Aaron Comstock

Jackson
notebook

Extracts from a course of
Lectures given by James
Jackson, M. D.ª in Boston
1818—1819.

Nov. 17th

Lect. 1st — The subject of medical science is
as the human
body is daily obnoxious to some one of the
various diseases which afflict mankind, the
object of medicine is to preserve the health, and
to restore it when it is lost. The knowledge
requisite to the attainment of this science, is
an acquaintance with Physiology and Natural
History — It relates to matter and mind, and
embraces their properties, relations and laws. —

There are four great divisions of medicine
I. Physiology. II. Hygiene. III. Pathology. IV.
Therapeutics. — From these are derived the rules
and precepts of the practice of physick —

The whole science is not embraced in this
course — There is much that belongs to Anatomy,

Surgery, and Midwifery. 6. Animal Oeconomy, 6. Materia Medica. There remains something to this course in each divisions. —

## 1. Physiology.

Physiology treats of the science of life — It embraces / a consideration of — I. The composition of our bodies II. Their structure. III. The properties of our bodies and minds. IV. Their functions —

Thus far, our race may be considered in a state common to them, — But considerable differences are to be perceived among individuals. Of these we take notice under — V. Varieties. They are all influenced by and exercise an influence upon external things. Hence we consider — VI. The relation of the human system to external things. It is by the agency of these that the functions of life are maintained. From a deficiency in them life may cease; and, if it do not, it must ultimately terminate by a loss of the properties of vitality. There are different modes of the termination of life considered —

under— VII. Death.— A very large proportion of what relates to this division (Physiology) is taught in other courses. Such parts will be considered in this course as are not so readily embraced in others. —

Sect. 2.nd 1. The composition of our bodies may be divided into elements ultimate and proximate— Their distinction 1. Ultimate. These are the same as in common matter. Oxygen and certain combustibles matter (or hydrogen & nitrogen) in compounds binary and ternary, &c. These combined also in common matter but not in the same proportions, &c. Not common imitate their combination in living bodies. —

2. Proximate. All the substances in our bodies are composed of the ultimate elements. The simplest combinations of these constitute the proximate elements. These elements are compounded by living power, and when decomposed cannot be recompounded. Chymical compositions remain perfect, while defended from foreign influence; — vital compositions are the result of life, and this requires foreign influence, and however aided, the

vital combinations are necessarily transient. If chymical composition be destroyed, the same elements may be recombined and constitute again the same substance. Not so with vital compositions. They cannot be recombined after being once destroyed, such as exists in proximate elements.—
The principal proximate elements are to be found in the blood. They are Albumen, fibrin and red globules. These elements of the blood go to constitute the substance of the body, particularly the albumen and red globules. These are distinguished from each other, by the colour of the red globules, and the coagulation of the lymph, which takes place at 150° Fah.— Fibrin is supposed to constitute one of the principal solids. In other parts the different proximate elements are not of the blood are not well distinguished. The fluids derive from the blood are exhaled, secreted and excreted. The solids are formed by an analogous process. Exhalations are nearly aqueous, secretions alkaline and excretions acid.—— Secretions generally have the same quantity of water, as the albuminous constituents of the blood.— Exhalations have more—

Secretions contain the albuminous contents of the blood and in each a peculiar animal matter — Organs are more compound — All contain four basic tissues

II. Structure of our bodies — This is principally taught in the school of anatomy — As it is of great importance, shall mention it here The body as to its structure may be resolved into simple and compound — Simple — is the structure of muscle fibre in different textures, as fibres, lamina, &c. 2d Compound — is the structure of organs in which simple parts, similar and dissimilar, are combined mechanically — The organs are to be noticed their form and connection —

III. The properties of our bodies. They are of two kinds, physical and vital. — 1. Physical being properties which are also found in dead matter — such as gravity, elasticity, chemical properties, &c. Likewise such as are mechanical, arising from the configuration of organs and their adaptation one to another —

II. Vital, which are divided into — 1. Organic, belonging to all organized beings —

2. Animal, or such as are peculiar to animals
These are not all found in every animal —
1. Organic. properties are a Mobility. b. Irritability c. Vital affinity. d. Respiration. e. Sympathy.
2. Animal. These are in part corporeal, & in part intellectual. The latter we be noticed only as they are connected with the former — They are f. Sensibility. g. Intellectual powers. h. Property of transmitting volitions & Sympathy.

Sect. 3d — a. Mobility. is the power of moving — It is exhibited in muscular fibre, in vessels and their parts. Generally considered as derived from other organs. — The power of motion is considered as contained in the parts in which it is exhibited, and not more under the influence of the will. This influence being communicated to the parts through the medium of the nerves — Hence it is altogether an hypothesis that motion is derived from the nerves — If this be correct, either motion takes place in the nerves, in which case they possess mobility; or, if no motion take place in them, they have not that property, but only the power to give it to other parts. In other case the property is

distinct from other properties. — b. Irritability —
The power of being affected by stimuli, so as that involuntary functions may be induced — The part moves by the irritation of a nother substance. It is various in different organs — Possessed by all that have motion, and by some that have not — As the muscles possess both irritability and mobility, whereas the mucous membrane possesses irritability only — Irritability and mobility differ as it regards strength. The one may increase and the other decrease, as is the case with the alimentary canal, the irritability of which is increased the frequent exhibition of an emetic &c —
c. Vital affinity. The power by which the ultimate elements of matter are united and kept in combination in the living bodies — The elements of animal bodies are not governed by the same laws as dead matter. They are not combined by the laws of chymical affinity — It is evident from the decomposition of the living body after death — Why does this take place; is it not because the body is deprived of that vital principle, life — This vital affinity exists in fluids as solids —

for we find they undergo decomposition as do the solids.— The analogy with chymical affinity— Chymical affinity remains the same, and exerts the influence on different bodies— Vital affinity is different. it is not inherent like that, but is derived one possessing it— It is a property which the part possesses while it is alive— Duration of life in individual ~~of~~ the particles very limited— some suppose they may be worn out which is not the case. as they are defended by the mucous membrane— or, Vivification. The power of bestowing vital properties on common matter. Whatever be the vital properties, they are given by the body enjoying to that which was previously destitute of life. This power exists under different modifications in different parts.— The matter assimilated receives different properties in succession nor does all this matter become endowed with every property.— c. Synergy. The power whereby several organs, or parts of the same, conspire to effect one object acting either simultaneously or in succession— In order to effect one organ a number must be affected at the same time— a number of

functions are performed at the same time for the same purpose — as is the case with the uterus, when the organs operate by a power within themselves — while the mind does not take cognizance of them.

Distinguished from sympathy —

5. Sensibility. The power in our corporeal organs on which external material substances act in producing perception. — It exists in animals & vegetables — This property is various, or modified in different organs — The sense of touch is common to the brain through the medium of the nerves. Hence if the nervous communication is interrupted or cut off the sensibility is destroyed — The mind does not exist in every part of the body as the mind possesses the power of perception, and the fingers of sensibility. — Intellectual powers. The mind may be considered in a certain sense as uncompounded, or as a unit; yet it certainly performs various functions, and thereby various powers — Two most necessary for us to regard are perception & volition — The first enables us to recognize impressions made on the bodily organs; the other to act on bodily organs —

There is a power in the body that assists our perception — motion is under the control of the will, the nerves transmits the desire of the mind to the muscles to be moved, which becomes submissive, and obeys its orders — But this power is not possessed by all muscles, for instance the heart &c. are not under the influence of the will, i Sympathy. There exists among all parts of the living body, intimate relations; all correspond to each other, and carry on a reciprocal intercourse of sensations & affections — These links which unite together all the organs, and cause one part to feel with another — when one part feels pain the others suffers also — is called Sympathy —
An influence exercised by one part on others, more or less remote from it, without mechanical changes — It is impossible to explain how this power exists, but that it does exist is an established point Mr Cuvier distinguishes it into, continuous, contiguous and remote,
contiguous in contiguous parts, remote as in the liver and shoulder — It is also active & passive —

Lect 4th IV. The functions of our bodies—

The division of functions and their relations.

Divided into vital natural and animal functions—

Two classes. First class. Those functions appertaining to individuals.—Second class. Those appertaining to species.— First class. Two orders. Organic & animal. 1. Organic; common to all living organized beings. In man these are, 1st (those being) Assimilation, including a Mastication b. Deglutition c. Digestion d. Absorption of chyle e. Sanguification f. Circulation g. Respiration. 2d Formation, including a. Excretion b. Secretion. c. Nutrition. 3d Excretion, including Peristaltic motion. b. Lymphatic absorption c Perspiration & Seminary evacuations.— 1st Assimilation is a function common to all animals, by which substances extraneous to them, are introduced into their bodies, and subject to a peculiar system of organs, their qualities altered and new compounds formed, fitted to their nourishment and growth. Animals alone are provided with organs of digestion, all of them from man down to the polypus have an alimentary cavity variously shaped & lined. The evolution & digestion of aliments may therefore be taken as the

as the essential characteristic of the animal kind.

1. Mastication. In man when food is taken into the mouth it undergoes a mechanical operation or mastication, by means of the lips, jaws and teeth, with which these are furnished. The muscles by which they are moved, and those that form the parietes of the mouth — It then passes through the oesophagus into the stomach by the process of Deglutition — The stomach being the common receptacle of the alimentary canal, it is here that the food undergoes the process of Digestion — principally — by mixing with the gastric juice, it forms chyme — In this state it passes through the pylorus into the duodenum where by mixing with bile and pancreatic juice it is here separated into two parts the one excrementitious, the other chylous or nutritious — The chyle is taken up by the absorbents and goes to nourish the body, and the fecal is carried along the alimentary canal, and ejected — The aliment is dissolved by the gastric juice, and by the assistance of bile and pancreatic juice — chyle is formed, which has al-

ways the same nature and proportion, whatever may be the kind of food received into the stomach— But there is a difference in food as it respects the quantity of chyle it produces— Animal food affords more nutritious particles than vegitables— Animal producing 3 parts chyle, & like vegitable only 40 in a hundred—

2. The chyle is now taken up by the lacteals & conveyed into the thoracic duct through the mesentery, which is called the absorption of chyle— 3. Through the chylopoetic vessels it is carried to the heart where it enters and empties into the left subclavian vein, where it is changed into blood— This is called Sanguification— This process whenever it is effected, is analagous to digestion— 4. Circulation. The fluids are now sent to every part of the body, and so much as is necessary for the nourishment of the body is distributed: the remainder is brought back through the veins to the lungs— where it is exposed to the atmospheric air by respiration, undergoes a change in its properties & colour, becomes arterial blood, & fit for nutrition and is again distributed over the system—

This change is effected by the oxygen of the air uniting with the carbon of the blood, forming carbonic acid, which is thrown out in expiration. This leaves the blood in a proper state for circulation — 2. Respiration. It is supposed that animal heat is derived from respiration as the blood, by experiment, has been proved to be two degrees warmer in the arteries than veins or after it has been exposed to the atmospheric air from the oxygen it obtains from the air —

But this theory admits of much speculation. It is well known that animal bodies possess the power of generating heat, and that they preserve the same temperature — While inorganic matter always preserves the temperature of the surrounding substances —

Sect 5.th 2.d Formation. This may be considered as the agency of the organic functions — The aliment altered in its qualities by a series of decompositions, assimilated and rendered similar to the substance of the being it is to nourish, is applied to the organs of the whole work it is to repair, from the blood

The instrument of this function are the extreme ves-
sels or capillary system — There are undoubtedly
smaller vessels concerned in the function of nutri-
tion than we can discover, by which the function
of the body are carried on — We find these vessels
of nutrition in the stomach, and absorbents

The heart and arteries have been considered as
mere mechanical tubes — But as one artery may
become more distended than another, this doctrine
must be incorrect — The blood however is carried thro
these vessels to the capillaries, where it is distribu-
ted to every part of the body — The blood moves
in different directions in these vessels, and does
not always bear the same proportion to the art-
eries — The fullness of the heart and arteries has
some influence upon the capillaries — But they are
much more dependant upon the capillaries for their
fullness — The capillaries have a peculiar oppo-
sency by which they admit such parts of the blood
as suits them and will become nourishing to the body
part it is to nourish — The same matter is not
taken up by every part — each part selects such parts

of the blood as is most congenial to its nature. Thus the fibrin is absorbed to form fibres & hence we see those fibrating vessels have a peculiar aptitude or irritability — as for example in the two passages in the larynx — the epiglottis closes when any thing to excite pain is to come in contact with it — The fibrin of the blood being the same with the fibres, the fluids must undergo some change — Consequently secretion and excretion must take place in these vessels — This change which is effected is analogous to digestion — 1. By exhalation 2. secretion these on alkaline. 3. absorption which aids in taking away those things which are redundant — The absorbents take up the secreted fluids. — 3d. Excretion a. by peristaltic motion b. Lymphatic absorption c. Perspiration d. Mesenary vascular — 1 Those which had one passage 2. Those which have more passages than one — 1 The alimentary canal, here the matter is not discharged alone; but there is mixed with it bile, mucous &c — which occasions the stools in of the purulent matter in diarrhea &c —

The blood is a heterogeneous substance — The
old matter is excreted — These excretions are carried
to those parts which have external openings —
This process is performed by the extreme vessels
as have the secretions — These excretory organs
are capable of performing each their office, as
we may observe in the urinary secretion and
skin — For instance in case of strangury, the
excretion is caused on by the emunctories of the
skin, and vice versa —

Lect. 6th This lecture was wholly devoted
to the books which are required and recom-
mended by the Massachusetts Medical Soci-
ety for the student to read & study —
which may be seen in the 2 no. of vol. of the
Monthly
Medical Journal —

Lect. 7th also upon the same subject —

Lect. 8th 11th Animal functions — First class
second order — Animal functions occur only in
animals, but all of them are not to be found in every
species of animals — Genera 1st Sensation — This is pecu-
liar to all animals as a smell, &c Digestion, &c. Morning
& Fasting — Feeding, including Lunch — These constitute

The external senses. 2.d Exercise of intellectual powers
as of a. Perception, b. Consciousness c. Attention
d. Memory e. Reflection f. Imagination g. Judg-
ment. h. Volition, &c. These are not all peculiar
to every species — 3.d Exercise of bodily organs under
the various control of the mind. a Locomotion b Voice.

1.st Sensation. The external functions are
called into action by the influence of external
objects acting upon the senses. — Sensibility varies
in its acuteness, or degree in different organs, —
one is more sensible to external objects than another
In different persons also we may observe a difference

If we notice the eye or the ear — we perceive the
eye has certain organs peculiar to itself by which
as the action, by which it receives the rays of
light, and so arranges them as to occasion seeing.

The ear also so modifies the air as to produce
sound or hearing — There is one kind of sensation
however, viz. that of feeling, which every part of
the body is capable of enjoying, in a certain degree
Some parts of the body possess a much larger
of this sense than others — The fingers possess this
function to the greatest perfection — Hence we always

make use of them in the exercise of this function —
Observe the contrast in the ends of the fingers and
the nose — It is not by an organ alone that one is able
to discriminate taste accurately; but by a certain
peculiar organization — Thus it is by a peculiar
formation of the ear, which is seen in Anatomy,
that it means the air, and causes hearing —
2.dly Of intellectual powers — &c, which have
been mentioned —
3.dly The exercise of bodily organs under the
obvious control of the mind — Viz or Locomotion
and Voice — In locomotion the part or the
muscles is constituting that part possess the pow-
er of moving in themselves — although they are
under the immediate influence of the mind, which
operates upon them through the intervention of the
nerves — The voice is performed by the organs of the
mouth, so constructed as to modify the air —
Comparison of the animal and organic, organs &
functions — The animal functions are double and
organic single — Consequently the organs that perform
the animal functions are double, and divided by a median
line — on which depends the Symmetry and Harmony

of the body— These two organs generally correspond to each other— as we may observe in the eyes, ears, the heart, kidnies &c— But we find exceptions to this rule, as there are many which do not perfectly agree in each respect— We frequently observe a difference in the eyes of the same person, the strength of one being greater than the other, causes the weaker one to turn aside and becomes squint; while the strong eye looks straight forwards at an object, the other is turned in towards the nose to receive those rays of light which fall direct upon it.— We may likewise observe a difference in the ears of the same person, for which reason he is not able to distinguish nice sounds in music— while one whose ears harmonize and who is said to have an ear for music, will discriminate the least discord in any note— the other is not able to distinguish one sound from another—

The sides of the face also are not always perfectly similar, owing principally to the sides of the nose not always corresponding, being sometimes more

attached to one side than the other — The limbs also do not always correspond as to the size and strength, an instance of which was mentioned in which the small clerks did not suit both legs

This difference has been attributed to the exercise of the right leg more than the left — this being the one usually the largest — This cannot be correct as they generally correspond and harmonize in all their actions and movements

The brain is thought sometimes not to be perfectly ballanced — In consequence of which men of them met with those who have no discretion of character, but are always wandering and undecided in most all pursuits or object — This is attributed to the unequal and position of the brain, in consequence of which the person is not able to bring both sides to ballance at the same time —

The animal functions exist in two states — sleep and watching — The organic functions do not sleep but are always ready to perform their functions —

The excitability in the animal functions is soon exhausted, therefore requires sleep or rest in

order to accumulate a sufficient quantity to carry on its functions properly. Consequently the animal functions are not always ready for action — Sleep is perfect and total or imperfect and partial — Perfect when all the organs are at rest — Imperfect and partial when but part of them are asleep — We many times see persons perform locomotive functions while most of their organs are asleep, a person may rise from his bed dress himself go to his early business and not be conscious of it upon waking — This may be termed partial sleep — The animal functions are subject to education and under the influence of habit — It is a great measure from education, that the ears of a person who has made that his profession, is able to distinguish the least jar or discord in music, while a person who has attended but little will not be able to distinguish. It is by the influence of habit also the painter is able to see on a piece of painting very readily, while a novice would not — By the same the apothecary will distinguish his many

sense which is from education and habit — so also with the sense of touch — else from the loss of one the others become more sensible — which arises from the greater use we make of the remaining senses — The organic functions differ in these respects — they are single while the animal are double

In the organic functions there is a dependance on different organs to perform a certain function — This we may observe in the reception of food and its digestion — The aliment is received into the mouth where it is masticated — is then conveyed through the esophagus into the stomach, where it is digested — The chyle is afterwards taken up by the absorbents, carried to the thoracic duct, through which it passes and is emptied into the blood vessels — by which it is distributed to the nourishment of every part of the body — Therefore we see that aliment must continually be supplyed or these functions will cease — The animal & functions are so thus dependant on each other — The O. G. are liable to sympathy — when one function, for instance the stomach is affected, the others all sympathize —

These functions are not under the control of the mind as are the animal— Notwithstanding the organic functions are not subject to sleep themselves, they are more or less influenced by the sleep of the animal— They then go on more deliberately, and are performed more perfectly—

Some of them are constant the action occasioned the organic may be said not to be influenced by habit; but this is not invariably the case with all of them— For we find the fecal evacuations may be regulated by habit in such a manner as that we shall have a discharge at the same hour of each day.—— By the animal functions external relations are maintained and operations of the mind performed— By organic functions foreign matter is converted into substances suited to the nourishment of the body— and the internal economy of the system is maintained

The greater number of diseases arise in consequence of some derangement of some of the organic functions— On them depends the maintenance of life and health— The system not independent of the

The mind takes cognizance of some of the organic systems and controls some operations necessary to life— From the cognizance it takes results of the appetites— The appetites consist in wants or desires arising from certain states of the organic viscera— Though the mind does not destroy nor constitute these states it has desires produced by them— These appetites constitute the prompts excited, and the source of very many of our actions— The mind also has something similar in this respect— desire of knowledge, of action and of affection— The mind controls the evacuations except in extreme cases— The mind and body influence each other by sympathy— this to be noticed hereafter.

Lect. 9th— Second class. Three orders— those of male, those of female, and those common to both— I. Those of the male are a secretion of seminal fluids by organs of shape II. Those of the female are a menstruation b. conception c. gestation d. parturition e. lactation— III. Those common to both. Copulation— The I. & II genera of these functions may be considered as analogous to organic functions— not being under the in-

fluence of the mind. — The G.I. may be said to be under the influence of the will, for they are performed by the consent of the mind. — These functions also sympathize with the minor or the minor with them — for by ejaculation though there is a much greater secretion of seminal fluid, as well as ejection — there is also a sympathy between these organs and the whole system — which we observe at the age of puberty, when a universal change is effected in the system — The voice is altered in the male. Some certain evacuations are established in the female — If these evacuations are ~~established~~ interrupted the system sympathizes — In the male so great is the sympathy between these organs and the system that the voice does not change if the testicles are removed — Hence there are people that suffer castration in order to preserve their voices and become good singers — During conception there is a very remarkable sympathy in the system — Most observable in the mammae — after delivery there is a secretion of milk established which continues while the mother cares to nurse the child —

Relation of functions. — Two kinds of relations — First, mechanical, depending on the connection of organs, on other motions such as are obvious directly or indirectly, and on the transmission of matter — The performance of one of these functions effects the other, as one part of pendulum on another — Some pretend that the relation between the stomach and the brain is owing to a nervous effusion arising from the stomach to the brain — but we believe this is not correct

Second — Vital, maintained by vital power, and not depending on any known motion or transmission of matter — There is two kinds of vital relations — a to wit the connexion between the parts related is obvious, and the influence is always maintained in a sound state of the organs — Maintained by sensibility and the power of transmitting volitions —

This relation is very obvious in between the brain and the retina, when an image is painted on the retina, an impression is carried to, made upon the brain — When any of our senses are called into action, an impression is made upon the brain

How is this communication effected? This must be carried on by the means of some vital principles and not by the transmission of any matter from the organ to the bra

The relation of distant parts, or their dependence upon each other, is maintained by sensibility, or the power of transmitting volition — 6. Where the relation is not obvious and the influence has constant and uniform. The relation is maintained by sympathy — The sympath of the whole system with parts is most obvious where the difficulty is the greatest; and this whether the difficulty arises from the magnitude of the operation to be performed, or from inability to perform it with ease — If one part of the system is diseased, the whole will sympathyze with that part; or a part will sympathyze with the whole — This is not the case with every part of the body at the same time. — There are several different systems that compose the body, as the nervous, absorbent, circulating &c We are very apt to think the whole body distant when but one of these systems are effected —

When parts are diseased the system sympathizes but does not when in health — Persons differ with regard to sympathy — People of feeble habit sympathize much more readily than those of a robust healthy constitution — The nervous system of the feeble being more readily affected by any cause or affection — This differs from debility —

Of Tone or Strength. Organs are not at all times equally prepared for performing their functions — At sometimes they are more, at others less readily excited — In most healthy states, the muscles maintain a certain degree contraction, the capillaries a certain degree of fullness, and the organs a certain degree of turgescence — In these cases the body is supposed to be in tone, and is compared to a musical chords, when sufficiently tense to produce by vibration their appropriate tone —

The varying states of the organs arise immediately from different degrees and states of power — This may be measured by its effects. Two bodies may be in health, & yet differ much in their strength, therefore it is said that all the powers of the body increase and decrease together —

This cannot be determined by the state of the pulse - but goes to prove that this is not the case, as it may be increased in one part and not in the whole — These effects to be regarded in three respects viz — as to regularity perfection, and duration — The deficiency of strength, or debility actually gives rise to many embarrassments in the living body, but has been charged with more evils than belong to it -

When the muscles are in a proper state of contraction and ready to move whenever called by the will into action they may be said to be in a proper tone - When the animal body has a proper degree of fullness it is in tone - when fulness ~~and~~ but softness, there is a want of tone -

The varying state of the organs arises immediately from different degrees & states of power - Hence may judge of the strength of the person, by the strength of the digestive powers - Thus one person will digest food which another cannot - his stomach is then in tone - These powers may again be known by the length of time different persons can work upon the same food

Thus one may labour 10 another 12 another 15 —
The latter therefore may be said to have the
greatest strength, and to be in love —
But a system not able to perform these functions
to that length of time, is feble which is an evi-
dence of weakness and debility — which has been
the cause of many diseases — The functions may
be in a sound state although week & debilita-
-ted, and not able to perform to the extent of
another in perfect love — Debility may be con-
sidered as direct & indirect — When it arises
from want of food it may be called direct
when from excess or intemperance, indirect —

Sect. 10th V. Varieties among the hu-
man Species. — These may be ranked under
four heads. — I. Sex. II. Age. III. Race. IV. constitu-
tion or temperament. — I. Sex. The differences
in structure and functions — these are great & gener-
ally well known — Properties alike in kind but dif-
ferent in degree; as in mobility, irritability, sensibility
& sympathy — Females in general possess more
sensibility than males — There is likewise a great
er readiness to sympathetic influence — The labours

of one part more readily effects the whole system, as in the organs of generation —
II. Age. — Of infancy and childhood, youth, manhood, old age, Duration of life — III, There is a difference in the races of men although of the same species — Hereditary differences. The offspring of two will resemble each other although not perfectly — The offspring of the horse and the ass partakes of the nature & resembles them both — So great is the tendency of children to resemble their parents that they even inherit many diseases from them as the gout, scrofula &c. which are hereditary diseases — Nations also preserve a difference such as to show unequivocal peculiarities as to race — This is a subject of natural history — The source not easily elicidated — There is a gradation of man — European, Asiatic and African in which there are differences strongly marked —
This difference may be observed in those of the head, the African forming a middle place between the European and the monkey — There being about the same difference between the European &

African, as the African & monkey in the face
at line or slope of the forehead — The same dif-
ference exists also in the forearm, the African
being longer than the European, in the same
proportion that the monkey is than the African
in proportion to the body — There are other
peculiarities also, as in the shape of the foot &c

They differ also in mental endowments, the
African being much inferior in intellect to
the European — This by some has been attributed
to education — It is not all owing to education,
for as to their powers of mind, or capacity for
receiving an education, they fall far below the
European, as a people —

IV Constitution or Temperaments. — There is great
diversity among the productions of nature, in
the vegetable as well as the animal kingdom —
Even in the grass we do not find two spires
alike — So also among all the nations & races
of men upon the earth we do not find any
two that in every respect resemble each other —
The resemblance is more or less perfect — Some

resembling each other much more than others — There is a general resemblance in in nations, or some peculiar marks by which we determine a person to be of one nation — They are therefore thrown into groups — as Spaniards, Germans &c — Their general peculiarities displayed by caricaturas —

The antients divided them into temperaments which they called Sanguine, Choleric, melancholic & phlegmatic, distinguished by the different fluids — The means founded in them the distinction in observation — When a physician patient is called to a patient it is necessary that he should determine the temperament of the & properties of the body in order to fix upon a proper quantity & quality of medicine — The difference is most obvious in the organs and functions, if these are perfect the of the system will be in a healthy one — If the powers without disorder, we find the organs also deranged — The withered marks however do not all correspond —

1.st The sanguine temperament is marked with succulent appearance in the countenance, the hair red, chest full or large, then the abdomen a certain rotundity of form as in females, pulse full & frequent, large share of irritability and sensibility — not permanent: but easily & largely influenced upon them more readily, & symptoms appear favourable — & then they as readily relapse again into the same state — 2.d Choleric differs in having the hair darker, less softness in the skin — The abdomen as well as chest large about the loins, somewhat irritable but not so much so as the sanguine — bile stronger and effects the whole body as in putrefaction, easily angry. — 3.d The melancholic differs from both the former. Their complection is darker there is a shortness & fulness & dryness of skin, eye brows long & bushy & sometimes meet, the body small possesses but little irritability & sensibility, passions not easily excited, but when excited they are more permanent & lasting —

They act without any intermediate agent, or there is no intermediate agent between the object & the last effect produced, the power being suspended — Others powers as lightning effect the vital principle & instantly kill — Persons who die in this manner have their limbs flaccid, the muscles do not contract, & the blood remains fluid — By this kind of death animals which are hunted, die in the chase, their flesh also is more tender & sooner turns to putrefaction, than the flesh of those which die the common way, in consequence of the powers of life being at once destroyed — How shall we know their effects upon the body? Shall we examine ~~it~~ their weight, colour, or chymical effects? By neither of these can we distinguish them precisely, their effects are only known by the test of experiment, whether it be morbific or medicinal —

Substances applyed, operate either upon the irritability or sensibility — Stimulants act on the irritability, their effects always local but those of some more readily propagated by sympathy than others — They act on the whole sys-

tion in succession indirectly or on the whole system.
The immediate effects are often upon the system are always local — Sympathy either general or local — The effects propagated by mechanical, as well as by vital relations. — The agents acting on the sensibility — These are various — External things acting upon the organs, change the functions of certain organs — These functions are not changed by by agents acting upon the vital parts, or irritability

VII. Death, or the termination of life is not always in the same mode — In order to understand death, it is necessary to know what is necessary to the maintenance of life — The order for this two conditions are necessary — One that the body possess certain principles of vitality — This alone induces exceptions as to consider eggs, seeds, & some dormant animals as possessed of vital principle. Certain animal & insects may lay dormant for years & then be brought to life by moisture & other agent In these life may be said to be dormant — The other condition necessary to the maintenance of the powers of life, is that there be certain vital functions going on in — Those of circulation, respiration or

These may exist for a time & life may be restored, as in case of poison apparently dead &c. But when these functions cease entirely life has departed as for an common obstruction &c — But in this case the body retains some of its vital properties, those especially of organic life The irritability continues for a time much upon the vital principle — In order to support life it is necessary that the capillaries vessels should be full & distended with arterial blood — In order for this, that respiration should be kept up — If this cease the heart will send forth black blood to the extremities — the capillaries will cease to be distended & death will ensue — Death may be distinguished by expiration & absolute dead

Expiration may exist from failure 1.st of the respiratory organs. 2.d In the encephalon 3.d In the heart — In what may does life depend on the brain: not from the transmission of any matter — Death occurs in consequence of external causes, which destroy the properties of vitality This may be partial or general — The effect may be produced by a foreign substance,

sufficient to destroy life in the part to which it is applied, & by sympathy in the whole system. Absolute death does not take place until decomposition has commenced in the body. When life is destroyed by disease death acts gradually upon the body, destroying the organs in succession, until it reaches the heart; then the body dies. In death from common diseases, the pulmonary cells in the air passages when being not sufficient irritation or strength to throw it off, it obstructs the breath, consequently there is not sufficient to change the blood the heart ceases in its force - throws black blood to the cells, & the body dies -

Lect. 12th Pathology - This branch of medical science relates to the doctrine of diseases - What do we understand by disease? It is known only by contrast with health - We must therefore explain health before we can understand disease - What is health? it has its limits - It is when we are free from pain & suffering, the composition & structure of the body is perfect, the office &c must be fulfilled at its usual time, & all the organs & circulation

must be in health — Disease is a deviation from all these — The having health disease is indicated by symptoms — We the disease have the changes are seen in change of organization, in unusual distribution of the fluids, in unusual densities of them — in change of colour in the parts, & in the presence of substances not usually found in the body —

Differences between disease & disorder — The disease a change is effected in the structure of the part — The disorder the organ may be perfect & the function disordered in consequence of a disease of some other part — The heart for example may be sound, but in consequence of a disease of the nerves of the organ, the its function will be disordered, as may be perceived by the pulse — During life the we recognize disease by symptoms — distinguishing in respect to these — Symptoms are such as the physician may ascertain from his own observation, 2. such as he can learn only from the report of the patient — 1. Under this division we have 1. such as are manifested in the patient & are ascertained by inspection & examination; & 2. such

be [illegible]

is are manifested in the evacuations,— 1. Those of figure, colour, motion, position, temperature, dryness & moisture of the surface, which can be examined— pulse— respiration— voice— cough, sneezing, yawning— hiccough, & those ascertained by touch, pressure, percussion— 1st Figure, every thing that goes to make up his expression— as fullness & tension of the face or emptiness also may be observed &c. 2d Position likewise is very important to be observed by the physician if for instance you find your patient walking, you may make up your mind that your case is negatively convalescent,— but if you find him bent forward with both hands upon his sides, you may conclude he has the colic, or some other violent pain— The strength of the patient may also be ascertained by the position— much however is owing to the passion, that he may have been excited or not— 3d Colour, also of the body may be observed— as the whiteness, & yellowness of the skin & tunica conjunctiva, of the eye, in fevers, pallor countenances, livid appearance under the eye, paleness of the lips— 4th Motion owing to disease the readiness to motion in the body is very much impaired,— The muscles also become more & insensible,—

5.th Temperature must be noticed. That of the lower extremities & trunk & the time of they remain in a high or low temperature. The report of the patient & your own observations do not always agree. The patient may complain of cold, when by the thermometer his temperature is much above the natural heat. 6.th Dryness & moisture of the skin &c. & certain pulsations may be observed, as may be seen by the temperament to which he belongs. The degree of the disease may be determined by the degree of moisture or dryness upon the surface of the body, the appearance of the eyes, nose & mouth; but principally from that of the tongue. We find the tongue usually moist & that from its own secretion. By a change in the secretions & appearance of this organ, or in its secretions are indicated all the different changes which appear in the various secretions in the circulation.

Thus by the coating upon the upper surface of the tongue, we discover the different stages of the disease & its favourable or unfavourable crisis. This coating is gradual & removed by degrees; first the edges then the middle, afterwards the root of the tongue.

Next we have to consider the circulation, which is of the greatest importance, much indeed may be learned from the state of the pulse — The wrist is the usual place to examine it although we sometimes examine it in the temple, the radial artery sometimes divides & passes on the upper side of the wrist, in which case we find but a very small pulse in the usual place — The frequency of the pulse depends much on the age, sex & disease of the patient. The natural standard for a man in health, is 75 beats in a minute — In adults when the pulse rises to 80, it indicates disease; some but serious at 100 & if they continue at or about that in chronic diseases it is very serious — In some people it sinks in disease & rises again as health returns — In some instances its natural standard is as low as 50 or 60 — In females it is naturally more frequent than in males, & in children still more so — As in them the pulse may rise to 120 without any disease but even health; but if it that number it indicates some disease — The frequency of the pulse is influenced by the time of disease — In acute it may rise to 120 with inflammatory fevers at 140 — Influenced by the general

or local seduction of the disease — For instance if it be in the heart or brain & the pulse decrease in frequency, it indicates danger — But in disease in general, when the pulse diminish, it is an indication of diseased disease —

Sect. 13th We come now to speak of the fullness which is opposed to smallness — An unusual fullness is not a sure proof of an unusual quantity of blood — It may rather be attributed to a unequal distribution — There may be great fullness of the whole circulation in the arteries, veins & capillaries & not discover greater quantity than usual, being unequal in its distribution — Neither is smallness a sure indication of deficiency of blood — as the pulse may be small & still a plethoric habit prevail — The pulse will rise after bleeding in many complaint diseases; but in hectic complaints there may be a real want of blood —

Next is hardness which is opposed to softness Hardness is a common indication of a buffy coat; & not of an inflammatory complaint — This buffy coat often in consequence of the coagulation of

the blood, or the seperation of the crassamentum from the serum — In this case the seperation is longer in taking place & therefore gives time for a more perfect deposition of the fibrin, consequently renders the buff more conspicuous — This is influenced by various other causes, as the state of the coats, the quickness with which the blood is drawn, & the size & shape of the vessel into which it is received — The hard pulse has the feel of a stick rising under the finger — a small pulse has the same feeling which is called a wiry pulse — as in Phthisis pulmonalis, inflamation &c

Softness is opposed to hardness & is in consequence of a peculiar softness of the coats of the blood vessels — It is characteristic of a particular inflamation of the lungs pleura &c — Strength & weakness — If the heart is excited & throws the blood with force it may be said to be strong — A weak pulse is characterized by a feeble & languid motion of the heart — A strong pulse is not a sure indication of a strong constitution, as we frequently find feeble persons with strong pulse & vice versa — Weak pulse is not always found in the most feeble people although this is usually the case yet it is not invariable

Notwithstanding the pulse is usually regular, it occasionally intermits, which should be observed, although it is not of the greatest importance — It may be observed that it is common for the pulse of some aged people to intermit while in health & to become regular in disease — It may arise from some organic affection of the heart or arteries, when it does arise from disease it is of some importance — If it arise from habit or from old age — it is a mark of disease — The pulse being sometimes full, & then succeeded by a very small one, constitutes an irregular pulse — Upon this subject Bichat & Salvaun may be read, who pretended to be able to be able to foretell the termination or issue of a disease by the pulse — The pulse varies according as the organs of particular viscera are affected of the abdomen or thorax — A different mode various distinctions, as Dr. Rush directs but they appear somewhat fanciful — The pulse differs in the different viscera above & below the diaphragm — A pulsating tumor

has also been distinguished by them, by which they would prognosticate the favourable or unfavourable crisis of the disease, & at the commencement disease will follow: as the discharge from the nose catamenia &c. The frequency of the pulse may be always be distinguished with ease, but two This should always be attended to. Great advantages are also to be derived from a frequent counting the pulse. There is a difference between a quick & a frequent pulse. In a quick pulse the diastole is performed in a short time & a longer diastole. The frequent pulse they follow each other in quick succession. As the heart & arteries of aged people sometimes become ossified & accasion an essential difference in the appearance of the pulse. it is necessary they should be frequently examined. The pulse sometimes ceases to be discovered by the radial artery: respecting just before it comes to the wrist, & going above as well as below the wrist. Next we come to speak of the symptoms arising from diseases affecting the organs of respiration. Respiration is performed by the muscles of the thorax, by the ribs &

muscles; when these are injured, respiration is affected — Likewise by apoplexy & sympathetically, as in diseases of the mouth & throat &c

Lect 14th The causes affecting respiration should be particularly attended to. Difficult respiration arises from various causes — It will be disturbed in inflamation of the thorax pleura & other tissues of the thorax — This is also the case with the abdomen & its parietes, likewise the diaphragm — In order to determine whether the disease is above or below the diaphragm attention should be had to particular phenomena — If below it may be ascertained by pressing the hand upon the sternum, provided he depend upon the dilatation of the thorax for respiration he will be disturbed & uneasy — And on the other hand if the disease be in the thorax & he depend upon the diaphragm & abdomen for respiration — pressure be made upon the abdomen he will feel pain on inspiration.

When both the chest & abdomen are diseased respiration must depend upon the voluntary muscles

In this case the air passages become diseased, the trachia narrowed — He therefore tires his lungs &

his chair or whatever is nearhim; then exerts his whole chest & abdomen, both voluntary & involuntary muscles to get his breath — When there is an accumulation of mucous in the bronchia there is a peculiar noise in respiration — Likewise if the bronchia be soft & flabby & smooth & dry, a noise like rattling is heard —

There is sometimes also an inflammation in the mucous membrane of the air passages which occasions great difficulty of breathing — All these symptoms may occur & still the difficulty be in the thorax, as in hydrothorax — In hydrothorax the water necessarily presses the lungs & sometimes compresses the lungs occasions great difficulty in respiration & a sense of suffocation — Respiration is often affected from sympathy. ~~generally~~ For instance when a remote part is diseased, respiration is disturbed arising from sympathy, which affects through the medium of the nerves — affections of the ~~nerves~~ brain also affect the breathing in proportion as the medulla oblongata is compressed —

Voice. — The strength of the voice depends much upon the state of respiration the larynx, nose &c. Also when the system is affected, whether idiopathically

or symptomatically— A strong or a weak voice does not depend always upon the state of the lungs A person may have a low & weak voice & strong lungs & vice versa— Yet the voice is changed & becomes weak in many diseases as has been observed

Cough— What makes a cough? When any foreign substance is lodged in the trachea, larynx or any of the air passages, cough is produced from irritation of the membrane, which removes the substance from the part— When a cough arises from irritation, it does not always prove that there is any foreign substance lodged in the air passages as it may arise from sympathy with some remote part— In diseases of the contents of the abdomen as of the stomach &c it may arise from sympathy also in diseases of the uterus in females— Therefore when you meet with a cough first ascertain its cause & appearances— When there is no matter expectorated, but a dry cough, it is not of the most dangerous nature; but if a laugh mucous is discharged it requires some attention— This kind of expectorated matter is generally transparent, like a laugh, not easily mingled in water

When we find a purulent opake mucous thrown out of a greenish yellow colour, there is some deep seated disease of a very serious nature — When the patient is afflicted with a dry hack, we may expect some formidable disease is pending — The largest & loudest cough is not always the most serious — We frequently meet with a large & broad chest in such persons when coughing is excited, they make a noise as if the heavens & earth were about to meet, & still the cough be very harmless — While on the other hand, if the chest be small & contracted, a very small cough may be very troublesome & the most serious in its consequences — Sneezing is generally occasioned by a fullness of the head, & a relaxation on the schneiderian membrane, which is communicated to the diaphragm through the medium of the nerves — The operation of sneezing has a tendency to clear the head, & brighten the ideas — Gaping & Yawning — promotes circulation — Hiccough when arising in consequence of disease, is a very unfavourable symptom, therefore requires some attention —

Touch, Percussion & Compression — It is advisable to examine the patient while in bed & observe

the difference which is usually apparent in different persons — The consequence of a peculiar facility, we find things in one person & not in another — It is by the sense of feeling that we ascertain the state of disease, & discover many of the abdominal, as well as others, by placing the hand upon one side & tapping with the other —

By percussion we ascertain many important diseases of the thorax — If we strike the thorax when in health with the ends of the fingers, it will give us a hollow sound, like that of an empty cask or which contains not any thing except air — In case of hydrothorax, we have a dead sound, as of a cask filled with water — If we strike over the region of the heart, we have a sound as if the thorax was filled with flesh —

Sect. 15th 2d. Evacuations — 1st. Those common in health & disease. 2d. Those peculiar to disease. The evacuations in disease are not the same as in health, as we have some which we cannot have in health

As the unhealthy secretions from scrofulous & ulcerated sores — From the Kidneys in diabetes &c. 2d. From the Skin, Lungs, Mouth, urinary Kidneys

Inhistines. lushes &c. The appearance & variations
of these evacuations must be particularly attended
too— 1st— Those of the Skin— In health there is
always an insensible perspiration from the skin, &
upon the continuance of this depends the health of
of the patient— This keeps the skin soft & supple,
but it varies in people very much according to their
different temperaments— When in health the
skin is moist & supple when diseased the perspira-
tion varies in quantity & quality, & any change
in this evacuation is an evidence of some alteration
in the disease— We must observe whether the quantity
be increased, & whether its quality be the same as in
health— When it is increased or diminished— however
it continues to vary— Observe the quality, whether it
be adhesive— & whether there be an increase or di-
minished heat— The variations in sleep & watching.
2d— From the lungs, whether cough be increased
or diminished, but this cannot be ascertained with
accuracy, without some difficulty— 3d— Those from
the mouth. Observe whether the saliva be increased
in quality or quantity— 4th— From the kidneys, more
is to be observed with regard to the urine than of

either of the former, except the skin, & perhaps more important than even that.— We cannot fix upon the precise quantity voided of urine, but it is generally from 40 to 50 oz. but varies in different persons & diseases & in the same disease— Varies in health deposites a laterritious, mucous like sediment— In disease the quantity may be increased, likewise changes in its quality whether of a local or general nature.— When we find a large deposition red sediment of uric acid it is an unfavourable symptom in acute diseases, but not to be dreaded in chronic complaints.— When there is a larger quantity than usual of urine secreted & discharged the saline substances are so much diluted that it passes off colourless— We frequently find two acids the phosphoric & uric— The latter being heavier sinks to the bottom while the former is deposited on the sides of the vessel

The various changes & appearances of the urine must daily be observed— 5th. The Alvine,— Great attention should be paid to the evacuations— ascertain what has been their usual quantity & whether they are now sufficient & whether

the bowels are evacuated, as there may be a mucous & bilious discharge & nothing of the fecal matter - The alvine evacuations should be uniform & regular in their occurrence — A costive habit or any retention of the feces is very injurious to the system & deranges its functions, if they are habitual — Many persons will go several days without a regular discharge, & then evacuate an immense quantity which is very injurious —

The quality also should be observed, which should be either of a brown or yellow colour — Indigestible food & colouring matter change its appearance, & sometimes occasion too great a secretion from the mucous membrane by the irritation of ~~indigestible~~ it produces feces, or its fluidity is too great quantity.

Any substance which produces an irritation, necessarily increases the secretion; for instance if a foreign substance be lodged in the eye, it occasions a copious secretion from the membrane of the lid & gen- followed by inflamation frequently — So likewise with the mucous membrane of the nose & mouth —

Thus foreign indigestible substances, produce a great secretion of bile from the superior portion, less from inferior

but of it be mucous more frequent— 3.dly from the bowels— This discretion not important in the male but the periodical occasions from the female must be had in view in all our attendance upon them— We must ascertain whether they have been regular in their occurrence & whether the usual quantity has been voided. which, in health. is generally about 4 oz. &c. they may compare them well those in health.— The menstrual discharge does not coagulate like common blood— 2.dly Close pressure to discover— Distinct those from the mucous membrane The mucous membrane in a healthy state does not secrete a sufficient quantity to be discharged— When any irritating substance is applyed to the mucous ~~membrane~~ glands it occasions an increased secretion— When this is incurred without any acrid matter being applyed, it indicates a debilitated state of the system— We must observe whether it be transparent or opake if the mucous be transparent & adhesive it is considered healthy, but if opake & purulent easily mixible in water &c. it is unhealthy— Next that from the blood vessels— These when the

occur in disease are sometimes salutary & form a crisis to the disease — 3dly Those from ulcerated surfaces, when these are profuse & healthy, they are favourable — We must consider whether these discharges are natural or artificial, & whether they are morbid or healthy — If the former, they require particular attention — In the case of ulcerated surfaces if they dry immediately, indicates debility &

Sect. 15th — II. Under this head we find those symptoms which are learned from the patient.

They are those which regard sensation, appetite, intellectual powers, moral affections, motion & passion, when awake & when asleep — 1st Sensation We sometimes meet with difficulty, in ascertaining the true state of the disease, from the patient, owing to his want of terms or language to express himself, or the sensations which he feels — by which means the physician may be deceived with regard to its nature — We can judge many by the outward symptoms, when the patient may be ignorant himself of the state of his disease Thus when we see the patient express a [illegible]

of anxiety &c are into an affection of the stomach — If you wish to ascertain the nature of a disease without making a minute enquiry; mark such as will enable you to judge of the real disease, without coming direct upon the complaint — Pain is the most prominent symptom, by which we can judge of diseases — Likewise the sensation of ——— arising from sympathy of one part with another, as the loins with the urethrae come in disease of the viscera, & in floor albus which is chiefly felt in the loins by sympathy of that part with the uterus — Difference between pain & aching — pain has a sensation of tearing &c — The sensation of color & heat must also be attended to — although it is not a sure criterion by which to judge, because the sensation conveyed to us & that expressed by the patient do not always correspond — We cannot always ascertain the degree of pain by the expression of the patient, for by judging in this way we should be led into error. As we should conclude one person affected with it must more pain & less in reality it was not so great as in an

that made little or no complaint of all -
Hence we see the importance of being acquainted
with usual disposition of the patient & their
manner of expression & the great or little acute
when in pain, in order to form correct conclu
sions. - The appetite also must be taken into
consideration. The appetite fails in disease &
its return indicates returning health. The
appetite sometimes returns sooner than it can
be gratified, as the stomach remains too
weak to digest the food that the appetite
would crave - We next mention the intellec
tual powers, They may be considered as they
relate to the mind & body. They may be influ
enced by physical as well as moral causes.
and there many times of every slight return
for instance effects arising from food received
into the stomach of difficult digestion.
It throws the mind into a state of dullness,
apathy & melancholy, as well as on all the animal
powers - An unusual constipation of the bowels
between very perceptibly operates on the mind -
producing a great degree of irritability & uneasiness

Then usual — We should observe the appearances during sleep as well as while awake. If in this state the animal powers are at rest but not perfectly so, as the patient is moving very restless & uneasy during sleep, which renders it imperfect. We must ascertain whether this disturbed sleep arises from causes existing in the mind or body. If sometimes arises from food being taken into the stomach just before going to sleep. When restless appearances sometimes arise from organic affection of the heart, which is necessary to be determined. It is likewise important that we should be acquainted with the series & order of the symptoms occurring, as these serve to explain the appearances of them. If we should wish to know what gives rise to these symptoms, we must in the next place consider the Causes of Disease. These should be sought for, although they are not always to be ascertained. If you should be asked the cause of a disease, when its true cause is not obvious, you may answer from a cold. This

may satisfy the enquirer, although it may not the Physician himself. — Remote Causes —
They are predisposing & exciting. Each cause has properties in respect to the living body more or less peculiar. The disease does not necessarily follow from the remote cause — The proximate cause necessarily & immediately produces the disease or is the disease itself — The exciting cause will produce different diseases in different individuals, according to the disease to which they have a predisposition. —

Dec. 17th Remote causes have been divided into predisposing & exciting. The predisposing are either inherited from the parents or from a remote cause to which he has been exposed. — Exciting. A number of persons may be exposed to the same exciting cause & it produces different diseases from their predisposition: to different diseases — The exciting causes may be various — by removing the exciting cause does not necessarily remove the disease: Predisposing diseases arise in different seasons of the year, as the colds in winter &c

Proximate cause. The real state of the part or system under disease. As diseases sometimes consist in a succession of changes, so they sometimes have a succession of proximate causes which are allied to each other.

In order to ascertain the proximate cause, we must first learn the remote cause, by enquiry of the patient, into his former & present mode of living, his exposedness to certain remote causes, by consideration of the changes indicated or manifested by the symptoms, & by an examination of the effects to be noticed in the bodies of those who have died under disease. — The elements necessary to determine the proximate cause not always sufficient — Rules for the interpretation of symptoms so as to ascertain the rem & proximate cause. We must ascertain the first symptoms by various enquiries, & in what part they first occured, & in what organ or subordinate organ they appear, whether they are from primary or secondary causes or whether from sympathy &c. They may be divided into,

pathognomonic, diagnostic & prognostic
symptoms or signs. — I.st Pathognomonic
symptoms are those which are found in a dis-
ease & always occur in that particular disease
as spasmodic symptoms prove that tetanus
is present. — II. Diagnostic symptoms those
are they by which we distinguish disease or
discriminate one disease from another.
III. Prognostic are symptoms by which
we are able to foretell the event of the disease
as, if we observe a propensity sweat on the upper
parts & not on the lower, we predict a long
& dangerous disease. Termination of diseases
they terminate in health, in other diseases or
in death. There is a natural tendency in the
system to the recovery of health. A large
proportion of diseases end in health, which
is evident from the fact that a person is
diseased many times & dies but once.
Therefore when there is tendency to health we
should not interrupt the salutary efforts of nature
by administering any powerful medicine except

that of a milder nature - Therefore it is necessary to know when to administer medicine & when not to do it. The loss of susceptibility to causes of irritation after a certain period.
The susceptibility to irritating causes becomes impaired by constant use or habit as by the constant use of opium, the system becomes so habituated to its use that it is very much out of tone without it - Thus the infusion of tea & decoction of coffee may at first be offensive; but the stomach, by the daily use of it soon becomes deranged if it is not regularly received. Diseases differ among themselves in various respects. The most obvious & important of these differences to be noted, & that chiefly to express the terms in common use -
1. In respect to their origin they are 1st Hereditary. An hereditary disease is a predisposition to some disease inherited from parents; but not the disease itself - as the scrofula which may appear in your the gout, which manifest itself perhaps at

to or of. & organic affections of the heart which may not appear until 30, — These may be brought into action sooner or later, as they are excited by some inexcusable cause. —

2.dly Congenital. These are diseases born with the child. 3.dly Family. are diseases which are introduced by the parents &, occur in the whole family as is the case in Phisis Pulmonalis.

Sect. 18.th Adventitious diseases of which the causes appertain & to certain ages. — Diseases of this nature occur at different ages. As dentition in infants, hydrocephaloy at the age of 12 or 18. Chlorosis at puberty, organic diseases of the heart &c at 30. &c. to either sex. diseases likewise differ in the sexes. we finde one sex subject to one disease the other to another, as the female to chlorosis, catamenia, &c. & particular seasons of the year influence the occurance of particular diseases. In warm season those below the diaphragm as colera morbus, iliac passion,

disentery, diarhea & inflamation of vario parts. Also in the colder season, diseases that are peculiar to the parts above the diaphragm; a phisis pulmonalis asthma, &c. d. modes of life & habits These should be carefully observed, by a strict observance of to regular diet, temperature, & exercise, constitutional diseases may be kept back & others prevented from occurring. e. climates. These also promote the occurrence of diseases. The warm climates have peculiar to the warm season ~~seasons~~ those of colder climates to diseases of the colder seasons. f. effluvia from particular sources. As the marsh miasmata & effluvia, from the decomposition of animal & vegetable matter. g. Diseases acting on the communities; h. idiosyncrasy or peculiarity of temperament; which is a peculiar liability some have to particular diseases, as one person may be peculiarly disposed to dispepsia, another to some other disease. And by exposure to cold or some other exciting cause the function disorder

of his constitution is brought into action. Our object should be to cure the disease as soon as possible & prevent diseases, that bring on others or render the system more liable to them than before.

5. The Contagious. When a disease is propagated by coming in contact with a diseased person it is said to be contagious. It may however be communicated by the insensible fluids emanating from the body effected. Hence it is not absolutely necessary that we should come into actual contact in order to take the disease. Neither does it depend upon the quantity but rather upon the quality of the matter, & the disposition of the person to receive the disease. It will also produce the same disposition to communicate it to another & he to a third &c. It is not of a solid but of a fluid insensible nature transmitted through the air. As in hooping-cough it is apparent in an insensible form. —

Every person is not equally liable to contagious diseases. & often having them once the susceptibility is entirely destroyed.

How these diseases originate is unknown.
That being found on the coasts of Guinea does not explain their origin, for their first production is as incognito. This matter is a peculiar secretion from the diseased body. It is not increased by being mixed with the atmosphere; but is rather depressed & dies in it in such a manner as not to act so readily upon the system. Yet a small distance is not capable of acting at all.—
The infectious & contagious diseases synonomous they are not, they ought to be used as distinct terms.— Infection means to enclose or immerse in a disease. Thus when a person is long exposed to marsh miasmata & is finally acted upon by the fever he takes the disease by infection. The disease may arise from infected persons; but generally from the grounds or from noxious matter arising from the decomposition of vegetables. Diseases arising from the confinement of many healthy persons in the same place are produced by infection.—

II. In respect to their occurrence they are 1st Stationary 2d Intercurrent — Diseases of particular constitutions of the year may be said to be stationary — Those which retire & occur at any season of the year are properly intercurrent diseases

III. In respect to their prevalence they are 1. Sporadic. Those are those diseases which are generally scattered about, or prevail indifferently at particular places & times, attacking but a few individuals in a place — 2. Pandemic when diseases prevail generally or when they affect the whole community — They may be divided into a. endemic those that occur at particular spots & are liable to return in the same places. b. epidemic, when they are not so much limited, but prevail whole countries, & sometimes continue for 2 or 3 years.

Those are generally acute diseases —

IV. In respect to their seat they are 1st General or Local. 2d Idiopathic. or symptomatic — Idiopathic, when the disease exist independent of any other — Symptomatic when it arises in consequence of some prevalent disease

as fever from inflamation &c. 3.d Rapid
wandering or retrograde. Fixed when the dis-
ease remains stationary, or continues in one par-
-ticular part. Wandering when the disease go
from one part to another, as in Rheumatism
Retrograde when a disease has effected any
particular part & left the same - & then return
again by metastasis, as the gout — 4.th
External & internal. External when the affec-
ted parts are effected, as in Abcesses & ulcers -
Internal when some of the internal parts or
viscera. 5.th Placed in parts of different
structure, or texture can in the same organ
as a. in the mucous membrane, b. cellular mem
-brane, c. in the serous membrane, d. in the fibrous
textures &c. V. In respect to their nature, or
character they are 1.st Light, mild & small,
grave & great 2.d Regular or irregular which
need no explanation, 3.d Benign, or malignant
Benign when the disease is not mild, but imp
-lies a violent but safe disease, Malignant
when the disease begins mild but unexpectedly

terminates fatal. 4th Disguised or manifest. Disguised when the true nature of the disease is not understood. Manifest when the true seat of the disease is obvious.

Sect. 19th VI. In respect to their event they are 1st Dangerous or fatal. Diseases that affect any of the vital organs or any of the important viscera may be said to be more dangerous than those affecting other parts. A disease however may from dangerous affecting any part of the body although then or may then or may with propriety be considered fatal. 2d Depraved or injurious, or salutary. Many diseases may from injurious to the system, although they may be removed. Others may be considered as salutary by removing some morbific matter in the system of these are fevers. 3d Curable incurable, or mortal. Those diseases that may be controlled by medicine may be considered as curable. Those which cannot be managed by medicine are considered as incurable.

VII. In respect to their form & constitution they are 1st Simple, or compound & complicated.

2dly Acute, Subacute & Subacute — When diseases undergo regular processes they are acute. When they are long & have not long or their usual processes subacute & when a little longer than acute —

3dly Chronic, those that have no immediate termination or crisis, for example the gout

4thly Continued, remittent & intermittent — Continued are those that remain the same for any length of time. The remittent when the violence of the symptoms remit or subside in a degree: but not entirely, as the Remittent fever — Intermittent, when the symptoms leave the patient entirely for a time & then return again in the same manner. example the Intermittent fever. 5thly Periodical, when the disease is regular in its returns, or occurs at regular intervals — Of the Arrangement of Diseases. Nosology. This is the classing & arranging diseases in a systematic manner — They have been arranged into classes & orders like plants & minerals Yet these are not altogether correct, for the same disease manifest themselves by different

symptoms in different individuals. If the same disease always produced the same effects or symptoms in all the circumstances being the same this arrangement might be made; but this is not the case as we since considerations differs. Although the lists of complaints are numerous, yet perhaps the elementary diseases are few. The variety is produced by the difference in the degree, & by the combination of two or more elementary diseases — The reason why diseases cannot be arranged like plants & animals has been stated. The difficulty is insuperable if we like we attempt to arrange diseases in a single table. This difficulty is obviated if we make use of two instead of one — The first table shows symptoms methodically arranged & referring to the diseases in which they appear — The second to contain those diseases.

The first table of symptoms should be arranged under five classes, viz. 1 symptoms of complexion (I use many names in a change of complexion) 2 of structure; 3. of properties; 4 of capabilities; 5 of functions —

In the arrangement of systematic Nosology, diseases have been arranged into Orders, Genera, Species, & Varieties — Orders relate to the different organs. Genera to the different textures in each organ. Species to the [deletion]different[/deletion] particular kinds of affection. Varieties to the differences in each affection in degree, & perhaps in other respects. The second table to contain the actual diseases which affect the human body considered as simple or elementary in regard to their proximate causes. — There may be some question as to some affections whether they should be admitted into this table. — It is best to admit these, & to diminish the table hereafter, if the advance of science shall permit. — Also in this table should be included those sympathetic diseases which occur in the whole system, or in any remote system in consequence of some local disease. — Lastly should be included certain diseases arising from the presence of certain remote causes, to appear within the system —

In denominating diseases, it is best to take the names most commonly employed, so far as they are appropriate. —

Sect. 20.th I. Febres, or fevers, are diseases, without any primary local affection, generally affecting the whole system, preceeded by congestive cosiliency, & other symptoms of debility.
II. Phlegmasia. Synocha fever, with Inflamation or topical pain, the function of an internal part being at the same time injured, the blood upon venesection exhibiting a buffy coat. III. Hemorrhagia. Pyrexia, with a profusion of blood without any external violence, the blood drawn from the vein having the same appearance as in Phlegmasiae.
IV. Profluvia, pyrexia, with increased secretion, not naturally bloody. V. Adynamiæ. A diminution of the involuntary motions, either vital or natural. VI. Dolores. VII. Spasmi. Irregular motions of the muscles, or of the muscular fibres. VIII. Dysorexia, Disordered appetite, the symptoms not primary, but symptomatic, they sometimes however appear as primary. IX. Vesaniæ, Disorders of the judgment, want of health in the mind referable to physical causes generally; but not in all cases, they are sometimes idiopathic. X. Morbi Organici, organic diseases arise from disease in the

structure of the parts not properly eliminatory
or in affection of the stomach & bowels - diseases
it may be effected. It is convenient to consider them
by themselves. - XI. Morbi. ex. adventitiis in cor-
pore includuntur. Diseases from foreign substances
in the body. They produce a variety of derange-
ments. XII. Morbi Sympathetici. Sympathetic diseases
produced by a variety of derangements, & placed
by themselves to show how they present themselves.

These are all the primary diseases that occur in
the body. Secondary are of more importance than
primary. - A full Nosology divides these diseases
into orders, & to arrange all their symptoms under
their respective heads, & against the actual diseases
opposite to their symptoms. It requires time to
make these arrangements perfect; yet they may be
done by each person.

## Therapeutics.

The fourth branch of medical science relates
to the treatment of diseases. - There are two general
modes; active & watchful or expectant. The
considered generally - we may wonder over the body
system to ascertain whether those symptoms occur which

effect a cure — If accidents occur they employ some remedy, but not upon the primary disease

As in case of fractured bone, so in lesions — The active method is different from this, here you employ means to check the disease. Some Physicians always use active, others the milder or expectant — It is important that a physician should know when to use active means & when none at all. By interfering with nature we many times injure rather than cure the disease — Diseases are mostly compound. we must analyze the disease to ascertain whether one or more organs is affected, thus we shall be able either to direct our treatment to the most important part, or to check the most dangerous affection, or to combine means so as to effect several purposes at once —

Of intentions & indications. The first shows the indication, then the intention — From the symptoms we determine the indication & our intention from the effect which follows the employment of such medicines as the symptoms indicate — Thus to [illegible] any foreign or indigestible substance in the stomach the symptoms

causes & indicate the use of a vomit – Vol therefore administer a dose of Ipecac & with the intention of throwing of the offending matter. The distinctions between rational & empirical practice –

Indications – furnished by the symptoms by remote causes & by proximate causes – The symptoms may furnish indications to particular diseases & they are the most satisfactory. We must pursue them with caution. Thus in the delirium we cannot rely on the symptoms unless experience has proved them to be safe – We must then have recourse to the remote cause. If the remote cause be ~~remote~~ removed. The disease is not always removed but with certainty or in subordinate power

This however is not always the case – We must therefore remove them before the disease will subside – The indications from remote causes more safely pursued than the symptoms, but they are often inadequate – Indications from proximate causes the most important & satisfactory, & must be removed. Although they sometimes follow in a succession of processes they may sometimes be interrupted & their occurrence checked; but not always with

impunity. The indications may be clear, but our powers limited. Means to be employed for the removal of diseases. The agents for the removal of diseases act agreeably to principles coincident in treating of the relations of the human system to external things. Every remedy operates on the irritability or sensibility or vital property — Remedies are sometimes employed to lessen the disposition to disease, some agents increase the vital powers indirectly. The operation of some remedies is not understood, we must therefore sometimes act empirically for want of sure indications. We must therefore employ such remedies as tend to remove the pain & disease — On the mode of operation of some of the principle remedies employed in disease,

1st Bloodletting, general & local. General bleeding should be from a large vessel, when the whole system is affected, & from a large orifice when we wish to produce immediate effects on the system or produce syncope — Local bleeding is by means of cupping & leeches &c. Some contend that the immediate effect is to reduce inflammation, others that some morbific matter is drawn off. — When the circulation is at high, the obstruction of blood during the inflation

& equilibrium. So far as it regards the distention of the heart this is sufficient: but the blood vessels do not dilate & empty themselves. Taking away blood occasions a greater contraction.— By what power do the arteries contract? They have the power of elasticity, & another which is brought into action after the power of elasticity has come to operate. This is their vital power. Elasticity would not reduce the blood vessels much below their common dimension. They exert their vital or their second power if the blood vessels be reduced below their elasticity their vital power operates. The last is effected most, & the arteries react by bloodletting. When the power of the arteries is called into exertion it demands the power of the whole system.

The symptoms, arising from blood being drawn off quick, or in too great quantity, are sympathetic, or faintness &c. Bleeding also effects the capillary system. Whereon the secretion is also diminished for want of proper distention. These effects however soon remove in persons in health, as blood is soon formed in greater abundance than before. The digestion of clothing is increased by bloodletting, therefore

persons in the habit of being bled frequently become plethoric —

In disease. The vessels are not equally full at all times — This variation in the fullness of the vessels does not arise from too great or too small a quantity of blood in them; but from an unequal distribution of it. 1st. There is a plethora ad vim 2d. a plethora ad vasa. In the first the strength of the heart is increased & acts with increased force, In the second the heart ~~acts~~ is languid & feeble, while the vessels are full — The pulse slow & feeble. Consequently the blood is collected in the heart.

Thence from a diminution of blood, the heart will act with new vigour. The plethora ad vasa is a fullness of the vessels. They may be comparatively too full — Therefore by the abstraction of blood the fullness is diminished & ease & relief is given to the vessels — There is sometimes an inequality in the distribution of the blood, but we cannot tell when this happens — The external veins are not a sure guide — In the large vessels & capillaries there frequently are inequality, or in faintness we find the pulse full & strong, in consequence of the blood leaving the capillaries & causing a too great fullness of the arteries —

Un spontaneous hemorrhage from the lungs, pro-
o ten great fullness of vessels, relief is obtained by
bleeding — The capillaries are sometimes seen to
the large vessels are smaller than usual — Where
diffused state of plethora produces disease — Inspecto
vein from a diminution of blood — Hence it is
improper to take a large quantity from the patient
In disease from plethora or excess bloodletting is
required & with more confidence than the former
General plethora may also occur — How can the
letting relieve when plethora does not exist. If the heart
is diseased it is required; still more proper when
the lungs are affected, or relief is obtained if
the blood is drawn — The vessels of diseased
parts contract more than if in parts which are
in health. If a spontaneous inflammation even
depletion will act upon that part; not so when
it arises from the introduction of a foreign body

Lect. 21st Of the medicines called
1st Stimulants. Whenever power is deficient, employ
stimulants — Their use to awaken & bring into action
the powers of the system which lay dormant — Where
cure of the known cause is sooner than — But if you

increase the action beyond the power, it tends to debilitate
when the patient cannot take food stimulate with
caution — 2d. Tonics or permanent stimuli —
They do not act or support alone, but on acct. they
are used when the organs do not perform their
functions with perfection. By some they are supposed
to act on physical principles — They act
in so many quantities, they cannot be supposed
to act on the fibres — The powers of the system
appear to be increased by them tonics. Tonics
do not always remove debility, by increasing the
powers. They can only be carry the patient
over the bridge & no further & then bring your patient
to a proper state to receive nourishment from food
& exercise. — 3d. Astringents. When used
to diminish secretion, & check hemorrhage from
the open mouths of extreme vessels. They organs
are supposed to act on the living fibres. They
act on distinct parts immediately. as the sulphate
of copper in hemorrhages from the nose. 4th. Al-
terratives. When certain medicines alter the state
of the parts, they are called alteratives. The mercu-
rials are the most remarkable medicines of this class.

their most obvious effects are seen in the pulse. In alcohol they alter the state of the part & are therefore called specific stimuli, because they act on a particular part by sympathy — They have an alterative affinity or power, we see a priori they are not in all cases capable of effecting a cure; but from experiment we learn that mercurial, will controul the morbid action. When the disease has a circle of powers to perform they are not capable of being altered by alteratives, as in variolous &c. Antimony also act as an alterative, this is from the vegetable kingdom. 5.th Sedatives. Some extend them to no evacuations, but I believe there are. They first exert the powers & then exhaustion follows. Opium is the most remarkable of this class of medicines, It effects the organic actions, & will remove pain. No previous fullness, quickness or any excitement is perceived in the pulse. 6.th Refrigerants. 7.th Emetics. They operate by producing a contraction of the stomach between the diaphragm & the abdominal muscles. They produce a spasmodic contraction of the sphincters & muscular fibers. By sympathy they operate on the whole system,

their secretion is promoted by administering large doses of the warm liquids. Ipecac & antimony are articles which will always produce this effect if given in proper quantities. These medicines relieve the stomach by evacuating the offensive matter. They also give it tone, which enables it to perform its functions with ease. As any part of the body sympathizes with the stomach, any affection or operation produced on the stomach, is felt by the whole system. These medicines act also as alteratives.

Lect. 22d. Cathartics. These increase the peristaltic motion of the intestines, also the secretion of the mucous & bile. Different articles produce this effect in different degrees. Hence some of them are called laxatives others purgatives & drastic purgatives. Some merely produce an increase of the peristaltic motion, without effecting the biliary secretion. When there is an unusual load upon the stomach, or an oppression of offensive matter cathartics tend to relieve it, by causing an abundance in the determination of fluids. Thus they relieve the head in some cases by causing a determination to the bowels

The saline purgatives do not occasion so great a determination of blood, as many others. Some have a tendency to stimulate & increase action thereby when this is already increased action this should not be used. 9th Sudorifics. These are medicines which increase the sensible perspiration. Diaphoretics increase the insensible perspiration. In order that the remedies should have their full effect the air should be kept from the patient as uniform & the patient in a horizontal position. Some articles increase the heat & quicken the pulse. Warm water tends to promote perspiration but has not the power to produce its proper effect unless nauseating doses. Application to the skin also have a good effect as warm liquids &c. A warm bath will also produce perspiration. Nauseating is a valuable evacuation, by its causing a determination of blood to the skin. It is useful in the cause in the cause of delirium, but not the cause of 10th Diuretics, are articles used in case of difficulty of the urinary, or some other parts, occasioning an obstruction in the passage of the urine,

In hold they increase the evacuation, but in sickness they often fail. Liquids of any kind have to increase the urinary discharge. In summer the discharge by the skin is increased & the urine diminished in winter an increase of urine & perspiration is obstructed. Some contend that there are no diuretics but that on those articles which have a direct effect upon the kidneys themselves. If you produce any irritation upon any one part of them, you increase the urine. Digitalis & Nitre are both of potash on of this class, the former used in dropsy, indirectly as a diuretic.

11th Emmenagogues. No article acts specifically as an emmenagogue except the ergot of Spurred rye. This however is not recommended. We are not certain of any other articles having a direct effect upon the uterus. The cortex has a peculiar action. 12th Anthelmintics. There are supposed to be articles in the Materia Medica, which act on the intestines, others that kill the worms.

Thus any articles which have a tendency to injure or kill them, occasions their expulsion. By abstinence from food the same thing happens as in the disease.

most of present in Lumbricus & Lung. The effect is produced by employing the lower part of the cone preparation of Zinc & arsenic & of the class The volatile oil of turpentine in union

13th. Lithontriptics. Are articles employed to check the further formation of calculi in bladder, kidneys, urethra &c. Mr Brande's theory that if the uric acid predominates, the alkaline magnesia & if the uric acid is diminished, it is beneficial: but if the Phosphoric acid & the muriatic acid is most beneficial. They do not act chymically, but insomuch as the phosphate magnesia, or lime, acids & purgatives

14th. Expectorants. No articles act directly as expectorants. They effect the inflammation of the mucous membrane & cause expectoration. 15th. Epispastics & 16th. Rubifaciens. Produce irritation upon the skin. When they produce a discharge upon the skin with or without inflammation they are epispastics. Rubifaciens, when they produce a determination of blood to the part & the other contiguous parts. Epispastics sometimes a permanent inflammation which may relieve com

internal part. As tonic stimulus when there is an over-
thing of the parts. Desiccation when the head or
there is torpor of the brain. & on the region of the
liver in hepatitis. 17th Cordiales & 18th Diaph-
oretics. The former are articles which promote
the discharge of mucous from the membranes of the
nose. Diaphoretics are those which promote
the salivary discharge. Mercury has almost
powerful effect of this kind. by its effects on the
salivary glands. 19th Demulcents employ-
ed when the urinary parts are affected. Mucila-
ys, gums & farinaceous. Acids & Alkalies may
specifically, when each is there, but not upon the
organs. We should use means to prevent an acid
disposition, rather than correct it after it has formed.

Sect 23d The Description & Treatment
of particular Diseases. As the pre-
ceding parts relate more especially to theory, so this co
the practice of physick. Yet as practice has been
referred to in those, some theory be mixed.

Diseases to be considered in the order in which they
occur, from most intelligible; & as all cannot be
considered the most important will be noticed.

Particular diseases to be arranged in such a manner as will render the consideration of the most convenient or advantageous. This description is divided into History, Physiology, Pathology, Diagnosis, Prognosis, Therapeutics.

The History of a disease explains its causes.

In describing a machine we cannot have a full idea of its uses unless we know the parts exhibited - so also in describing a disease.

Physiology. You cannot give a just idea of pain. It is a disease in which all or a part of the functions are deranged. It extends to the mind as well as body. The whole aspect is altered. The pain, motions, languor, vomiting & other symptoms of debility. In fact there is no local affection in which the disease appears it is idiopathic, Symptomatic, when it arises from a disease of some other part.

In order to arrange these symptoms, there must be some theory. We shall first take the most simple view of this disease, then a more complicated one. This is a disease in which all the fluids, more especially those in the cellular, there is irregular in their circulation & distribution.

Those who use labour & intemperance in eating & drinking, soldiers in camps, those confined in crowded places, anxiety of mind & watching often produce fever. There is a peculiar idiosyncrasy in some to fever: what is fever? when it arises from to great heat there is an accelerated pulse. This is idiopathic & symptomatic. The most common symptom in an idiopathic affection, is its affecting the whole system at the same time; but not the whole to an equal part to the same degree as one organ may be more affected than another. The mind also as well as the body is deranged.

This phenomenon of fever occurs in certain order. There is a succession of symptoms. & tho they are perfect in their occurrence they are called a paroxism. This paroxism of fever may be divided into 4 stages. These stages have their periods like the disease. Fever is divided or may consist of one or more paroxisms, one perfect paroxism consisting of four perfect stages constitutes an ephemera. An ephemera one or single & perfect paroxism consists of these 4 stages, the accession, cold stage, hot stage & crisis. Symptoms of the accession. 1st of the Circulating System

There is lassitude, languor &c. the power or will of the diseased to exercise the animal powers is affected. If it is necessary that the mind or will of the patient be exercised, he cannot exercise the animal powers as well, being impaired. - 2 pain. This may exist in any part of the body, most frequently the head, sometimes in the limbs. it is an aching rather than pain, restlessness. & a constant desire to change his place, paralysis, coma, sluggishness sometimes with or without coma, delyrium. ~~coma~~ lassitude, inability to motion which again in turn relapses & restlessness. Next symptoms in the Organic System. This system is probably first affected. 1st the appetite is changed - the appetite for food is lost or suppressed while that for drink is increased, digestion is many times stopped at the time the acces takes place - The peristaltic motion is so diminished, that constipation takes place. The secretions & excretions are diminished. In consequence of the diminution of the secretion of fluids the solids are diminished, the tongue becomes cooler, the whole body & a diminution ~~of~~ in the action of all the extreme vessels. Paleness of the skin from

a constriction of the extreme vessels, these symptoms arise from a stoppage of the perspiration. Nausea & vomiting also occur. The vital functions also are oppressed during this stage. The pulse do not rise above 90 — Some peculiar sensation about the heart. Respiration becomes slow, with anxiety as well as oppression of the breast. These are the most serious of all the symptoms. There is also a suspension of strength, so a man a few hours ago may be unable to work, now is so depressed as to be unable to set up. In this case his strength is not lost, but depressed. So an elastic spring which yields when pressure is made upon it by a weight, will recover its former place when the pressure is removed. There is not limits to this depression as even death is sometimes brought in by it.

This stage usually sometimes a day or two before the other stages appear. sometimes continues 2 weeks & months but not generally more than 2 or 3 days

Sect. 24. 4th Cold Stage. The symptoms of this stage are not such as are confined to this disease, but occur in other diseases. As in pestilential cachexia &c in the cold stage shivering, rigors & shuddering are

appearance of prouflesh. the skin dry & colour not uniform; the tongue & the pains become more dry, the tongue adhering to the roof of the mouth. When one added to the acces, sometimes both occur at the same time. At the termination of the cold stage the symptoms are relieved by vomiting or throwing off the offending matter from the stomach.

This stage has a fucile beginning but termi[nates] gradually into the hot stage. At the termination of this stage in the hot stage the patient feels cold to the touch of the physician quite warm & vice versa, he may give off heat to the living body & take to dead bodies; his colour changes into yellow, red &c. his eyes also become red. The skin continues dry generally but not always. The pulse becomes more frequent, & not so full, respiration becomes obstructed, the pain more violent & distressing, as well as more extended over the whole head. These pains are uncertain. The is frequently a delyrium, thirst is distressing, the[re] are aversion to food & a repugnance to swallowing. The thirst becomes extreme swallowing frequently troublesome. There is an unpleasant taste in the

mouth — the discharge of urine is small & clear
& this period some of the symptoms of the disease
continue as of restlessness & depression. — She
is incapable of any clear & distinct ideas; some-
times delusion occurs. Symptoms relieved by bathing.
There is an incapacity to measure time. A few
minutes many times appear very long, & sometimes
a long time appear short. These symptoms continue to
increase for a time, then terminate.

The cold stage is sometimes wanting but the hot
stage very seldom. The hot stage terminates in crisis
by hemorrhage, inflamation &c These do not always
terminate the disease present but sometimes the inflam-
mation brings on a termination of the disease. A
hemorrhage that will terminate a fever is gener-
ally violent. The inflamation & hemorrhage may
be favourable when it goes on to form a crisis
& thus terminates the contest. The crisis may be
favorable or unfavourable according to the
When favorable the symptoms are of three kinds
1st those of subsidence. 2 of 3 The exercise of
healthy action. 1st those symptoms that mark the
subsidence of the disease. The uses his functions

with more ease. It is more capable of exerting himself
the remains the use of things or will as the direction of the
The by-standers perceive the change before the pa
himself. 2dly The appearance of extreme symptoms
The contraction of the extreme vessels is removed
the vessels on skin. by a large draught of cold w
the symptoms often subside. the dryness of the
mouth & fauces ceases, the coat is removed from
the tongue, in short all the morbid symptoms
go off & the healthy ones show themselves. Not
only negative symptoms subside. but positive on
come on. 3dly If the healthy powers were restored
at once would the person in every respect be before?
No. the organs & functions will be different in consequ
of the contents of the stomach being new or unnatur
& this in consequence of the contents of the alimentary
canal being unnatural, the secretion of fluids will be
different or in an unusual quantity, & a diarrhe
is brought on in consequence of the efforts exerted
to throw off these foreign bodies. The evacuations
from the skin or by urine sometimes prove critical.
The last form does not consist in a healthy change
in all the functions, by a discharge of their contents.

When evacuations are sometimes large & excessive, the symptoms occur in succession, sometimes on the increase of several days, or more distant periods.

Sect 25.th Crisis unfavourable. When there is an increase in the morbid appearances & an indication of the failure of the powers, a pressure on the parts, the countenance becomes unnatural, fixture, inanimate & a general inexpression of the countenance. Of course the general characteristics of the person are lost, there are more of the usual contractions of the muscles, but a general flaccidity; the eyes are elongated, the tongue furred, moist or dry; face is change from a red to a livid colour, more pinched in, the manner of laying implies want of power, he slips down to the foot of the bed. There is also come insensibility to motion — picks at the bed clothes — mouth & throat dry loaded with a thick coat or dry crusts — skin hot & dry — sometimes cold sweats — hurt sensations, shuddering cold, hands cold, arms warm, evacuations large, but not well concocted & stinking, nausea & vomiting also ensue, — all the evacuations are involuntary — in these cases thirst is excessive — the pulse frequent, small & sometimes scarcely

but not in strict order as one organ may fail before another — When the brain is not affected respiration is quick — Vessels when circumstances if the patient be moved he sinks or fails — & faints in an erect position — When the patient sinks by convulsions first of the extremities then of the centre —

Next duration of the stages. They are not always uniform. 1st The access & cold stage is generally about 2 or 3 hours. The hot usually from 2 to 4 — & the crisis about 4 hours. The symptoms of the hot stage subside gradually. The crisis may be 6 hours — an ephemera is only 18. sometimes even 24. This prolongation is owing to the last fit — Then on the principles of fever. The symptoms of the access gradually run into the other stages — According to Sydenham, it is the exertion of the system to throw off some morbific matter. The symptoms of the access & mean through the other stages to the crisis. & as the symptoms of the access go off heat is returning. if the other stages do not mean — The symptoms of this stage come in gradually. though they be not always observed — Sometimes they do

not occur until the moment the cold stage commences. We cannot fix upon any one or more symptoms as distinctively characteristic of fever, as the one more not one namely so. — The first symptom is that the whole body is sick, without any one part particularly — The description here given may be considered as referring to a mode, rather than to any actual case. This is inevitable in endeavouring to give distinct & just views of all the parts. In almost every case some symptoms are wanting, & the symptoms which may not be. The disease shows itself in the whole system but unequally. —

## Of, compound fever.

This is a fever of more than one paroxism or parts of paroxisms. — They are continued intermittent & remittent fever. In general fevers appear to regard diurnal periods. They are divided into intermittent & continued. Of intermittents. They have paroxisms recurring daily, or every other day, & at the intervals between the paroxisms, the patient is free from the symptoms of the disease, while in the other they continue through the disease. The symptoms occur regularly every day or every other day in which are distinct —

The interval is from the commencement of one p
oxysm to that of another. The intermission fro
the termination of one to the commence of another
They are of different types or forms - quotidian
tertian & quotan. The quotidian ones in 24
hours, tertian in 48. & the quotan ones in
72 hours. The tertian is the most common
All that is essential in intermittents, is the
The paroxysms of an intermittent resemble o
a phrenzy: but they are more distinct & mild
The cold stage is more formal & severe than in conti
fever, more severe & longer. This is not to be relie
on entirely, some epidemic continued fevers on th
setting in fast by severe &c. & the colds stag
sometimes the other stages most severe - When low
more in onset, but it is less perfect then in ephem
& in the first paroxysms than in others. Accordg
to Dr Dowlyce if this was not the case the disea
would not recur again - The second paroxysm
occurs on the third day or 48 hours, sometimes they
vary from 40 to 50. but this is not considered
as an irregularity - When one symptom remaining after
the principal paroxysms. The term is not perfectly

pell. although he may be called so. he has a pain in his head stretch. nausea & the stomach - he will almost vomit before the first recurrence of the convulsions. The paroxisms on his decline during the first week. then after a lost him. It is at this period that it gets the name of remittent - after this they become more distinct - when towards the close of the disease intermittent again: but less severe as well as less distinct.

The duration of the disease according to Hoffman 4 months - The disease often forms a remittent intermittent after a short paroxism -

Sect. 20th Tertian sometimes dies in each. by frequently producing other diseases; but very seldom if it is a simple tertian - From the violence of the paroxisms it exhausts the patient & death ensues - Quotidian are less frequent than the tertian. & it is the opinion of many that the tertian is the true form of intermittent & the quotidian or double tertians - Quotidians paroxisms are longer & the remissions very short. Tertians often frequently more severe than the continued. When very ordinary paroxisms resemble each other it is a double tertian - Quotidians occur on the third day & tertians

not made up of distinct paroxisms. It is the opin
of many Lawyers that it is formed of regular paroxi
but that the second comes on before the first ter
or that the second begins before the first ter
is over consequently leaving no intermission — Or
least from 7 in the evening like 2 or 4 in the morning
then is a subsidence of the paroxisms, although
the depression of strength is not removed. Periods
of remission. On the evening the symptoms more mo
than morning or noon, more than on the second day
& so on alternately, increasing every other day to about
the 9th sometimes to the 14th after this period it is
stationary for a week, then the disease decreases till
at length a crisis is formed, but not so distinct
or six intermittents — On one day there is some mod
of crisis & the following not any for a number of days
while one symptom decreases another increases —
If he submits to the disease with quietness, the fever
goes on with more mildness & decreases —

Oct. 27th — There is a great variety of fevers
they have a specific difference — the remissi
depends on many circumstances — A man after being
unwell for two or three days, is then taken with pain

cold shivering & rigors, which are succeeded by heat with incoherence & delirium — the first night of pain very long in the morning he has a quiet nap for a few minutes like a remission — his appetite now begins to fail; he has a degree of pressure in the chest & pain in the head & back & legs. sometimes expectoration. great discharge of urine — There is a yellowness. pallor. redness or dirty colour of the skin. the tongue has a pale coat of a yellowish colour & very dry — skin hot & dry — pulse from 85 to 100 but 92 is the usual standard — If you now exhibit an emetic & relieve the alimentary canal. it will correct the disease & perhaps stop it altogether. If you are not called till a late period inquire into the history of the disease if 2 days after the disease has ceased. you will not give the emetic. the exacerbations more severe. the second in the morning more so than the first. delirium ceases, heat & pain more severe — next morning some relief from the exacerbation, on the third day more severe relieved by vomiting — found skin in some perspiration by nausea, two discharges, slight nausea, skin continues, every thing exquisitely tender. even cold water is offensive — pleasure diminishes —

tongue becomes more clay-faced quicker than on the 5 & 6 — 7 diarrhea, very little fecal matter — the tongue broader, but coated with sordes — Thus it continues for a week — on 14th day you find the tongue begin to grow clean at the edge — has some appetite diarrhea. less sweats — urine increases in quantity — thus it goes on to the 18 — pulse diminished to 90, until the 17 when the tongue grows bright — has some desire for food & cordials as wine &c. his voice begins to return — lies in an unnatural position — he moves but — his countenance more natural — Yet after the 17 if any little circumstance occurs, an expectoration is felt, but if nothing of this kind happens he grows better on to the 21. — This course of symptoms in a severe fever — Or another example — A patient may be dull & melancholy for a week but not sick, every thing goes wrong — but then he attends his business has some chills, after some days. loses appetite impatience. dull & heavy — you find him so even when you come to see him — his general appearance is altered, has a dull, sallow or dirty countenance, his eyes dull — stupidity prevails, he is unwilling to give an answer when you speak to him — his tongue, skin & mouth

one day — no thirst nor nausea, although there is something disagreeable — pains diminished — When he is brought to his bed — in the 2d week with stupor, in the 3d week the strength is gone — there is a muttering delirium, skin dry — the tongue is dry & sticks to his mouth — If you put your finger he puts out his tongue from association. — The coat now peals off & leaves the tongue red & dry — in the 4th week he begins to amend very slow — begins to have an appetite for food before he has really amended or his stomach will digest it — you may now give him cordials with which he is at first pleased but soon grows tired of this thing, which must be changed for a while — When he continues for 3 or 3 weeks in a torpid dull state & has to recover very slow — his appetite is any variation — When his desire for food increases before the strength of mind or body — You may be called by a child able to play about till 5 or 6 o'clock he then wants to lie down — his pulse one regular — in the morning he is better — Thus he goes on for a number of days, till the 2 week when the exacerbations grow more severe — 3 week still more so mouth dry tongue clean then he goes through the disease in this manner — You at once see him fixed upon one of his business pale, diseased with pain of his work

The pain is transferred from the extremities to the head, the strength is prostrated, he becomes faint, throws himself down upon the bed — pulse frequent returns in the course of 24 hours — This is a putrid fever the first may be called a bilious fever — the 2d nervous or typhus — & the 3d is seen of the three.

Sect 25th. Autumnal Fevers. These seldom continue more than two weeks, when proper remedies are employed, sometimes not more than one — that is you may know the patient by this time although not perfectly well — some not short of 3 weeks — they differ in different years — It has been supposed that there are certain critical days, on which the crisis is generally formed, which are the 3. 5. 7. 9. & 11 which denote the bilious type, & the 14. 17 & 20 which denote the quotidian — This has not been observed by myself although it may have been by others — Termination when the commencement is very violent it frequently terminates favourably by crisis; but if the disease comes on gradual it continues longer, in this case be vigilant to use proper & to employ suitable remedies — The continued fever generally terminates at once by crisis or intermittent something else terminates by lenient loss or by inflam-

If these do not terminate the disease, they increase it.

Symptoms of a Low & exhausted state of the system appear — This state of the system is frequently induced by giving cordials & stimulants before the nature of the disease points them out — There is an indistinct appearance of the countenance — the voice is hoarse — the patient is unable to swallow — is hiccup or of any motion — he has lost his mind he appears always sleepy when awake, — the tongue is dry — appetite for food entirely lost — he takes a bottle — sometimes two, of wine, & egg, which increases this state — sometimes the patient is unable to take food from gulping up the wine — this discharges are very disagreeable to the nurse — The abdomen is sunk in to the vertebra — the skin rough, hard & rugie —

Thus he becomes emaciated to a great degree — countenance is sunk, or a hollowness more sharp, pinched — the cheeks thin, skin loose & dry, a relaxed & dirty appearance of the whole skin this colour is peculiar to a real typhus — When symptoms continue, the patient sinks & death follows. — By proper nursing & care after a long sickness he sometimes recovers — Of the appearances after death. — The appearances on opening the abdomen

in respect to simple fever whether ephemera, intermittent or continued, are very infrequent — Examinations have been made without any reference to the symptoms that were observed in life — The simple continued fever does not depend on any organic change — Formerly the structure was not so well understood as now, of the brain — In order to ascertain the disease every part must be very minutely examined — Some have contended that the disease was seated in the spinal marrow, but that is unknown — The examination should be made by men well versed in the disease as well as anatomy, both morbid as well as healthy —

Causes of Fever. Many phenomena noticed in the history of fever have not been noticed. A distinction has been made which is theoretical. But this not only tends to give erroneous views, it facilitates the communication of facts even if incorrect — This must as is commonly thought attention to the disease has been described. The remainder may be more distinctly stated after discussing causes — It is important to regard the distinction of proximate causes, because it has not been satisfactorily ascertained. Remote Causes — Some are not to some of them there is most obvious evidence. Let

their existence cannot be doubted. Yet they often occur without producing fever, & even produce other diseases — They are the occasional exciting causes — They are causes which generally tend to interrupt the regular performance of the functions — The disease gets its character from the predisposing cause — The disease is brought on or on him by one cause & another — There is no doubt but there is a cause producing the disease —

1st Seasons. With us, fevers are most frequently in summer than in winter. Generally in August & continue to increase through Sept., Oct. when they gradually decline in Nov., & Decem., when they disappear. —

When fevers are the least frequent they are the more distinct — The nature of the fever varies in the different months, consequently our treatment should vary according to the nature of the disease — The occurrence of fevers with us is very rare in winter, although it may happen; But in Great Britain more frequent in winter as than summer. 2d Of the qualities of the weather — of heat & moisture, heat alone will operate as an occasional cause of fever at 85 or 90°. Moisture does not operate directly as a cause, unless the stock are weakened & then exposed to moderation; but it is very operative indirectly

Heat & moisture together by producing decomposition of vegetable matter will produce, or superadd to a cause of fever, when they are in a proper state for the effect. Dry seasons most favourable. The decomposition of vegetable matter produces the Marsh miasmata which is another cause of fever. The intermittent is the fever usually produced by this cause. It does not act at a great distance. Its action is diminished as the distance increases. It will not generally produce the disease at a greater distance than ½ mile. It is favoured by the night. Against the night it will not act more than a few yards. Low grounds or plains are more liable than more elevated situations. The disease is more liable to be produced in the morning than at any other time. More liable at the foot of hills, than at their tops.

Sect. 29th. Marsh miasmata, is another cause of fever. The nature of this is unknown. Some think this arises from animal or vegetable matter. Some conceive that it arises from insects with vegetable. In this country the decomposition of hemp & flax have given rise to intermittent fevers. Hemp & not rotted properly gives rise to fevers. When it is evident that vegetable matter does give out something which

produces fever — It is also said to arise from living men when a large number of them are crowded together in small apartments — From the sick; & from contagion — matter undergoing decomposition. If fever arises from living persons. it would in the slave ships, when so large a number of them are crowded together in the hold of the ship — The case of 146 englishmen being crowded in the hole at calcutta, when 19 out of 20 died in one night. does not prove this to be a case; or it no doubt arose from the miasmata fevrier emitted from their bodies — In the French revolution, when men were crowded together in the holds of men ships in port & died. they were not affected with fever — Dr Lee. observed, that in the hospitals of Plymouth when men were from long voyages & crowded together in small spaces, did not induce fever unless they were sick — Then if sick & crowded spaces produces fever they would be the most liable. — Sick producing fever From what can be learned from such, places it does not produce fever. Contagion. This does not produce fever so readily as the small pox; but in a less degree — not by a short exposure; but by infection or a long exposure — of a number of persons in a close room —

persons will be effected with fever when they are exposed but a short time — Animal matter & other decayed substances to induce fever. — Many diseases arise from this cause; but no satisfactory evidence has been found that fever has been induced from animal matter — Animal matter is daily undergoing decomposition about slaughter houses & vaults. but we do not find that fever is produced — neither does it arise from burying grounds. as many have imagined. as in Paris & Germany they were not exposed to the air. The Bastile is a manufactory for decomposing dry bones — Hence we see that only one kind cause of fever has as yet been found. A lot of moist putrescent & this only by long exposure — Intermittents do not occur in this country, unless exposed to marshy grounds in other countrys or southern states — it then takes a remote cause run after a long time after the application of the poison or exposure — When the remote cause may act a long time before the fever is brought in to action by the exciting cause — It most frequently occurs in the warm months & southern climates —

Lect. 30th Proximate Cause of fever. The opinions of men, on this point, are numerous. Whatever opinion is formed of the system, they will form of fever — There is one

opinion that has been maintained by a large portion of physiologists, - viz. that fever is in part, or in whole a salutary effort to remove some evil. There is a reason for this opinion, which is that a great number of fevers terminate in health or salutary. - What part are salutary? Then is a difficulty in tracing a line between the hurtful & salutary process. If this could be done we should probably ascertain the proximate cause -

Cullen & Hardy & have thought that all that proximate fever was rigor, but the cold stage is sometimes wanting. - The various opinions respecting the proximate cause may be reduced to four. 1st. in composition. That some morbific matter entered into the system. This is the opinion of Sydenham. - Some suppose that there is some foreign substance received into the blood, but not into its composition. Therefore the substances do not produce fever by change of composition

2d. Change in its structure. This has not been supported by any pathologists. Hence we see it not in composition or structure. 3d. In the properties. 4th. In the function. Hy Cullen & Hoffman. It is the opinion of Cullen that the remote cause on operating that on the vital change is produced in the brain. That these substances produce

a change in the structure of the brain. That there is a vis nervosa nature, in the system. This opinion is that the diminished energy of the brain causes a contraction or spasm of the extreme nerves. This causes an increased action from the center to the circumference which fairly overcomes the contraction of the extreme nerves. There is no satisfactory evidence of diminished energy of the brain. & it does not appear that there is any always before the cold stage. which ought always to be — The pains, in fever, are generally increased in case of increase. — Prof Caldwell & Physic place the cause in the spasms of the extreme vessels & the extremities of the nerves. When the cold of the disease the contraction is relieved. According to this theory if any of these appearances are wanting at any time they must be brought the remainder of the fever. — When we see who contend that the heart is not unnaturally excited. the fever that go through its natural course & terminate this theory must fail. Hildenbrand & others believe that fever depends on an inflamation of the brain, or some local affection. — But we do not find this to be the case in fever. for the whole system is effected & not locally. Since this system must fail, as no arrangement of the brain has been found in disease

after death. Various Pathologists have believed that all fevers do not always arise from the any one particular organ, but sometimes from one, then from another. As was the theory of Armstrong & others. Brown's theory that debility was the proximate cause of all fevers, if this were the case the fever must continue ad infinitum. As the debility always increases to the end of the disease.

Physick also supports this theory, with an exception, that fevers foreign substances do not leave their usual effect on the system. All the stages are not peculiar to fevers. As the colic stage is sometimes wanting, also the last. On the crisis the evacuations, by Dr. Gregory & Stewart, are the effect of a forming crisis, & not a cause of the crisis.

Sect. 31st Varieties in fever. This is not any grain form which is regular. It is only when the deviation is considerable that it is called an irregularity or variety. Besides the different types there are many varieties of fevers. When fevers approximate they may not be exact alike, they are called regular, when a considerable deviation is observed, it is a variety.

The principle varieties of simple fevers founded on the irregular affection of the system. The lines are not definite. First. The animal system is particularly affected. Symptoms —

First the brain is particularly effected. & in consequently volition is imposed. in consequence of which tremors take place & contraction of muscles & spasms. — great prostration of strength, pulse gr & small; skin dry — tongue dry with a thick coat which turned over. — Then symptoms occurs as before; but they differ in their rapidity & power. This is called hydrus. Mild or gran hydrus more seen when the patient is most prostrate & the tongue most furred. This called hydrophobia. — Second. The cholopoetic viscera perticularly effected. Symptoms. The coat upon the tongue is thicker & always constant. It is a coat very thick; but less than in other fevers — great oppression of the chest — nausea — vomiting of mucous mixed with bile. which at first is yellow after a long time becomes green — fulness of the abdomen for considerable time. followed by diarrhoea of brown & sometimes of a green colour — If a little be put into a vessel of water, you discover the colour. Yellowness of the skin. — Then on the gastric symptoms. Sometimes when you succeed in removing these symptoms, you remove the cause, but not always

Third. Circulating system particularly affected. There is difficulty in forming an opinion on this point.

Symptoms. Pulse small & rapid; but other parts of the system are not affected in an equal proportion. He can for a short time attend to his business — The secretory system is also affected as the skin becomes dry — tongue clean[ed], It is not a bilious inflammatory or typhus; but is called slow nervous fever. —

Fourth. The powers of vital affinity particularly affected, as is manifest by the tendency of the fluids to putrefaction. Symptoms. The contents of the alimentary canal undergo decomposition. After death, the solids & fluids undergo this change sooner than parts made of other tissues — ardent heat, & acrimony — The putridity is greater than in typhus — The pulse is soft & rapid, often full, but not hard — The proper secretions do not take place, — the fluids are made not undergoing their proper changes — pure blood flows out — the vitality of the blood is lost; it is exhausted under this — From the want of power. This disease has been called adynamic, or putrid fever — There are other varieties, but they are perhaps less entirely mentioned — what are infectious, & when comp. [illegible], or local forms of pain

& oppression of the parts; the mind is also deranged. There is a scarcity in the degree with which it is effected — Inflammation is sometimes violent, & sometimes slow in its progress — Pain occurs as a mark of inflammation — There is a sense of weight & uneasiness according to the degree of congestion, & if this is violent in the brain the patient becomes comatose & even apoplectic — There is also sometimes congestion in the lungs, which interrupting the functions of the brain occasions death — This determination or congestion is irregular — If the state of the skin is interrupted in its function it causes a determination to some particular internal part — (Armstrong's work upon irregularities may be consulted) — Once more, one part of the system may escape while all the other parts are affected — In this case the medicine may not have its effect upon the disease, but upon all its power upon the unaffected part —

Dysphonia is mentioned by Foreigner as a mode of irregularity — A little affection of the stomach brings on convulsions, agitation of mind, terror &c — When dysphonia occurs it endangers

the physician, it being difficult to manage—
This occurs more frequently in females than males.
You would suspect spasms, convulsions &c as
symptoms; but globus hystericus is the most
characteristic of Hysteria — The fictions
of genius are not correct they enable us to form
some distinct ideas of Fever—

Irregularities in Intermittents. If they
do not vary more than two hours, they are
not irregular, but if they occur at shorter
periods or vary more than two hours, or appear in
or hours they are irregular— They are occasion-
ally prolonged, when to more than 30 hours they
are irregular—

Lect. 33d. Epidemics— These occur
perhaps once in 2 or 3 years. It does appear
to be a regular succession in their occurrence
Causes— Rather than acknowledge ignorance
man will assign a variety of causes for epidemics
They look to the sensible state of the weather
It is said that hot or some particular season
have a tendency to produce epidemics, but the
inference is refuted the most ever by their contrariness

through poisons of different characters. 2 the cause has been imputed to the good which we take if it be bad or unhealthy — Mr. Webster supported the idea that they occur with the appearance of the comet. This opinion has not been without its advocates —

It is also said that exhalations from the earth produce Epidemic fevers — grant this to be the case, we deceive not ourselves in it, as the cause is not known like we do the effect — The causes are finally unknown some contend that they have a particular character — Hypothesis that they expose & convert other diseases into the same — all those who have the predisposition, on being exposed to the exciting cause, will have the disease; but if they are not exposed to the exciting cause, they will not have the disease; although possessed of the predisposition — That every disease has a specific character in epidemics, cannot be established — although there may be some symptoms which resemble each other, there is a difference in the character of the disease; & this is not

a difference in degree but there is a specific difference in the character of the disease & many varieties in epidemics — If there is a specific character in epidemics a uniform mode of treatment might be pursued — but as this is not the case, this routine of practice is not to be adopted

If a case should happen out of the common course this mode of treatment would fail & we be left without a remedy —

Fevers common in summer & autumn in our climate — In summer or about July diseases of the gastric organs often symptoms. heat, prostration of strength & they continue 2 sometimes three weeks & as the season advances they assume the form of a regular fever & continue two or four weeks — they are of a typhoid kind

Epidemics of a more violent nature are called malignant or yellow fevers — This type is intermittent — The epidemic that prevailed in this vicinity was continued — The hot stage violent but not uniform — The patient over the face throat & trunk covered immediately

When it violent inflamation of the brain or intestines, the skin become yellow, from which it derives its name, but is not characteristic of the disease — The black vomit or the discharge of matter resembling coffee grounds, is considered characteristic, but it is in all cases — Cases been examined by Dr. Bancroft & others — Shotted Epidemic
The first attack is violent, but becomes less so afterwards — The acute & cold stage occur suddenly at once & extremely violent & life is destroyed The hot stage more mild — This disease be become very mortal, but at present not so much so as formerly — Symptoms, There is commonly no local affection, & congestion of the brain, diseased stomach, viscera & lungs — Yellowness appear, not characteristic of the disease, as in yellow fever — sometimes erysipelatous inflamation appears —

Sect 34th Prognosis — It is observed if the whole disease be mild the prognosis will be favourable — The symptoms may sometimes be severe & the prognosis favourable — Violence is not always to be considered unfavourable, nor mild

not favourable unless the whole system is in the state — Unfavourable when there is great pain and depression, the mind impaired, the countenance sallow & a peculiar impression, if the pulse is feble & frequent in the crisis & last stage, it is requires attention, more particularly the frequency — if one part of the body is hot & another cold it is unfavourable, also if profuse & frequent evacuations with sinking, but if relief is obtained by these evacuations, favourable — when the skin is dry & the appearance of the body longest it is very unfavourable — When the evacuations differ from those in health, or when they are composed of but one third of mucus or of blood, bile & without any mucous, they are unfavourable, except on the mucous membrane when they should be pure mucous, also when there is an appetite for animal food, unless the disease is mild, absence of thirst for drink if long continued, as the organs are then deranged — animal functions if not effected to a great degree — when the pulse is one small, feble & frequent, & when the color is inclining — disproportion in the stages &

when the cold stage is prolonged & the hot does not follow; when complications with some local affection as hemorrhage & inflamation, danger in proportion to the importance of the organ affected, worse about the head & in the abdomen — Likewise in proportion to the violence & rapidity & time of affection. — Every thing that manifests great action in any of the vital organs —

Diagnosis & Treatment of Fever — Many continue that by administering remedies to arrest the disease you thereby interrupt the salutary termination — The practice of giving medicine every hour or half hour is improper but a proper quantity at an early period is proper — Respecting Treatment look first to the proximate cause. The remote cause may be removed & not the disease. In order to remove the disease the exciting cause must be removed —

Sect. 36th Treatment of a simple continued fever. Other & severer symptoms at an early period it may be arrested. — It is impossible for a specific direction. It is not always the case at an early period that we can avert the severer

it may be checked – The period in which a fever may be emitted is from four days – Any means of a violent nature may succeed in removing a raging fever, but it is not safe or sure – Evacuations have generally been employed for this purpose – 1st Bloodletting This the most general – In simple fever it is not generally useful – But this fever should be distinguished from that in which inflamation is combined, in this case it may be employed – and proves so – 2d Sweating This as an evacuation is useful, as the internal organs are relieved by forcing the extreme vessels – It is however not to be relied on with certainty. as it does not always remove fever – In some cases relief is obtained, in others it is not – We favour the antiputrid theory, by supposing that it throws off the corrosive & deleterious matter – Sweating is used as a secondary remedy when the hot stage does not follow the cold – The best method of promoting sweating is by combining moisture with heat – by placing the patient in a horizontal in bed with no more clothing than is hot & natural – When there is dryness of skin & heat by removing the temperature by administering medicine which cause a

little short of producing nausea. Internal medicines should be slightly aromatic, rather than viscous liquids. Opium may also be combined with evacuating medicines. 3d Vomiting

By this evacuation upon promote vomition. As an evacuation it is not so powerful, nor so easily managed as bloodletting. It is not a natural evacuation in health like purging; but that does not militate against its use, as it may be natural in disease and in infants. It is better that offensive matter be thrown from the stomach, than that it should be carried through the whole system. Some contend that the stomach is the seat of brain therefore vomiting is necessary; but this is not orthodox. Its powerful efficacy probably arises from the quickness of irritation. The stomach being in organ susceptible of strong impressions, & acts upon the whole body by sympathy & produces a change through the whole body. Hence it is that such powerful effects are produced from this organ. Subjects differ with regard to the ease of producing vomiting owing to a peculiar idiosyncrasy. Produces vomiting when there is a great load or distension in the stomach

It is sometimes necessary to evacuate the intestines first, the skin also is to be attended to — Persons differ with regard to effects produced by emetics & other medicines — This you should enquire into before you administer your medicine — Orthodoxy and some men seem to object to them — 1st Tartrite of Antimony & 2d Ipecac — the effects are limited to the stomach — Antimony is the most powerful of the emetics, & effects the whole system, therefore the most sure in its operation, & gives the greatest distress — some however will bear it longer than others — Ipecac effects the stomach only — Hence when the disease is violent & the patient strong antimony may be used — but when the disease is mild & patient feeble Ipecac will be preferred — but in general they should be combined, Physicians differ, with regard to the effect, whether it ought to be mild or powerful. But my opinion is that a powerful emetic is the most salutary — The patient should be informed of the necessity of using this powerful remedy — One emetic is not always sufficient & therefore necessary to repeat it on the second or third

day, sometimes on the same — When is caution necessary, in delicate habits in administering powerful
It is not always necessary to give large doses as two
Antimony gr ii or iij sometimes only i. gr —
Opium from gr 40 to 60. —

Sect 35th — Purging — More powerful in
an evacuation than vomiting — employed
for the discharging of fecal matter from
the bowels — As a general rule the contents
of the bowels should always be evacuated —
This not always so easily effected as is imag-
ined, as the mind is frequently deceived with
regard to the matter discharged, leaving the
natural feces retained in the rectum — This
necessary to be or
to be enformed by an experienced nurse. the
quality or appearance of the matter discharged. This is
a necessary evacuation through the whole course of the disease
how may sometimes assist the fever by purging, but it is
inferior to vomiting for this purpose, yet it is a powerful eva-
-cuation — Give the cathartic before the emetic & then give the
then one effect — Emitting the 3rd. Powder calomel alone &
but then are not sufficient alone, they may be followed by
neutral salts — Either or not however given until infirmity —

Thus. bloodletting, perspiring, vomiting & purging are the only true evacuations we can use—

Another mode of arresting fever, is by external application— This by cold water, or other liquids.

These may be used at a later period of the disease they may ~~not check~~ arrest the, but not arrest the disease— We should therefore attempt to bring on a crisis— in after the second week, we cannot stop the fever—

After the early period the evacuations should be mild— The remedies should now be used, that promote crisis, called alteratives, by changing the action of the extreme vessels— Then on perspiration of Quercitron Antimony, & Opium— When these produce a vascular action, a little Opium may be combined— Antimony be given to the amount of 3ri it produces nausea. Wh vomiting— should therefore begin with 3ss & increase it by degrees, by which means you can administer it often. & in greater quantity, without producing vomiting— If it produces purging, Opium may be given— After taking it a few days, it produces a torpor, which is not natural, in this case the disease is overcome— You may then diminish the quantity & frequency of the— After an intermission of 2 days begin again gradually—

2dly
Ipecac may be given to those that cannot bear
Antimony — 3dly Quicksilver, if it produce a soreness of the mouth, it indicates its good effects —
It is not so surely managed as the other articles
It is also very uncertain in its effects — To an adult
administered, 10-20 grs of Calomel may be given in 24-
hours — Excepting these, I know no medicines that
produce any immediate effect, & of long & others are
used — The cynchona, & other tonics in general are
of no effect in shortning the disease —

2dly Of Intermittents Simple — It is obvious that
something should be done during the intermission —
It has been discovered that the cynchona will cure
the disease — Some caution is however necessary in using
this remedy — The stomach and bowels should first be well
-washed; then give the cynchona, — It produces the best effects
when used after a perfect paroxism, but grows less as you
continue it use till it is finally lost — Quantity not less than
3ij — Time, commence as soon as the paroxism ceases
and continue till the hour for the next paroxism to come
on — The dose should be large at first & less at each
succeeding dose — Should be continued some time after the
fever is gone — Every regard the existing cause, as, finding relief

Lect 37th The cynchona is preferable to any other medicine in this Fever; but this sometimes fails — from a difference in the quality of the bark — 1st The red bark is generally considered the best — 2d The yellow was at a time thought preferable to the rest — The bark often fails, from its being of an inferior quality — 3d The situation &c. of the patient must be attended to — There are substitutes, which are frequently used for bark; as 1st the vegetable tonics & astringents — 2d the Opium, but the practice of using it is not recommended — 3d Charcoal has been used in the same manner as the bark & once succeeded — 4th Minerals of Iron & copper, preparations of Arsenic also have been used which in their effects, are considered next to the bark — 4th being generally used after the bark, we are not authorized in ascribing the whole of the effect to the Arsenic consequently cannot say that its powers are equal or superior to the bark — It is not dangerous if proper care be taken in giving it — The preparation is the fowlers mineral solution, or Arsenate of potash — The effect is best obtained by first giving it twice a day afterwards three times — very small doses should be given at first — Begin in adults with 4 drops & increase to 8 or 10 when nausea is produced — then suspend until the nausea is over

After he finds the number of drops that will produce nausea, let the number be diminished 1 or 2 drops at a time, as sometimes effects the eyes — It should be given in 1 or 2 oz water, which should be given without any solid substance — In this way the perspiring will diminish, but the medicine should be continued 3 or 4 days after the perspiration has ceased — The bark does not act altogether as a tonic, or when one others as in tonic effects power, which do not produce the effect. The arsenic does not act as a tonic, and cures the disease

External Remedies — Plunging into cold water has overcome the fever — Then act upon the imagination — Tinct. of Opium, camphor and stark applied to the skin, have been used with success — When the stomach will not admit the internal use of these medicines, the external application may be used by rubbing in Tinct of Opium or stark once in 2 hours from ½ to 1 oz at a time — In the employment of the arsenic, not so great vigour is to be taken as in the use of the bark — The stomach should be in a proper state when the perspiring or injection, the cause of the imperfection should be removed, which is generally in the stomach & bowels. In this way they will become more perfect —

Diet and Regimen, in both intermittents and continuous
Always take those substances into the stomach which
are easiest of digestion — Vegitable rather than Animal
When nothing can be digested give those substances that
will pass easiest through the canal without irritation
They should be vegitables as they are not so irritating
as animal, if undigested — They should be given
in a liquid form, or in this form they pass the canal a-
mist if undigested — Therefore we give vegitables in a
liquid form — fruits also which are grateful to the patient
Those substances that affect the whole system, or stim-
ulate, act on the vascular system and skin, should not
be used, except in a concealed state —

The Rules as to diet vary as the disease advances
Attention should be had to his appetite, when that returns
the probability is that his stomach will digest whatever
the appetite craves — Food should not be given when there are
foreign substances in the stomach, neither because the patient
has been sick 3 weeks — Cordials in the early stage of fever
of the desire should not be given; but after it has passed
its acme, they may be given in small quantities — From
the time the patient begins to be convalescent, the mildest
cordials may be used in small quantities — Oil of cyder &

a spoonful or 2 at a time till he becomes weary of this
then some other cordial, a little foreign wine —

In Intermittents, food should be taken 4 hours before
the paroxism takes place, and at the usual time, as the
stomach will then best digest the food. — If the intermission
is perfect, take such food as will afford
the most nourishment. — The cordials will enable the
stomach to bear the bark better, and give him pow-
ers &c —

Lect. 35th Regimen. When the patient becomes
so unwell as to be under the necessity of lying down,
he should lay aside his bodily clothing — His bed
clothing should be adapted to his feelings, provided
he has judgement to direct, which is not always the
case — If he becomes sweaty, you endeavor to cover
him to get a quantity of cloaths, therefore you must
remove them as your judgement shall direct —

The air should be kept pure, and the room well ven-
tilated, especially if small — Much company should
not be admitted, as it has a tendency to render the air im-
pure — The temperature of the room should be kept
warm when the patient shall would render it comfortable to
a person in health, in order to make it comfortable to a
person in bed — In the cold stage the temperature may be

at 50 or 60° of Farenheit — Even in a convalescent state, he should be kept from company, as much as possible and also from all conversation of importance or which would excite interest —

Treatment — When active measures are forbidden either by the low pressure of the disease, or by any peculiarities of the case — Then even the patient should be supported by some of the mildest liquid and easiest digestion — Sago requires one of the best — Wine should be administered — Cordials of such a kind as are congenial to the patient — When no active measures are necessary, You should give medicine of a mild and safe nature merely for the satisfaction of the patient — which has no sensible quality — as febrifuges with camphor and ammonia — Third, Rest for the treatment must be modified in the varieties of fever — When there is a determination to any particular part — Revulsive should be employed, by which it may be removed & relief obtained

1st When the animal system is particularly affected — When there is a violent congestion in any important organ — General evacuations — 1st by bleeding from a large vessel until the patient is relieved or sinks from depression — 15 to 24 oz
The force of treatment should be regulated accordingly to the force of the disease —