University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1872(a)

Author	Title	Notes
Trent, R.O.	Pneumonitis[1]	
Smith, Joseph T., Jr.	The Circulation of the Blood	
Tinges, A. Sargeant	Menstruation	
Keueber, Charles J.	Typhoid Fever	
Boone, William C.	Inaugural Thesis [on Cases]	
Diller, Charles H.	Abortion	
Harmon, George E.H.	Journey of a Crumb of Bread	
Ray, Henry J.	Anaesthesia	
Norris, George W.	Bright's Disease of the Kidney	(missing pages)
Cooke, Walter T.	Pneumonia	
Watson, John A.	Gonorrhoea	
Howell, Thomas P.	Acute Pericarditis	
Keech, James O.	Spasmodic Laryngitis	
Jones, D.D.	Malaria Haematuria	
Black, J. B.	Treatment of Malarial Fever	

[1] Second title page at end of thesis.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Chamberlaine, H. Richmond	Digestion	
Salley, Micheal G.	Spasmodic Laryngitis	
Kemp, W.F.A.	Fever (Idiopathic)	

UNIVERSITY OF MARYLAND

THESES

1872(a)

Trent, R. O.	Pneumonitis	22p.
Smith, Joseph T. Jr.	The Circulation of the Blood	47p.
Tinges, A. ~~S.~~ Sargeant	Menstruation	17p.
Keueber, ~~C.~~ Charles J.	Typhoid Fever	24p.
Boone, ~~Wm.~~ William C.	Inaugural Thesis	17p.
~~Hiller~~ Diller, ~~C.~~ Charles N.H.	Abortion	42p.
~~Harman~~ Harmon, ~~G.~~ George E. H.	Journey of a Crumb of Bread	28p.
Ray, ~~H.~~ Henry J.	Anaesthesia	20p.
~~Whitehall~~ Norris, ~~G.~~ George W. ~~W.~~	Bright's Disease of the Kidney	28p.
Cooke, ~~W.~~ Walter T.	Pneumonia	18p.
Watson, ~~J.~~ John A.	Gonorrhoea	11p.
Howell, ~~T.~~ Thomas P.	Acute Pericarditis	10p.
Keech, ~~J.~~ James O.	Spasmodic Laryngitis	22p.
Jones, D. D.	Malaria Haematuria	27p.
Black, J. B.	Treatment of Malarial Fever	20p.
Chamberlaine, H. ~~R.~~ Richmond	Digestion	19p.
Salley, ~~M.~~ Micheal G.	Spasmodic Laryngitis	14p.
Kemp, W. F. A.	Fever (Idiopathic)	39p.

An

INAUGURAL DISSERTATION

on

Pneumonitis

Submitted to the Examination

of the

PROVOST REGENTS & FACULTY

of

Physic

of

the

UNIVERSITY OF MARYLAND

For The Degree Of

Doctor of Medicine

by H. C. Ward

of

Maryland

Session 1871-72

Pneumonitis

Pneumonitis is a term applied by the ancient writers to most acute diseases of the chest unattended with severe pain, those connected with this symptom being by them termed Pleurisy. Although this ground of distinction by no means hold good with our improved knowledge of the subject: and we shall find that between Pleurisy and Pneumonia there is a distinction founded in Pathology and most important in practice. There are several varieties of this disease, but the one of which it will be my purpose to speak is acute Lobar Pneumonitis. It is generally considered to be an inflammation of the Parenchyma of the Lung. The question involved in the consideration of this disease is what constitutes the Parenchyma of the Lung, this term relates to the minute air cells or vesicles

together with the terminal branches or ramifications of the Bronchial tubes these make up the lobules (which are quite distinct from one another and are easily seperable during fœtal life) these when connected together by Areolar tissue constitutes the lobes; into which each of the two lungs are divided. When not developed as a complication of an existing Pulmonary affection; this disease usually affects at least one entire lobe, and this extension of inflammation is expressed by the term acute Lobar Pneumonia; When limited to a portion of a lobe only it is called circumscribed or Lobular Pneumonia; "Anatomical Characters". The first appreciable change which takes place in acute inflammation of the lung is the same here as in any of the other tissues of the body viz: an abnormal accumulation of blood or Effusion

due to active congestion. The vessels become distended, and the whole tissue appears of a dark red color inelastic & filled with blood or bloody serum but will still float, in water though heavier than healthy lung and is also easily torn but still crepitates. When a section of the lung is made a frothy serum exudes: which is thought by some authors to depend upon a coagulation of the blood after death. If the disease be arrested in this stage; which generally lasts but a short time; the lung reassumes its healthy appearance. If not it passes into the "Second Stage". This is the condition spoken of by Laennec as that of "red" Hepatization Andral call it red "Softening". It brings the lung to a state of solidity more or less approaching that of the "Liver". The tissue of the lung thus consolidated is so heavy that it generally sinks in

water it is also more fragile than usual: So much so that the finger may be easily thrust through it. This softening seems to be chiefly the consequence of the interstitial exhaust of soft fresh lymph, which diminishes the molecular cohesion of the tissue. The color of the lung varies according to the amount of blood which it contains; if this be much it is red; if little, kinkish brown, When the blood remains fluid as in the first stage the consolidation is imperfect; and the portion of lung thus affected although it may sink in water is quite soft and resembles the consistence of the spleen rather than that of the liver hence the term Splenization. If the progress of the disease be favorable the effusion is remove mainly by rapid absorption. Upon its removal the air cells are found to have sustained no damage. The pulmonary

structure remaining intact during the continuance of the deposit; with its functional capacity fully restored: the circulation being continued with the same vigor as in health. If the progress of the disease be unchecked it proceeds to the "Third Stage" or that of suppuration called also Grey hepatization softening or purulent infiltration which consists in the degeneration of the exudation into pus. This suppuration is commonly diffused in the form of a distinct abscess: inasmuch as very extensive suppuration would destroy life before the formation of an abscess which would necessitate a complete disorganization of the tissues. When the lung which is affected is cut pus flows freely from the cut surfaces. The substance of the lung being much softened breaking down on the slightest pressure. Gangrene of the lung may

occur but this also is of infrequent occurrence. Pleuritis limited to the affected lobe or lobes sometimes occurs and is developed coincidently with the Pneumonia. I have omitted to mention however that Bronchitis affecting the bronchial tubes within the affected lobe or lobes does also exist with this affection. Some writers say that Pneumonia never exists without being to some extent complicated with this disease. In the great majority of cases the lower lobe of the right lung oftener than the left is affected. The disease very rarely attacks two lobes simultaneously: but invades not infrequently a second and even a third lobe. The inflammation extends over at least one entire lobe as the term lobar Pneumonitis implies. To this rule however there are exceptions, the whole of the lobe is not invaded at once. The inflammation commences at a certain

point or at several distinct points extending from lobule to lobule until the entire lobe is affected. The pathological characters of this disease have been fully discussed in considering the anatomical characters," Causes". This is one of the most frequent diseases with which we have to contend: no age or condition being exempted from it. It is rarely premitive under five years of age, it would seem to acquire its (maximum) twenty & thirty; it is frequent from childhood to fifty then diminishes to sixty. It attacks more males than females: this is doubtless owing to the fact of the more frequent exposure of the males. The influence of sex being not real but apparent: It occurs at certain season of the year more frequently than at others. It is much more frequent everywhere in Winter than in Summer

In the northern States it is said to be more common during the Spring months. In some sections of country it prevails sufficiently to be considered endemic. It is thought by some writers to be more severe in the Southern than the middle & northern States; being more liable to extend to more than a single lobe. A previous attack predisposes to another & shows a preference for the lobe previously attacked. In a large proportion of cases the disease is developed spontaneously: that is it is not referable to any obvious cause. Doubtless though there is always an adequate cause which exists but we are not able fully to determine what that cause may be. "Varieties" According to its seat into six classes single & double. According to causation Idiopathic from cold or Traumatic from

injury. Tuberculosis in Phthisis & Pneumonia Typhoides. Chronic Pneumonia is rarely met with except in Phthisis. What is commonly called so being induration following acute Pneumonia as an effect not a continuation of it. "Symptoms" Several days previous to an attack of this disease the patient is the subject of languor & restlessness with slight febrile disturbances. At the end of from 1-4 days. There is generally a feeling of nausea: a short dry cough: dull pain in the chest, side or back, which sometimes acute (when a complication with pleurisy may be suspected): painful breathing: acceleration of the pulse sometimes reaching 140-160 beats per minute. One of the most characteristic phenomena of this disease is the increased temperature of the body especially about the 4th or 5th day sometimes reaching 104° or 105° Fahr. in the armpit; thirst; loss of

appetite: headache delirium being not uncommon. The flush on the face has a darkish hue circumscribed and confined to the cheek corresponding to the affected side. Expectoration commences about the 3rd day: The sputa consisting of a mixture of blood, lymph and mucus forming the rusty sputa which is quite pathognomonic of Pneumonia: this sputa differs from that of acute Bronchitis which is streaked the blood not being mixed with the other ingredients. The urine is scanty as in all febrile affections and upon examination will be found to contain an excess of Urea but a deficiency of the Chlorides about the middle of the attack. I neglected when speaking of the sputa to mention that testing with Argenti Nitras it will be found to contain an excess of Chloride of Sodium.
The attack is most severe between the 5th and 7th

day after. If the progress of the disease be favorable the temperature of the body declines and all the symptoms subside if on the contrary the progress of the disease is not checked, by active treatment the symptoms mentioned are more or less aggravated there is an increased oppression in the breathing: and greater prostration is evinced with a deepened cough and the expectoration more abundant. Diagnosis. Acute Pneumonitis is almost always accompanied by symptoms which are highly characteristic of the disease. This disease is not unfrequently latent in the system: and we will be compelled to bring to our aid the means which auscultation affords us of making a correct diagnosis. Even if the existence of the disease be evinced to us by the symptoms above mentioned the situation and extent of the disease can only be determined

by the means of physical exploration: The signs in the first stage upon which we rely most are slight dulness on percussion and after the 2nd or 3rd day a fine crepitant rale caused by the separation of the adhesive walls of the vesicles in inspiration. The latter if well marked is almost pathognomonic of the disease. The distinction between this rale and the subcrepitant with which it is liable to be confounded are its fineness, dryness, and its being limited to inspiration: as the lobules become more solid it fades. The dulness is more marked in very many cases the disease has reached this stage before the patient is seen, when the solidification has become sufficient in degree and has extended sufficiently over the affected lobe we have developed Bronchial respiration and bronchophony with increased vocal fremitus. The progress of the second stage

may be determined by the existance of all the signs but if one should be absent the others are most likely to be present. The dulness on percussion in this stage is more marked than in the first bordering almost to flatness in some instances. This flatness blends over a space corresponding to the solidified lobe. The invasion of a second or third lobe is denoted by dulness on percussion and the auscultatory signs of solidification. If the disease pass into the stage of suppuration: the dulness or flatness continues and the muco crepitating rhonchus due to pus in the air tubes are prominent. The auscultatory signs of solidification continue but are less marked. If the abscess of the lung takes place and the patient survives long enough for a discharge of pus to take place in the Bronchial tubes: we have cavernous respiration which may become well marked. A.

excessive serous effusion which occurs exceptionally is shown by signs already mentioned. Under circumstances of this character the affected side may become more or less dilated with an obliteration of the interstitial spaces, and then an obvious contraction of the chest may follow recovery. "Prognosis" The prognosis in acute pneumonitis will depend upon the extent of lung involved; also upon the disease with which it may be complicated. The previous condition of the patient. If these circumstances will affect considerably the gravity of the disease. Occurring as a primary affection limited to the lower lobe not complicated with any other disease in a young and previously healthy person under favorable circumstances with judicious treatment should always recover. Even if more than one lobe be affected if the disease be primary and uncomplicated and the patient not enfeebled by age, or from any other cause

a favorable termination may be expected. The gravity and danger of the disease in some cases proceeds not so much from the disease itself but from coexisting circumstances. Developed in the course of some other disease as continued fever measles or Organic disease of the heart it may lead to a fatal termination. In aged and feeble persons it may prove fatal without the existence of any other disease as a complication especially if more than one lobe should be affected. The unfavorable anatomical change pertaining to the lung are "gangrene" abscess and the suppurative stage of the disease. Yet cases have recovered after the occurrence of all these unfavorable conditions some of the symptoms which are unfavorable are the following. Frequent and feeble pulse great frequency and labor of respiration: lividity of the countenance: an abundant purulent or muco purulent expectoration: bloody dark colored

sputum commonly known as the prune juice sputum active violent delirium: low muttering delirium with great prostration generally characteristic of the typhoid state and is often denominated as typhoid pneumonia. When convolescence takes place in this disease it generally progresses until recovery is complete. The tendency to pass into the chronic form is the most frequent sequel. Tuberculous deposits, sometimes even acute phthisis may follow pneumonia in persons predisposed to this affection "treatment" The different stages of this disease furnish different therapeutical indications. The question whether it is within our power to cut short or arrest the disease relates altogether to the first stage: after this we can only assist nature to recover. The practice in this affection has been greatly modified from what it was during the time of the founders of our science. The practice of blood letting and the other active

antiphlogistic means: have fallen almost into disuse except in a few cases. Those means which were thought to be so efficient, formerly have in the hands of the modern practitioners of medicine almost entirely failed. If we admit that they sometimes succeed the probability of success is so small as not to warrant their employment under circumstances which will be likely to render this operation hurtful if they do not prove successful. The objects of treatment are to diminish the violence of the inflammation, to relieve symptoms: and place the system in a condition to tolerate the disease. Venisection in certain cases as a palliative and also as a curative measure to some extent - and in view of the promptness of its action is admissible. When the pulse denotes increased power of the heart's action and a condition of plethora this remedy may be resorted to

It is contraindicated when there is not so much fever: the pulse tending actively without power and the patient anemic or having a feeble constitution. In those cases in which it is admissible if the same end can be obtained by other remedies the latter are to be preferred. These consist of depletion by saline purgatives and the use of sedative remedies. After the operation of the purgative if the skin remains hot and dry: and the pulse frequent: we may administer some of the sedative remedies which are thought to exercise a controlling influence over the heart's action. Prominent among the last is the veratrum viride: this is quite a popular remedy in the hands of some physicians: while others object to its use. This agent should be given with tinct bhei which is said to counteract the prostrating effects without lessening its value. Of course

these remedies are not called for if the symptoms are not urgent and there is much feebleness and depression. Opium may be given with propriety in doses sufficient to relieve pain and tranquilize the patient; a large blister applied over the chest about the 5th 6th or 7th day of the attack is generally useful. We may also employ with advantage dry cups "Sinapisms" or stimulating liniments: warm fomentations and poultices. Bloodletting by the arm should never be employed more than once and never later than the 3rd or 4th day. Blood not according to the amount of blood taken but according to the effect on the system: In the third stage the supporting treatment is required such as quinia, Carbonate of Ammonia together with Creosote Chloride of Lime and the mineral acids.

bert Eros. Practitioners of the present-day hold themselves when having discovered the "modus modendi" in stimulation and no doubt they are as extravagant in their views as others have been in the employment of depleting measures. But contrary to the general opinion some few of the present-day are still strong advocates of depletion. Dr. Williams being classed among them. Dr Bennett says that bloodletting is rarely indicated and when employed the amount drawn should be small not exceeding a few ounces. Dr Todd advises cauterization of turpentine applied over the thorax is very beneficial. purgatives should be given and the patient invigorated by the use of tonics and stimulants in combination with diaphoretics and diuretics. Dr Todd

considers all diseases asthenic and the treatment should be regulated accordingly. Prof. McNaughton recommends hygienic regulations in a majority of cases: he furthermore says I do not bleed because of the presence of a fine erythematous rash but to allay vascular excitement: but as a general thing I do not bleed. Nitrous oxide during febrile excitement: after the subsidence of the febrile symptoms active treatment should be discarded. The patient should eat nourishing food and stimulate if necessary. In warm weather the patient should be kept cool and comfortable but not exposed to a draft: the patient should wear flannel next to his skin if the weather be not warm. In the early stage with considerable febrile excitement with full pulse: increased dyspnoea with veins distended bloodletting should be resorted to, to relieve

the pressure and prevent further exudation

H. A. Frank

G. E. Kempton

An

Inaugural Dissertation

on

[illegible]

submitted to the Examination

of the

Provost Regents & Faculty

[illegible]

University of Maryland

for the Degree

Doctor of Medicine

[illegible]

[illegible]

Session 1871-72

Thesis

Presented and Defended

in Convocation of the Medical

Schools of the University

of the

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of Physic

of the

University of Maryland

for the degree of

Doctor of Medicine

by

Joseph S. Smith

of

Baltimore Maryland

Session 1871 and 18

supplied with materials necessary for their growth and development; this constant supply is rendered necessary in order that the waste, to which the various tissues composing the organisms are subject, may be supplied, and the utter destruction of the living substances prevented.

The manner in which these materials are conveyed to the tissues for their appropriation varies in

ferent organisms; in the lowest forms of living matter with which we are acquainted, there is no real distribution of the nutrient material but each separate tissue absorbs its own nutriment from the medium in which the living matter exists; advancing to a higher state of organization we find the nutrient material distributed throughout the substance of the living mass, by minute tubes

[illegible] in [illegible]
[illegible] [illegible] [illegible]
we find these tubes
increased in size (becoming
tubes) and endowed with
a contractile power which
serves the purpose of forcing
the materials necessary for
nutrition throughout their
entire length; finally we
reach man, the highest type
of a living organized being,
and here we find all the
propelling force situated in
one muscular organ, the
heart, which serves

[illegible] through the vessels slowly, which it does not pass to the minutest ramifications, but these vessels are not merely tubes allowing of the passage of the liquid blood through them, but they exert upon the blood a force which alters materially the character of the current as it passes along them. This arrangement of heart and blood-vessels is not confined to man, but is found also in the higher orders of animals.

The heart and [illegible]

[illegible] the shape of a force-pump; it is hollow, [illegible] organ, conical in shape; it is situated obliquely in the cavity of the chest, its base is behind the sternum, and its apex, during life, may be felt striking in the left side of the chest, in the fifth intercostal space and about one inch and a half from the edge of the sternum. The heart is really a double organ or pump: there are two distinct [illegible]

and having a function of
perfection peculiar to itself,
which are found together
for the purpose no doubt of
economizing room and
material; indeed in some
animals there are two hearts
distinct in every respect
the one from the other.
The muscular fibres of
which the heart is so largely
composed, may be separated
into a number of layers
the external ones running
spirally around the organ
from base to apex, with

These deeper seated encircle the [illegible] in in circular bands.

Surrounding the heart is a shut sac; called the Pericardium, which allows of the heart's free motion within, at the same time that it invests and protects it. Internally the heart is divided into four cavities two on the right side and two on the left, moreover two of these cavities are found at the base and two at the apex, those on the right side being [illegible]

seperated from those on the left. At the base of the heart the two cavities are called auricles one for each side, those at the apex the ventricles of their respective sides.

Like all other muscles around the heart is endowed with the power of contractility but it differs from all others in the body by the rhythmical exactness with which it contracts and dilates the tube flows, and by its unceasing activity. Effort is

of that organ the contractile
activity of the heart of a dog
be entirely cut off from all
communication with the body,
upon the application of an
irritant it will be observed to
contract and dilate in its
accustomed manner for a
considerable length of time;
and to explain the functional
phenomena it has been
supposed that the ganglionic
centres distributed through
the heart substance retain
the stimulus sent to the
heart, and that the organ

can be made to contract and dilate as long as the centres retain the impressions they have received. This is, I think, the best explanation that has yet been given by Physiologists to account for the peculiar action of the heart. One of the most perplexing and difficult questions which the Physiologist has attempted to answer is, what causes the rythmical action of the heart. For want of a better reason, he says that the peculiar manner in which the

contractions and dilatations of the heart take place owing to the enormous power possessed by the muscular fibres composing the organ, and cannot be accounted for any more than the peristaltic action of the bowels or any other involuntary muscle. We must take this substitute for a reason until a reason offers.

In looking at the alternate contractions and dilatations of the heart, we would say that auricle and ventricle contracted and dilated alternately. The

that the auricle dilated during the ventricular contraction and was empty, but such is not the case as a close observation will show; when the auricle has contracted and thrown its blood into the ventricle the latter at once contracts upon its contents, expelling them into the efferent vessels and then dilates to receive a fresh supply; now while the ventricle is contracting and during the first stage of its dilatation the auricle continues to dilate, and it does not contract a second

how and the methods by which
fully detailed.

The blood must pass through
the heart before it can be
fitted for supplying the
economy with its nutrient
material; the course of the
blood through the heart is as
follows; the blood (venous) is
poured into the right auricle
from the Venae Cavae, from
which it is thrown by the
auricle's contraction through
the auriculo-ventricular
opening into the right ventricle,
which upon being filled

and sends the blood through the pulmonary artery into the lungs; the regurgitation of the blood into the auricle during the systole of the ventricle is prevented by the closure of the tricuspid valve, which is so constructed that the greater the pressure of the blood the more firmly does it close, the valve is retained in its place by the chordae tendinae; the blood is prevented from flowing back into the ventricle during its diastole, by the closure of the semilunar valves

the veins arrangement of valves prevails in the left side. The blood having been oxidized in the lungs, passes along the pulmonary vein and empties itself into the left auricle by the contraction of which it is thrown into the left ventricle, which contracting upon the blood thrown into it sends the material prepared for nutrition, throughout the whole economy. Thus it is that the impure blood is first carried to the right side of the heart from which it is thrown

[illegible] led to the lungs for purification, after which it passes to the left side of the heart to be sent through the body for the supply of all the tissues. In placing the ear against the chest of a healthy individual just over the space occupied by the heart, two distinct sounds may be heard the first dull and prolonged, the second quick and sharp; the former is best heard at the apex, the latter at the base of the heart. This was a doubtful question for a long time, and is not

fact of either valve is one that produced the first sound: the causes proposed and upheld by Physiologists are numerous; the rushing of the blood through the auriculo-ventricular opening; impulse of the heart against the chest, the flapping back of the Tricuspid and Mitral valves; it is probable, however that the greater part, if not the whole of the first sound is produced by the flapping back of the auriculo-ventricular valves. The second sound of the heart is produced beyond a doubt by the closing of the semi-

...lves. It will be necessary in aus-
cultating for cardiac diseases, to listen
at the base for the second sound
and at the apex for the first
sound of the heart. The first
sound is synchronous with the
radial pulsation. The number of
the heart's pulsations varies
greatly with the age, sex and tem-
perament of the individual, and also
in the same individual at dif-
ferent hours in the day, and
according to the position he assu-
mes. In the infant, the pulse will
show an average of 95 to 100 beats p.
minute, while in the old,

it will not average more than 60 or 70. The force with which the first contracts is estimated at about 4½ lbs.

After leaving the left side of the heart, and entering the Aorta, the blood by the divisions and sub-divisions of the great vessel is conveyed throughout the entire organism.

The arteries are tubes allowing of the easiest and most economical distribution of blood, at the same time conveying it to the various tissues and organs by the shortest and most expedit-

[illegible] demands toughness, one of the most important characteristics of these arterial vessels is their flexibility; they are not solid as the bones, forming dense unyielding tubes serving merely the mechanical purpose of allowing a liquid to pass through them, nor yet are they semisolid as cartilage and tendon permitting an increase of their calibre only under intense pressure, but they are yielding and elastic, allowing the nutrient fluid not only to pass through them, but at the

[illegible] exercising a very important influence on the rapidity and character of the current; if it were not for this peculiar action of the vessels themselves, the circulation of the blood as it should be would be impossible.

The arteries are composed of three coats, a cellular or external, a muscular or middle and elastic and a serous or internal; each one of these has a function to perform peculiar to itself, and the combined action of the three is necessary in order that the blood may be properly given to the tissues

for the blood from heart
its own material. In the main and
larger arteries the yellow elastic fibres
predominate over the muscular, in
the smaller arteries the reverse is
observed, namely the muscular fibres
are more abundant than the elastic.
When the blood is thrown into the
vessels from the heart the stream is
an intermitting one, that is the
heart does not by a steady pressure
force the blood in one continuous
stream through the vessels, but by
its successive contraction and dila-
tation expels the blood in jets thus
by rendering the stream intermittent

moment the force with which the heart acts causes the blood to flow swiftly through the vessels, given off by the heart at the of about 12 inches per second. But the intermittance and swiftness of the current are of themselves sufficient to thwart the whole object of the circulation, for the tissues cannot be nourished unless the blood flow in a continuous stream and with sufficient slowness to enable the material which it contains to be absorbed. The first of the conditions is obtained by the elasticity of the arteries. If

water be thrown by a intermittent force through an inflexible solid tube, it will issue from the far end of the tube in the same manner in which it entered by successive jets; but for the solid substitute an elastic tube (and mark the difference), the water no longer escapes in successive jets from the exit end of the tube, but in an almost continuous stream, which will be entirely continuous only when the elasticity of the tube and the fluid flowing through it are accurately adapted the one to the other.

Applying this principle to the arteries we find it holds good for by their elasticity they convert the intermittent stream as it issues from the heart into a continuous one as it enters the capillaries. The blood is now flowing in a continuous stream, but it is running too swiftly for the tissues to absorb from it their proper nutriment. This swift current to fulfil the conditions laid down above must be modified. It is a law in Natural Philosophy that a liquid flowing from a pressure

and a broad channel, which they being equal means less and less rapidly the branch the channel becomes. The arteries after leaving the aorta divide and subdivide until they finally end in the capillaries, so that the calibre of the branches exceeds that of the main trunk from which they are given off. As the area over which the blood flows therefore increases as the arteries divide and subdivide, and as the same law holds good in this instance as in the one mentioned above, it follows that the blood flows

ing from the narrow branch (the main artery) into the wider channel (the venous branch) moves slower and slower until in passing through the capillaries it moves at the rate of 1 inch per second instead of 12 as it did in the arteries. Thus we see the intermittent flow converted into the continuous and the bounding current into the slowly moving stream; and now and only now can the material from the blood be readily absorbed by the tissues. But in order to this it necessary before the circulation in the arteries is complete

and thus is the regulation of the amount of blood which flows to a given organ at certain times, when it is in active exercise, and which tends continually to keep the arteries filled with blood by diminishing or increasing their calibre according to the amount of blood which is necessary should pass through them. This regulation of the amount of blood is performed by the muscular fibres of the arteries, which by their contraction and dilatation have a tendency to keep the vessels filled with blood, and the organs supplied

the quantity of material they
[illegible]. I doubt not that the
various preparations of iron, zinc,
and copper which we are feeding
their effects upon the muscular
fibres directly or indirectly.
The blood having passed through
the arterial tubes, must now flow
through a minute network of
vessels called capillaries, there to
undergo those changes, chemical
and vital, during which it gives
to the tissues their proper nourish-
ment, and receives back from the
the products of their waste and
decay. These capillaries are a

lies consisting of a single row of
cells with, which is continuous
with that of the internal or serous
coat of the arteries; the diameter
of some of them are smaller than
the red corpuscles which in order
to pass through are compelled to
alter their shape, there are still
smaller, exclusive entirely the ca-
pillaries and allow the plasma of
the blood to pass through them
alone, as in the cornea of the eye
and the crystalline lens.
The propulsive action of the heart
and the exercise of the frame
harassed by the vessels are

[illegible] the question of the blood through these minute vessels; but is there no other cause that might also exert influence the capillary circulation? The capillary wall by its elasticity and the tissues in which the capillary ramifies do perhaps have a modifying influence. The effect between the blood in the veins and the tissues outside may in a manner cause the departure of the blood from the capillaries into the veins, that is the blood which has undergone the required changes, having no cause to remain

may be diminishing by the blood which is filled with material for which the tissues are working and which consequently has a great affinity for them; these and other causes may exert their influence and no doubt do but the action of the heart is perhaps the main agent in driving the blood through these vessels. When the increased flow of blood to a part upon the application of a stimulus is produced, it is due no doubt to the dilatation of the small arteries or arterioles, which allowing the

increase of blood & flow thereby, causes the distension of the capillary vessels; diminution of the supply upon the application of cold or other astringent is caused doubtless by the contraction of the same arterioles and not by the contraction of the capillary walls themselves. The blood flows slower through the capillaries than through either the arteries or veins, moving at the rate of 1 inch per second. The number of capillaries ramifying through a part depends upon the functional activity of which the part is capable.

the greater that extent the greater must be the supply of blood and consequently the number of tubes to convey the supply must be increased. The amount of blood which flows through these vessels varies at different times and under different circumstances, being greater when the part is in a state of activity, and less when it is quiescent.

The veins, which are the last system of vessels through which the systemic blood has to pass, present a marked contrast to the arteries in many respects.

their function as efferent vessels also their structure be. The veins take their origin in the capillaries and collecting the blood from all parts of the system, convey it to the heart; while the arteries take their origin at the heart and after distributing the blood to all parts of the economy, end in the vessels from which the veins originate: the veins have in different parts along their course valves supplied to them; the arteries are utterly destitute of such appendages: through the veins the blood moves in a centripetal

[illegible] the [illegible]
[illegible] the [illegible] it moves
swiftly; finally the veins carry
the impure and injurious blood,
the interior the force and nutri-
tion. The movement of the fluid
along these vessels is caused in a
great measure by the heart's action,
but other influences, in all probabil-
ity, exert a power for the furtherance
of this object. The muscles by
their contraction pressing upon
the veins aid no doubt in for-
cing the blood onward, which is
prevented from flowing back by
the closure of the valves with which

The veins are however [illegible]
contended that the auricle fo[illegible]
dilating, a vacuum is produced
which the venous blood must
rush in to fill up, thereby causing
the blood throughout the venous
system to flow onwards towards
the heart. The blood flows very
slowly through the veins, and
a very slight cause will suffice
to occasion the retardation or
complete stoppage of the circula-
tion through them, now to
prevent this blood from being
drawn back into the capillaries
and from thence into the arteries

the veins are provided with valves which serve to keep in the current in a manner in the direction of the heart but let the current from any cause be made to flow backward, at once the valves close, and all further backward movement is arrested. The veins not only contain the effete material cast off by the various parts of the body, but all the nutrient material must first pass through these vessels and be carried to the various organs for purification before it can be

& the tissues of the animal
fuel for the nutrition.

We have thus followed the blood
throughout the system from the
heart back to the heart again,
during which it has passed
through three distinct sets of
vessels, the arteries, capillaries
and veins each of which has a
peculiar office of its own to per-
form and the action of the three
makes one of the most beautiful
and harmonious productions of
nature. The arteries convey the
blood to the capillaries, the
capillaries serve as reservoirs

from which the tissues receive their supply and into which they cast the products of their waste and decay, while the veins take up this effete material and carry it to the organs by which it can be either eliminated from the system or altered so as to be fitted for nutrition. Having thus reviewed the Systemic Circulation, we will briefly glance at the foetal circulation, which differs in a marked manner from that of the newly born infant.

In the adult the blood after

circulating through the body is carried to the lungs for purification this purification which is effected by the respiratory process, is so essential to life that its suspension for but a few minutes will cause the death of the individual. In the foetus the lungs do not perform their function they are quiescent, and it is not until after birth that their activity commences; such being the case, and the purification of the blood by contact with some fluid containing oxygen being so essential, how is it

that the foetal blood is perfectly prepared for nutrition. The placenta is now generally acknowledged to be the seat of the foetal respiration and it is by the circulation of the blood in it that the necessary changes are brought about. The mode of respiration being thus altered, causes some change in the foetal circulation, different from that in newly born children. In the first place the foetal heart is placed nearly perpendicularly in the chest; between the two auricles and

tion of the heart is an opening (foramen ovale) guarded by a valve, which serves a very important purpose before the child is born, but which did it remain long after birth would cause the Infant's death. In the second place the manner of the distribution of the blood varies in a striking way from that of the adult. The following is the course of the blood in the foetus: Being purified at the placenta, the blood flows along the umbilical vein, part of it to be distributed

to the liver, the rest passes along the hepatic veins to the ascending vena cava; having got into the vena cava the blood flows along this vessel and is poured into the right auricle of the heart across which it flows through the foramen ovale and into the left auricle, then into the left ventricle and finally by the ventricle's contraction it is sent into the aorta to be supplied to the head and upper extremities. The blood returning, as venous, from the head and upper extremities enters the right auricle

reaching the stem of the pulmonary vein, and mingling in any great measure with it, and flows into the right ventricle. This ventricle throws the contained blood into the pulmonary artery. This artery does not carry but a very limited supply of blood to the lungs. The principle part of the blood which enters it flows out into the aorta through the ductus arteriosus which opens into the great vessel just below the entrance of the blood coming from the left ventricle;

blood is then distributed in part to the lower extremities but principally to the placenta for purification. The blood of the foetus is as we see a mixed blood, there being no absolute arterial nor any wholly venous blood, but both seem mingled in different proportions in various parts of the body.

We have thus traced out as briefly and as concisely as possible the circulation of the blood in the adult and in the foetus in utero, both of which are most beautiful

and arrangement, constructed for carrying out the great purpose for which they were formed namely the carrying of a continual supply of blood for the growth of the tissues and the acting as a ~~[illegible]~~ collecting and removing all the effete and poisonous materials from the system: The Portal Circulation it is impossible for us to enter into as we have now far outrun our allotted space.

approved J. H. C.

AN

Inaugural Dissertation

ON

Menstruation

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

A. Sargent Jones.

Of

Baltimore. Md.

Session of 1871 & 1872

"Infants are sensitive at birth, and destined by nature to give us existence and to preserve us afterwards by tender and watchful care; woman, the most faithful companion of man, may be regarded as the very complement of the sensible bestowed upon us by the Divine Being, as an object fitted to excite our highest interest, and presenting to the philosopher, as well as to the physician a vast field of contemplation."

Menstruation

Menstruation is, as the word implies, a periodical flow of pale mucus mixed with blood, from the genital parts, having its source in the walls of the Uterus.

It is commonly known under the following names. Courses, Monthlies, The monthly sickness, Flowers.

To such appearance, indicates that the girl has reached the period of puberty, and, is now capable of bearing children.

The reproductive faculty divides the life of the female into three stages, which are distinct, and separate.

In the first the faculty lies dormant, in the second it is full of life.

And in the third it gradually dies away.—

The duration of the first period, has some influence on the other two; for instance, if puberty comes on at a very early age, say eight or nine years, the girl is a woman before her time, and becomes so to speak abnormally old.—

During the first period (from birth until the first appearance of the courses) the ovaries are actively taking part in the phenomena, and gradually developing themselves; in the second they become perfectly formed, and ready to perform their function, which they faithfully discharge if not prevented

with the ovaries of the bird, and last period, in which their functions cease, and they gradually become extinct.

But, before the age of puberty young girls enjoy a short period of pleasure, and happiness, everything seems bright, and cheerful before them," with no cares nor troubles they sing, and laugh, as they proceed along the flowery path, up to the age, when nature calls on them, for the tribute which they owe to the species."

The young girl, who, until now was almost a nonentity, becomes a fully developed woman.

The upper extremities differ slightly from those of the male, increase in size in every direction; the breasts are rapidly developed; the outline of the body become full, and rounded; her voice becomes softer in tone; her looks are more timid, and embarrassed in the presence of her friends, and playmates; she shuns the society of mankind, and seeks solitude in the exercise of feelings, and desires, which she cannot as yet understand; her character, inclinations, tastes, habits, and in fact everything connected with her, serves to point to the arrival of a new life.

"The bud rapidly expands, blossoms and gets the flowers, and this brilliant metamorphosis is signalized by the rosy tint of the cheeks, and lips, and the perfect development, which discloses the arrival of the age of puberty."

But, does this change take place without any trouble or pain on the part of nature?

In strong healthy girls, there is very little trouble caused by the appearance of their courses, but these cases I am sorry to say are "few and far between."

In the majority of cases, just as the girl is entering puberty, she puts on corsets, (very good things if properly

worn, but terrible if put to a wrong use,) and commences to draw in her waist, which throws the weight of the internal organs down upon the congested uterus, and in "nine cases out of ten" throws it out of place. It is a sad, but well known fact, that out of all the women in the world, nearly one half, have more or less displacement of the womb. About this time also the young girl must enter society, in which she plunges into all sorts of dissipations, and enjoyments, often for weeks at a time, not going to bed before two or three o'clock in the morning, and then only getting a few hours of disturbed

sleep; Is it any wonder, that the girls of this period becomes old women, before they are twenty five?

The symptoms generally presented at the appearance of puberty are as follows — The young girl complains of a general feeling of weakness, and lassitude; — of a sensation of swelling in the lower part of the abdomen; of pains in the back; of weight, and heat in, and about the loins; of more or less itching, and swelling of the genital parts; and a painful swelling of the breasts.

The countenance has a languishing look; the cheeks are pale; the eyes dull with dark lines underneath;

the hand, and feel moist, and cool with more or less blueness around the nails. The most of these symptoms appear at each monthly period.

Of this line girls reading late cold; soon become fatigued, and are for the most part sensitive, sad, timid, irritable, or subject to queer notions, which claim not only indulgence, but the tenderest commiseration, from those with whom she may be thrown.

In many cases the excitement is so great at the appearance of the courses, as to produce fever, and some say that the first appearance is never unattended by fever.

The symptoms just described last from one to eight days, and are followed by a discharge of mucus. This shortly after, become mixed with blood, and finally becomes a flow of almost pure blood; this continues for several days, and then gradually ceases.

Sometime the flow (having been established) comes on without any feeling of discomfort, while the girl is walking, dancing, riding; or even during sleep, but this only happens in rare cases.

In most cases the flow returns after the lapse of twenty eight days, and continues in this regular manner,

nursing or pregnancy only, interfering until the time of cessation, forty or fifty years.

Menstruation generally appears between the age of eleven, and eighteen years; warm climate, residence in city, and strong constitution, favor early development; while cool climates, country life, and weak constitution, seem on the other hand to retard its appearance.

The duration of the flow varies from one to eight days, commonly lasting three or four days, though on this point there is no fixed rule.

The quantity of blood not depends upon the life, habits, diet, and climate

to which the individual may be exposed.
Some women losing a large amount, while with others, the use of the napkins is hardly necessary.
The flow may stop for several hours, or even for one or two days, and appear again under the influence of a side, or long walk &c.
Moral emotion, indigestion, and above all the action of cold may determine the temporary or final suppression.
The seat of the flow has been proved beyond doubt, to be in the walls of the uterus; to be sure other mucous surfaces have been the seat in a few cases, but such, may be set down as vicarious or abnormal.

The cause after many years of discussion, has at last been determined to be the evolution of a Graafian vesicle.—
The Graafian vesicles of the human female are analogous to the eggs of the fowl.—
They are found in two organs situated one on each side of the body, called the ovaria.— microscopic examination has shown, that in the ovaria of a healthy woman at 18 or 20 years, there are some 700.000. ovules or eggs.— if all of which, should become developed, it would require but one woman to populate four cities like Lyons or Marseilles, and but two to people the city of Paris.—
Until the age of puberty these vesicles

of small size, but at this period some of them increase in size, and project from the surface of the ovary. At each menstrual period one or two of these attain the size of a cherry, rupture, and are thrown off, being discharged about the middle or latter part of the flow.

The disorganization which takes place is ~~[illegible]~~ the effect of the congestion, in the walls of the uterus, caused by the foregoing phenomena.

The cause of menstruation is not known and a fixed fact, but why it should return every twenty eight days is, and ever will be unknown. Some, have tried to prove that the change of the moon, had some thing to do with the

regular recurrence of the flow, and that consequently all women were unwell at or about the same time,* which I can we know to be false, — I think about the best, and only answer we can give to this question, in the words "because." —

From what I have been said, it will be readily seen that the appearance of menstruation may be a very critical period in the life of the female, — this third stage or that of cessation is also considered, by many as very critical, but statistics prove that such is not the case. —

Now, to the young girl is needed counsel, and advice, with a little care she may become a healthful, and happy

* Menstruating at each full moon — this is thought by many outside of the profession —

creature, and with a little carelessness she may ruin herself for life.

Most girls, brought up with no knowledge whatever of themselves, when the flow first appears become frightened, and supposing they have been injured in some way, do all in their power to stop the "bleeding".

Often for the sake of pleasure, and on account of the inconvenience which their courses entail, and from advice of older girls, (not worthy to be called women,) proceed to stop them by cold applications, acid drinks &c, as soon as they appear.

By so doing, they not only run the risk of sudden death, but they

of bringing on diseases, which may sooner or later end in death.

I am sorry to say that in many cases the fault lies with the mother; they, partly from fear of frightening their daughters, and partly from false modesty, keep quiet, and see them suffer, when by a few words, fitly spoken, they might relieve all their fears, and in this way save many a one from ruin.

Let the young girls know in the beginning about themselves, and I venture to say, it would not be many years, before it would tell, in the general improvement of society, and in this way lessen the number of fallen women.

There is an old saying, "a little knowlege is a dangerous thing," it may be so in some cases, but the want of that "little knowlege has caused many an hour of trouble, and been the ruin of not a few women.

These last remarks may apply also to boys entering puberty, I should like to know how many fathers, ever speak to their sons on this subject? not many! What they learn, is by experience, or from the talk of wild companions.

Respectfully submitted to the Faculty

of

The University of Maryland

A. S. Finger

AN

Inaugural Dissertation

ON

Typhoid Fever

Submitted to the Examination

OF THE

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OF

PHYSIC,

OF THE

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FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Charles Julian Kreuter

Of

Maryland

Session of 1871–72.

Typhoid Fever.

Nervous fever, ataxic fever, or adynamic typhus — belongs to the acute exanthematous diseases and the symptoms of this disease have a certain resemblance to the symptoms of the exanthematic typhus, but the belief that the latter is a simple and abdominal typhus a complicated form of the same disease is erroneous according to the best authorities.

The causes of typhoid fever are very obscure; it may be propagated by contagion or have a miasmatic origin; violation of hygienic laws impurities of water, using putrid that have connection with sewers

will tend to generate and spread the disease. The susceptibility to infection varies certainly in different persons according to the diseases which age, condition of life, and constitutions exert over them. Persons under 5 years of age are more liable to be attacked than infants or the aged, males oftener than females, and adult in rare cases are attack remarks the susceptibility.

In the majority of cases of typhoid fever the evident commencement of the disease is preceded for days or weeks by indefinite prodromic symptoms which make it difficult to determine the exact nature of the malady, but after the disease has developed itself, they are of great diagnostic value

in distinguishing a bilious remit. typhoid from other diseases that begin more abruptly. Malaise, headache, dizziness, rheumatic pains, loss of appetite, and often repeated epistaxis, precede generally the onset of the disease. Its seen as the first chill occurs during the prodromata, we may consider that the disease proper has begun, but the chill is never so severe as in intermittent fever or pneumonia.

During the first week the patient generally gets very weak, complains of headache, dizziness on rising out of bed, his sleep is disturbed by dreams and there is a marked tendency to diarrhoea. The complexion assumes a dusky hue, the tongue

is covered with a thin whitish epithelial coating with small red papillae projecting which gradually falls off leaving a moist, smooth tongue. The stomach is irritable, the abdomen is somewhat puffed and tense and tender on pressure, especially in the right iliac region.

If there has been much diarrhoea, we notice on pressure over the right iliac fossa a gurgling sound, the so called ileo-cecal gurgling which is of some diagnostic value. There is often some cough and the urine is high colored and concentrated.

If the patients survive the worst they pass into convalescence and diarrhoea is

drinking freely the ordinary amount of wine is not diminished. (Hyde)

At the end of the first week the convalescence of the patient is generally advanced.

The most important symptom in the fever, the temperature of the body rises very regularly in a manner almost pathognomonic of abdominal typhus. During the first week the morning temperature is usually two degrees higher than that of the morning, the morning temperature of the next day one degree higher than that of the preceding afternoon. Toward the end of the first week, occasionally there is more rises of morning temperature, but now the morning temperature is always

degree lower than that of the normal [illegible]
The pulse rises to about a hundred and twenty
[illegible] and we often notice that the first
pulsation is followed by a wonder and
the pulse beats double and is called dicrotic.
2) In the beginning of the second week
small rose-colored spots begin to appear
their appearance over the epigastrium,
and in some cases over almost all
lower half of the thorax and the back.
These spots disappear under pressure.
The pain in the head and limbs causes
but dizziness remains and becomes more
and is accompanied by deafness.
The countenance assumes a more apathetic
and dull expression, there is a loss

nothing delirious in some cases, in others, just as in different to things around them, the delirium is of the most exciting character, nothing is necessary to restrain them but physical force. The tongue is protruded with difficulty, tremulous and after it is protruded the patient forgets to draw it back, and has to be reminded of it, and urged to do this also.

Toward the end of the second week the patient very often voids his stools and urine in bed, he evidently does not perceive the necessity to empty his bladder and rectum. The dejections have the color of badly cooked pea-soup.

The objective symptoms have changed and be some extent, the face looks more reddish brown or bluish, the eyes are half closed the nostrils are dilated and there is a dark brown mucous coating of the teeth and gums. Besides the tongue is covered with a brown dry crust which sometimes covers leaving the tongue sore, and the coating blackish nothing from the admixture with blood. The deposition of this crust causes a very disagreeable odor.

In the retained muscles causes not excessive weakness as often happens single fasciculi contract the secondary

cases of the condition.

The delay is usually caused by the extensive mortification of the intestines.

On the third week of typhoid fever the somnolence and stupor reach the highest degree and the patients become excessively weak. The delirium and excitement give way to increased stupor and automatic movements; picking at the bedclothes, etc., is of frequent occurrence; the fæces and urine are passed almost unconsciously in bed. The thoracic and abdominal symptoms increase. The breathing and pulse become more rapid and the meteorism and diarrhœa

is a decided.

The vascular skin about this time begins to fade and bedewing sometimes make their appearance. The pulse may range from 100 – 140 per minute, and in some rare instances may be even below the normal standard. In some patients we find retention of urine, owing to paralysis of the detrusor urinæ, and upon examination we find the bladder excessively distended. Red sores are common. Clamminess, hiccough, and restlessness indicate the approach of death and the sufferer most commonly dies from oedema of the lungs, after the

prostration, coldness, pale and temperature had attained the highest degree.

In some instances death seems to take place from mere debility of the heart, owing to the excessive weakness already described; there having been no pulmonary complications. On the other hand the patient's bodily pains in strength; there is a decided vacant expression of interest in objects around him; the dogs sooner, during which he lived a dream-life gives way to natural sleep — then a favorable termination may be expected although the danger is

not yet sane, and the fond sight of parents or friends recalled by the first glance of recognition and affection, are often blasted. The patients no longer pass their fæces and urine in bed, but ask for the bed pan, they complain of the bed sores; the desquamation of the cuticle becomes better the stools are less frequent, the tongue loses its coating and becomes moist, speech becomes more intelligible, and with this general improvement of all the symptoms the patient pass into convalescence.

Having given in the preceding a

condensed statement of the causes and symptoms of typhoid fever, it is necessary for us to view some of the most important changes, that are brought about by this disease in the human body, and as they appear to us after death.

Patients, dying in the early period of the disease are in general not a great deal emaciated. The muscles of the body, after being cut inside, have a dark red appearance and are hard and dry; there is congestion of nearly all the organs, enlargement of the spleen and the inflammation of the dependent parts of the

fevers. The most important lesions are found in the small intestines, especially in the ileum.

The whole mucous lining of the small intestines is in a state of acute hyperaemia, mostly marked near the valvula Bauhini. The swelling and redness of the mucous membrane of the intestines increases, especially around and near the solitary glands and the patches of Peyer, causing these glands to undergo certain changes. In the first place they become enlarged and more perceptible than they were in the natural state, presenting a greyish surface to the

over with small black specks, the contents of the follicles probably.
As inflammation proceeds they become more red, the little follicles burst, ulcerate, or slough away, and along with this process the corresponding mesenteric glands become light, swollen, and dark colored, but never fall in an ulcerative state.
These alterations in the bowels are extremely interesting, and furnish reasonable explanations of many of the symptoms of abdominal typhus.
The intense hyperæmia of the mucous membrane accounts for the diarrhœa,

and the alterations and influence of this infection account for the sudden hemorrhages and attacks of peritonitis that prove so fatal and constitute some of the chief dangers to be encountered in this disease.

Treatment.

There is no prophylactic remedy that protects from infection by typhoid fever; the only prophylactic measures we can adopt in large cities, are good sanitary police rules to prevent accumulations of putrid or decomposing matter, attend to its removal, and establish sufficient

Anemone.

Close treatment must be an expensive one, and we must try to sustain the vital powers of our patients.

According to Chiemyer and Blumbach we may try to cut short the disease by one or two 3 grain doses of Calomel given in the commencement of the disease, and before much diarrhoea has set in.

Venesection and emetics are too depressing to be used, and only in such cases, where there is undigested food in the stomach an emetic may be necessary.

Prof. Ille Sherry strongly recommends

Sulphate of Magnesia, one ounce a day in divided doses with water and lemon as the best means of preventing hyperpyrexia. Use must be made for special indications and meet complications as they arise or anticipate them if possible.

If there is much fever and hot skin, nitrous powders and Tinct. veratr. viride, 3-6 drops at a dose, have proved beneficial but both remedies must be used with caution.

Glycerine draughts tend to relieve gastric irritation and to stimulate the heart's action. Digitalis may be given to advantage.

The great danger in typhoid fever

is the increased temperature or body warmth, because the increase of this above a certain point induces paralysis of the heart and respiration and impossible.

The use of cold air for this purpose to swallow, sponging the body with water and vinegar, and immediately drying him will do much to abate the fever.

The hydrotherapeutic treatment of typhoid fever, first introduced by Niemeyer and afterwards modified by Ziemssen seems to me of great value in the treatment of this disease. Niemeyer speaks of the

was recommended and tried by Liebermeister in the following language:

"As often as the patient's temperature rises above 104 degrees, he is placed in a bath whose temperature is about 94 degrees. While the body and limbs are gently rubbed, cold water gradually till the temperature of the bath is reduced to about 68 degrees.

"The patient is to remain about 20 or 30 minutes in the bath till he is slightly chilled and then to be placed quickly in a warm bed. At first, four or five baths daily are necessary, subsequently less as the"

The administration of quinine and the abstraction of blood deserves most emphasis in moderating the severity of the fever.

If there should be great prostration, the pulse rapid and weak, it becomes necessary to stimulate the patient. Wine, Brandy, and Whisky or Turpentine; the Compound tincture of Bark must be given in small but repeated doses.

We always should vary our remedies according to special indications.

Tincture of Cheronia in doses of from 15 to 60 grains is serviceable in producing quiet sleep.

Severe abdominal pains must be treated with deep tartar stages leeches over the hypogastric region and one grain each of Opium Ipecacuanha and Camphor — pill form.

Sore mouth & tongue with tender nitic stomach requires large antidotal doses of 10 drops every 2 hours in emulsion with loaf sugar and water.

To check diarrhoea we may give subnitrate of Bismuth, Chalk mixtures, Acetate of Lead or the following pill recommended by Prof. Kostrzewa one grain each of Opium, Ipecac. & Camphor

and Hydrogen.

The bladder should always be emptied, and if necessary the catheter should be used. If peritonitis should intervene with or without perforation of the intestines, giving ice and sufficient to keep the bowels in absolute quietness, is the only remedy.

During the first stages of the fever it is useless to urge much food on the patient, his stomach should never be entirely empty, but never overloaded and the repeated administration of milk, broths and beef tea are as absolutely necessary as nutrition of the vital functions of the body.

Having remarked in this day's [illegible]
be carefully watched as the slightest
variation in a material direction
may furnish a fortunate clue to
that has not yet circulated.

From the foregoing I have endeavored
to give the most prominent symptoms
in determining causes and treat-
ed Typhoid fever, as the same does in
Boston itself or in numerous be prov-
able localities as well as by the Practitioner
varied in various different authors,
and which I therewith respectfully
submit for your kind consideration.

Charles J. Wheeler.

Inaugural Thesis

- for -

Degree of M. D.

presented to Faculty of Physic

University of Maryland

- by -

William G Boone of Md.

Session 71 and 72.

There is no one, however humble his pretensions, or limited the sphere of life in which he moves, who may not, if he will, by carefully noting down at the time of their occurrence such circumstances as present themselves to him worthy of observation, contribute something, even out of the storehouse of his own individual experience, of usefulness to his fellow creatures. Acting on this principle, I have endeavored to turn to account some of the various facts that have fallen under my notice during my round of duty in an University Hospital. I do not, indeed, flatter myself that my observations will be found to have developed anything new, but the facts which I adduce may possibly furnish additional food for thought, or help, at least, to the first appreciation of that which is already known.

An eminent medical mind of the early part of this century has said, that to pronounce the impossibility of cure of certain diseases is to sanction by law the ignorance, or the remissness, of the physician. It was not his intention, I presume, to pronounce practicable the cure of all diseases, for a certain number will always remain proof against any and all medical skill; but that there are certain peculiar forms of disease wholly beyond the reach of the healing art — that he does not seem willing to admit. Is the contrary tenable, or is the fixing so high a standard but the day-dream of a distinguished, indeed, but, in this case, over-enthusiastic, practitioner? Our profession brings us at times into conflict with cases that

appear to defy the noblest efforts of medical science, but may not something yet be done to compel these stubborn forms of disease to succumb to the daily perfecting influence of medicine? May not, for instance, something yet be found to affect favorably the state of the blood in cancer, to improve the imperfect organization that results in tubercle, or bring sweet respite to suffering, grateful relief to pain, in those dread cases of impaired heart structure that make up the tragedies, so to speak, of our hospitals? During the month of August last ('71) my attendance upon the sick in St Vincent's Hand (University Hospital) brought me into daily and attentive observation and study of an unfortunate example of that class of disease

in which the mechanical difficulty of sanguineous congestion, obstructed functional disturbance and impaired condition of circulatory system, were all more or less involved, exercising their conjoint unfavorable influence. I take the following from my notes recorded from time to time during attendance.

John Kelly, 41 years of age, barber by occupation and living in Balls., admitted into University Hospital on 28th June 1871. History, one of intemperance; potations continued till within three months of entering Hospital, at which time noticed his first troubles; marked distress and difficulty in breathing on making any exertion, such as walking up stairs, up a hill, or in doing anything that provoked any acceleration of ordinary

gait – some puffiness about the eyelids and ankles, loss of strength etc. Symptoms at time of admittance into Hospital: great dyspnoea, respiration labored and painful, auscultation revealing fine sub-crepitant rales over right lung with puerile respiration of left. Right lung pronounced consolidated from hypostatic congestion, due to persistent decubitus on that side from his first taking to bed. Considerable anasarca present, and inability to lie on back or left side. Cyanotic hue of skin indicating some obstruction of circulation; murmur heard with first sound of heart, a tricuspid regurgitant; liver considerably enlarged and extending below floating ribs.

"July 1st. Patient visited by Prof. Howard who ordered for incessive dyspnoea – ℞ Tr. Digitalis;

Ethric Sulph Co., aa ℥ss - Extr. Valerian. fl ℥i -
M & S. ℥ij in wineglassful sweetened water, pro
re nata.

"July 3rd. - No improvement manifested, in condition of
patient - sinking rapidly, extremities cold - some
delirium evidencing itself. Dyspnoea intense,
agonizing, with frequent gasping efforts.
Ordered by Prof. H., an emulsion of quinine and
turpentine, to support flagging powers. After several
doses emulsion condition seemed to improve, rallied
and apparently much better than for some days past.
Partook of nourishment heretofore refused, with
continued doses of the terebinthinate. Later in
day frequent involuntary discharges from bowel -
of offensive fecalent matter freely mixed with
blood, evidencing and adding to prostration.

Towards evening a low comatose condition ensued, case clearly betokened speedy and fatal issue.
Patient visited by Drs. Howard and Donaldson in evening, a few hours before death. Extensive pleuritic effusion diagnosed, pointing to cause of obstructed circulation and dyspnoea.
Death at 5 o'clock same evening. Post mortem examination readily accounted for the coma and laborious breathing, such constant symptoms up to the fatal ending. Right lung found loaded with venous blood, a passive congestion from damming back of circulation; left lung slightly congested, and air-cells filled with clear mucoserous fluid; liver enlarged and nutmeg-like; heart pronounced not enlarged; and no appreciable lesion of tricuspid valve, right side filled with

coagulated blood. Congestion and serous effusion found on the surface, and in the ventricles, of the brain."

Powerless to do aught that could bring any respite to the poor sufferer, I watched from time to time the case, as it progressed to its fatal termination. What more I could have done, I know not. I must perforce have looked helplessly on, or turned sadly away from the lingering death-struggle of one whom I could not relieve.

"But when the heart is full of inner most distress
Shall we be doomed to stand inactive by
And watch the body's pain and agony
Which human efforts tend not to make less?"

When thus organic disease invades the heart-structure, with dark and tinged column of blood, charged with

impurities, choking up the avenues of life; the livid and distorted form struggling for breath and in vain seeking relief, can we do nothing more than give the silent shrug and pass the sufferer by?
Shall we not rather try to lighten the load by assisting renal secretion and alvine defection, by lessening the sluggish flow of bile, by removing with care all sources of irritation, by cleansing the system of the perilous stuff that weighs upon the heart and loads the lung; and so prepare the way for gentle stimulation, and for the full effect of soothing anodyne or sweet oblivious antidote — endeavoring thus to bring sweet respite to the overlabored heart, to relax the tension of the heaving chest, and give the grateful patient breath to die, but easily?

Oliver Ryan, 28 years of age, farm-laborer by occupation, admitted into St Vincents Ward on 26th July 1871. Had been sick for four days, with pain in head and limbs, and particularly in left side of chest, nausea, vomiting and usual symptoms of a depressing nature. Ordered at time of admittance a mustard plaster over stomach, with lime water and milk for gastric irritability, and Quinine 6 grains three times a day. No chill, but high fever nearly always present — varying slightly in degree during day, with afternoon tendency towards night.

" July 28th. Pulse Am. 104. Temp. 101
" " PM 109 " 102 3/4

Complains of constant and severe pain in left side, great heat of skin and marked dyspnoea. Symptoms point to fever of a remittent type or to an acute pleuritis.

Great heat of skin with constant and severe pain over left lung, and, also, preference for decubitus on the side of pain, indicate more particularly latter diagnosis.

Evening – Auscultation seems to substantiate diagnosis of acute pleuritis of left lung. Friction sounds, with large mucous rales in front over lung in question. Panting respiration, and excessive heat of skin as revealed by touch alone, unaided by thermometer, strikingly evidenced late in evening. Nausea and vomiting persistent. Mustard plaster renewed over stomach, and at bedtime Co. Pill. Aqueous grs XV –

July 29th. Somewhat easier – less heat of skin – dyspnoea not so harassing – but pulse still evidencing weak and quickened heart action – comparing

unfavorably in its morning, increase with condition of the succeeding evening.

9 Am Pulse 120. Temp. 100

7 PM " 82 " 98 3/4

Suppression of urinary secretion gave unfavorable signification to evening condition. Catheter passed, but nothing elicited. Put on diuretic, Ol Juniper gtj, Potass: Nitratis grs x — with Spts Frumenti ℥ij 3 times a day — and at bedtime increased dose of last.

July 30th. No improvement. No sleep during night — Some delirium, with vomiting still persisting, and return of excessive dyspnoea; though one favorable symptom present — a free discharge of urine during night, after repetition of diuretic. At night ordered Hyd. chloral xv grs, et Bromid:

Potassii gr xx. Administration of whiskey in full doses kept up during day and night.
July 31st. Patient evidently sinking. Ordered by Dr. Conrad. Ol. Terebinth in emulsion with gum acacia and aqua Camphorae at intervals of every 2 or 3 hours, alternating with whiskey and Quinine. Stomach later in day excessively irritable, and rejecting everything. Conventional mustard plaster on stomach renewed, and at night gr ¼ pil Opii."
From 31st July to Aug 10th, on which day death occurred, there was a gradual sinking, a slow prostration, which no stimulation whatever, of whiskey or turpentine, could relieve.
Typhoid symptoms were manifested more markedly during the evening and night of the 9th, and

death ensued at an early hour of the following day. I instance the case as one of the many in the treatment of which stimulation, early and freely resorted to, failed utterly to counteract, or hold in check, the depressing influence of a miasmatic taint coexistent with acute organic disease.

The superaction of the pleuritis upon the already existing condition of malarial poisoning, contributed much from the first to an unfavorable prognosis. Stimulation availed nothing against the unfavorable influence of the combined affection, and medical skill looked hopelessly on where its efforts, though ably and wisely directed, were powerless to aid. It is said of the eminent Dr. Graves of Dublin that he requested it should be recorded as his epitaph, that "He fed fevers."

Surely a monument more enduring than brass should be reserved for him whose efforts are directed to the elimination of the poison of fever, whose teachings tend to show how the vitiated condition of the blood may be improved and purified of its deleterious principles. There are difficulties, no doubt, in the way, but must nothing therefore now be suggested, nothing attempted?

In acute rheumatic fever may we not help the imperfect sanatory, aid the enfeebling effort of nature in her endeavors to get rid of the materies morbi, (be it lactic acid or what not) by colchicum, by the salts of Potash, or by the more active agency of cantharidal vesication? The test tube may here avail more than the scalpel and if we prefer curing disease to looking on till

the golden opportunity is past, we must hasten to remove the oppressing load, to eradicate the cause. If difficulties in the way of a rightful appreciation of this state, as well as of other conditions of disease, present themselves, may we not at least cultivate an independent spirit of observation? Nor should the fear, that perhaps in the event of our daring to depart from conventional usages, from theories which have the sanction of years only, for their acceptance, we should have to suffer in the estimation of unthinking minds, deter us. The great medical lights of all ages are our guides. Embarked on the ocean of truth, we may follow fearlessly their course over the same illimitable, but no longer trackless, sea — encouraged, not deterred, attracted, rather

than repelled, by its vast expanse, its mysterious depths, and by the ever receding horizon of inquiry. Not according to the extent of our anatomical accomplishment, pathological research, or proficiency in like modes of scientific investigation, but according as these several sources of knowledge are brought to bear upon the main object of professional endeavor, the relief of human infirmity and suffering — in a word, not according to our knowledge, but according to its practical application to our work — will our advance be estimated.

William C Boone,

AN

Inaugural Dissertation

ON

Abortion

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Chas. N. Hiller

of

Maryland

Session of 1871 & 18 72

Cholera

In selecting a subject to write upon I feel that I am not able to put forth any new theories, or even the suggestion of one thought at this early period towards the advancement of the knowledge of the subject which I have selected. For having had no practical experience I have only to advance the opinions of others. as I am sure all that are just entering the field of Science must certainly do.

It is made manifest when we reflect for a moment and view the number of years men before us have toiled to advance the Science of Medicine, advancing hypothesis

after hypothesis, theory after theory, which have been made truths by the investigations of the past and present — It is evident from the foregoing that one having no experience can add anything to the already existing store of knowledge —

Reflecting for a moment we see that it was by industry and a thirsting after the furtherance of the chief of Sciences, viz - Medicine, that men were and are at the present enabled to advance theories of their own —

But we know that Science is progressive and the way is open for all to make discoveries

And while onward rolls the tide of discovery sweeping away by its mighty power the ignorance and superstition of the past, it remains for those who are now entering the field to take the places of those who have filled their missions towards the advancement of the Science of Medicine —

Now in selecting this subject "Abortion" to write upon its history evidently includes the study of the causes producing it, the signs by which it may be detected, the symptoms and consequences which may arise, and the best means for preventing

and stopping it when it is about to occur.

The term Abortion has been applied to the expulsion of the foetus from the womb, where it occurs at a period of gestation at which the foetus is not sufficiently developed to maintain an extra uterine existence; hence abortion may occur at any period between conception and the end of the 7th month as laid down by American accoucheurs, but English accoucheurs put the period of viability at the end of the 6th month.

M. Guillemot gives three kinds of abortion; based on the period of

its occurrence: thus, when it occurs before the twentieth day he terms it ovular; before the 3rd month embryonic, and prior to the end of the 7th mo., foetal-

The causes of abortion may be divided into the spontaneous and accidental -

The spontaneous causes are the following: 1st the general condition of the mothers constitution; 2nd diseases of the ovum; and 3rd diseases of the uterus and its appendages -

Women of a robust and plethoric habit, and whose menses are characterized by a free &

copious flow are more exposed to abortion during the early months of pregnancy, than those whose monthly flows are scanty —

Women of a nervous and very irritable temperament, those who are easily and strongly affected by moral impressions, those passing an indolent life, spending the greater portion of their time at balls, operas and other places of enjoyment, and those leading a sedentary habit are all subjects of abortion more or less frequently — Epidemic miscarriages have been referred to by authors, which they have

laid down the condition of the surrounding atmosphere as the exciting cause—

Diseases occurring during the course of pregnancy often have the most disastrous effects upon the fœtus— Cutaneous diseases occasionally cause abortion. Syphilis in the mother has a most deleterious effect upon the progress of gestation—

The convulsive diseases often cause abortion either by exciting uterine contractions, or by directly destroying the life of the fœtus—

Mercury by some writers has been supposed to cause abortion,

but it is at this period thought to be erroneous, and now they advise giving mercury to a person who has Syphilis during pregnancy to destroy its deleterious effects upon gestation — Diseases of the ovum which are often unknown to us may arrest the development of the foetus; it may be affected by those diseases which often attack it after birth; though not always fatal to the new-born infant, prove the more disastrous to the foetus as they occur nearer to the period of conception — Excessive distension of the walls of the uterus, caused by twin-pregnancy, may bring

on contractions of the uterus by which the fœtus is expelled —
Again, the mother acts as a medium through which diseases are transmitted to her child —
Thus smallpox may be transmitted to the child although the mother escape the disease — Mauriceau relates that his mother, when in the last stage of her pregnancy, had the misfortune to have the eldest of her three sons affected by smallpox, to whom, notwithstanding her condition, was unceasing in her attentions, and at his birth, which occured the day after his brother's death

he presented four or five pustules of small-pox —

The mother may transmit her disease to the foetus; thus syphilis in the mother may affect the child and cause its death, and it acting as a foreign body in the uterus excites its fibers to contract by which the foetus is expelled.

The placenta often becomes the seat of disease; thus it may become atrophied or hypertrophied, also inflamed, and its tissue may degenerate, harden, or become a fatty or fibrous mass —

Again, shortness of the cord may produce abortion by detaching

the placenta, or the cord may even be ruptured – Cases to the latter effect have been related –

Diseases of the Womb & its Appendages;

In considering the diseases of the womb that may cause abortion we must evidently bring to account all the acute & chronic affections that the womb is liable as so many efficient causes of abortion; thus the various kinds of tumors that may grow in the substance of the uterus, also syphilitic ulcerations and others of a different type, which are so frequently found in connection with pregnancy are

so many causes that may prevent the full development of the foetus. We must also take into account the numerous displacements of the uterus as so many predisposing causes of abortion — In considering the effects of diseases of the appendages of the uterus upon the foetus all the abnormal adhesions of the broad & round ligaments must be taken into consideration, the adhesions of the tubes, ovaries, and in fact all unnatural adhesions that may hinder the full development of the uterus act as so many causes of abortion —

The excessive irritability of the uterus; the great laxity of its walls & especially of its neck; also the excessive sensibility and contractility of the uterus, all have a deleterious influence upon the progress of gestation — As I have before alluded to the diseases occurring during pregnancy as causing abortion, so inflammation of the bladder rectum & all the adjacent organs often cause abortion through reflected irritation to the uterus causing its contractions and finally the expulsion of the foetus —

Having enumerated the predisposing causes of abortion, it remains to make allusion to some of the exciting & accidental — Blows, falls, contusions, too frequent coition, excessive fatigue, have often caused an immediate flow of blood & followed by the expulsion of the product of conception — Instances sufficient have been related where the child has been born showing its recovery from a fracture of one or more of its limbs — which can very readily be referred to a fall or blow received during her pregnancy from a person or some other cause sufficient to account for the accident.

Symptoms —

The symptoms of abortion are dependent upon the period of pregnancy at which they occur and the cause by which it is produced —

Abortion occurring at an early period of pregnancy is attended by few remarkable symptoms —

In fact a woman may abort in the early weeks of pregnancy unconscious of it, thus an ovum of five or six weeks may be expelled — and the woman being assured that it was only a retardation of the menses, thus an ovum is expelled surrounded by fluid or coagulated blood —

and often passes away unnoticed —
At a period of pregnancy more
advanced the symptoms are more
characteristic of the existing affec-
tion, still they vary with the causes
of abortion — When abortion is
caused by some existing disease
of the mother or those causes that
operate slowly, changing the form
of the foetus or ovum and its
envelops, the following are the symptoms.
anorexia, nausea, thirst, pallor, sad-
ness, depression of spirits, flaccidity
of the breasts, sinking at the epigas-
trium, weight in the perineum, pains
in the loins, and frequent desires to
urinate — These may be considered

as the forerunners of abortion —
Now as the abortion progresses the
lumbar pains become more and
more characteristic of true
labor pains, until finally they assume
that type — Now during these prodromic
symptoms if the woman be examined
the os will be found partly dilated
with a sanious discharge, the
os dilating progressively as the
pains increase until finally the
membranes engage and protrudes
are ruptured, the waters escape and
the foetus is expelled soon and shortly,
occasionally, by the placenta —

When the abortion is caused by
a fall, blow, or concussion, the

expulsion of the fœtus immediately follows the accident when it occurs at an early period of pregnancy, but at a more advanced period, the interval is more or less prolonged.

When the cause has acted upon the fœtus either mechanically or physiologically by destroying to a greater or less degree its uteroplacental attachments, the subsequent symptoms are quite different.

After the time required to expel the mother's fears, and commotions caused by her accident, everything seems to be progressing in its natural course, when after a week or two the movements of the child become

irregular, its movements are feeble and farther apart, until finally they become extinct, when the foetus evidently is dead—

Now abortion is evident, the child acts as a foreign body in the uterus, it soon irritates the uterine walls, by which their fibers are excited to contract, and finally the foetus is expelled—

When a period of some duration exists between the accident and the expulsion of the foetus, the woman is less subject to hemorrhage, owing to the fact that the uterus no longer has a foetus to maintain consequently its vessels become shrivelled or less

in caliber, thus admitting a smaller amount of blood to the uterus —

Diagnosis —

Taking the vast number of signs into account, the diagnosis of abortion ought to be very readily made; but occasionally these symptoms are very imperfectly marked until the accident is sure to happen, and then it matters very little to the patient whether the physician makes a correct diagnosis or not —

The diagnosis of abortion includes several questions of importance —

Is the woman pregnant? And if so, are the symptoms due to a simple uterine congestion or a commencing abortion

Our minds are very readily put at rest, as regards ~~x~~ whether the woman is pregnant after the fourth month of pregnancy, but before that period it is difficult to settle —

A woman in apparent health has her menses suddenly stopped, her breasts enlarged, her abdomen enlarged accordingly, but at her third or fourth menstrual period slight symptoms of congestion of the uterus appear, slight pains are felt, and soon they are followed by a flow of blood more or less profuse —

How are we enabled to say whether the symptoms mentioned are due to a return of the menses or to an

approaching abortion?
According to Madame Lachapelle in abortion the os is dilated, the hemorrhage precedes the pains, the latter also continuing notwithstanding the great amount of blood lost; whilst in dysmenorrhea the pains precede the hemorrhage and often disappear entirely after the flow is profuse —
It has been hoped to diagnose abortion by the form of the clot — In an unimpregnated state of the uterus the clot has been supposed to be a great diagnostic point by taking the form of the cavity of the womb, which never happens in abortion, but in abortion the blood

may coagulate in the vagina and assume the form in question, also in dysmenorrhoea the clot is liable to be changed during its passage through the vagina, first through the cervix of the uterus — hence; — strict reliance can not be placed upon that point — But if the clot is still in the cervix, we can by the touch diagnose the condition to a greater certainty — Doll has said that if during the contraction the finger perceives the mass to become tense, enlarge and advance towards the vulva, it is an ovum; but if the mass does not change its form, density, nor appear to be forced down it is a clot,

Further, if we attempt to move the uterus by pressure on this mass it would be very readily effected if it were a clot; whilst, if it is an ovum the parietes would yield and not transmit the motion to the organ which envelops it, and with which it is as yet but slightly adherent —

Finally supposing pregnancy to exist, may the symptoms be attributed to simple congestion of the uterus, or to a threatened abortion? The discrimination of which is a matter of little moment, regards the treatment, that called for by simple congestion being

also applicable in the prevention of abortion — But when the symptoms, as far as we are able to diagnose, are due to simple congestion, and have been allayed by proper treatment, the physician is often called upon to give his opinion as to whether or not the patient is out of danger of an abortion! Generally he is unable to give the patient or her friends any information as to the prognosis whatever.

We are unable to tell whether the congestion has been arrested in time to prevent a rupture of the blood vessels, and an extravasation of blood between the placenta

and its attachments or whether the placenta has been entirely separated — If by examination we find the child to be still living how can we tell whether or not the placenta is separated sufficiently to kill the foetus in course of time.

The placenta may be partly detached and by this the foetus is deprived of part of its nutrition; hence it gradually wastes away and the foetus dies — When by examination we find the foetus dead, then it acts as a foreign body in the uterus, exciting its fibers to contraction and abortion ensues. Abortion is also inevitable when

the utero-placental attachments are separated to such an extent that the remaining attachments are not sufficient for the nutrition of the fœtus —

Cazeaux mentions a peculiarity not mentioned by other authors which he considers of great importance: it is a particular form of the neck — When the woman has been pregnant for a first time it is very easy to distinguish the neck from the body of the uterus — Now, when the contractions have lasted for some time they have gradually dilated the internal orifice; the cavity of the

neck has been confounded with the body, and the finger being placed on and passed around the lower part of the uterus the neck can no longer be distinguished — Cazeaux says that whenever I have found or met with this condition of things, abortion has taken place —

Prognosis —

The prognosis of abortion is variable and owes its fatality to the period at which it occurs, & to the causes producing it —

Thus abortion in the early months of gestation proves of little danger; but after the second or third month

it proves of more danger to the mother, and not necessary to mention always fatal to the foetus; Abortion brought on by the administration of drugs and by rough manipulations is more dangerous than when it is brought on by constitutional effects. Lastly abortion occurring during the progress of acute inflammatory diseases of one or more of the internal organs is exceedingly dangerous —

Treatment —

It being the aim of all rational physicians to prevent disease when it fe lies within their powers, when this fails & disease is invading

the System at a fearful rate they try to divert the disease and sustain the System in the meantime; but when despite all his careful attention and the correct application of all his skill & knowledge & feeling that he has done all within the power of mortal man & with the assistance of medicine, can do the disease still has the upper hand of him it but remains for him to try and smooth the dying pillow & make the last moments on earth those of happiness—

In the first place it is the duty of the accoucheur to take into consideration those different

points under the treatment of abortion; – viz, 1st the prevention should have due thought; 2nd to favor the expulsion of the fœtus when abortion has become inevitable; 3rd and lastly to treat any symptoms or accidents that may arise –

Now following the order in which I have related the causes by reflection you will see that I have first mentioned the condition of the mothers system. And accordingly women of a full, and vigorous habit, whose menses are always abundant, and perhaps have been the

subjects of abortion at previous menstrual periods, should be put on a restricted diet, and remain in the bed for a few days at each monthly flow, or properly speaking at the periods of time at which they should occur. They should likewise be bled several times during the early months of pregnancy, or perhaps better, bled a little at the incipiency of the period at which her flows generally occur — It is absolutely necessary that women of the foregoing predisposition should renounce the use of corsets more to their

any other class of females, for not only do they offer an obstacle to the perfect and easy development of the breasts, but they likewise prevent the free return of blood from the lower extremities, thereby causing passive congestion of the uterus and surrounding structures. Women of a nervous and very irritable temperament should avoid all places and circumstances calculated to make in any way an impression on their nervous systems; avoid all unnecessary exercise, moral emotions &c.

When the abortion has been the

effect of the woman's bad constitution, or on some diseased condition of the uterus, or an abnormal service of the appendages we should try to dispel such conditions and more especially during the intervals between her pregnancy.

The disastrous effects which syphilis has on the foetus should be constantly borne in mind.

We have abortion produced by some displacement of the uterus frequently, when such is the case it should be timely and properly attended too, and especially during the intervening periods of her

pregnancies, the uterus should be put in its normal situation if possible & the woman advised not to become pregnant for some considerable period —

Females of a pale, cachectic look, feeble and broken down by previous and long continued exhausting diseases, whose tissues have become loose, soft & relaxed are often the victims of abortion. Now in such cases the best that can be done is to improve the general condition of the woman and the course for to doing is to put the woman on a course of tonics and good

nutritious diet — Of the former the chalybeate and bitter tonics are the best that can be given —

When the hemorrhage is slight & the pains of a bearing down character, a discharge of sanious fluid from the vagina, a feeling of weight in the perineum uterine contractions appear, the sexual parts become soft and flaccid, and occasionally the os slightly dilated; but, even here we must not despair of arresting the imminent abortion notwithstanding the gravity of the symptoms. If the woman be of a robust, full, & plethoric

habit blood should be taken from the arm, rest in the horizontal position, hard bed, cool applications to abdomen and vulva, cool drinks — To allay the uterine contractions opium should be freely given — In fact our only reliable preventive measures are the following:- time, absolute rest in horizontal position, cool drinks, & applications and above all Venesection & Opium —

When with the foregoing remedies, & all skillfully and scientifically applied abortion seems to be inevitable, hemorrhage copious, contractions frequent,

and the membranes ruptured, it remains for the Physician to assist in the expulsion of the contents of the uterus when he is required — During the early months of pregnancy, that is during Embryonic abortions, the Physician has little more than to watch the progress of the miscarriage carefully & when the hemorrhage is not of a nature dangerous to the mother he should remain a mere spectator of nature's attempts for the expulsion of the ovum which in many cases is expelled very slowly notwithstanding

the sufficient dilatation of the os — If accident occurring he should trust the entire expulsion to nature's efforts alone —

Lastly, & the most important of all the symptoms that we have to contend with and the one which the physician dreads most is hemorrhage —

When, after having tried all the general measures, such as horizontal posture, cold drinks, cold applications, the duly administration of opium, the hemorrhage continues & abortion is inevitable it remains for the physician to assist the

expulsion of the fœtus—
He should maintain the woman's strength as much as possible by the administration of general stimulants & the medicines recommended as uterine stimulants such as, Tinc. Cantha. Borax has been advised by some, and above all the Ergot—

In the early months of pregnancy the uterine muscles can be but slightly excited to contraction owing to the imperfect development of these fibers, then the tampon is the only resort— It acts by stopping the flow of blood externally,

and also excites the uterine fibers to contraction through irritation of the mucs. Some have objected to the use of the tampon during the earlier months of pregnancy as it is as a general rule followed by abortion, but certainly this can not be a justifiable objection when we reflect for a moment and see that hemorrhage is the most disastrous & fatal symptom to the mother — certainly her life is not bought too dear when it can be saved by the expulsion of a fœtus that probably was dead long before the application

of the tampon. The life of the woman, her family and social ties should be duly taken into consideration, & every one certainly with human feelings would decide in favor of the mothers life being saved if possible; even though it be at the cost of an infant that has truly connection with the external world only through its mother, that has not, as yet, thought nor affection, hope nor fear, certainly it can not be compared to the life of the mother who is bound by a thousand social & religious ties to those with whom she is connected.

Finis.

Journey of a Crumb of Bread.

a Thesis.

Respectfully submitted to the Faculty of
the University of Maryland
For the degree of Doctor of Medicine
by
George E. H. Harmon of Delaware

1872.

A Journey of a Crumb of Bread.

The little crumb, whose history we propose to trace during its wanderings in the human body, will require but few words by way of introduction, before it starts upon its journey.

Time, and space, and the fear of trespassing upon the patience of the honored Faculty, (provided always that they so far honor my unworthy production as to read it) all forbid our following our little mite of a crumb through its early life when it first buds forth a tender grain of wheat, together with its fellow grains, the head and crowning glory of the parent stalk. We cannot stay to watch its gradual development from the soft delicate pulp we first find

it is to the hardy brown grain; which, did we not require it for the purpose of writing its history in another phase of its life, might, like some of its Egyptian ancestors, enjoy the society of dead Kings in the depths of a monumental pyramid for a score of centuries and still retain all its vitality, and become the parent of another crumb, to furnish a Thesis subject to some aspirant for graduating honors at the University of Maryland in the year of our Lord Thirty Eight hundred and Seventy Two!

But our particular grain has another destiny to fulfil. We hurry it through several eventful changes in its existence:— from the Sunny field

where it first saw the light, it is separated from its fellows, and starts upon its own independent career, meeting with many ups and downs until its character and appearance are so altered by contact with the ways of its world that we can hardly recognize our former acquaintance in the snowy Crumb which has just presented itself for our consideration.

Here is our Crumb, with many others, lying before us. Its image falls upon the sensitive surface of the retina — the retinal nerves telegraph the fact to the Corpora Quadrigemina and Corpora Geniculata — these hold instantaneous consultation with other members of that complex and mysterious organ, the

Cerebrum, which gives rise to a volitional impulse which expresses itself in a mandate issued through the media of Crura Cerebri, Medulla Oblongata, Anterior columns of the Spinal Cord, and brachial plexus to the arm and hand, calling into action the many different muscular contractions, each to an exact degree of nicety, which are requisite for the expeditious prehension of our crumb, and its introduction into the mouth; which is the first stage of its progress.

We will pause a moment, and consider this first cavity of the digestive tract in which our crumb is lodged.

The mouth, or "Cavum Oris", is, as we have just said, the introductory chamber

or vestibule to the Labyrinthine passage known as the Alimentary Canal. It is bounded above by the hard and soft palates; below, it's floor is formed by the Mylo-hyoidean muscles, although in the process of mastication the tongue is more properly its lower boundary, as the food is seldom or never allowed to find its way beneath this organ. The sides of the Mouth are bounded by the cheeks, and it is closed anteriorly by ~~the~~ two muscu=lo tegumentary curtains, the lips.

Behind, the cavity of the mouth is con=tinuous, through the Isthmus of the Fauces, with the next dilatation of the canal, the Pharynx. The Mouth contains the organs of Taste and Mastication. The Tongue with it's special Nervous Endowment,

acute sensibility, and great mobility: the Teeth, which cut and grind the food minutely, allowing the thorough permeation of the mass by the Salivary fluids, and which by their variety of form clearly indicate the omnivorous nature of man. There are a number of Secreting glands in and around the mouth, which pour their products into it's cavity. Of these, the Parotid and Submaxillary secrete a clear limpid fluid which assists chiefly in Mastication; whilst the Sublingual secretion is thick and glutinous, and it's office is to furnish a smooth glary coating to the bolus of food, thereby facilitating its exit from the mouth and ready passage down the Oesophagus. The Mucous Membrane

of the buccal walls and the tongue is also furnished with a glandular structure which supplies a fluid to lubricate the surrounding parts. These four distinct secretions unite to form the Complex Saliva. It is not our province to enter into the discussion of the physiological action of the Saliva in digestion. Admitting the catalytic action of it's organic Ptyalin upon Starchy substances, our particular Crumb we will suppose to have escaped this change, and we will now return to it and follow it on one stage further in it's course. We find that in our absence our Crumb has been tossed about by the tongue, saturated by the rivers of waters that pour in upon it from all

sides, and has been without mercy subjected to the trituration of the molars, and is now incorporated with a viscid, semi solid bolus, which is poised for a moment on the dorsum of the tongue preparatory to leaving the mouth by the process of deglutition.

The tongue moves backwards by the action of the Stylo Glossi, Hyo Glossi, and anterior fibres of the Genio Hyo Glossi muscles, and at the same time pressing from before backwards against the hard palate above, the bolus is propelled backwards until it passes the anterior arch of the fauces. At this point all voluntary control of the movements is lost, and the action of swallowing becomes reflex. During this second stage of

deglutition the tongue, the muscles of the anterior and posterior half arches, and of the soft palate, and the constrictors of the Pharynx, are all in motion. By the drawing backwards of the tongue and the elevation of the Larynx, which take place simultaneously, the Epiglottis is pushed down closely over the Rima Glottidis, thus effectually shutting off all communication between the Pharynx, which contains the descending food, and the Larynx. The posterior pillars of the fauces, formed by the Palato Glossi Muscles and covered by Mucous Membrane, are thrown into contraction which brings them close together like curtains, nearly closing the communication between the Pharynx and Po-

terior Nares; the Uvula is applied to the little chink between the Curtains of the Posterior Pillars, and acting like a valve, completely closes the fauces above. The act of Swallowing Continuing, the Constrictor Muscles of the Pharynx contract from above downwards, and the bolus containing our Crumb is forced down into the Œsophagus. The presence of the mass in the upper part of this tube acts as an exciting cause, through the Œsophageal branches of the Par Vagum, and the undulatory contractions of its muscular walls send the food down to the Cardiac Orifice, where its presence is responded to by the opening of the Sphincter, and our Crumb enters

the Stomach. Here it finds everything in a hub bub! It joins the food which has preceded it, or which comes down after it, and goes hurrying around the stomach, first to the left around the great extremity, then along the greater curvature towards the Pylorus, then back along the lesser curvature, passing the cardiac orifice, to repeat its first circuit perhaps over and over again. This pouch like compartment of the digestive tube, the Stomach, is of the greatest importance in the human economy, playing a most conspicuous part in the operations of digestion; but as its action in connection with the state of our Bowels is of a somewhat secondary nature, we will not notice it at length. It's lining

Mucous Membrane secretes, during the period of active digestion, an immense quantity of "Gastric Juice", amounting to many pints in the disposal of an ordinary meal! It is acid in reaction, containing, in addition to various salts, a peculiar Animal Substance the product of the Gastric Glands proper; and its action is confined almost ex=clusively to Nitrogenized portions of the food, converting these into a new substance fitted for absorption and assimilation. The only part our Crumb takes in this Stomach digestion is that of being thoroughly mixed and incorporated with the other Contents of the Organ. Some of its companion Crumbs which may have been in

greater degree impressed by the action of the Salivia during Mastication have the action continued, and are, during their detention in the Stomach, converted into Glucose, and being in solution, almost as rapidly find their way into the Capillaries, venous radicles, Gastric veins, and so on to the Liver. Our Crumb, however, having escaped perfect insalivation, we must follow it on to the next stage of its Career. Having passed round the stomach again and again, our Crumb, now being a Component part of the Semi-liquid Chyme, in approaching the Pyloric Extremity is drawn by a sort of suction force through the Sphincter like opening, and enters

the Duodenum, the first or upper part of the Small Intestine. This is an irregular cylindrical tube, bent & curved in direction from the Pylorus backwards downwards, and across the abdomen, and is about Eight or Ten Inches in length. It's lining Membrane (Mucous) is Ex=tremely vascular, and is richly sup=plied with a glandular apparatus which secretes the fluid which chiefly has to do with the transformation which our Crumb has now to undergo. We cannot describe minutely this interesting Membrane - Much more space and time would be necessary than we have at our Command to dwell at length upon it's projecting

villi, with the Lieberkuhnian Follicles dipping down between - its curiously convoluted glands of Brunner - its ductless Glandulae Solitariae, to which no functions can be ascribed unless they be considered as belonging to the Lymphatic System, and finally, the folds of the Valvulae Conniventes, which are admirably adapted to retaining or retarding the chyme in its passage, and thus giving more time for the solvent action of the Intestinal Juices. These juices are three in number, that from the Liver, the Bile, that from the Pancreas, and that which more nearly concerns us, the juices poured out by the Follicles of Lieberkuhn and the Glands of Brunner. The first two

secretions, i.e. the Bile and Pancreatic Juice, enter the Duodenum about three or four inches below its commencement by a common inlet (the Ductus Communis Choledochus) which is formed by the union of their respective ducts a short distance above the opening into the gut.

The Intestinal Juice proper is poured out from the walls of the Intestine, and coming in contact with our Crumb quickly brings about in it a complete alteration: and although it has been followed down to this point, and has preserved its identity intact through more than one trying circumstance, and in the Stomach it may have parted with its minute portion of Gluten and Chloride of Sodium, it was

still recognizable after its entrance into the Intestine; but here it's very chemical elements are rearranged, and our Crumb is starchy no longer, but Saccharine in its composition.

This little particle of Sugar, being held in perfect solution, is presented to the epithelial extremity of one of the Villi, and through the instrumentality of Endosmose and diffusion of liquids passes through into the extremity of a venous rootlet, and has now escaped from the Intestinal Canal and is fairly within the great Circulatory apparatus. With the returning Current of blood our Drop of Solution of Sugar is carried from one small branch to a larger one of the Superior

Mesenteric Vein, until it reaches the trunk of that vessel in which it proceeds upwards, reaching the Current of blood from the Splenic it is carried on in the great Portal Vein into the Transverse Fissure of the Liver until it reaches one of the small ramifying branches distributed to the Substance of that organ. If we follow our Crumb, which has become a Drop, through the Capillary Circulation of the Liver, we shall see it in a terminal Portal Capillary, which, enveloped in one of the attenuated extension of Glisson's Capsule, encircles a lobule, and dips some distance down into the acini of which it is made up. In the Substance of the Lobule our Drop of

Glucose is converted into Liver Sugar in order to fit it for assimilation further on. The Drop finds itself, after a while, in the centre of the Lobule, and getting into one of the Capillary extremities of the Hepatic Vein is emptied into the ascending torrent of the Vena Cava, and is soon in the Right Auricle of the Heart. It then passes into the Right Ventricle, thence through Pulmonary Artery with the Venous wave to the Lungs, where it has another Capillary Circulation to encounter. Somewhere in this Pulmonary Circulation another great Change is wrought, and the Drop is changed just as completely as was the Crumb in the Intestine. The Sugar is entirely decomposed, and its Constituent

atoms of Carbon, Hydrogen and Oxygen form new combinations in the blood. Now what combination is formed by our particular atoms of C. H. O. must be necessarily hypothetical. In order, however, not to lose sight of them just yet, we may suppose that they have been appropriated by a Red Corpuscle of the blood, evading the discussion as to whether the Sugar is converted first into Lactic Acid, and then into Lactates of Potassa and Soda by decomposition of the Carbonates. We shall retain our Red Corpuscle without change through the Pulmonary Circulation. It will return with the Arterialized blood through one of the Pulmonary Veins into the Left Auricle, and by the Auriculo Ventricular

opening into the Left Ventricle.
Now the next Systole of the heart will send our Corpuscle out into the Aorta, and having it there, which will it take of the many roads before it?
But we cannot tarry, as the Contracting Aorta is sending our Corpuscle upwards and onwards, and we must follow it wherever it may go. On it goes — up towards the arch of the great Arterial trunk — safely passes the mouth of the first large branch, the Innominate — sweeps on around the Arch, narrowly escaping the Left Carotid, and, being near the wall, is caught in the stream setting towards the Left Subclavian. But no sooner than it gets well started

on its new course than it again switches off, and is carried upwards into the Vertebral Arteries. By this new channel it ascends nearly perpendicularly through the bony foramina in the Transverse Processes of the Cervical Vertebrae until it reaches the Atlas, when after a sharp turn it is ushered into a large vessel, the Basilar, formed by the Confluence of the two Vertebrals. After reaching this point our Corpuscle Continues onward into the Posterior Cerebral Artery, and in the tortuous course of this vessel in the substance of the Pia Mater, and it's frequent anastomoses with the Anterior Arteries of the Cerebrum it is seen passing

along through a minute Capillary on the surface of a Convolution of the Brain. Here, it may be, this Red Corpuscle becomes broken up and disintegrated, for our convenience, having come to the end of its natural life. Now our three Chemical elements are cast adrift again in the blood of the Capillary, and may form an almost endless variety of Combinations. Let us suppose that by some fortuitous coincidence our Elements remain together, and meeting with an atom of Nitrogen (possibly that furnished by the Gluten of our very Crumb) together with one of Sulphur, Iron &c., and, being exposed to the action of that mysterious vital

process by which every Living Tissue appropriates to itself and assimilates such nutritive portions of the blood as may be required to supply the constant loss or molecular death of the Tissue, our elements, united with others, may at last be vitalized and become a Point of Gray Matter, or a Gray Nerve Cell, on the surface of the Cerebrum. But here it cannot long continue. The Gray Nerve Matter being among the most highly organized, is necessarily one of the most fleeting of all the tissues, and is undergoing continued and rapid change. Every Mental Impulse is conceived at the expense of some portion of the substance of the Brain,

and, sooner or later, our little Point of Cinerititious Matter is expended by a Thought, returned to the Capillaries, thence to a Cerebral vein, the Longitudinal Sinus in the upper Edge of the Falx, Lateral Sinus, Jugular Vein, and so on down by the Innominate Vein & Descending Cava to the Right Cavities of the Heart.

What is now the character and what the metamorphosis which our Fragment of Brain has undergone? Well, in the process of Destructive Assimilation we will suppose that it has parted with its Iron-Phosphorus &c, but retaining its Nitrogen the result is Urea. Now our road is clear to the end of the Chapter.

From the Right Side of the Heart the blood, containing our Equivalent of Urea in Solution, passes through the Pulmonary or Lesser Circulation again to the Left side of the Heart. From here it goes out through the Aorta, this time going safely by the mouth of its old turning off place the Subclavian, onward down the Aorta to its abdominal portion, and soon after passing beyond the Pillars of the Diaphragm, turns almost at a right angle into one of the Renal Arteries, and is soon in the Capillaries of the Kidney. We will follow one of these Capillary vessels which happens to have received our Urea. After it (the artery) breaks up in

the Cortical Substance of the Kidney
Each Capillary terminates in a Tuft
or Malpighian Corpuscle, which is
formed by the Convolutions of the Capil=
lary vessel itself, the walls of which,
being extremely thin, allow the easy
transit of the watery portion of the
blood with the substances held in So=
lution. In this way, or by this route,
our Urea gets into the bulbous extrem=
ity of an Urinary Tubulus, and, with
other excrementitious substances dissolved
in the Urine, it descends through the
Pyramids of the Kidney into the renal
Pelvis, where it is received by the
open mouth of the Ureter and Con=
veyed down to the Bladder. After
a sufficient accumulation of Urine

it is passed out through the urethra in the act of Micturition, and our Modicum of Urea, our transformed Crumb of Bread, is returned to the Earth from whence it came, to be again decomposed, and to go through future endless changes thereby proving the truth of the old saying that "There is nothing new under the Sun" —

Geo. E. H. Harmon.

Baltimore Infirmary
February 14th 1872.

Thesis

on

Anæsthesia

by

Henry J. Ray.

of

Mississippi

University of Maryland.

Session 1872.

— Anaesthesia —

Anaesthesia derived from the Greek verb. αν, and αισθανομαι, to feel, a state of insensibility produced by the inhalation of Chloroform and other agents. It blunts the pain inflicted by the knife, as it saws its way through poor human flesh, and relieves the operator of the sore distress and anxiety of producing it; hence, Anaesthesia is considered truly one of the greatest gifts ever bestowed upon man.

The condition of perfect Anaesthesia, is one of the most grave and frightful conditions

of life, and by suspending more than half of vitality, it comes so near to death, that it is wonderful how near that boundary-line can be approached, and yet be so narrly passed. Thus again, ever since Horace Wells introduced the practicable application of Nitrous Oxide gas to Dental Surgery, who in the opinion of most writers, is in every practical respect the discoverer of Anaesthesia, and deserves both the honor and reward. Anaesthesia has been of great benefit in

alleviating the sufferings of patients; but not with success until Simpson discovered the properties of Chloroform.

Anaesthesia is divided into two grand divisions, viz: General & Local.

General Anaesthetics acts by going to the circulation, and prevents the blood from taking a certain amount of Oxygen. Thence it affects the nervous system. The first appreciable influence then, is upon the nervous System.

The patient becomes excited, boisterous and talk-

ative as a general thing, and again, they are quick and manageable, and a state of unconsciousness is induced, the whole muscular system at the same time becoming rigid and tense, exercising great strength.

At this period of things, the pulse is usually accelerated and stronger than natural.

As the administration of the Anaesthetic goes on, complete paralysis of Sensation and motion is induced.

The patient becomes unconscious wholly of all outward impressions; the muscles become

relaxed and the action of the heart slow and feeble - respiration becomes feeble in proportion as the Nervous System and energy of the muscular movements are lessened.

Such is General Anaesthesia. It can be best effected by inhalation from various contrived apparatus for the purpose, which will be described in speaking of special Anaesthetics.

Various Anaesthetics have been employed; but those that have been well tried up to the present time are three

in number; and with proper discrimination in applying each of these appropriately, and the proper skill in using each, all the legitimate purposes of Anaesthesia can be accomplished with reasonable safety. These three Anaesthetics are, Nitrous Oxide, Ether and Chloroform.

Compression of the Pneumogastric nerve in the neck has been proposed as a safe way of producing temporary Anaesthesia, which if such means should be found practically successful-

would prove to be of great gain to Minor Surgery.

Nitrous Oxide, was the first Anæsthetic, and is said to be quite safe in experienced hands for all momentary operations. It must be given perfectly pure and unadulterated with air. It completely anæsthetizes. Patients generally recover from its effects promptly, without any ill effects.

Its inhalation, however, cannot be continued with safety beyond a few minutes, in as much as it induces the state of asphyxia when administered

in pure state. The influence of the Anaesthetic passes off almost as soon as the patient ceases to inspire it, consequently it will not do for cutting operations, as the smarting afterwards is felt as much as the sting from the cut.

It is confined chiefly to Dental Surgery. Upon the whole it is far inferior to Ether or Chloroform, as an Anaesthetic in all ordinary Surgical operations.

The next Anaesthetic is Ether, sometimes Sulphuric Ether, and is considered by some

far the most important of all. Ether is generally applicable, and practically safe in common use.

Some few doubt its power to produce complete Anaesthesia with safety to life, in its primary influence, the great objection being the supposed difficulty of application. The common objections to the use of Ether are, that it is slow in its operation; causes a long and troublesome stage of excitement; and that after these disadvantages have been submitted to, it often fails to produce a sufficient Anaesthesia

from any reasonable quantity that may be given. Six or eight fluid ounces are generally used in the effort to get patients through the stages of intoxication.

The patient and by-standers and indeed the whole apartment become charged with Ether-vapor, to such an extent that the air is in danger of exploding and causing an accident from fire. Another great objection is, that it takes half-oz. strong men to control the struggles of the patient, to enable the operator to get through satisfactorily, in a reasonable time

Ether is preferred in the North, being the only article used.

Some prefer a mixture of Chloroform and Ether; I believe such is used in New York.

The administration of Ether is effected by the application over the nostrils, a hollow sponge, or a Towel folded in pyramidal shape, with opening at apex, sufficient to let air pass, Saturated with the best vapor.

These modes, I think are preferable to complicated inhalers in as much as there is a sufficient admixture of atmospheric air, all danger of

Asphyxia is avoided. So much for Ether as an Anaesthetic.

The most popular and generally used Anaesthetic, Chloroform, comes next in order.

Chloroform is the most rapid, the most certain, and the most effective anaesthetic, which has been practically applied on a large scale up to the present time. When to these prominent advantages are added the facility and simplicity of its administration, the small quantity required, the facility of getting it of good quality, its non-inflammibility, its cheapness, its

agreeable odor, and the prejudice in its favor, to which all these circumstances will always tend, the key to its popular use is found.

There is another side to the account of chloroform; that is its excess of power, and this excess involves power to do harm which long experience has accumulated against it. It will undoubtedly do harm when too freely and carelessly administered.

There are different opinions among writers as to the increase and decrease of mortality from chloroform. Erichsen holds

that it is increased.

It seems of late years deaths from Chloroform are very rare indeed; scarcely ever hear of a case. However it has its dangers. Its greatest danger is an over dose, and the danger of administering to patients of constitutions complicated with diseased conditions of System. Great care must be taken in Cardiac troubles, lest the hearts action be checked suddenly. There are some necessary precautions which must be observed.

See that the patient is

free from heart trouble, and of good constitution, in the first place; then see that the administrator is one of capability, and that full reliance can be put in him. Take care that it be not given too suddenly, or in too concentrated a form, and whilst under its influence the patient be not raised into the erect position, as it exercises a powerful sedative influence on the heart's action, and may cause fatal syncope.

Care should be taken to remove all restriction from the abdomen, chest and neck - let

them be free. It would not do the patient any harm to do without dinner, just before taking it, that is the Chloroform.

With all care and due caution, it may be administered to all ages, old & young with perfect safety.

There are any number of ways in which chloroform can be administered.

Any apparatus which will admit a sufficient amount of atmospheric air, will serve the purpose. It should not be pulled down over the nose with the first few

inhalations, lest the lung be filled with too strong a mixture.

One or two drachms is considered sufficient to produce Anaesthesia; but in hospital practice it is given "ad libitum;" if there is more than enough, it is evaporated.

We know that the patient is under the influence of Chloroform, when the whole muscular Apparatus is relaxed; insensible to impressions.

The eyelids drop, the pupils are contracted, breathing slow and sometimes stertorous. The breathing becomes

obstructed by the falling of the glottis; in such case, take a pair of forceps or Tenaculum and sieze the Tongue and pull it forward so as to admit the free passage of air.

Patient may be kept under its influence for all capital Operations.

The most tedious operation may be performed under its influence.

The after effects are slight; generally there is a little head-ache, depression of spirits, and sometimes vomiting - but all these pass.

away in a short time, and the patient all right.

We now come to the 2cc Grand Division - Local Anaesthesia. What is it?

It is the process by which insensibility to pain is induced in a part. It can only be used with certainty and success, in those cases in which the incisions implicate the skin and sub-structures, as in removing toe-nails, slitting sinuses, opening abcesses, removing small tumors, and all such minor operations. There are various ways, and various articles for

accomplishing local Anaesthesia.

It is induced by means of Cold, Ether Spray, Chloroform, and a freezing mixture of Chloroform, Nitrate Potash and Ammonia.

The End

A. Thesis
on
Bright's disease of the
kidney subjected to
examination by the faculty
of the University of Maryland
by
Geo. W. Morris. White-hall
Baltimore County
Maryland.

Session. 71-72.

Albuminuria.

This is a grievous disease of the Kidneys which gives occasion to the secretion of urine that contains albumen, and has of low specific gravity than natural, and which during its bringing about also disease. Dr. Bright on hand-book of Dr. Bright of London the most first discover of it.

The kidney is a very important organ and cannot be regarded as inferior to some of the other internal viscera, they considered as excreting organs. The most important physiological relations in its minute structure are, its glandular, and

vascular elements imbedded in a structure of interlacing fibres. The kidney has a cortical and a medullary substance; the cortical substance is more vascular than the medullary substance. The medullary contains the little bodies known as the Malpighian bodies. These glands are mostly concerned in depositing certain excretic materials from the blood, in its circulation through them, to the tubuli uriniferi. There is a peculiarity in respect to the circulation of this organ. The supply is derived from the arterial system, as other organs, by the renal artery; but it is not sent to its

cardiac affinities at first gives
entering the kidneys it speedily
divides into many minute branches
which enter the substance of the
kidney and terminate in small
capillaries in the form of little
tufts; these form the glomeruli
surrounding the capillaries of the
tubes which form entirely the secreting
part of the kidney. It contains its
and goes on to supply the place of
capillaries surrounding the tubes
minutely from the renal incisures.

The kidneys have this peculiar
- ity in common with a very large
number of other glands, namely the
quantity of blood a supplied to its

proper movement. The lungs, the skin, and the organs which have to be incessantly [illegible] from the blood; but, they are liable to be affected by the temperature of the air and climate. The most important function is performed by the kidneys. The amount of water passed will depend on that thrown off by the skin & lungs &c.

This organ is liable to alterations of structure, of which there are several kinds; but, the one taken after that common one, Bright's, shall direct my attention to it.

You may have Congestive first, which will run into one which is Suppurative

tufts, and surrounding tissue;
this may be inflammation,
and cause effusion or fibrous
exudation in the lungs, or in the
intestinal tissue; this may
induce typhus, or typhoid
malignancy. Infection of the
fishing tackle, or nets, may at
begin with the contagion of the
cage, or interfere with its
healthy effusion.
Under such a state of the air
as this, it will not perform its
normal functions for the nutri-
tion of matter; but will cause the
blood to be in its usual
stagnant atmosphere to be light.

Symptoms of inflammation.

The patient complains, but only when he touches the part with the hand in the sidings. Slight pain, uneasiness, or dull pain in the loins, nausea, vomiting, and small quick pulse, which is large with the accompanying albuminous.

Sometimes the urine is entirely suppressed; if such be the case, have sudden, acute pain, accompanied, commonly, inflammation, colic, or bilious diarrhœa, and sometimes death by convulsions. In these cases bleeding, cupping, warm

the septum, might of some kind
acute inflammations as pleurisy,
pericarditis, pneumonia, or peri-
tonitis &c. which are liable to end by
effusion. Despite of the disease,
when accompanying these symptoms,
with albuminous or Bright's disease;
but albumen in the urine does not
always indicate Bright's disease
nor does Bright's disease always
produce albumen in the urine,
as I have found, and know;
It seems to me that the cause
ought to cease. Some kind
of food, and medicines, have a
tendency under the urine
albuminous, and I think some

forms of indigestion are more
than one, as etc. Albumen has
been detected in the urine, often
a rash over the skin.
When not at rest it may be
liquid diffuse, and also, after
the administration of strong
drugs for a long time, it diffuses.
If we are in doubt about Bright's
disease, after the discovery of
albumen, how are we to know
whether it is Bright's disease?
By frequently testing the urine,
and see if it persists in throwing down
albumen from week to week, and
accompanied by some of the other
symptoms mentioned above.

It would be a good, Comfort
that we could have a
intelligent account respecting
the constitution of this person
of attacks on the
degenerating of kidneys, how much
to trust, how it goes on from year
to year without any change or
is he gone a health; the
attacks might disappear after
an effective treatment.

In specific gravity of
scalding urine, in a from 1016
to 1023 as has been delegated
from Prof. Young in the clinics
but it will be just how this in
Bright's disease, are not been

the rest. It is singular that there is a tolerable fluid, and that there is not much area, we are certain that it contains in the cyst, which being cut the secondary effects of which have spoken.

It is difficult for me to describe to you the pathological anatomy of the hydatid in Bright's disease; it may be either in size, consistence, figure, etc. Sometimes it is larger than natural, sometimes of ordinary size, sometimes smaller.

The average weight of the hydatid in adult life, is between 4 and 5 oz. but, in disease it varies much.

The consistence of the kidney is different, sometimes soft or pulpy, at other times firm, or compact in the cell. Sloughs; the surface is sometimes smooth, at other times rough, presenting a yellowish grey, or dark purple tint in some spots.

Secondary effects.

The most common, and important of all, is anasarca; but I will speak of this with respect to the dropsies.

Very important symptoms attending the disease, are the derangements of cerebral functions, headache, slight loss of vision, accompanied by nausea or sickness, drowsiness, delirium, stupor,

asphyxia. Death ought to proceed by Coma, with a cylindrical [illegible].

The cause of the disease is fatal, when life is not cut short by the bounding death.

The accumulation of serum again in the cavities, is almost sure to bring about death by Coma, unless remedied by other means.

The cause of acute inflammation attacking serous, and mucous membranes, as brought on by the poisonous matter [illegible] in the exhibit Countaling, and by setting up that Some channel of treating.

The fever was most habitual

[illegible] or inflammation [illegible] of the same membranes. The mucous membrane of the bowels is very commonly irritated, the stomach, and bowels, are both liable to be affected in most diseases; nausea, vomiting, flatulence, and diarrhœa, the most usual affections, indicating a general and muscular debility of the organs. Dr. Mosely, Dr. Chambers, have published cases to us in the Lancet, presenting most all the symptoms and things of which I say of dancing parts accompanied it.

This complaint happens at all ages, but not so often in youth, as afterwards. The first

case described, with that of an infant
seventeen months old. These cases
are unique. Though epileptics,
they are upwards of twenty, have
been known to have this disease.
The malady is much more
common in adults, not recom-
ch. Riding is said to cure
this disease more at an early period
than earlier, but, as life advan-
ces, the circumstances tend to
produce it, because of more
frequent operating influences,
exposure, disease of heart
&c. Men are more often attacked
by this nervous disease than
women. It is commonly

[illegible] (or [illegible] author's stat.) with serious results, and fatal in [illegible]; but these cases are rare, and of doubtful origin.

Causes.

Epilepsy includes several cases, where the bleeding is in unfavorable circumstances.

We can not form any definite idea in some cases, for the disease has been lying latent.

Persons have been known to take on the malady after being attacked by fatal diseases, losing their property, or, in guards of

the sides are somewhat inverted, which occasioned the urine under circumstances favorable to it, after the dropsy was apparently supposed to have been cured. I suspect similar cases occur, but I think it rather a prolapsing than an essential cause, as children should have the disease.

Diagnosis.

In patients will have to make given lines to these observations in the diagnosis, in order to satisfy himself of the proper treatment. The patient becomes dumpy irritable,

loss of sight at times, hearing noises in the ears, faltering, but scanty excretion, coming thing dull heavy pain extending from bleeding down the side to thigh, retraction of the testicle, scanty urine, high coated tongue.

Sometimes the urine is entirely suppressed, which brings about deep and profound coma, convulsions at times, slight delirium, and of stupor, nausea and vomiting. Pulse is at times as a little deranged, but diarrhoea, but albuminous urine is the most diagnostic sign.

The best for this is Stramonium

which is the most common, this is heat by the use of nitric acid.

To test the supposition, it must be put in a small glass tube, and held over a spirit-lamp. The heat will vary as to the amount of albumen present.

Usually, the albumen first appears in the form of a whitish cloud; the particles collect together in curdy flakes, and soon subside to the bottom of the tube, having the remaining urine behind.

By this way we can estimate the amount of albumen present. Heat is not

albumen, a sure test for albumen,
is Nitric acid alone.
If the urine is alkaline, heat will
not precipitate albumen although
present, owing to the presence of
ammonia and its salts.
Heat may cause a precipitate
consisting of earthy phosphates.
One might sure test in connection
with this, is the addition of
Nitric acid which will cause it
to be thrown down again, if
any of the urine contains any of
the bilates, as urea, Nitric acid
will not answer the purpose as
it will cause nitric acid, and
nitrate of urea to be thrown down.

in the place of albumen, when there is no urea. There is a pottage of this wine, but we is heat wine than all doubt. Any great effect of Nitric acid will dissolve the albumen; so it is best to speak in a small quantity of wine, heating, & dropping a few drops of the acid.

The test tube should be clean of any acid or alkali. Other tests are given, but as this is the one most in use, I will not speak of them.

Anasarca is one of the first symptoms to make us suspect Bright's disease. This is an important symptom, as it adds greatly

This disease, are dangerous, and the complications, it induces the remedies of the dropsy distinct from the remedies of the renal change. The skin is dry, and the urine is scanty at the outset, then the anasarca is observed to increase in diminishing as the quantity diminishes or augments. Anasarca signifies a filling up of a considerable quantity of serum, or liquid fluid in the subcutaneous cellular tissue. When there is large effusions in some of the serous cavities, it is called general dropsy; it proves fatal, when it accumulates in

ventricles of
the brain, in blowing the openings
external to the brain. From what
cause this accumulation may
take place, the effects are the same.
They complain of shortness of breath
and palpitation of heart, a sense
of suffocation if they sit down,
or take active exercise, distress
across the epigastrium, stiffness
of their limbs. The shortness of
breath, is caused by edema of the
lungs, as revealed by auscultation,
am. by water in the pleura, by pressure
upwards of the diaphragm which
causes the heart and lungs to be
compressed. We must see if the
disease has set in suddenly,

ients' prior symptoms or whether it has kept in strong action it was any exciting cause.

We must on the other hand ascertain whether it depends on disease or debility of the heart, this constitutes Cardiac dropsy. That which depends upon kidney disease, is renal dropsy. It is with us to find out especially, each one, in order to treat successful.

The modes in which disease of the heart may cause dropsy are as follows: Thoracic symptoms, cough, dispnoea, distended jugular veins, irregular movements of the heart, unnatural impulse,

these sounds are of any acute rheumatism beforehand.
The kind of heart disease that mostly brings about this dropsy is any obstruction to the circulation through the heart, or some obstruction near it. Incumbrance may cause a stoppage of the blood back, the venous blood back. The liquid commences to accumulate in the greatest circumference from the heart; this causes the ankles, legs, knees, arms, face, and more or less of the whole body, sometimes great, causing the patient to burst. The skin feels as pressure. Renal dropsy can

be diagnosed from cardiac, by attending to the history of the patient. An attack of illness, attended by swelling of the body, and derangement of the urinary functions soon after exposure to wet and cold, an attack of dropsy after scarlet-fever, which often lays the foundation of these changes in the kidney, the discovery of tissues of intemperate habits. Dropsy attending heart disease, commences mostly in the lower extremities. Renal dropsy mostly in the upper extremities, face, lips, and eyelids. I have been speaking of cardiac & renal.

dropsy; but they are the other more often our lights.

The prognosis of the malady is very unfavorable, especially when complicated with secondary affections, and when it continues for some time.

Treatment.

The disease sometimes yields under treatment, but prove to be rare. In cardiac dropsy where the kidneys is sound, diuretics — medicines such as are most important. When they fail to act, we have recourse to the state of the bowels, permitting hydra-gogue purgatives, Rutman

Squill, & digitalis are powerful remedies. A Pill made of the Pill Rhubarb, squill & digitalis is very useful in dropsy & disease of the heart. Opium & its preparations are to be used with great caution. Solution of Morphia & some of its preparations of Opium. Camphor & a mixture of it & Gum Ammoniac, are diaphoretics, & are to be used in febrile & inflammatory diseases. Tartar emetic is a powerful

[illegible]

[illegible] day. [illegible]

[illegible] the skin. There are many

[illegible] for the

[illegible] such as

spirits, [illegible]

[illegible] of [illegible].

[illegible] recommended, but the most

[illegible] the disease [illegible] in the

administering of them.

[illegible] when the accumulation is

[illegible] [illegible] [illegible] quantity [illegible]
draining away much to the
relief to the patient.
After [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] to [illegible] [illegible]
[illegible] [illegible] to avoid [illegible]
after mental emotion.
[illegible] [illegible] [illegible] [illegible]
one day throughout.

An Inaugural Dissertation

On Pneumonia

Submitted to the Faculty

of the University of Maryland

for the Degree of

Doctor of Medicine

By Walter H. Coore

of North Carolina. 1872

Pneumonia

Inflammation of the substance of the lung. This is a disease to which all are subject, time unconsciously to age sex or clime. The young, old, rich and [illegible] are all subject to it. However it occurs oftener in the male than the female, and oftener in [illegible] than [illegible]

In some cases for three or four days previous to an attack of pneumonia, the patient feels languid and dull, but [illegible] these symptoms are unnoticed until the first chill attacks

The attack is ushered in by some cough, and pain in the chest, headache, nausea and sometimes vomiting. The pulse is quick, often rising as high as 140 to 160 beats to the minute. The increased temperature of the surface is very remarkable in this disease. When it reaches and 104 the case may be considered a severe one. Delirium is common. The respiration is hurried, generally out of proportion to the frequency of the pulse, sometimes rising as high as 50 or 60 to the minute. The tongue is coated with a yellowish white fur. Generally there may be seen a circumscribed flush

one or both chests, some
say of the one on the side
corresponding with the affected
lung). The sputa are very rusty
colour and very tenacious.
The bowels are generally constipa
ted. It is supposed that there
is a deficiency of chlorides in
the urine but there is an excess
of urea. According to the seat
of the disease it may be lobar
or lobular. When it affects the
whole or greater portion of a
lobe it is called lobar pneumonia;
and when it is confined to the lobules
and is circumscribed it is called
lobular. [illegible] remarks
to the lobar variety

Stage Three or Third

[illegible]

[illegible]

[illegible]

[illegible]

it advances to the second stage or [illegible] (which very rarely occurs in the first stage) In the second stage the lung becomes solidified and [illegible] heavy [illegible] in [illegible] [illegible] that of grey hepatization or [illegible] [illegible] [illegible] change in colour from red to grey: the yellowish white specks which may be seen on the surface of the lung indicate the [illegible]

and by pressure the lung tissue may be broken down.

He may have the various stages existing in the same lung at the same time; for instance one portion of the lung may be in the first stage or that of congestion while another portion is in a more advanced stage.

[illegible] stage on auscultation fine crepitant rales may be heard. On percussion the resonance is slightly [illegible]. In the second stage there is decided dullness on percussion; on auscultation [illegible]

and [illegible]

In the lower stage there is [illegible]
auscultation comes crepitant mucous
rales
The sequelae are persistent consol-
idation of the lung [illegible] by [illegible]
authors chronic pneumonia and
tuberculous cirrhosis; sometimes acute
phthisis may follow this disease.
Anatomical characters.
"The posterior portion of the
lower right lobe is most often
the seat of the disease (Frankel)
Should death occur in the
first stage (which is seldom
the case) the lung will be found
somewhat swollen, dark red in colour,
infiltrated and yielding a very
serous. It will still float in

more thick heavier than the healthy lung. In the second stage the lung is consolidated and presents considerable resemblance to the liver. It will no longer float in water, and the finger may be easily thrust through it. In the third stage there is degeneration of the exudation. This ends by softening, ulceration and suppuration; occasionally an abscess forms. The diseases with which pneumonia is most liable to be confounded are bronchitis and capillary bronchitis. From the first it may be distinguished by the dullness in the percussion of the pain in the side and also by the rusty sputum in the

it may be distinguished by the rales being heard on both sides while in pneumonia they are heard only on one; except in cases of double pneumonia, and then we have dullness in both sides which we do not hear in bronchitis

Complications. The only complications which occur are those of the most dangerous character of the disease. The only primary of the secondary symptoms are the more prominent. It is called plural pneumonia if the cause it is called primary pleurisy

Prognosis. Treatment of simple character affecting only one lung in young persons favorably

[illegible]

cumstances and proper treatment always be recorded from
But in old persons it is more dangerous; and the double variety, is or at all periods though quite recoveries do occur. Among the unfavorable signs are the expectoration of pure blood in the first stage and albumen in [illegible]

Pathology and Nature.-

In ordinary pneumonia as in other phlegmasia, we have pyrexia, fever, hyperaemia, and exudation. The fever may be caused by a local or else by the passage of pus, [illegible] and tuberculous [illegible] it is

The Germs in malarious the latter,
are in incipient, both are suppressed
by each.

Causes. Although this disease
is more common in the winter
and spring, yet we do not
think that it is produced
entirely and solely by cold.
Malarious vapors are often blown
with it and constitute what is known
as [illegible]

We are [illegible] of coming of
times in malarious than in other
regions. It has been observed
by intelligent practitioners that
when one has suffered from
malarial [illegible] during the summer
and fall are more
or less [illegible] to be

attack of pneumonia during the following week or more. We know that cold is generally considered the exciting cause, and authors generally say that the way in which malaria acts in producing the disease is by enervating the system and thereby rendering it more susceptible to cold; and although we are willing to admit that this may be and undoubtedly is the case, yet we are inclined to think that malaria may act sometimes as an exciting cause. Pneumonia may be produced by direct violence to the chest, the result, is called traumatic

As regards the homopathic law

is, that persons by infinitesimal doses also help: it is a remarkable fact that persons are more apt to produce it than others. For instance suppose a person be sitting in the house on a cold damp ~~damp~~ day and exposed to a current of air, then, he is more liable to an attack of pneumonia than one who is out on the street for several hours. Damp weather produces the disease is more dangerous than dry. We suppose the cause of this is that in damp weather the function of the sudoriferous glands is interfered with.

We sometimes meet with cases
the causes of which are unac-
countable. We find the disease
occurring in persons where every
precaution has been taken against
exposure to the vicissitudes of
weather and all other exciting
causes; yet the symptoms are as
[illegible] as in cases
where the cause can be readily
discovered. There is undoubted-
ly a predisposition to this
disease in certain persons.
It is on account of this that
the disease is produced in
some persons by causes which
will not affect others.
For such books as Hunter,
Hardy, Cooper &c. will be with the

Mineral relations cont.

which it occurred sixteen times in the same subject, channel in which it occurred the tenth and they [illegible] a patient the seventh time with it, and [illegible] times, also! to a second attack.

Treatment. This is a subject which has employed the minds of eminent practitioners. For centuries past and there is yet a great [illegible], [illegible] opinions in regard to it. [illegible] belong of it operates [illegible] within the last few years, venesection and other depleting measures were considered by the mass of people [illegible] to be necessary,

above all others, be used only
when applied with judgment and
discrimination. But like all other
valuable remedies it has greatly
abused, which has caused most
practitioners to abandon its use
even in cases where it is actually
needed. Modern practitioners
have [illegible] coined the
"[illegible]" — stimulation
and [illegible] — overwhelmed
in their views of other treatment
as [illegible] in their
depleting, since [illegible]
to the old treatment.
Dr Bennett supposes few patients
require [illegible] in these
cases the amount drawn should
be small; not reaching a few

follow. In cases of average severity, counter irritants should be applied to the thorax, such as hot poultice shapes. The bowels should be kept open, nor stimulants are times given with diaphoretics and diuretics. In a majority of cases we think good hygienic regulations is the best treatment. Conditions in which blood letting is admissible. In a young person of robust constitution, with hot skin full and frequent pulse, and venous stasis of the lungs, no doubt venesection does good.
In the second stage venesection is never admissible under any circumstances. In my the [illegible]

given in the case of ten grains every five hours, after the febrile state has passed, no active treatment is required, and should be suspended. The patient should be nourished and stimulated if required. Mild counter irritants should be applied over the thorax.

[illegible] the patient should wear flannel next to the skin.

An oiled silk jacket may be worn to keep the surface moist. The patient should have plenty of fresh air, but should not be exposed to a current. In return passing the febrile excitement he may be allowed [illegible]

[illegible]
[illegible] of the [illegible]
[illegible] a malarious character [illegible]
should be administered freely until
the fever subsides.
After an attack of pneumonia
the patient should be very
careful for some time as one
attack predisposes to another.

approved J. J. Chisolm

Thesis on Gonorrhoea.
by
John. A. Watson, of
South Carolina.
February 14th 1872.

Thesis on Gonorrhoea.

Gonorrhoea is a specific disease accompanied by inflammation, and an abundant muco-purulent discharge. This disease has received various names at different times and places. The discharge was once supposed to consist of semen, and hence its name Gonorrhoea, from γονή sperm, and ῥέω, to flow. This term however is incorrect since it has been proven not to consist of semen. It is known to the French as Blennorrhagie. Popularly termed "Clap" by the English. "Chaude pisse" by the French. The disease is mostly located in the anterior part of the urethra the fossa navicularis; although it may attack any mucous membrane e.g. the

external ear, the schneiderian membrane of the nose etc. It occasionally extends throughout the whole urethra implicating the lining membrane of the bladder; again in women it may attack the uterus and fallopian tubes producing peritonitis and death. These grave complications are fortunately very rare.

Symptoms. The first symptoms of gonorrhoea make their appearence between the second and fifth day after exposure; in exceptional cases not until the seventh or tenth day.

The symptoms are at first very mild, consisting of an uneasy or tickling sensation in the anterior part of urethra. exuding at the

same time a mico-pus. Decided pain is experienced by the patient in passing water. This is known as the stage of incubation.

This stage lasts for a week or more the symptoms gradually increasing in intensity until the acute or inflammatory stage is developed. During this stage the symptoms all increase in serverity. The discharge becomes copious and of a greenish color. The urethra becomes very much swolen, and has a cord like feeling to the touch.

The pain is now intense when the patient passes water; there is also more or less obstruction, to its passage owing to the discharge, from, and inflammation of the urethra giving a forked or irregular appearance to the

stream. Nocturnal erections or "tubiodii" is one of the most troublesome as well as painful symptoms attending this stage, occurring principally at night, when the patient is warm in bed. It is during this stage that buboes appear if at all.

These symptoms subside in a fortnight or two gradually fading into the third stage or stage of decline. This stage is ushered in by a marked diminution in the severity of the symptoms. There is now very little pain in passing water. The discharge ceases and complete recovery rapidly follows. If this stage be improperly treated, however, it will continue for several months

Causes. Gonorrhoea is induced by an impure and indiscriminate sexual intercourse which generates a highly contagious virous.
It may be generated if coitus be practiced during the menstrual period. Leucorrhoea in the female will produce gonorrhoea in the male as may any other acrid discharge Burnstead has reported many interesting cases proving that the disease may be found to exist where there has been no previous sexual intercourse but depending on causes altogether foreign to what is usually supposed to be the producing cause.
Treatment: The treatment of gonorrhoea must be directed according

to the condition of the patient as well as to the stage of the disease. If the patient be seen in the first stage of the disease that is within four or five days after exposure before the symptoms have become acute, when the discharge is but slight and chiefly mucous, the abortive treatment may be adopted with success. A strong solution of Argenti nitratis may be used for this purpose or perhaps what is better a weak solution used more frequently. Argenti nitratis grains one fourth Water one ounce M. The injection should be carefully given so that every part of the diseased urethra should be saturated with it. The Syringe should be glass

treatment of the third stage or stage of decline. This stage can generally be recognized by a marked diminution in the severity of the symptoms.
The diet of the patient should now be nutritious: but still avoiding stimulants especially malt liquors. Tobacco in any form should be abstained from. Exercise moderately taken is very necessary.
Injections of the acetate or sulphate of zinc may now be practiced with success in the proportion of from grains two to four to the ounce of water or glycerine of the former and from grains two to six of the latter. Any of the other mineral astringents may be used

with almost equal success.
Of the vegitable astringents the vini rubri and vini tanici are the best though far inferior to the mineral.
Copaiba and Cubebs if used at all should be given at the early part of this stage. The dose of the former is from twenty to thirty minims thery times per day of the latter one drachm three times per day
Treatment of special symptoms
One of the most annoying of them is Chordee. Various sedatives are employed for the relief of it among which camphor holds the first rank. It may be given in pill form combined with opii or extract of lettuce.

The discharge usually becomes more copious and slightly tinged with blood after this caustic injection has been used for a few days; but these apparently severe symptoms soon abate when the injections are discontinued, as they should be. The discharge now becomes very thin and soon disappears altogether and the patient pronounced well.

Treatment of the Acute Stage.

Particular attention should be paid to the mode of life that the patient leads, but more especially to his diet which should be of a mild character free from stimulents, etc.

Absolute repose is preferable for a few days if possible; this can not always be had, however it is

the duty of the Physician to forbid his patient taking any violent exercise such for example as dancing, horse back riding etc.
The genital organs should be well supported by a suspensory bandage well adapted to the parts so as to prevent chafing.
An active purge should now be administered e.g. three C C pills or a full dose of Epsom salts.
The alkalines and mild diuretics are always in order. One pint of flax seed tea per day in connection with the following gallant formula is highly recommended by Brunstead. ℞ Potassae Bicarbonatis ℥ij
Tinctuae hyoscyami ℥ij
Mucilaginis ℥v. M. S. ℥i bis die.

the following formula is recommended by Bumstead

℞. Lactucarii

Pulveris camphorae, āā ʒij

M. ft. pil. xx.

Dose. - two at bedtime

Hemorrhage occurring during erection need no special treatment. Abscesses occurring along the course of the urethra are to be opened early.

An Inaugural Dissertation on
Acute Pericarditis.
Submitted to the Examination of the
Provost, Regents, and Faculty
of Physic, of the
University of Maryland,
For the Degree of
Doctor of Medicine,
by
Thomas P. Howell,
of
Indian Territory,
Session of 1852 & 53.

Acute Pericarditis

Is an inflammation of the serous membrane lining or investing the heart or the pericardium. The morbid appearance resulting from acute inflammation in this situation are essentially the same as in other serous membranes when inflamed. viz first reddened or congested appearance due to determination of blood to the part but as death rarely occurs at this stage but later- it will have led to the exudation of coagulable lymph. This exudation takes place sufficiently to give rise to the

Characteristic solid deposit, usually probably within a few days from the commencement of the inflammatory attack. The deposit of fibrin of a jelly like consistence adheres slightly to the membrane forming a thin layer either limited to the base of the organ and about the roots of the large vessels or extending more or less over the pericardial surface. The process of exudation goes on and the incoagulable or serous portion from liquid ~~which~~ which accumulates within the pericardial sac. The quantity of effusion in different cases of pericarditis varies greatly amounting

in some cases to a pint and in other cases only a few ounces. The liquid is serous, but by passing to maturity it is sometimes sanguinolent.
The disease is divided into three stages. The first stage may be considered as extending to the time when the accumulation of liquid is sufficient to be determinable during life by symptoms and physical signs. The second stage will embrace the period during which an appreciable amount of liquid continues. The third stage comprises the remainder of the duration of the disease after resorption of the

the liquid. A more simple mode is to speak of the disease as consisting of three periods. Viz. Febrile, dumpy and after liquid effusion. The latter expression being understood as applying to a quantity of effused liquid sufficient to distend, more or less the pericardial sac. Causation. Acute Pericarditis may be produced traumatically by penetrating wounds of chest or contusions. Exclusive of its traumatic origin. Acute Pericarditis as an idiopathic or primary disease is extremely rare. The changes of its development

irrespective of any other disease in a healthy person are very rare. The affections of which it is an occasional concomitant are numerous but in much the larger proportion of instances it occurs in the course of either articular rheumatism or renal affections involving albuminuria. The causative relation these diseases bear to Pericarditis is attributed to a species of blood poisoning and when we get to this we can say nothing more. As to its modus operandi time and medico-chemical researches are needed

The impression prevalent with the medical profession at present is that the excretory action of the kidneys is at fault and that it is to be attributed to the accumulation of urinary principles in the blood. The intermediate morbid condition determining Pericarditis is thus supposed to be uremic. The urea in excess, or the products of its decomposition in the blood, acts as poisonous agents giving rise to inflammation of the pericardial and other serous membranes. Among

various pathological consequences. This is the explanation most consistent with our present knowledge. The diagnosis must rest mainly on physical signs. The friction murmur or sound in the first stage of Acute Pericarditis is almost pathognomonic, taken in connection with the symptoms and history. In the second stage, the occurrence of liquid effusion and its quantity are determined by percussion. Abnormal dullness exists over an increased area

in preceding lectures. As regards prognosis acute Pericarditis is never a trivial and is often a formidable affection. The gravity however, is due not so much to the disease per se, as to the condition of the system, the pathological relations of the disease and coexisting affections. Acute Pericarditis occurring in connection with Rheumatism, is very grave fatal. It is determined when the affection is developed in connection with Bright's disease and Pleurisy or various other affections. It most generally results fatally

As respects treatment of this affection, depletion by means of saline purgatives, with restricted diet, is indicated in the first stage by the same symptoms as in other acute inflammations. The cardiac sedatives such as Tinct. Aconite, Digitalis & Veratrum Viride and others, are highly beneficial by means of their tendency to depress the heart's action. Opium is in vogue in this disease. It is indicated by pain & constitutional disturbance. —

The indications in the second stage relate, first to the liquid effusion. For this and the peritonitis may be painted occasionally with the tincture of Iodine and small blisters may be applied. Hydragogues Cathartics and diuretics may be employed with much benefit, taking care not to carry these measures so far as to depress the vital powers and weaken the heart to a dangerous. In the third stage or that of convalescence

The Treatment consists
in Tonic medicines, with
Nutritious diet. Change of
residence & moderate and
gentle exercise in a Tropical
climate are important as
soon as convalescence
is established

An Inaugural Dissertation on
Spasmodic Laryngitis
Respectfully submitted to the
Examination of the
Dean and Faculty of the
University of Maryland, by
James O'Keech
of Maryland

Sep. 1871—2.

The Symptoms anatomical Characters diagnosis prognosis and treatment of Spasmodic Laryngitis by

James O. Reed.

This disease has been known by many different names such as Stridulous Angina, Catarrhal Croup, Spasmodic Laryngitis and False Croup. This last term being used to distinguish it from Pseudo-membranous, or True croup.

Spasmodic Laryngitis is a simple Laryngo-trachitis, with spasm of the glottis

This is a frequent disease, sporadic in its nature, and most frequently attacking children between the ages of Eighteen and

thirty months of age; it gradually decreases in frequency after the last-named age until seven years of age after which it is very seldom met with.

Symptoms. This disease commences variously. Not infrequently the child is affected for a day or two, preceding the attack, with symptoms of a common cold, such as a slight cough, of the ordinary character, soreness about the throat, and some bronchial irritation. In some cases the cough is croupy, and a slight hoarseness of the voice, or in others, there are no premonitory symptoms preceding the attack whatever.

In either case, the child is usually

awakened from sleep, between the hours of two and twelve O'clock at night with a violent paroxysm of coughing and dyspnoea. having certain characteristic features. The cough is peculiar, dry loud, and sonorous. immediately succeeding which there is often a shrill stridulous sound produced in inspiration Accompaning this there is severe dyspnoea. If the child attempt to speak the voice is more or less rough and hoarse, and in very severe cases may become whispering or allmost extinct. but only temporarily so.

The suffering during a severe attack of spasmodic Laryngitis is often very

distressing. The face is flushed and indicative of suffering. The child cries and tosses himself about in the bed. Lies on his back and extends the head so as to allow as much air to enter the larynx and trachea as is possible. He however soon tires of this position and he may then try the sitting posture or supports himself upon the hands and knees. or in short he tries all manner of positions in the hope of gaining relief. Sometimes if able to speak he complains of constriction and pain in the throat and chest. but often his attempts at speaking are stifled by the cough and this therefore adds much to

the violence of the paroxysm.
At first the skin is warm or hot and the pulse frequent and febile but when the attack has last for some time, or it is a severe one, the effect of the impeded inspiration is experienced in state of the blood which is imperfectly oxygenated, consequently the lips and ends of the fingers becomes bluish or purple The face becomes pale the extremities cool. The pulse is very frequent running up to one hundred and forty one hundred and sixty or even higher and is feble and irregular. And just as asphyxia seems to be inevitable, the spasm relaxes, the air, is allowed

to enter the lungs, the blood becomes oxygenated, the proper color returns to the lips, and face, the violent symptoms subside and the patient is allowed to fall asleep. and when he awakes is found to be greatly relieved.

The cough though greatly relieved, being both less frequent and distressing, remains for a time, somewhat barking or sonorous. The breathing soon becomes normal, health being restored in from one to two days.

But in some cases the inflammation does not stop with the larynx but extends down to the larger bronchial tubes con=
=stituting the disease known as laryngo
=bronchitis. Again in many cases,

after the disease appears to be completely cured it will return during the following night, or on two or more successive nights but with less violence

Such I believe to be the history of the severe attacks of spasmodic croup. ~~which~~

But the paroxysms are not so severe in the major part of the cases.

It is said that death very seldom occurs in a paroxysm of Spasmodic laryngitis, but that capillary bronchitis pneumonia and measles follow an attack and then the prognosis is more grave.

Anatomical Characters.

When a child dies in a paroxysm of spasmodic croup the

mucous membrane of the larynx and portions of the trachea are usually found inflamed and somewhat thickened, and more or less thickened mucous in the bronchial tubes. In some cases there is no evidence of previous inflammation having existed during life, from the post mortem appearances, but the hyperaemia might have disappeared after death, as it is known not infrequently to do.

I do not know that this disease presents any distinctive marks after death to distinguish it from simple laryngitis but during life the spasm of the glottis is a marked and important phenomena of the disease.

Diagnosis. The disease with which spasmodic laryngitis is most liable to be confounded with are pseudo-membranous or true croup and laryngismus stridulus both of which somewhat resemble false croup; but scarcely can be confounded with either if attention be paid to the history of the case.

The positive symptoms of spasmodic croup are: the sudden occurrence of the paroxysm in the early part of the night, only preceded by a very slight catarrh with cough and the paroxysm having its maximum of intensity from the first. The cough is loud ringing and sonorous. The voice or cry is usually

allmoste natural, or if it should be affected is only momentarily so

The fever in a great majority of cases is slight, or if high lasts but for a short time. The paroxysm is short lasting from thirty minutes to two hours and the whole effects of the disease passes off in from one or two days unless followed by bronchitis or pneumonia

Pseudo membranous croup on the other hand, though having a catarhal stage resembling false croup in its initiation soon presents distinctive characters

Very early there is marked hoarseness of the voice which gradually goes on increasing until it is allmoste or quite

extinct. The attack instead of being sudden, gradually reaches it maximum of intensity and is liable to occur in any part of the twenty four hours. The cough is hoarse muffled or suppressed. There is usually high febrile movement from the first and lasts throughout the disease. The paroxysm has no definite limit and lasts from a few hours to as many days, and in those cases which end in recovery many days are required, for the patient to regain his previous health. If the presence of a false membrane can be detected, either upon the fauces or in the sputa or the matters vomited

of course that at once settles the question.

The diagnosis between Spasmodic croup and laryngismus Stridulous is easy.

In laryngismus, there is no cough, or fever attending the paroxysm, which paroxysm only lasts from fifteen to forty seconds and is just as liable to occur in the day time or later part of the night as at any other time again there are no catarrhal symptoms preceding the attack, nor is it more liable to occur after exposure than at any other time.

Causation. This disease is much

more common during the damp cold weather of March, April, October, November and early part of December than in the remaining portion of the year. Insufficient clothing and vicissitudes of temperature are not infrequent causes. It is said that children in some families are more liable to false croup than in others so that an hereditary liability must be admitted. Boys are much more liable to it than girls, and those of a nervous irritable temperament are most commonly affected.

Prognosis. Spasmodic laryngitis very seldom ends fatally, but death does

sometimes occur in a paroxysm and it is highly probable, that it would end much more frequently in this way if it were not for the effects of treatment which is, in the great majority of cases, perfectly satisfac=tory if proper remedies are applied. Although very seldom fatal per se, this disease is not infrequently followed by others which often end unfortunately. The most common of these are bronchitis pneumonia and measles. These are often serious diseases when attacking infants in previous good health, but are much more so when they follow an attack of false croup, which weakens the child and

renders it less able to bear up under their prostrating influence. This may also be said of other diseases which may accidentally follow.

Treatment. The indications to be met are twofold, first to relieve the spasm of the laryngeal muscles: and secondly to cure the laryngitis.

To meet the first indication, the patients lower extremities are to be placed, up to the knees, in a bath of the temperature of ninety six degrees Fah: and be allowed to remain for twenty or thirty minutes; hot water being added from time to time so as to keep the temperature constantly up to Ninety six. Simulta-

=neously, with the use of the bath a mild emetic should be given such as

℞ Ipecacuanha. ʒj
White Sugar. ℥ij
Water ℥v M.

S. Dessert-spoonful every ten minutes until emesis is produced. Or preferably

℞ Alum ℥ij
Wine Ipecac. ℥j M.

S. ʒj every ten minutes until free vomiting is produced.

This treatment will in mild cases usually break up the paroxysm, and nothing more is required, except perhaps a mild anodyne such as a few drops of Paregoric, Tinc Opium. But in severe cases more

energetic treatment is required; to give prompt relief. The child should have instead of the pediluvium, a general bath of the same temperature - viz - 96° Fahr. The water should reach up to the neck of the child and it should be allowed to remain some ten or twenty minutes after which it should be taken out wiped dry and put in bed, as in the mild cases, an emetic should be should be given, while the bath is being used. Alum is said to be very efficient in these cases. To a child one year old. a teaspoonful of finely pulverized alum may be given in some pleasant Syrup. and repeated in ten

or fifteen minutes if required. Should the alum fail, or a more sedative action desirable, the following may be resorted to.

℞ Tartar emetic gr. j
Ipecacuanha ʒ j
Syrup Squills ℥ ij M.

To a child one year old the dose is a drachm. In these severe cases the air of the room should be kept constantly loaded with the steam of hot water, and at the same time warm fomentations may be applied to the throat. The inhalation of small quantities of Ether or Chloroform will materially shorten the length of the paroxysm and may be resorted to in urgent cases. Bleeding is very

seldom called for in this disease, but when other measures have failed, and the child is over three years of age robust and strong, with high fever, and the breathing so much obstructed as to cause venous congestion, under these circumstances it should be resorted to, and will seldom fail to give relief, although but a small amount ought to be abstracted. After the spasm is relieved an anodyne should be given, as Eight or ten drops of paregoric or one or two drops of Liq. Tinc. opium. To fulfill the second indication, to relieve the laryngitis, if the bowels are constipated a mild aperient should be given and to relieve the cough the following

℞ Syrup Squill

Syrup Squills ā ā ℥ss M.

S. gtts X–XV. every two or three hours to child one year old. If there is any prostration or evidence of lung trouble the patient should have the more stimulating expectorants such as senega or carb. of ammonia. good nutritious food. Stimulents should be commenced early. as it is best to begin their administration a little too soon than too late.

After an attack of Spasmodic Laryngitis the child should be confined in doors, and not be allowed, while there, to be subject to vicissitudes of temperature

Prophylaxis As many children are subject to repeated attacks of this disease it becomes an object to prevent them as far as possible. To effect this robust children should be comfortably dressed, and allowed plenty of exercise in the open air in good weather, but should be kept in doors during damp cold days. Prof. McSherry recommends bathing the throat once or twice daily with cold water as a valuable prophylactic measure. Delicate nervous children should wear a tight jacket with long sleeves and be put upon a mild course of chalybeate or vegitable tonics with occasionally a small quantity

of Good old "Spiritus Vini Gallici"

Thesis by D. D. Jones.
Respectfully Dedicated to his
"Alma Mater" & Submitted
to the Faculty of the
University of Maryland
for their consideration.
Hoping they will make
out unto him, that
leniency which Youth
& inexperience so
greatly demands

Session of 1871 & 72

"Malaria Haematuria"

It is not expected that a Medical Student at this era of progressive science, should make any very wonderful discoveries, or advance many original ideas of much value; for men of great experience and ability are constantly deliberating in the mines of science for new and useful discoveries. Yet, it behooves every earnest seeker after knowledge and every well wisher to our great "Healing Art" to contribute of

their store of knowledge and experience, though limited it may be, for the relief of suffering humanity and the progress of the science of Medicine. I do not expect many if any to be much edified by what I may contribute in this dissertation - but as an essay on some medical topic is a pre-requisite for the degree of Doctor of Medicine - I purport to record what little I know, of a new disease

or rather, new form of a common affliction - peculiar to my latitude and nativity, "South Alabama", the once beautiful land of prosperity and liberty.

The most that I record shall be from personal experience and observation having myself suffered from the disease under consideration and been with a Brother and several friends when similarly affected. It has not been my good fortune to find

anything elaborate on the subject in our classic text-Books - they merely gave you an inkling as to the Existence of such a disease, but nothing def-finite - What has been written is at present con-fined to medical Journals.

About the year 1867 this new form of disease was first described and denominated by several names, such as Malaria Haematuria, Hem-orrhagia Malaria or by the Profession, and by the non-professional, Yellow disease

and Yellow Chill - names indic-
-ative of prominent features
in the disease. I rather
prefer and shall adopt
"Malaria Haematuria" as
the most significant title -
expressing as it does the
cause - "Malaria" - and one
of the most prominent
and constant effects -
"Haematuria."

Malaria Haematuria
when first observed was
not fully understood, i.e.
its Pathology - Consequently
the treatment was con-
-fined mostly to alleviating

symptoms and rather rudi-
-mentary - and as might
be expected in such a malig-
-nant affection improperly
treated - the mortality was
fearful - very few attacked
in any of the severe
forms survived. Now
that it is better under-
-stood and treated on more
rational principles the
mortality is much less -
from my observation about
30 per cent. I have no statis-
-tics from any other source

Epidemic Cerebro Spinal
Meningitis as a terror has

given precedence to Malaria Haematuria and well may the fears of the public be great for I have yet to witness a more rapidly prostrating and fearful disease in its course.

The query arises, What is Malaria Haematuria? It is nothing more nor less than a malignant form of Intermittent fever of the Congestive type. That it is due to malaria is a question not to be mooted - for it is peculiar to malarial districts - amenable to the

same treatment of Malarial diseases in general - and in scarcely any instance attacking any but persons who have suffered from Chronic Intermittent fever and whose general health very much impaired thereby.

The unfortunate has frequent chills may sometimes escape for a week or two - but most always succumbed by their depressing and debilitating effects. The complexion is of a waxy sallow - the conjunctiva muddy - the tongue slightly furred - di-

-gestion impaired and in fact every-thing indicative of impaired and vitiated se-
-cretions - finally, he has a chill - in some instances very severe - while in others com-
-paratively mild for the amount of injury inflicted The chill is followed by high fever, parched mouth extreme thirst, suffused eyes, restlessness and anxiety generally very great, sighing respiration and quick bound-
-ing pulse. During the febrile manifestations - nausea and vomiting are extreme

The patient vomits a dark gruenous bile - and sometimes the vomit is so dark as to be styled by that terrifying epithet "Black vomit". Sometimes during the chill the patient experiences a desire to micturate and passes a copious amount of bloody urine - This may not occur in several hours after the invasion of the chill - It is always a source of great alarm and if a physician has not been summoned no time is lost. In some instances, in an incredibly short

time after the invasion of the Chill, jaundice makes its ap-
-pearance - The skin assumes a dark yellow and sometimes bronzed appearance - So prom-
-inent is this feature, that the disease received its name from it - "Yellow Chill".

This change from a pale anaemic color to a deep bronze occurs sometimes in as short a space as fifteen minutes. at other times very tardy and gradual. With the Haematuria we have pain in the back and well defined over the region of the Kidneys. The bowells

are usually constipated though sometimes there are copious dejections of dark tarry fec-
-ulent matter. The mind is usually clear. After a time if the case bids fair to go to a favorable termination their occurs a remission though frequently the pa-
-tient sinks rapidly from exhaustion the result of hemorrhage, or more fre-
-quently gradually from Acholia or uremia the result of suppression of the func-
-tions of the liver or kidneys

If a remission occurs

there is an abatement of all the symptoms except the nausea and vomiting, the skin becomes clearer, the urine clear and limpid, only to re-assume its bloody color upon the invasion of the chill.

Dr Mitchel in the "New Orleans Medical Journal" says that autopsies reveal extreme rigor mortis - Muscles very red - A yellow color pervades the brain - Chest and abdominal organs.

Stomach filled with dark grumous bile. The spleen

Much enlarged solid and hard. Kidneys enlarged and presenting the appearance of passing through severe inflamatory action

His treatment is first of all to give large doses of mercurials, followed by Castor Oil - and after the bowells are moved to give large doses of Quinine, with Capsicum, until the quinine has produced a decided impression. For the Haematuria Opiates and Astringents

Dr Kyser of Alabama who has been very suc-

-cefful in the treatment of Malaria Haematuria - places more confidence in Saline Cathartics, Quinine and mild diuretics - such as Buchu, Nitre and neutral mixtures. In no case does he use astringents to check the urinal dis-
-charge - Considering the keeping up of all the secretions - ~~more~~ not too profuse - ~~more~~ important than most Physicians will concede

Counter irritations by means of Mustard Cataplasms

are also one of his favorite remedies.

Quinine is no doubt the sheet anchor to which we should trust in this, as in all malarial disease. How large doses of the mercurials can act beneficially is a mystery to me. The prostration is already severe and to increase it by such a prostrating remedial agent seems irrational. Yet the experience of some attest to its good effect. Opium I consider

hurtful, diminishing as it does all the secretions and blocking up the passages for the exit of the materials of the rapid disintegration that is going on in the system.

In order to illustrate my views more fully I will here record the history of of several cases, their treat-ment and its result.

In Nov. 1868. My Brother, Who had for several years previous been a subject of Intermittent fever, of the Tertian type, was seized

with a Chill of the Malignant form - which lasted him unusually long and left him much prostrated, but rational in every sense - High fever followed, Pulse quick and bounding - temperature of body not taken, tongue slighly Coated - bowells somewhat constipated - Severe pain over the lumbar region - thirst great and features Anxious - Nausea ensued and Emesis become almost incessant, vomiting at first a Yellow Mucus Substance later in the stage a dark

gummous ejections followed, the ~~f~~ assumed an Icteroid appearance, then a deep bronze color - kidneys active with copious micturitions, the two first acts were highly colored, but no blood perceptible to the eye - the third presented a profuse amount of bloody urine, resembling in appearance congested venous blood. Urine never was tested - I noted when allowed to stand for several hours it assumed a jelly-like substance

Micturitions gave no pain whatever.

These grave symptoms reached their acme about the 6th or 8th hour. Modifying as the fever abated. Nausea and some vomiting persisted during the apyrexia stage, and the skin tardily assuming its normal appearance.

Treatment. In the early stage of febrile action. Ice was given ad libitum which allayed thirst and, seemingly, exerted a

prompt sedative effect - sinapisms of mustard over the abdominal and lumbar regions - Olei Terebinthinæ 10 to 15 drops every two hours & tepid baths medicated with Soda Carbonas - As the fever abated, Quinine and Gelsemi-
-num until the desired effect of the former were produced

The perspiration that resulted stained the bed sheets a pale orange color. No paroxysm returned - Quin-
-inism was kept up for several days, with farina-
-ceous nutriment, beef tea &c-

also tonics and stimulants as the case demanded. Convalescence ensued the 8th day with rapid recovery to health. Has never had a chill since, although resides in a highly Malarious District.

In the fall of 1869. I was the unfortunate victim of a similar affection myself. The prodromic symptoms and their results were pretty much the same - with this exception - that the bloody urine in my case preceded the chill some

fifteen minutes and was never so profuse as that of my Brother - Neither was my Chill as severe, but the Emesis and bronze appearance of the skin in my case persisted much longer.

The principle treatment was a dose of Chloral upon the invasion of the Chill. Counter irritants of Mustard Cataplasms - Buchu Fluid Ext and Nitre, alternate, every two hours with Opiminine as the Sheet Anchor - No paroxysm recurred - Nutritious diet, tonics and Stimulants given

pro re nata. Convalescing the 13th day and recuperation to general health more tardy than in the preceeding case. Have had no chill since.

In the fall of 1867. A friend and neighbor of mine who was a subject of Chronic Intermittent - was assailed by this disease, with all the characteristic features recorded in the preceeding histories. In the course of 4 or 6 hours there was complete suppression of the urine

The most potent diu-
-retics, turpentine stupes,
hot hip baths variously
medicated were employed
but all treatment proved
in-efficient - The patient died
from "Uremic poison"
on the morning of the
seventh day.

In Conclusion.
Malarial Haematuria seems
to be confined to the
Autumnal months. as I
have never seen nor heard of
it occuring at any other
season of the year.
Moreover. It seems to be a

final struggle on the part of Nature to rid the system of the Materies Morbi - as, I have yet to witness the recurrence of a chill in those who have undergone the scourge and ravages of this deprecated disease.

Very Respectfully
B. D. Jones
Richmond
Dallas County
Alabama

Dec. 30th 1871

On the Treatment

of

Malarial Fever

[illegible]

to the

Dean and Faculty

of

[illegible]

[illegible]

Session 1871-2

[illegible]

[illegible] base of describing as [illegible]

[illegible]

[illegible] one to assume [illegible]

[illegible] idea [illegible]

own language

[illegible] cause as

the treatment of Malarial Fever. And

before entering [illegible]

[illegible] of the different stages [illegible] called, Intermittent, Remittent and Pernicious.

[illegible] consider the [illegible] the same cause, [illegible] same treatment with the [illegible] varieties. [illegible] being the mildest form. The [illegible] is more readily eliminated than the [illegible]; the second or remittent [illegible] in character requires more active treatment, [illegible] the third or [illegible] form may be [illegible] the nervous system [illegible] the other [illegible] mucous membranes, must therefore require a more

[illegible] treatment. (Do not understand me to mean that a person suffering with [illegible] must [illegible] patient and [illegible] the state [illegible]; relief is sometimes the case. [illegible] according to our understanding we are as apt to have [illegible] second, so [illegible] diseases are [illegible] conclude therefore that [illegible] are properly described as separate diseases. But hope to [illegible] coming to [illegible]

True Idiopathic fever attacks persons [illegible] [illegible], [illegible] [illegible] [illegible], [illegible] classes [illegible] [illegible] in [illegible] [illegible] [illegible] [illegible] [illegible] symptoms but [illegible] [illegible] [illegible], [illegible], [illegible] [illegible] [illegible] [illegible], a [illegible] constitution [illegible] [illegible]. [illegible] symptoms may continue [illegible] or [illegible] or assume a periodical tendency [illegible] making in [illegible] [illegible] and continue [illegible] a [illegible] [illegible] [illegible] [illegible]. After [illegible] [illegible] [illegible] [illegible] usually [illegible] [illegible]

stage which is distinguished by a distinct apyrexia in the first brought about by [illegible] [illegible], And a remission in the second which characterizes the stage, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible], [illegible] [illegible] of [illegible] [illegible] [illegible] are of [illegible] [illegible] character, [illegible] [illegible] in some instances attains a [illegible] [illegible] [illegible] [illegible] [illegible] acts as a [illegible] of the other [illegible] [illegible] [illegible] [illegible] have [illegible] [illegible] [illegible]

con[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] sums to the [illegible] [illegible] [illegible] exhibition to the [illegible] [illegible] [illegible] difficult [illegible]. Com. [illegible] even [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible]ed.

But [illegible] [illegible] [illegible] [illegible] too minute into the [illegible]; [illegible] will [illegible] [illegible] the [illegible] in [illegible] [illegible] [illegible] [illegible]

[illegible] it is necessary to [illegible] the [illegible] as [illegible] as [illegible], [illegible] as a [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] construction. It is necessary [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] see that [illegible] [illegible] [illegible] [illegible] [illegible]

case [illegible] is [illegible] should
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
would [illegible] [illegible]
[illegible] [illegible]
scared near [illegible] [illegible]
Sliv[illegible] [illegible] are used in [illegible]
al[illegible] [illegible] [illegible] [illegible]
[illegible] on [illegible] [illegible]
[illegible] reach[illegible] [illegible]
is one of our most efficient remedies in
[illegible] stage; it may [illegible] in drain
doses [illegible] in [illegible] in [illegible]
[illegible], [illegible] a combination of Osiá
and can[illegible] would do as [illegible] as [illegible]

other preparation, and should be given as [illegible] when the patient is suffering much pain it is an excellent remedy, and very often stops the cold stage. This medicine should be cautiously [illegible] tendency to the brain. Emetics may be resorted to when there is much obstruction of stomach, nausea, etc. Ipecacuanha is preferable, unless there be much [illegible]; when we may administer mustard in large or small doses diffused in [illegible] water, should be a great irritant to stomach, a drawer of urine, may be used. External stimulants may be used, in conjunction with rest.

[illegible] obstinate cases, venesection, or local bleeding [illegible] or [illegible] neck has been recommended in the last-named cases, and may be used [illegible].

I find many other means and [illegible] or eminent [illegible] in [illegible] the above; but think it unnecessary to [illegible] them.

It is not always necessary to commence the treatment of the [illegible] active means. We have use [illegible] running out of cold water to the head and [illegible], sponge the [illegible] and [illegible] with the sun, sponge a stream of cold water on the head [illegible]

to time, or use the shower bath as
[illegible] (sic.), [illegible]
cases [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] man or [illegible]
remedies [illegible] to at first are
cooling drinks, ice water, lemonade,
the effervescing draught etc. Sweet-
spirits of nitre or [illegible] is
very useful to lessen nervous irrita-
tion to quiet the [illegible]
more [illegible] [illegible]
[illegible] [illegible]
millet [illegible]
[illegible] (Price [illegible]

[illegible] we may [illegible]
let ourselves with the above course and wait
for the interval to administer more active
remedies. Should there not be a sufficient
interval or should the fever be the
remittent, we may use the following.
[illegible]
case the [illegible] is [illegible]
covered, [illegible]
is [illegible]
[illegible] x to xxx [illegible]
may be [illegible] in [illegible]
[illegible]
[illegible] we begin the
[illegible]
[illegible]

is clean and no symptoms of bilious de-
rangement [illegible]
Pleable cathartics will do. or Castor oil given
in sufficient quantity to act freely. If
should there be a tendency to bilious de-
rangement. Calomel or some [illegible]
given alone or combined with [illegible]
It may also [illegible] of
Fish [illegible] the secretion of the
kidneys. In some cases with a strong
tendency to the [illegible] it is not
to use Sharp's [illegible]. The bowels should
be kept in a soluble condition throu-
out the disease. I will mention in
the next place the most important
remedies in the treatment of the Typhoid

I mean Cinchonia and its preparations, giving preference to the sulphate of Quinine. It is our best tonic and anti-periodic given in various doses and in all stages or different [illegible]. The patient [illegible] who [illegible] during the [illegible] or remission. At which time gr. x to xl may be given in divided doses. If the disease is neglected or mal-treated it may assume a low typhoid character. The tongue becomes dry, covered with a dark brown crust, with clean red edges. The abdomen tender and tympanitic. The skin hot and dry with delirium, great prostration &c during which

time we may use. Opium and Quinine in small doses, with Castor Oil may be administered if necessary. Where there a mild enema would be preferable. When diarrhœa is present it should be abated with Opiates and astringents. Spirits of turpentine is very valuable, it frequently acts like a charm in relieving. The irritation of the alimentary canal, cleanses the tongue, and causes an abatement of the symptoms generally. Oil may be given in doses from ℥ss to ℥ss every two hours. Best given with gum arabic or loaf sugar. Various tonics and stimulants are at times

[illegible] the eyes may be
more or less injured during the
course of the disease and require spe-
cial treatment. I will mention in
order [illegible] in doing so. I have not [illegible]
[illegible] advanced cases
down. [illegible] or
[illegible] [illegible]
The vital powers of life give way
so rapidly that [illegible]
means [illegible] to sustain
the strength of the patient. And before
reaction, Alcoholic or other stimulant
must be given; Opium or its
preparations are called for and —

some cases [illegible]
provided the stomach be retentive.
Tannin, or acetate of lead is usefully
combined with the opiate when
[illegible] from the bowels. Other stim-
[illegible] such as Ca[illegible] and
Spirits [illegible]
[illegible] or co[illegible]
or a[illegible]
the case require them. External
s[illegible] are used, [illegible]
will not [illegible]
must be placed near the extremi-
ties, [illegible]
in [illegible]
use [illegible]

skin is cold and shrunken. Should be hesitated in. Friections may be [illegible] Mu[illegible] of Ch[illegible] [illegible] or Bl[illegible] [illegible] Pl[illegible] [illegible] particular organ. Much to the reverse of the above treatment has been recommended i.e. the cold bath or the cold affusion. Good since nature seems to point it out of think it worth a trial. The patient may be stubbed and lie at first [illegible] cold water is poured [illegible] and [illegible] or he may be immersed in a tub of cold water until the

given to him, he should then be bathed [illegible] and rubbed [illegible] [illegible] Spirits [illegible] and then [illegible] internally and externally. Opii remedy which is a great comfort to the patient. Acting on the nervous system may cause reaction. Sulph. Quin. The most important remedy in this stage has not yet been mentioned. Sulphate of Quinine is the sheet anchor here as well as in the other stages. It must be administered alternately or in connection with all the other drugs mentioned, in large doses. gr x or xx may be

[illegible] and [illegible] as [illegible] is
the stomach will bear it, and if
a drachm or more has been ad-
ministered, or [illegible] the [illegible]
by enema. Recently, the [illegible]
of administering Quinine in Malarial fever, especially
the Pernicious form, has been [illegible]
eulogized. It may be resorted to
when from irritability of the stomach it cannot be retained when
given by the mouth, or when there
is inability to swallow. It is said
that it [illegible] much
sooner and that it has an effect
three or four times greater than

[illegible]

[illegible] A solution for injection may be made by adding [illegible] and heat a few drops of sulphuric acid to dissolve the Quinine. Add the remainder of the solution and at once warm enough to contain from one to three grs. of Quinine. In case of intolerance the effects of the Quinine must be tested up until the time passes a normal [illegible].

The diet should be mild and nutritious during the first stages but nutritious and stimulating

in the childhood and malignant forms
[illegible]
[illegible] must be [illegible] in quantity as
well as quality. He must avoid
all vicissitudes of weather and
use [illegible]

I am aware that I have
given only a [illegible]
treatment [illegible]
so far as [illegible]
it to be [illegible]

An Inaugural Dissertation

On Digestion

Submitted to the Provost, Regents,

and Faculty of Physic of the

University of Maryland

for the degree

of Doctor of Medicine by

H. Richmond Chamberlaine

of

Maryland

February 1872.

Introductory.

In compliance with the regulations of your honorable body I herewith present for your judgement and inspection a dissertation upon "Digestion"; its indifference to your scientific minds cannot but be very apparent, and I may offer in apology, a reminder that the Medical Student can assert nothing from practice or experience; he can only give expression to those thoughts and theories that his limited acquaintance with medical books has suggested to him.

I have selected this subject, because I can offer my views and describe the processes involved, without needing

that familiarity with disease which alone can give originality to a Thesis involving Pathology, Diagnosis and Treatment.

The study of Medicine embraces such an extended knowledge, and wide Experience, so many theories, and so few Physiological or Pathological facts, and offers to her followers so large a field of unexplored and hidden treasures that a novice in the drama may well blush, to offer his simple essay to the criticism of so wise and matured minds. Seeking then your clemency for the errors contained herein I proceed to discuss the different processes by which our food gives up its nourishment

and supplies our body with life and energy.

"Digestion"

Digestion is that process by which our food is reduced to the proper form and consistency for absorption. It consists in the food being received into the alimentary canal, in its passage through which it comes in contact with certain digestive fluids which act upon it in such a way as to liquefy and dissolve it. Since the food consists of substances having different physical and chemical properties, the several digestive fluids differ from each other

Each one exerting a peculiar action more or less confined to a particular species of food. These fluids are secreted by the mucous membrane of the alimen=tary canal and by glandular organs situated in its neighborhood.

In the passage of the food from above downwards each portion as it becomes liquefied is successively removed by absorption and taken up by the vessels, while remain=ing indigestible portions are discharged from the intestine under the name of feces.

The alimentary canal in the human ~~subject~~ species is divided into dif=ferent compartments which commu=nicate with each other.

In the first of these compartments-

the mouth the food is first prepared for the complicated changes which it is about to undergo in its passage downwards. Here it is masticated - chopped up as it were - by the teeth, and moistend by the digestive fluids of the mouth, which are freely pound out by the different glands, and which lubricate the bolus of food and assist in its passage down the Œsophagus. The Saliva is a colorless and alkaline fluid, not simple in character, but consisting of a mixture of four different and distinct fluids, which are different in their chemical properties and the source from which they are derived - These secretions are poured

out from four distinct glands viz. the Parotid, the Submaxillary, the Sublingual, and the mucous follicles of the mouth. The total amount of Saliva secreted daily has been estimated at a little less than three pounds. It possesses the power of converting boiled starch into sugar if mixed with it at a temperature of 100° F; from the fact of its possessing this property it was at one time supposed to be the true physilogical action of this secretion, but this action does not take place in the natural digestive process and other means are provided for the digestion of Starchy matters altogether independent of the action of the Saliva By the two processes which the food is

subjected to in the mouth, its preliminary preparation is accomplished: then it carried by the muscular contractions of the Œsopagus, and the force of gravity, into the Stomach.
The mucous membrane of the Stomach is very vascular and abundantly provided with glandular apparatus the gastric tubules, which are so closely set as to leave but a small space between them for the capillary bloodvessels the free surface of the mucous membrane is raised in minute projecting ridges Each of which contains a capillary bloodvessel. The gastric follicles are different in different parts of the Stomach, they open on the free surface

of the membrane in the interspaces between the projecting folds.
Among the tubules is also found another kind of gland consisting of a closed follicles similar to the solitary glands found in the small Intestine, the follicles are lined by cylindrical Epithelium cells. That part of digestion which takes place in the stomach is the most important part of the whole process. The Gastric juice is secreted only under the stimulous of food on the introduction of which the mucous membrane becomes turgid and reddened and a clear acid fluid collects first in drops, under the mucous membrane lining the

walls of the Stomach, and then flows abundantly into its cavity.
The Gastric Juice which has been obtained by different Physiologists for Experiment, consists when first poured out of a clear, colorless and acid fluid, it soon becomes turbid with the debris of food begun to be disintegrated. The acidity of the gastric juice is due to Lactic acid which is essential to its physiological properties, for it ceases to exert its solvent action on food after it has been neutralized by an alkaline carbonate - an important fact to be borne in mind I should think in the administration of Alkaline

medicines. The most important ingredient of the Gastric juice is its organic matter known under the name of Pepsine, this substance will Exert its solvent power on various alimentary substances, such as meat, boiled white of Egg &c, outside the body at a temperature of 100°F It affects only the Albuminoid nitrogenized substances, neither Starch nor oil are affected by it, In Cheese the Casein is dissolved, in bread the gluten is digested and the starch left unchanged.
The total amount of Gastric juice secreted daily has been Estimated at 14lbs (a.v.) this quantity would seem

to be incredible were it not for the fact that as soon as it has dissolved its quota of food it is again re-absorbed and enters the circulation together with the albuminoid substances which it holds in solution, it does not accumulate in the stomach in a very large quantity during digestion, but it is gradually secreted as long as any food remains undigested; each portion as dissolved is disposed of by reabsorption, There is then during digestion a constant circulation of the digestive fluids from bloodvessels to the alimentary canal and from the alimentary canal back to the bloodvessels. An important action

that takes place in the Stomach is the Peristaltic action of that organ it is accomplished by the alternate contraction and relaxation of the longitudinal and circular fibres of the muscular coat. It is carried on in such a way that the food is carried in a circuit around the stomach as long as any of it remains there; by this action each particle of food is brought into contact with and acted upon by the Gastric juice.

From the Stomach those portions of food which have not already undergone digestion pass into the third division of the Alimentary

canal the small Intestine.
It is only albuminoid substances that are acted upon by the Gastric Juice and it is here in the small Intestine that the second class of proximate principles, the organic non-nitrogenized, undergo digestion The Juices poured into the Duodenum are generally a mixture of three different secretions viz the Bile, the Pancreatic Juice, and the intestinal Juice proper. The true intestinal Juice is the product of two sets of glands, seated in the substance of the mucous membrane; the glands of Brunner and the follicles of Leiberkuhn, the last mentioned are

the most numerous, they are found in great numbers throughout the small and large intestines and are nearly straight tubules lined with cylindrical Epethelium. The glands of Brunner are confined to the upper part of the Duodenum, in the deep part of the mucous membrane, extending down a short distance from the Pylorus; they are composed of a great number of small excretory ducts clustered round a central duct: each follicle is a delicate membranous wall lined with glandular Epithelium and covered with small nuclei. Experiments do not show the secretion of these glands to be very plentiful

it is colorless and viscid in appearance and has a distinct alkaline reaction. It is in the Duodenum that the oily matters taken in as food are digested, they are not affected by the gastric juice but remain unchanged in their Essential properties, being merely melted by the warmth of the stomach and set free by a solution of the membranes that contain them. Soon after their Entrance into the Duodenum they lose their oily appearance and become converted into a white milky emulsion termed "Chyle" which is gradually absorbed by the Lacteals and capillary blood-vessels that penetrate the villi. It is

only after the passage of the oily in=
=gredients past the orifices of the Pan
=creatic and Biliary ducts that their
conversion into chyle takes place, showing
conclusively that it is the secretions
poured out by these ducts that exert
their digestive action upon the fatty
matters. Experiment has shown that
the Pancreatic juice is the effective
agent in producing this change.
The Bile is not supposed to take any
direct part in the digestive process.
It has been seen that the digestion of
all the different articles of food
is provided for by the other intestinal
juices, yet the bile is absolutely essen
=tial to digestion, being performed in

a normal manner and has some im=
portant function to perform in the
intestinal canal. It has been shown
by Experiments performed upon the
lower animals that when the bile
is cut off and not allowed to flow
into the intestine, but is directed
out of the natural channel thro:
a fistulous opening that the victim
of the Experiment will become
Extremely emaciated, languish,
and finally die, showing symptoms
of poisoning of the nervous system
similar to those which follow
suppression of urine or stoppage
of Respiration.
The Bile is a constant and uninter=

=rupted secretion, its function seems most probably to be the power it has of facilitating the absorption of digested alimentary substances particularly the Emulsioned fats. The amount secreted daily is es=
=timated at 2½ lbs.
Throughout the small intestines the secretions are intended mainly to act upon the food and prepare it for absorption, but below the Ileo=cecal valve and throughout the large intestine the contents of the alimentary canal are of a differ=ent appearence and are distinct in color consistency and oder. The contents of the large intestine are

not entirely the remains of undi-
-gested food, but consist in large
part of animal substances discharged
into the intestine by excretion.
Those which have been most fully
investigated are Excretine and
Stercorine, besides these substances a
certain amount of fat, fatty acids
and remnants of undigested food
are found. But little absorption
takes place in the large intestine:
its office is chiefly confined to the
separation and discharge of certain
excrementitious substances.
It is seen, then, that the digestion of
food is a compound process
which goes on successively in different

portions of the Alimentary canal. In the Mouth the food is subjected to the operations of mastication and insalivation, reduced to a pulp and mixed abundantly with the Saliva. In the Stomach by its presence it excites the secretion of the Gastric juice and undergoes chemical transformation and solution. In the small intestine the Pancreatic and Duodenal juices convert the starchy ingredients into sugar, and break up the fatty matters into a fine emulsion by which they are converted into Chyle and so absorbed.

Feb: 2nd 1872.

An
Inaugural Dissertation.
On
Spasmodic Laryngitis.
Submitted to the examination
of the Provost: Regents: and
Faculty of Physic.
of the
University of Maryland.
For the Degree of
Doctor of Medicine.
By
Micheal G. Salley.
of
Orangeburg.
S. C.

Session 1871--72.

Spasmodic Laryngitis.

Generally known as false croup.

Croup includes two distinct forms: Pseudomembranous or true croup, and Spasmodic catarrhal or false croup.

False croup is a simple inflammation of the mucus membrane of the larynx and trachea, connected with spasmodic contraction of the glottis.

It is a disease peculiar to childhood occurring most frequently between the third,

and fourth years of life.-
It is rarely met with previous to the second year, and seldom seen after the fourth.

Symptoms- False croup may be preceded for a day or two, by slight cough and cold with more or less fever. But as often occurs, there are no premonitory symptoms: the attack coming on suddenly. False croup always comes on at night, generally near midnight. The child goes to bed with slight cold, or seemingly in perfect

health - sleeps soundly and quietly till near midnight when it awakens with a loud hoarse cough connected with more or less dyspnoea.

If the attack be severe, the face will be very much flushed, there will be high fever, a rapid pulse and great dyspnoea. The voice and cry are nearly extinguished during the paroxysms - but perfectly audible during the intermissions.

If this severe form last for any length of time

the face which was at first flushed becomes pale and denotes alarm. The child cries and is very restless - wants to be held by its mother or nurse. Under proper treatment all these alarming symptoms soon pass off. and the child goes to sleep. There may be an occasional cough during the rest of the night and the following morning. there is often a simple laryngitis connected with this occasional cough following an attack of Croup.

The child is apt to be attacked on the following night and often for several nights in succession.

The tonsils and soft palate are generally congested in severe cases. The cough is hoarse and brassy, but children under six years of age seldom expectorate, the sputum being swallowed, as it is coughed up.

Croup is often complicated with or gives rise to other diseases. Pneumonia and Bronchitis are frequent complications and it often ushers in an

attack of measles.

Causes. Croup attacks the children of some families more than others - thus showing an hereditary predisposition. It always appears in sporadic form: generally in Spring and fall - on account of the changeableness of the atmosphere - Exposure to cold and damp. Getting uncovered at night, or sleeping in a draught of air, or in a room which has been kept heated till the child goes to bed, and is then allowed to get

cold. These are among the most appreciable causes.

Diagnosis. - The diagnosis of false croup is generally easy. But sometimes it is hard to distinguish from true croup. The essential points of difference are, the absence of false membrane in false croup - the distinctness of voice, the suddenness of the attack and its short duration, in false croup - while in true croup the voice is entirely lost. The attack comes on slowly and steadily - for

days sometimes. The fibrinous exudation gradually invades the vocal cords and surroundings. The disease creeps on so slowly as not to attract the attention of the mother, till perhaps there is complete suppression of voice. The paroxysms in true croup are much longer.

Laryngismus Stridulus differs from false croup by its internal convulsive movement, by the absence of cough and catarrhal symptoms, by its chronic form, and by its occurring

in the day as well as at night.

Prognosis. False croup seldom, or never, proves fatal of its self, though it often gives rise to fatal diseases - such as bronchitis and pneumonia. Hence the practitioner should never be too positive in making his prognosis.

Treatment. Emetics are the chief remedies. They should be given as soon as attack comes on. In mild cases ipecac or alum, or the two combined. - ℞ Syrup ipecac

ʒj to ʒij - finely powdered alum
ʒj - may be given in teaspoon
ful doses - and repeated in
fifteen or twenty minutes
till free vomiting is induced.
The yellow Sulphate of Mercury,
given in doses of from two
to three grains, is a very sure
Emetic, and causes very
little depression.
In severe forms or in
strong healthy children -
Antimony combined with
other remedies may be given.

℞ Tartar Emetic gr j
Pulv Ipecac ʒij
Syrup Squills ʒij

} Mix
S
A teaspoonful
Prone - natis

A hot bath may be resorted to with great benefit if the above remedies fail to give relief.

The bath should be about 100°. The child should remain in the bath for fifteen or twenty minutes. A blanket previously warmed, should be wrapped around the child as soon as it is taken out of the bath so as not to allow it to get chilled. After the child is put to bed an opiate may be given.

Inhalations of vapor of hot water lime water. Sulph

Ether or Chloroform are often very beneficial.

Warm fomentations, or turpentine stupes applied to upper part of sternum and throat or a cloth wet in cold water and covered by oil silk, will sometimes give great relief.

In robust hearty children three or four years old, where there is great dyspnoea high fever flushed face, and rapid pulse, blood-letting may be resorted to. In such cases the loss of a few ounces of blood

seldom fails to give immediate relief.

Purgatives are only necessary when the bowels are constipated. Rochelle salts. Castor oil, or a small dose of Calomel should be given, as soon as the nauseating effects of the Emetic have passed off.

Syrup of Ipecac, and Lime syrup should be given in small doses to relieve the simple bronchitis which generally follows croup.

When a child is subject

to attacks of Croup. Preventive measures should be resorted to. Such as warm clothing. Exercise in fresh air. Bathing in cold water in the morning.

The sleeping apartment should be kept dry and well ventilated. When practicable no fire should be allowed in the sleeping apartment.

Delicate children should have tonics such as Cod liver oil. Sulph Quinine. Old French brandy. &c.

AN

Inaugural Dissertation

ON

Fever (Idiopathic)

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

W. F. A. Kemp

Of

Baltimore, Maryland

Session of 1871 and 1872.

Gentlemen.

In presenting this Thesis on Fever, to your consideration, for the degree of Doctor of Medicine, it is necessary that I should state, that there is no new theory or line of duty inculcated, for should such a task be undertaken, I am at once reminded of the Maxim - "Ne sutor ultra crepidam" and confine myself to the old and worn ideas of the day, as best I can.

FEVER.

The most insidious of the diseases to which man is subject, are classed among

the Fevers, and because of their similarity at times, they are the more interesting to the Practitioner and Pathalogist.

Fever is recognized by various signs and symptoms, "Painful lassitude, with debility of the corporeal and mental faculties, alteration of the animal heat and of the secreting functions, accelerated circulation, increased thirst, and abolition of the appetites"; in fact no disease is without its peculiar febrile movement, hence we have the various forms of Symptomatic and Idiopathic Fevers.

What is Fever? "A complex morbid state accompanying diseases, as part of their phenomena, and modified

by the Specific disease which it accompanies".

Of the Symptomatic Fevers, we have examples in the inflammations of the organs of the body, and fever accompanies them as the result of such inflammatory action. Of the Idiopathic Fevers, we have evidence in and of themselves, unconnected with any special inflammatory action as their cause: these Fevers are recognized by signs and Symptoms characteristic of them as a class— "Idiopathic Fever presents, during its whole progress, characteristic Symptoms, not consisting merely of increased frequency of circulation and augmented heat, which are some-

times wanting in certain stages of the disease, but of other morbid phenomena that are equally important, that vary in degree and in modes of association with one another, and that superinduce other phenomena, thereby giving rise to the different forms and states in which the disease occurs; it commences with debility and lassitude, which are followed by chills and rigours; it is generally composed of several invasions or exacerbations; it implicates the whole vital endowments and faculties, the fluids, and the entire organization; it is acute and dangerous in its course, with lesion of the circulation, with

alteration of the animal heat and of the secretions, and with diminution of vital power; and it is versatile as to its symptoms and type, with efforts at sudden changes or crises" — (Coplands Dictionary)

Diagnosis.

In the diagnosis of fever, we have many ways and modes of procedure, to determine with what fever we have to deal, we must discriminate — between the Symptomatic and Idiopathic, and we must determine whether or not it is associated with other affections. Fever may be confounded — with Inflammation, — with acting organic functions, as with certain Uterine disorders, —

with certain affections of the nerve-centres, as Phrenitis, Cerebro-Spinal and other affections, and with numerous others, all of which we should be able to recognize and isolate.

We have as aids in Diagnosis the Thermometer: the examination of the urine: the Perspiratory function: the Blood's condition: the workings of the nervous system. The Thermometer by registering the animal temperature, informs us how far above or below Nature's Natural standard the animal heat has gone: By a rapid elevation or fall we are forewarned as to what may be expected.

By its aid, at times to name the affection.

The Urine by its alteration; either by its augmentation or diminution in quality or quantity and by its containing its natural constituents, in due or altered proportion.

The Desperatory function, in a vast number of ways. By its we judge of the condition of the internal organs, and of the constitutional forces as regards their power of reaction, and by its odor and quantity.

The Blood by the degree of its alkalinity; by the diminution of the red corpuscles, by its depravity we are cautioned frequently, as to the mode of Medication.

The Nervous System, by its workings gives us indeed valuable aid, as in health the functions of this great system gives energy and controls the actions of the organism, how necessary then to observe its actions in disease. We have the greatest variety of conditions - Coma, - Coma-Vigil, - Eclampsia, - and a host of other signs, are furnished by this great system.

These aids we have to diagnose Fever, and by them we are informed of all the essential differences of the diseased and healthy state.

To account for the exaltation of the animal temperature, we have

various views 1º By excessive tissue-metamorphosis.-(Virchow) 2º By effect on ganglionic nerve centres, caused 1º By Corpuscular toxæmia or 2º By plastic toxæmia.-(Addison) 3º By Sympathetic imitation.-(Campbel & Müller). By a careful consideration of these three views, we think the conclusion has been arrived at, that the increased animal temperature is due to excessive tissue-Metamorphosis, which change normally depends upon the Nervous system, and this excessive change demanding extra nerve force, sympathetically imitates, or if you will, excites the Nervous centres.

To Consider the causation of

Fever is exceedingly interesting and also exceedingly intricate. We have various views and opinions upon the subject. To mention a few would not only be useless, but would necessitate much more time and labour than could be profitably spent on such a discussion

We will now consider a few of the Idiopathic Fevers: First we speak of the fever, then of Prognosis and then of Treatment, taking but little if any notice of Pathological characters.

Malarial Fever.

Malarial diseases is supposed to be excited in a system by the sporules

of a minute vegetable organism, belonging to the Cryptogamic genus. Dr. Salisbury of Ohio asserts their origin in the cells or spores emanating from certain species of algoid plants, called Palmella, which belong to the lowest known vegetable organisms. To these species of plants he applies the generic name ~~of~~ Geniasma, signifying earth miasm, and he also calls them ague plants.

Others have accounted for their production by certain atmospheric or other changes. While the source of these affections is still uncertain, we have facts which are undeniable, and must stand, no matter what our theory or theories

of production may be. Whether Cryptogamic or phanerogamic organisms be the cause of these fevers - styled - Malarial - Zymotic - or Periodical; we have observations of the greatest moment. "The following instructive facts are stated by Dr. Ferguson. In 1816, the British garrison of English Harbour, in Antigua, was disposed in three separate barracks, on fortified hills surrounding the dock yard. One of the barracks was on an eminence named Monk's Hill, ~~six~~ hundred feet above the level of the Marshes. The other two were on an eminence called the Ridge, one at the height of five hundred, and the other at the height of three hundred feet. So pestiferous were the marshes -

among which the dock-yard was placed, that it often happened to a well-seasoned soldier, coming down from Monk's Hill, and mounting the night-guard in perfect health, to be seized with furious delirium while standing sentry, and to expire within less than thirty hours after being carried up to his barracks, with a yellow skin, and having had black vomiting. Those in the barracks on Monk's Hill, who did not come down, the superior officers, the women, children, and drummers, had no fever of any kind. Seventeen artillery-men, in the barracks at the height of three hundred feet, did not come down to the night-guards. Every one of these men

was attacked with remittent fever, of which one of them died. At the barracks on the top of the Ridge, at the height of five hundred feet, there scarcely occurred any fever worthy of notice" (Watson's Practice)

What are we to glean from these observations? The potency and rapidity of the exposure to induce certain affections.

Whatever the exciting cause of these Malarial diseases be, the mode of action is unknown, various views are entertained; some have supposed their action similar to an Yeast, hence the appellation of Zymoses. This class of fever is divided, by most Nosologists

into three varieties – Intermittent – Remittent and Pernicious. These are again divided into Quotidian, Tertian, Quartan, and others.

Each may run, as it were, into the other – an Intermittent may become a Remittent and vice-versa, and either may tend toward the Pernicious, and more than this they may be double (i.e.) two types of the same form may be associated together. These fevers are characterized by three stages, 1° a hot – 2° a cold. 3° a sweating stage, in this form of fever the sweats are critical.

Febris Icteroides.

We glance now at Yellow-Fever, for by some it is considered as a type or kind of Malarious affection. This fever is a dread to every man, for it seldom occurs except as an epidemic, and then it seems to defy all treatment and boldly and defiantly does it take its course.

This fever is supposed to be Malarious by some, and by others sui generis. It has been divided differently by authors. Dr. Lyons has divided as follows - 1° algid 2° Sthenic 3° Hemorhagic or Purpuric and 4° Typhous. This affection seldom attacks country places, but confines itself most generally to

cities. Prof McSherry states that while with the army in Mexico, the disease was rife in a city close by, while the army encamped about were unmolested. This disease is characterized by a Yellow skin and Black vomit.

Typhus & Typhoid

We consider these Fevers, under the same head, because of their similarity in most of their symptoms; indeed by some they are considered as only different manifestations of the same malady. To discuss the question of the identity, or non identity, of these two fevers, would open an area too vast to enter upon here, for we can find, on both sides, the ablest

authorities, and while the question is still sub-judice, it is not improper to glance, for a while, at both sides.

Cases of Continued Fever are observed, which can neither be called Typhus nor Typhoid, and which have many symptoms associated with these fevers. The knot has been severed, and these fevers are called Typhus. Cullen divided fever in his day, and so have others since, and for any variety of continued fever, we can find various appellations, we have Synocha gravior and Mitior, we have Typhus gravior and Mitior, also Enteric, abdominal Typhus, Nervous fever, and many others, which have been included

as names for what we, in this Thesis, consider under the present head. We have Louis the leader, (in fact to him is attributed the praise of satisfactorily explaining the differences of the two diseases) of a class who hold to their own identity. Louis considered that Typhoid was a fever attacking (the young especially) those who had moved into Paris, from adjacent parts of country; it was always connected with alterations in the Peyerian patches, from a slight thickening to a marked and apparent ulceration.

Many complete autopsical examinations were made, and in cases of the Typhoid affection this one fact was elicited (i.e.) affection of the Peyerian patches.

Others have written in support of this opinion, while others have still adhered tenaciously to the idea of their identity, if not identity, to their almost similarity.

Before quoting per-contra, we here record the fact, that "One class of Pathologists have placed the seat of these affections, in the Brain, another class have placed it in the Digestive system; and many have believed that Inflammatory action, whether limited to one or more organs, is the cause of Fever. Should the essential cause of these fevers, be in either the Brain, Alimentary tube, or set of organs, we think they should be considered as Symptomatic.

We believe that when any part of the organism is concerned in the course of these or any Idiopathic Fever, it is as a complication, and not an essential.

Dr. Graves, the eminent clinician of Dublin, in speaking of the fevers of Ireland, says on this point, "I have examined numerous cases of fever, in which there was not any appreciable trace of inflammatory action in the three cavities of the body" Many of the ablest Medical men, who have adorned science, by their writings and researches, have considered these diseases the same, only differing in degree, as to severity and complications. Of these there are

the author just quoted, Lombard of Venice, failed to observe any essential differance, and others unnecessary to mention. If we examine their symptoms, we find them much the same, lassitude, chills, rigours, quick and frequent pulse &c. in fact their symptoms are generally the same, but it is asserted that essential differances exist in the following particulars."
"These Fevers differ essentially in their mode of extension, and anatomical characters. The latter are not fixed and regular; on the contrary, the organs are diseased in so many different degrees, that there is no one uniform anatomical character, unless

it be the ~~blood~~ condition of the blood, which is evidently altered in many cases, and probably so in others, in which the demonstrative proof is wanting." "The Symptoms of Typhoid are not all found in every case; that is, some which are considered leading symptoms may be wanting, but the group of those which remain is in every case, or nearly so, quite large enough to identify the disease. For convenience you may divide them into distinct groups-

1° Those of the Cerebral & Nervous system.

2° of the Skin

3° of the Abdominal Viscera

4° of the Thoracic organs. "

(Graves & Gerhard)

The great differences, as alleged, are as follows
Typhus has Mulberry spots, Miliary in character,
Typhoid has rose coloured spots, lenticular
in character. In the former (Typhus) we
have generally torpidity of constipation of
bowels, stupor or coma early in the attack,
hardness of hearing, suppression of urine,
sometimes at commencement of attacks.
The tongue grows darker as the disease
progresses. Its duration is generally three
weeks; the critical period occurs about the eleventh
day; occasionally death may take place
within five days, or recovery within fifteen,
from the commencement.
In Typhoid Fever we have generally a tendency
to loosenness of bowels at first, or early in the attack,

Bleeding at the nose (Epistaxis) and a bronchial cough, these two symptoms, are, by some, considered pathognomonic early symptoms. Swelling of the belly, (Typhlitis) tenderness on pressure in right Iliac fossa; with gurgling under the hand usually exists; Sudamina. The duration has been two weeks, one month may be considered the average time. In this affection (Typhoid) the Thermometrical changes are interesting, but we have not time to detail any of their particular indications. The complications of these diseases are also interesting, but space forbids noticing them here.

We have a few other Idiopathic Fevers, but we hasten on, only now enumerating a few of them.

Relapsing Fever seems closely allied to Typhus and Typhoid fever; this fever lasts for a week, or thereabouts, and then seems to subside, then again breaksout, as it were afresh, its symptoms vary, but are closely allied to the above mentioned diseases

The Exanthemata.

Variola, - Rubeola, - Varicella, - Scarlatina, - and a few others have a definite course to run, and we ~~contrat~~ can not cut them short by any medication. They each have a peculiar eruption; they are divided into stages - 1st Incubation 2° Primary fever. 3° Eruptive 4° Secondary fever, and 5° Desquamative.

Puerperal Fever has, by some, been

regarded as Idiopathic, by some as identical with or relative to Erysipelas and by others to Peritonitis: Dr. Ramsbotham, in his system of obstetrics, has given a detailed account of the various diseases, commonly called Puerperal.

Prognosis.

The condition, situation, corporeal and mental vigour, are all here considered, and by them, we are aided in our opinion as to the issue. The intensity and extent of disturbance in the harmony of organic relations, are fundamental considerations, and it may be assumed, that the farther the divergence from nature's normal acts, the graver the disease, and the more

unfavourable the prognosis. The condition of the pulse, the state of the nervous system, of the Primæ Viæ, of the external surface, and of the Psychological faculties, must all be carefully investigated before our opinion can be formed, and by their indications, we anticipate good or evil results.

Treatment.

The treatment of fever, generally consists in the administration of Laxatives, Diaphoretics, and Diuretics. To keep the Excreting organs free, is the main indication, and especially so in the Exanthemata.

The treatment of Malarial diseases.

are the simplest and surest. With Cinchona, and its alkaloids, we are able to overcome, either by siege or storm, any form (if uncomplicated) that the disease may assume. We have a sure hope in Cinchona or some of its constituents for breaking the return of paroxysms, but in the paroxysm itself, we may use, as adjuvants, febrifuges, sinapisms, laxatives and cathartics. The minor agents for arresting the periodicity, are Eupatorium Perfoliatum and other decided vegetable tonics. Preparations of some of the minerals are also used successfully.

The treatment is not only to suppress the paroxysms, but to obliterate the tendency,

after the paroxysms have subsided.
To this end, we administer the Restoratives, Iron, the Bitter Tonics, and whatever tends to impart strength and vigour to the constitutional powers.

The treatment of Yellow Fever is not so certain, nor so sure. So great a variety has been recommended, and by such eminent authorities, that a novice scarcely knows whom to follow; but, under all circumstances it is well to keep in mind the advice of Dr. Watson. "To keep constantly in view the manner in which any disease tends to terminate"; and adapt our remedies accordingly.

The treatment of Typhus and Typhoid fevers are of the utmost importance.

We must be careful in the selection of our remedial agents. We place our patient in the best possible condition, to enable him to endure the shock, and bear up under the continuous strain, which the disease will make upon his constitutional powers; look to the abatement of destructive processes and the saving of dynamic forces.

We support the overtaxed strength by bland liquids, Milk, Beef-Tea &c. We endeavor to modify the severity of the fever, by the administration of the Mineral acids, Muriatic, Nitro-Muriatic, Sulphurous, and others.

The alkalies offer as a remedy, the Chlor-

ate Mixture, and others. In these fevers there is less urgency for activity, than in the combating of their complications.

To Moderate high cerebral excitement, accompained by persistent sleeplessness, we may give, according to Dr Graves, the following. ℞ Tinctura opii ʒj

Antim et Potass. Tart gr iv

Aqua Camphoræ ℥viij

M. S. A Tablespoonful every two hours, untill sleep is induced. By consulting Dr Graves work, we find the following history- "The patient had spent many restless nights, he had universal tremors, and subsultus, suffused eyes, occupying one position, (Dorsal decubitus) dry and black tongue,

tympanitic abdomen, high pulse quick and thready, and high delirium. The case had previously been blistered upon the scalp and nuchæ, cold applications and purgatives had failed; opium in various forms had been tried, and without the slightest benefit; if sleep were not speedily obtained he was lost" The above mixture was given, and Dr. Graves thus narrates its effects. "The success of this was almost magical. It is true that it did vomit him but after the third or fourth dose, he fell asleep, and awoke calm and refreshed; he began to improve rapidly and soon recovered". In the above we have enumerated the remedies relied upon, and on whose failure

the mixture was given. For persistent Insomnia a combination of opium, Ipecac and Camphor has been used with much good. Sub-Sultus Tendinum, Floccilatio, and a low muttering delirium, call for the administration of Alcoholic Stimulants.

The intercurrent thoracic complications, require the same general measures, as if they had originated in their usual manner, modified only by the nature of the disease to which they are added.

The complications, connected with the abdominal organs, are interesting, in two respects, - in the difference of its lesions; in which the characteristic distinctions

are found, and also on the many ways of treating these complications.

When the tongue is hard and dry, we are advised to give the tonics, either vegetable or mineral. Under certain conditions of the bowel, the tongue clears in the centre, leaving a smooth moist red surface, which will become dry, (and especially if connected with tympanitis, indicating involvement of Peyers glands, Dr. Wood of Philada. relies upon oil of turpentine. Some have preferred a combination of Ol. Terebinth. and Balsam. Copaiba. If seques of perforation occur, Opium. If hemorrhage from bowel, we may give the old, and perhaps the best,

Formulæ of Acet. Plumbi et opii, or the same with Camphora, with counter irritation over abdomen and spine, or both.

For the Diarrhœa we may give, Turpentine. Mustard Cretæ. Bismuth. Opium and Lead. Astringents both Mineral and Vegetable. We combine agents of these classes to suit each individual case, for each case, requires its own course to conduct it through the perils of functional disturbances, and structural lesions.

As to the treatment of the Exanthemata, we say nothing for it is simple and comprised under the head of Febrifuges.

We have not spoken of the treatment of Idiopathic fevers, with the Sulphites or Phosphites, or the hypothetical idea of there being a fermentative process connected with them, nor have we touched upon the administration of Quinine as the "Sine qui non", and we have left unnoticed many points which attracted us by their interest, such as the theories of their cause, the critical evacuations, the intermingling of one form with another; and the sequelæ of fevers. The limits of a Thesis would be greatly exceeded, if any attempt were made to even notice the thousands of special points that have entered into the experience and

productions of the ablest writers on the subject of Fevers.

We have glanced superficially at Idiopathic Fever, knowing that the subject could not receive at our hands any elucidation. Nor does Students opportunities enable him to speak of any particular experience. We have only endeavored to speak of their definition, allude to their general Diagnosis and Prognosis, and give a few of the articles used in their treatment. There now remains only to most respectfully submit the above, with the hope (if successful at our examinations) that, in a very short

time, we shall have the opportunities for acquiring a more complete knowledge of fevers and their treatment.

W. F. B. Kemp
of Maryland.

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