungs are con-
nected. The connection
is in the brain by means of
the pneumogastric nerves.
The acid may arise in
the body & be expelled off &

The lungs are eliminatory organs. The smell of garlic, liquors, &c can be detected in the lungs. I look therefore to the lungs as organs of excretion as the kidneys are. That the stomach is in an unhealthy condition will be readily admitted, it therefore will be unhealthy. This will be evinced in the repulsive smell of the breath & the tongue. To the lungs giving vicious in this way to disease.

With respect to the heart mind and remarks are applicable. It is easy with proofs from

the same branches as the
stomach - It seems more
~~sympathetic~~ nerves than the
cerebral nerves. Hence
if there be a disordered
state of the nerves of the
stomach the nervous
disorder in the heart - it would
act abnormally. If
the lungs from becoming
unhealthy because as it
is this state with the
heart would be to it an
unhealthy stimuli &c. The
same will happen if the
Evacuants of blood from
stomach &c were given as is
to hypertrophy &c of this or-
gan.

With respect to the
case in your article the

External extremity of a
nerve will convey an
impression to the brain - Com-
municates his knock as felt to
the stump - If your hand
or muscle injured in the
sentient extremities here
This will be transmitted
to the brain, giving rise
to spinal irritation, hy-
pochondriasis - hemiplegia
&c. Organic lesion
once here symptomatic cases
developed &c. & this view
last after the primary
organ has returned to
a healthy action.

My treatment. He who only wants
to receive, will neglect my
Way. I have before said -
I shall not aim at in

my part of my course to particular medicines or compounds I shall only speak of certain indications to be fulfilled & certain stages of med: for more minuteness in this respect to the chairs of Mat: Med: & Surgery.

For work on digestion I refer you to Philips on Indigestion - Paris on Diet, & Johnston on the Stomach. & also Abernethy's papers on constitutional diseases arising from local affections &c.

In reference to the stomach & its sympathy, I am forced to consider it connected with a morbid action of the nervous system. Then may be superadded to this an inflammatory action constituting gastritis. Hence I divide the consid: of stages in this affection - It is ushered in with a torpid state of the bowels &c

What an Mr means within
our reach for restoring it to
a healthy action. & must we
to recollect the etiology of this
disease. recollect the causes
& give rise to it. One rule
of the causes will lead us
to consider the exciting cause
& to remove them to effect a
restoration. This you may
sometimes find very difficult.
It may detect the
use of tobacco as a cause.
you will from a discontinuance
of it. in this you
may frequently be deceived.
The causes arising from
improper diet generally lie
in head. You must en-
deavour to regulate the diet
of the patient. You will
have to direct your patient
let it arise from what cause

it may. Your object will
be to keep the stomach, just
as you treat a fractured or
wounded limb, at rest as
much so as possible. That
it may recover its lost en-
ergies. You must not call
upon the stomach to perform
a function while irritated,
which while in health it
performed perfectly & easily.

When faecal matter
accumulates in the lower
bowels it will produce irri-
tation in the stomach. But
still in your dietetic ap-
plications you must not
choose such articles as will
be entirely formed into
chyle & leave the colon not
at all loaded. Such ac-
cumulation must take
place here. it is necessary that

Bile should be a powerful
action. Keep up the
bowels - it is useless to keep
up this stimulus which goes
to keep up the vital functions
If to remove accumulations
by purgatives you will be
disappointed in your effort
I believe there is a limit
imposed upon us in re-
gard to diet to our dys-
peptic patients. but it
must be a question how
much should be allowed to almost
any extent stimulating
food. Then I don't al-
lude to that state of the
stomach.

1st. The diet must be
diminished in quantity when
it has been taken in
more than a healthy quantity -
The reduction of diet

depends on the temperament
when the signs of inflam:
are not great the remedies
need not be repeated. But
when you find the tongue
red - tenderness of epigas-
trium - pain in stomach - &
heat when the symptoms
were off - you will highly
increase the dose.

2.ly When any part: acts
of diet or drink has been
the cause it must be
strictly omitted. You
must distinct this in
this case let this case be

3.ly Those things which
are disgusted of digestion
must be prescribed -
Those you will often
most readily learn from
the patient himself

4th The food should be well masticated - By this it becomes mixed with the salivary juices & should be disposed to be presented to the coats of the stomach will be prevented It should be taken slowly & well chewed - I have known many cases of Dyspepsia much improved by these precautions & not demurment.

5th The diet should be both animal & vegetable This seems to be a law of our nature, & our diet should be mixed, consisting of both animal & vegetable - My experience & observation have confirmed to correctness of this remark

when the stomach is unfavo-
-rable farinaceous diet will
be proper. When there is a
tendency to animal food will
be the best.

6th The animal food
should be cooked with vege-
-tables. roots without
condiments. And con-
-dimens as sausages, jellies
must be prohibited.

7th Most meats are
improper. The lean parts
of animals, that are very
fat, is the most digesti-
-ble. When the animal has
been very poor the fibrine
will almost be reduced
to its elements.

8th Salted dryed &
smoked meats, especialy
those that are fat must be
eaten sparingly

9th. The fat of various animal meat, & venison boiled with wine & an indigestible.

10th. Fresh oysters are indigestible.

11th Solid animal food is more difficult than soups.

13th Animal food should not be cooked very much by cooking a great deal of its nutritious particles is removed.

12th. eggs not too much boiled, nor fried in butter, or fat, may be eaten in small quantities. I don't think soft boiled eggs good diet for dyspeptics

14th Milk is good but it does not agree with the stomach. Men are

man / alone with whom
this dont agree - it will
often coagulate in the stom-
ach. It is not easily act-
ed upon by the stomach -
It is mild & unirritating -
when the patient is afflic-
ted with diarrhoea it should
be boiled & mixed with lime
water &c. Now more digestible -

10th Of vegetable food none
is better than wheat bread -
it must be fermented - not
too - baked hard - & eaten
cold - No bitter ale: un-
less Mrs Nicholson likes
bread - dont violate any
of these instructions - if you
do your pat: will suffer
for it - To make it agree -
ment the bran has been
left in it - The bread is
indigestible - it irritates the
bowels - but if the

Stomach is suitable to weak
digestive Powers.

16th Unripe corn bread
without Working - or eggs
& made into a thin batter
& kept to rise & then not
to be too hard - it is
then a good article of
diet - it is nourishing
& acts gently on the bowels
It must be eaten when new
Meal is not so digestible
as the bread baked from
the same kind of grain -
It generates acidity -

Ivy Pl. Water cracked and
sour - Should be eaten with
out being soaked - They
then are soft & done to
be cooked - When eaten
hard they become weed
mixed with Saliva -

18 R. Examine under potatoes - they seem to contain a great deal of feculae - They are applicable when jaundice is present. The sweet potatoe has a sorrelly taste makes it applicable in dyspeptic patients - They act on the bowels lowly & in this way they are useful.

19 R. The Irish potatoe does not seem marked up.

19 R asparagus, tomatoes do as good -

20 R vegetables liable to ferment and from the organs, the coction and digestion - Hence the use

1½2

Criminal & damning facts
are laid. When they
do not fix on his head
they are antiphlogistic.
They will often unravel
the artifices of the clamorous
Of Lawyers at all other
Leaches are simply stimulants
In inflicted cases useful. In
advantage they are on the
bowels & skin often counteract
ances the evil had effects.
Many of them had been
be contended with known on
the other

21st All the physicians must
are unprofessional, as well as
sickness must be an im-
proper - especially out
by hand, their long

22d. Tea & coffee are to be taken moderately. Avoid what tea is a predisposing cause in any person is the best drink. On no account should a patient consume more than two cups of tea or coffee daily. Fermented liquids, as beer, porter, cider & domestic wines are improper. Old wine & good bottled cider you may occasionally find of service with water in the morning before breakfast.

You observe that I recognise a state of the stomach in which it will be necessary to reduce the diet to a minimum. At this time you may consult the

practice will not do. There are cases in wh the fourteen art: wont do. in wh animal food must be avoided. Avoid all articles wh will tend to a deprivation of the bile. This is a bile, opening & mercurial cases a mild diet will be the most proper. Yo here the must be simple the pat: must take it in moderate quantity. do as not to cause fulness & distention. he are more apt to end in Albany too much diet the pat: will not be lead him into excess in his mat:- Not like

we must be cautious not to run into the extreme. Injury has been done in this way. The powers of the stomach may be weakened by just during the practice, & it must have its natural stimuli. it suffers without it. in idiopathic dyspepsia we must not deprive the stomach its natural stimuli. The law of the animal economy is that the stomach & bowels shall be stimulated There is reason in all things & no where is it more obvious than here. Avoid extremes.

Medical treatment. I can say but little [illegible] on this part of this subject. But it will be of immense value to you. What we can

accomplish'd by med: wch often be last trusting- But as I think it is nec; to you that a make some estimate of the value of wt is said medicinal of the treatment of his malady in the book- I cant present it to you wt am said to the indications I am engaged in this dis:— I propose also to call your att: to the classes of remedies wch may be beneficial-

1st of bloodletting both general & local- When the patient pulse full- respiration laborious- face flushed- pulse excited- thirst- tongue red- pulsation & tenderness of the

epidiascism - you may
suppose M is a fastidious
& H: to will be indi-
cated - This dis: does not
will bear bloodletting - &
cant in reality be cured
by bloodletting - But still
you may resort to it if
you find patient bears it
or a sanguine temperament
many cases which prohibit
M: will admit of cupping
&c. In all cases where
there is fastidious action
you will find topical
application of an admixture
of leeches - leeches in the
country & small towns
cant often be kept -
or procure a Rice bi-
narcap Rana - But

cupping is accessible to all
& every where. Instead of
a scarificator you may
use a simple lancet — &
from local bloodletting
a great advantage in
many cases. You will
distinguish the cases to
wh I allude. You will
learn what are the symp
of a hydrocephalic diathesis
&c. This state you will
easily distinguish ~~from that~~
from what I term idiopathic
dyspepsia. "

You will observe in
most cases in wh you will
use PS & in case in
wh you will not. from
animal food. You will
find medicines very deadly
in both diseases to emetics

they are almost proscribed
in this disease. The Tonic
& Stimulant entirely wrong & therefore
out of the question. In
those states of the system
in which Opium & the quinine
may often never be used
but in the Typhoid form
& below this [illegible] Stimulant
the excite the muscular
act. of the Stomach. its
secretions are improved.
In which system excites a
variety of symptoms are
relieved. But this is
a state which is diff. from
inflamm. This state is
a nervous irritation. &
who are readily roused.
Emetic in these excite
spasm. cramp. & stomach
may even death. Now

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Wh you do administer
emetic to such habits
Sickness be injurious. I gave
wine Ipe with Laudanum

Cathartics - They are
divided into purgatives
& laxatives - Now it
seldom happens that
cathartics is called an ap-
plicable, yet case may
happen - As when
a patient of Lienphlegm-
matic habit comes to you
one wh is a commandeer
& has great dis-engage-
ment of digestion - you
will always bleed him -
you may give him
Rhu: if you find emetics -
It must be individual

You may give with great advantage both calts. will act on the liver & bowels called Hydragogue. From these he will experience great relief. But there will be a limit to this use. When you find them having wounded Nature effects or all they can do, discontinue them. But calts in nervous diseases are contraindicated & also in those cases in which there are accumulations, calts are improper.

Laxatives are more generally. You use it simply to prevent accumulation in the

bowels – but a true disciple of the Great school will tell you that it does not by any means follow that in mucous membranes & Skin diseases where the disease is attended with costiveness laxatives should be given –

Much has been said of injections. These are sometimes convenient in the hands of the Physician but where there is costiveness & a phlogistic action present are beneficial – but in Leucophlegmatic habits they will do more harm than good. They have of course

Antacids. You are aware
that acidity is a com-
mon attendant on
this disease but I am
strongly under the impres-
sion is exerted from
the stomach. This will
often be known after by
emetics or spontaneous
vomiting. When per-
sons are restless & know
not what ails them
the person's stomach is
full of acid. If he vomits
he is relieved. If you
can give him magnes.
You will form a salt
in the stomach this will
pass into the bowels
& will produce purging

& he will be in this
way relieved - If you
for his cark: Potash &
he will be immediately
relieved - I am sorry
they are miserable
sensations - but they are
nothing more - they
dont be more miserable

In Dyspepsia we
are troubled with nervous irritation - flatulency, constipation - spasmodic action - for
these you are to administer nux vomica - Arsenicum
is - Always choose that
which you find may agree
agree with your constitution - Here are opium - asafoe

Hydrocyanas. cienta, pru=
ric acid. Thus you may
combine with your rem=
edies.

Gums. All the woods
known that gums are
almost of specific be=
cause there is or hills=
non all known in me=
dicine. They are
contraindicated. In
the pulmonary tuber=
ty are improper. In
the lymphatic indivi=
when open remedies are
used. Avoid giving non
volatile oils as turpen=
tine, combine them with
something that will be
a laxative. The opus
will harmonize

Diarrhoea. You are
will always find it con-
nected with the stomach & bow-
& lungs &c. When we wish
wish to restore action
the stomach, we must
attend to the skin &
use such means &c. - Wh
you find the skin dry
you may apprehend
inflam: in stomach - but
when it is well &c. it
will denote debility -
Do not use warm bat
flannel next the skin
frictions &c.

Moral treatment
When there is a contin
war of ideas & fancy
around the patient
a want of resolution

when he is dying he
dont expect to live long-
d- neglect his worldly
affairs - Now O his guid
wife endeavord to ex=
cite some pleasing em=
otion in his mind - Now
gladdening hope - Now
fair image - Now wife
descend from - In brain
an excitement which
extend over all his or=
gans - his stomach will
be excited to a remark=
able - he will feel him=
self a new man - he
will again form new
plans & business - his
friends will say he has
a the skin of - & he is dread

Man &c &c - But it is
your place to Read &
wait - But dont un=
derstand his dis:- Know
no - & will unless you
rely for Dr Man - & me
credit of himself -

Cholera Morbus - Diarrhea
Dysentery - Chol: Infantum -

You may think it un=
just as I do not mention and
'on head so many diseases
In the book you will find
each of these described sep=
arately & the symptoms ap=
pearing diff:- But I will
present me to you as My
home pleasant Thursday &
We in practice & to my
understanding as dis:
of a deep or many

n alady.

The viscera concerned in
these Dis: are the stomach
the bowels, the liver &c. called
the diaphragmatic organs-
from when there is increased
& inverted peristaltic mo-
tion & the alimentary can-
al. we call it chol. when
confined to the mucous of
the peristaltic act. we call it
Diarrhea - when confined
to the lower bowels & bloody
discharges are present
we call it Dysentery -

Pathology. 1st let us consid:
the peristaltic function. A
morbid state of this when it
is inverted or increased mor-
bidly - In chol. it is inverted -
In this Dis: the contents of
the stomach is expelled &
even the cont: of duodenum &
occasionally of the ileum

It in some men is an increase of the peristaltic act: of the lower bowels - Now this sometimes exists alone, then it is diarrhea - Hence you see the connect: of these two dis: - This peris is connect: with dis: - we have morbid contractions of muscular coat producing pain - & in the lower bowels contractions & augmented - causing tenesmus - This constitutes dysentery

2dly Let us enquire into the cond: of the mucous membr: I spoke of this aff: of the peristaltic act: first because it is always most obvious In chol: we have morbid secretion of this membr: & mucous in might - The move: of the stomach &

bowels affected - In Diarrhœa we have morbid sensibility & morbid increased secretion of the bowels - This constitutes the simple cause of diarrhœa In dysentery we have the mucous membrane morbidly sensible with more pain & an increased secretion with blood & serum - This is confined mostly to the lower bowels. There is pleno of the mucous membrane & more inflammation ending in ulceration & sometimes in mortification - The reason why there seems to be more pain in the action of Rectum is more largely supplied with nerves.

The mucous & muscular tunics are closely connected we have inflammation in the

one we will find no obs
contra: in the obs vailing
pain- Hence what veils
the mucous membr: tries
means the painful affec
tion.

3dly Let us consid: the
condition of the mucous coat
lining connects with the
bowels &c These are the liver
the spleen, & Pancreas-
with respect to the liver
we have no means of
judging of the state of
this organ & in the dis:
which we are considering
we will find the liver
affected- Some think the
a pneumia & others as
secondary affec: Both th
facts are in favor of the

gone to sleep.

In cholera what is the
health condition of the liver.
many of you will say increased secretion. This
will be true in some cases
but not in all. It will
happen in adults that he
will be large quantities of
bile vomited. Now you up-
that the vomiting increased
her action is owing in some
instances to increased flow
of bile cant be doubted.
If men be. it follows if
the bile ceases to flow
the vomiting he will cease
of. That this secretion
increased the liver will
be diseased. The patient
dies the first week. If

Items in the mild cases
do commence in the bowels
& then occurs what I
have just supposed. The
fow I say here is an
increased flow of bile
in some cases. but were
a physician to attend them
he would be no better than
the common people. The
most terrible cases are those
in which the secretion is
arrested or entirely suppressed
suppressed — & we have it
occurring from retained
secretion. All these rapid
deaths will present themselves
selves in the diseased
Cholera. In diarrhœa
is sometimes a decided flow of bile
bile &c &c.

In dysentery the is a de-
fect function of life &
dont a total suppres-
sion. These are subjects
of importance for your
consideration -

4th We will consider the
pathological state of the
skin - In all the diseases the
skin is involved. Its vital-
susceptibility is impaired -
& its exc: of perm: is greatly
impaired or suspended. &
its evap: is diminished - All
this must precede the
development of dis - Or
it may come on upon the
skin by itself -

5th Let is suppose it to
be impaired perm: in fever
&c - We have found: the

of the Skin - In all Diseases the heart is more or less disturbed in its action - Sometimes the action is debilitated - & again its energies are increased - & we have fever - We must look to the cause of the fever - & be satisfied to find it of one sort & again of another -

In the Exanthemata we consider the brain & nervous system - In Scarlatina the stomach is brought down rapidly - & we have spasmodic action of nerves - even to paralysis - Mind muscles &c - the actions of the organs in diseases to be attended &c

a addn to Spasmodic action
& depressing in Lues cramp
in the bowel extremities - This
is considd almost pathognomonic - Such are the
leading phenomena in the
effects we have been consid-
ering & you see how closely
they are connected -

Causes - 1st of Rose
lock act on the Integuments
by unwholesome diet & drink
If you take in diet putrid
you will have cholera or di-
arrhoea - Just it you take
in an unwholesome meat -
poor - Malaria is said
to exist it especially in fevers
in Africans - because they
live chiefly in swamps &
are liable periodically - & Rat the
cause is connected with intem

remitting fever. I must confess I am inclined to think they arise from this cause. but by unquestionably do not account for Variation is temperature of air - whether from cold or moisture. It may arise from cold checking perspiration. This cause we will find occurring when malaria is said to exist. when there is alternations of heat & cold with moisture. This is a question yet sub judice. May not cases of diarrhœa & dysentery be dependable to this alternation?

In all these maladies you will find diarrhœa in abundance

with disordered function. The
liver. Now when the
blood has access to
surface when has it power
to cast out in the cause
of the eruption: for this
we that have apoplexy.
It has left the arterial
canal. It seems to me
it is accumulated in the
abdomen: viscera: in the
portal circulation. Is jaundice
the liver. There is then en-
largement of the portal
circulation.

Now sup: an irritating
cause of within there will
be an alteration of the
skin I have just observed.
The blood will be accu-
in the internal organs

When Mr is in case Mr
Nervous fluid will be
affected. The sensibility
will be affected. The
Respirations will be
affected by the loss of
Nervous energy & conse-
quently it will be ac-
companied sometimes also.
I can Mr not Mr
influence sent out for
Mr head is it a convul-
sive Kind - Now when
you observe that Mr
Respirable fluid is
checked - when Mr exer-
cises with Mr Power
of is retained Mr
power of Mr will it
generated. The sensi-
bility of Mr live - Mr

Stomach & will be increased from the accumulation of blood & the afflux of nervous energy. At the same time the mucous & glandular will sympathize - the bowels - & the organ the bowels bowels - their use is this to expel Fecal matter & gaseous & from their laws & this to prevent undue irritation - it may act or not act - By nervous energy may be admitted that it cannot act - Can this fact & the organs and limits as it were by the blow - By the liver by an increased

may relieve his congestion
You will find that sound
that the liver is referred
to in all these affections
there is a certain dyspepsia
dyspepsia - & then the
Bronchial tubes will be
in irritation always
commenced in the mu-
cous membrane - from there
to duodenitis, colitis - gas-
tritis - That this is the
function deficient of the
disease - That apparently
obvious discrepancies must
be combined - There may
be an irritation devel-
oped in all these organs
at the same time - It
may occur in the liver

It may take place simul-
taneously in all the organs-
Let us stop to explain: I
both you who speaking of
dyspepsia. But inflam was
not necessary for this Dis-
so I say these Dis: that
we are now considering
may occur without any
inflam:- but you may
have inflam: got up in
these organs- giving rise to
all these diseases- You may
have violent peritonitis spring-
ing up from the same cause-
connected with hepatitis,
dysentery, cardiac cholera.

Treatment) 1st of Chol: Infan-
tum- This may be a sporadic
disease- or it may be epidemic.
In the U. S. when it is epidemic

the weather is very hot. generally com: in June or July. On the whole it is a precursor of an: luminal fever.

Great muscular lassitude. nausea. epigastric distress amount: to pain. vomiting & diarr: — violent thirst. cramp or spasm in stomach — spasm in abd: muscles. & lower extremities. Great heat of body — in severe cases total prostration of power of heart. Oft proves fatal in 24 hours — In west Indies oft in 4 hours. When it acts as if a poison mustard were taken. As we have seen in some cases great increase and flow of bile. There are most favourable cases

Prognosis. The more violent the onset of the dis: & the more suppressed is the flow of life - the more dangerous is the disease. When it occurs sporadically it depends on some irregularity of diet or from exposure. This at any season of the year will induce a paroxysm. Of this malady in persons predisposed to it. In warm weather when it prevails epidemically no fear: observe strictly the preventive advice. It is to avoid those things which are the exciting causes. avoid the heat of the day. & the dampness of evening. & avoid irritating ingesta -

Advise our patient against all stimulating food. & repeat food - but may take milk in the stomach. In addition the use of an emetic or of an emulsion - when the tongue is furred - pulse compressed &c will often prevent an attack of cholera. You may sometimes ward off this by the exhibition antacids - as of 3ij or 3iij of magnesia. You will correct the acidity which excites the diarrhœa & bring on the spasmodic action of the stomach &c.

Autopsy - The appearances of the stomach & bowels often exhibit traces of inflammation & even gangrene - We have been merely justified

erbic case. But cases occur wh on examination no trace of inflam: any where. These are those wh consist in a failure of nervous energy & morbid nervous irritation. &c

Diagnosis. These two forms difficult to distinguish. both attended with failure of strength & acts of heart &c. The majority of the cases are of the latter kind.

Treatment. Of d found act: of heart demand. a Rest & dilution of aliments. Treat d wh Fe: sulph: & sup: Nit: dilutions or Nit: Rest alone. At the same time & wh depend

Dr Cal: & Opium in Carp
doses- five Grs in pow-
ders- Repeat to 11 Gr Opium
Const: vom. Let Mer: be
intimately mixed- They
will be retained when
the Stomach expells almo
every thing else- If the
Dis: consist in irrit: Nerv
the Spasmodic action will
be allayed- & the general
tumult of the System
will be tranquilized-
The prescription I am ma
gis: I consider an admi
ble in many acute Dis
eases- Perhaps this is to
large dose- You may
administer in accordin
to circ:- Op: must be a

decided inflam: present in
the prescription will assist you
in your diagnosis - Then
the pulse will rise - No
heat increased - & Then you
will discontinue the opium.
& resort again to Bl. &c -

Let the drink be of no
Effect Kind - Give no
Saline mixtures - Antacid
drinks &c.

Salt & Hot Rm waters some-
times suits the complaint -

External ap: should not
be neglected - At a very
early period of the fever
tepid ablutions - Then
in a hot salt bath - This
with an emollient - admin-
in early stage will & am

confident cold check
dis- But wh pt
are cold use in bath
I have seen- very
stimulating fomentation
& dry cloths dip in hot
hot anis- & slices of
of warm very warm water
ap: over the stomach-
Dip a cloth in very wa
water & ap: it immed:
over the stomach & hold
it there- will be more
useful: than all the mus-
tard or turpentine you
could use- Let it be as
warm as he can bear it
to treat children- after
warts ap: to dizziness
After the paroxysm

let him use the cipher dictionary
the medicaginous part of
animal &c. & let him avoid
all exposure - use broderaly
warm clothing -

Chol: infantum - occurs
in children - & in the second
year - in the second summer.
it prevails epidemically in the summer season -
I shall not enter into a
recital of symptoms - It
is attended with more fever
than we have seen in the
case in adults - more thirst -
The brain is more affected
with inflammatory spasm -
great exaltation - I
took upon it to be more
inflammatory, & attacks more
by the gastric enteritis & an

Arachnitis associated wi
it. You are not to sup
all cases of this kind -
& in these clear evidence
that inflam: is not pres
ent - We can't explain the
diseases from the phlegmas
ial diseases &c. can we
all cases admit them in
that ~~days~~ of dis.

Treatment. It in many
cases is required - general
use leeches to epigastrium
in the febrile stage. In
this way you will relieve
the infl: & pain - You
may apply cold app: to
the head & epigastrium -
If the feet be cold de
sirable to apply hy
otimulating pan that

commended for adults. You
may make use of the
tepid warm bath. Immerse
the child into it for a
few minutes - it serves the
purpose of the cold affusion
the Hydropathists.

To allay thirst avoid
drinks. They will keep up
the vomiting. Cold water
is one of the worst drinks
I can allow your little
patient to keep up the
vomiting. Strong hyson
tea will often allay the
vomiting.

I wld give medicines
as calomel - in doses of 1. 2.
or 3 grs every 2 or 3 hours -
as the febrile symptoms
abate combine the calomel with

Opium- Continue the
Opium until a literally
complete coma is brought
on- 1/10 gr of Opium with 1/
of Cal: is a medium dose
I believe it one of the mos
valuable remedies we
can use. Direct your
Opium according to the
inflammatory symptoms
present. The Cal: acts on
liver. &c.

When it becomes chron
diarrhea is present an
milk & lime water and
come to treat of chronic
diarrhea-

<u>Diarrhea.</u> During the
hot weather the cholera and
infantum, diarrhea will
occur with more or

vomiting - In this case the discharges will be copious - not only from the lower bowels but from the upper portion - Undigested substances will be ejected or half digested -

This malady may occur under a variety of circumstances & is connected with many diseases - It person may have a catarrhal affection a diarrhoea or a dysentery in early life they are consumptive - or have diarrhoea occurring in dropsy - The liver may be in a state of inflammation connected with an increased secretion of the mucous membrane - or some thing fluid & indigestion will arise to this malady - & will be the compound of

the food being imperfect.
It takes place in persons
not being ill, & brings about
perfect health. In short
any cause that increases
the sensibility of bones & cells
into action the periosteal tissue
action we will have disease
If the have irritating matter
in the intestines from
any cause we will have
diarrhoea - from this irri-
tating effects.

When this disease is
to be examined & is the mem-
bers of these diseases. Gout
may consider as a disease of
derivation. Gout will
observe that the great disease
of the diseases action of the

mucous membrane. This
is an intestinal & not a
stomachic irritation. This
diarrhœa may become as formi-
dable as any I have dis-
ordered & have been treating—
The discharges may be
of the mucous or bilious.
This may carry off the
diseased action. When it arises
from irritation it lies
in the mucous membrane of
the intestines &c. When it is
attended with pain &
spasmodic action. When the
appetite is changed—Our
treat. depends on what
I have before indicated
to you. Let me direct
your practice by simple
inculcations &c—If there

By. cup &c. to cure the
inflam: action. but the
disease may become chron
Endeavours to ascertain up
on wt the dis: depends &c

You will also observe in
diarrhea described fun:
Spiration. dim: cir. &c &
Secretion. Occasionally you
will have increased action
action then you will ap:
prehend inflam: debility
The dis: is termed in war
as Sydenham long go de
scribed. The Sec: I will
will denominate. The
mouth will be dry. The
tongue will become brown
& dry. The saliva will
be small in quantity. The

Inflammation there is a
constant accumulation of the
fluids thro' the intestinal
canal.

Treatment. This dis-
ease depending on various causes
will require an accurate
observation of circumstances
to get the proper one. In
many cases it occurs in
persons of an apoplectic
habit & then bleeding must be called for.
An emetic & an emeto-
cath: will often do good.
In some cases purgatives
will be necessary. These are
seldom in what there is an
unusual evacuation
of the bowels circulation
the cath: now proposed
will be hydrogogue & the

cholagogue. Restrict the
diet of the patient - to
bring about a cure by
causing a more violent
diarrhea. When your
patient is nauseated by
cap: de Sc. fin cal: &
opium. You may unite
with the cathartics &
Diuretic. This class will
not be attended with
inflam: action. In
many cases it will be
best to administer the blue pill
It is less irritating & will
not so soon produce
salivation. The cal. Jiss
& blue mass may be
given at bed time. &c.

In some case there will be great acidity - give Antacids - such the alkalies for proper - time will be the best. it is as impossible - for can't give the Magnesia it will produced purgation - Galls - cinnamon - aromatic - Vegetable stringents will also be proper. Good must attend to the skin - Let him wear flannel - the flannel rolled up - tied loosely & lightly around the abdomen -

Dysentery is almost invariably an inflamation of the mucous membrane & hardly ever from irritation. You may have an inflam

suppressing an irritation.
& when it alights on the
bowels intestines most fre=
quently brings on dysentery
Sometimes the disease called dy
entery may depend only on
irritation. This may be
concluded from the many
which they are cured. The
difference of the phenomena
during sleight. when we have
heat tenderness & abdomi
& we may call it dysen
tery.

It was supposed dys
tery was attended by con=
tinuous fever giving rise to
spasms &c. Dysentery often
is connected with an affec
of the whole intestinal can
but most frequently is
confined to the colon &
rectum.

It is sometimes connected with facculent discharge from the lower bowels. While the upper portion will not be affected.

Dys: is not so often a sporadic affection as Cholera Diarrhea - we rarely meet it as an epidemic. You will find that all fevers - small pox &c - do prevail at certain times & then again disappear. Thus in case epidemic diseases - of this clap & consider dysentery - It will often be connected with some form - of fever - of a gastric type - I have seen them rising & falling together.

I am not telling you

anything Theoretically. I
am but announcing to
you a fact. You will
all this bearing to you
that they come upon us
then leave us & again re-
turn like comets that
leave us & we know not
whither they go.

Causes - On this I shall
not say much - when Dy.
occurs with fevers or as a
substitute for them - they
often take the place of
fevers. Whi you term
fevers in connection with Dy.
entry you will easily be
led to the conclusion that
it may arise & does from
the same cause. It is
a Dis. of camps - & does
not confine to a direct
a particular Kind. We

have dysentery by myriads - which armies have been cut off & in which the surrounding people were not affected by it. Hence it obviously must be Mind diet - Animal diet is most liable to produce the Diss - Not salt meats but fresh especially beef - This has often been its cause in camps & the diss will continue after the diet has been changed - This seems like a propagation from contagion. probably arised from the foetid discharges - The fresh beef taken so abundantly by soldiers may give rise to the Diss - by some kind of decomposition - For how the animal has been

animal & vegetable food.
In ~~In~~ general organs be
affected by dysentery. The
bowels were turned into
a stone yard & they eat
alum & earth & the ripe
grapes & the sour are so
treated. This circumst is
related by Thuycd.

Treatment. Many
cases of dysentery are so mild
& we can generally cure them
yet sometime it appears
of so malignant a form
as to resist the most energetic
efforts. When the whole
intestinal tube is affected
with inflammation. The disease is
most dangerous. When it
occurs with ~~the~~ hectic fever
fever. it is rarely cured
but when it comes on
with remissions & Red

hot & dry. tenesmus frequent,
pulse frequent & obtuse
small & bloody. &c.

It is diff. to say what the
indications of cure are. The
first indicat. is to remove
the morbid state of the di-
tract. Our object will be
to cure the inflam. in the
bowels. But to do this we
must attend to many
things. There is no one
simple thing we can do.
& what we can effect this
By the first place we
must draw blood copi-
ously generally locally. especially
locally. You will un-
derstand it to remove in-
flam. - leeching generally
will be best - but if you
can't. apply be obliging -

M: shall be employed in the early stage. In two circumstances of bloodletting must be governed by the head & skin &c. The next object will be to still the tumult in the veins - & bring back the healthy sensations - This is effected from V. purging, cupping &c. You must adm: freely mucilages - whey - elm barley infusion &c - in connection with three minute portion of Antimony or Ipecac: Give Min: not so as to produce nausea. At the same time you will adm: freely cal: opium Ipec: &c - to train gently

the bowels &. & increase the
secretion of Urine &c. The
next thing you will do
will be to open the bowels.
when every Man is impa-
tient of Glysters &c. &
after you have emptied
the bowels - Adm: Bol. Mur:
of Lime ℥ss. Syrup &.
or if this does not succeed
then give Sulph: Magn:
with Tinct: Opium
five Men in a Drink
Coates - Aromatic Camphor
Gum Lac, Salap &c -
After have conducted
your Patient thro' these
Processes & obtained
large Discharges & seyhalous
Excrements mal: bilis &c.

You will find your patient much relieved.

It will sometimes happen that the stomach will be much injured and distended with food which remains on it, & not passing into the bowels &. when from this cause you judge it best to use the stomach pump you will obtain great advantage from the exhibition of an emetic. The effect of it does not stop at the stomach but it excites the whole system. When there is an injury of the stomach & bowels you should administer

15

with you on no means.

With respect to tenesmus we must keep our patient in a recumbent position. Let him pass his stool in the close pan. You will give the tenesmus with injections of starch & laudanum - with about 20 table spoonfuls to 3viij of the starch. If it fails some civ. Mr Pat: can use a suppository of opium.

You will at the same time attend to the diet. Use flannel next the skin - & the flannel roller - You have had a dysentery been ensued

by small doses of Opium. This should be combined with Opium & with great advantage - Inunctions - warm bath. &c -

Use vegetable diet - light & mucilaginous - when the disease is bad let patient's diet be very small -

Chronic Dysentery is attended & accompanied - few in the evening - tenesmus - sometimes costiveness - pains - with often appearance of purulent discharges. This will depend on ulceration & irritations which may take place in any part

tion of them. Astringents will often be of a benefical. Of these the metalic astringents will be the best. I give the subl. iron with fingers to opium. or the subl. of copper. The nitric acid or even nitric acid from its effects or external may be might of benefit. but we must correct the acetic of the lines & skin. Sinc. subl. or blue pill & Epsom Salt purg. or use flannel. keep his feet warm & occasionally the warm bath may be taken.

Colic

You will find in the book many Kinds of colic described — You will have bilious colic, Hysteric colic, nervous colic — These terms are strictly for placing to the student.

We have colic appearing with pain in the region of the colon without fever and the bowels often costive — These attack and not attended with fever and this disease may implicate other organs — so pain may be bilious derangement. Now if along with pain you had fever and costiveness you would have dysentery.

& you had roundly along
with it you wold call it
Cholera. & it wold actually
be a case of Cholera. Pre-
cious little discrimi-
nation to distinguish Pres
& hence you see the ina-
bility of Mr Searle & Chas
before alluded to. In chol.
or Compound cont.
of the muscular coat of the
intestines with vomiting. Now
this is not materially differ-
ent from colic as called.
If the coat is only contrac-
ted it will be more persis-
tently so. In colic as a gen-
eral fact you will have
constipation & seldom vom-
iting.

In dysentery there is a
close resemblance to this

discard - In dysentery evacuations mostly takes place from the lower bowels and there is a retention in the small intestines - This arises from a contraction of the muscular coat of the intestines - Dysentery may also be called colic with tenesmus - This is the only distinguishing mark - In autopsy you will find some difference - in dysentery you must find ulceration while in colic you will probably find no appearance or lesion in the peritoneal covering of the colic dont often depend on inflammation - It generally produces death by

nervous irritation. This arises from morbid contraction of muscular fibres. They become distended by this action. This produces an inability to again contract. It is this which produces such lesion of the nerves as will destroy life. On post mortem examination no trace of diseased action.

It has been said Rattlesnakes can move their fangs at pleasure & as they progressed they became nervous. But when we were called to a patient in whom there were no symptoms of infection that we should treat it as an irritation. No opinion is more dangerous than

This Colic may arise from
inflam: & inflam: is a
secondary affection. This
may not always com
on - but when it does
you can easily dis
tinguish it from the
pain previously added.
but in this case will
be to anticipate his
recurrence.

When does this inflam
cease? If in the com-
mon manner you will
have dysentery you will
say. In this case the
feces are wanting - but
from my experience it
may come on in any
one of the stages - but
I am inclined to

occurs in the mucous & more
frequent in the serous &
muscular. It will in-
volve less fine tissue to
peritonitis &c.

You will observe that
a morbid action & peri-
staltic action will constitute
colic &c. When an intesti-
nal hernia becomes strang-
ulated by constriction the
pain of colic will be in
consequence. Therefore we
can tell colic from strang-
ulated hernia & will
also suspect hernia &
you may have one
intestine folded in another
which will cause inflammation
& intussusception. When
this occurs you will have
symptoms of colic. You

will admit of an immediate
undertaking in obtaining hopes
of affording immediate
relief. In such expectations you will be disap-
pointed. The diagnosis
is in this case not
easy. Then again we
have biliary calculi
giving rise to the most
painful of spasmodic
colic pains. But you
must not confound it
with a case of colic.
Then again we have
concretions in the bowels.
These appear in balls of
hair or short fine straw.
These are not incom-
mon in beasts. In short
for the mind can wilder

the best work on this subject.
This constitutes intestinal
The symptoms too will
resemble those of colic. You
will have stricture in the
rectum wh may be called
a permanent spasm. &
then again you may have
fleshy excrescences or tumors
or a thickening of the in-
testines which will almost
close the canal. You may
detect it by your finger or by
a bougie. This will give
rise to the phenomena of
colic.

These then are some of
the affections which resem-
ble colic —

Causes. Constipation of the
bowels predisposes to this
malady. This is nothing more

Can a deficiency of the peristaltic action & its attendant ev[il]
may disease - as dyspepsia &c.
Improper articles of diet - & sedentary habits - anxiety of
mind - hard study - neglect
of a regular diurnal period of evacuating the bowels
temperament also influences
it - The bilious temperament -
morbid action seated in the
rectum or in the muscles
about it - Thickening of rectum
morbid sensibility of the sphincter ani - or a spasmodic
~~or~~ convulsive contraction of his
muscles - These are the causes
which give rise to costiveness -
In constipation there is the
secretion of the mucous membrane
of bowels - Less discharges
upon the skin more in

and costiveness. but during the warm weather the cathartics of bile will be abundant & when they is in excess constipation will not be present.

Constipation is one of the predisposing causes of colic and if we would avoid it. Our object in the first place will be to remove the remote causes attend to the patients habits endeavour to let our patient attend to regular evacuations - his diet. take such food as will excite the bowels into action. The sweet potatoes possess a cathartic quality somewhat resembling that of jalap. when it blends with the other principles. Hence our use of sweet potatoes and

suitable for costive persons.
Corn bread is more appropriate than any other.

Medicinal treatment. You will be obliged to give medicine upon the other treatment. I shall depend more. I will give you some directions. They are all infallible cures. Blue pill & pulv. rhei aā 48 grs. Opium XII gr. Make into a mass & divide into 36 pills. Let three of them be taken every night. Blue pill & pulv. rhei aā 48 grs. Extract colocynth 12 gr. Make into a mass & divide into 36 pills. IV gr. Tart. Ant. blue mass & aloes aā 48 grs. This is more opening on the bowels. Let blue mass & aloes & aqua

à 2 à 6 grs. This acts actively. In some cases you may use each of the formula. Give these pills so that they may operate in the morning. Never direct to act actively but operate as laxatives. When urgent let them be taken at bed time & the draught taken before rise. The tinct of Rhei & aloes of the Dispensatories is useful in constipated habits. An infusion of senna & Gentian. Syp Gentian & Infusion senna. a good laxative & tonic which it gives tone to the bowels. You may sometimes add an aromatic. Where you patient objects

making a constant use
of this kind of stimulants
In const: in wh this
is a tendency to inflam
can with fine Magnes
- Epsom salts taken in
the morning - A small
quantity will operate wh
taken in hot diluted -
when you to adm: this
Salina can: in nervous
temper: you will do just
injury -

When you find col:
ic in persons habitually
costive you first - object
you will do is to obvi:
ate the habit -

You have all had
what is called flatulent
or wind colic! - What

4 Pain. The patient complains of a sensation of pain from a sudden upward depression. Respiration was somewhat difficient. Cant use the abdom: muscles in respiration. He has rumbling in the bowels. When pain comes on he has been exposed to cold. Opium acid & cold drinks. & nitrous diet. Pain arises from accumulation of gases &c. Do Abdominal pain arises from an inability of muscular coat of intestines from purging out the flatulency. Great pressure over the part will afford relief. It consists in a morbid state of

the nervous function - or
other weakness. It may
proceed from a weak
nervous habit.

Treatment - being a
paroxysmal dis: you must
prevent the recurrence of the
paroxysm. Some stimu-
lants internally & exter-
nally will relieve the paroxy-
sm. A glass of wine -
ounce of spirit-nitr. ether
& 1.00 2. Tinct act & chlo-
roform internally. Warm baths will relieve
it — warm application exter-
nally — frictions at the
same time. Injections
of infusion of assafetida
or valerian. When most

dont need you may
give opium or bothrops
lanceolatus. & you may
would call with Mr Johnie
to correct the functions
of the liver. & it may be
beneficial the explanation
accompanying

Preventive means. at-
tend to the state of the
skin. regulate its tem-
perature. flannel to be
worn next the skin. fric-
tions. with the exhibi-
tion of tonics & nervine
remedies as of the Hy-
drocyanic acid. or prepara-
tions. Or
Rose may resort to the
cathartics. The sulphate iron.
& carb of iron. with aloes.
&c.

2 2 6 7

Bilious colic. ileus. Hysterie colic & colica pictonum will next demand our attention.

Colica Bilosa. You have all read of persons dying with bilious colic. & these generally men of a sanguineous habit & good livers. Now as colic accompanies such individuals we may expect this form of it. Hence you see colic is modified by cond: of patient. In bil: colic we have a high tonicity of the system. The prodigious retchings are caused by tonic cramps. Now when we have muscular contract: of bowels

Stomach & you have it
mainly the colic. but take
from the fact his pathol-
ogical being. His symp-
toms & you will have
a case of flat. colic. In
this form of Colic you will
found: sour bilious vomit-
ing. It lived is highly irri-
tated with the dis- The
ease congestion. pain. flat-
ulence. distended
& then will appear
inflam: in the bowels with
the usual distressing symptoms
in 12 or 24 hours. Bowel
inflam: is very apt to
be developed in this dis-
ease. there are two species of
the same class. or genus of
disease. They often run into
one another & the difficulty

of distinguishing them will be difficult.

I will not attempt to describe the symptoms of this disease. You observe a person of the plethoric habit with obstinate spasmodic flatulent distentions, with occasionally bilious vomiting &c &c.

Treatment. In most cases you may begin with Epsom or Rochelle salts. But if you found the just mentioned kind of cathartic not to be your usual Epsom salts. This in such cases is absolutely necessary & should not be neglected. It will subdue the tendency to inflammation. If you neglect it you will find it difficult to move the bowels. inflammation will come on & then patient will

die without having his bowels
opened. After you have
your men may give opium
& calomel. & rel- e. & open
the bowels. You may do
this by injections &c. Now
this embraces nearly the
whole of what I have to
say of the treatment in this mal-
ady. What was said before
of Emmenagogues, warm applic-
ations - &c will be proper
to be recollected here.

It is not by pursuing
in these cases you and your
plan. This occurs after your
patient is relieved.

Hysteric colic. This was
long ago treated of by
Sydenham. You will find
what he has to say on
Hysteria in his essay on
small pox. At I think in the

best it has yet been presented to the profession.

Accompanies a sympathetic temperament & who are generally great livers will have hysteria colic. it corresponds to the bilious colic in men. Can have violent pricking pain and vomitings of grass green bile. The pain is often accompanied by something in the stomach. In this there is not much danger of inflam. You observe here it is different from the bilious colic in men. I have seen many cases of this colic.

Treatment. Is common carminatives & tonics. & common calc & opium. Tinct. Hyp. cal 1½. & add some aromatic

stimulant. In some cases
it will be necessary to give
the spirit of aromatic alone.
The tinct. of lavender. R
ammonia. peppermint.
castor. valerian & any of
the spasmodic stimulants
are always useful. But
these will have to be
changed. You must un-
derstand a stimulant
will produce a desired im-
pression to day, to-morrow
it will not. Hence it be-
comes your part to change
your antispasmodics. This
seems to be a law of the
nervous system. Sometimes
great benefit will be
derived from antispasms
but will often afford relief
in opium & remedies combined

Colica Pictonum. or colic from lead- because it is produced by lead- Colic is the specific disease of lead as salivation is the specific affn. of mercury-

In some counties in the potteries reports are used Mis diseases frequently- when any acid comes in contact with the pewter or with some of salt of lead- & diff acids- do act on it rapid reports the Dis: to the consideration will be induced. The carbonates & protocarbonate of lead prin cipe to this disease. This is an frequent found floating in the atmosphere & may be inhaled into the lungs & again be swallowed by being mixed with the saliva- Persons from sleep-

ing in newly painted rooms
have taken this disease of course
being where this metal is
volatilized. It too undoubted
acts thro' the medium of the
skin. It gives rise to the
malady by the constant &
gradual introduction into the
system.

The disease universally af-
fects the system. There is par-
alysis of many of the mus-
cles. There is a disordered func-
tion of organs that act
the system. There will some-
times pulta serena. The stom-
ach will lose its tone &
the bowels will be disordered.
There will be great pain
& cramp about the umbilicus.
The abdomen will in many
case be flattened or sunk
in pulsations of the aorta

will be felt. but again there will be a distention of the part. there will be pain in the back. there seems to be a deep smiting of all the nervous energies.

The post mortem examination shows organic lesions of the part. there will sometimes in the bowels a want of the natural colour. a whitish appearance but occasionally there will be traces of inflammation in the bowels. Spinal marrow & in the brain. This disease strictly speaking is neuralgia affecting paralysis.

Treatment. Now as long as the nervous cause exists you cant do much in this. Advise if manufacturing a fluent - or one who attends on hard manufactures to you will advise him to quit his trade.

R. in this disease seldom to be called for - yet when the bowels are difficult moved use Oil. R. in small quantity & will predispose him to the act of cath: When the abdom. has fulness & distention use Tinct. Rh. cap. 5 drops or more in water according to circumstance - but object will be to allay spasmodic action & have

cotes & active cark.
Opium it is said will
assist the operation of
fects of the bowels - but
the Opium you may find
cal: dispersing in some
instance to cause dali:
dation. Tho' I have del:
don found it nec:
Senna & salts. & a dal:
bale cast - the may
abn: balsam of Bolu. &
any of the stimulating bal:
dams. You may pro
fumige, damnory.
dalap - d. You will
dimotion during bengi
from injection & window
by an admirable pow"
ders. Always endea-

the Retardation of cal-
culus until you have
always the Diz:- after
the Diz: has abated you
may give some hard
to drink Sulphus Mally.
In the books you will
find many remedies for
the Diz:- but I have
recommended you with the
best of my experience
have pointed out to me.

Functional Derangements of the Liver

Passing from Mor-
bid states which must
be obvious to us come
to consider the Diz: of
the liver- for cannot at
present speak of the
Diz: of this organ alone

Inflam:- When are wounds
the most liable affs: of mo
bodies with inflam:- But
wl can then be? What
disease then can arise wl
will not be either acute
or chronic?- In the ques
tion I wld direct your
attention.

You are to study
the acquired wk Mr
Anat: & phy: of this or
gan- & it has also to give
account to us for the
blood of the chyle & the
organs goes to the liver- the
two respects of the two
parts goes to constit this
organ by diff: constit of
respects- Hence we call
an organ of two masses

In this respect it resem-
bles the lungs. The tubes
of the vena portæ are divi-
ded into millions of little tubes.
The liver office is to separ-
ate from it the biliary
fluid. This it forms from
the blood of the vena portæ
& the remaining portion of
this blood is carried thro'
the vena hepatica. This
bile has recently passed
into the gall bladder. We
have four diff: fluids in
the liver. two kinds of venous
blood. arterial blood &
the biliary fluid or bile.
It is evident that
the blood from the viscera
of abdomen must be diff: from
the venous blood derived from

the arterial blood of the hepatic artery. part of this has been formed the bile (& the portal blood).

Now that the liver for its function of transmission, it is evident that this must become developed in the abdominal organs. For example, the milk & acc: of it in the stomach - the origin of this portal vein. consequently the milk in conjunction of these viscera - Your man learn in these organs inflam: torpor or loss of energy of function.

This is a matter of the

treaty & important. It
is well known that in
animal economy the abdominal
organs. Now it is necessary
to understand its physiology
to be acquainted with
its pathology.

We may refer to
its obstructions, to
its functional transfor-
mations. This seems to be
a stamp of nourishment
of the blood into a new
fluid. The amount of this
is very great. This digest-
ed bile from the liver
must be reused. It
mingles with all the
faeces. It is often found
up in large quantities

The bias has great power to pervert. This we will be led to conclude from the vast amount of [illegible] it is sent to it. This too will lead us to be [illegible] & to pervert. Of course formalities must be [illegible]

When we have two [illegible] powers of disease & or believing may [illegible] in the lives. & that all this may take place without us [illegible] Let us pray [illegible]. This is no [illegible] for you to investigate.

Now all is explained. I appeal to an Almighty [illegible] about it. Now [illegible] pronounced presently—

You have from this may
new deductions - from this
data - may not be
found: if this be explained
in what manner: in its
effects? Now it seems
to me it may - It may
be paralyzed in its ex-
ercise & without injuring
it if it be true that
all its functions can be ex-
erted without injury the
same seems to be proper
in consequence to this: If
this organ can depend
of stimulation -

In various parts of the
body one of these organs may
be affected without affect-
ing the functions of the
others - This in the lar-

place in the Kidneys - it
may not be seen in
increased quantity yet deposits of cal: matter
will take place. Also
this may take place without inflam:. It may
wholly depend on loss of
motion action of nerves.
This seems to me to
bring place in the Kid:
Dy functi: will be diminished & ending suppressed & no inflam: will
be found or any where.
Obstruct to the flow of
the blood in the large
canal will find rise
to disorders & no inflam:
will be present. Of
the same kind we have

many instances. Now
here is an example
of great impairment of
function independent
of inflammation if it takes
place in those who like
Jane Eyre may not in
fact in a common man
arise in the liver? The
vital property of the liver
seems weak - it is not
supplied with many nerves.
This want of strong vi-
tal power, the blood for-
the cause may be re-
tained in the small
roots of the veins for-
ever. It indeed seems
more than probable that
air may arise from
whatever inflam: any who

All the functions are influenced by nervous excitation & this may be communicated to the kidneys & from this cause independ. of inflam. action may spring up in that organ.

An inability to transmit will be more evident in its effect than ~~from~~ an inability to transform.

If acute Bright's arise in distant parts from a failure of transformation in the liver. but if the is inflam. in the kidneys it precedes the fatal Symptoms - you will have a few days of phenomena appearing - & if the fatal

did not you will find another kind of morbid phenomena. Hence you see this may be understood from two lines in three ways. But we are now only considering this of lines acting without impulse.

In the 1st case if the life is not acting in sufficient quantity we will find the motive part in the blood. When it is acting it performs a function. But is this the only purpose of its action? This I know to be true that this is sufficient action of life we have the action of the elements of the life in the blood. And

it seems a duct necessary to
drive some thing from
the blood relation to
the vital functions.
The effects of the bile
in the blood in acute
jaundice is known to
all of you. This is a
failure of all the functions
his senses become intox-
icated & confused.
The imagination is ex-
cited morbidly. He con-
ceives from his unsatisfied
that his days are numbered. Hastily demand
anxious to remove him
The feeling from this
disordered state
of the blood in the vital organs
the symptoms pro-

rise to it. Again unhealthy chyle will be formed. The bones will conjoint for the want of this natural stimulus. The whole system will suffer for the absence of the natural stimuli of this fluid to the intestines.

If the liver be deranged in its secretory functions we have seen it then would be an elimination of the constituents of the bile in the blood causing disturbance in the economy. If something was in the blood which should have been eliminated. I did not not attempt to point out all the

derangement arising out of this state. I shall wished to show you the facts to shall have to travel over the same ground on this occasion.

Now after having offered on this point we come to speak of those which arise from a want of bile or from its unhealthy quality in the bowels. When there is a defect of bile in the bowels there is a want of ordinary elimination to the bowels. Your system has a offensive smell of the body which by mixing with the bowels even

In liver itself feels it-
they fall into a state
of atony- this sympathy
of nerves in liver with stom
on an atonic state. Hence
if in bad fail: from as
writing, if skin it will
and lip bile into in duo-
denum. & in with liver
an atony in its bowels
will ensue in consq to in-
liver & still more deran:
its action.

Now in off: arising in
the part in consq with
his state &c. I spoke of
in style formed in this
state - how important it
of course must be.

In faces will be change
from healthy Rind- from
this absence of bile ensues

Low Dis: in Mr abdom: Mis-
eas. he will have Dys-
pepsia. Hence Dem: acc:
of life many such ~~from~~
to dyspe- And Mr Bear-
ber joining in Mr Dis:
Mur:- he have constipa-
tion & diarrhea from
this morbid or dem: acc:
Bon of these may be from
the absence or vitiated acc:
of bile- The stools will ofte
resemble yeast. Bon in
infants & adults- they ha
little appe: of bile. Worms
or verminous Dis: are pro-
moted from dem:
acc: of bile- or a secre-
tion of a biliary fluid
to blood - that will
favour the generation

of worms. 4thly In Mes
cond: of him In mesenteric
glands will become enlarged
Som as M B's old Day
h May arise from infl:
This may sometimes be
In fact. but I am con-
fident it may arise
from biliary derangmt.
On this subject Dr. Ayre
has written an excellent
book. In this way we
can learn mercy mur-
d. worms. This is the rea-
son why all In bowels
will tell you Nat mix-
ture does if cal: and
always recom: in this dis:
-3- The 3rd is a dis: de-
nominated melena. it
consists in a discharge of
clean bile from the
bowels. This dis: I have

Sem I am led to be-
lieve are independent
of inflam:. Sometimes it
consists in the vomiting
of red or reddish colour-
like. In the progress it
will become yellow. but
in all stages of the dis:
it may be called black
like before you have
examined it. Now this
is evidently a discharge from
the part: em:. Yet it
may come from the
mucous coat of the in-
testines. But if you ex-
amine it you find
it yellow. I believe it
is from the engorged
state of the liver & the
bile throws out this

inflam: fluid & pot:
Being of the nature of
a diu: to medicate as the
affec: requires the healthy
secretion of the bile will
become more obvious. If
if patient goes on to do
recovery the bile will be-
come more & more obvious
This may often is a
chronic inflam: connect:
with diu:. But I am
compelled to pass - invey:
come on without any
inflam: preceding the
diu:- If any person says
it arises from inflam: be-
tween & the wants to
try: for this infl: after
him. In no place have we
seen hemorrhoidal affec:
from a morbid or irrit:

Dec: of bile. The d loins
Ob and arise from Dem:
Dc: of bile. Since it becomes
the remote cause of Hem:
orrhoids. This Dis: is most
often com: with disturbed
funct: of liver.

In cup: k the skin is
exposed to cold falls into
cond: of atony - wh is trans-
mitted to the liver &c - The
first impress: is made on
the skin - & as a consq: this
arise irreg: in funct: of the
liver These organs were
sympathize with the liver.
If ever the bile be vitiated:
then will derangement in
stomach & intestines - If
the bile be not duc: in
quantity it will

be carried into the system
giving rise to disorders functi
in other organs. From the
these two are various modes
in which the stomach & wh
the digestive apparatus
of the living.

The movements of the
alimentary canal are complic
cated & have with them
disease be complicated
& of the pathology.

We come now to the
part I am particularly
desired. We will not be
content to know the di
ease in a part but to ascer
tain the cause of the
when the liver becomes
diseased in its secretory functi
we have a disordered
& the other. Do Thomson

has dwelt on this point.
He overlooks the Hydrolic
part of it. When he finds
an acc: in Maldoni's case
it is he tries at once dis-
proves his acc: mastermi-
ment. He might just
as well ofread of a scien-
tific and calamon sense
as of a catamaran.
Latin by sup. any as Shak-
spere does. But it is in
the front of the book
you have discovered the
disarrangement. It is dif-
ficult to tell in what
book it is or the
line the dis: occur. We
will correct the proof
of the old when we
receive it. Mind it complicate

vertebrata. This wld ind-
eed appear to be the Rus-
sian mode of treat:- The
Dis: is often connect: with
a disord: state of the
liver. So it may arise
from the Stomach. Psor-
iasis & scaly letter. is
another affec: associated
with liver - & cases
of jaundice when the con-
dition is corrected. Ulcery
injuries are often con: with
disordered funct: of the
liver & when ever atrophy
of the funct: is noted.
Here food suppurs be-
come sparingly will at-
tend to this regard. In
this Hospital both
men will find much

I read on this subject.
We have about 12 head
men affected with ap-
parent affection to the
disord: of liver - but have
chronic Opthalmia -
at what we use called the
Egyptian: is improved.
We have first had
ache - This is a remark-
able [illegible] year of
heroes - This affec-
tion arises from
a fulness of the liver
in its secretory & its
transmitting powers -
An emetic has first
had to be given - The
liver becomes affected from

the skin. There then would be a want of transformation. As by the skin should the blood be transformed & the effete matter disappear.

We have Hydrocephalus appearing without inflammation. The pulse slow & feeble. Skin not hot to the hand. Urine in this disease was found a biliary secretion deranged. The brain becomes optically physically diseased. Now when the bile is not secreted in the liver. The blood destined for this secretion will be conveyed into the lungs. & may find its way to the brain

or in the abdom:- Here you see a man had Hydrocephi from a cause only by sympath of another from failure of performing funct: of the liver.

In the brain as if you have Hypichondiacis. Melancholia &c.. These are often dependent on disorder in the liver. If it be acute in the liver you will have it acute in the head &c & vice versa.

In the muscles of locomotion we have chorea hystrica- convulsions- These are often connect with the liver- when

You have Many of these
diseases you are not to suppose that it arises directly from the blood but it is first in the nervous system acting on the brain & spinal marrow. The diseased marrow of the vertebral system is often owing to a failure of the blood to throw the biliary fluid from the blood.

We have as common diseases connected with disordered functions of the liver. Inflammation of the mucous membrane takes place in the lungs, throat, nose, intestines, in the bronchiae

tubes - in turn dyspnoea consumption descendence disorder function of the lungs - from the same cause Laennec <u>Hypertrophy</u> - <u>Hypertrophy</u> generally was seen first and disease of the heart enveloped by the biliary blood coming in contact with its cavity - And it will be in lungs of nervous temperaments & sedentary habits, you will have palpitations in the heart. But organic disease from this unnatural stimulus will be set up in the heart.

The relation betwn the kidneys & liver is intimate. There is a change in the sec. & excretion of bile we must have a changed colour of urine. It seems to be an office of kidneys to eliminate the unformed bile. The kidneys & liver are con. by nerves. by the great sympathetic which arises from the caliac plexus. The cond. very nearly same the same organs. yet they are not identical yet they are nervously closely ~~connected~~. Then can proceed sec. of urine as occurs in diabetes will arise from disturbed. Sec. liver. We may also have unusual colours in the urine. Of the presence of bile. Of the last of all

urinary organs- As we have an irritable bladder which of course accompanies with diseases of also morbid sensibility of the testicles, a kind of neuralgia which can only be cured by rectifying the general state of health.

In the female abound syphilis we have disease accompanied with disordered general health but there is chronic and will have to be treated disordered- Morbid affection of menstruation is not prevent but we will find always a local alteration of life in the bilateral- And object here must be

to correct biliary functions
we can do little for
emmanagogues. until we
do this - after menstruation
is established, it is often
suppressed, we will often
find the liver disordered & after
the suppression will affect the liver - & disorders
will be carried into other
functions of the body - Always at first. Disordered
liver is the cause of
delayed menstruation -

In Amenorrhea we have
when it does not arise
from inflammation we will
find the liver, stomach &
derangd. Our remedies will
be directed to these organs
We have now taken

a fair survey of functions liable to be disordered by disordered function of the liver.

The liver is found with various organs, & by reason it is most closely with the stomach - hence the stomach will more readily sympathize & it (the L.) with stomach almost every part - hence you find how affection of the liver may derange the whole system - But it is only the part of the vast & morbid action. If then you can restore the blood proper to the liver, this will be set up

& if he has not sufficient proper to the bones will want a natural stimulus. Then again if he lived most decent like natural. & we will have the constituent of bile in the blood & we will have it then giving rise to many affections - as hypochondriasis &c

It may happen that this in the first place arising from he lives, may produce this in a different way - This sympathetic disease may remain to destroy the patient after he has returned a healthy action.

I dont pretend to indicate to you how to

200-

Thor disorders of the liver when they do, & when they do not arise from inflammation of the glands. If the inflammation be acute, impairing its power you will easily understand the affection but if the inflammation be of a chronic kind, without any general fever it may be that the inflammation being so great as not to excite the head & arteries. Hence you will meet with difficulty to tell whether it be inflammation or not. You must demand advice. If you dont know it & adopt antiphlogistics or not. I have seen

cases in wh Ointmt has failed & a diff. course indicated.

A subacute inflam dont require such active depletory cours as when it appears in any of the forms. If we happen to omit them for a time we will seldom be much harmd. but if we in many cases resort to an active depletory cours we will frequently do injury.

Treat- An emetic is an admirable remedy in this cond. & in bron- chitis pin action to bron- chial circ. - & disperses lives itself - & throws it up will be very useful - & also if the lungs are di-

it will give a great advantage.

Cathartics. I do not ~~that~~ can: may have done injury. When there is active inflam: can: may do harm. but where there debilities are only chronic. & there is much disordered function. can: are our most valuable remedy. They will prevent the formation of pus. They will stimulate the liver. They will augment the function of the kidneys & are also a powerful & prompt action in the whole alimentary canal.

Of Men be a Disposition
to Dis: of the brain - or
Nervous system. as Choua.
&c. we will obtain such
advantage - they have
act as counter irritants -
They ought be purely ac-
tive - they ought generally
be Cath: aloes. Scam-
mony - Jalap, and - you
must be afraid from
the Saline purgatives Cath: as
Salts &c. When the Dis:
is of a very Choroid kind
Laxatives - Gum Assa, Fetid
aloes &c - will be the
best. those that act as
Nicotic - But in cases
of Phlegmatic habit -
brain oppressed - abou-

Distilled de cholagoga
dotion cath: as cal: &
Jalap. The comp: pul:
Of Jalap. Senna &
manna with ginger ad
ded wch do good.

Alterative & Deobstruent.
Med: given in minute doses
which act insensibly by al-
tering the action of a part
so gain, we call them alter-
ative doses. or deobstruent.
Cal: & blue pill. & Specac:
ant: pulv: & Rheum and
the principle articles of
this Kind. When they act
briskly & gives a mitigated
portion & increasing the
secretion of urine &c. If
this purpose can be done
in less than 24 hr. in chil-
dren you wld give 1/8 to 1/2

The patients breath will
improve &c - Cal 11 gr.
Opii 1/4 gr aloes - viij grs -
mix & divide into pills
xvj - & children with
Juniper ad abdom: - Dis:
Mesenteric glands &c - One
pill at night - xvj gr
Rhei mag: xv Rhei 8 gr
Games jul - mix into
xvj - dose 1 gr. to child -
When there is great nervous irritability you
may combi: with more
cert: thing calculated to
allay irritability - you may
add ei: to camph 24 gr.
Ewi 1 oz 2 pills at night -
or 16 gr or 8 gr Extr: of Hyo:
or Gramen - or 32 drops -
or 2 gr Sulph: of Morphia - Dont cow

Oleiferate as much as
opium. Now in all Pro-
formula you have the
blue mass will act and
be live. The Specific on
the mucous membr: &
bowels & something
to tranquilize. Now
you will find the ad-
m: highly beneficial
in a great variety of
chronic affections of the
bowels. liver. stomach &c
They are not deleterious
ing. but under this
use your patient will
gain strength & the
health & functions will
be restored. You

extract: ℊ Lentias will
be the best Rubi tab to
form Cast mix them pills
with.

Something you will
want a cath: mod
actⁿ- doses- extract.
Cam: comp: Colloyn-
cal: ā ā ℨvj- Zart:
Ant: 2ℊ- mix & div:
into ℨvj pills- give
according to circumstances.
If all the Rad: fail you
can use Ol: Ricini & Ol:
Ricini Colocynth & hydrogog
Medicines are the most
valuable Rad: we possess
when pain is Rub: acute
inflam-

An Enema- Aqua
Menthæ Pip: & Cast

Disordered liver is cause of
head. of worms. To cor-
rect the liver acts as
an alterative. but
joined to this we must
give Med. to expel the
worms. They are produced
by improper diet. & most
generally connected with
disordered liver. The best
Med. for the expulsion
of worms is the Triplex
Purgans. The oil
of the Cocoanut called
by the Singalese Cocoa
kapal when the bowels
are torpid. admin.
an empty stomach &
followed by a cathar-
tic. Cal: is an excel-
ent Remedy for worms

Not so effectual as the
Podophyllin. Jalap in
which there is no influence
of bowels. Aloes &
Senna and in the secre-
tions, combined with calomel
is a good remedy. In-
dications for removing
accidents and the best
remedy.

Tonics - The Sulphate
bitters with aromatic
Gentian - Mustard seed,
Peruvian bark. Nux
Vomica there is influence of
stomach &c these medicines
are contra indicated. The
White mustard seed is
recommended in dyspepsia &
Diseases of the liver - it acts
slightly on the bowels.

It is particularly adapted to Emphysematic temperaments. It awakens the torpid energies of the stomach & bowels. With respect to Aqua Calcis & Calcis Chloridum I only use them occasionally. I administer it in the morning. I just find it before dinner & at night & after a while find it will do as well in the morning. The system becomes habituated to its effects & I only find it necessary to repeat it from 6 to 10 times at a dose. Tinctura Calcis I only use when

alterative medicine — The nitrate of the nitro-muriatic acid can be used at the same time with advantage — & most of the other acids.

External stimulants.

Do — Apply to the skin washed with advantage. You may rub it rather effectually with the brush in any part of the skin is exceedingly irritable — it will be dry & clean — hard — hurt & feels clean — it is clean — You may at least a pint that provided you persevere until you

do excite it to ansch[illegible]
Flannel shd be worn
next to surface of the
body. Frictions shd be
made with flesh brush.
The external use of the
Nitro. Mur: acid bath
will be highly beneficial
Take equal quants of
the acids - & as much
water as both. Then
add it to hot water
& dip in skin with a
sponge &c. It is soluble
The skin will then be to
bathe any acid. The warm
salt bath will often be
useful. In this way you
can alternately use the
Hot cold & warm bath
This is a powerful instrument
in unskilful hands & should

Biliary Calculi

The bile is subject to inspissation & this occasions it to crystallize or form a precipitate of various degrees of consistance. They are found in the gall bladder & ducts, but most frequent in the gall bladder. Which they are generally found in, and produce their existence. Colic pain often occurring at the 32 year when the patient has been afflicted with dyspepsia. At this period in the stomach this complexion

I allow. under the stated
we may put. Thus in
typing in the full dots.
The will be a dry cough in
from the kidney duct will
be eliminated into con:
or as to push them forward
thro' the ducts. The symp=
are more conspicuous.
In passing this away to
the duct. & into the du=
odenum, it may irri=
tate the tube. & excite a
contraction of a kind w[hich]
will give great pain in
parts never felt before.
Stones. The pain is of
that kind we dont
freshen their moving on=
ward. The duct is
formed in the epipa=
tum extending to the

light hypochondriasis. The
patient will think he
has cholera. They will not
always be requiring news
of him. They will be chilly
and off and on trying to
a complete rejection. If
examine his pulse you
will find it not
much disturbed. It may
be slower, but seldom
more frequent or full.
By keeping over the clothes
that you will retain a
pain. You will not
enquire in to patients
former habits & connections
have been with his
present state.

Cause. Sedentary habits,
confinement to the house
& want of action in

in the lives. Effects of the mind with hand to give rise to false stories. This is produc. by the mind's effect upon the nervous powers. Page

Treatment. The main sup: when with symptoms of hilliary derangement a tendency to nervous calculi we might venture sup: cal: as a good remedy. This is one remedy which I have not hitherto mentioned - to augment sec: of bile - This is clue bicarb - it must be taped as near as possible by this the duct of the jaw headed

The 3d kind of jaundice is a natural endemic & called when we have no doubt of the existence. You can easily perceive how much it can effect an explosion of gall stones. For this stimulate the duodenum wh may be carried to the gall duct & thus upset the harmony in the calculi.

The passage of gall stones can attend with great irritation. & inflammation may be excited in the coats of the duodenum &c. Believing this possible you will perceive that the symptoms & treatment will be regulated accordingly. Of

Calumba & Ginger Tablets
No. 4 every meal & bedtime
Hand you will be surprised
& how much better nerves
digestion & bowels will be
& you will not suffer
to any kind of bleeding
piles pain &c. &c.
Inflammatory symptoms are
not present. You
will perspire in doses
of from 2 to 4 grs. it
will be necessary to cool
it with cold Water
act on the liver & kidneys
Mouth & lips
Now after you have
immersed your feet
in warm bath & you
have finished operations &
you will use as before
I will do & always

after the Ds: no mat: but
the temperament or
cond: of patient may
be- The virus heard Ds: below
now Nasa frontalis-
Ds of Hyos: p. bony olive cont:
& will ~~be~~ pic. pain
a cath: or an emulsion or
an emeto-cath:- I will
endeavour to excite no
reactions of time & pen-
in my beginning I will
run pic Nuc. I will
suppose that mat: unless
I had in some measure
blunted his sensibility-
The objections pursuing
this course most pre-
judicial. May have a
tendency to rancidity
effect- The castor oil
& the olive oil have been

bad - If the blocked vil
be may take a tumbler
full - This block is
done by means open to
be touch -

External app: as
warm waters applied
& Lave before accom: -
as coincte stimuli -

Now a question will
occur can this act on
any thing that will act on
these vessels - When
the terminal pathology
supposed to exist any:
that have been mid:
capable of acting on
the vessels - Now
as it is admitted that
medicines may be car-
ried into circ: of the liver

we may suppose it probable that sulphuretted hydrogen & carbureted hydrogen may as well as nitrogen be considered to be miasma, nothing more can be carried out to the air except as the full stores -

Infection -

By this we mean no decomposition of bodies to be blood & carbonic acid - it may be sporadic & epidemic - generally sporadic - yet it has occurred general & epidemically - Hence noxious gases may contaminate the atmosphere & prevail & when effected the living -

Symptoms - a yellow

of eyes, a pain - sense of
blood - mine - nausea
constipation - bad
formed feces - pale gen-
eral - muscles weak -
resp - irresolution of pur
pose &c - Pow with loss
of blood & yellow
jaundice - The yellow
is easily cured - The
black is in one de-
gree. effluents formid
& more formidable -
If you refer to what
I said on Melena you
will understand how
this form can be caused.
The bile may be in-
corporated in the passage
to the bowels - Acute

Hepatitis with jaundice.
Gall stones in the passages in the common gall duct, with obstruction to the flow of bile into the intestine. Jaundice. Hæmorrhage into the tissues. Abscesses. Pancreatitis and mesenteritis. Rupture of the gall duct and escape of bile into the abdominal cavity. Peritonitis. Obstruction of the hepatic duct. When this is the cause the urine is dark and appears red. Dengue. Influenza. Malarial fever. Yellow

Obstruct the passage of
feces just as to prevent
the flow of bile - or
it may be a retention of
large accumulations
of feces in the bowels -
This is apt to occur
in pregnancy - Also
it will occur at this
period - I will here
to observe that dur-
ing obstipation the
is frequent great bil-
iary disturbance -

Treatment - As the
causes are various - so
your treatment must vary
be various - You will
treat for the symptoms
& relieve it as you would

one Dis: of the liver - Attend always to the primary Dis:-

You will often be at a loss to know what the cause is - hence the practice here is oft: vitiated. By keeping up a continued standard with the Jamaica Cathartics - You will also give calomel & opium - but not so as to salivate.

Pomes when there is nervous depression - will be beneficial - & the sleep - We will observe by bark - Columbo - Gentian - We reason why to prefer the bitter tonic, bark is that it contains

prussic acid - but is a narcotic.

You will often obtain benefit from the exhibition of anodynes.

By exciting the skin by friction &c we often do a great deal of good.

Chronic Disturbances of the heart & lungs &c.

You are aware the heart is an enclosed muscular organ & lined by a serous membrane. That membrane between it & the abdomen is a musculo tendinous membrane. The cavity is dilatable &c. The cavity of thorax is mainly filled by the lungs consisting mostly of tubes.

O cellular tissue & tunics of this kind. It is in connection with the blood vessels that we make up the lungs. In a section you can see great artery. the pulmonary & pul: veins. which may be compared to respiration. then you have a branch ramification. & minutes in the cells. & here they are just a portion with the vessels. You then have a small modification after but may in some respect be compared with the heart. The lungs are supplied with nerves by the great sympathetic. The heart & vitals between the lungs. Consist of lungs pul: artery & veins &c. &c. The heart & lungs are connected by nerves. by the small plexus. Then arises

from the lung the trachea. Its ramifications are called the bronchia. As the trachea ascends it is strengthened by the larynx. The opening of it is called the glottis. In inspiration the lungs & ribs are enlarged. It admits the air to rush into the bronchial tubes thro' the larynx & trachea - after the ribs & air expand contraction takes place & the air is expelled or any part of it. 60 or 70 times in a minute the heart contracts & sends the blood to the lungs - It is then returned to the left side of the heart & then &c. If you stretch a piece of air thro' the

glottis & are will not be admitted into the lungs & the action of the last will cease. Disturb one of these organs & you destroy the other. The pulmonary artery carries black blood while the veins of lungs carry red blood. The blood in the lungs is changed in color. We know that air is admitted into the lungs. The nitrogen in the lungs is not disturbed but the oxygen is & we learn in its stead carbonic acid which seems to be formed in the lungs. It will seem that the great function of the lungs is to eliminate the carbon of the blood which if not removed becomes a poison to the system. This is one of the grand functions of the lungs & indeed the only one

There are several functions subordinate to function of respiration — coughing is one of these & sneezing. In cases where excite a full respiration & it will be forced out violently. If in the glottis & organs of voice with acute coughing. If in the trachea &c. If in the nose it will excite sneezing — Now will these & coughing & sneezing have nothing more for their object than to remove the cause that it may not impede the function of respiration. This seems something like a conservative nature to preserve these functions. The coughing & sneezing is destined to remove the irri-

eating body.

The act of speaking is dependent on the organs of respiration. As respiration fails the faculty of speech also fails.

The act of vomiting is frequently dependent on respiratory organs. or by evacuation of urine - faeces. of the action of the parietes abdomen &c. The descent of the diaphragm - in all these considerably assists - to which it descends it causes by those act is enlarged - the abdominal muscles contracted &c. Hence you see the dependence of these organs on the respiratory organs.

The nervous fluid by respiration demands your particular attention.

This depends on a contrac-
tile power in the muscles. There
must it is evidently con-
tained. There are nerves
to the ears. the or-
gans of voice. to with the
respiration of the lungs.

The mucous surface of
bronchial tubes has in it
a sensibility something like
that of the stomach for food.
It has a gluttony desire for
air when long deprived of
it. There is pleasure in
drawing food air into the
membranes. You may
admit various substances
not natural in air will
be endured. Yet there are
gases which act violently on
it. The lungs have a
discriminating sensibility.
The effluvia or kind of stim-

alus & admit another. These are facts wh will be here after of import to you.

The anabolical part of the lungs is done in the act of the lungs. They do both transforming & excreting & secreting organs.

What are called the serous membranes are principally the organs of the throat & abdomen. I ask you attention this in the abdominal organs may affect the lungs. All of the various ways in wh the portal viscera may affect the pulmonary. Sympathy. When the heart & lungs may be both affected thro' the nervous connections. 2dly by excessive digestive ferments. The products are exhausted

of the producing plethora & congestion - which will excite the lungs & heart & diaphragm that act is important to the whole system -

3ds ℔ Nutmeat absorbing unwholesome digesta - makes rich blood which excite the heart & lungs. It is well known how soon is detected in the urine (presumed) poisoned after its exhibition - In 40 minutes it has been detected in the blood - It is in this way that fat may be absorbed by the veins of the stomach & the fat into heart &c - How it is done - persons after eating are much disposed to cough after eating &

speedily after having taken unwholesome food.

4th By the formation of unhealthy chyle from the food by the liver when it is sent into the lungs & heart will act as an unnatural stimulus.

5th By this means the entire glands by their not performing properly this function - i. the formation of chyle &c.

6th By the liver not secreting bile & having its elements in the blood. When the heart & lungs & liver & other functions organic dis: will be developed.

7th By the liver is jaundice not exciting bile & thus the bile is absorbed into the blood

8th By enlargement of
the lungs preventing the
descent of the diaphragm
& thus affecting respira-
tion.

9th By disordered blood
exciting asphyxia in the lungs. consequently
it is not uncommon for
indigestion to succeed by
consent.

10th By the tendency
which the bile has in the
blood, this tendency to
excite increased action for
the various menstruating
vis to Hydrop. pericard.
&c - Hydrothorax &c -

We must come to con-
sider the tendency to excite

Dis: Mc affs: of h lungs &c
ca M abdom. viscera. by
the heart not being able
to transmit h. blood - &
hence congestion will take
place in the vena cava -
Hence it is now will have
great acc. in h ascending
cava - giving rise to con-
gestion in the abdominal
viscera. Malena may
be brought on in this way
2dly by sympathy -

3dly. Affs heart wh dis:
may establish dis: in h
portal viscera - by throwing
blood by its excessive action
unnatural to them & there
exciting inflam: actions -

We com to consid: the
morbid affs: of heart

Lungs or R lungs. 1st by
Hypertrophy. by being con-
nervously.

2dly by dilatation of R
right side of the heart.
when this will become thin
& distended it will not
be able to send a re-
turned along to pul:
arteries.

3dly a violent ac-
tion in his right side.
By producing Haemoptysis
or a rupture of the lungs.
by effusion of blood in
R lungs.

4th by ossification
of the mitral valves. by
preventing a free passage
of the blood into the left
side & hence causing con-

jestion &c &c.

We now come to consider how the Dis: of the lung may affect the heart 1st by sympathy. 2ds by organic lesion in the lungs & the blood accumulating in the lungs giving rise to pericarditis. 3ds The lungs may affect the heart by a failure of its ~~transforming~~ function. The heart here will receive an unnatural stimulus which will excite in it dis: - by debilitating its energies & giving over it to irritative properties.

This is a subject of the deepest interest to the physician - during that may

of the diseases found situated in these two cavities - It must at all events, Gentlemen, be regarded as a subject of deep consideration - Think of the connection of disease in these organs - their ramifications by sympathies. Their different modes of affecting each other &c &c.

Cough. Coughing is a natural function - not performed habitually but occasionally to expel from the lungs or from the aerial passages - The air is driven out forcibly &c. There is also in coughing a preparation & exertion of some of the thoracic - & abdominal

of his breath: cleans it & breaths. The mucous membranes to be relieved of the mucous accumulated on it. Thus far it is a healthy function. But when it becomes constant it depends on an irritation existing somewhere in the system. We exactly to counteract action the respiratory organs. To arrest this unhealthy cough it becomes us to enquire after the cause

Causes 1st. Irritation either acute or chronic of the lungs, bronchia or pleura investing membrane of the heart. of the pleura. of the Diaphragm. of the liver. or of its ligaments & I might add of the gall bladder. Hence cough is a symptom of pneumonia consumption pleurisy hepatitis &c &c

2dly may arise from effusion of serum as in hydrothorax anasarca &c

4thly Enlargements of the uvula palate &c in the glottis

5thly Foreign bodies entering the rima glottidis & resting in the trachea bronchiæ &c Persons working in dusty places are liable to cough &c but may principally to this

6thly Organic enlargements of the thymus glands &c glands situated in the mediastinum &c formed among the great &c &c are obscure in their diagnosis but the affection will be cough & you will find it diffe

to which he owes.

6th Organic in Lungs & he lives 8 of them. Dis- is the lives you will easily detect.

7th Irritation in the Stomach from acid & worms — Dyspepsia Dis. often gives rise to cough. & may produce and organic Dis. of the lungs or heart.

8th Cough may be excited by affections in the brain. One remarkable instance of this kind & well recollected. This irritation in the brain is communicated to the lungs, by means of the par vagum.

When you will ask an Dis is presented to you as a symptom of

to many Dis:- you will
understand why I have not
all this presented it
to you. But it is
certainly well thus to
consider it.

For that a cough then
is a Dis: would be absurd
we must all have one
in cause of irritation.
Or generally in poor-
low savorous Dis: we
can not cough. When
it arise from nervous
debility we will endeavour
to investigate it

Pertussis. The morbid
act: is situated in the
lungs. In the mild the
lungs is but commonly
at first mild. As it

a Stomach become more
continued & Sometimes
Sore is a Secretion of
Mucus & after this is
passed away. There
is a dark brown appear
of the face & eyes. In its
course it sometimes excites
Bronchitis or Hydrothorax
It is protracted for many
weeks - & is apt to return
Capse for months afterwards
Generally a Disease of childhood.

On this Disease you will
observe there is an irritation
of the pneumogastric nerve
There is an irritation in the
Stomach. & in all its
extremities.

Causes. A specific
morbid animal poison
Mostly considered contagious

pus. It seems frequ to prevail epidem: & oft by contagion. This is one of those dis: wh attacks persons w/out ord. but I have seen it occur often in the same persons.

Treatment. In the early stage of the dis: when there is fever &c: with bleeding. Emetics are very useful. Antim with effervd refrig: Calc: powd. Nitre clysters of Arabic. Ipecac. Sup: of acetas Morph. will often palliate the malady

Assafetida & Garlic. Sulphus ether are beneficial as antispasmodics. Blisters over the seat of dis: &c. Opn ötd always end:

to produce bronchial tubes & head from irri= & inflam. When they are developed there you must to treat= ments.

In a cold stages wh the infl is removed & the comp relieves & pas= medically by slight irritations - use frict: allow a generous diet= &c.

Asthma or Spasmodic dyspnoea - This like comp may arise from many causes. Obscure. Description of the varieties of the disease I have known it produced - Dyspn: comes itself be caused by air but a symptom of

of Mercy. Dr Hufeland's own
Famous Cause. Dr
Philips in his experiments
on Nerves with Galvanism
& he relieved many
cases of dyspnoea. He
concld that this depended
on morbid action in the
pneumogastric. Proposes
then that in Cholera as then
we shd use Galvanism.
Apply one pole of Galv:
battery to the occiput &
the other to the epigastrium. Dr. Mitchell may
be relied on. Some medical
shd look into the cause &
cure for it &c.

<u>Asthma</u> This is a
Disease of great difficulty. It
is the other side of the
respiration. In those

A cough, dyspnoea &c arising from various causes. Of Asthma. I have sometimes had occasion to speak of this class of diseases. You will find that this term is used in many of the books to designate difficult breathing. But I can compel the symptoms and describe it as a disease. In many instances I do not find it necessary to use any remedies whatever, but in all persons who are subject to coughs will most frequently be found.

Dr Bree's mixture. This may be drunk in the dry & humid.

℞ The dry mixture of tonka beans ℥ss
Laudanum ℥ss Water
an ounce & a half or four ounces

diuretics. coupl dry-hum expectoration. little sweat &c. - even this above that is dry & constricted

- In humid. In paroxysm gradually becomes more & more violent. In attack is more protracted. In cond. above - & chest is humid & severe. coupl more. expect at first mixed - but at length darker & more abundant.

In both there is an impeded action of the muscles of respiration - This acts to Dr. B. is its characteristic. Others believe it consists in an spasmodic contr. of the bronchial tubes - Thus

diversity of opinion. At the present it is evident that it results and affects primordially.

In the dry asthma. The bronchi & tracheal passages are very sensitive to the presence of foreign particles. To a dry & cold atmosphere. A person disposed to such disease will always have a paroxysm of asthma.

I have seen many persons at Brighton who could not be near the sea when there was an easterly

In humid asthma there is an increased secretion of mucus which depends. I think

Rate R dis: depends on
liability to variation
&c: R paroxysm and
rest: for some a
week or more - allow
time in pat: to compel
to keep a record of
sitting posture - Some
will seldom find or
fancy less - in this dis:
It seems to consist in
functl: derangement.

In most cases of
kind as these there is a
state more or less of the
final results of R lung
This seems to consti a
state similar to that
we find in R pow
like air: it has been
proven itself by numerous
facts of life -

In Bronchitis is the
mucous membrane
of Bronchia.

The asthma when
coming in system it
will be amended & a
retreat of the nerves &
nerves sends from
the cutaneous surface
& in this case they seem
to draw the lungs to for
their resting place.

It is often hereditary.
An unhealthy state of the
lungs may predispose
them to this disease
when exposed to cold
& unwholesome
atmosphere. It would be impos-
sible to hand out all
its causes. Of course

clone affinity between
this Dis: & ofte occurs with
Dispepsia- comes on with
it & with it disappears.
The paroxysms of the
disease I have seen
come on together. That
dispepsia well calculating
to produce this Dis: you
can easily understand.
The stomach may be
dispos: habitually to vom-
ite and affect ovo the
lungs. If excites the Bld
to pour out serum &c

As Nature attempts
to throw on dispos: with
the irritating matter
this. But ofte the asthm.
when cont: with violent
not oft fatal- tem-
porarily terminate

It is apt to give rise to
the diz. Pl. Nervs - effusion
of water. Aris: of the head.
accum: of the liver. &
enlargement of Pr or:
Jam. I wi: This may
serve as hopes, may to
a friend. Fr. the same
wear Diz: of the heart
opening up. The organi:
diz: effe: dark is some-
times looked upon the
primary diz: - & it will
be found as consequence
& not cause. To this
subject I shall again ha
occasion to refer

Treatment. I dont
so much aim at cu=
ring as Prolonging as short=
ening the paroxysm &
keeping it off. Amica

336 B.C.

we must endeavour to ascertain what causes produce a local situation. &c. As to local situation we can determine but little a priori. We must attend to the disposition of each particular. So of diet. Many kinds of diet exist in one wch have no effect in others.

When as Nisa does it was particularly observed - that is spontaneously. Nisa is sometimes in periodical diseases that Dr. Mills discipline of ague & acute rheumatism "Chronic causes - Now

when they do occur it
this manner. It will cont.
for a long time. & finally
he will die from some
thro dis: set up. &c.
he may do much good
in medicating Mercur:
preps. By diurnal conjec-
tion. B: I expect can
be used. Tho' you will
not find so much ben-
efit from it as Mr. Hart has
experienced. Often by the parkinsonian often
prolonged. The dis: is
not an inflam: but a
kind of morbid action.
then set up independ
of inflam: hence Mr.
Carr's statement.

2ds We will answer
from N Orleans with
Acc: when opportunity Mr.
Parkinson. to effect

we will admit [emetics] besides
in this dis: in wch
[illegible] the stomach, they
exert a specific ac-
tion on the lungs. Em-
etics act by changing the
[illegible] acc. of the lungs
&c.

3dly by adm: of cath:
especially mes: can. &
how wh act on the
lives. thereof &c.
It is surprising wt
quantity of bile will
be evacuated by emetics
& purgatives. Dont alto-
gether rely upon your pa-
tient he dies & the
Apl: it will be mur-
derous conduct.
This is often a more
than a pulmonary cause

Copiam Jung: is not
one of our best remedies.
you will understand.
when they act on ye
bowels bowels &c.

& ch you will find
Antacids to correct acid.
is when it is found to
exist.

You will endeavour
to allay ye violent
act? of ye purgatives or-
dered. by exhibiting

Opium 11 g
Spirac. 4 gr
Aq: menth. pip.

Then is absolutely necessary
to exhibit Antacid Med.
for in four hours. &
you may give ye following.

Opium 11 g
Mucil X.M.
made & divided into 10 pills

060
℞

Opii . 119
Asoafœt.- 24 gr.
Bals: Ami:- 8 gr

℞- Sulp. Ether ℥vi
Tinct opii ℥i
Alcohol - ℥j

Dose teaspoonful — All
the narcotic remedies
will be used sparingly -
We may accompany
the prescription
a great variety of
these must may be
dissolved &c. I will
give you some formula
Tinct: Lobel. 40 drops
in dessertspoon of liquorice
juice &c: &c: &c: -
It is a teaspoonful of
syrup of Squills

Lac: Am: ℥ij
Syr: Scill: ℥ij
Paregor: ℥ij.

Or

Cac - 10 gr
Pul: Ipecac - 24 gr.

Mix & divide into 6 pills
Use this formula when
there is constipation
Increase the expectoration.

Opium 1½ gr
Ipeca: 8 gr
Cab: Am: 16 gr.

Div: into 6 pills - give one
to evening - or more

Vin: Ipecac. ℥j
Paregoric ℥j
Ammon: Alcohol ℥j - dose tea:
spoonful - pro re nata.

The formula will suit
in every kind of asthma.

The steam of coal or
coal mixed with an acid
material - or of mixed

3 6 2

I may be assisted to in
cases of em

We may use blisters &
sinapisms as counter irritants
Issues in the back may
warded off pneumonia.

All I have said has
only related to the pal:
iative cure. We of no
specific know when the
dis: has invaded the
period of middle life.

1st by avoiding all
the exciting causes. 2 dly.
By the use of prep: of iron.
3 dly By the use of vege-
table tillers these may
be combined with the
prep: of iron. The cold
bath during the absence
of the pneumonia often does

good - will arrest the paroxysm this occurrence -

Asphyxia. This cond: arises from drowning, hanging, from breathing Nitrogen gas & from lightning -

In all these cases the disease is essentially a malady of respiration - These are not instantly suspended - When an individual is submerged or hung, the air is excluded from the lungs - Take the patient from this situation & the pulse will still be beating - but will become more & more feeble - Now that seems to be coagulated blood of an unnatural kind passed into the heart & thence sent into the whole system - The heart dont stop to beat

when the heart &c. the black blood - but from this blood being sent into the heart & self - into the brain, spinal marrow &c. The blood is no longer aerated &c - & is consequ: unfit to support animal life -

If the carotid animals & submitted to immersion &c the animal dies apoplectic - when this takes place suddenly he does not but when he gradually he dies apoplectic &c - when a cord is applied around the neck of a animal the blood is cut off from the head - now if the heart still beats & the lungs don't collapse

prevent the blood from flowing to the brain it is evident that the vessels did expand.

The practice in suspended animation has been uniform & empirical & utterly unsuccessful. The great medical object is to restore the respiration if this be soon done it is clear the person may be saved. But if the functions of nerves & heart be in some measure lost - it is not probable we can effect a resuscitation.

The first effort we are to make is to inflate the lungs - The bellows are recommended - by Hunter &c.

In every instance in wh
I have used it I have
found the stomach to
inflated - We cannot
prevent it by using any
kind of pressure on the
oesophagus. The con-
tents of the stomach will
be forced up the oesoph:
by the admission of air -
Another mode is to per-
forme the op:n of Laryngot:
omy - The reason respec
ted and recommended t
in performing this operat
ion. The blood will flow
into trachea & will
put an end to all
hopes of returning an:
imation. The best
plan is to introduce a

take into the lungs - the
stimulus of the tube of the
pneumo gastric. This
tube we may inject
stimulating vapours. or
blow into our own mouth
At the same time we
listen to unnatural
respiration & every pul-
sation or its ribs & epifas-
trium &c. Never use fas
molents in any of your
attempts. This respi-
ration is from being nat-
ural. The muscles come
act - in diaphragm
& sternum &c. The change
on the blood does take
place the air comes in
contact with the bron-
chial tubes. The chemical
change does not more

take place. I do not put much confidence in these evacuations at inflation - Thro' occasionally it seems to have done good. The irritability of the part may be removed by antispasmodic respirations is made by the stimulus of air into the mucous membrane of the bronchial tubes -

Ether is a common practice to use in asphyxia - Only when you have good reason for supposing the brain to be congested and you use it under these circumstances you may cup - the head -

Much has been said

about in ap: of what to
persons in asphyxia- In
cases from suspended An:
mation from lightning we
are directed to use copious
affusion of cold water &
when it occurs from
becoming delicious air-
when it occurs from drown-
ing we are to use warm
application- Why are
opposite in cases from cold
& lightning &c- & why
shd we admit them in
cases from drowning-
When an individual is
in a state of an asphyxia
from drowning we shd not
use warm application-
This I recon: from Physio-
logical views. Persons
who asphyxia from

drowning resembles those cases from cold - I would not prescribe warm ap:- I would attend it with cold - cold & heat thus alternately were given out of the most powerful excitors of the suspended energies of life.

Mustard frictions are useful. Whipping with nettles & beating with rods and sometimes found to be beneficial remedies -

Stimulants introduced into the rectum & stomach with effects much the same action in the system as opium -

Electricity has

been seen from the
manner in which it excites
muscular contraction
after death we might
expect a great deal
from it - Towers expe-
rience does not seem
to confirm this opinion -
Slight shocks should
keep a body in a
state of putrefaction
at short intervals - for
3 or 4 hours -

In all these cases it
will be your superiors
duty to drive off all by
standers & let the patient
have a free passage of
air &c.

Diseases of the circula-
tory functions -

This will comprise all

Effs of an inflam: natur
& in phlegmasia, &c.
complete effs & with
includes in Effs of the ner-
ves & their functions,
as of dropsy & will bring
us back to the consid: of
many of those maladies
which we have consider-
ed. We cant appreciate
too fully the import: of th
subj: before us.

"Before com: to consid:
of the dis: in which consid: of
the fonct: in anatomy,
physiology &c. The fonct:
of circ: is one of universal
extent being found every
where - it is a sustaining
fonct: to all the rest. It is
a process of life to all the
rest. The circ: of the blood
and its functions

to the student of mind.
Hope you are well familiar
with the fundamental truths
old have a tho- of blood
shed to be defended.

The influence of nerves
in the heart. The heart is
supplied with nerves from
the brain, spinal marrow
& the great sympathetic.
Does the heart derive its
contractile power from the
nerves? This is an undecided
point. It seems to derive
this power from the blood
circulating through its
vessels & not from
its nerves. A 3d relation
of nervous influence is the
action of other organs upon
its action. & 2dly, the influ-
ences of the great sympa-
thetic. If you abolish the
nervous influence upon the
heart you abolish the influence

the result, left. The various organs require a uniform supply of blood. In order to perform its functions it must have occasional extraordinary supplies of blood. The Nervous system must have the power to cause the heart at certain times to throw out an increased quantity of blood. That this is so the nervous connections is obvious. If there be an irritation in the extremities of the pulmonic nerves the heart will be excited to increased action. Now this must be with the nervous system. If we reject the influence of the vascular system we must admit the nervous connections.

As one can be considered
how good Pantoppi: until
he has known a grand
ash how a bi: in a
distant part can affect
a secret to us. The
is affected thro' the ner-
vous system. If the
be great excitement in a
part on that will beat
his unwanted energy.
The passions have a
powerful influence on
the heart. Different state
of feeling excite differing
in heart & this is done
by means of the nervous
system.

The nervous system has
an influence on the pulse.
How is this done? The nerves
are supplied with nerves
traversing this coat. In
the action there are
many connecting pla-
ces. We dont remember

branches to be reflected
passing this Nerve. Many
of the nerves of the arm
come off from the cruciform
plexus. It seems to be
demonstrated from that the
repeated capillaries and
abundant supplies with
nerves. Several parts of
the body from a sensibility
of a peculiar kind - both
this takes place in those
are encased accumulations
of part. Examples of this
kind are afforded by
the organs of sight, tendons
in muscles - in the
digestive glands - in the
testes. Hence we see
the close connection of the
nerves & diseased dyspepsia -

Symptoms of Diseased function of the circulatory organs.

In proportion to our knowledge of the animal economy in health will we become acquainted with its deviations from that state.

The 1st class of the morbid appearances are the changes in volume of the parts which are affected with sanguineous distension of vessels, either hypertrophy or excessive growth. Or deposition of fat. Or effusions or extravasations of blood. The process of serous secretion being in excess. Or congestion or accumulation of arterial blood or from accumulation of venous blood or from defective absorption. From under this view we find a great variety of morbid conditions may arise to

Diminution of parts.

1st. May arise from atrophy
2d. from defective circulation

in a part as when a part is exposed to cold it becomes ~~Rheumatic~~ de-

From the causes which diminish or increase the vitality of parts we proceed to consider the changes of colour that occur in parts.

1st By acc: of arterial blood giving rise to a florid hue.

2d From venous acc: giving a violet or purple complexion to the part.

3d Serous exhalation or diminished absorption which produces a pale colour - giving rise to the leucophlegmatic appearance.

These complexions will be of great importance to a practical eye.

The 2 last changes of temperature. Increased warmth arising from increased action of the vessels of a part.

2d. Change of temperature may produce defective heat-forming Nat. but circ. is not carried on actively in N parts

Changes in N sensations of parts- 1st Indicate to us excessive arterial action- giving rise to pain- & acute sensibility- Hence by diminishing the accumulation in a part we lessen pain &c.

2d Defective determination of blood to a part- evinces diminished sensibility-

Changes in Amount & quantity of secreted fluids in N organs- 1st Indicate excessive determination of blood giving rise to increased secretion of N organs.

2ds Diminution in N amount indicates defective secretion in an organ- In this manner vomiting &c-

ception. A great supply of blood to an organ may subvert its secretory function & transforming power. Or it may cause a small determination will find rise to increased secretion.

Changes in the qualities of the secretions of an organ will afford evidence that the supply is either increased or diminished determination. The organ becomes diseased & hence its functions will be morbid.

Inordinate vigilance or drowsiness or coma alike indicate engorgement of the brain. From acc: of venous or arterial blood. Let these acc: be carried beyond excessive excitement & you will have coma & stupor.

Throbbing or pulsatory movements in a part indicate increased action in a part with excessive sensibility of a part.

Such are the principles of life & principles of the sensitions functions of a part and developed. Then among the other natural principles of association there a volition will be attended with pain, blood colors, augmented heat & perhaps throbbing - & deficient deficient will be indicated & diminished volume heat, sensibility & of the natural colors - turned you see on thing calls for another & venous acc: the will be a violet color & not materials altered - the will be diminished sensibility & heat of the part - Now suppose to be acc of arteries - there will be diminished sensibility - paleness - defect deformed This const: the oedematous state occasionly comes & this condition may be present in a part

In coma the will be increased heat about the head - In the case of diseases of the brain which arise from venous accumulations the arteries will be induced to increased action, excitability &c.

The most important signs are afforded by the pulse - In the adult case the pulse cannot be detected - When they are under 10 a certain we cannot feel the arterial throb - being oppressed with the pulsation of the heart itself - How the arterial co-operation is performing the pulse we don't exactly know - The best chemical writers have been found which attributes the pulse to the impulse of the blood on the cardiac orifices of the vessels & their sending it along the tubes - This united with the dilatation & contraction of the vessels seems sufficient to

me to explain the action of
the pulse.

In the state of health the pulse
may be relied on. but in fever
we can not longer rely on one.
we must compare this with
that & with the pulsations
of the heart itself. Thus exam-
ining the pulse is a sound diag-
nostic & prognostic indication.
There are many states of the pulse
in the books, which I found in
practice never being able to
discover.

The following states of the
pulse seem sufficiently characteristic
& frequent pulse not
refers to its exception. 2d. a
weak pulse refers to its action
3d. a slow pulse. 4th an in-
frequent pulse combined with
frequent. 5th intermitting
pulse. 6th a full pulse.
it may be either full or
hard. 7th a small pulse
when it is weak constant
a diminished pulse.
a small & weak seems to

Remove a circumstance - Suppose a pulse is small & not full this cond: the wiry pulse - 8th The soft pulse - when it is easily compressible - If we suppose the art: membranes - & the whole system contracted the artery acted freely it would be enlarged - if it easily compressed it is evident it is not enlarged by the heart - hence you see the artery has a round elevated &c - 9th a hard pulse when the force of circ: & heart concentrated in the artery & not easily compressed - 10th a tense pulse 11th a strong pulse which assembles the state of heart - 12th an elastic bounding, irritable pulse frequent & easily compressed - One of the most interesting to your attention - because it is inflammation: when you see & you think you see and carried this far enough & pulse is frequent, full & bounding, now will all

enquire shall you find
help your depleting means
to take this pulse & avoid
running into error respecting
it. 3dly The depressed &
oppressed pulse is somewhat
the opposite of the last. Of
a low & weak & strong & de-
fective. When you have this
pulse you have one of the
very worst oppressions in the
brain especially the action
of the heart & you have
oppression in the heart
itself. If you have any
in the heart from conjes-
tion in the lungs & your
veins have no cavities
in the heart & its substance
is a healthy state. At
the same time you are
have accumulations in
the veins & arteries & as a
consequence of this a con-
striction of the spinal mar-
row. Now in the 5:

I say if under this circ: by you take away blood from the circulation you will relieve the action of the heart - 1st The obstructed pulse - This is an alteration in the force & frequency of the pulse - All these may be grouped or combined - The pulse may be full, frequent, tense & hard - a pulse may be frequent quick & soft &c - The pulse is seldom very full & very hard or very free & very frequent or very slow & very hard - but it is often frequent & small - when it is excedingly frequent it is general pain indication of a state of body does not admit of much debilitation - A full tense pulse indicates an

natural exhalation of the
system - when it is intermit-
tent is one cause of a fever de-
pending from a state of
the air. If you de-
sired precautions to
prevent it feeling the incon-
veniences the entry of more
noxious matter has
the other - Hence you will
be directed may you feel
the pulse in both arms - The
position of the arm must
be attended to - Keep it
relaxed & free from all
pressure - The compression
of the limbs must also be
attended to - If the arm
has been extended out of
the bed clothes - Position
of the patient effects the
pulse - it is always
more active in the erect
position - In the recumbent
position the pulse will be

Arminish in diyd frequency- The passions & emotions of the mind increase the frequency & sometimes the force & at other times decrease the force of the pulse- During fear & fright the pulse are accelerated- This is the Hysterics pulse- A new emotion rises springing up after the emotion of fear has passed off- Before we can mention of certain modes of ascertaining the state of the heart we depended on the emotions of the pulse to tell us of the condition of the heart is diseased or healthy state- This is now ascertained by auscultation & percussion- The lungs are now examined in this same way & we come to know three modes-

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