Early Doctors of Medicine and Doctors of Physics: Dissertations with Deceased Talked of Volume

These manuscripts described an effort to assemble a collection of 10 inaugural essays presented to the University of Maryland School of Medicine and the School of Physics during the years 1911-1947. The original dissertations were found together among the 1940's. The original titles of theses that the bound volumes contained multiple names, titles, and/or errors. To correct some errors, an additional "Corrected Tables of Contents" has been inserted at the beginning of each volume.

The project team who investigated and produced the tables of contents were: Kibria K. Nabi, Historical Librarian/Project Officer; Maria Milagros Prado, Manuscript Research Librarian; Andrea Cassano, and Media Specialist; Resources Division; Joseph Griffin, and Megan Wood for digital services.

These dissertations were digitized as PDF files and are available at the University of Maryland (archive.lib.umd.edu) and the Internet Archive (www.archive.org).
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.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).
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UNIVERSITY OF MARYLAND

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¹ Title page is on verso of leaf 23 at the end of this thesis.
² Title page only. Thesis content not found in this volume.

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1) Title page is on verso of leaf 23 at the end of this thesis.
2) In Cardwell, Annuel Catalogue and Matriculation... is 1847 and Joseph D.
Gentlemen,

Whether the topic I have selected be strictly pertinent to those questions usually the subjects of medical theses I am not correctly informed, and if I have erred in adopting this—"Death"—as a fit subject upon which, in conformity with the laws of this institution, I may hazard a few ideas in testimony of the interest I have taken in the investigation of the science it was by virtue of the following qualifications which we view the whole science of medicine in its several branches of practical and theoretical application to the uses and purposes for which it is designed and its philosophic truths expounded and verified by successive canon and profound men, we are above all struck with the great degree of usefulness and superiority it has attained over almost science.
Introductory

other science which exercise the ingenuity of man. While the science is thus fully investigated and successfully established, it would be of but little avail or interest to one whose knowledge of the science is not based upon his own observations and practice, but upon the experience of those whose testimony he received verbally in the lecture room or for typographical printing in his studies to select from among the numerous diseases to which the human family is subject a topic upon which he could advance nothing new. Because then he is wanting in practice or perchance originality has been exhausted. If he speak of the diagnosis, prognosis, or treatment of a disease it is only to repeat what you have told him for to advance an opinion relative to the treatment of a
disease must be purely speculative, and against new theories we are warned to beware. If he speak of a medicine, he can but state its history and character; because it is but seldom we possess the


tunities of making chemical investigations or botanical discoveries. Hence, concerning the idea that a thesis consisting merely of a repetition from a note book or from a standard author must be uninteresting to you, unimproving to the patient, and in no wise indicative of his knowledge of the science. I have chosen my present subject, because it is one whose bounds are contracted by "he spent and suffered". To speak of its physical or moral nature either is productive of a deal of thought and wide
discourse of conclusion, understand me not to say, the science of medicine at the present day, is a stand still one—of

hazard no such assertion, it is as it
ever has been a progressive one.

Escarapaceus, Hippocrates and other great
physicians of old taught truths of their
days beneficial of much good to man;
they cured diseases and stimulated other
masters minds to the investigation of the
science which contributed so little to
its permanent establishments. And left
names behind as imperishable as the
science of which they are commemorative.

Ask, where are their precedents for the
prevention and cure of diseases? These
time upon record only in the minds
of men, as things that men, being
observed to the more beautiful and
matured developments of the the
thirteen years of that science which
they saw born in its infancy. But let
when speaking of the diseases of the
chest, said, "under the title of
Introduction

Pneumonia. I mean to comprehend the whole of the inflammations affecting either the viscera of the thorax or the membranes lining the interior surface of that cavity; for neither do our diagnostics serve to ascertain exactly the seat of the disease, nor does the difference in the seat of the disease exhibit any considerable variation in the state of the symptoms nor lead to any difference in the method of cure." And so stood Thad and all diseases of the chest obscure and imperfectly understood till a few years back when Stiebingrger Bowman and Lacene threw light upon their obscurity by the beautiful and in the language of Dr. Nation "tricialk" discoveries of percussion and auscultation which enable us to determine the seat.
trace the progress and anticipate the true terminations of thoracic diseases. And, but recently have the faculty been in possession of the approved methods of operating for stone in the bladder, lithotomy & lithotomies for the discovery of which, or at least the latter, we are indebted to Amussart.

For is it an incredible supposition, that in the expiration of the nineteenth century we will be in possession of a remedy for phthisis as effectual, and certain in its cure, as is sulphur in the itch. The foregoing remarks have been made for two purposes, first to show that a thesis upon diseases and remedies which we have been studying must be a mere repetition of what you have taught us, secondly, that the science of medicine is matured and
Death

performed to the exclusion of anything new or curious, but by virtue of the sphere in which we acquire our knowledge, we are prevented from making any practical observations necessary to the development of what is yet unknown.

And Gentlemen, if in my zeal to escape the stigma of plagiarism I fall upon the charybdis of nonsense. I have no further apology to offer.

Death.

The anatomy of the human structure presents to the mind of the medical student a beautiful and varied study. "The proper study of mankind is man" again. Man know himself.

To know our thoughts, passions and affections, to be worthy the consideration of our time, how much more worthy is the study of that beautiful mechanism which contains supports and gives vitality to these attributes of
nature referred to in the above quotations. Here we view in all the beauty and grandeur of its delicate minuteness the regular dimensions and symmetrical proportions of the teminal throne of our eternity. The soul's abode the brain, for I hold that the mind is the soul of man. In connection with the brain we study the heart and lungs, not because of their relative positions, but by virtue of their functions, the heart the reservoir of the vitality of man, and the lungs the purifiers of that vitality. The hydraulic pneumatic and nervous apparatus presents a test for matured mind, and a field for philosophy's deepest thought. A mind to explore and a pen to trace their separate dependent and collective independent functions are all that is requisite to show where vitality dwells, from what organized powers it sprang, upon what
Death is the dissolution of life. Assuming the hypothesis that there is an affinable connection between material and immaterial man, if we consider these organs separately, we find each presenting a beauty of mechanism truly astonishing, if collectively they lose nothing of their individual peculiarities of structure, but resolve themselves into a machine whose mechanism and functions proclaim it. The conception and creation of a power omnipotent. It is through the actions of these three organs—the heart, the lungs, and the nervous system—that life is maintained. The heart collects and distributes the vital principle—blood—the lungs purify and preserve its healthy action; and the nervous system regulates and governs the whole. What is death? It is that state in
which the once eloquent voice has become
dumb. The ear that conveyed sounds of
delightful consolation and hope is now
deaf. The eye that was proud to please
the soul with all the fascinating
beauties of nature is dark. The mighty
arm that was raised in defence of honor
dignity and virtue, is palsied and powerless.

And man, the once moving, thinking,
and potent monach of the earth, lies
an inert particle of his mother element
the dust—whereas he first arose.

Whence this change? Whence comes this
sudden metamorphose from life and light
to death and darkness? The blood (sageth
The Bible) is the life—hence, death—
because it is no longer propelled to the
different organs. It has ceased to flow—it
is still—and life is gone. Again why
this arrestation of the vital fluid? Why
Death

from it used onward in its several channels. This is the point upon which I purpose speaking: it is to these causes that the phenomena of death have conducted one, and these causes are many and all lie in one or other of the three vital organs now under consideration. And with which the physician must be acquainted if he possess any power of combating death, because we have seen that death takes place only in consequence of the non-circulation of the healthful vital fluid. The above proposition, that death takes place because there is no blood circulated, is clearly proved, not only in theory, but by the evidences of morbid anatomy. But why venous blood becomes to be circulated or that the circulation is arrested entirely I purpose illustrating by the pathological actions of those causes which bring about
Death are alterations in the circulation. Death is spoken of as beginning at the heart in two modes anemia and asthenia, both forms being death by syncope. First, let us briefly consider upon what the healthy functions of the heart depend. The heart to perform its office of expelling the blood from its cavities acknowledges two laws, first, a due supply of blood in its chambers for the nourishment of the system when sent there from and secondly, a contractile power in its muscular fibre for its expulsion. Now when the first of these laws fail death takes place because there is no blood circulated hence the name of this form of death anemia. And the most prolific cause of anemia lies in the depleting power of hemorrhages. In testimony of the pathological action in producing this
form of death, we have evidence, first, in the empty state of the heart after death, and secondly, by the introduction of blood in the vessels of apparently dead animals, thereby resuscitating the vital action and establishing all the phenomena of life and health, thereby showing that the expansive power of the heart was not in fault, and illustrating the importance of a knowledge of these pathological conditions which enable the physician to direct his remedies with a scientific aim, thereby warding off the fatal blow. The other form of syncope or death beginning at the heart is called asthma, and is owing not to a want of blood in the heart, but to a deficiency of contractile power in its walls. That death often occurs in consequence of the failure of the heart's expansive power admits of no doubt. Because once again, autopsy demonstrates pathology.
instead of empty ventricles and collapsed auricles—on both sides of the heart,
distended with blood. Proving that the
defect was not in the amount of blood,
and consequently, that it was the result
of the physical heart. But the other
proposition, that this form of death as asthma
always begins at the heart, is not the case.
The term asthma, applied to death whose
immediate cause is the cessation of the
heart's action is a very correct one. Let the
primary cause be what it may. But that
death by asthma always begins at the
heart, is not equally true. The heart
and the lungs are vital organs, and
the office of the heart is to collect
venous blood from, and to distribute
through the medium of its appendages
arterial blood to every part of the human
structure except the lungs whose office
Death

It is to receive the impure or venous blood into their capillaries from the pulmonary arteries there to undergo a chemical change by coming in contact with the oxygen of the air by which means it is converted into pure or arterial blood. How long as these organs continue to perform their functions of receiving originanting and distributing the blood life is maintained.

But, upon what do their healthy functions depend? Be what are they regulated? Emphatically the nervous system governs their actions. Then the brain is a vital organ, and when by defect of its vital functions the heart is palsied or the muscular movements of respiration are suspended, death is the result, and surely, it began in the nervous system. For no more can the heart and lungs carry on the circulation independent of the functions of the brain.
Death

Than can the lungs and brain carry it on, independently of those of the heart, of the vital organs. The one which first receives the deadly effect of a given cause, be that cause what it may, is the seat of the beginning of death. I propose to illustrate death by asthma, where it begins not at the heart, by the following evidences. If the vapors arising be introduced into the system, death is the speedy result. And upon examining the heart after death, both sides of it are found full of blood. Why then did its heart contract? It wanted not a blood stimulus, its functions ceased because of the effects of the poison on the brain thereby destroying its influence over the heart. Again, a sudden blow is received on the Epigastrium, death suddenly follows. Why? Because there is no blood circulated and
Death

The blood has ceased to flow because the heart has no power to contract on it, and this inertia of the heart is the result of the shock to the nervous system made by the infliction of the blow upon the epigastrium. Yet, there are cases in which death takes place by asphyxia beginning at the heart of which we have a good example in the mechanical resistance offered to the free play of the heart by effusions which press upon and arrest its movement. Here death truly begins at the heart, because the heart itself, is the first vital organ whose functions are interfered with. Then we have these differences, in death by anemia and death by asphyxia. In both modes it is the result of the non-circulation of the blood, and in both the functions of the nervous system are arrested. In the first case,
This suspension of the nervous functions arises from the want of blood to the brain, and is therefore the effect of a cause—while in the second form, this suspension is dependent upon and is the effect of the exciting cause, but which effect becomes the cause of the final effect—Death by paralyzing the heart. Viewing in the first case, that the suspension of the nervous system, is the result of the non-performance of the heart’s functions, and in the second case, that it is the cause of this defective action of the heart—It comes next to consider the other two forms of death spoken of by the Pathologist—Coma and apnea which directly interfere with the functions of the lungs. These organs, like the heart, are subject to two laws whose unanimous co-operations is necessary to the performance of their functions—accretion of the blood.
These causes are, first, healthy action of the respiratory muscles—secondly, free access of air to the lungs. In either of these forms death is the result of the circulation of venous blood—death by the failure of the first of these causes is called coma—and as the result of a morbid state of the brain controlling the reflex action of the medulla oblongata, thereby influencing the involuntary movement of the thorax, and subsequently arresting the arterialization of the blood. Thereby causing venous blood to enter the arteries which produces death by its poisonous influence on the brain—that this is the true philosophy of death by coma, we are assured by the evidences of experiments on living animals by artificial respiration and by morbid anatomy. The latter furnishes the following phenomena: the right side of the heart, the lungs, the cava, and the
Death

whole venous system are gorged with dark
blood, while the left cavities contain
but a small quantity and that venous.
Proving by this empty condition of the
left heart, that venous blood has been
sent to the brain, where it is found
and thereby producing death. This form
of death then begins at the brain,
and now at the lungs as has been said
by some. Because we have seen that,
The blood was now purified in consequence
of respiration being suspended by the
influence of the already deranged nervous
system. — The last form of death to be
spoken of, is called apnea, which begins
at the lungs. The causes giving rise to this
mode of dying, are pantherine, drowning
throttling or any obstruction to the free
passage of air to the lungs. Here also,
pathological anatomy proves the correctness
Death of the above proposition viz. that death is the result of the circulation of venous blood, indeed there are no anatomical differences between death by coma and of death by apparent yet they differ in their modes of affecting these changes...Death by either of these modes as we have already seen is the result of the circulation of venous blood. In the first of these forms the animal functions or the power which regulates the movements of respiration is the first affected. Therefore, the cause of this venous circulation...hence death began at the head...In the case of this circulation is the first to suffer consequently it is the cause and not the effect of the animal functions and here death began at the lungs. We have now considered the different forms of dying...which in a summary stand thus: two forms beginning at the heart: anemia and asthenia...
forms beginning in the nervous system—
comatose and apathy. This latter term as applied to death—beginning in the nervous system—
may be objected to, but I know of no better
name; as it is the immediate result of the
cessation of the heart's action, although
that was not the vital organ to receive
the primary effect, as I have instance in
the poisoned effects of the opium—bub here
it may be said that the heart was the
first vital organ upon which it acted—because
we know that the blood undergoes physical
changes and it may be chemical and bring
in direct contact with the walls of the heart.
may there exert its primary effects. But
such is not the case—in many other
instances, for example, great emotions
of the mind, a sudden blow &c. are known
to cause the same physical change—the
sudden stoppage of the heart—but here
The first impression was made upon the nervous system. Hence death began just at the heart. And there is one form of death beginning at the lungs apneic or asphyxia of which I have said sufficient.
An Inaugural Dissertation on Death.

Submitted to the Examination of the Provost, Regents and Faculty of the University of Maryland for the degree of Doctor in Medicine by

John Matthew Able of the County of St. Mary's, Maryland.

1830
An Inaugural Dissertation
on
Pneumonia.
Submitted to the examination of the Honrs. Regents
and
Faculty of Physic
of the
University of Maryland.
For the degree of
Doctor of Medicine.
By
James Egler Baldwin.
Of Maryland.
To

Samuel Chew, M.D.

With the greatest respect for his talents as a physician, and the deepest gratitude for his kindness as a teacher.

These few pages are affectionately inscribed

By his pupil.

J. R. E. Bartwell.
The term pneumonia is now generally applied to inflammation of the substance of the lung. By some of the best observers, it has been called, inflammation of the varieties of pulmonary vesicles, of air cells, or both combined. Dr. Stedman says, "He who would call pneumonia, bronchitis of the terminal tubes, would hardly be guilty of a misnomer." But the first definition seems to me to be sufficiently concise, and is the one I propose using. The varieties of pneumonia are various, and are founded principally on the different portions of the lung involved, and upon the general condition of the system, character of the fever, etc. Thus, when the inflammation occurs in one lobe of the lung, it is called, lobar pneumonia. When it affects small portions, as one, it may be lobar.
it is called, Tubular pneumonia. When it occurs in both lobes at the same time, the term Double pneumonia, is used. Pneumonia is always accompanied with some inflammation of the pleura; and when considerable portions of that membrane are involved, the term Pleuro-pneumonia is employed. When the disease comes on in a person debilitated by excess, characterized by extreme prostration, and a low edynamic condition of the system, to gether with that form of accompanying fever, it is called Syphilitic pneumonia. If attended with any marked ed alteration of the Respiration function; it is called Bilious. Pneumonia may be either acute, or chronic. The latter however is very rare, and always the result of the former. In speaking of the anatomical changes, I shall
follow the plan of Saunee, and divide
the disease into three stages, noticing the
changes observed in each separately, and
in their order. In the first, or that of
engorgement, the lung is of a deep red
colour, elezitates under pressure, although
in a much less degree than in health.
The air vesicles are found nearly crowded
together, and the passage of the air
almost obstructed, by an effusion of
lymph, and serum. It is more compact,
deviates the impression of the fingers,
and, although heavier than in health,
still, floats in water. In the second
stage, or that of hezartisation, the
lung becomes solid, and resembles hair:
Hence its name. It is no longer ele-
agitates under pressure. The vesicles which
in the congestive stage were nearly con-
ed together, are now entirely closed,
and the passage of the air is quite ob-
structed. The lung now sinks readily
in water; when the chest is opened, it
does not collapse as in health; when
seen it presents numberless minute
granules, which Dr. Williams ascribes
to interstitial deposit of lymph in the
surfaces of portions of the bronchial
ducts, and vessels. The condition of
the lung in the third stage, as that
of gray despiration, resembles the
second, excepting in color, and, it
is somewhat softer. The three different
states described are not always found dis-
tinct. Sometimes we find them all
three present in a portion of lung at
the same time; giving to it a mottled
appearance. The pathological changes
observed in the lobulated variety differ
from the commoner lobe, only that
They are found in isolated portions, or lobules, with healthy lung intervening. The bronchial tubes, and glands, are generally found inflamed, enlarged, and of a deeper color; thus accounting for the fact that pneumonia is almost always found as an accompaniment of pneumonia. The right lung is much more frequently found affected than the left, and the lower lobes, than the upper. In children it generally occurs in both lungs. In describing the symptoms of pneumonia, I shall speak first of the physical signs, as it is through these only that we are enabled to establish a correct diagnosis. In the first, or stage of involvement, there is slight dulness affected by percussion. But unsteadiness gives us one sign which is perfectly
plain, and need must be mistaken: that is the espiritant-hale. This is minute, uni-
form, and dry; first heard during a deep inspiration. It has been compared by
Lacenec, to blowing salt upon heated
iron, or taking a touch of hair between the
fingers, near the ear. Dr. Rice compares
it to the sound produced by compressing
near the ear, a piece of sponge cake.
This dry espiritant-hale, always means
pneumonia. It seldom remains more
than six, or eight-hours in one place.
The respiratory murmurs may be inter-
mingled with this hale, or it may be
absent entirely. The voice, and cough
are generally clearer, and louder than
in health. In the second stage, the
espiritant-hale ceases to be heard, but
in the place of it, we have terminal
despiration, which is as characteristic.
of this stage, as the eosophageal tube was
of the congestive. It may be heard
both, during inspiration, and expiration.
This sound has been compared to that
produced by blowing through the hand,
r or to the whispered word whe. It is
best heard at the base of the lung, be
cause then the bronchial tubes are large
er than elsewhere. As the lung is un
solid, there is dulness in percussion, but
not so great as in consolidation. If the pa-
ient speaks, this noise sounds much
louder, and clearer, than in health.
The vocal thrill is generally much in-
ceased. Dr. Hare says, "That in some in-
estances, during the passage from conges-
tion to cestivation, before the latter is
fully formed, the eosophageal tube, and
bronchial respiration, are often united
together, and give rise to a sound, even.
pained to that produced by tearing
stiffness.” In the third stage, the signs
are nearly the same as during the sec-
ond; but, generally a worse manœuvre
fails to succeed. If an abscess has for-
moment, we have all the signs of a tuber-
cular cavity, as in phthisis. In the tub-
ular variety, the signs are nearly the same
excepting that in many cases, the cephalic
note is not heard; and percussion does
not teach us as much. The physical
signs are in fact often unsatisfactory
early in the disease: but are much more
important as it advances, and assist
much in forming a diagnosis. Because
pain is generally a flank inflammatory
disease, but not always. The general
symptoms are pain, more or less severe,
felt in some portion of the chest; diffi-
ulty of breathing, cough, peculiaris
expectoration, and fever. Of each of these, I shall speak more fully. The disease is generally ushered in by a decided chill, sometimes it is preceded by a feeling of weakness, and lassitude for some days, and it often succeeds to pneumonia. The pain is generally in the commencement of the attack, sharp, and severe, is increased by cough, pressure, and full breathing. But it is oftentimes, and more particularly in the advanced stages, merely a dull aching sensation, amounting sometimes to nothing more than a feeling of soreness, and oppression. It is sometimes located in the side, and back, but usually a little below, and outside of the nipple. Sometimes it is felt upon both sides. When so, there is reason to believe that both lungs are affected. The sharp
Painful, pain often complained of, is owing to inflammation having extended to the pleura. Sometimes the patient is unable to lie on the affected side; this also is probably owing to the participation of the pleura. Dyspnoea is a symptom which is always present in pneumonia, Watson says. In general it bears a direct proportion to the extent and severity of the disease. The number of respirations are generally increased, from the average standard, which is 18 or 20 per minute, to 30, 40, and sometimes even 60, per minute. It is sometimes so distressing that the patient is obliged to assume the erect posture. The cough in this disease is never paroxysmal; but occurs in single, short effects, not worse at night than in the daytime. It is generally worse in adults than in children. In
some cases it is sense, and painful; in others
mild. It is always at first dry, but after
a few days is accompanied with the
expectoration peculiar to the disease.
The expectoration may at first consist
of simple mucus, but in the second, or
third day, it consists of a bloody spu,
comprised of blood and mucus con-
coined; and has the appearance of a
solution of gum Arabic, in water, and
is so tenacious as to adhere to the sides,
and bottom of the vessel containing
it, when it is turned. Bottom upward.
This bloody, mucid spu is perfectly the
acteistic of pneumonia; it means that
and nothing else. It sometimes indi-
cates its existence when the physical,
and general symptoms are unsatis-
factory. Yet pneumonia may, and
often does exist without this, as in the
case of children, and old persons. When
claustral symptoms, are united with
those of pneumonia, we see in the same
vessel, symptoms characteristic of both of
affections, thrown up at different times.
In the third stage, the spuota often be-
ecomes watery, and dark colored, looking
like higanice water : this may gener-
ally be considered a fatal symptom.
Fever is always present in this disease,
and in some cases, seems to be the prin-
cipal affection. It varies likewise in
degree, being in some cases so mild as
almost to escape notice, in others so
intense, attended with flushed cheeks,
pain in the head, and delirium. This
fever is looked upon as an unfavor-
able symptom. The fever is usually
of a remittent type, with daily exce-
sations, occurring mostly towards night.
with a marked increase of all the symptoms. The pulse is generally full, and strong, and not much accelerated. The tongue is moist, and covered with a whitish fur. Thirst, and loss of appetite are almost universal. The skin is hot, and dry. The urine scanty. Vomiting, and diarrhoea, often exist; more frequent by the latter, and in the advanced stages. I have thus far given a de
scription of the disease, as we most commonly see it. But as there are some symptoms peculiar to each of the varieties; it will be necessary, briefly to allude to them. In the spotted form, which occurs most
usually in children, under six years of age, the symptoms are often so mild as to be unnoticed, or confounded with some other previously existing disease.
But when it is somewhat advanced, fever sets in, with a rapid pulse. scarcely ever under 120, sometimes as high as 140, 150, or even 180 per minute. The respiration varies from 50 to 70, and sometimes 100, in the minute. The cough is frequent; in some cases hard, and dry, in others loose; but generally without any expectoration. During the act of breathing, there is great expansion and contraction of the abdominal. The peculiarities in the physical symptoms, have already been mentioned. When symptoms of Hepatitis, or of altered hepatic function, are associated with pneumonia, it has been called bilious. But the most common form, is that which is found in connection with tertian, and intermittent Miasmatic fevers. We generally have along
with the pneumonic inflammation, pain, it tenderness in the light by
punctures, a yellowish line of the
eyes, and skin, nausea, and vomit-
ing. Splenic pneumonic, occurs
mostly in persons of broken down
constitutions, and in those who have
been exposed to depressing causes.
The general symptoms are those of
depression. The pulse is small, and
weak; and sinks leading under the
less of shock. The tongue is cov-
ered with a bluishish fur, and is
often dry. Sordes collect around the
teeth, and gums. The evacuations
from the bowels are dark, and have
an offensive odor. This is gene-

rally throughout the decase, stupor,
will has delusions. The expectoration
is bloody; sometimes consisting of true
Pleurisy. It is never so reside as in the common form: and is ordinarily in its expiration. The physical signs differ in this respect; that there is not so much of the expectant bile, but its place is supplied with mucous sounds.

The diseases, with which pneumonia, is most liable to be confounded, are emphysema, pleurisy, and phthisis, in some of its stages. Almost all of the symptoms observed in pneumonia, are also found in the diseases above mentioned. But the rusty sputa is pathognomonic, and always means pneumonia; and also that it has passed into its second stage.

But this, as before remarked, is sometimes wanting. The watery, hiperemic, colored sputa, is equally characteristic of the third stage.
In the first stage, the dry elephantine breath is pathognomonic, and whenever the chest is heard means pneumonia. In Kochi-tis, there is no pain in the side, but merely a feeling of stiffness; as a burning sensation; usually felt in the anterior, and upper part of the chest; in the depression of the sternum. The sputa more than the viscosity, and dusty appearance, of pneumonia. The Fever is more moderate. The pulse is small, and soft. The latter are coarse, and monotonous. There is more dulness in pausing unless the two diseases are combined. Fever, opacity, prostration, and pain are symptoms found in pleurisy as well as pneumonia. But they are all with the exception of pain more severe in pneumonia. This is generally the most severe in pleurisy.
But it is usually confined wholly to
one spot, while that of pneumonia is
not. In the early stage of pleurisy there
is no expectoration. The dulness on percuss-
ion is much greater, and more extended.
There is a perfect absence of all respira-
tory sounds. When the ear is applied
to the chest, we have instead of the
lucid resonant voice of pneumonia, a
weak stimulus, bleating voice; peculiari-
to pleurisy. The pulsation of the chest,
which sometimes occurs in pleurisy,
from effusion effusive, is wholly
wanting in pneumonia. The expecto-
cration is very different in the two
diseases: being dusty, coloured, and vis-
cid in the one; mucous, and clear
present in the other. It is only in the
chronic form, that pneumonia might
be confounded with phthisis; and one
In the treatment of many cases of this disease, there need be but little difficulty if sufficient attention has been paid to the previous symptoms, as the expectoration, tarry, and bloody sputa of the former. The most cases of primary pneumonia get well. The disease is remarkably mild between the ages of six and twenty-one. The chief cause of its mortality among children, is its complications with other diseases as measles, and scarlatina. When the inflammation occupies the upper parts of the lung, the mortality is greater, than when the lower.

Double pneumonia is much more dangerous than the single form. The danger is, in fact, in all cases, in some measure according to the amount of lung involved. The typhoid variety is more usually fatal than the former.
occurring, as it generally does, in persons of debilitated constitutions, who will not bear a strict antiphlogistic treatment. Statistical investigation has shown that pneumonia principally takes in an increasing proportion after the twentieth year; infancy being excepted. Among the most frequent causes of this disease, may be mentioned, changes in the weather, and sudden exposure to cold when warm. Cold may in fact be considered, as one of the most efficient predisposing causes. Excessive use of the vice is also a predisposing cause. It is a frequent complication in typhoid fever; and is one of the most common attendants upon fevers, after the col-
apse of malignant cholera. The
irregularity of the disease is generally rapid.
with a marked increase of all its symptoms at night. The time elapsing from the first to the second stage is short; not generally longer than 24 hours, and sometimes even shorter than that. This fact should be borne in mind, as the first stage is the time in which to cut short the attack. But in the great majority of cases, this stage has nearly to quite passed, before the patient is seen. And the disease has advanced to the stage of hepatisation. The average duration of jaundice may be stated to be from 13 to 25 days, but it sometimes continues from one to two, and even four months. The basis of the treatment in this disease is antiphlogistic; and the great remedy is bleed-letting.

Taken at the commencement, it is
Before, and often strangling the disease.
No disease bears the loss of blood better
than open, well developed pneumonia.
It does good, not only by subduing
inflammation; but also by diminishing
the labor of the lungs, and thus
allowing them rest. If it does not
strangle the disease at once; it de-
nives pain, and dyspnea; and al-
ters the character of the sputum.
In determining upon the quantity
of blood to be taken, in any given
case, we must be guided by the
stage of the disease, state of the
pulse, and constitution of the pa-
ient. But as regards the pulse;
it must be borne in mind, that
from the extent of the disease, and
excessive action of so vital an or-
gan as the lung; we have the
pulse small, and weak. But it is
not owing to debility; and it is nec-
essary to bleed, although the pulse
does not seem to indicate it. It
will be observed to rise, and become
fuller, after a rain has been opened.

On Preece's rules for bleeding, use as fit-
ness. If called early in the disease,
take from 12 to 30 at once, accord-
ing to the constitution, and condi-
tion of the patient. Do not pro-
gle absolute syncope, but just
to reduce the action of the heart,
and arteries. After the first bleed-
ing if reaction come on violently,
bleed again. If upon examination
the next day, the character tales
are heard, repeat the bleeding.

When leprosification has taken place
bleed; but he must be more moderate;
it was thus said by creating a thirst in the veins. Continue to bleed as long as pain, and dyspnea exist. It must generally be repeated six or seven times during the course of the disease. If the patient has been ill several days, although it may be necessary to abstract blood, caution must be used. Diaphoresis is no counter indication to bleeding as some suppose. The same is true as regards the presence of the menses. In children more caution must be used; they will not bear the loss of blood as well as adults. When they are under twelve months of age, local is preferable to general bleeding. Old age bears the loss of blood better in this, than any other disease. When the disease is secondary to
Measles, or the exanthemata, we must
bleed as boldly as in the primary
form. In suppurating pneumonia, we
must use general bleeding with care.
Soothing, and cupping, are generally
the most that can be done in the
way of direct depletion. But as a
general rule, in pneumonia, bleed-
ing is the main remedy. After
that has been carried as far as
may be deemed practicable, better
emetic, is the next agent in value.
This should be given in entraaining
infant doses. The first will often
produce vomiting, and purging;
after that, it is generally situated.
Should these, the vomiting and
purging continue, it may be check-
ed by a few drops of hydrochloric
acid, a few caps, or a mustard plas
to apply on the abdomen. If the disease continues violent after the second, or third day, increase the dose of lactæ emeticæ, until 20 or 34 grains are taken every 24 hours. In using this agent, however, we must be guided by the general symptoms. If gastritis exists, or supervenes, it must be dispensed with. It should be given in solution, as in that form it is less apt to cause such irritation of the throat. Another plan of treatment, used extensively — by in England, and also in this country; is by Calomel, and Opium. This is good, but is far inferior to the first. It is slower in its action, and more apt permanently to affect the system. If lactæ emeticæ is contra-indicated, then we may use
to the colonel, and its propriety. It may be used in all cases, to hasten absorption, when the physical signs only remain. Dr. Wattie says, "When the disease has reached the second stage, med-
cury is more worth of confidence than antimony." When used it should be preserved in, until the gums are made tender: the slight petechism thus assists the effusion of lymph, which has a tendency to destroy the texture of the lungs. Blebs, in the early stage of the disease aggravate the fever, and do more harm than good. The only time when they are of service, is after active inflammation has subsid-
ed; and hepatisation rule exists, then they do good, and should be used, and repeated, if necessary.
In the advanced stages of this disease, should the strength fail, and the whole system become depressed, the use of stimulants becomes necessary. Of these, the carbonate of ammonia is by far the best. It may be given alone, or combined with infusion of senega tincture. The treatment of the tubular variety, does not differ materially from that of the lobar; occurring however as it us usually does in children; the measures must be used less boldly. The age of the child must always be considered; and in young infants, leeches be substituted for the lance. As children do not expectorate, emetics must be given occasionally throughout the disease. In children, ice, calomel is preferable to antimony.
In slight pneumonia, the medicine also should be employed from the commencement, and continued until they affect the mouth. Bleeding is not generally well borne in the tubular variety, and must therefore be resorted to with great caution.

Bleeding, and bleeding, are free as in the tubular form, generally the most that can be done in the way of direct depletion. As soon as signs of perspiration show themselves, stimulants as carbonate of ammonia, wine, &c, &c, are to be used. All of turpentine is a valuable stimulant in few cases. The diet in this form should be nutritious, and sometimes even stimulating. During convalescence, perspiratives are useless; but the bowels should be kept open by laxatives.
This with a strictly antiphlogistic diet, and confinement to bed, in a large, well ventilated room, of a moderate temperature, is generally all that is necessary.

The diet, however, should be guided by circumstances; as a general rule, white fruit should be avoided for some time; and be returned to slowly. In persons of intemperate habit, a small portion of spirits, may be allowed to prevent the relapse of the delirium tremens, and a more dynamic condition of the system, after the active stage has passed. But it must be given with great caution, and in very small quantities; or it will do more harm than good.
I have now finished what I have
to say in this important, and to
me, so interesting disease. In
selecting it as the subject of my
thesis, I did not expect to be
able to advance any new ideas
that I have left for others, and
d more experienced heads than mine.
My intention was merely in such
a manner to collect, from the
ideas of others, as to give a brief,
and as concise a description of the
disease, as my poor abilities, and
shamefett attainments would allow.
To these then, to whom these imperfect
pages are submitted for perusal,
I would say.

"Don't view them with a critic's eye.
But pass their imperfections by"
before concluding, I cannot forbear an acknowledgment of the large debt of gratitude under which I am placed to my kind instructors, of the University of Maryland; for the deep, and
untiring interest, they have shewn, in the advancement of those under their tuition, since my connection with the institution. And if by labour, and study: in future life, I am enabled
to reflect honour upon them, I shall feel amply repaid, for all the trials and
difficulties I have had to encounter. And it is my most ardent hope, that
their useful lives may long be spared, to occupy as they have done the first
rank in their profession.
An
Inaugural Dissertation
on
Nervous.
Respectfully 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

Arthur Burns
of Baltimore City
According to the custom of this honourable Institution (which makes it incumbent upon every candidate for the Degree of Doctor of Medicine, to write a dissertation upon some subject connected with the Science of Medicine) I purpose giving a short description of Parida. Nothing original can be expected upon this subject (on which so much has been written and said) from one who has never had an opportunity of witnessing the course and treatment of this disease. I therefore have given an account of it, not from my own experience, but from that of others, who have had experience, and are far more competent than I am, to describe it. This dissertation is a compilation from the best authors on the subject. I have written some passages as I found them in the books, because they are better described there than could possibly be done by myself.
Variola or Small-Pox is one of the contagious Exanthemata in fevers. It commences with a fever, which continues for three days; then the eruption appears, which passes through the three different stages of Burr, Pustule, and Bistule, and arrives at maturity about the eighth day. The pustules continue after this, in a state of suppuration during a secondary fever of several days duration, then dry up and form scabs, which fall off at the end of the third or fourth weeks, leaving small irregular cicatrices on the skin, which are permanent. It is not known at what period Small-Pox first made its appearance; there is no positive proof that it was known to the Ancients; some indeed have tried to prove that it was known to Calm, but I believe that the opinion is not generally received. It is supposed to have infected India and China from the earliest ages. It was first introduced into Europe by the Saracens during their wars with Spain. It made its first appearance in Arabia about the time of the Birth of Mahomet. It was probably first brought from Ethiopia into Arabia, and from thence spreading over all Europe, but more particularly in the eleventh and twelfth centuries, during the Crusades. There are two varieties of Small-Pox: Distinct and Confluent. The pustules of the former are separated from one
another, generally few in number, of a circular form, elevated and
distended. Those of the latter are very numerous, depressed, purplish-
lar in form, and running together as to form one mass. The time
which elapses between the reception of the poison into the system, and
the first attack of the disease, is called the period of incubation; it
varies from seven to twenty days. During this period, the patient ap-
ppears to be in his usual state of health, but sometimes a slight-
febrile disturbance occurs. The other periods are: the initial fever,
the period of the Eruption, and the period of the Decline.

Distinct Symptoms

The symptoms that mark the commencement of this form are
the same as in all other fevers; rigor, pains in the small of the back,
nausea, and vomiting, furrowed tongue, want of appetite, thirst.
Sometimes other symptoms occur; coryza, great flow of tears, delirium
in the adult, and convulsions in children. Sometimes there is stu-
per; sometimes watchfulness and restlessness. The fever lasts for
three or four days, then the eruption comes out in the form of red
spots, first on the face, and then on the neck, extremities, and body;
about twenty-four hours elapses before it is fully out, then the
fever entirely ceases. In some rare cases the eruption shows itself
first when the body, or extremities. This variety of the disease.
runs its most natural course. The eruption is at first peculiar, on the second or third day they contain a clear liquid at their apex, and on the third or fourth day the worst of them are a little depressed, the cuticle is found down to the cutis vera, this is the cuticle they feel hard and have a firm rounded base. They soon become punctate, and on the eighth day of the disease, and fifth day of the eruption, they become fully formed, and are distended instead of being umbilicated. The face gradually swells during the time that they are forming so much as to often close the eyelids, and the skin between the punctule is of a deep brownish colour. On the eighth day of the eruption, and the tenth and eleventh day of the disease, the punctules attain their maturity, they also begin to break on this day, to dry up and form scabs, these become behind them purplish red stains, which gradually fade, or a scabbed scar that lasts forever. The swelling of the face begins to subside after the eruption becomes punctate. These upon the feet and hands swell, as the swelling of the face diminishes. Some of the punctules do not burst at all, but throb up, this takes place on the extremities more particularly in children the scabs sometimes begin to form on the seventh day. Occasionally they do not begin to form until the ninth day, when the disease is severe in adults. During the eruption there is often an swelling of the chin, an eruption comes out on the
mucous membrane of the mouth, face, eyelids &c. It makes
its appearance two or three days after the eruption on the skin, that
spots are white and circular. These are generally produced without pain or
scales forming, they contain neither lymph nor pus. In the interval
spaces the membrane often becomes red and inflamed, and on the
seventh or eighth day, ulcers of the throat and salivation often occur.

The salivation is at first thin and copious, but during the period
of maturation it becomes thick and salty; this is a great annoyance
to the patient, as it is got rid of with difficulty. During the period
of maturation a very disagreeable odour is exhaled from the body of
the patient, by which the disease is easily recognized. From the
seventh to the ninth day a secondary fever occurs, which is called the
fever of maturation. The fever declines as soon as the scales begin to
form. The tongue cleans, the appetite returns, as soon as the skin is
relieved of its reddening, but then the patient regains his health.

The disease runs its course from two to three weeks.

Confuent Variola

The initial fever is usually more violent than in the distinct
form. The pains in the small of the back are more intense, conjun-
tivitis, delirium, delirium, and stiffness are more frequent, and the sick-
ness more distressing. The eruption appears earlier, but there is not
the same degree of abatement of the fever as in the District.

The pimples are at first very small, and crowded together in patches and sometimes accompanied by an erythematous efflorescence like Scarlet fever or Rosacea. As the disease progresses the pocks do not fill up completely nor rise so much above the surface as in the distinct variety. Their colour is different, it is whitish at first, and then of a brown hue; occasionally they are bluish or purplish. The secondary fever commences just when the pustules have matured and begin to dry up, which is about the eleventh day of the disease, and the eighth day of the eruption. This fever which is slight in the distinct Disease is often severe and perilous in this variety. It is at this time that death is of more frequent occurrence. The sore throat, the swelling of the tonsils, and faucæ are great, and the salivation more copious and distressing.

In children, diarrhoea occasionally takes the place of salivation, which does not often occur in these. During the period of maturation an intolerable fetor is exhaled from the body of the patient, about the same time the patients are tormented by an intolerable itching so that they scratch off some of the scales, and occasionally a bloody or serous discharge exudes from the raw surface. These are other symptoms to which the patients are liable during the
secondary fever—erysipelatous inflammation, leading to the formation of abscesses in various parts of the body, swelling in the groin and axilla, sometimes resulting in suppuration. Swelling also on the hips and scrotum, pubes, and occasionally the large joints are found full of pus. Dyspnea is apt to occur, causing death by the air passages becoming clogged by their mixed secretions, only closure of the glottis. Not uncommonly the eruption and inflammation extend beyond the trachea, larynx, and to the primary divisions of the bronchi, giving rise to cough, painful attempts to expectorate, hoarsening, and occasionally complete loss of the voice. The face often swells to a great extent, particularly the jaw and scalp, the swelling is so great that sometimes the eyelids are closed and the countenance entirely changed.

Barila migrans

Barila migrans, bloody or malignant. Small Pet. is characterized by a complete prostration of the nervous system, with coma, delirium, or great anxiety and restlessness, and occasionally by an imperfect development of the eruption, or a sudden disappearance of it when formed, symptoms of what is called the petrid. Death then manifest themselves, petechiae, ecchymosis, and hemorrhages from various parts of the body. The cheeks, instead of being plumbe and yellow, are
flat, red, purple in color, containing blood or neciuous matter, instead of pus, this kind is always fatal.

Anatomical Characters

The skin and mucous membranes present the only alterations that are peculiar to this disease. If the punctures are examined closely when first or in the course of healing, two colours will be observed in many of them, a central whitish disc of lymph, surrounded by a circle of yellow puriform matter; there is in the center, a vesicle, which is distinct from the pus; this vesicle may be punctured and emptied without letting out any of the pus, or the puncture let out without disturbing the contents of the vesicle; by careful dissection the vesicles have been taken out entire.

Trace of punctures are often found after death in the conjunctiva, aneurysm, membranes of the nose, mouth, pharynx, larynx, trachea, and as far as the third division of the bronchi, they are rarely found in the esophagus, but sometimes they are found in the lower part of the stomach.

Cause

This disease is caused and propagated by a specific poison. In some years a district or country may be almost entirely free from the disease, and in other years it may attack it with great virulence, almost depopulating the country. There is no contagion so strong
and sure as that of variola, and now that acts at a great a distance. It may spread from one town all over a large house, and even to adjoining houses; it has been known to seize a street and attack the inhabitants, in fact, it is communicated in every way, by inoculation, by breathing the tainted atmosphere, and by the contact or vicinity of fomites, which are said to have the power of retaining the poison for a long time, for months and sometimes for years, if kept from the air. Most observers mention one case where it was caught from the dead body. The fetus in utero has been known to be affected, even when the mother was protected, or at the same time with the mother. British doc. against constitution have any power over the disease. One attack generally protects the individual against a second; although cases are on record of two or more attacks. Three second or more attacks generally occur during one epidemic: the disease is Epidemic and sporadic; the epidemics occur at no certain period of the year. Epidemics observed that they are more severe in the middle of winter than in the beginning of spring. If the disease is caught from a case of distinct smallpox, it may give rise to the symptom form of confluent and necrotic.
Diagnosis

There is no difficulty in making out a case of Smallpox after it has become particular and umbilicated, but during the incuba-
tional stage it is not easily recognized. If there are severe pains in
the small of the back and obstruse vomiting, for which no
cause can be assigned it would lead us to suspect the nature of
the disease; particularly if it was prevalent in the neighbour-
hood. It may be mistaken for Measles, but the eruption is less
prominent and distinct to the touch and it soon assumes a
crescentic shape; it can also be diagnosed by the subsidence of the
initial fever of Smallpox.

Prognosis

The Prognosis in the distinct, when uncomplicated, is favorable.
The confluent, when fully formed, is very dangerous, the malignant
generally fatal. The Prognosis is favorable when the disease pro-
ceeds regularly towards desquamation, without serious inflammatory
complications and without malignancy but cases occur, in which
the vesicles or pustules suddenly shrink, without any assignable cause,
and the patient recovers. These are properly septic against dan-
gerous or fatal intercurrent disease, so that when smallpox
encephalitis is fully established, the unfavorable, though not all of
then necessarily fatal signs are, violent pains in the small of the back, the vomiting, persisting after the appearance of the eruption, violent delirium, coma, or convulsions in the first stage, which announce severity in the advanced stages, except in children, convulsions during the period of the eruption also denote great danger; quantity and abundance of the eruption, the appearance of the stools all over the body at once; a bluish or purplish colour of the stools, patches, and ulcers, with jaundice, hemoptysis, imperfect development of the pupils, or their sudden disappearance, formed without diminution of the other symptoms. If the swelling, time and swelling of the face abruptly cease, the danger is very great, also when the eruption is confined and the hands and feet do not swell. Prostration or loss of the sneeze, combined with dyspnœa, occurs. Reuse of pleurisy, or pleurisy, and suppuration of the urine, or frequent desire to void it, or involuntary discharges of urine or feces, and a disposition to the formation of large abscesses in various parts of the body, after the commencement of dyspnœa. The disease is more fatal during infancy and old age than at any other period of life. Health and debility are both unfavourable; it is generally fatal to the intemperate. In pregnancy the disease is always dangerous, generally fatal.
abortion is of frequent occurrence. Death may take place at any time, from the attack to the end of the fifth or sixth week.

**Treatment**

The treatment was for a long time conducted upon a very discreditable plan. The older physicians adopted the heating and cold-relieving plan of treatment; they attempted to force out the eruption by applying the fresh air to the patient, and by a hot regimen, by covering them warmly with bed-clothes and sometimes giving them stimulants. Spenser was the first to change the treatment, he revived the antiphlogistic plan of the Arabian physicians, and that is now universally acknowledged to be the most efficient plan in the case of this loathsome disease. The two Spencers, Robert of Cassy and Edmund, and Daniel, of Iggatston, in Essex, fully established the antiphlogistic plan; after the introduction of inoculation, they put all of their un inoculated patients upon it during the progress of the disorder, and declare that they did not fairly lose a case. Daniel was the most successful of the two. The treatment must be conducted upon general principles. There is no specific treatment in Small Pox. To prevent a copious eruption and blister the eruption from the antiphlogistic plan must be strictly adhered
of Pelvic Catarrh is given so as to produce two or three loose stools every day. Boiling the body with cool or warm water, according to the feelings of the patient, and free ventilation over its surface when the temperature is high, also give the neutral measure or any saline diaphoretics. Galen advises against the use of purgatives after the eruption has appeared, if it is distinct, and if the pustules are confluent the patient should be carefully watched, so as to combat any unfavourable symptoms that may arise. If the pulse is full and strong, and there is evidence of inflammation of any of the important organs, bleeding should be carefully employed, and caj and leeches applied over or near to the diseased part. Bleeding does not diminish the number of pustules but tends to alleviate the patient, and for that reason it should be cautiously made use of. If there is consternation, restlessness, or insomnia not contraindicated, quietus should be administered in the form of Dover's powder, or Opium, squaw root and alcohol at bed-time. They are usually very serviceable; the warm bath is also very useful. For vomiting, blackstrap or mixture of Opium in small quantities with an effervescent draught, iced carbonic acid water in small draughts, a benzoin over the abdomen, or analgesic unguent. For cerebral inflammation
The usual treatment, cool drinks of lemonade or cold water, are
serviceable and gratifying to the patient. If the pustules do not
mature properly, strong broth or wine in moderation may be used.
In malignant cases, the supporting plan of treatment must be
pursued early in the disease, when the pustules are hard, petechial
mixed with them, and typhoid symptoms are present. Flesh, wine,
and opiate are exhibited, but the disorder is generally fatal. During
the secondary fever, the patient’s bowels must be gently moved by lax-
atives or by an enema and opiate given once or twice a day, unless
contraindicated, they relieve the irritation of the skin. The antiblo-
gistic regimen must now be discontinued and the system sup-
supplemented by nourishing diet, with wine and cordials. If the pulse be
sluggish, milk, animal broth, eggs be used in conjunction with other substances to support the strength. When oppression occurs,
slivers to the head and chest are the best remedies. To relieve
itching of the skin, cold cream, a solution of common salt in warm
water, or a liniment of equal parts of clove oil and olive oil, is
smear ed over the skin. Pseudo-membranous eruptions on the
face are treated with nitrate of silver in substance or by a
strong solution. To stop the eruption of the eruption, and pre-
vent spit upon the face, the nitrate of silver is used, the best
plan is to puncture every pustule separately and apply the caustic or the solution. To succeed, the operation must not be performed later than the third day. The Arabian physicians opened the pustules after suppuration had commenced, pressed out their contents, and washed them with warm milk and water, a description of pimple heads do. A mode of preventing pits, by the use of the mercurial plasters as recommended by Dr. Briquet, if applied early, it is said, to produce a resolution of the pustules, or later at prevents suppuration and permanent scars, the system is believed to be benefitted by the operation. The whole face is covered by the plaster, an opening being left for the eyes, nostrils, and mouth respectively; the plaster should be removed after four or five days, as it is likely to produce irritation if longer continued, sometimes salivation occurs from the use of the plaster, but it is said to be more useful than otherwise. Sulphur solution, applied two or three times a day, is said to have the same effect. Dr. Samuel Aschord of Philadelphia has advantageously used the tincture of Indigo for the same purpese, he applied it freely and over the whole diseased surface, with a camel's hair pencil. Dr. Bartowright of Hattin covers the face of his patients with a black mask to exclude the light, he believes that by so doing he prevents the formation of permanent pits.
the face. During the period of desquamation, the patient should use the warm bath occasionally, he should always do so after sleeping, before he arises again with the world. The apartment should be well ventilated, the patient’s clothing and bed clothes frequently changed, and his room should be perfectly clean during the whole course of the disease. In very mild cases nothing but cooling drinks and refrigerant diaphoretics, neutral spirit, and keeping the bowels open by gentle laxatives during the fever, be careful to guard the patient from exposure to cold, heating drinks.

Inoculation, Vaccination.

Inoculation, the introduction of a small quantity of pus from a Small-Pox pustule through the skin, generally producing the Small-Pox in a very mild form, and protecting the patient from a second or a worse attack of the disease. The Chinese lay claim to the practice of introducing some seeds into the nostrils, curing the disorder as they knew it, which they say they have been in the habit of doing for centuries. The Brahmins of India are said to have been in the habit of inoculating for ages past, by stupefying a piece of flannel in the fire, and binding it around the body. It was practiced in Turkey long before it was known to the inhabitants of Western Europe. It was introduced into
England by Lady Mary W. Montague, the wife of the British ambas-
dator to the court of Turkey. This daughter was the first person
inoculated in England, afterwards a child of Dr. Guthrie, and then
some felons who were pardoned on having the experiment tried on them,
and after a time some of the royal family. The two sisters, Robert
and Daniel, but more particularly the latter, contributed greatly
to the success and introduction of this practice. Inoculation was
not fully established in England until the middle of the
eighteenth century. The most convenient and as effectual a
method as any to inoculate, is to introduce a small quantity
of pus from a pustule into the skin by means of a puncture.
The most favorable condition of the system in order to have
an mild attack, is that of perfect health, debility or phthisis
unfavorable. The person who is to undergo the operation, should
take time before confine himself to a mild diet, avoiding
stimulants, fatigue, and use of every kind. The disease thus
produced is generally mild, the period of incubation short, the
pustules generally distinct, very seldom confluent and very rarely
numerous. The secondary fever is slight, or altogether wanting,
the pustules, scar, and desquamate very rarely leaving any scar
behind. On the third or fourth day after the operation, a slight
Picking pain is felt in the punctured part: upon examination a hard lump is felt by the finger, and a small vesicle with an inflamed base is seen. On the third day, the vesicles are well formed and dark-combatted; this vesicle increases, and at length forms a small tumour. At the end of the seventh day, rigours set in, followed by fever, and on the eighth or ninth day, the varicella eruption appears on various parts of the body. Sometimes a rash like that of scarlet fever precedes the eruption; it disappears in a day or two. This rash happens often in the inoculated than in the other forms of the disease: in the former, it is looked upon as favourable, and in the latter, if the efflorescence is of a dark red colour, it is very unfavourable; and generally the forerunner of a severe confluent case. The vesicles generally pass through the same stages as in the distinct. The original vesicle has, in the meantime advanced, and on the tenth or eleventh day, it is surrounded by an irregular area of inflammation. Occasionally the arm or very much swell, and matter flows from the sore. Sometimes this form of varicella proves fatal, but if the system is properly treated before the eruption, and the patient properly cared for, the death is very rare, according to Dr. Neges, not more than one
in five hundred. Although the practice of inoculation protects the individual inoculated, it does not prevent others from taking the disease from him. The inoculated is contagious as well as the natural Smallpox, and for that reason it is not much used.

**Vaccination**

Vaccination is far superior to inoculation in most cases, but cases do happen where it is right to inoculate, as when any one as it has been recently exposed to the congenial influence of Variola, for by so doing the inoculated gets the start of the natural disease. Dr. Gregory of Edinburgh was in the habit of relating to his class a fact which a naval surgeon made him acquainted. The Smallpox broke out among the crew of a naval vessel, in a tropical climate, and where no vaccination nor was to be had, the greater part of the crew were unprotected, and twelve of them had the natural disease. Nineteen more than one-half died, and of three hundred and fifty, those who were inoculated, under the disadvantages of a hot climate and no preparation, not one of them died. It has been known for a long time, that the Cow-pox engrafted upon man is capable of protecting
from the contagion of Small-Pox. Dr. Jenner was led to make these experiments, which have proved so successful by the universal belief of the country people in his neighborhood, Gloucester County, that anyone who had had the Cow-pox was protected against the ravages of Variola. Although not the first to conceive or practice vaccination, the whole credit of having brought successfully the practice before the world belongs exclusively to Dr. Jenner. He made successful experiments in 1796, but did not publish the results until two years after 1798. The practice from that time spread so rapidly that it became known in this country in 1799, one year after Dr. Jenner's publication. During the first year of the present century, it was practised in France, and other parts of the continent of Europe, and from thence spread to India, where indeed it was known to a limited extent long before, and from India spread over nearly all of the human world.

Dr. Jenner had to overcome many difficulties before he was satisfied as to the protecting power of vaccination. He found out that there were some persons who had been affected with cow's hands from milking, who were not proof against the Small-Pox, he found that the tails of cows...
more affected by different kinds of eruption, and it was only by observing closely that he found the true eruption for producing the desired effect above men. He attributed it to the grease of horses; from the circumstances that the tests were affected during the season of the year when the grease was common among horses, which disease he supposed was conveyed to the tests of the cows by the means of those men, who were employed to attend to both animals.

It has been since ascertained that this supposition is not correct. Dr. Mann also ascertained that some persons who had had the true complaint were not protected, this he afterwards found out to depend upon the period of the disease in the cow. The thick matter coming from a pipe-pustule gives rise to a severer sore than that from one in its first stage, but it does not produce the desired effect, as in the case in inoculation, for matter taken from a crudearious pustule is better than that from a pipe one. It is supposed by some that cow-pox is derived from the contagion of Small-Pox, taken from man and modified in the cow. By others that the Small-Pox first springing from the cow-pox or the grease of horses in Arabia,
and that, in the course of time, by passing through the
system of man, it gradually acquired its activity and
virulence. Dr. Jenner believed that Cow-pox and Small
Pox were different forms of the same disease. On the
second or third day after the vaccination has been per-
formed, the punctures look red and inflamed, and a
small elevation can be felt with the finger. On the fourth
or fifth day, the vesicle becomes swelled, umbilicated, and
contains a small quantity of a thin, turbid, and trans-
parent liquid. The vesicle gradually increases in magni-
dude, and by the eighth day a very narrow and red are-
na surrounds its base. In the seventh day the vesicle
is well formed, of a round or oval form and has a shi-
ning appearance; on the eighth day the areola spreads
and increases, up to the tenth; the vesicle enlarges
and measures from a quarter to one half of an inch
across and from one to two lines in height. The vesicle
is more prominent at its circumference than at its
center, and contains from twenty to thirty minute cells,
any one of which can be carefully punctured without
disturbing the rest, and there is a feeling of itching.
and ten days at this period. The eschar begins to fade on the eleventh day and by the fourteenth, it is nearly invisible, it leaves behind some hard, dry, crusts that last for three or four days more. A round, yellowish-brown crust that by then forms over the eschar, this gradually becomes hard and gets darker and more prominent, and about the seventeenth day, it separates from the skin, leaving a circular depressed scar, which is at first red, but gradually fades, becomes white and rises to nearly the level of the skin, the cicatrix is marked by small pits, probably corresponding to the cells of the eschar. About the eighth day a slight fever comes on, corresponding to the second fever of variola; the glands of the axilla are sometimes swollen and painful, these symptoms soon subside, without unpleasant effects; the febrile symptoms are considered to furnish the desired protection. When it is desired to know if the one febrile has run its natural course, the patient is revaccinated four or five days after the first operation, on the other arm or some other convenient place, and if the system has been properly affected, the second pock will run its course so rapidly that
it will increase, decline and disappear as soon as the first; the second vesicle and its erela will be smaller than the first. If the system has not been properly affected by the first operation, the second vesicle will run its natural course; if this happens, it should be tested by a third. This plan was proposed by a Dr. Blys.

It is better not to vaccinate infants until the third or fourth month; they ought to be in perfect health, but they should be vaccinated at once and without any preparation if the epidemic is prevalent, or if they have been recently or are likely to be exposed to the vari-
dous contagion. Plethora or debility are unfavourable in adults; extremely hot or cold weather is also very unfavourable, spring and fall are the best seasons of the year for performing the operation. The material to be employed should be either the lymph taken from a vesicle on the fourth or fifth day, or the dried root of the vesicle after it has arrived at maturity. If the root is kept in a cold place and excluded from the air, it will keep for some months, often for a year. It is easily decomposed by heat, and for that reason
it should be kept in a cool place, and not carried in
the pocket for any length of time. For better preservation
it is well wrapped up in tin foil and well covered with
wax. It has been the general belief that the virus
loses its power by passing as frequently through the system of
man, but there is no good foundation for that supposition.

The matter from the eru is more powerful and gives
rise to more inflammation, but if Dr. Jenner's opinion is
true, that the eru is affected with several kinds of prep-
tation, which may easily be mistaken for the genuine dis-
ase, it is certainly better to accinate with the real form
in a human subject. The operation is generally performed
on that part of the arm near the insertion of the deltoid
muscle. The matter is generally collected and subjected to the
consistence of thin musilage is of a put from three to tow-
by incisions are made with the point of a lancet, and
the inanimate matter is worked into them. There is
another operation which consists in making several
minute incisions crossing each other and applying the
matter to these; a dull lancet is best, as it does not
draw much blood, which is likely to cause the
Vaccination matters. If the first operation is not successful, it should be repeated several times; occasionally the operator will succeed by delaying the second attempt for some weeks or months. If the scar fails to produce the desired effect, lymph from a vesicle should be tried. I have started in a former place the mode of Mr. Byron for testing the genuineness of the disease, care ought to be taken to prevent the vesicle, during its progress, from being broken or injured in any other way. Rescanning should be practised in every doubtful case, or in cases that have not been exposed to the Smallpox contagion. It should also be performed every month or twelvemonth, and during an epidemic, and the physician should also vaccinate himself after or before seeing a case.
An
Inaugural Dissertation
On
The Signs of Pregnancy
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
Milton Hammond
of Pennsylvania
It being one of the require-
ments in the medical department of the
University of Maryland, that each stu-
dent should, upon having placed his
name upon the list of candidates
for graduation, prepare a thesis for
examination. I beg leave to offer the
present for your consideration, and
have selected for my subject
The Signs of Pregnancy.

This subject is one
which should deeply interest every
medical man, from its very great
importance, and much as he may be
called to decide—when his opinion
may be asked—. The honor, and in
many cases the happiness of a fe-
male, may depend upon his decision.
The peace of families may rest upon it,
and the inheritance of property be controlled by it.
It does not therefore confine him to that sphere, where these can be no shame involved; and these conception may be doubtful.

In treating of the subject at present to be considered: They have the enter immediately onto the signs by which we are directed, in being called to the decision, rather than attempt to dispute any disputed points or doubtful indications. Sufficient appears to be known to make out our diagnosis with considerable certainty; or combining several signs which may be present even in the earlier state of conception.

One of the first circumstances which leads a female to believe she is pregnant is the non-appearance of the menstrual discharge at the regular period of its return. Yet this though generally occurring may in some cases
Not happen; since cases are on record when the catamenial flow is not checked or when the discharge never having occurred may commence, and continue at regular periods during menstruation. Conception may also take place immediately after the female has ceased to give suck, before it has had time to occur. There are many diseases also which check the catamenia, and in which cases conception may take place. The most of which we shall all agree is that of morning sickness.

The sympathy shown between the uterus and stomach, is this very strikingly remarked, by the great uneasiness produced in the latter, which gives rise to symptoms of a varied character, producing generally considerable nausea and vomiting, often continuing till vomiting is ease.
I may here remark that this may occur immediately after conception. As a case in point. An intelligent physician of this city, was called to see a young lady, who was suffering from morning sickness, and its accompanying effects. Upon inquiring in respect to her case, he perceived that she had conceived; and upon making further examination as noticing the breast, he was as well assured of the fact; that he charged her with having had connexion with a man; to which she very frankly acknowledged, stating the only times to have been once just before and once immediately after the catamenia, these weeks only having elapsed since this period. Subsequent circumstance forced her to have conceived. But the usual time for this sickness to come on is about the fifth week after conception; and to cease about the third month.
This sickness usually lasts from ten minutes to an hour, but there are many instances where the patient may suffer for during the whole day. And instances are on record where it has been necessary to produce abortion in order to preserve the life of the mother. Conception may exist however without this sickness—and sickness very much resembling this, may exist without the female organs concerned.

The salivary glands may also be affected by the irritation produced in conception; this though not as frequent an occurrence is still worthy of notice in connexion. It may come on at any period, and continue until the eight or even the ninth month. It is easily distinguished from ptyalism indeed by mercury by the absence of smell of
the gum and the peculiar factor.
The mass of which we shall speak are the mammae and their sympathetic.

Naturally about the second month, the breast appear to change—the female feels an uneasy sensation of fullness, with throbbing and tingling pains in the substance and at the nipple. They have a firm, hard feel of swellings, as they increase in size and firmness, but the coloring of the areola may be even more significant, since the other may all occur under other circumstances.

The areola darkens, changing however with respect to the complexion of the female.

The face may have very little of this color; while the brunette may be very strikingly marked. After some time also a milky fluid is secreted which will often moisten the linen; the change being perfected at about the fourth month.

The nipple after a time become
prominent as also the surface around (the axil) particularly that of around the base of the nipple, is rendered unequal by the glands, or follicles, which may be seen to project from one to two lines. This last sign however, I think can only be relied upon in the first pregnancy; after which time the appearance has become so altered that it is of little or no importance.

From what has been already said then, the signs of pregnancy are at most doubtful in the early months and we should not be warranted in declaring a woman to have conceived unless we were able to combine two or three of these signs as existing at the same time. Those which we shall next notice are much more certain and thus the distinction has been made and termed certain and uncertain.
The uncertain signs continue until the fourth month, and after that period the certain signs commence.

The first to be considered in speaking of the latter clap is the increased size of the abdomen. The gradual growth of the fetus is very much the same in all cases, and thus we are enabled to estimate very nearly the period of pregnancy in every case. During the fourth month the uterus may rise above the symphysis pubis, and thus a rounded tumour may be felt which gradually increases until it fills the whole abdomen. When the uterus has extended as in the fifth or seventh month, the umbilicus is pressed out somewhat and the navel may lie at a level with the surrounding part, and later in pregnancy it is projected even beyond the abdomen. The feel of the distention decides—
very considerably, hence the uterus or uterine
tumor is round, hard, and elastic,
and preserving its form in every position
of the body: although in the upright it
is more marked. When acetis is present
there is not that firmness; the tumor is not
defined, and the fluid always obeys
the laws of gravitation, being more
prominent on the depending part.

Pecussion will also
determine between pregnancy and
typhomania. It is true known that
the uterus on ay become distended by
air or fluids, and the same signs may
be present; the tumor hard, elastic, and
enlarged; then the history of the
Case must decide, or an examination
must be made into the contents
of the uterus.

The term quickening has been
used to express what was supposed to be
the first movement of the fetus, as occurring about the fourth month, and with the erroneous idea that the fetus had only commenced to live; this doctrine however has exploded, since we have reason to believe that the fetus lives from the time of conception; and also that the movement of the fetus takes place at a much earlier period. The facts in regard to the smaller organs to be turned up in an extract from Dr. Fletcher of Edinburgh as follows.

"The movement of the fetus, whilst in the uterus, in the cavity of the pelvis, are not felt easily, because the uterus is not supplied with common nerves of sensation, and it is surrounded by fat equally deficient; but when it emerges from the pelvis, it comes in contact anteriorly with the abdominal fasciæ, which are liberally supplied with
with sensitive nerves, and which by contiguity of substance, feel the movements and thus the woman becomes conscious of them. This also is strengthened by the fact, that the movements until very violent are felt only in front.

In respect to the cervix, unless the changes commence about the fifth month, it then undergoes a change, loses its natural form, and is left elastic, slightly puffed and dilatable. At this period it is shortened but little, at the end of the fifth month, it loses one fourth of its length, at the seventh one half, at the eighth three fourths, and at the ninth, the entire cervix has disappeared and nothing can be felt except a ring.

A vaginal examination will also enable us to ascertain not only the state of the cervix, but also to decide upon the presence of a fetus by percussion.
As regards this mode of paracentesis, the patient should better be in an upright position; if placed in bed the shoulders and head should be elevated. The operator must then introduce his index finger, and place it upon the convex uterus, whilst with the other he steadies the uterine tumour; then suddenly give a slight just upwards, with the finger, he will then feel the body move from his finger and in a few moments return again; this jet gives the body rise in the Seigneur amni, and it will descend by its own weight.

Should a body be distinctly felt, it is most conclusive proof that dead or living a fetus exists in the uterine; since restitution never produces a like effect in any disease or the condition of the organ.
The period at which this test may be most satisfactory is between the fifth and sixth months of the gestation.

The next of which we shall speak are the auscultatory signs; the most certain of all the signs, as indications must which can only be known by means of the stethoscope; and some of the signs which when once heard, cannot will be mistaken for any others. As to the mode of making this examination, it may be performed by applying the naked ear to the abdomen, or by the use of the stethoscope; this latter is to be preferred decidedly, as in most instances the most convenient and by it we are enabled, more nearly to define and localize sounds.

The manner of performing this operation is it possible to place the patient in bed, upon his
back with her head and shoulders elevated, and the abdomen covered only with a sheet beneath.

In this way all the part of the abdomen, and especially the posteriorly, when the patient may be laid on her side, and thus examined laterally. The operator should always be very particular, at the same time that he maintain a position to himself, that the patient shall be perfectly easy, in order that he may hear only the sounds within the patient, and not be confounded by the throbbing of his own arteries.

The first of these sounds of which we shall speak is the vesicular souffle, it is an intermittent whis-}

sring sound varying however, much in intensity, and generally heard only a part of the vesicular surface.
of a sea shell pressed to the ear, or to the sound made by blowing over the mouth of a bottle, or the sound produced by the action of a pair of bellows. This sound has been said by some to be confined to the situation of the placenta. But it is at present well known that it may be heard in almost any part, particularly by making slight pressure. The time for first hearing this sound is very variable; some authors have stated that they have heard it as early as the tenth week, but the experience of most writers tells us the fourth month is about the average period. It varies also in intensity; at first heard it is feeble, but grows stronger; it is very distinct, it may always be heard however before the foetal heart
It is also synchronous with the pulse of the mother and partake of all its variations. This sound has as I have remarked been considered by some as belonging or confined to the placenta; but further investigation has proved that it belongs rather to the uterus. Dr. Kennedy believes it to result from the difference between the calibre of the arteries supplying the uterus and the uterine sinuses, that the ex-Expanding current of blood entering an artery into a larger sinus gives rise to the sound, just as the passage of blood through a contracted valve of the heart or aorta does to the emit de Souffle. Many other explanations have been offered, but all now tend to prove that it is in the uterus and caused by the circulation.
of the blood in that part. These sounds may however be heard when pregnancy does not exist, owing to disease, and therefore we might be mistaken were we to depend upon this sign alone. It may also be heard when you press an artery, with a stethoscope to any considerable extent, neither will it tell us anything in respect to the life or death of the child.

The next and decidedly most important of all the signs, is the pulsation of the fetal heart. This sound is very different from those just described. It consists in a rapid succession of short, regular, double pulsations resembling those of the adult heart, except that they are much weaker and very much more frequent being from one hundred and twenty to one
Trended end forty beat in a minute; the rapidity and force with which the foetal heart may beat depend however upon the sign of the mother, as also the strength of the pulsation which we can only account for by the intimate sympathy between the mother and child; since the foetal circulation is entirely dependent on that of the mother.

The situation in which this foetal pulsation may be heard most distinctly, is very variable, but more generally up on the left side, in the middle of the abdominal region. The extent of surface over which it may be heard is by no means constant. The time at which this sound may be heard is from the fourth to the fifth month; perhaps they have been heard before the fourth month, but this is exceedingly rare if
it happen then; and when the sound is not heard until the fifth month, it may be attributed either to the great expanse of the liquor amnii, to the thickness of the wall of the abdomen, or to the feebleness of the foetus. When this sound is heard it is proof so strong in favor of the existence of pregnancy, that it can neither be imitated nor sounded.

The only circumstances that could at all embarrass, are the sound of the heart of the foetus, and this to the close observer can only be in the moment, in contrast to the beating of the foetal heart is so much more rapid, and clear than that of the mother. Nor is it conclusion of these sounds be not always heard, that the female is not pregnant, since the child may have
and, for some reason which we cannot explain, these sounds may not occur for a time, although the foetus be alive.

The next to be noticed is the pulsation of the umbilical cord. The position of this cord away in many respects be favorable, as for instance if it be twisted around the neck. Body, or limbs of the foetus, and thus present itself favorably in respect to the anterior or lateral branches of the artery.

It is also possible to hear the pulsation of the arteries, corresponding to the action of the child's heart, either by the ear or the use of the stethoscope; or even by the touch, it may be felt rolling under the finger. In some instances, however, this sound may be a struggle rather than a pulsation. But they may always be distinguished by their more-
resonance with the foetal heart rather than that of the mother. We have now considered all the signs upon which we may rely with any certainty, and yet no two of these signs can be depended upon alone; but combine and we may attain to a conclusion we may say indubitable. I beg leave however before I close, to say a few words in respect to two substances which may be met with in pregnancy and which have only been noticed within the last few years. The first of which I shall speak is a peculiar principle found upon examination of the urine in pregnancy. This urine when being put on a test and stood for twenty four or forty eight hours is then noticed to be covered with a white flaky matter which has received the name of histamine.
In Equilius states that the urine of a pregnant woman, examined in the morning is generally of a salt yellowish and slightly milky, it first reddens and then turns blue; exposed to air a cloudy jelly is observed from the first day, resembling fine wool, at the same time a white deposit may be seen, upon it being kept for a few days, small opaque bodies are seen rising from the bottom and being as deposited upon the surface as entangled to cover it.

This may be seen from the end of the first month to the end of pregnancy. Some writers have thought this appearance to be constant, and as such as it may be, it at least deserves a place among the signs in connection with this important subject.

The mucous membrane of the vagina and labia, has also been held as to be
of a violet color, depending upon
pressure from above, the vein may also
become varicose, and thus this con-
dition will be produced.

In respect to the lips
which indicate true pregnancy
it seems not to be necessary to
date, inasmuch as the general
signs, are the same as those belong-
ing to one feature; the abdomen
however is larger, upon which the more
generally depend. The abdomen is
somewhat flattened in front, consider-
able the quality of surface is
observed; these are not however
to be greatly depended upon. The
most decided test, that there are
two follicles, is the uterus is the
found of the follicles, which may
generally be heard on either
side.
Having thus treated of the signs of pregnancy, and noticed those which have been offered by most modern writers upon the subject, I beg leave respectfully to submit them to your consideration.
To the Medical Faculty of the University of Maryland

This inaugural essay is respectfully dedicated and submitted for their examination by their obedient servant

Julian Bain
The subject selected for this thesis is Silurium Furans. The preference of choice will it is thought be approved of. When it is said that this disease has appeared during a period of two and one half years in the Baltimore Almshouse, in which place Mania a Pote is a prominent disease.

From the Catalogue of the Malignant Colonic and diseases; the human race is cursed with, no other cause more prolific in its ill effects can be pointed out than indulgence in strong drinks. This fact is probably more obvious in the United States than in other countries, owing to the wide disparity between the wages of labor and the cost of alcoholic fluids, thus rendering intoxication, comparatively, a matter of very easy accomplishment.

I may also say, that without doubt, nine tenths of the diseases met with in the Baltimore Almshouse are caused by, but the proper phraseology—“Whisky” and as this disease when born in its dread array of symptoms mostly leaves an irrepressible impression upon a new beginner, I have done right in
Delirium Tremens

This disease has several other apppellations viz. Mania a potu - Delirium tremens - Brain fever etc.

Its prominent symptoms are - great restlessness - tremors - nausea - cold clammy skin constant watchfulness - a wandering suspicious eye unable of being fixed directly a moment upon any one object - incoherent talking and mental illusions.

Causes

This disease is usually induced by the sudden deprivation of alcoholic stimulus from an individual who may have been for a longer or a shorter period in the habit of indulging himself in strong drinks - Opium may act in the same way. It is to be remembered however that
cases by the latter being not frequently met with.

The sudden abstraction of the customary stimulants is brought about in various ways, both by public and private means, and particularly with those of the alms-houses, it happens somewhat in this wise.

About all our large towns, our market houses and other public places are to be found a number of beggars who by rendering tiring services are enabled to earn from their casual employment twenty-five cents daily—often less—and are thus enabled to acquire the means to obtain food sufficient to support life; but unfortunately owing to our horrible license system they can also procure liquor at one cent a glass in quantities sufficient to keep them from day to day in a constant state of debauchery. By some means or other, such as breaking the law or being found lying in the street, he is taken by a policeman to the lockup and there remains all night and part of the next day, thence he is conveyed to the alms-house. There he can be seen laboring under the symptoms of this frightful disease for a period of time varying from twenty-four hours to one week in duration; prisoners sent to jail, soldiers and sailors ordered to join their regiment or ship.
Ship about to march or sail are for the same reason equally liable - surgical injuries and sickness by confining the sufferer to his bed and consequently preventing him from returning to his customary rotations - can also induce an attack - the disease may also arise from want of the use of outward spirits - that is in the person of an irregular drunkard or spree - knowing them too hard mania delirium originating from the want of and the excess of the abuse of stimulants - is a matter of importance to ascertain the previous history of the patient likewise in the latter case there is almost all cases Saturn intro hod is intense
Some authors consider great mental species, masturbation and inordinate venereal indulgence the classification is held by the profession in general as probably not correct.
A careful sketch of the effects of alcohol will perhaps be of some use in tracing out the symptoms of the disease.
Its effects when indulged in small quantities is simple experiment indicated by increased actual action, talkativeness
greater brilliancy of the eye – flushed countenance – repellant of the Muscular System mental confusion and recklessness, of conduct. Lately in large quantities, a quack delirium is evidently manifest to an observer, the patient being preserved in, the good. The person in that stage vulgarly called “dead drunk.” This phrase is characterized by intense nervous prostration, mental oblivion and total loss of control over the voluntary muscles.

Symptoms –
After a simple debauch of one night the early morning of Bacchus, awake next morning, with headache, loathing of food, mental depression, confusion of ideas, want of tone in the Muscular System and a general feeling of “malaise.”

This condition of the system requires but little other treatment, than rest and abstinence. But as Dr. Watson says, “a hair from the dog that bit in Uncle Ben we can follow at his species removed by giving Atropin or some other simple stimulant in hot doses. A protracted debauch develops these symptoms in a more aggravated form – The Delirium
tacks a reddish hue showing capillary engorgement. The skin becomes hot and the face flushed, the pulse hard, full and frequent, the tongue: rough and cracked. The countenance expression, terror and distemper—great vigilance and constant restlessness are usual concomitants. If there is slumbering it gives no relief. There is more or less of delirium and incoherence of ideas, total loss of appetite and commonly constipation. This train of symptoms is more usually found in the case originating from want of liquid and can be arrested and cured, or it may pass into the stage about to be described or into coma and death.

In persons who have drunk for years and who have drank day and night, then two ounces daily taken by some cause or other alleviated in the first part of this paper the usual supply is cut off, we find the indemonstration—terrible and delirious in a more marked degree: the incoherence of ideas becomes perfect. The skin is cold, cold and clammy to the hand. The pulse frequent, soft and compressible and the tongue moist. - Arefuse perspiration breaks out on the slightest operation. The patient is unable to guide his hand or limbs, often misfiring the object aimed at. Mental illusions now begin.
how to occur: he fancies he is bettet by some evil spirit: that he will be murdered, that he is infected by venom or that insects and rats are crawling or running around him while in bed, or that some furious animal is about attacking him. visions of frightful images are seen by him and speak to him, the house where he is lies on fire, or he is about drowning. numerous other illusions could be mentioned, but the above sufficiently well illustrate the more usual ones. all these visions were steady and firm conjured up by his excited imagination he attempts to combat or overcome, and restrained from doing he will turn upon his friend or nurse and attack them with the greatest fury. when thusified he will entreat and pray in the most heartrending manner for protection or will attempt to break down doors and windows in order to escape his fancied persecutor. sometimes his delirium is so agitated that it is dangerous for his attendant to approach, when in this condition it is requisite to use the greatest care and caution to not only prevent him from injuring his nurses but also himself. this occurred in the balls. insidehouse with two patients.
patient - one whom died from a fracture of the skull which she inflicted on herself by clashing her head against an iron bedstead—she cut his throat not however seriously and finally got well. Another broke the iron bar of his window with the rail of a bedstead in order to escape from an ill-tosy murdered and the people who made expedition to capture him received several severe hinted. These untoward accidents may be easily obviated by having the musk or length in the room where the patient is confined and that when it is re- collected that the device, and time are more useful in the night than the day time should always be insisted on. A woman who had from dose of Brandy and opium nearly recovered was again attacked by being forced to sleep in a dark room by herself although she cried and entreated in the most agonizing manner not to keep there without some one being with her—as soon as her request was granted she fell off into a soothing sleep. This conceit are quite amusing to the most notorious vagrant most highly indignant at being confined asserting that he would lose a contract he had made and consequently forfeit several thousand dollars.
Diagnosis - This not very difficult, for when we group the alarmed and restless suppression of the countenance, the peculiar character of the sweat - the absence of pain (unlike in the back region) and convulsion - and the changing form of the mental illusions we are not a loss to distinguish this disease from Brain fever.

Diagnosis -

The termination of this disease without the complication as hypertrophy of the heart, cerebral and gastric inflammation is seldom fatal.

Pathology

It is said autopsly arrows, congestion and inflammation of the brain, this is again controverted. Alcohol has been found diffused through the brain and in its conduits, this fact can probably be accounted for. By the labor respiration and deficiency of vitality in the organic functions which precede death.

Coates thinks delirium tremens to consist in a heightened activity of the Sensorium from the generation of inordinate vital activity in the brain - Jas. Johnson, C. Ayres and others.
other eminent British practitioners entertain similar views. Dr. Clapp has said that the stomach is the seat of the putridate or the actual irritant, that gastric ulcers alone in the actual putridate cause, but Dr. Slaughter more boldly argues that "delirium tremens has been caused by emetics and what prudent physicians ever thought of administering those remedies in gouty disease, and I notice that in several cases of idiocy tremens the post mortem showed no signs of gastric inflammation— that the pathology of the disease is involved in doubt and obscurity in our minds beyond doubt I gladly leave this part of my essay and proceed to the treatment.

Treatment

Delirium tremens should be treated according to the cause which has induced an attack of the disease. If caused by a want of the stimulus used, we must have recourse to Brandy and Opium—Brandy to restore the action of the nervous system which has necessarily been impaired, by under excitement and Opium in place of the antiperistaltic (to carry out the demonstration) to adscit to repair its weakened elasticity—endo Opia and acet.Aayi
are probably the most convenient forms of administering opium. The usual practice which I have had a chance of trying is to give this

the wine gallicii 3i. Lineae Opici 8l. XE for

the first dose. For the second, third, fourth, &c.

the same quantity of brandy with laudanum

in portions of twenty five or thirty drops —

until sleep supervenes —

Then a case is met with induced by the

effects of strong drink — (more particularly in

a person not ordinarily in the habit of drinking).

brandy though efficacious in cases otherwise

carded is absolutely inadmissible — For then

we have them almost without exception either

Gastitis or Gastric enervation and consequently its

administration would be injurious — The most

applicable prescription in this form of the disease

would be Opium 4 grains Camphor 3 grains

and Sitron — for instance

Opium 8 grains. Camphor 3 grains to be

made into six pills one every two three

or four hours — A more pleasant way of ad-

ministering the Camphor is to make an emul-
sion with sugar and gum arabic and

then add laudanum or the Black Drop in

the desired potions.
The treatment refused to above is generally applicable only to such cases as are met with in hospitals and charitable institutions. But when as is not seldom the case a person is met with who has been engaged in a de-bouch which has lasted but from two to six or eight days, and where we find the full bounding pulse and hot skin with epigastric tenderness, denoting visceral and cerebral disorders — it is evident that the plan of treatment must be essentially altered. Ice must be applied to the head, cupping or leeching on the abdomen, &c. &c. &c., combined with antispasmodics, be cautiously administered. Antimonials, well known evaculant agents in diminishing vascularity, are reported to be useful in the case of Delirium Tremens. Although St. Lewis of Dublin implores, upon his grades the danger of giving stimulants in Delirium Tremens, yet we find Dr. Harrod of Philadelphia an advocate for the exhibition of alcohol in almost all the forms of this disease. And it is singular that out of ninety odd cases I have known not one of them resulting in inflammation of the alimentary tube.

Dear gentlemen, your most obedient servant, Julian Bain
Une dissertation inaugurale sur
le Phthisie pulmonaire,
presenté à l'examenation du prévot, des régers, et de la
Faculté de Médecine
de
L'Université du Maryland,
pour le
Doctorat en Médecine.
par
Victor P. Richard
Baltimore, Md.
La marche et de la durée de la phthisie pulmonaire.

Je m'etait contenté de la révision des analyses diagnostiques des maladies de l'homme, la recherche était donc faite dans une effrayante proportion. Un siècle de maladies de l'homme de Philadelphie, de même, de l'histoire de la maladie, et cette affection, se rapproche... Ce qui est malheureusement que trop

Cette maladie est née en France, plus haute antique, et existe, reconnait un point encore d'individus même de la maladie, qui de faire dans les temps anciens des recherches comparatives sur ce sujet. Il s'agit que la phase des siècles de la vie des peuples, de leur éducation, de leur constitution, de leur race, de leurs résultats attendus; mais cette phase est longue, et difficile surtout par le fait de précisions faites qu'un brave... transient, ne peut être placé dans les limites de mon travail.

Est aussi moderne et que s'imposerait le désir de cette heure. Ce qui est, dans le temps qui a passé, des travaux de la plus haute importance ont pour eux le sujet dont je m'occupe, et il faut le dire, est seulement depuis lors qu'on a établi une limite bien exact, qu'on a donné un sens précis au mot phthisie. Avant Bayle, Lennec, toute hérédité autonome était appelée phthisie. Bayle le premier, effraye ce mot à certaines productions moribondes du poumon. Lennec rétablissant l'idée de phthisie tuberculeuse, misérable, sans doute, que Bayle avait voulu introduire, était que le ressort... phthisie... essentiellement cette maladie. C'est le même de l'alcoolisation et de la persistance, les travaux d'anatomie pathologique de Lennec, sur ce sujet, tournent un... singulier jour sur la tuberculose pulmonaire. A la même époque, Broussais, se plaçant sur une autre point... est, après avoir résolu cette question, et de nos jours, M. de l'Institut. Lennec, Broussais et autres sont... avons enrichi la science de leurs belles recherches sur ce sujet.

Anatomie pathologique. — Le tissu est une production d'un flanc jouante, de forme ronde ou...
vide, de volume variant depuis le grossier d'un petit pois jusqu'à celui d'une petite orange. On et frais d'abord, il se
semblait ensuite, apparaît comme délayé dans du sec, et après avoir formé des cavernes dans le poumon, il est
projetti par la bronche, ou vit dans la prêtrine, et l'ut trie ensuite dans la cavité pleurale. Tous les tubercules
évoluent dans le tubercule. Ainsi avant de frôler celui-ci, il convient de répondre quelques questions qu'il se préoccupent
l'une. Quelle est la forme primitive du tubercule ? S'évoque comme un premier dépôt, ou petite
granulation grisâtre qui se manifeste lorsque tumeur dans le poumon, rose, auxquelles il appelle
l'origine primitive. H. Andral évoquait cette manière de vie : selon lui, les tubercules pourraient parfaitement
exister sans avoir été précédés par des granulations grisâtres, et, s'appuyant sur l'analogie, il montrait que les tubercules
se développaient de prime abord par une forme géante, dans les ganglions lymphatiques, voir leur manière pouvaient être
 suivre.

Ayant remarqué l'existence simultanée d'hystidites dans des poumons d'animaux pathologiques, certains
observateurs pensaient que l'hystidite était probablement l'origine du tubercule. H. Andral, conseillant
dans une série d'expériences qui avaient pour but de produire artificiellement des tubercules, chercha à
d'allier qu'ils se déposaient sous des tissus lymphatiques. Cette dernière origine n'a pas été admise, pour la raison
bon simple, que l'hystidite est un élément organique, et que le tubercule n'a offert aucune trace qui puisse
démontrer son existence. De nature, le mode d'accroissement du tubercule, ont à peine été observés
par H. Andral, cependant il tend à voir que c'est des produits visibles qui se développent par
intussusception. Comme H. Andral, pensese postulé à croire qu'ils se développent par agglutination, selon les
lois des corps inorganiques. Quel est le rôle de ces corps ? Cette question, vivement agitée par Brossard
au profit de sa thèse, donna lieu à des grandes controverses. Selon Brossard, la nécrose de la matière
tuberculeuse s'opère toujours dans les ganglions lymphatiques du poumon. Il se basait,
Il est vrai que les phlébites étaient fort souvent secondaires, que c'était dans les ganglions lymphatiques que se développaient le plus ordinairement les tubercules des autres régions; enfin, que dans les lombrics de phlébites ou remarquant-toujours les vaisseaux lymphatiques gorge de matière tuberculeuse, les mêmes considérations lui fournirent matière à déterminer la nature de la maladie; nous aurons à revenir plus tard sur ce point. Quant au fait d'anatomie pathologique, il est vrai que fort souvent les vaisseaux lymphatiques sont enragés, mais ils sont loin de l'être toujours. Ces mêmes ganglions du poumon ne sont admis que par analogie, et l'Austral les conteste. On admet plus généralement signalé l'endroit où les tubercules se développant dans la trame vasculaire du poumon. Une autre manière de voir leur assignant pour siège des vésicules bronchiolaires, s'il en était ainsi, pourquoi la matière tuberculeuse ou verrée elle pas plutôt aspirée? Dans l'état actuel de la science, je ne pense pas que cette question soit complètement éclairée.

Toutefois, les conséquences de ces mots mettent à même d'apprécier le vague qu'il règne encore sur certaines parties de l'anatomie pathologique de cette affection. Les tubercules affectent de préférence le sommet des poumons; ils se rencontrent le plus généralement dans l'espace compris entre la clavicule et la quatrième côte; il n'est pas rare de les voir se produire à la partie postérieure. Le poumon droit est le plus ordinairement atteint. Tantôt ils apparaissent isolés, tantôt ils sont disposés par groupes qui se jettent, se rompent, et forment des cavernes. Ces tubercules sont le plus souvent superficiels, aux fréquemment prouvant qu'il y a eu dessous d'eux une lamine de poumon sain. On voit quelquefois la matière tuberculeuse infiltrie en marge, poumonée et à la de tubercule jaune. Enfin, après avoir épuisé des transformations diverses de volume, selon le mode que nous avons signalé plus haut, les tubercule, après un certain époque, se rompent, jusqu'à ce qu'ils soient dits crus. La théorie de ce remobilisement——
qui est due à M. Lombard (de Génoise) me paraît très souveraine. D'ailleurs il, la matière tuberculeuse séjouz sur le tronc pulmonaire à la manière d'un corps étranger, produisit une inflammation suppurée qui infiltre chaque molécule tuberculeuse, le délai, le rend proche à être capsulaire. Cette matière de vin qui paraît si simple, est prodigieusement composée par cette observation que, le plus souvent, le tube infiltre se ramollit à son centre. Dans ces cas, plus rares que ne le pense, dit M. Lombard, ce sont des petits tubercule multiples dont le centre est absent ou suppuré. Prenons à l'analyse, le tubercule a présenté 9,15 de matière animale, 85 de matière calcique. Quelque fois la matière animale dont il se compose est absorbée, et les cellules disparaissent. La transition de ces divers produits se trouve formé une espèce, qui se révèle, et peut rester assez longtemps sans effet appréciable. Nous arrivons à une partie fort importante de l'histoire du tubercule, et pendant quelle se fait seulement possible de les diagnostiquer d'une manière positive. La matière tuberculeuse ramollie infiltre les tissus qui l'environnent, le détruit, et au bout d'un certain temps, elle se capte, alors elle laisse à la place un vide, une écaïre, le plus souvent elle se communique avec la branche seulement et si elle est petite, elle représente assez bien l'irritation d'un de bœuf hygane. Mais lorsque de grandes masses se sont formées, lorsque surmontant d'autres plus amples proches sont venues se joindre à elle, la cavernce est bien de présenter la régularité et l'apparence que nous signalions : elle est en partie pleine de moment; on y voit contre de rares tissus formées par des bruits de prononcée. Il peut arriver que ce prolongement se termine plus à l'organe que par une très petite branche. Les rameaux bronchiques sans détroits, et d'abord chroniques à plein sang dans la cavernce. Quand aux vaisseaux, ils sont le plus souvent refoulés contre les parois, ou en le vit rompus, dans quelque cas rare, ils forment des joutes d'un bord à l'autre de la cavernce; alors ils sont généralement libérés et à, par exception, ils ne l'étaient pas, une hémorragie, qui peut être fort grave, mortelle même.
est imminent. Les parois de la cavité sont, à l'origine, tapissées par une pseudomembrane, qui se
développe par plaques isolées; plus tard, sous celle-ci apparaît une couche de tissu cartilagineux, se
continuant avec les branches membrane qui peut se détacher de plus en plus, et opère la cicatrisation
de la cavité. A l'intérieur, le tissu pulmonaire est généralement infiltré de maladie tuberculeuse, tantôt
en nappes, tantôt en masses isolées, quelquefois formant des zones qui intercesent de espaces vains.
une. Chose déjà de remarque, c'est que sur tous les pneumons qu'il a examinés, sauf trois, il a
seulement trois des ados de tuberculose réunis. Ils affectent plus particulièrement les parties
qui nous avons signalées comme huit d'élection des tubercules; ils sont tantôt superficialies, tantôt
profondes, s'ils sont en contact avec la plèvre, elle s'inflamme, se transforme quelque fois en
plaques cartilagineuses; d'autres fois s'alébite, et il se produit un pneumothorax. Si la cavité
est recouverte d'une lame de pneumon cave, qu'elle soit sur tout petite et isolée, elle peut donner
lien à des mépris importants de diagnostic; que nous aurons occasion de signaler; on en
s'embarie rarement au centre du pneumon. La pleurèse, la pneumonie, la bronchite,
accompagnent le souvent les tubercules, qu'en arrêt en entre ces affectations un rapport de
cause à effet: aussi n'est-il pas rare de rencontrer sur des pneumons de phthisiques toute
ces inflammations à des degrés divers. Ces altérations méritent plus grand soin pour aider à
l'épuration des symptômes; aussi il a été arrivé maintes fois que des tubercules se soient
sçus des sujets morts de toute autre maladie, sans qu'il y eût eu jamais phtôagraie pulmonaire.
Simons année. — Les altérations dont nous allons essayer un aperçu rapide, se rattachent si
intimement à la phthisie par leur fréquence dans cette affection, qu'aucune n'a d'armes sans en
dériver les causes sans silence. Le plus temps on avait signalé la coïncidence de altérations du
l'amygda avec la phthisie tuberculeuse, il est vrai, à constaté des leçons de même nature, qui se démarquent sur l'épiglotte et sur la trachée. Toutefois la membrane muqueuse est simplement rouge.

[Hors de propos] il est alors superficiellement et anormalement altérée ou même que la même cellule hypertrophiée, comme l'affleure, montre l'altération plus profonde, et ouvrent des taches cardiaques qui restent détruites. On pense que les cachets extérieurs des phthisiques jouent un grand rôle dans la production de ces altérations. Ce qui précède généralement un dégât d'une entente assez notable; ces spots sont souvent sibériens; serait-ce par opprimissement des liquides? Sujet l'estomac le siège de hémorragies importantes, dont l'origine est vivement controversée. Ces mêmes dépôts d'altérations que nous avons signalées sur la muqueuse se rencontrent ici; tantôt la membrane est rouge, tantôt elle offre l'aspect rougie-laine; tantôt elle est rougie, comme infiltee, et déchirant avec effort. On y observe aussi des ulcérations plus ou moins profondes, qui peuvent aller jusqu'à s'envelopper, jusqu'à perforer l'estomac! Est-ce le résultat d'inflammation? Cet état est-il provoqué par une accumulation insalubre de bile? Les raisons nombreuses ont été alléguées de part et d'autre. L'altération du foie, dans la phthisie, a été signalée de tout temps; le volume de cet organe s'accroît d'une manière évidemment, et devient d'aspect jaunâtre, pourquoi au toucher? S'inclinerait-elle, par une faible, d'une façon assez rapide. Enfin l'intestin grêle, et le gros intestin, sont souvent, à des époques de la maladie difficile à préciser, le siège d'altérations de nature inflammatoire: rougeur, incontinence, remblaiement, altération, mais ici aussi l'élément tuberculeux vient se superposer au travail phlegmatique, et il n'est pas rare de rencontrer des tubercules dans la membrane muqueuse, au pourtour des ulcères. L'exsudat lymphatique est presque toujours envahis, plus ou moins, par la maladie tuberculeuse.
Ce dominant est évident, je trouverai le besoin de faire quelques réflexions sur la tendance des recherches faites jusqu'à ce jour. L'anatomie pathologique des organes en a eu la plus grande part; et je suis loin de rien blâmer, car il était juste de puiser d'une source de si grand intérêt. Elle nous a initié à l'anatomie, nous l'a fait suivre par la suite, et nous a permis de reconnaître assez de précision et de réalité diverses. Certes, ce sont de beaux résultats, et je ne sais réconnaitre comment le docteur a été à l'avantage; mais ce n'est pas, à mon sens, qu'une faute si la question de l'absurdité était-il donc la fiction unique primitive? N'était-il pas dans l'organe une cause de sa production? N'était-il pas possible d'apprécier cette cause? Ne devient-on pas du même abord à la juge ?

Ces questions, qui me paraissent de la plus haute importance, et qui ont été résolus affirmativement par un grand nombre d'initiés recommandables, n'ont pas, à mon sens, suffisamment attiré l'attention des analystes de liquides. Ces états pathologiques ont été admis sans démonstration anatomique: c'est la même faute, qui, je ne doute pas, a retardé singulièrement l'intelligence de point important de la physiologie. Dans ces derniers temps, quelques médecins ont pris les recherches en dévance considération. L'époque que cette nouvelle tendance, fournira à cette partie de la science des éléments nouveaux dont elle a grand besoin.

Symptomatologie

Avant d'essayer de tracer un tableau de l'effet qui nous occupe, il me semble qu'il reposerait sans importance d'examiner un à un les symptômes initiaux qui la caractérisent; et pour nous réunir, en faisant le tableau absolu de chaque d'entre eux, arriva à l'intelligence de l'histoire synthétique que nous auras à en faire plus tard. Pour mettre quelque clarté dans cette étude, nous
découvrant les signes de la pleurésie en très grande échelle : signes physiques, signes pathologiques, et conséquences.

**Signes physiques.** — Pour bien comprendre la valeur et la production de ces signes, il est bon de se rappeler la transformation diverse du tissu dans les poumons. Nous avons distingué trois périodes bien tranchées dans son évolution complète : dans la première, il est solide, en principe remanié ; il disparait et laisse une cavité. Il est aisé de voir que le tissu, les zones pourpres par l’ascendance par la percussion, doivent être modifiés par ces changements ; c’est le que nous allons examiner. À l’état de santé, si les tissus sont superficiels et assez nombreux, la percussion donne un son moyen qui est ordinaire ; si une érosion de poumon sain est interposée, cette différence est imperceptiblement sentie.

L’auscultation est sensible plus fidèle à cette époque, les tissus dépoussés comme nous l’avons vu, dans les intimités des séries pulmonaires, les comprimés, et rendent l’entrée de l’air difficile, par conséquent l’inspiration est plus longue ; dans le second, les poumons dépoussés n’étaient plus, il y a une entaille brisée ; mais ce doit s’étendre pour le tissu Les tissus superficiels. Alors si une lame de poumon sain se dépasse de l’œille, elle caractérisera des beaucoup de leur exactitude, d’autant que la matière superficielle, n’étant pas d’homogène, ne pas être en entier conduit de l’air, et l’on a pris souvent, comme signe de tissu superficiel, une inspiration qui a duré inspiration prolongée, tandis qu’il était le plus souvent produit par une cavité vide. Ce qui a donné aussi à cette époque "les maladies cachées, ces pouvoirs par le remaniements superficiel de quelques tissus, l’engagement catarhal de petites branches bronchiques pourraient m’imposer souvent pour le bruit. Parce que le tissu normal est mêlé à des matières purulente, il efface une consistance fluide ; l’air, en le traversant, doit nécessairement produire des râles bavards comme
le produit dans la pneumonie, et ici surtout, le frottement, la grosseur de la cavité imprévisible à cause des caractères particuliers; alors, en leur donne le nom de gargouillement, de salle cavernueuse, il peut même arriver que le cavernue soit plus petite, produisant des sons muqueux. Le perçu dernier tend toujours un effet mais tant que la cavernue est pleine. Plus tard, la cavernue se vide; autre l'air arrêtant dans de grandes cavités doit produire de grandes sensations; il est le souffle touée caillée, il est dit cavernue. La voie du malade réside à l'oreille de l'observateur, il ya de la pathologie, le phénomène est d'autant plus parlant que la cavernue est plus superficielle. Il ne faut pas oublier que tous ces phénomènes que nous venons de parler, peuvent disparaître d'un moment à l'autre; en la cavernue sont continuellement son rempli et vide avec une grande promptitude : c'est une particularité dans il faut tenir compte. Parce que les cavernues sont très considérables, elles rendent un son métallique moins fort, il est vrai que dans le pneumothorax, uniquement parce que la cavité n'est pas aussi considérable: sous ces signes, clairs et faibles quand les cavernues sont superficielles, nous arrivons modifiés par le mème circulaire, lorsqu'ils sont profonds et recouvertes par des pneumomes. Tant est la note marbre, qu'à vrai dire, le stéthoscope ne pourra donner pas de signes pathognomoniques, que souvent il feraient ils peuvent être très obscurs, et qu'il est alors fort utile de chercher des indications ailleurs.

Signes pathologiques... La toux est une signe fort important dans la maladie qui nous occupe, elle est presque constante, et affecte surtout une marche remarquable au début, souvent, dans cette ligne, les maladies sont pris par une petite toux sèche, qui, crache d'abord, parce qu'inapologie, devenant de jour en jour plus active, et finit par les fatiguer beaucoup. Soudain elle perdie tout temps
ainsi, quelques es de seluule à disparaître; pour revenir au médecin postérieur. Ces hésitations peuvent durer longtemps, jusqu'à ce qu'elles deviennent un joujou, prélevant racine d'une manière plus profonde, elle neufait plus le malade. On a vu des symptômes manqués trois à quatre: ceci s'observe surtout après le dano, dans les cas où la phthisie se complique d'autres affections; il est l'exactement un peu jeune homme qui succombe à une inflammation intestinale. Pendant la vie de l'autre, il avait été sous une longue frise avant manqué; peut-être donc alors que l'autre accompli toutes ces évolutions? Je ne le pense pas.

Relativement à leur quantité, les crachats n'ont pour cause la phase de la toux à l'origine, alors qu'elle est partiellement symptomatique de l'affection "homéopathique" tuberculeuse, plus une irritante, enquête les bronches; les crachats sont complètement révélés, et quelquefois assez abondante, plutôt le dissemblant d'une muqueuse. Il est encore assez à mesure de voir qu'ils sont produits par l'affection est extrême, ils sont épais, râles, légers. Lorsque la nature tuberculeuse gonflée est exposée à des souffles de pseudonoebres, à des fausses tuberculoses même, il est plus bien plus caractéristiques; il se suspendent quelquefois brouillards, pour revenir quelque temps après. Pouvons diagnostiquer une phthisie à l'inspection des crachats? C'est loin s'apprécier n'êtrons aucun d'erreur dans c'est étonnant de convaincre et je ne doute pas que de ces fausses ou n'êtrons souvent près pour pathologies des malades qui se deviennent qu'un asthme. Je ne doute pas que la chimie organique nous montre clairement quels malades qui ne disparaissent aucun produit de révélation dans le deuxième cas. Il est arrivé, et il, Avril en été quelques ans après dans la chimie médicale, que les malades ressemblent des convulsions et m'en sont arrivé déjà.
La hémoptysie prédispose très-frequemment les tubercules, on d'ailleurs, c'est un des premiers signes qui les éliminent. 

Savoir s'il arriver qu'au milieu d'une santé florissante, il survienne un accroissement de sang qui ne peut rapporter à rien; ce phénomène peut ainsi se reproduire à diverses reprises, sans que le sort du malade paraisse sensiblement altéré; mais bientôt la toux et le blé dégagent des symptômes dont nous avons à tracer le début; viennent donner cette hémoptysie un effrayant cachet de gravité. Ce signe a paraît une telle imprudence à M. Roine, qu'il lui suffit pour prononcer sur la maladie, cette manière de 

vois pour trop absurde; il n'est pas rare de voir certains états phlébiques déterminer des hémoptysies quo'ne va que fait disparaitre, sans qu'il y ait apparence de malade tuberculeux.

Il ne est pas moins vrai que le symptôme a la plus grande valeur, surtout quand on le met au 

garde de ceux qui l'accompagnent. C'est ici M. Dombard a essayé de tracer le mécanisme de ces 

hémoptysies. Selon lui les tubercules en se développant irritent l'épithélium viscérale bronchique, et chaque hémoptysie indique une manière plus précise un surcroit d'activité dans le travail de tuberculisation. Je ne sais pas jusqu'à quel point cette explication doit être acceptée.

Il est vrai la dyspnée est bien considérable dans la phthisie, et il est facile de le prêvoir, si l'on 

considère que les tubercules enlèvent tant de terre, que la prunelle de manière à empêcher 

la pénétration de l'air dans la plus grande partie de leur tissu, il se serait des écart évidents 

dans le temps des tubercules nécrosés de développer rapidement et au très grand nombre dans le 

lies prunelles, et qui sont encore le malade promptement au milieu d'une agitation d'une 

dyspnée exagère (oblique à Prof. Pears). Parce que les tubercules se propagent graduellement, il se 

produit de pneumonies partielles qui indiquent le terme, et vient un moment où le tissu pulmonaire, 

est imperméable alors une grande étendue. Ainsi, comme dans toute les maladies chroniques tuberculeuses...
arrivent, l'organne a été habitué de drogue mais a cette insuffisance d'hémasthésie qui, brusquement prouvée, l'avait infailliblement révélé. Où que ce soit, que l'osseux état ait eu toutes les formes d'une pathologie régulière, la dyspnée devrait considérable et, en général, alors elle donne la mesure de l'organe qui révèle par ailleurs aussi brusquement une tumeur.

La douleur est un phénomène assez médiocre, dont le malade se préoccupe rarement. Je ne sais même pas s'il est bien établi qu'elle existe dans les cas de tuberculose sans complications mais si elle suffit, il est peu fréquent que les phénomènes inflamment pour que ce phénomène se prononce. Une des raisons qui expliquent la naissance de ce symptôme, c'est suivant M. Dugès les mouvements réspiratoires des plèves ou sommets des poumons, la précocement du siège de prévision la maladie.

La fièvre est un signe précieux dans la pathologie, précieux, parce qu'à lui seul il donne souvent l'événement un état vital que rien n'avait fait suspecter. Ainsi, à la suite d'un rhume avec gorge ouvertes, malades sont à peine pris garde, ou bien après une hémostylique sombre peu considérable, on voit survenir un peu de fièvre; est état fédérate, fait d'abord, persiste sans qu'on puisse trouver remède simple de la cause qui l'entretient; il est rebelle à toute médication; le soir il s'accompagne de maladies éprouvant un primum interit mort d'une chaleur vive, mordant aux extrémités, aux membres inférieurs, le cou, et quelquefois seulement quelques uns de ces organes; tout est les maladies dépendantes de jour en jour. Un état pareil a une grande valeur diagnostique.

Est-il possible de poser d'une manière précise le rapport d'origine qui existe entre la fièvre et l'affection tuberculeuse? Je ne le pense pas. Des tubercules déjà formés entrainant une irritation continue, une membrane muqueuse des bronches, les produiraient-ils? Le bien est-ce
elle même irritable qui, premièrement, tenterait la pièce sans sa dépendance et lui paraîtrait
préférable le tubercule ? Dans certains cas, cet état pénible se serait-il pas, toute l'impression, non
très doux même, dans le cas même de la différence tuberculeuse ? Toute ces variété de virus non
semblent faciles. Ainsi qu'il est dit, la pièce juge, dans la phthisie, un rôle primordial
à mesure qu'en avance dans cette affection, on la vint devenir de plus en plus plus persistante,
trouvant, cependant, elle-même, sans des intermittences, les méandres avec l'augmentation
d'une manière sensiblement, et elle sera le reflet assez avant des accidents, des complications qui
s'ensuivront si souvent dans cette maladie.

L'amélioration ne paraît pas toujours dans les premières périodes, il n'est pas rare de
rencontre de phthisiques qui ont des cavernes considérables, et qui n'ont pas maîtrisé d'une
manièrë sensiblement. Ce phénomène me paraît être en grande partie sous l'influence de l'état
des voies génitales, aussi, quand l'estomac devient malade, l'appétit se perd, et l'émaciation
est prompte. Nous y reviendrons.

Complications. Ces affections qui viennent se jeter au tubercule, et l'on trouvera, sous d'une telle
importance, à fréquenter, que nous devons nous attendre à ne pas en parler. Si nous trouvons symptômes sans
longtemps sensibles appréciables, elles marquent alors la marche de la maladie tuberculeuse. Nous
examinons tour à tour des complications des voies aériennes, et celles du tube digestif et des
voies.

Il est très commun de rencontrer, dans la phthisie, des affections du langue, tantôt elles semblent
marquer le début de cette maladie, tantôt, au contraire, elles ne se développent que plus tard. Ces
symptômes qui nous révèlent ces deux sont les suivants : une assez fréquente, bénigne de la voix.
Il arrive, en effet, alors même que la membrane muqueuse est simplement boursouflée, que le vise
éprouve de grandes modifications dans son timbre. Si les ligaments hypo-archéniens sont ulcérés,
détruits, il ya suffisance.
Le douleur est un symptôme bien infidèle : là, elle est presque constante, elle n'est aussi dans les hémis de
l'œsophage et de la trachée, hémos que nous avons déjà signalées dans une autre partie de ce travail,
ne produisant pas elles-mêmes presque aucune altération de la voix, elles se peuvent éve qui simu-
lées pendant la vie. On comprendra combien il est important de bien connaître cette affection,
et en déduire que, presque jamais, elle n'a été seule que par le fait de l'existence d'une pathie
empyémique. On est presque autorisé à diagnostiquer des tubercules dans le poumon, alors même
que rien ne le devinerait.
Le parenchyme pulmonaire, et son enveloppe pleurale, sont aussi très-faiblement-vaiges
de hémis qui méritent toute l'attention du médecin ; elles sont importantes sous le double rapport
de leur gravité et de leur fréquence. Presque toujours, elles précèdent le développement des tubercules,
e-même de cet enchaînement que Brousse déduisait de la nature de la maladie. Mais, sans
vouloir anticiper sur cette question, qu'il nous suffise de savoir que, lorsqu'une inflammation du
poumon est passée à l'état chronique, qu'elle résiste à tous les moyens de l'art, que la maladie
maigrit, le suffixe de tubercules est parfaitement légitime. Mais il arrive souvent que ces affec-
tions surviennent alors que le diagnostic de la pathie a déjà été établi; il ne se peut donc
même de les observer alors à l'état aigu, c'est-à-dire, comme nous le verrons plus tard, une complica-
tion faucheuse, et qui hâterait considérablement la maladie.
Les affections des voies gastro-gastiques se développent, tantôt primivement, tantôt dans des époques.
plus avancées de la phlébite. Quelle que soit leur époque d'apparition, elles impriment à la maladie un
aspect évident : elles déboultent quelquefois d'une manière brusque, les fonctions digestives se trouvent, l'appétit
le perd, la langue est sale, cotonue et un exsudat jaunâtre. On tempère à cette le survenue des nausées,
des vomissements ; une douleur sourde se fait sentir à la région épigastrique. Il n'est pas rare de voir,
quelque temps après, se déclarer une diarrhée assez active, le malade dépéris. Il peut arriver
que l'affection s'avance par des symptômes aigus : douleur épigastrique assez vive ; perte d'appétit,
langue sale ou milieuse, rouge à la pointe et sur les bords ; nausées ; vomissements fréquents. Si
elle subsiste ainsi, elle fait des progrès rapides, le plus souvent elle reçoit la forme chronique
jusqu'à nous avoir déjà parlé. Alors on voit les phénomènes gastriques diminuer l'état de la maladie,
e masquer pour un temps le travail de tuberculisation. Plus souvent la toux, les hémostyries et
les signes de phlébite. Mais, dans beaucoup de cas, les hémostyries intestinales viennent
empêcher un travail de tuberculisation déjà établi, la diarrhée, les vomissements, l'état de la
langue, ont les symptômes culminants, et dont nous avons déjà parlé. Par qu'il en est ainsi, la
maladie a franchement une terminaison funeste, et dont il l'affection en combini re déclare avec violence. Opérent à la décrire du pois, qui est si commune, celle de la rate, des reins,
elles se peuvent guérir grâce quelques observations de palpation seule peut être quelque jour sur leur
existence. On a signalé le fistule à l'année comme venant s'ajouter aux symptômes de la
phlébite : sur ce symptôme, je n'en puis rien dire.
Il résulte de l'examen clinique que nous venons de faire des phénomènes principaux de la
phlébite, qui n'ont existé pas à voir des pouvant caractériser cette maladie d'une manière,
infectée, et qu’il faut demander à des groupes de symptômes mis en regard les uns des autres et qui seul ne peuvent donner. Les auteurs qui ont écrit sur cette matière ont admis deux périodes dans la symptomatologie tabérale. Cette distinction est-elle prête d’une manière absolue ? Non ; car lorsque l’affectation commence, qu’elle est dite au premier degré, il arrive fréquemment que le siège et la durée soient dans les plus avancées, en même temps que la tuberculose; et les modifications qu’elles apportent dans l’état général de l’organisme, ayant soin, de suivre l’inéquilibre de production des tubercules.

Première période. — Il est fort ordinaire de voir cette maladie débuter par une toux persistante, dont le plus souvent on ignore la cause : quelques malades la rapportent d’un refroidissement. D’autre part, que cette toux, qui à l’origine était si légère qu’elle n’interrompit point, devient fatigante à la traque ; elle se révèle une moyenne qu’on emploie contre elle. Quel que soit son humeur, il n’est pas rare de voir ce symptôme apparaître le premier. Il en est des phases que plus inébranlable et plus dure, et l’humour, ces modifications, seront chose difficile. Que tout ces symptômes peuvent pendant longtemps, tantôt au contraire, ils appellent promptement de nouveaux phénomènes qui viennent plus du jour sur la maladie ; alors si l’on perçoit qu’il y a une partie antérieure et une clairière de la perte, qui se partie postérieure correspondante, on obtient quelques-uns en un plus marquant, l’auscultation fait percer ces sons crépitants, quelques râles, des expirations prolongées. En outre souvent la couleur jaune orangée d’une ou de deux propreté tranchant sur les tissus blanchâtres du visage ; la sueur qui prend quelques fois une teinte aiguë. On observe une petite piqûre avec redoutement, et poisons levre ; la moit-
est marquée par des sueurs viscérales du trone et de la face. Dans tout autre moment la peau
est sèche, aride, d'une chaude monotonie; il peut exister quelque douleur entre les épaules.
L'appétit se conserve, l'embonpoint ne diminue pas d'une manière bien sensible, mais
l'hystérie s'arrête, et la diarrhée se déclare, s'amplifie rapidement ou tarde pas à se produire.
Le malade atteint promptement la deuxième période. Quelques-unes de ses manifestations,
eux au moins fâchées majeures; la maladie n'est apparue de prime abord au second
déjà.

Deuxième période. - Désormais la toux prend un caractère plus déterminé, plus persistant;
les crachats deviennent sanguinolents, blanches, sèches, voire aérées, sont quelquefois très copieux, puis démi-
ennent brusquement; les hémoptysées sont rares et peu abondantes, sauf des cas exceptionnels
(splinte d'osées dans une carrière). Les signes provoqués par les percussions l'auscultation
démontrant des cavités plus ou moins considérables, alternativement pleine et vide; les sons
sont copieux, étiques; de celle, le respiration se répète à de courts intervalles; la
Dyspnée se fait quelquefois sentir, et si les affections aiguës ne viennent pas se jeter à
l'occurrence, la maladie arrive ainsi au dernier degré de marasme; ses poumons se
courent de carrières, s'entassent dans toute leur étendue; la dyspnée devient extrême.
Le malade n'est plus conscient presque toujours, l'intelligence est perdue, il couve jusqu'à
le fin à l'approche d'une quatrième prochaine. Moins il arrive aussi que des complications
aiguës, soit de la poitrine, soit de l'abdomen, viennent provoquer un tunique
déchirant; il est même fort commun de voir des symptômes aigus se développer dans les
pisthéses les plus bêtes, vers les derniers jours.
Marche, durée, et terminaison.

Il n'est point de maladie qui offre, dans sa marche et dans sa durée, des formes aussi diverses et de événements aussi impérieux. Ainsi les observations qui ont cherché à établir quelques données positives à cet égard, ont-il eu bien voir de signals la valeur relative des chiffres qu'ils offraient? M. de Sevin et André font la durée moyenne de la maladie de un mois à deux ans. Combien de ces particularités s'appliquent à cette fièvre. La phthisie pulmonaire peut affecter une marche chronique, et se décide presque ainsi brusquement, avec la mort; il n'est pas rare de voir se succéder dans ces deux intermétientes très-sinueuses. Les symptômes, auparavant bien manifestés, disparaissent jusqu'à ce que, sous l'influence de cause, ils se manifester davantage encore. Les amendements et ses intermittences passent aussi des séquences, jusqu'à ce qu'enfin la maladie prenne racine d'une manière définitive, et marche ordinairement sous une terminaison funeste. Le phthisique se voit mourir, et la mort lui arrive au milieu de ce passage. L'orgie de symptômes que nous avons signalé plus haut: marasme, dyspnée, diarrhée, et saignées intermittentes: il s'étant emphysée, pour ainsi dire, par les branches, et depuis quelque temps il n'a plus du force d'exister. C'est là la marche complète d'une lignée de la phthisie avec ses évolutions, ses secondes causes, mais bientôt de la perte des symptômes suivant indubitable ne peut plus elles que se jeter à l'entracte, et terminer brusquement une maladie qu'on n'aurait plus de prolonger longtemps encore. Peuvent-il arriver que l'affection reste en l'âme et latente, et que des inflammations pulmonaires ou abdominales viennent d'occasionner un de ces effets; mais il est des formes de phthisies bien autrement remarquables et rapides. Des fœtus si-temps peuvent se développer dans un moment et en quantité inombrable, en très peu de temps, le malade mort emphysé. Il peut arriver, aussi que des malades
décernent à une affection trist à fait étrange à celle qui nous occupe, et que l'autopsie révèle l'existence d'une maladie tuberculeuse, que même n'avait pu faire souffrir pendant la vie.

Bien des circonstances peuvent influer sur l'évolution de la phthisie : du point de vue à régi la progression comme imprimer un temps d'arrêt aux tubercules, les observations de M. Anselm de la phthisie se termine-t-elle toujours d'une manière fatale ? Question importante que bien des médins résolvent par l'affirmation. Je ne pense pas cependant, qu'après les observations de M. Andral et autres, on puisse nier qu'il existe des cas heureux dans lesquels la maladie a complètement arrêté. Sans les circonstances plus ou moins circonstances ne tardissent, et il s'établit dans leur sein un travail de cécation, et, si la diathèse tuberculeuse a cédi, tous les symptômes peuvent disparaître, et demeurer à tout jamais. Mais combien ces cas sont rares ? Il en est d'autres d'où il est évident que de manière première permet de voir le travail de cécation, bien commençé, les symptômes s'accentuent.

Parfois, dans un temps, sans cause notable, il se reprennent, d'une intensité inépuisée, et de nouvelles circonstances apparaissent, les anciennes sentent une impréparation. Les faits qui montrent semblent très communs, ne sont pas sans importance pour apprécier la nature de la phthisie.

Ainsi que des matières tuberculeuses se déposent à l'absorption menées matières animales, d'où à la place des canalicules capillaires qui s'introduisent, et peuvent ainsi disparaître de nouveaux cristaux dans le prisme sans trouble notable. Un fait qui est constant, par quelques auteurs, est que des lésions produites par les tubercules tendent plus que trop vers le second, mais qu'il est rare que ce trouble termine heureuse à bonne fin. Pourtant de nouvelles productions mobiles viennent le contraincre, les anciennes circonstances se révèlent de siège de réactions précipitantes, de nouvelles
de formation, et dans l'immense majorité des cas, le malade arrive à sa troisième année.

**Nature et cause de la maladie.**

D'un point de vue il n'avait des controverses ancienne voisine que celle de la nature et des causes de la phthisie, et se reportant dans l'observation locale des symptômes qui s'accompagnaient de deux vues les tubercules pulmonaires. Broussais affirmait que c'était là une manière d'être de l'inflammation qu'on observe dans un des éléments du poumon, des variétés lymphatiques, et cette seule cause lui paraissait suffisante pour rendre compte des nombreux phénomènes de la phthisie. Selon lui, l'inflammation pulmonaire précédait toujours la production tuberculeuse. Voici les principales raisons qu'il portait à l'appui de son idée. "Ce plus souvent, les premiers symptômes de phthisie sont devancés par des signes bien évidents d'inflammation pulmonaire ou pulmonaire; les cas qui paraissent échappés à cette règle, sont des cas absolus qui devraient être interprétés par ceux qui sont bien évidents." Il restait pas possible ancien, dans ce cas, que des irritations anciennes aient produit des tubercules qui seraient restés dans le poumon, et qui détermineraient à leur tour un travail phlegmoneux? Dans le cours de ses expéditions militaires, Broussais aurait énormément observé que la phthisie faisait de grands ravages alors que l'armée se reposeait dans des pays froids, humides, (la Hollande, par exemple) tendu qu'en Italie, ou Espagne, il n'en était pas de même.

À côté de cette manière de voir tranchée, absolue, s'en éleva une autre, non moins tranchée, non moins absurde qu'elle, qui vient contester à l'inflammation toute part qu'en pourroit lui assigner dans la production des tubercules, quelque faible qu'elle fut. Ce fut la l'opinion de l'annee suivant lui, les irritations pulmonaires étaient tout à fait étrangères au
à l'opinion, n'est-elle pas cette immense différence qui a, en même temps, rendu ce mal contagieux ? — Pourquoi, dites-vous, n'êtes-vous pas morts, en même temps, que tous les autres ? — N'est-ce pas parce que cette immense différence s'explique par deux causes : la première est qu'on n'avait pas suffisamment indiqué qu'une même cause, agissant pendant un temps, plus ou moins long, peut produire des résultats divers ; la seconde, c'est que dans cette affection, l'organisme est modifié par des éléments très nombreux. Ce point m'apparaît capital : en effet, le poïde brunâtre, auquel Broussais a fait jouer un si grand rôle dans la production tuberculeuse, peut produire des effets d'une grande variété suivant l'état dans lequel il trouve l'organisme, suivant le temps qu'il exerce en action. Pourquoi est-ce ainsi ? Agissant brusquement sur un individu, produisant rhumatisme articulaire, une pneumonie, et, dans d'autres cas, si elle se prolonge, si elle est inessentielle, amenant des modifications profondes, altérant l'organisme, produisant des diathèses, les facteurs, par exemple, dans ces deux cas, ne se réduisent pas seulement à de tels effets, mais de même d'action ne paraît-il pas que de l'être aussi. Qu'est devenu alors de mettre l'inflammation en cause ? Pour expliquer la fréquence des pléthysmes dans les pays que domine cette constitution atmosphérique ? Cette cause est-elle la seule ? n'A-t-on pas eu tort de le prôner à l'occasion de certaines ?

Il est constant, par exemple, que les animaux transportés des régions équatoriales, même très, ou presque très, pluviométriques, quand ils sont amenés dans des climats plus tempérés, qu'ils ne subissent plus de pléthysmes, que la pluie ait même été nécessaire, et qui doivent même arriver souvent ; mais que ce soit là la seule cause, je ne le pense pas. Pourquoi, dites-vous, n'a-t-il pas une action dont il est difficile de fixer l'étendue et de la valeur précise ? Les animaux nés sous le tournesol ne devraient-ils pas en ressentir
La privation, quand il sont transplantés aux d'autres latitudes, quand même en les laissant constamment dans un milieu éloigné de leur facteur? Les formes vitales ne devaient-elles pas être profondément altérées par la différence qui existe entre les aliments de pays et divers? Devait-on admettre d'abord toute complexe des habitudes remplies de cette captivité, qui doit être si pénible, et rendre bien amère à tous les pauvres animaux une vie jetée si pleine de mouvement et de liberté? Certes, il ne serait facile, en sommant ainsi à l'analyse, la condition au milieu desquelles se développent les phénomènes, de nombre de faits tels de complexes les éléments qui concourent à sa production. Ce que je viens de dire suffit, j'ajoute, à prouver combien toutes ces causes sont nombreuses et sont des difficultés à apprécier, et que toutes concourent à modifier puissamment l'organisation. Il y a donc une diathèse tuberculeuse primitive, qui appartient à l'avenir de ce moment anatoque. Mais l'inflammation est-elle toujours consécutive; ne suffisait-il que pour révéler l'existence des tubercules déjà produits, peut-être simplement leur imprimer un mouvement plus rapide? Non, l'inflammation peut évanouir les tubercules. Quelques observations consignées dans la clinique de M. Andrail le démontrent sans réplique. Certes, dans des cas exceptionnels occupant une grande partie de l'organe, les quelques tubercules qui on observe dispersés ça et là sont insuffisants pour donner à une affection si considérable.

J'ai même été disposé à croire que les canaux qui appelaient la diathèse tuberculeuse déprennent singulièrement à l'inflammation. Cette manière de comprendre la physiologie des tubercules est variée, comme on la vint un rôle important, mais secondaire à l'inflammation. C'est la
un phénomène de surface; ouvrez plus avant, vous trouverez la maladie. Ceci nous conduit tout naturellement à établir, dans l'étude étiologique de cette affection, deux sections importantes.

Dans la première, nous ferons sentir les causes que nous nommerons prédisposantes, causes qui trouvent profondeur-l'économie, la modifiant de telle sorte que vienne un léger mouvement, un sniffle, la maladie se révèle; ces dernières, nous les appellerons occasionnelles.

Causes prédisposantes. — Certains individus naissent avec des dispositions singulières à la phthisie, les mêmes causes qui, chez d'autres, plus heureusement organisées, restent passées insensibles, kar imprimes d'une des modifications profondes: c'est le tempérément lymphatique-prédisposé à la phthisie. Les individus de complexion brune, sont moins souvent attaqués que ceux qui ont la peau blanche et fine. Bébés à été exposés de tout temps, je ne m'y appesanti pas. Le sexe paraît aussi jouer un grand rôle dans cette affection. Les femmes sont intéressées un plus grand nombre que les hommes; peut-être en trouverons-nous plus loin la raison.

L'âge critique, celui de l'enfant de vingt ans pour les femmes, de vingt et un ans pour les hommes, sont les époques où le développement des tubercules pulmonaires est le plus à craindre. Les vieillards en sont très-rarement atteints.

De très longs l'hérité a été admise par les observateurs comme jouant un grand rôle dans la production des tubercules; et quoique Mr. Louis ne l'ait trouvée que comme une disposition dans ses relevés statistiques, je suis assez porté à supposer que le rôle de ce Siffre. De quelle manière faut-il entendre la transition de cette maladie? Voici ou l'on a différé. Si ce à dire que la matière tuberculeuse résiste à un démonstration dans nos liquides, en bien des fois bien de nous dire que les modifications restées inconnues jusqu'à ce que je vois...
grotte crème. Qu’il nous suffise de savoir que l’enfant reçoit de ses parents une disposition telle qu’il est menacé de tuberculose. Parce que cette maladie sévit plusieurs générations, devrait elle être considérée comme héréditaire? N’aurait-elle sous l’influence d’autres causes dont nous allons parler? L’un à qu’il serait difficile d’affirmer.

Mais il est des causes qui, par l’action plus ou moins prolongée, peuvent produire la phthisie chez ceux-là même qui n’ont pas reçu de leurs parents le triple héritage d’une prédisposition tuberculeuse. L’appréciation de ces causes est chose difficile; je ne saurais pas qu’on l’ait abordée jusqu’à ce jour, d’une manière complète: aussi les réflexions que j’ai à présenter se voudront-elles de à vague et de cette incertitude.

Le froid humide, comme nous l’avons déjà vu, juge un grand rôle dans la production du tuberculose. Ceci est une chose qui paraît constante; et, de même que les températures hypothermiques sont plus communs dans les contrées froides, l’affection tuberculeuse semblerait devoir suivre le même proportion. Cependant, il ne faut pas se dissimuler que, jusqu’à ce que des statistiques complètes viennent éclairer ce point de la science, il pourra y avoir des doutes. Quel est le nombre relatif des phthisiques? Entend-on parler des nations du pays, ou d’endroits qui arriment de contrées plus chaudes. Et ici, le problème se compliquerait: le changement d’un climat chaud dans une contrée froid et humide, ne paraît être, en effet, une cause extrêmement puissante de tuberculose. Une alimentation insuffisante, la respiration d’un air impur, rarement renouvelé, les échanges profonds, l’isolement, göntent, à n’en pas douter, assié un grand rôle dans la production des tubercules. Rarement seulement ces divers éléments acquièrent de la gravité le loin par le autre, et il serait bien difficile,
Dans l'état actuel de la science, le jurer leur valeur absolue. L'ennui regardant le chapitre prolongé comme une des plus puissantes causes de la phthisie, et il s'agit d'ajouter, dans son ouvrage, l'exemple de religieux appartenant à un ordre diurne, qui deviennent presque tous phthisiques. Il n'est que la cause invoquée par Lennec n'ait agi enflammément dans le cas, mais combien d'autres dont il n'a pas tenu compte.

L'ancienneté de la règle devait promener tout rapport avec les malheurs de ces; le jeune, les veilles prolongées, les matinées de tous genres; la mauvaise nourriture, tout concourait à la même fin, le délabrement de l'économie. Si l'on avait institué des statistiques sur une vaste échelle, il ne dont pas que les résultats donnés par les grandes villes, relativement à cette maladie, ne fussent incomparablement plus fréquents. 

C'est en effet, qu'on rencontre ordinairement toutes les causes que nous venons de signaler, et il ne pourrait pas arriver que les classes riches en fussent exemptées. Que de fois ne rencontrais-je pas dans leur sein des femmes pâles, anémiées, irritables à l'exces, ne pouvant rien digérer; c'est là l'cause de ces mille affections qui se produisent chez elles sous des formes infinies, variées sous les traits. C'est que, surtout dans ces régions de la société, la vie est imbriquée que le modèle se pénètre que difficilement; les passions de toute sorte s'agitent autour de lui, et entretiennent ces maladies subites, si mal caractérisées, dont le dénouement est souvent l'affection tuberculeuse. Ordinaire, les cas os signeraient surtout à l'âge où le corps n'a pas acquis son complet développement; concourent à la production des tubercules; ce sont des causes de la même famille que celles dont nous venons de parler; nous n'y insistons pas. Mais, je le dépête, les causes de phthisie qui résident
dans le nombre d'éléments fournis par les relations sociales, ce cas est très curieux et très
difficile à étudier; nous avons pu peine effleurer la source; son étude semble pourtant s'acquitter
de plus en plus, et cette maladie paraît augmenter dans une effrayante proportion. Un travail
souple sur ce sujet serait une œuvre éminemment utile, et, comme je l'ai signalé au début,
le plus hâche, ce serait rendre un important service à la science, que de chercher, si ce ne sera
possible, dans les temps anciens, les rapports qui existent entre les diverses phases de la
rencontre humaine, et la production de cette maladie. Les anciens considéraient la phthisie
comme contagieuse, et tout le monde sait que Marquain, qui a rendu de si grands
services à l'anatomie pathologique, n'avait pas encore les corps des tubercules. Peut-
pourrait se justifier cette opinion, très au plus peut-on admettre que la cohabitation
peut produire ce résultat: plusieurs médecins affirment qu'il n'est pas dans de
rire des sables se transmettre ainsi cette maladie.

Causes occasionnelles. — Les causes de l'inflammation sont d'une importance
énorme, et généralement mieux appréciées. Tout ce qui peut appeler sur les poumons
une irritation mécanique, les irritants, peut amener les tubercules, ils préalablement il
existait la prédisposition, la diathèse dont nous avons parlé. Certaines professions, plus
que d'autres, exposent les individus qui les causent à ce genre de causes. Le chat,
la déclamation, le contact de gaz, de poussière irritante, peuvent produire une
inflammation des voies aériennes et déterminer ainsi la phthisie. Il se pose, il
importe d'examiner si la maladie est produite directement par l'action de ces
causes. C'est l'opinion de quelques auteurs, mais ici encore on doit constater
d'interroger un seul côté de la question, on a négligé les autres. Comme nous l'avons déjà dit, les individus prédisposés à la phthisie, les maladies cancéreuses, les troubles de l'inflammation du poumon, les variations atmosphériques, les blessures de tout genre, les émotions même suffisent pour provoquer des températures très suspectes. Quelquefois la cause est si légère, si en conque, qu'elle ne paraît même pas signalée.

**Traitement**

La phthisie est-elle curable alors qu'elle est pleinement confirmée? Cette question ne paraît devoir être examinée avant de passer au traitement que cette affection réclame. C'est une opinion assez générale qu'il n'y a maladies attachées de tubercules pulmonaires qui aboutissent à une mort certaine dans un espace de temps assez restreint. Cette manière de voir qui a dominé la thérapeutique, a produit des résultats bien funestes. Les uns, persuadés qu'il n'y avait rien à faire, que l'âme du médecin consistait à pallier, plus ou moins le symptôme qui venait à paraître, eut à diro, ce sont brûlés les bras, et sont restés dans une pâleur immense, dans l'immobilité; les autres, avec la même conviction, mais plus actifs, plus pressants, ont demandé à l'erreur et qu'ils ont pensé que la vie seule ne tenait pas; ils se sont avancés à l'empirisme, et cette dernière tendance a fait essayer les moyens les plus divers. On a dit que la pharmacopée de la phthisie est renouvelée en suivant l'alchimiste était à la recherche de la pierre philosophale. Avant à moi, je pense que la phthisie est une maladie qu'on peut guérir et qui guérit quelquefois; les recherches d'anatomie pathologique...
Il est donc avantageux d'établir ce fait sans déplaisir, de manière à ce que le traitement devienne
à l'heure de l'intelligence complète de la maladie, et le jour où tous ses éléments seront bien
appuyés, un article fort grand pas vers sa guérison. Nous allons essayer d'établir
quelques préceptes qui seront basés sur la manière dont nous avons envisagé la patho-
logie du tubercule.
Nous avons été amenés à considérer la phthisie comme une altération encore mal
déterminée des liquides, altération produite au milieu de causes débilitantes qui, plus tard,
déterminent des produits de sécrétion biliés se déposant dans les poumons et divers autres
organes. Si nous moyens de la pratique nous permettenent de reconnaître la maladie alors qu'il
est encore générale, le traitement serait simplifié d'une manière singulière: mais lorsque
nous est décédé, son cadavre, il se peut nous exprimer ainsi, a produit une lésion nouvelle
très spéciale, très différente, et qui réclame un traitement spécial très différent;
la plus grande difficulté du problème est là. Ainsi donc il y a deux médications à
mener de front: l'une qui a pour but de remédier aux lésions profondes qui ont
modifié pensamment l'organisme; celle-là dois tonifier, reconstituer; l'autre,
médication de surface, ayant pour but de remédié à des phénomènes survenus à
l'occasion de la destruction organisée, réclame les moyens contraires, des débitants
des antiphlogistiques. Ces deux systèmes de traitement mentent toute la technique
de médecine; mais qu'il n'en tue jamais qu'il ne traite la maladie que nous
prendrons l'économie entière.
On est trop étonné en étudiant la thérapeutique de la phthisie, si riche, du reste, voisino
des indications locales, de la trouvère faible, si incertaine, quand il faut attaquer la maladie corps à corps. Le vague que nous avons signalé dans son étiologie postérieure limité. Pour rendre ce que nous avons à dire plus facilement applicable, nous étudions les indications thérapeutiques dans tous phasés de la maladie : alors que la prédisposition est acoman sans maladie déclarée, que la phthisie est commençante, et lors qu'elle est avancée.

Nous avons dit que les individus nes de parents tuberculeux, nés surtout avec des attributs du tempérament lymphatique, étaient prédisposés à la phthisie. Cette considération doit dominer leur hygiène. Que la mode se garde bien d'allaiter son nourrisson, qu'elle le donne à une nourrice saine et robuste. Que les établissements d'habitation d'un climat froid, humide, où la température est incertaine, capricieuse ; qu'ils yrient les grandes villes, les mors basse, mal aérés, ou l'atmosphère est fumée et infeste, et qui leur environ en déduisant, c'est le mouvement, le grand air, c'est la chaleur des rayons solaires, une alimentation nourrissante, très cela, bien entendu, pas avec mesure. Plus que très autre, qu'ils développent un œil trop précoce des sens; trop souvent les déséquilibres de leur imagination créant des habitudes bien foncées pour l'avenir ; n'est a peine la germe du germe de la maladie qui nous occupe ? Que si de grands chapeaux venaient traverser leur vie, ils demandent, si cela leur est possible, des distractions aux voyages. Qu'ils s'appliquent à détruire, par tous les moyens possibles, leurs trop vives préoccupations ; la gymnastique, les travaux de corps, Doit nous occuper une grande place dans leurs moyens prophylactiques. Les études, les veillée trop prolongés, sont pour eux très nuisible,
ils devront les quitter pour se livrer aux exercices du corps et à des distractions. Lorsque les tubercules sont reconus ou fortement soupçonnés dans le poumon, la maladie est déjà bien avancée. Quelques fois la thérapeutique est très à justifier lorsque l'affection envahit simultanément tout l'organe; mais il n'en est pas ainsi habituellement, les tubercules se développant par récurrences successives et si l'on est assez humain pour les reconnaître à l'origine, la guérison offre plus de chance de succès. Voici, dans ce cas, les principales indications qui se présentent. Si les conditions dans lesquelles vivait le malade paraissent de nature à avoir exercé de l'influence sur la production de la maladie, il est indispensable de le faire essayer autant qu'il est possible. Si le malade peut encore supporter les voyages, certes, le séjour dans un pays étranger, peu connu aux variations atmosphériques, sera le meilleur moyen à essayer; il conviendra sans doute rapports de l'influence d'une température douce et uniforme sur la phlegmation pulmonaire en bronchique, edatans alors si souvent, et par les qualités plus stimulantes de l'alimentation, et de l'air de ces contrées.

Mais il arrivera souvent que la maladie est trop avancée pour en joindre les moyens; on ait- il pas alors dans la périphérie des symptômes qui révènent-toutefois, indiquer formellement cette médication tonique que nous avons précédemment comme traitement général? Il ne faut pas se dissimuler que, dans ce cas, si le milieu dans lequel vit le malade est défavorable, si la plupart des causes qui ont amené les tubercules subsistent encore, on n'aura que de médiocres résultats à attendre.
Qu'en n'oublié jamais que les influences d'éléments d'un changement d'un climat froid et humide dans des pays chauds, les distractions des voyages sont difficilement remplacées.

Si c'est des manœuvres que rien ne peut parfaitement indiquer et qu'on laisse à la sagacité et au discours du médecin. Certes, dans le cas où une pneumonie intense, une pluie, menace moins les jours du malade, il faudrait recourir à l'intervention la plus urgente; mais si la phlegmose est légère, que la fièvre est seulement entretenu par la présence des tubercules aussi longtemps, du reste, que les vives gesticules seront vaines et que l'appétit subsistera, il faudra nourrir le malade. Dans ces cas, bien de voir la fièvre augmenter, elle diminuera plus souvent, et les sueurs se modèrènt.

On reste, la pneumonie tuberculeuse m'a paru coïncider très fréquemment et avoir plus d'un point de contact avec les tâtes et communs de chlorose et d'anémie qu'on rencontre souvent chez les hommes et bien plus souvent chez les femmes. Ainsi donc, aussi longtemps que l'appétit subsistera, l'alimentation sera continuée: j'insiste sur l'ici, car brusques virodes des des vives gesticules viennent compliquer la maladie, désormais au alimentation supportée; de sorte, les arrièrements retrentissent dans le poumon, et en augmentent les phlegmoses; dans ce cas, le traitement actif est sauf et le seul possible, et la maladie non pas loin à une fièvre ème fièvre. Alors si la médication tonique produit des résultats heureux, il peut arriver que le travail de tuberculisation cesse, et il reste alors des cavernes en épanouisation. Il est fait lalet les tendances à la calcéralisation. Sont en continuant la médication générale, ici bien des remèdes se présentent et sont efficaces. Une multitude d'accueil des expectorants peut être employée à désobstruer les cavernes, puis la respiration de cet angois.
pour haïr le travail de l'ébullition. Si la Foez est persistante, et qu'elle fatigue les préparations de Belladone, de jusqu'amine, peuvent être fort utiles. Quant aux irritations chroniques des poumons, à moins de cas rares où nécessite la saignée, on les combat de préférence par des vésiculations venues à demeure, des ventouses sacrifiées, des cautères, des noxas.

Mais lorsque les malades sont arrivés au dernier degré de la phthisie, que les poumons sont libérés de caverno, que le mürisme est cabéré, que des altérations importantes ont désorganisé l'atome, le pè, le tronc, etc., tout le rôle du médecin consiste à pallier le plus qu'il peut des symptômes dominants : contre le trac, les émotions, les durs expectorants, s'il est riche et douleur, on se trouve bien de l'emploi de la belladone, de la jusquamine, des diverses préparations opiniâtres, pourront être employées pour combattre la diarrhée et les vomissements; si survient des émphyème, les esquintes devront être employées. Enfin, des soins seront avantagéusement des combattues par l'acétate de plomb, le sulfate de quinine, mais tous ces moyens ne sont que moyen d'instant la marche de la maladie, qu'elle éclate bientôt avec plus de force.

Ce qui se termine, ce que j'avais à dire sur le traitement de la phthisie, il n'a pu être dans ma pensée de présenter les traitements divers qui avaient été institués à l'occasion de cette maladie, ma tâche eût été beaucoup trop longue; ce que j'ai voulu, c'est constuire une médication dont les bases seraient déduites de la manière dont j'ai envisagé la pathologie du tumeur. Si les principes généraux que j'ai posés s'accordent avec elle, j'aurais atteint mon but.
An Inaugural Dissertation
On Rheumatism
Submitted to the Examination
Of the Provost, Regents, and Faculty of Physic
Of the University of Maryland.
For the degree of Doctor in Medicine.

By James Re. Andre.
Of Delaware.
MDCCCL.
Rheumatism

This is a very common disease, and is found in all temperate climates. It is a general disease, occupying a general tipure, or set of organs; though it may occupy almost any part of the body. It is characterized by pain, heat, redness, swelling and fever, and by its wandering nature. One of the most prominent features of this disease is its migratory nature, shifting from one place to another.

Perhaps there is no disease in which metastasis is more likely to occur than in this. The pain, which is felt in one place may suddenly leave it, and show itself in some other; and, perhaps, as suddenly return again, or it may lay hold on some of the internal organs.

The victims of this disease, after the first attack, are liable to frequent relapses.

The antiphlogistic treatment is the...
general one, but this is not applicable in all cases.

The true seat of this disease is not positively known. Macintosh says it would be interesting to know whether it is in the cellular tissue, blood vessels, nerves, or lymphatics. Dr. Watson places it in the fibrous tissue.

We generally find it in the muscular and fibrous tissue, in the muscles of the neck, and the fibrous part of the joint.

Now, pain is one of the most prominent symptoms, though, in some cases it is absent. Whenever it is present, it will be increased by pressure or motion. And I think, in most cases, when the pain is wanting, it may be excited by motion. There is generally an incarescence of sensibility in the affected tissue, though, in some cases, there is little or no pain.
Simple pain in a muscle is rheumatism and this may occur in any muscle in the body. When it shows itself in this form, there is little or no fever; but if it show itself in the tissues of a joint, there is, in all cases, more or less fever. Hence, it has received the name of arthritic fever.

Muscular Rheumatism. This form generally attacks the muscles of the head, neck, and body. Symptoms: Pain on contraction of the muscles, no general fever; pain aggravated by the movement of the body; stiffness of the muscles. If this stiffness continued for a long time, the affected becomes atrophied.

Generally this is the only alternative found. If any other is found, it is for the relief of common inflammation.

If Rheumatism seize any of the
The cricopharyngeus muscle is one of the most common causes of difficulty in swallowing. It is located at the upper end of the esophagus, just below the vocal cords. This muscle helps to open and close the opening of the esophagus, allowing food and fluids to pass through it. When this muscle is not functioning properly, it can lead to symptoms such as difficulty swallowing (dysphagia), chest pain, and heartburn.

Assessment: The assessment of this condition typically includes a careful history and physical examination, as well as tests such as endoscopy, barium swallow studies, and esophageal manometry. These tests help to determine the extent of the problem and whether it is caused by a muscle spasm, a hiatal hernia, or another underlying condition.

Treatment: The treatment for cricopharyngeal dysfunction usually involves a combination of medication and behavioral changes. Medications that can be used include antacids, proton pump inhibitors, and muscle relaxants. Behavioral changes may include modification of the diet, such as avoiding foods that are difficult to swallow, and changes in eating habits, such as eating more slowly and avoiding large meals.

If these conservative treatments are not effective, more invasive procedures may be considered. These may include botulinum toxin injections, which relax the muscle temporarily, or surgical procedures to remove or weaken the muscle.

Prevention: To prevent cricopharyngeal dysfunction, it is important to maintain a healthy weight, avoid smoking, and limit alcohol and caffeine intake. Additionally, eating slowly and chewing food well can help to reduce the risk of this condition.
guished from Erysipelas by the absence of fever; and from General measles, by the presence of pain.

Treatment. Layatives to open the bowels, Flying Mistress, comfits, &c., Some patients cannot bear heat owing to some idiosyncrasy. We also give Hydrate of Jutapae, Atropinum, Esanicum.

Pleurisias sometimes affects the sclerotic coat and muscles of the eye. Symp. A dull and aching pain on moving the eye, extending to the forehead and temple; the reflex of the eye moves or blinks together. Treatment as above said.

It sometimes affects the muscles of the neck. sympathy. Pain, stiffness of the muscles, the pain may subsist, but on motion, it returns again. Now if this rheumatic stiffness continue for a long time, distortion of the neck may be produced, and that more or less permanent.
Treatment. Bind a piece of flannel around the neck, and敷a hot pad over it. I think, if we were to use a sensible quantity of the spirits of turpentine, or the rapid muscles, it would do no harm. Give laxatives and diaphoretics.

Sometimes it attacks the intercostal muscles, giving rise to pain, more or less like that of pleurisy. The pain is where the muscle passes over the rib. I am generally able to distinguish them by the absence of fever, which is always present in pleurisy. This is called "Pleurodynia."

"Treatment. Laxatives, flying blister.

Rheumatism sometimes attacks the muscles of the abdomen, giving rise to symptoms very much like those of Peritonitis or colica, plectomarmor; and may be confounded with either of them; but they may be distinguished
In Peritonitis there is fever, tenderness, &c.
In colica pietonum, perforum relives the pain.

Sometimes it occurs in the loin, then, is called Lumbago. In this case, it may be mistaken for Nephritis: yet the diagnosis may be made out. In Nephritis, we have a state of a severe pain on one side of the spine, running along the course of the ureter, numbness in the corresponding thigh, retraction and pain of the testicle, nausea and vomiting.

Treatment. Laxatives, cupping, leading.

Rheumatism may attack all of the internal organs. The fibers of the heart, perhaps more frequently than any other, the fibers of the liver, intestines, spleen, etc. It sometimes occurs in the skin, and is called by physiologists, Seiratica.

Symptoms. Pain radiating along the
cause of the sciatic nerve, as far as
We should treat this on the general
principle. Calomel, Aperius, Colchic
more. If it is purely rheumatic, then
means will generally cure it. Some
times it is purely nervous, or it may an
se from some irritation. Then other con
secities should be used as the oil of
terpentine, Carbonate of Potash, Rosal
trine, St. Clouding, Blistering &c.
Rheumatism is therefore inflam
ation of a peculiar or specific nat
ure. It rarely terminates in suppurat
ion or gangrene as ordinary infla
mation does. It is divided into two
species: Acute and Chronic. They
run insensibly into each other; the
Chronic is frequently a sequel of the
Acute. But the Chronic form may
exist without the commencement of
the disease.
Rheumatism is characterized by pain, heat, redness, and swelling of the part lying around, or entering into, the composition of one or more of the larger joints of the body, with a disposition to change from one joint to another, or to some internal organ, especially the heart, with fever of a rheumatic type.

Acute Rheumatism.

It generally seizes the fibrous parts which lie around the larger joints—
the ligaments and the tendons. It may occupy one or more joints at the same time.

Symptoms. The patient feels languid and dull, then a sense of chilliness, fol-
lowed by fever, pain, heat, redness, and swelling of one or more joints. Thirst,
anxiety, restless, tongue, more or less coated with fur, some followed by stiff
neck, numbness, and want of power. The
pain, &c. &c., changing from one joint to another; the joint, full, hard, and sounding; the urine dark coloured, and depositing a laticiform sediment; profuse acid perspiration which gives no relief to the patient's suffering.

The pain differs in different individuals, in its intensity. It is aggravated by pressure or motion. The skin becomes tense and shining; sometimes expectoration is observable. The swelling is not always present; it is not found in the shoulders or hips. When present, it is caused by the tenderness of the bursa; or by the effusion of fluid into the cavity of the joint. The joint exhibits a bony coat. There is always an increase over the normal quantity of fluid. The pain and chill frequently come on together, during the night, and runs from joint to joint.
Sometimes inflammation of the muscles and joints are combined. The patient—generally sweats throughout the aches. Post mortem give us little or no alteration of structure.

If the pain and fever decline, it is looked upon as a good sign; but if the fever continues with an active pulse, the disease will still be troublesome.

Besides this fibrous form, there are another the synovial.

This form of the disease implicates only one or two joints.

Symptoms. This form shows itself generally in the knee joint; the pain does not last long before the swelling comes on; the tongue is foul; the perspirations not very profuse. There is slight redness of the skin; the swelling is produced by effusion into the joint. Fluctuation is
distinctly felt by applying both hands to the affected joint, very little fever, and very little tendency to metastasis, but appears to be more or less fixed.

There is little danger in this form of this disease except to the joint. If it runs on, it may produce whitening or ankylosis of the joint. It is worse in those of a strumous diathesis or of a broken constitution. The duration of this disease is not fixed; it may run on a long time. There exists a strong tendency or predisposition to secondary inflammation. If it runs on it may implicate the heart in a chronic form, or it may affect the pleura. It may also implicate the membranes of the brain.

Pneumonia, as a complication in this disease is very rare, though in
some instances it may exist.

Post mortem show no special lesions. Sometimes a little pus is found, but it is considered to be the effect of ordinary inflammation produced, perhaps, by contiguous sympathetic.

Simple Rheumatism is a trifling disease, only serious when it changes to the heart or some other vital organ; this change is estimated to take place once in every five cases though it may occur once in three or once in ten or twenty years.

When it does take place, it gives rise to Pericarditis or Endocarditis. It is somewhat difficult to determine precisely the onset of the disease of the heart.

The duration of this varies from three weeks to six months or even longer. Most patients recover, but they are subject to repeated relapses. When it recurs in persons of monstrous habits
or broken constitutions, it is very difficult to cure; but, as before stated, the danger to the patient depends on the complications that may be present.

Diagnosis. The only disease with which this is likely to be confounded is gout.

Rheumatism generally attacks the larger joints, frequently changing from one to another. It species no age nor sex. Strange as regard to time, the pain is generally severe or growing, though sometimes, it is very severe.

The inflammation is felt in tense, swelling, not so rapid nor so great; expectora- 
tions towards mists, pulse full, hard, and bounding.

Gout, on the other hand, generally atta- ches the smaller joints, and is generally connected with some irritable disease. It rarely attacks young persons. Pain is burning, smarting, and lancinating.
The external inflammation is of a lo-
righted; the swelling takes place
rapidly, and, the parts are unus-
able and tender.

Progress. This is favourable in the
adult; grave in children because
they are more liable to metastases.
This is strongly marked from infa-
nancy to maturity, less so from matur-
ty to the age of forty; and rare-
gent with after that period. The form
usually met with after forty is
muscular rheumatism. Males are
more exposed than females, hence
it is found extremely often in sex-
men as children. About one half of
the cases are supposed to be heredit-
ary.

The predisposing causes are bad food,
bad lodging, filthiness, and especially
thanking of almost any kind.
The expectoration comes on from moist
vapors and moisture lying in damp
rooms; also by wearing wet clothes too
early in the spring.

This disease is acute in its nature,
and is said by some, to be produced
by some nostrums or some spirit,
in the blood. Sometimes the local
symptoms are absent, but the fever
continues, and Vice Versa.

Treatment. There is no specific
for this disease. Every physician
who would exercise his own judgment in this
as well as, in all other diseases, and treat
it on the proper principles.

No matter at what time you see this
disease, you may commence to treat it
actively. Bleeding is a general artificial
remedy, and, as practiced, where the pa-
tient is febrile, or of a good constitution,
or when the pain is so severe as to req
raise immediate relief. The fever ful
sands, and surrounding. Here are the cir-
stances, which, justify, the use of
this agent. Resuscitation is not practic
where the patient is weak and deli-
ate, or when the disease has apam-
red the subacute form: It is prac-
ised not to cure but to relieve, and pre-
pare the system for the use of oth-
er remedies. Some physicians think
resuscitation increases the metastatic
tendency of the disease to the per-
abundance of the heart or brain. Hence,
some rarely use it.

Opiumes are very useful and are
used extensively. But they alone will
not cure the disease. They can only
to calm the pain and restlessness.
For this purpose, we may use the
Opium in 25 drop doses, or the solid Opium
in grain doses or Davis powder in 10gr
done, repeated every 3 or 4 hours.

Theatives are very useful. They exert
a great influence on the disease by the
ir sedative effect, and by their ac-
on the liver and on the general sys-
tem. The most useful are Magnesia
Leuna, Rheumar, Calomel, and Calomel
is the one most frequently used, and
is given in small and repeated do-
es by others, in large and decided
doses. Dr. Chamber's mode is suck-
the best, and is as follows. After
one or two full bleedings, in the robust
or without bleeding in the feeble and
delicate, 3 or 10 grs. of Calomel with a go-
in and a half of Aperific, according to
the age of the patient and severity
of the disease, is given at night, five
oral nights, and followed every morn-
ing by a dose of coffee and some suf-
icient to secure three or four stools.
with this is combined twice a day a saline
draught containing $15$ or $20$ m. of Vinum Code-
ici and 5 yrs. of Strychni powder. When the severity
of the symptoms has subsided, the calomel
may be omitted but the opium or dron pow-
der should be continued. The Colchicum and
black dye are still to be given.

Diaphrases are not much value in
this disease.

Diarctics are more useful. Alkalis are also
very useful; they defibrinate or rot the blood
of a part of its fibres which is always
found in excess in this disease.

The Solids of Potash is, perhaps, more fre-
quently used than any other of the class.
The Ammoniac Acetate, Strychnine and
are spoken of as very useful agents.

In all cases watch the patient care-
sfully. Pay strict attention to the inter-
nal organs, especially the heart. If any
time of the disease you detect the
Bellini's sound, or the to and fro sound,
the attend countenance, you may be
told that Pericarditis or endocarditis
is set up. Then, push your remedy to
sight salvation and keep it up until
the patient is out of danger, or until
some other circumstance should induce
you to stop it. At the same time it may
proper to use one or two loose blinding
over the region of the heart.

Local compresses are not advisable;
they are cold applications of any benefit.
Some however recommend flannel cloths
hung out in a solution of Opium or cam-
phor and applied to the joints if the
pain is severe.

Place the patient on a proper regimen
and give all necessary precaution during
Convalescence by hygienic means and the
use of inferno, genuine and other

tones.

Having made the foregoing remarks on the
character of Rheumatism, we are to consider
the nature and character of all other dis-
eases incident to our race, on the same pr
inciples. Acting cautiously and prudently,
and, applying our remedies properly to
each and every case that may present
itself to us,

Medicine being a voluminous study.

and, hence, that the student is not able
to crowd it all into his head and retain it
there, a very long lifetime wouldn't complete it.

I think it very necessary to offer some
apology for the space contained in these
pages; therefore, I throw myself on the-
lenity of your judgments.

J.R. Anden.

Baltimore Feb. 24th, 1830.
An
Inaugural dissertation
on
Measles
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
John D. Beadel Jr.
of Baltimore
Maryland
Anne Domini M.D. A.B. C.E.B.
Gentlemen, according to the custom of the University of Maryland, I will write a treatise on the symptoms, course, and treatment of Measles. As it is, no one with as little experience as myself, can pretend to give anything new or to write on any disease so long recognized as this without using nearly the same words as others more capable than myself have used. Nevertheless I will make it as original and concise as possible.

Rubeola, or as it is more commonly called Measles, is a contagious febrile disease characterized by the symptoms of catarh and the appearance of a rash on the skin about the fourth day without the disappearance of the fever. We do not know when the virus first appeared. The first accurate
description of it, is that which we find in the writings of the distinguished Arabian Physician Rhazes. It was known in Asia for a long time before it appeared in Europe. It was for a long time strangely confounded with Small pox by our earlier modern Physicians.

When a person is about to be attacked by Measles he experiences feelings of lassitude, weariness, pains in back and limbs, and some headache. Then he has a chill followed by flushes of heat frequent pulse, loss of appetite, furred tongue, and all the other phenomena of fever. The fur on the tongue is peculiar. Some of the papillae appear through the coat of fur red and shining like a raspberry which is covered with cream. The fever may appear and continue for five or six days before the eruption appears, although it most generally appears on the fourth day of the fever.
At the same time the patient experiences symptoms of uneasiness and irritation in the eyes, faucets, and nostrils, causing a profuse discharge of tears, sneezing, soreness of the throat, and huskiness of the voice. An acrid discharge issues from the nostrils irritating the upper lip and edges of them. There is also a dry and hoarse cough with dyspnea. Sometimes there is nausea and vomiting. In general the bowels are constipated but sometimes on the contrary, there is diarrhea. Sometimes the first stage is very mild with slight catarrh and no fever. In some instances on the contrary, the fever is of a very high grade and symptoms of severe bronchial or pulmonary inflammation are presented. These symptoms generally continue for three or four days and occasionally remit. The eruption generally appears on the fourth day.
but sometimes is delayed for a week or more. When this rash (which is pathognomonic) first appears, it is in small and distinct spots like freckles, which can be made to disappear on pressure. They first show themselves on the face and neck, and from thence spread in the course of 24 or 36 hours over the whole body. These spots become confluent and arrange themselves in a crescentic form, leaving an interval of sound skin between each patch. The skin has a rough feel, like gooseflesh. The eruption is of a purplish hue, except on those spots where the skin is very vascular, and when the fever is very high, when the eruption is of a brighter hue. Sometimes minute vesicles appear mingled with the rash.

There is great variation in the quantity of the rash. Sometimes it is small in quantity and that in isolated spots. Sometimes on the
contrary, it covers almost the entire body.

Occasionally, when one of the limbs is irritated or inflamed from any cause, the rash first appears on it, but this is very seldom the case. On the third or fourth day of the eruption and the seventh or eighth of the disease, there is great heat and itching of the skin. The febrile symptoms do not decline on the appearance of the eruption, indeed they are sometimes increased. The cough now becomes loose and there is mucopurulent expectoration.

On the seventh day the eruption begins to decline. It first disappears on the face and then on the body and extremities.

Sometimes it lasts only two days, and again it may last for a week or more.

The red colour gradually fades and desquamation occurs. But the desquamation is not uniform, sometimes showing itself on the face and neck alone and sometimes not showing itself at all.
It may continue for four or five days and is attended with itching. The desquamation is furfuraceous.

Diversities and complications. Sometimes in consequence of some internal irritation, or in consequence of great debility the eruption is delayed. Again on the contrary in consequence of exposure to cold or of excessive purgation, retrocession of the eruption may occur. And when it does there is always cause for dread of some internal mischief. It is very apt to be followed by diarrhoea, dysentery, coma, convulsions, or great depression of the powers of life. In some instances the rash returns of itself and this is always a favourable sign. Sometimes although we have the rash, we have no cough.

Measles of a very malignant type sometimes occur. When the other diseases of the season have a typhoid tendency
they also assume that form, and are very fatal. These malignant cases may be intermingled with the milder cases. Occasionally this malignant character does not appear before the second stage. When it does the rash may be of a very dark hue and very slight in quantity, and may be intermingled with petechiae, and the cuticle may peel off like wet cobweb when you rub it.

The pulse is small and frequent. There is great nausea and vomiting, and in teething children there may be coma or convulsions. When the patient survives this, he is generally carried off by some complicating inflammation or by dysentery. Inflammation of some of the different organs is the most frequent complication. That of the lungs or bronchitis or enteritis are the most common all. In children the gums sometimes become gangrenous.
Measles are very rare before the first
denudation. A diarrhoea sometimes occurs
which if not checked will carry off the patient.
Pseudomembranous inflammation of
the larynx may occur and is very dan-
gerous. A person who may be afflicted
with a chronic disease of the skin, are
entirely rid of it on the occurrence of an
attack of measles. But generally Mea-
sles leaves other diseases behind it which
are generally very unmanageable and
disagreeable such as chronic inflam-
mation of the eye lids, fistula lachry-
nalis, and in persons of a scrofulous
diathesis we may have an oedema with a
necrosis of the nasal bones. Phthisis is often
developed and is very rapid in its course
Exposure to cold sometimes through
very rarely brings on dropsy.
Chronic inflammation of skin and inflammation
and discharge from the ears also occur.
Anatomical characters. The signs after death from uncomplicated measles are very few. The inflammations are like all common inflammations. The blood which is found in the large vessels and cavities of the heart is fluid and blackish. The fibrin rarely exceeds the normal quantity and is sometimes below it.

Diagnosis. In the early stage of measles we cannot decide positively. When we see the conjunctiva red and inflamed, and catarhal symptoms are present, and when some person in the neighbourhood or family is affected with it we may be pretty sure it is measles. There are only three diseases with which measles may be confounded and these are Smallpox, Scarletina and Roseola. When the eruption is fully formed we can decide with certainty.
As in small pox, the eruption feels as if there was a grain of sand under each pimple and also the fever disappears on the appearance of the eruption. In Scarletina, the redness is continuous without the intervening space of sound skin. In Roseola there are no catarrhal symptoms. Even if we see a person during the period of desquamation we can distinguish from Scarletina. As in the latter the cuticle peels off in large scales and in the former it is superficial and like brown.

Prognosis. In simple uncomplicated cases the prognosis is very favourable. In case of an epidemic of measles, we must be very guarded in our prognosis as the most simple cases may become malignant. It rarely terminates in death in the first stage. If the patient is recovering from any other disease as.
diarrhea, dysentery, or Hooping cough, it is generally fatal. Adults generally suffer more than children.

When the eruptive fever is severe, or the eruption is retarded, or irregular, or when convulsions occur in children, it is very dangerous. When the eruption retrocedes or when haemorrhage occurs it is dangerous. When pregnant women are attacked abortion generally occurs. When a puerperal woman is attacked Peritonitis and death occurs. On the contrary when the eruption is full and regular, and the skin moist, the prognosis is good.

Cause. Undoubtedly there is but one specific cause for this disease. That this poison is generated in the bodies of those attacked, and affects all who come near, and are susceptible of it. This poison exists in the blood and secretions
of those affected, and is capable of being transmitted by inoculation in the same manner as the smallpox virus, although it does not modify the disease as that does. Little smallpox this disease rarely affects a person a second time although there are cases in which it has done so.

This disease is known all over the civilized world. The poison always exists in the atmosphere. Although always endemic in the large cities, there are some regions of country in which it is rarely seen. Epidemics of this disease occur generally in the fall and winter and when the weather is damp. It may affect a person at any period of life although it affects children by preference. Some authors say that the patient’s body is contagious for twenty days after the appearance of the eruption.
The period of incubation is from 6 to 10 days although it may be much longer or much shorter.

Treatment.

We have no antidote for this disease. In the milder cases we have nothing more to do than to watch for and prevent complications and also to prevent the officious and often hurtful interference of friends. We must keep the patient in bed. Keep his bowels open and prevent him from exposing himself to cold until after desquamation has taken place, as this disease does not bear exposure so well as scarlatina and smallpox. It is best to keep the room dark to prevent the excessive inflammation of his eyes which is very apt to come on.
Keep the patient on simple diet and give elder blossom tea, or tea made from the blossoms of the linden tree, or infusion of boneset with Spts Menederis or Spts aetheris Nitrici. If the bowels are constipated we may give the mild laxatives as Rhubarb, or Rochelle salts.

As children are generally restless liable to throw the cover off we must watch them and keep them covered, but not so warm as to make it uncomfortable. As the cough depends on the inflammation and the eruption in the throat, which is the same as that on the skin, we can give no cough mixture which will do any good. When the inflammation and cough are excessive we may draw blood either locally by leeches or generally, and at the same time we may give divers powder.
or as William advises we may give an emetic. Saffron tea is another good domestic remedy and as the parents or friends always wish for something to be doing, this is the best thing we can give. This is all that is necessary in mild cases.

Treatment of complications. When the symptoms threaten, Compound we may give an emetic of Specia eradica followed by a dose of Calomel, and this to be followed by.Speciein small doses. When the inflammation is intense we may bleed both generally and locally. Bloodletting is well borne in this disease and is necessary in all these inflammations.

Indeed some recommend bleeding before or during the eruption, but this practice is very hazardous as it may retard or even cause retrocession of it.
When the bronchial inflammation is intense or Pneumonia supervenes on Measles, we must bleed copiously, as it is as well borne as in attacks of simple inflammation. The Pneumonia occurs almost without pain and as children swallow their sputa it is hard to find out, but if we see the cheeks grow purplish, the alae of the nose expanding, an anxious expression of countenance, and the pulse full, hard and frequent, we may expect Pneumonia.

If these symptoms appear we must bleed freely locally and generally, apply a blister to the chest, and give the patient Quick (instead of antimony, as the latter is liable to cause hyperpurgation) and opium in the form of Dover's powder. Give calomel in small and frequently repeated doses, and use all other means as if for the relief of simple Pneumonia.
When retrocession occurs, with the signs of internal mischief, we should interfere and bring it back to the surface as soon as possible.

For this purpose we should use the hot or vapour bath, rub the surface with mustard, or apply an onion cataplasm to the whole surface. Give the child aaffron tea or Hoffman's anodyne.

Should a Typhoid state of system be the cause, we should give wine, whey or some of the preparations of Ether or ammonium. When measles occur during the period of delirium and inflammation of the brain occurs, we should apply leeches behind the ears, mustard plasters to the feet and extremities, and a blister over the neck.

When diarrhea is moderate we should not interfere, but if it becomes excessive
we should check it, but not with astringents.

When an epidemic of measles occurs which has the malignant character we should not use the depleting method, but give tonics and stimulants, and when inflammation occurs we should be very cautious and use only local depletion, blisters, calomel and opium &c.

We should allow them only simple diet, and when the fever is high we should allow them only to take liquid aliment.

But as we have already said we should not do too much.

John D. Beadle Jr.
An Inaugural Dissertation
On
Bronchocele.

Submitted to the examination of the Provost Regents
And
Faculty of Physic
of the
University of Maryland
For the degree of Doctor of Medicine

Richard S. May
Of Virginia
It is quite customary among students, when they are required to write a composition on some subject connected with medicine, to occupy thirty or twenty-five pages in expressing that, which could readily be expressed on ten or fifteen pages. daring direct language more acceptable than circumlocution, I shall endeavour to say what I have to say in as concise a manner as I possibly can.

The disease which I have chosen as the subject for which the superstructure of my remarks is based is Bronchocele.

The name of this affection is derived from two Greek words; one signifying the windpipe, the other a tumor, it is known in France by the appellation Coitre, which is probably derived from the Latin word Cutura, the wound;

the disease consists of a movable enlargement of the thyroid gland. The tumor in different individuals presents very different phenomena, and frequently in the same individual under dif...
spontaneous circumstances, it is usually soft, but sometimes it is hard; it is generally not painful even when roughly handled. It may vary greatly in size and consistency. Sometimes it is very small, sometimes of very considerable magnitude. Some authors mention cases in which it was as large as a pumpkin, while others do not deviate materially from their normal size. They contain centers which are sometimes soft, sometimes gelatinous, and sometimes cartilaginous. It does not seem to be peculiar to the human race, for it has been known to occur in cattle and dogs. Sometimes it continues to increase until it destroys life by pressure upon the brain, and the pupils going to and returning from the brain; sometimes it remains the
story: it has attained a certain size. It frequently affects the voice so that a person afflicted with it often speaks in a croaking tone. Sometimes it occurs as an idiopathic affection, sometimes it is hereditary, being transmitted from parents to offspring. Although both parents may have Goiter while their pregnancy may be perfectly healthy, females appear to be more susceptible of this disease than males. It usually makes its appearance about the eighth or tenth year, though some authors mention cases in which it was congenital. It is stated by some authors that if both parents for three successive generations have Goiter, their offspring will not only be Goitrous but Idiotic or Idiots. It does not appear to be confined to any particular section of the globe, occurring in the temperate, tropics and frigid zones.
in all latitudes and all longitudes, in
Europe, Asia, Africa, and America, etc.
Notwithstanding it may occur in all
quarters of the globe it is far more pro-
avalent in some situations than in others,
for instance in Switzerland it is quite
common to find a person with a goitre
while in the greater part of the United
States it is almost unknown, though oc-
casionally in some localities in India
with a few cases. It appears to be de-
hending in a great measure upon the
quality of the water. Pure water or wa-
ter infested with various animal
and vegetable matters appears to pre-
dispose to it. And actually to excite this
disease. In Switzerland where the dis-
 ease is so prevalent, the inhabitants
drink the water of the lakes and rivers
which is sometimes from the various
infusions it contains as black as ink.
At Edmonton, in British America, on
the banks of the Saskatchewan, the peo-
ple drink the river water which contains
various earthy and vegetable impurities,
and Coitre is very common there; it
drives that persons who drink this water
impregnated with calcareous salt to
one particularly afit to have this disease.
It seems that situation has some influ-
ence over this disease, for some medi-
cinal authors say that persons residing
on mountains are less liable to be af-
fected than the inhabitants of the val-
leys. (I speak now of those districts in which
the disease is prevalent) and they say
also that persons having Coitre while
living in the valleys have recovered en-
tirely, without employing any remedial
means by removing to the Mountain.
It appears also that the quality of the
food and the state of the atmosphere as it
regards purity, or contamination with different deleterious gases and exhalations, have considerable influence over this disease; for in those districts in which it is most prevalent, the food is generally of the most meagre and unwholesome kind (for the people, with poor and unable to procure wholesome nourishing aliment,) the air too contains a great quantity of the deleterious effluvia arising from the decomposition of various vegetable and animal matters, which is put up by the mountains.

Diagnosis. Acromion of the Thyroid arteries may be distinguished from Goitre by its pulsations. The Thyroid gland is subject to inflammation, which may be distinguished by the hardness of the swelling, redness, pain and heat, the suddenness of its appearance.
Encysted tumors and cicatrices which sometimes attack this gland may be distinguished from Goutia by the symptoms which characterize these afflictions.

**Prognosis** — If the tumor be soft and of inconsiderable magnitude, and if it occur in young and otherwise healthy individuals, our prognosis should be favorable; since such patients ordinarily recover under proper treatment. But on the contrary when it occurs in persons in the decline of life, and when the tumor is very hard cartilaginous or ossous, and when it is of considerable magnitude, our prognosis should be unfavorable. Since it has been found by experience, that these persons, as a general rule, carry a glandular enlargement with them to their graves.

**Treatment** — The most efficacious
remedy in this disease is Iodine. The usual mode of administering which, is in combination with an alkali, Iodide of Potassium or Iodide of Iron giving at the same time an astringent, but if the case be of recent origin, and there be symptoms of plethora or of general inflammatory spitioned it will be necessary to phlebotomize both generally and locally, and administer a cathartic at the same time, while Iodine is being administered internally an Ointment of Iodine or Iodide of Po-
-Tassium should be rubbed into the ta-
mor. If the treatment by Iodine does not prove successful, Burnt Sponge may be substituted, if that fail the va-
rious remedial agents that were used in older time, such as iron, Potash-
Soda, the Chlorides of Barium and Calcium, Mercury, Belladonna,
Digitals Mr. Should have a fair trial at the same time if the patient resides in a locality where the disease is prevalent, he or she may, as the case may be, should remove to the seacoast, or some elevated healthy locality, where the air is salubrious and refreshing, and where the water is without impregnation. If notwithstanding all our efforts, the tumour does not diminish, but continues to increase threatening death from suffocation or central disturbance, recourse must be had to surgical means. There are three ways by which the surgeon may attempt its removal, 1st by the introduction of iliums and ligature of the arteries which nourish the gland 2nd excision. Each of these operations is attended with considerable danger, since death has been the consequence in some cases.
Nevertheless they should be tried as a dernier resort, since patients sometimes recover. When, if the operation had not been performed, death would have been the inevitable consequence; if a suture be used it should be of silk and strong enough to fill the wound made by the needle, great care should be taken to prevent inflammation by phlegmoly, if necessary, by cold, cold topical applications &c., if it be deemed necessary to excise the gland, an incision should be made in the middle line of the neck and the integuments and muscles dissected from the tumor. Care being taken, to secure every artery, as soon as it is divided; then a ligature should be passed through, and tightly tied on each side. The tumor should then be dissected out. Labor vincit omnia.
An inaugural dissertation on Fluency.
Submitted to the examination of the
Immost. Regents, and Faculty of the
University of Maryland, for the degree of
Doctor of Medicine.

of. Maryland

A.D. M. D. 1862.

The Pleura is the membrane which invests the lungs, and, being a serous membrane, is of course a sheet-like, flat, like all parts of the human body, is liable to inflammation, and is often affected in this way than until lately was generally supposed; as in post mortem, after other diseased cases, adhesions of the internal surfaces have been discovered, though, in all probability, the person was not suspected of having had the disease, and these adhesions are conclusive proof that he must have had it at some previous period of his life.

Acute inflammation of the Pleura is almost always characterized by the
effusion of coagulable lymph, which causes the adhesion which I have just mentioned.

In some cases both Pleura are inflamed but it is comparatively rare, and the right is the one oftener affected. Sometimes also, the whole internal surface of the Pleura is inflamed, at other times only a portion.

Anatomical Characters

The first pathological appearance which we observe, is a slight redness of the membrane, and this is generally followed by increased secretion of matter which is coagulate, liquid, or bloody. Should the secretion be fluid, the engorged vessels are relieved by it in some cases, and the membrane remains smooth. But sometimes a concrete secretion takes place, on one which now becomes so adherent that it is secreted, which
adheres to the membrane and, is not attended by any appreciable fluid.

Generally these two forms are associated, not always, however, at the commencement of the disease.

This false membrane is at first so thin that the presence of it is only rendered sensible by scraping the surface, soon however it becomes thicker and acquires a reddish colour, but is still soft and easily separated from the true surface of the Pleura.

At first there is but a small quantity of liquid with the concreto substance just mentioned, but it soon makes its appearance in larger quantities, in some instances gradually increasing until it reaches several pints, in others never exceeding a few ounces, and is generally more abundant in the Chronic than in the Acute form of the disease.
The effused fluid is turbid like whey, yellowish, or serpulent, or may consist of foam, pus occasionally blood, or with bloody coagula intermingled, and is generally free from odor or nearly so. Unless this fluid is confined to one spot, by adhering connecting the internal surfaces of the Pleura, it changes its position in the Pleural cavity in accordance with the movements of the patient, the last condition being usually the case. Now if the fluid should be present in considerable quantities the lung is compressed, and at last reduced to the form of a flattened cake, and as the air cells are compressed also, adhesions may form between them, and the lung may regain its proper shape. This is more generally the result in Chronic than in the Acute form of Phthisis, the last mentioned is that to which
I am not certain of the plant's name, but it is likely to be a
march ant in the Rhododendron genus. This plant is
an excellent host for Rhododendron larvae, which
lay their eggs on the surface of the leaves. The
young larvae feed on the foliage and grow in a
healthy condition.

Because the larvae are so much smaller than the
parents, it is more difficult to remove them.
In favourable cases, should there be little or no effusion of fluid, the opposite surfaces will come in contact and quickly form adhesion; on the other hand, if the liquid is in quantity, it is apparent that more time will be required for this result to take place as the fluid must be absorbed before the surfaces can come in contact. It is said, that in some instances the serous fluid is effused with but little or deposition of false membrane, and this fluid, being absorbed, the Pleura returns to the state in which it was when attacked by inflammation, but this is probably of very rare occurrence. In case the disease should end in adhesion, the lymph, by which this is effected, after going through several changes, remains, at last in the form of cellular tissue.

The walls of the chest are forced
wards, by the pressure of the atmosphere, but will regain their proper shape as the lung regains its power of expansion, but should adhesions have taken place in the air cell, while the lung is compressed, then the lung will not regain its power of expansion in which case the healthy lung will enlarge so as to supply the place of the compressed one. Should the entire cavity of the Pleura be closed by these adhesions the person cannot again suffer from Pleurisy on that side.

Symptoms: Acute Pleurisy commences with a chill, and a very intense pain in the side, these are followed by cough, quick breathing, fever, and difficulty of assuming, and retaining different certain positions. The pain, or a stitch in his side as the patient calls it, is so striking and characteristic of the dis
case that Dr. Watson relates that the Romans, called it the "Mordus lateris." It is generally felt in one spot, and in a great number of cases this spot is just under the breast. The reason is probably this. When nervous trunks are inflamed, the pain consequent on this inflammation is generally reflected to the part where the nerve is distributed, now on the nervous trunk, and coming off from the spinal marrow, and are affected in their course the pain is referred to their extremities in front of the chest, and thus we may account for the pain being felt in this region. This symptom generally exists from the outset of the disease; in some patients sharp, either continued, or renewed at intervals, generally more or less severe as the disease is acute.

The pain is increased by lying on the affected
side, by pressure on the intercostal spaces, by cough, and the act of respiration. It is sometimes increased or diminished along with the exacerbations of the disease. When effusion has taken place the opposite surfaces are prevented from coming in contact by the presence of the fluid, and this circumstance greatly mitigates the pain or causes it to cease entirely. In some cases, however, this symptom is scarcely felt at all unless during full inspiration, or coughing, or only a feeling of soreness is complained of by the patient when pressure is made on the intercostal spaces. The next symptom as I have enumerated them is cough, which is at first short and dry, or only attended by a slight mucous expectoration, and may remain so throughout the disease. In some cases it—
is painful, and in consequence of con-
joined bronchial irritation is marked
by a more copious expectoration, which
is often streaked with blood.

The respiration is almost always
more or less embarrassed, and the cause
of this is, that as the patient feels the
pain consequent on a full expansion
of the lung, he instinctively as it were,
attempt to breathe without expanding
the lung, as the oxygenation of the blood
is thus rendered deficient; he must
breathe oftener to supply this deficiency.
It follows thence that the breathing
is not only short but rapid.

The circumstance which alleviates
the pain, increases the dyspnoea; that is,
the effused fluid, while it hinders the
contact of the opposite inflamed surfa-
ces, and thus relieves the pain, mechan-
ically compresses the lung, and prevents
due expansion. There is always considerable fever, the pulse full, frequent, and long; but if the pain should be violent it is often contracted.

The fever is always better during the early part of the day, and becomes worse as evening approaches, and in some cases thus is delirium. The patient at first lies on the sound side, but as the disease advances he no longer retains that position because of the dyspnœa which is occasioned by the fluid pressing on the lung. He now lies on his back with an inclination to the affected side.

**Physical Signs...**

There are sometimes of the greatest importance in making out the diagnosis. In the beginning percussion is quite clear, and the only sign which is noticed by auscultating
is diminution of the amount of respiration, caused by different expansion of the lung. This however may depend on Pleurodynia, so that the symptom is not of the most satisfactory nature. The reason why percussion gives a clear sound at this is that as yet there is no effusion of liquid in the Pleural cavity. But when this liquid is present and is of a certain consistence, it gives rise to a peculiar symptom, which has been called the friction or rubbing sound.

It is asserted that this rubbing sound may be produced by the motion of the inflamed surface on each other without any fluid being present. This symptom is occasionally of short duration, as the state of the Pleura which gives rise to it is soon obviated by another circumstance.
"the liquid effusion" which by preventing
the contact of the inflamed surface
rendering the continuation of this sound
impossible.

Though this symptom can
not always be depended on, yet in
some cases it is invaluable.

When the disease occurs only on
one side, by comparing that, with
the opposite, the diminution of the healthy
resonance is rendered easily perceptible.

If the effused liquid can cha-
rage its place in accordance
with the movements of the patient,
the greatest distress will of course
be over the most dependent portion of
the chest.

But when the liquid is con-
fined by adhering, or in case the
whole cavity is filled by it, then
will be exceptions to this rule.

The distinctness with which we hear the respiratory murmurs will depend on the quantity of liquid affixed, and should this be great it will be entirely lost.

A.D. 1855.
An Inaugural Report

of

Five Cases of Typhus Fever

Submitted

to the examination of the

Provost, Regents, and Faculty of Physic

for

The Degree of

Doctor of Medicine

by

Tho. A. Murdoch A. B.

of

Baltimore

Maryland
Loyal Stetson, Coloued,

Entried Hospital June 9th, 1849. Laid in
a dirty Noval in Brandy Alley, between Outaw
+ Howard Streets. Slept on the ground floor, on
old piece of Carpet, not having any Bed. the
Room + Carpets often being very damp. Never
suffered for food before he was taken sick.
Occupation a Labourer. Next to the Tiberias
last Spring. Thus he was much exposed, and
suffered from an attack of "Intermittent Fever."
On the 2nd of June was taken with a chill folowed
by vomiting, which compelled him to remain
in the House, except when he was forced to go
out to beg for food. Took no medicine previous to his
entering the Alms House, except an infusion of
Yackaple, which flushed + vomited him. So day
Saturday, he was discovered by a Police Officer +
sent out to the Alms House. The Man being
very stupid, it was impossible to gain any in-
formation, concerning his symptoms during the
seven days he was sick. Previous to his admission,

q Calomel gr. xx

1 to be taken to night.

Sunday Morning June 10. Patient slept tolerably well during the night, although disturbed by sensations of heat followed by quick inspiration. Complaints of tightness & sharp pain in the Head. Eyes glazed. Tongue coated with...
with a brown fur. Red at tips and edges, unable to protrude the tongue without moistening it with water. No appetite. Vomited during the night a small quantity of dark, bitter matter. Great tenderness over epigastric region. Abdomen more distended than yesterday, and very tympanitic. Liver exceedingly painful on pressure. On stool this morning thin and dark colored. Pulse frequent with some fulness. Great prostration, was ordered:

* Sulphur Quinina 3f

* Aqua 3 vi

Tablespoonful every four hours.

Brandy 3vi daily. Strong Coffee three times a day and But tea for dinner.

Monday June 11th Patient died at 9 o'clock. Autopsy five hours after death.

Peritoneal covering of the intestines deeply injected. Some water in the abdominal cavity. The stomach and intestines greatly distended with gas. Stomach filled with about a quart of dark
dark thick fluid, containing specks resembling coffee grounds. The outer coat of stomach, numerous specks of ecchymosis shining through the peritoneal coat, dark spots of blood subjacent to the mucous coat shining through it. Much pointed capillary injection particularly about the pyloric extremity. Mucous coat softened & very much thickened. The whole surface of stomach covered with tenacious mucous. Attached to the lesser curvature a large melonotic fluid. Intestines. Specks of ecchymosis shining through the mucous coat. Mucous coat softened & thickened. The mucous coat of them softened, thickened, and corrugated. Except the ports occupied by Peyers patches, the mucous membrane was softened, but the patches being less thickened than the mucous membrane surrounding it. Kidneys of ordinary consistence. Every white deeply colored with bile somewhat congested with blood which was easily squashed from a cut surface. Liver larger than normal deeply congested in its capillaries. Surface presents
a mottled appearance, from a mingling of red and yellow. Gall bladder slightly softened and showing some capillary injection, non-mush distended with dark viscid bile of a puny black colour. Spleen larger than natural and a little softened. Muscular glands enlarged. Lungs, the surface presenting numerous spots of extravasated blood, this mingled up with a quantity of melanotic matter. The upper lobe more crepitant than natural, middle lobe natural, lower lobe splintered and passively congested. This congestion too deep to be Post Mortem. Heart filled with dark fluid blood, some flakes of lymph on the right ventricle, the result of old pericarditis. Walls of heart more flabby than natural, ventricles containing no trace of fibrin. Valves andolumae carnea of a yellow tint. All the muscles fat of a yellow tint. The above Post Mortem was partly dictated by Dr. Chas W. Buckler.
George Smith Coloured Age 33. Medium height

Entered Hospital June 9th. Lived in Frederick St.

between Lombard & Pratt. Said he had a comfortable house, and a wife to take care of him.

Occupation a labourer. Generally works on the Wharf, loading and unloading Barges. First taken sick

on last Tuesday with a chill followed by a hot fever, which caused him to remain in bed. Previous
to this he says he felt perfectly well. Wednesday

took a dose of salts, which vomited & agitated him
times. Thursday evening took another dose which

agitated him four times during the night.

Also took a dose of Larogens Syrup.

Yesterday Saturday he walked to the Watch House
and was sent out in the Watch wagon. Was

ordered last night, Mop Hyder p.xv. and 10 p.m.

as he complained of not sleeping during the

night. Complains of no headache or disturbance

about his head when sitting up. Eyes deeply

jaundiced. Countenance bright and not puffy.

Tongue red at tips and edges, coated with a white.

7 sulph Quinia 3/3

# in chart vi 5 one three times a day

Brandy 3 vi daily 90 Calomel gr x

Aulo Opia gr i

i take 5 night

Monday Morning June 11th

Great prostration, answers questions rationally. Tongue dry and sore to about the teeth. Pulse frequent and futile. Skin cool and clammy. Died at half past 3 o'clock in the afternoon.

Autopsy. 19 hours after death.
Lungs, upper lobe more crepitant than natural; lower lobe splenified and some points of Pulmonary Apoplexy on the surface these points very distinct. Heart slightly hypertrophied, left ventricle containing a clot of a deep yellow color. Right ventricle also containing fibrin extending into pulmonary artery. Contaminated blood under brown lining of heart. Walls rather flabby. Stomach containing about a half pint of dark fluid and some flakes of mucus. Mucous coat softened and thickened, and covered with glairy mucus. Pointed injection. Intestines the mucous coat presenting a yellow tinge. Some portions of it exhibiting the small vessels much injected with blood, no alteration of Nexus patches or isolated follicles. Splen of the consistency of raspberry jam, and almost totally disorganized. Liver peritoneal coat peals off very readily, texture somewhat softened and friable. Much blood oozing from capillary vessels on surface. Gall Bladder distended with thick greenish bile, mucus of the whole body soft and flabby.
John Matthews, colored, a man of large frame very Black. Entered the Hospital the 21st of May with hoarseness and asked for his discharge on the 21st of June. During the time he was sick he was in the same Hospital with the patient sick of this fever. He returned to the Hospital on the evening of the 6th (not having left the Alms House premises in the meantime). He was not seen until the morning of the 7th. The onset of his disease was marked by a chill followed by fever. At present he complains of no central disturbance. Has no stupor. Legs paresthetic. Countenance indicative of anxiety and some distress. Dyspnea. Has lacerous rate approximating to bronchial respiration, more marked on the right side with slight sub-costal rise in the region of the Stomach increased vocal thrill on the right side with slight dulness on percussion. Tongue red at tip and edges coated with a white film in the middle. No Appetite has had during the night. Nausea & Vomiting. Complains of a dull pain on the
Stomach. Great soreness on pressure over the epigastric region. Bowels very loose, light or nine watery stools during the night. Symptomatic some tenderness in the right iliac region, slight jangling. Liver enlarged, tender, and painful on pressure. Pulse very small, frequent, and compendious.

Irritability of Muscles undulation of Rectal Muscles very striking. Endurance in face and chest. Slightly associated and much frustrated.

Contracted condition of skin about metacarpal bone figures. Was ordered:

Op. Carbo 2 lb. 3 iv. 50 Whiskey 0 i

1/4 teaspoon a day.

Op. Kramarea 3 i

Aqua Bbl 0 i.

5 wine glass three times a day.

Strong Coffee for breakfast, supper. But tea for dinner. Patient died at 8 o'clock in the evening. Autopsy twelve hours after death. Lungs emphysematous on pressure, except top of right lung, which had a deposit of tubercular
Matted. Some inflammation in the bronchial tubes of right lung. Heart flabby and stained with bile, imprisoned blood showing through the peritoneal coat. Blood fluid and dark Coloured. Stomach full of a dark yellowish fluid. Mucous coat of stomach of a yellowish color thickened and much softened. Small intestines, moderately distended with gas. Mucous Coat very much injected and slightly softened; no ulceration or alteration of yellow patches or isolated follicles. Colon very much contracted upon itself. Mucous Coat much injected. Kidney of a bright yellow Colour, no alteration of tissue. Livers very much enlarged and congested with blood; near the Colon of Raspberry Sand. Softened and perfectly rotten. Yellow softened though not as much as some others of those previously examined who died of the same fever. Muscles fat. And nearly all the tissues were tinged with bile.
John Wesley Bond. Enlisted the Hospital
June 14th 1849. Came from O'taw & below
Montgomery. A large & muscular man. To all
appearances, of healthy Constitution. A hard
drinker, according to his own account taking
his seven drinks daily. Sick thirteen days
previous to his entering the Hospital. First
taken with a Chill & weakness in his head,
followed by fever. First four or five days Bond
was constipated. After that he had natural
stools. Appetite much the same as in health.
For the last four or five days has been troubled
with nausea & vomiting. Vomited yesterday
some dark bitter matter. Took no medicine
previous to his entering the Hospital, not having
a Medical Attendant. At present he complains
of great pain in his head, also swimming in
his head when he sits up. Body jaundiced.
Face covered with a profuse perspiration.
Tongue Coated with a whitish film. The pupils
dilated. Countenance bright & intelligent. Precious
Questions promptly & distinctly. Complains of
timidiness when he lies upon his right side, makes
him cough. Generally lies upon his back, or
left side. Dullness upon percussion in the
back of both lungs. Respiratory murmurs
faint. Other parts of the lung the respiratory
murmurs distinctly audible. Great pain inflicted
over the region of stomach by percussion. Liver
painful on percussion and enlarged as perceived
by percussion. Pulse rather full & frequent.
Great heat of skin. Muscular looseness and
irritability. He was ordered

§ Sal Roshitis 3 i


\[ \text{in chart if tone to night tone in the morning} \]

Strong coffee two pints daily

June 5th General condition continues the
same. Largely he feels better than he has, since
he was first taken sick. Two stools during
the night, small and dark coloured, bmonted
twice during the night, which he says gave him
great relief. Pulse is rather full, not complicated
Expiration hurried. Some tenderness over stomach and liver as yesterday.

Sulphur Quinia 9 x x x

In an hour, 2 tablets to be taken at 2 o'clock, one to night and one in the morning. Beef tea for dinner.

Wednesday June 6th. Patient's condition evidently worse. Countenance has a natural expression as it has during all the time he has been in Hospital. No stupor or delirium. Complains of great pain in his head and delirium. Abdomen considerably distended and tympanitic. Some pain on pressure over stomach and liver. One bottle during the night. Respiration very much accelerated. Pulse 124, Composite.

Early this morning he was taken with epistaxis which continued for a couple of hours, although ice was applied to his nose and back of neck and astringent injections thrown into his nostrils. It became necessary to apply his posterior nasal, then applying the instrument he vomited
a considerable quantity of congealed Blood. 

Was ordered

Sulphur, to be continued in gr doses 3 three times daily.


Eat nothing. Stools dark and offensive. During the morning he got out of bed to go to stool. Contrary to the usual of the Physician while on the chair he vomited some congealed Blood, and fainted, he was immediately placed in Bed, and died a short time afterwards.

Autopsy: twenty hours after death. Lungs congested on pleura. Yellowish at the base of the lungs, points of extravasated Blood.
all over the lungs. Heart flabby and slightly hypertrophied. The clot in right side of heart. Columnae Carneae of a pink yellowish Color. Right side a very small clot. Blood very fluid and of a dark Black Color. Stomach full of a dark fluid with some clots of blood. Mucous Coat very much injected, thickened & softened. Intestines distended with gas. The Mucous coat very much injected. No ulceration or alteration of isolated follicles or Yogurt patches. Liver of a light yellow color very much enlarged & somewhat softened. Kidneys congested of a bright yellow color. One of the Kidneys was found in the Pelvis just above the Bladder. Uterus very much enlarged & softened. All the Muscles and fat were colored with bile.

Emeline Johnston Cole entered the Hospital Sunday June the 19th in the afternoon. Has been married. This woman is in a very sick condition to learn anything of her history.
Talks very inconsistently. Lived in Chestnut Alley between Pearl and Pine, not a very clean place. Patient knows of no sickness in the neighbourhood. Occupied a two story brick house, slept in the second story on a bedstead. (I mention this because most of those who entered the hospital affected with this fever slept on the ground floor on old pieces of carpet.) The patient's condition indicating the contrary, his droppings exceedingly filthy, the dirt of two or three lines of thickness on the person.

Says her husband was sick at the same time, he was taken with a chill, four weeks since, followed by a sensation of heat, pain in head, back and limbs. She states that she nursed him, was taken sick two weeks ago, and had precisely the symptoms of her husband. Bowels open two or three times a day, vomited daily present symptoms. Woman looks much emaciated and is very much prostrated. Every muscle is perfectly lazy and she lies in bed like a log.
Countenance expressive of much anxiety. Eyes jaundiced. Lips dry and cracked. Tongue of a bright yellow in the middle, and red at tip and edges. Skin cool and clammy. Pulse 50 and very weak. Brandy 3 vi

of an orange hue, much softened. Finger passing readily into it. cut surface also of an orange hue, blood exuding not only from the larger vessels from the Capillaries. the lower surface of the liver resembling that of a lung in the third stage of pneumonia. peritoneal coats easily peeled off. Gall bladder distended containing about an ounce and a half of dark greenish bile. Stomach contains about a pint of fluid of a dark greenish color. Pointed injection of the Mucous Membrane. particularly about the Cardiac orifice. also thickened and softened. thickening seems to depend partly upon its diminished size. Ulcer enlarged and adherent to the peritoneal coat of intestines. much softened. Intestines reddish mucous blood. Under the peritoneal coat. Mucous membrane of ilium softened, but not much thickened. No alteration of chyme patches, or isolated follicles. Muscles tinged with bile.
It will be seen by a perusal of the foregoing stages, the Cases of Malignant Yellow Fever therein Contained, were characterized by thin successive severity in attack and progress, and universal fatality. These Cases were among the first which appeared at the Alms House, and according to the law of all epidemics were of the more fatal than subsequent ones. The symptoms attending them during life and the post mortem lesions were far more intense and therefore better types of the epidemic, than those which occurred at a later period. It is not my purpose to enter into a lengthy discussion as to what was, and how this fever originated. It has been undertaken by another far more capable of doing justice to the subject than myself. It is unnecessary to say that this could not be, the simple fact that Yellow Fever has not ventured so far North.
for many years, the early season of the year when the Fever first made its appearance, and its attacking all almost exclusively the Blacks, "for the African race is less liable to yellow fever than the Caucasian," the comparative exemption of Negroes from the disease has long been noticed. These facts would be sufficient, had we no others to substantiate our proposition. That it was not remittent fever, it is only necessary to look at the high degree of contumacy which characterized the fever, and the want of that constant and necessary feature of remittent fever, exacerbation or remission. What could it be? It must be Malaria Fever, or some modification of it.
In

Inaugural Dissertation

on

Uterine Hemorrhage

Submitted to the examination

of the

Board of Regents of the Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by Dr. S. W. Willoughby.
On conformity with the long established practice of submitting to the faculty a medical composition, I have endeavoured by indefatigable exertions to delineate the various forms and symptoms of uterine hemorrhage. Dr. after thus explaining but imperfectly, I fear the first appearance and future progression of the disease, my treatment for the same, will give you a more definite idea of my capability as a practitioner.

Without making any farther introduction, I remark and believe that article may afford general satisfaction, I will proceed with the subject.
Causes.

Of may be stated at an acute or -

obstetric which had almost no ex-
ception, that a well contracted uterus
cannot bleed, and all obstetricians.

habitually feel secure when they

find the organ hard and of a small

size. Nevertheless, the state of contraction

may soon be followed by a sudden a

relaxation of the contractile force of the

uterus that the gentlest injection of blood

into its cavity, is capable of disturbing

it again; if that blood be prevented from

escaping at the ostium or at the vulva.

But if a conglomum of blood should

fill the vagina and stop the mouth of

the womb, or if the napkin should be

too strictly pressed against the genital

fissure, preventing the escape of fluids

therefrom, the blood which flowed into the

womb will gradually distend it to that
degree that without losing a drop of
 externally the woman may expel enough
 blood into the uterine cavity to expand
 it very greatly, and to cause a fatal synap.
 The influence of position in determi-
 ning the momentum of blood in the
 pelvis is well known to the profession,
 and there are few cold when it is of
 more consequence to pay a profound
 attention to that influence than in parturient
 woman. A lateral may be a good deal
 relaxed or atomic, and yet no blood if
 the woman lie still with the head low,
 whereas upon sitting up suddenly such
 is the rush of blood down the column of
 the aorta, the hypogastric and the
 uterine and spermatic arteries, that the
 substance afforded by a feeble contra-
tection, is instantly overthrown and column
 of blood escape with an almost inac-
 trained impetuosity. The vessels of the
 brain under such circumstances become
rapidly drained and the patient nearly
told a people of syncope which now
and then proved immediately fatal.
These causes of sudden and fatal hemor-
rhage are very rarely met with.
Special Causes.
The irregular, pathological contractions
and rapid normal contractions of the
uterus and its too rapid retraction may
separate the placenta prematurely
from the inner surface of the organ
and produce a hemorrhage which
is the more dangerous in proportion to
the labour if kept advanced, and al
most known that phenomena are par-
ticularly manifest in cases when
the uterus had been disturbed by
atrophy of the amnion at the time
and when the rupture of the membr
brane permits a large quantity of
the placenta to escape or in cases of
twins.
In the latter case hemorrhage may occur after the birth of the first child and then the life of the mother and that of the second child which is contained in the uterus may be compromised or it may appear after the birth of the two children then only the life of the mother is endangered.

Lacerations of the neck of the uterus.
The foetus can scarcely pass through the maternal organ and therefore lacerating the neck of the uterus to a greater or lesser extent and if in this case only a little blood escape it is because the foetus obliterated the fatal cord mouth of the vessels which are exposed by the laceration of the neck in its passage.
The intiation of the placenta on the neck of the uterus is an almost constant cause of uterine hemorrhage.
Mr. Morcan explains instance of
this instance thorough hemorrhage.
He remarks that these instance of
instance of the placenta without
hemorrhage are all referable to cases
where the foetal had died often long
before its expulsion. In this case in
fact the uterine circulation is modified
as follows: of all the blood going to the
uterus to nourish the foetal only as
much reaches as is necessary to the
uterine circulation for properly to called
the (defect diminished, since even an
opposed, in fact the stimulated which
sustains the blood to the uterinearry
caused the circulation it is modified.
that but little or no hemorrhage occur
when the placenta separated, or in
all cases if hemorrhage occur it is
very slight.

A short where the vein is maneck to
many parts and proceeds especially in one.
of its points a swelling which seems to be a collection of blood the organ-
ized clot of which around the vein composed of on all sides. I attribute the
death of the foetus to this compression.
We can see that if the vein may rupture
and permit blood to be escaped into the sheath
of the chord this sheath also may be
ruptured and give rise to hemorrhage
which is sented to the child and mother.

Dr. Terney had observed one when
the vein was very taut, to almost
the whole of its extent and had decham-
ged a great quantity of blood —
This accident may also cause a
hemorrhage within the womb and
an external or intra-uterine hemorrhage
according as the membranes are entire
or broken according as the neck of the
uterus is or is not closed by cloths.
Diagnosis

Hemorrhage sometimes appear suddenly even when not caused by external violence, but most commonly the pulse feels a weight and dulness of head, tingling in the feet, dull pain in the loin and thigh, and uneasiness in all the limbs. Sometimes all the local symptoms of plethora are attended by general symptoms, thus the patient's face is flushed, the pulse a dizziness and headache, the pulse is full and developed. How so—

The foregoing symptoms appear a longer or shorter period before hemorrhage occurs. The symptoms which announce the actual existence of the accident are as follows: General signs. Weakness of the pulse. Paleness of the face. Coldness of the extremities, ringing in the ears. Finally, all the symptoms of hemorrhage generally occur. The local signs are also distinguished.
into two clumps according as the hem-
orrhage is apparent externally. external
hemorrhage, or when the discharge of
blood does not appear. external hem-
orrhage, internal as in the uterus.

External Hemorrhage. The hemorrhage
itself is its own symptom. Secondly,
generally attempt to ascertain exactly the
Cause of hemorrhage in order to esta-
lish the diagnosis. This point to me to be
perfectly able for whether the hemor-
rhage be occasioned by the rupture of the
placenta over the orifice or its premature
separation or the indications will be
varied only by the lightness or severity
of the accident. Further this persistence
in establishing the diagnosis may be at-
tended with serious consequences; e.g., a
translocation by the finger may separate the coag-
ulate and increase the hemorrhage or re-
new it if it had been checked.

Nevertheless if by great care in this
investigation. The sound thus detected in the neck of the uterus a tough and firm substance, if the membranes be entire, or the hemorrhage increase during uterine contraction it must be attributed to abnormal intension of the placenta on the neck of the uterus.—

If on the contrary it arises from the separation of this body, the hemorrhage increases only between the foal and its legs during contraction and the placenta is not felt at the orifice. After the separation of the membranes these differences in the increase or diminution of the flow cease to be perceptible. In both cases the pressure produced by the head of the child prevents the blood from escaping during contraction. Also be understand the character of these signs and why that which seems the most positive, the presence of the placenta
May lead into error, because it is difficult for the accoucheur to distinguish the placenta from the clot which obstruct the uterine orifice.

Hemorrhage from the separation of the placenta and even that arising from the insertion of the placenta over the orifice may be confounded with that coming from a tumour of the

Hairy decidua or from any other part of the uterus which may be ruptured.

Internal Hemorrhage. As an advanced period of pregnancy, even during labour, a small quantity of blood may accumulate in the uterus and remain unobserved, but most generally, especially if the hemorrhage occurs to any extent it appears externally by general signs, which I have mentioned, and by the following local signs:

There is greater resistance of the parts of the uterus, irregularity of its form.
Concluded with its unusual and rapid development, and the cessation of its active motions.

During labour, internal hemorrhage is most frequently preceded after or followed by a slight discharge of blood externally, in that case the hemorrhage is both internal and external.

Prognosis

The severity of the hemorrhage varies in ratio with the quantity of blood lost according to the period of the labour when hemorrhage occurs, its nature, and the cause which produces it. Thus hemorrhage will be more serious to the mother and child at the accident appearing at a period of labour more remote from the moment when the dilation of the uterine orifice or that of the external spouts will permit the spontaneous expulsion of the fetus or its extraction.
parts to become properly prepared for delivering the quantity of blood discharged may endanger the lives of both mother and child. Internal hemorrhage is much more dangerous than the external, because it may give time to a considerable loss of blood before it is detected by any external symptom, and then when it is detected it is often too late to remedy it efficiently. Hemorrhage is a much more serious thing for the mother in the hospital than in the city especially when retroperitoneal or puerperal eclampsia. When the hemorrhage had been very great without however destroying the life of the mother it affects the system severely. The female becomes much emaciated, the skin loses all its symptoms of chlorosis and indigestion and the sight and hearing are affected.
the panely pleased those around them, which are so permanent and
painful. All remedies for that are to bias and is continued until the strength
of the patient is restored by proper reg-
imen. If the profusion of the hemorrhage
be equally fatal to the mother and child
we must not think that the loss of blood
operates in the same manner on both.
The mother dies anemic, but the quan-
tity of blood which is lost rarely entau-
ges the life of the patient unless the
blood come from the umbilical cord.
The child dies from asphyxia at if.
the cord were compressed. Instead of being
anemic and pale it is on the contrary va-
gorous at the autopsy it be found all
the sound gorged with blood at once
in asphyxia.

General Treatment

When the accoucheur is called to a
female affected with hemorrhage
he must cause the patient to lie down in the horizontal position, remove the pillow and elevate the hip in a firm caisson, so that the child may be lower than the hip. The chamber should be well aired and ventilated; yet it should not be very light. The most perfect repose of body and mind is indispensable. Hence the female should be encouraged, and the utmost silence and complete quiet should be preserved around her. The patient should be lightly covered at the upper part of the body, the feet and legs should be uncovered or protected only by a sheet. The breast should previously be emptied by a cold enema or mildigation if the enema be insufficient and the drink should be cold lemonade, currant jelly, water.
Special Treatment

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Slight hemorrhage before labour, I would recommend the horizontal posture, absolute rest, fresh air, cold applications, drink, diet. Bladder if there be symptoms of plethora and bending the bladder & resume.

Severe hemorrhage before labour, I would use the same remedies as above mentioned, except bleeding, cold applications from the first and then ergot 36 grains in three doses, every ten minutes. If these means fail I would apply the tampon.

In severe hemorrhage during labour the same remedies as first mentioned. Then refrigerant, ergot if pains be acute and gentle and the anal and the vulva both Najdutting. If the vagina was dilated and the head had descended into the pelvic cavity, I would apply the forceps. If the patient extremely faint of
Simple delivery, slight hemorrhage during labour. I would apply the same remedies as first mentioned, except blood letting which is always proper when plethora exists, if pains become pubic and show I would give ergot.
An inaugural report
Of four cases submitted to the
examination of the Provost, Regents,
and Faculty of Physic of the
University of Maryland
For the degree of M. D.
By H. Rowland Walton
Annapolis
Maryland
Michael Ryts—A German, thirty six years of age, a native of Germany. Emigrated to the Country a year since, with his mother and brother. His father died in Germany of consumption. He states to have been in the enjoyment of good health always hitherto. He presents a medium stature, well and regularly developed frame, and apparently a vigorous constitution. Says that he has never been the victim of intemperate and vicious habits. His personal appearance is somewhat prepossessing. Feature of the face regularly proportioned, with an intelligently expressive countenance. Hair brownish black, and dark eyes. He entered the Hospital yesterday, Nov. 6th, 1849, says that he has been engaged as a Blacksmith in Baltimore near Pratt Street always according to his account to have had a sufficiency of food. He was taken sick about eight days previous to his entrance, without having experienced any undue exposure to weather. The commencement was marked by a chill, a universal sense of fatigue and uneasiness.
By general weakness and an incapacity to pursue any mental or physical employment. He suffered from cerebral derangement; as pain, a sense of lightness, and buzzing occasionally in his ears; a loss of appetite. Had Episiotomie on the day of his attack and was repeated every day subsequently a small quantity at a time. He vomited also in the beginning, and had some gastric irritability. Has had diarrhea from the onset of his attack which caused him to have three stools daily. And was treated by a Dutch Physician in town. His present symptoms show a great deal of debility; if he attempts to walk his course is uncertain and tottering: he complains of headache, ringing in his ears and partial deafness. His answers are slow but intelligently given, and seem to suffer under Mental Estrangement. Yesterday Nov. 8th and the eighth day of sickness presented on examination of his Abdomen and back rose spots well marked and disappearing under
preparation—varying in size from a pin's head to four times that size. In day his skin is hot, pulse decidedly of some volume but incomparable. Has considerable thickening of his carotid arteries. Countenance anxious with apparently the forebodings of evil depicted upon it. Has had slight hemorrhage from his nose during the day, and his nostrils were covered with a gangrenous crust about their openings. Eyes not much altered if any in the anatomy of their lid structures but exhibit a wild expression. Cheeks somewhat flushed of a dusky hue. Tongue is red at its circumference and slightly smeared with a whitish fur in the centre. Jaws protrudes readily and without tremor. Appetite deficient. Thirst considerable. Diurnal during the day, especially after draught of water. Swelling I presume to gastric irritability. Has epigastric tenderness, and tenderness in the local region with gurgling. The abdomen presents no unusual amount of distension but is quite resonant on percussion. Has had five
Liquid dejections today. Respiration accelerated.
Perfusion ephelis a resonant sound. The resonant
noise was heard in the inferior and posterior
surface of the lungs. He was prescribed for
yesterday by Dr. Bayley, who gave the following
Dover. 3 gr. xij. 24. pil. xij. 3 one every 3rd hour
also. R: Potas. Citras ziji. aqua 3 vi. 3 Tabae poa
que in the interval of pills. And arrow root moor-
ing + night. Chicken soup for dinner.
9th of May. During the night he manifested
a great deal of restlessness. He was delirious and
dwalked about the room talking incoherently.
It was so difficult to keep him in bed and
passed the night without any sleep. This
morning he lies prostrated, presenting an
air of great anxiety. He answers the questions
correctly though slowly. Move in bed with difficul-
ty. Skin hot, pulse diastolic, moderately, full
and frequent at 112 p.m. Complains of pain in
his head and ringing in his ears. Face flushed.
Eyes showing a slight languid injection, bleb from his nose this morning - he appetite great thirst drank some coffee this morning - his abdomen is as it was yesterday - had the defecation this morning of a liquid and yellowish character. Complains of pain in his back. General feeling of lassitude. Tongue extremely red and dry, hands tremble slightly when uplifted and says he feels well and wishes to go home. At 5 o'clock P.M. the patient suffered from cold especially down his back and legs. His skin however imparted to the hand a sense of warmth. His senses are confused and was very delirious during the day, leaving his bed suddenly and staving in the face of those asleep, and placing his hands upon their faces causing them to awake with fright which he did effectually as they knew him to be delirious, he also manifested a great degree of strength during his Mental oblivion. During the evening he had several stools - Pulse was
Frequent, small and compressible. Nothing applied to the
right side region was fastened to the bed during
the night, but showed no signs of drops.
10½ h. Can lie in any position he is placed.
Countenance expressive of much suffering:
Skin as usual no change in his eyes. Epistaxis
several times to day. Respiration 32 pulse 25.
Homorous bronchus. Tongue unchanged. Some
Meteorism and gurgling in flaccid region.
Had two evacuations this morning. Some muscular
irritability and pulsating. Says he feels very
tired - slight cough. Slept some towards
evening. 11½ h. Patient says that he feels no better.
Much fatigued and feels almost void of ani-
mation. Was delirious last night. He answers
correctly. Does when referring to his suffering.
Rulse as before. Expectoration is of a viscid
Mucus situated with blood. BibilantBron-
chus is audible in his lungs. Respiration
increased to 35. Lips dry. Tongue the same.
What tremulous on protrusion. His appetite is better. Two stools this morning last night of a yellowish color and very offensive. 12th Patient says he is better. Expression more tranquil, some tenderness about his head. Skin moderately warm and dry. Pulse alike. Jena are perfect. Tongue red and dry showing two transverse fissures slightly tremulous in protrusion. Appetite improved. Thirst considerable. Abdomen in the same condition. He failed three times out of eight to evacuate his bowels. 13th. Patient about the same, with slight pain in bowels during the day. His senses were good, but at night they became confused. Dr. Barlow ordered him to be blistered over the abdomen. Pulse and skin as before. 14th. Does not complain of ringing in his head nor ears. Had slight muttering last night. Lips dry and disposed to parch. Tongue generally red, pulse small. Medicines prescribed were discontinued except. Carbonate of Potash. The following ordered—
13th. In the morning his senses were good, but became confused towards evening. Countenance rather better. Tongue in a more improved condition, it is moist and slightly smeared with whitish fur. Had two passages rather later. Condition altogether better.

16th. Patient is pretty much the same.


18th and 19th. He seemed to be much better, bowels free and a little liquid. His medicine is continued. Patient went on to improve rapidly and was finally discharged well on the 28th.
Charlotte Newberry, a white woman, aged thirty-nine years. Entered the Hospital June 2d, 1843. She is of medium size, a tolerably stout frame, and appears to have had a good constitution. From all that I could learn (for she was unable to give any reliable account of herself and her husband who brought her here was drunk at the time) her occupations have been bad and deplorably, was the subject of intemperate habits. Lived in Old Town on the Point and generally attended the sale of vegetables. It appears however that she was first taken sick about one week previous to her admission, with a fever, headache and vomiting. Her present condition shows considerable ptosis, and almost void of intelligence. Surface stained yellow universally, exhibiting a deep, farinaceous condition. Eyes have the air of great dulness of expression, and are much injected with blood. Position
in bed, is that of great prostration. Pulse exceedingly small and frequent numbering 120. Skin cool relaxed and clammy. Respiration accelerated imperfect at the back and lower part of the chest which is also dull on percussion. Had considerable dyspnoea. Lips and tongue are smeared with a dry and thick gum. Pores on the teeth. Bowels are constipated. With great tenderness over the Epigastic and Hypogastric Regions. On her legs several spots of Ecchymosed blood or Petechia are to be seen presenting a dark appearance. Pons are small of a bright red situated up on her breast and shoulders. owing to dysphagia she was unable to take any of her medicine.

in all the tissues.

Chest—Lower lobe of left lung partially crepitant and passively engorged. One half of the upper lobe passively congested, the upper half crepitant and emphysematous. Upper and middle lobes of right lung crepitant and with some old pleuritic adhesions. Lower lobe splenified.

Heart. Muscular structure very flabby. Large clots occupying the right ventricle, atrium and into the pulmonary veins. No trace of clot in the left ventricle. Mitral and aortic cuspid valves of a pale orange hue.

Abdomen. Spleen is twice its normal size. Capsule readily detached. Consistency about normal. The liver is of natural size, of a pale yellow on its outer surface, running into a light blue at its inferior margin and mingled with red and pinkish colors. Capsule easily detached. Cut surface of a pale yellow, with red lines in its vascular
network and surrounding the veins—a
quantity of red fluid, resembling pale
Cherry cordial, exudes from the cut surface
When pressed—there are some points of the
mosaic blood under its peritoneal invest-
ment. Parenchyma somewhat softened,
flabby but not remarkably friable.
Torn surfaces are less granular in appearance
than that of health. Gale bladder very much
engorged, vesicle bile adhering to its walls,
but that which occupies the centre is fluid.
Stomach contains a half pint of fluid re-
sembling oat meal gruel but rather darker
in colour. Mucous coat slightly injected about
the cardiac extremity moderately softened
and not much thickened. Kidneys are
healthy, slightly tinged yellow and their
Capsules are more readily detached than
from in most diseases.
Intestines. There are two patches of red
injection on the free mucous coat where
it emerges from the Cæcum into the Colon.

These patches are covered in their centres with organised lymph. The glands of Peyer and Brunner are perfectly healthy. There is some slight arborescent injection of the Cæcum. Not at all mammillated.
William Talley, aged twenty five years, admitted into the Hospital Jan. 17th, 1856.
Of medium height; well built; bilious temperament; dark complexion, coarse features, black hair, gray eyes; born in Kerry County, Ireland. Labourer by trade. Food and clothing has been generally good. In childhood had Variella, but has never been sick since of importance until now. Arrived at New York Dec. 31st-32nd in the ship Philadelphia from Liverpool, with six hundred Emigrant passengers on board. Their sufferings from hunger and thirst were such as he never witnessed before, a few children and an old man suffered in- descriptors, does not recollect of any of them being sick with ship fever. Came to Baltimore Jan. 5th from New York, and went nine miles out into the Country where he was exposed a great deal to rain and cold at his work on the Rail Road. Was first taken Jan. 9th with Croup and Cough,
Plain in the back and limbs, and headache, followed by a slight chill and fever, from which time the disease grew worse.

Thursday Jan. 17th 1793, P.M. Local discemtia, flushed face, anxious expression of countenance, thin hot and dry; Petechiae scattered over its whole surface, more numerous on the back and abdomen, several large ones on the dorsum of the left foot and on the upper part of thorax, left of the median line, near the origin of the Pectoralis major muscle; Eyes sunken, Tongue dry, covered with a dark coloured fur, gums natural; hearing dull. Spring up suddenly when spoken to, in a mild tone, and stares wildly at you; respiration accelerated, pulse quick, full and compressible, bowels constipated, Urine small in quantity. Ordered, Sulph. Rochelle 30 grs. to be taken at bed time.

Friday 18th 8 A.M. Tongue not so darkly furred as last afternoon. Bowels were evacuated.
Symptoms otherwise continue the same.
R. Temp. 91.2. Dr. 2 Jps. Liq. Ammon. Acc. 2 Jps.
Lys. Limonius 2 Jps. No. 5 Tablespoonsful every 3 hours.

A Dr. P.M. Considerable deafness, tingling, numbness, slight stupor. Tongue pierced transversely and tremulous; skin hot but somewhat moist.
Sleeps nearly all the time without being refreshed; no nausea, no pain or tenderness anywhere on pressure (or without it), Continue treatment. Dr. Barley ordered coffee for breakfast and supper, Beef Tea for dinner.

Saturday 19th 10 P.M. Skin hot and dryish.
Petechiae near the pectoralis muscle and on the dorsum of the foot fading. Many of them on the abdomen and back are replaced by red spots, vanishing under pressure. On the dorsum of the right foot and second toe are two well marked petechiae.
Eyes not as much suffused, ringing in the ears and deafness. Continue, lips dry and coated
With a brownish matter, fetid breath, abdominal tympanitic, bowels open last night.
Drowsy and weak, respiration easy. Pulse weak and feeble. Continue diarrhoeic mixture.

Sunday 20th. 2 A.M. Complains of being very drowsy, respiration slow, pulse quick and feeble, skin hot and moist; retraction of skin, pupils dilated, tongue moist, red at its tips and sides; bowels not open since Friday night. Continue mixture.

K. Magn. Sulph. 0.5 at R. H. 10 A.M. 0.25

F. Pulv. S. at once.

Monday 21st. 1 P.M. Tongue clean in the middle. Eyes glassy, hearing dull, answers questions slowly; bowels open twice this day; no tympanitic pulse. Feebler and quicker. flight Cough. Ordered Sulph. Quin. 0.9 at 1; to be added to the mixture.

In consequence of necessary absence the case was not noted on the 22nd and 23rd.

Thursday 27th. Decumbency often on either side; slight emaciation. Retches and rose.
Eyes not suffused, Tongue dry, Pulse weak, From Musk was discontinued, and the following was ordered by Dr. Bayley, R. P. M. B. M.: Zn. Sulph. 2 oz. 30 gr. 8 Tablespoons every 6 hours.

Friday 23rd Patient feels very weak, considerable emaciation, skin moist & warm, petechiae disappeared from dorsum of right foot and lobe, tongue moist and slightly furred, while in the centre, respiration natural, soft pulse, Bowels open. Continue treatment.

Monday 28th Petechiae disappeared entirely from the surface of the body, skin cool and moist, Bowels open once daily, urine 8to freely, slight sleepness & ringing in ears. The Quinine mixture was continued. From this time he went on gradually improving until the 2nd of February, when he was finally discharged cured.
Thomas Banks, a colored man, twenty-
five years of age, was occupied in the carriage
of goods from store to vessel and vice versa. His
constitution heretofore has been good and ac-
customed to temperate habits. Entered the
Black Hospital March 19th, 1849. With the fol-
lowing symptoms viz. States that he has been
sick for eight or ten days from the exposure of
bad weather; it commenced with a chill and fol-
lowed by a fever. And subsequently has
been much troubled by a dry cough attended
with a diminished voice and also vomited several
times much bile with other matter which was
apparently produced sometimes by copious drau-
ghts of water. Bowels constipated. Complains
of pain in his right hypochondrium. Appa-
tite entirely lost, great feelings of uneasiness which
stimulates that followed by much muscular
expectoration. Has slight headache, offensive breath,
dry and hot skin, pulse accelerated and hard.
Tongue covered with a thick yellowish -
Coat of white fur and is a little red at its tip and edges. Eyes are injected with yellow matter. Shins tinged yellow; urinates freely and highly coloured.

Treatment: Ver. ipec. Dios. abstracted in a full stream, an injection composed of &. Riciuni &. &. Leucinum &. copper &. copper Hyosc. Proc. chlor. &. Puls. Hoffmann 45. Ep. &. Conium 90. &. Pil. no. vi. &. one every 4th hour. 20th. Patient expressed himself much relieved from the abstraction of blood last night: It presents on examination this morning a Cup-like depression of a stiff tenacious coagulum, and well developed buffy coat. There is not more than an ounce of serum.

The enema was followed by a copious watery evacuation which also seems to ease him for a while. He played very little last night. This morning, he has a dull heavy expression. An answer questions slowly but intelligibly, says he has no bad feeling about his
Read other than when he stoops things that
he feels appear to be greenish. Pulse frequent
about 113 per min. and hard, skin hot and dry.
Lungue, dry and yellowish in the middle and
twisted at its top and edges is very pointed in pro-
tension. Appetite deficient. Complained twice
last night which he says was bitter as gall.
A free inspiration gives him slight pain in
the right side. Cough not so troublesome. To
expectoration of no value. Nor is his breath
quiet as offensive. This evening Dr. Barry
drew him and ordered six cups to be applied
over his abdomen, right side, also Colonel J.
Galaso ad proxi s. at once. His former pains
being exhausted their further use was dis-
continued.

19th Patient says he was greatly eased by the
application of the cups. The purgative acted
most freely. Stools are thin of a greenish
hue. Has considerable fever with a hot and
resurgent skin. Ordered him the following
21st. Last night being posted and the patient
and complaining greatly for want of sleep I gave
him a Fowler's powder. Though I knew its effects
were contraindicated by 'fainting' central determinations
this condition appears to be better generally.
It cleared nearly of fever. Pulse almost resumed
its normal standard amounting to about eighty
per minute. With a cool relaxing condition
of his skin had a refreshing and undisturbed sleep last night and a tolerably free
perspiration - fays he begins to feel natural
again with the exception of slight pain in
the region of his liver and aching pains in
his extremities a very little giddiness of head.
Eyes are not so much jaundiced and eoun-
tenance. Calm and unruffled. Tongue still
covered with a brownish white fur about half
moist and half dry exhibiting a disposition
To clear itself. Appetite better; bowels daily open-
Respiration about natural. Expectoration of no importance and cough declining. The pills ordered last are now suspended. Ordered: Infus. Zepo. 61. & Winglassful three times daily.

23d. His appetite continues to improve and long to devour some substantial food. Complains of general weakness and pain in his larger articulations. Tenderness on pressure in right hypochondrium complained of. Urinates freely and bowels well open. Is taking only the Inf. Zepo. to assist Nature in her efforts to restore him to his physical glory and strength.

24th. No cerebral symptoms present. Eyes are still intensely injected. And there is an African nature has a yellow tinge. No poultices produced by pressure of the liver. Dysphagia in a moderate degree. Tongue more spread than previously. Covered slightly with whitish film. Bowels loose. Pulse a little quickened.
Urinates freely. There's still poump in his limbs. His urine lets fall a large quantity of deposit of yellowish white appearance on standing. Acetic Acid causes a red deposit to the mixture. Heat produces no change, and the introduction of ammonia causes the subsidence of a yellowish deposit. Also a piece of linen placed in it and then dried presents a yellowish tinge.

Today I ordered Blue Mapt & Calomel 2 oz. to 8 oz. at one to which his bowels responded after a few hours. Also Bi Carb. Soda Zij. 1 lb. No. 111, 3 Once Three Daily. In order to see whether or not with its other effects it would affect a change in the blood. And thereby obviate the elimination of this secretion which is unnatural to healthy decretions.

The pain in his groin is a little less and although a good deal there is a dull pain about the boundary of epigastic region which seems to annoy him somewhat. He rested well.
Last Night: Tongue is elongated & clean. Complains of shooting pain in back part of head which occasionally passes over to the 6s front. Circulation in a state of partial Diuresis.

27th-48th: His condition is not greatly altered. His appetite does not exactly deserve the epithet of Convalescent Doraety. Eyes look greenish yellow still. Mouth sore from being Mercuryized. Prescribed - Hydrochloric acid & 24 aqua zvi-j-n.- for mouth wash. Pain about Epistaxis, in which he was blistered.

29th: No unusual symptoms present themselves today. His urine has been of an extremely high colour and presents the same peculiar sediment and there appears to be no diminution of excretion as excretion of urine. Therefore the cords could have had little or no effect upon it.

31st: His symptoms are all favourable and appears to present a speedy recovery.
31st and 1st April—Doing very well.

On the 2d he was walking about the room, regained his strength the daily until he was discharged from the hospital on the 6th of April—Seventeen days after his admission.

The second case is one of Malignant Typhus Fever brought to the Alims House during the height of the prevalence of that epidemic among the Blacks. True this epidemic was characterized principally by its being confined exclusively to the Negro race, but this being as nearly allied, we may almost say a "true simile" of the Negro fever and its occurrence at that particular time, accompanied by one of the marked conditions of the Negroes, the "profuse jaundice," would justify us in placing this case as one precisely similar, occurring under the same law, only modified somewhat by its occurrence in a
While Person—The post mortem appearance of this case, by comparison with those reported by other Gentlemen from this Institution, will be found to be identical. The anatomical lesions present, a striking similarity to those cases, as occurred among the Blacks, particularly the condition of the large visera of the abdomen, viz. Liver, Spleen &c. The labour under some disadvantage in this case, as the condition of our Patient and her loving spouse was such as to exclude all means of learning from her history, as to whether or not her attack could be traced to direct exposure or contact with some of those Black cases.

The treatment in this case was conducted on the same principles as the others—There being no Autopsies to the other cases I have no remarks to make. But respectfully present them to your Pernial for their intrinsic worth and at the same time hoping they may meet your universal approbation.
An inaugural Dissertation on
Amnesia
Submitted to the Examination of the
Provoct. Regents and Faculty of
Physic of the University of Maryland
By
Richard Ireland Dancy
of Baltimore
March 1850
An Inaugural Dissertation
on
Uterine Hemorrhage
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
John J. Bruce
of Allegany County
Maryland
To

Richard E. Thomas M. D. Professor
of Obstetrics and the Diseases of Women and
Children, in the University of Maryland,

The following pages are respectfully inscribed,

By The Author.
From the multiplicity of subjects on which to write a thesis, which is demanded by the rules of the institution from each candidate for graduation, I have experienced not a little difficulty in selecting one as being more appropriate and better suited to the occasion than another, though all of them afford ample room for study and observation, and demand of the medical student his most scrutinising attention, yet then an none which have not engaged the attention of the most profound and scientific members of the profession, and on which he, inexperienced as he must necessarily be, could presume to offer any originality of idea. This is not required of him, nor is it to be expected, for all of the information which he possesses on any medical subject has been obtained from the experience of others and from a very limited observation entirely insufficient on which to ground an opinion. Therefore, in complying with the demand
which is made upon him, he should consult all authorities on his subject, and obtain all the information on it within his reach, then present in his own terms the views which appear most in consonance with his own reason and judgment of the subject. With these views I have chosen Attending Hemorrhage as the subject of my inaugural essay, considering it as one of the utmost importance, and that which more than any other requires to be more thoroughly understood by the medical practitioner. There is certainly no disease which requires at his hands more prompt and energetic action, and during the management of this, to delay or to manifest any alarm or ignorance, would, in all probability, be to forfeit his reputation and the trust reposed in him, with the life of his patient. To treat such cases successfully he must possess the confidence of his patient, to obtain this he must maintain his calmness and self-possession at all times and under all circumstances, in the sick chamber, and to do this, he must thoroughly understand the disease.
with which he has to contend, and meet it at every turn with appropriate treatment.

In treating of uterine hemorrhage, I shall consider its successively, as it occurs previous to, and after the birth of the child, and in speaking of that which occurs previous to birth I shall adopt the practical distinction first made by Dr. Rigby, into accidental and unavoidable hemorrhage, as it is necessary that the discharge be referred to one or other of these sources in order that the proper method of treatment be decided upon. I shall in the first place then consider accidental hemorrhage. This is liable to occur at any time during uterine gestation. That which accompanies abortion I shall speak of separately from that occurring in the latter months, as their management may differ somewhat, and by thus dividing the subject, we will be able to point out the treatment appropriate to each. I shall not enumerate the many theories which have been promulgated from time to time of the changes which take place after impregnation.
but it is sufficient for our purpose to know that after the ovum has arrived within the uterine cavity a vacuolar connexion takes place between the choion and decidua at the portion of the uterus against which the ovum lodges, and thus determines the seat of the placenta, which does not become fully formed until about the fourth month of gestation. After this connexion between the membranes is established, anything which tends to produce a separation of them must cause a lesion of blood-vessels and of receptivity hemorrhage. Now the immediate cause of this separation, and consequently of the hemorrhage, is always a contraction of the uterine fibres. But there must be some remote or predisposing causes to excite this contraction. A variety of these have been enumerated by authors, as capable of producing this effect. Amongst the most prominent of these may be mentioned, mechanical violence, as a heavy blow or fall, violent exercise and mental emotions of any kind, as excessive joy or grief, fright or anger. These are the most common exciting causes of abortion and hemorrhage at this.
period of gestation. Though it has been known to follow
much more trivial causes, in persons predisposed to it
such, for instance, as violent straining at stool,
fatiguing walks, riding on horseback, and it has also
been produced by violent fits of coughing and vomiting
and by acid purgatives, especially such as stimulate
the motion and excite the uterus sympathetically. The
predisposing conditions which exert a powerful influence
in producing abortion, are those of a debilitated nature, as
general debility, or weakness of the uterine organ.

Hemorrhage occurring during the early months of
pregnancy is rarely so profuse as to occasion any
alarm and very seldom, indeed, does it terminate
fatally. As a general rule, certainly not without
exception, the danger from hemorrhage is greater
in proportion as pregnancy is advanced.

In treating all uterine hemorrhages, the first
direction is, to arrest the discharge and prevent
its return. At this period of pregnancy, if the hem-
orrhage be not so profuse as to endanger the life of
the woman, we should direct our efforts to the pro-
evation of the womb. With this view, we should immediately on being called to the patient have her placed in the recumbent posture, and her apartment well ventilated. Absolute rest of every organ of the body is essential to her well-being. Her diet should be of the mildest kinds and her drinks cool and acclavous, solely avoiding any thing in the least degree stimulating. The remedies to be used are cold applications to the lower portion of the abdomen and pubis. Acetate of lead may be used with advantage, in doses of two or three grains, and repeated according to the urgency of the case, with opium in sufficient quantity to arrest the contraction of the uterus if possible. If the hemorrhage is accompanied with plethora and high arterial action, blood-letting has been found highly efficacious. To produce its beneficial effects it must be pushed to the extent of diminishing the action of the heart, and repeated according to the circumstances of the case. If these means fail, the tampon must be brought into operation. This may succeed only, in consequence
of the unobstructed contractions of the uterus. The uterus begins to yield and the expulsion of the 

ovum becomes inevitable, which will very frequently be found to be the case when the discharge is profuse. We must now promote the evacuation of the uterus as speedily as possible, in order that by its contraction the cavity may become closed and the hemorrhage checked. An examination must be made, to ascertain the condition of the parts, and the situation of the ovum, which, if it is found protruding into the vagina, may be grasped and brought away if it is separated from the uterus. If it should not be found within our reach, the liquid of the may be administered, and if the hemorrhage be considerable the tampon must be used as a means to, in order to check it until the ovum is in a condition to be expelled.

Cases may occur in which, notwithstanding all of the above mentioned means may have been sedulously em-
ploved, we fail to arrest the discharge and the patient may be reduced to the verge of death. Under these cir-

stances, as a dernier resort, no time should be lost in extracting the ovum by a manual operation. In this we,
can generally succeed by introducing one or two fingers into the uterus and separating the attachment, this is by no means free from danger, and should never be thought of except in extreme cases. Accidental hemorrhage occurring during the latter months of utero-pneumonia is attended with infinitely more peril than that of which we have been speaking, and notwithstanding our best directed efforts to subdue it, it too often indeed proves fatal. It depends upon a partial separation of the placenta from the uterus, when it is attached to any portion of the organ except the cervix, and the degree of hemorrhage is generally in proportion to the extent of the lesion. Proceeding from the same immediate cause as that occurring in the earlier months, it can always be traced to one or other of the remote causes which I have mentioned.

The discharge does not always manifest itself externally immediately after the lesion takes place, especially if this is at or near the centre of the placenta, but may be retained a longer or shorter time before it finds its exit. However a lesion may be suspected of, after any one of the remote causes have been in operation, the patient feels
measurably and tension in the abdomen with a dull, aching
pain over the region of the uterus, extending around to
the loin, and this supposition is generally confirmed som-
what later by the appearance of the discharge, which
may be very trifling, or in such a quantity as to place
the life of the woman in immediate jeopardy. In all
cases where the latter of these two conditions does not pre-
vail, and the woman has not arrived at her full time, it
should be our aim to stanch the hemorrhage and en-
deavor to keep it in check until the end of gestation
and to do this, the same regulations as to the disposition
of the patient, her diet, drinks &c. should be strictly en-
forced. The same remedies, to a certain extent, are ap-
licable to the milder forms of hemorrhage occurring at
this period as those which have been mentioned for the
treatment of that occurring in the earlier months. viz.

Even applications to subdue the force of the circu-
lation, astringents to promote coagulation and opiates to
favor sleep and overcome uterine action. Bluntly, letting
is not advisable at this stage, nor should I be tempted to
use the tampons for fear of internal hemorrhage taking
place to such an extent as to destroy the life of the patient. By the means above mentioned we may often succeed in controlling the hemorrhage and carrying the woman to her full time. But when we have to contend with an alarming discharge from the commencement, or when this in the beginning, but has continued in defiance of the remedies proposed, it becomes our duty to resort to more active measures to rescue the woman from her perilous situation.

In this purpose, rupturing the membranes and evacuating the liquor amnii has been proposed as a safe and effectual expedient; though it has been as strenuously opposed by some of our most eminent practitioners as it has been warmly advocated by others. From the testimony in its favor, and from the success with which it has been attended in the hands of those, whose experience affords them ample grounds for stating confidently its efficacy in these cases, I should be dolth to proceed to give a trial without giving it a fair trial. This may easily be performed by introducing the finger into the uterine which will almost always be relaxed after any considerable hemorrhage. After the operation, the contractins
are increased in frequency and force by which the open
mouths of the divided vessels are compressed and the dis-
charge checked. Ergot may be administered at the time
of rupturing the membranes if the urgency of the case
demands it. But that even this will fail to excite suf-
ficient uterine action, in some cases, to stanch the hem-
orhage, and expel the child as expeditiously as is desired
its warmest advocates admit, especially when there has
been a copious discharge prior to the practitioners visit.

To turn and deliver, under these circumstances, is the
only resource left us, by which we may hope to afford
the woman a chance of safety; for we may occasionally
meet with one of those rare cases in which, notwith-
standing the frequency of the discharge, the Os Uteri
may remain rigid and unyielding. This is the only cir-
cumstance which would induce me to use the tampon
at this stage of pregnancy; in a case of accidental hem-
orrhage, preferring it here only to forcing the hand through
a vagina of uteri, thus choosing the least of two evils —

We come next to speak of one of the most
dangerous complications to which the parturient woman
is subject, and one, for the relief of which the efforts of
nature are almost entirely inadequate, and even under
the most judicious management, is probably more fatal
than the most direful pestilence that infects the human
family. I refer to Unavoidable Hemorrhage. This is
peculiar in consequence of the implantation of the placenta
entirely or partially over the orifice of the uterus, and
is properly called unavoidable hemorrhage because,
from the situation of the placental mass, the expulsion
of the fetus is impossible without causing a greater or
lesser discharge of blood. It is liable to occur only during
the last three months of pregnancy, because, until the
sixth month of gestation or thereafter its cause is not
brought into action, which is, the gradual expansion of the
neck of the uterus for the accommodation of the fetus
in consequence of which a separation is forced of the
placenta from the uterus and hemorrhage of necessity
ensues. It may happen that no discharge takes place before
the period of gestation is completed, owing probably to
the growth of the placenta being proportionate to the
development of the cervix; but in the majority of cases
we have one or more discharges prior to this period. A
sudden gush of blood taking place without any ap- 
parent cause, is the first circumstance which would lead
us to suspect so dangerous a complication, for it is 
told that it may occur whilst the woman is performing
her ordinary domestic duties or even during sleep. If
these discharges are not copious and are unac- 
panied by pains, by proper management she may be carried
safely to her full time, but should the hemorrhage be-
come alarming and be attended with pain, indicating
uterine action, no time should be lost in endeavoring to
ascertain the nature of the case, whether it belongs to the
accidental or unavoidable clafs, for on a correct diagnos- 
The life of our patient may depend. For this purpose an
examination "per vaginam" should be insisted upon, and
if the placenta presents it may be felt at the mouth
of the uterus. A conglomeration of blood which may have
formed there might be mistaken for the placenta, but from
this it may easily be distinguished by its firmness and
the resistance which it offers to the finger, and by ade-
asing to the perfections of the uterus. A valuable diagno-
The sign between these two species of hemorrage is, that in
the accidental the discharge is checked during a pain,
whereas in the unavoidable the opposite of this prevails.

I can not imagine a more trying situation in which
a young practitioner could be placed than in the man-
agement of a case of Unavoidable hemorrage. Inadequate as
I have stated the efforts of nature to be, in the vast majority
of cases, for the relief of the patient, he can contemplate the
awful responsibility which rests upon him, when he con-
siders and feels that her chances of life or death are in his
hands. Though many such cases are beyond the power of
man to save, yet this serves only to demonstrate how thorougly
the subject should be understood by every practitioner.

It may be called to the patient frequently in consequence
of the alarm occasioned by the discharges which are the
result of the unfolding of the neck of the uterus, but that
an seldom to expiries as to require any interference, and
as I have before stated, by proper management the woman
may be safely conducted to the end of gestation. It is
very seldom that any thing more is required to be done
than to calm the mental agitation and direct her to observe
perfect rest and quietude, and afford her nutritious but un-
stimulating diet. Here it is that the tampon comes to our aid
with signal benefit. We have here nothing to fear from its
use, for internal hemorrhage is prevented from taking place
to any great extent, owing to the peculiar situation of the
placenta. On a recurrence of the bleeding under the same
circumstances the same regulations should be enforced,
directing always to be sent for immediately on its super-
vention, for we know not at what time the pains of labor
may come on, and the hemorrhage become so profuse as to
place the patient in a most critical situation. When this
takes place our interference is most urgently demanded.

The indication is undoubtedly to effect delivery, but at
what time and under what circumstances to attempt it is
the difficulty with the inexperienced. Immature interference
which is very apt to be made by the young practitioners in
his anxious endeavours to relieve his patient is highly in-
juinos and to delay rendering assistance until she becomes
so prostrated from the effects of the hemorrhage as to un-
der her case hopelessly is equally to be deprecated. We will
generally find the uterine is somewhat dilated, especially
if the hemorrhage has been considerable, if this is the case not a moment is to be lost for fear of fatal prostration. The hand is to be introduced and as gently as possible insinuated between the uterus and placenta at the point where it meets with the least resistance until the membranes are reached. These are to be ruptured and the hand passed along the person of the child until it reaches the foot, which are to be seized and brought down. Herein consists an essential difference between the management of this and the accidental hemorrhage, in which we have seen that puncturing the membranes is in most cases sufficient to check the hemorrhage, whereas in the unavoidable this alone would only aggravate the existing evil by increasing the discharge at each contraction of the uterus.

It might naturally be supposed that forcibly separating the placenta from the uterus would increase the hemorhagie; but this is in a great measure prevented by the pressure exerted upon the ruptured vessels by the hand and arm of the accoucheur, and after their removal, by the body of the child. After the feet have been brought down we must not endeavor to extract the child too rapidly...
on the contrary, after this has been accomplished, we may generally allow the labor to proceed naturally, always using the ordinary means to promote contraction. The case may be presented to us under the following circumstances. By the time we arrive at the bedside of our patient, we may find her in a state of utter prostration from excessive loss of blood. Under circumstances such as these, although we will always find the mouth of the uterus fully dilated, to proceed to deliver her would be to deprive her of the little chance of safety which she would otherwise have. Stimulants are here clearly indicated, by which we should endeavor to raise the system to such a degree as to insure perfect uterine contraction. When this is attained, delivery may be proceeded with. In those cases in which we find the uteri rigid and unyielding, notwithstanding the hemorrhage, the mode of proceeding which would naturally suggest itself to the mind of the prudent practitioner, would be to endeavor to arrest the hemorrhage until the mouth assumed a more favorable condition, in preference to forcing delivery under such circumstances, which is one of the most hazardous
proceedings that could be attempted. Here our main reliance is to be placed in the tampons, which, when assisted by the ordinary anti-hemorrhagic regimen, we are assured will succeed to our entire satisfaction. When this is accomplished we will proceed according to the rules herebefore laid down for the management of unavoidable hemorrhage. There remains yet to be spoken of in the last division of our subject viz. hemorrhage occurring subsequent to the birth of the child. This is probably of more frequent occurrence than either of the forms of which we have spoken, and consequently the one with which the practitioner will have most frequently to contend. Fortunately, however, it is less complicated, and the indications to be pursued are clearer to the inexperienced practitioners. The immediate immediate cause is identical with that of those forms of hemorrhage occurring previous to parturition, for we know that essential to hemorrhage taking place from the uterus is a separation, partial or entire of the placenta from its portions. There inevitably occurs after the expulsion of the
child a slight discharge of blood, for it is impossible that
the uterus can contract as promptly thereafter and remain
so firmly contracted as to prevent this to some extent.

Though this can not be strictly called a hemorrhage,

It is only when it occurs to such an extent as to awakend our
apprehensions as to the safety of our patient, that it seriously
concerns the medical man, then it is that the power of our
art, if judiciously employed, is, in the majority of instances
most strikingly displayed. By it we are often enabled to
relieve those, who in its absence, must inevitably have perished

When hemorrhage occurs after the child has been ex-
pelled it arises from insufficient contraction of the uterus
to close the orifices of the vessels left patent by the sep-
oration of the placenta. This is apt to occur from general
dehility, a long and tedious labor, and especially after a
burned labor an we apt to have flooding. This therefore
should warn us against interfering during parturition
when it is progressing favorably. It should allow the
fetus to be expelled entirely by the uterus in order to
secure its perfect contraction afterwards. Nothing contri-
utes more to the prevention of hemorrhage after delivery.
than the judicious management of the patient during the
entire progress of labor. All stimulating food and drinks
should be carefully avoided, and every circumstance tending
in the least to excite the circulation. It sometimes happens
however, that notwithstanding the best management flooding
will take place, and under whatever circumstances we meet
with it at this period, our efforts must be directed to the pro-
curing of perfect uterine contraction, for by this means
we can no hope to relieve our patient. In a word, her safety
and speedy recovery are most intimately connected with
the gradual and perfect contraction of the uterus. The
means to which we resort to attain this end are simple
and if assiduously applied are generally eminently suc-
cessful. The mortality attending hemorrhage after delivery, as
appears from the statistics of various authors, is infinitely less
than either of the forms of which we have spoken, except
perhaps, that which occurs in the earlier months of pregnancy.
By applying the hand over the abdomen in case of flooding
the uterus will be found flabby and uncontracted, we must
endeavor to excite it to action by frictions, by grasping it
externally, and applying cold, alternately with warmth to
The genitals. These in no case should be omitted, as they con-
stitute our most efficient means of bringing relief to our pa-
tient, at the same time ergot may be administered, and if
the case is obstinate, water poured from a height on the
abdomen, and the introduction of ice into the vagina
will be found very efficacious. If, by the above-mentioned
means, we fail in attaining the object so much desired,
and undoubtedly we will sometimes in cases of atony
of the uterus, the hand must be cautiously introduced
and the placenta, if it yet remains and be found par-
tially adhering must be separated; keeping always in view
the invaluable rule, "arte non vit", which you have so
often impressed upon us, and which is applicable here
as it is in all obstetric operations. This will rarely fail
to rouse the organ to action, and thus all danger for the
present is obviated. It may be requisite to repeat it if
the bleeding recurs; a second repetition will rarely be
required. We should always bear in mind that the hand
should not be too hastily withdrawn, but rather allow
it to be expelled by the contractions of the uterus.
Various other means have been recommended, as cold an.
Styptic injections, galvanism and compression of the aorta, but we shall rarely if ever find it necessary to resort to either of these, if the others of which I have spoken be properly applied. After we have succeeded in straining the hemorrhage a compress and binder must be carefully applied to keep the uterus permanently contracted, and an opiate administered with a view to procuring perfect rest; after this has been accomplished we may confidently expect the speedy recovery of our patient.

I have now concluded my remarks on this interesting and highly important subject; having marked out the course which I should pursue in the treatment of the various forms of hemorrhage as they occur during pregnancy and parturition.

I respectfully submit them to your inspection, trusting that you will take into consideration that they emanate not from one who is enabled to state facts as they have come under his observation, but from one, who, from inexperience, must rely upon statements recorded by others.
An Inaugural Dissertation on Eremacausis

Submitted to the Examination of the Provost, Regents and Faculty of the University of Maryland for the Degree of Doctor in Medicine

By W. H. Browne

of Maryland
"Was sie gestern gelernt, das wollen sie heute schon lernen;  
Ach, was haben die Berner doch für ein kurzes Gedächtnis!"
The material world manifests itself to us in but two principles, archetype forms to which all its motions, changes and ever-varying metamorphic states may be reduced, and which indeed constitute the expression of matter itself. Apart from these, matter, if conceivable at all in the abstract, must be regarded as an inert, lifeless, passive, negative mass; utterly powerless to give the psychical world the faintest notion of its existence; without form, weight, color or consistence; for all these, its commonly admitted characteristics, are but phenomena of Attraction and Repulsion.

Each of these principles exhibits itself in four simpler forms which are essentially the same; the one as Gravitation, Tension, Attraction, Cohesion, attraction and Chemical Attraction; the other as Heat, Light, Electricity, and a fourth, which forms
A chief subject of the present investigation, and which is known as
that Force.

The most impressive phenomenon of these principles, and the
one earliest distinguishable, is the perfection of contrast which
they exhibit; each in all its forms being the essential converse of
the other, as well in its most complicated effects, as in its first
and primitive law— the law of Radiation and Return, the
law of Action and Reaction. And in their ultimate shape they
may be described as two forces, the one impelling the particles
toward each other with a force continually increasing in the ratio
of the squares of the diminishing, the other urging them apart with
a momentum which incessantly lessens as the squares of the in-
creasing distances. And these two laws, so simple in their ex-
pression, so multidimensional in their complications, are the eternal
and inseparable laws of Material Existence: the rules by which
the two antagonist Mights execute the infinitely changing moves
and combinations in the great Game of the Universe.

No portion of these forces can ever be annihilated, nothing can
destroy the exactness of their equivalence; they must exist coeval
with
the cosmical life itself:— The strength which rolls back the Persian
from the rocky wall of Thermopylae, is as actual now as that,
which screens the arm of a Kosuth; and the first-born ray of
light lives on at this moment as lucid and as pure as when it
peeped under the eyelids of just awakened Nature.

Yet, though these two forces are thus equipped, it is evi-
dent that they cannot be everywhere uniformly distributed; nor
that the case they must counteract each other, and the universe
would be fixed into a state of utter and eternal inactivity; but it
is constantly happening that one predominates at one point, and
is proportionately deficient at another; and in this, power is man-
ifested in some of the endless phenomena of Motion or Change.

On the other hand, when in any point, the antagonistic prin-
ciples are exactly equal, they are mutually neutralized, and un-
til a new accession causes one or the other to preponderate, they must
remain in a state of rest. This condition is termed that of static equi-
librium. In Astronomy, Physics, Chemistry, or Physiology, these
truths hold equally, good; and in whatever forms we conceive or
explore the appearances of Matter, these remain its immutable
and archaic laws.

When these forces are thus in the state of equilibrium, their
presence is not made known to us by any of phenomena of Change;
yet we must not for a moment lose sight of this fact.
that they are there present: as, e.g., in the case of a weight lying
upon a table, though no force appear to be developed, yet its attraction
toward the centre is opposing an equal force of resistance in the re-
pulsion which keeps the particles of the wood from being condensed in-
to a more solid mass. And if from any substance in equilibrio one
of the forces, or any portion of that force, be manifested externally
employed upon some extrinsic body— the other, of necessity pre-
dominates, and a change is the result. Thus, supposing we have
a volume of gas composed of particles of oxygen and hydrogen in
the proportions to form water, no change is perceptible as long
as these remain in equilibrio, since the attractive and repulsive
forces counterbalance; but the instant we cause a part of the
repulsive force to manifest itself externally, expend itself upon
surrounding bodies in the form of heat, attraction predominates and
the result is increased density. Here then we may set this
down as a law: when from a body in equilibrio either of the forces
is caused to manifest itself externally, the antagonist force pre-
dominates and a change is the consequence. When the repulsive force
is thus liberated under the form of heat, this fact is well enough
expressed by the common formula: "Bodies passing from a rare
to a denser state give out heat." This law, with the exception
that the repulsive force is not manifested at all, shall fall under more especial notice hereafter.

Nature, as it is termed, exhibits itself in three very different forms, which, though apparently blending into each other like the tints of the rainbow, are yet entirely distinct and peculiar phases: the Mineral, Vegetable and Animal Kingdoms.

If there be a first is distinguished by its remaining in a state of almost perfect inertness; its attractions are powerful, its combinations simple, and its changes few and slowly proceeding. The second class is employed in appropriating Repulsion from without, using it to counteract the strong attraction so predominant in the Mineral Kingdom, and forcing its elements from their simple arrangements to cause them to enter into new and complex compounds in which this repulsive force conceals itself, and which, by means of it, acquire properties unknown to them before. The third class takes from the hand of the second these compounds, employs the power inherent in them on extraneous bodies, and allows the substances, deprived of that which held them in this forced state, to descend by a rapid fall to the simplicity of their first combinations. These two latter classes form the organic
world; and the power which the vegetable kingdom is employed
in accumulating, and the animal expending; which, in that,
forces the elements of the atmosphere, of water and of carbonic
acid to enter into new and in a manner unnatural combina-
tions, and in these forms retains them, indeed, in this, it is
expenditure upon other substances; which distinguished the one by
the faculty of growth, and the other by the faculty of motion —
is what is meant by "the vital force," a power in itself essen-
tially repulsive, and convertible into any one of its manifesta-
tions — heat, light, or electricity.

Then there arises the inquiry "What is the source of this
vital force? How is it that the simple cell—just scarcely visible,
even in the condition of the highest optical perfection, becomes
in time a body containing countless millions of similar cells
each one as vital less fraught with this power than was the
original parent?"

The principle of the purely animal life is the direct oppo-
site of the purely vegetable. The temperature of the animal or-
ganism is always above the surrounding medium, in the other it
is always below, with this, thus in the one, heat (repulsive force)
is constantly given off, and in the other as constantly taken in.
A green fruit, or one continuing to grow and mature, is always colder than one already ripe, which has ceased to increase, and in which the first process of its subsidence, the conversion of starch into sugar has already commenced. This difference is well marked in the lower temperature of a green field in the sunlight, compared with a field of stubble, notwithstanding the greater reflecting power possessed by the lighter color of the latter.

But not only is heat absorbed during these vegetable processes, but another most powerful expansive agent, light, under the influence of which alone is the vegetable capable of accomplishing its peculiar duties, and with the total deprivation of which they cease entirely.

These compounds are not only formed from their primitive elements by the exercise of a certain repulsive force, once these left in static equilibrium; but they are actually kept and held in that state against the strong attraction of the oxygen of the atmosphere; and not until this power is removed, and the constituents left in equilibrium, can the attraction of the oxygen take effect, and the complicated molecule resolve itself into simpler combinations.
From our first stated principles it follows evidently that whatever power has been employed internally, or absorbed, in the process of a chemical change, as in the decomposition of Carbonic Acid or water, precisely the same power must be manifested externally when that change is reversed.

Here then we have two powers, the exhibition of which must accompany the descent of every molecule of organic tissue, and which in this exhibition, simply account for two of the three great areas of animal life: the third is yet shrouded in the abyssmal darkness.

As the vegetable life is almost entirely a process of de-oxygenation, so its reverse, the animal life, is almost entirely a process of oxygenation; each particle of gaseous structure, of muscle, of brain, as it fulfills its office, yielding to the most irresistible attraction of that element, and passing, with the dispensation of heat, into various compound lower and lower in the organic scale, until it reaches at last its starting point, the inorganic Kingdom. This process is called Enercencus.

When the substance termed Platinum Black, consisting of the metal Platinum in a state of the most mi-
mule division, is brought into contact with a mixture of Hydrogen and Oxygen, an instant combustion of the two gases is the result. This phenomenon Chemistry renders somewhat less obscure by revealing the fact that oxygen, above all other gases, possesses the remarkable property of becoming condensed in exceedingly fine interstitial spaces, such as the pores of charcoal, or the interstices between the particles of fluids, and then assuming the liquid form, in which form it most readily combines with any substance which may then be presented to it, for which it has an affinity.

Now in the animal economy we find every molecule of tissue surrounded by an interlacement of vessels of microscopic fineness, separated from them indeed, by a membrane, but by a membrane of such texture and tenacity as not to offer the slightest impediment to the transmission of parts of the fluids, and to which vessels oxygen is constantly supplied in amplest abundance. As we discover the oxygen conveyed along these vessels in a vehicle possessed of chemical properties differing in a remarkable manner from those of any other known body, and which...
null
while leaving it utterly incapable of fulfilling any other purpose in the system, fit it for this office with an aptness exceeding that of any material which the sublimest ingenuity could devise. The sesquioxide of iron, when brought into contact with any substance having an active affinity for oxygen, readily yields up half an equivalent of that gas, and passes into the form of protioxide; in which state, if it meet with Carbo-

onic Acid, it seizes upon it with alacrity, and assumes the form of protocarbonate. While, on the other hand, if this protocarbonate be exposed in solution to the free contact of oxygen at a slightly differing temperature, its carbonic acid is evolved, its half proportion of oxygen replaced by a new half equivalent, and the black protocarbonate is reconverted into the red sesquioxide.

This might stand unnoticed in Chemistry as an isolated and unimportant fact; but when associated with certain other unconnected facts — the circumstance that iron is constantly found in the blood, and in health in almost unvarying proportion; that it is found in arterial blood in the state of sesquioxide; that it is blackened in the veins where carbonic acid is known to be formed, and reddened in the lungs where carbonic acid is known to be evolved and oxygen absorbed; that it is almost entirely aban-
in vegetables where oxygenation does not go on; that no constituent of the body, save the blood, contains it; that, when hydro-sulphuric acid gas, which forms a permanent compound with it, unchangeable by oxygen, is inhaled, in large quantities instant death is the result; whereas by its slow and incidious introduction, as from marsh meadows, a most marked anaemic state ensues, showing the constant abstraction of globules from the blood; that scarce any waste in its quantity appears, and scarce any separation is necessary; that, when diminished, it is very long in rising again to the normal standard, on which is based the practice of bloodletting in diseases characterized by too rapid oxygenation; and that by diminishing its quantity, the process of oxygenation is very remarkably increased, while by its administration in some form in anaemia, chlorosis, and all diseases in which metamorphosis goes on slowly, the most undeniably beneficial results are effected — a chain of evidence is produced, to the lucid consistency of which no argument could add an iota of conviction.

Not so, however, with the founder of the protein theory, Mr. Moulder: he explains the process of oxygenation by asserting that certain compounds of protein are the oxygen-carriers, and that
Yri* /"/?", x. /, *z> té 34i
the deoxygenating of venous blood in its change into arterial is due to
the diminished transparency of the walls of the globules: forget-
ing the fundamental truth of Chromatics, that a dust substance
viewed through an illuminated translucent medium always ap-
ppears blue; while to produce a red color, it is necessary that
the body be of a white, or very light tint, and itself brilliantly
lighted. While as to the red matter of the blood, he confesses
his utter ignorance of any use which it can subserve, and
dismisses it with the cool remark that "it is not," he
thinks, "one of the substances which perform a principal part
in the organism," and that the sentiment of those by whom "it
is generally considered of importance in a chemico-physiolo-
gical point of view, is an opinion in which he does not concur."

The blood then being the means through which the oxy-
gen for the metamorphoses is conveyed to every part of the
organism, by which every cell of tissue is surrounded, and into
whose torrent all effete and oxygenised matters are swept
away; it follows that in the blood, and secondarily in those
organs which are constantly eliminating and draining off sub-
stances from the blood, we must look for the products of these trans-
formations. Yet we find that of all these becoming oxygen
by far the greater part, as for example the lymphatic and sali-
mary glands and the pancreas, secrete fluids differing in no
very great degree from the serum, of a merely albuminous na-
ture, and which again are taken up into the economy — with two
remarkable exceptions: the kidneys and the liver. For the sub-
stances then eliminated by the kidneys and the liver, we may ex-
pect to find the product of excretion.

In examining the secretions of these organs, a most striking
difference is at once apparent; those of the one consisting chiefly
of hydrogen and carbon, while in those of the other, the
prominent element is nitrogen; a distinction which at once
points to the two grand classes of elements, the nitrogenised and
the non-nitrogenised; the one capable of being formed into tis-
sue, the other a plastic; the one intended to replace by new
material the continued waste of force, the to maintain a reg-
ulate the temperature of the system. These are termed Elements
of Nutrition, and Elements of Respiration.

The chief of the former class are Albumen, Casein
and Gelatin, with, very probably, Gelatin; and of the latter,
Fat, Sapum gum, Starch, Glucose and Alcohol. A third class
might also be added, consisting of those substances which do
not, themselves enter, or but slightly, into the structure of tissues, but which by their presence and chemical reaction effect or assist the changes here taking place. To this division belong the compounds of iron and sodium. These might be denominated Elements of Metamorphosis. We shall endeavor to trace out, succinctly, the transformations which each of these substances undergo in the human organism.

Fibrin, Albumen and Casein, during the process of digestion, whether carried on in the laboratory or the living stomach, are all dissolved and converted into a substance which, though strongly resembling albumen, differs from it in several particulars, the most remarkable of which is that it no longer coagulates at the boiling point. This property, however, it regains before entering the blood, and here both fibrin and albumen present themselves with their distinguishing peculiarities. Casein is not discoverable in the blood, and is, in all probability, converted into one or both of the other forms. To effect this solution of albuminous bodies, however, the fluid must be acidulated, and this condition is supplied in the gastric juice not only by the caustic acid, which, as we shall notice hereafter, is to be detected in it in
minute quantities, but also by the hydrochloric acid furnished by the decomposition in the stomach, of the chloride of sodium so largely supplied in the food. This acidity is neutralised in the duodenum by the alkalies of the bile and the pancreatic fluid; and here all further action on those substances must cease, just where the action upon the non-vicelœnised substances commences.

Fibrin, remarkable for its spontaneous coagulability, and its power to form vessels within itself when offered upon living tissue—a property peculiar to animal fibrin, and possessed by no other known substance—is the plasma, the material from which (with the addition in some cases of minute portions of inorganic substances) all the tissues can be formed; though its most common product, the one into which it seems to enter almost without a change, is the Sarcous or Muscular structure.

This tissue, with the exception of the nervous matter, is the only one in which the inherent vital force is employed actively: ligaments, cartilages, bones, tendons, vascular walls being only of use passively, and by offering resistance; but in this real, essential force is developed. Now the mind, a that act of it, which
we call the will, exerts an effect upon the indivisible, palpable, and unequivocally substantial nerves, is an enigma which will be solved when the connection between Spirit and Matter is explained; nor is the influence of the nerve conductors upon the muscular fibre much better understood; but this much is known—that from a greater or less number of the elementary molecules of the muscle, the individual, at will, can cause that second repulsive energy—which prevailed originally from the Sun, was employed in the particle in resisting and overpowering the strong attractive power of the external oxygen—to be expended upon some extraneous object as what is called Muscular Contraction. Instantly upon this, the attraction of the oxygen predominates, and the molecule descends into lower combinations with a divagation of the first repulsive force, the force which primarily elevated it to that state in the vegetable, in the form of Calorie; and this Enemagogue, this grandeur, but constantly combustion of all parts of the organism, is the source of Animal Heat.

It follows as a very evident deduction from our earliest premises, that, until the force which preserves the molecule in its equilibrium against the attraction of oxygen, be
removed or overpowerd, no combination can be effected, no
and the heat evolved. We have seen that this removal of
force is effected, and most rapidly, by muscular exertion;
consequently we should expect to find that when all such
muscular action, including the constant involuntary contrac-
tion termedcosity, were stopped, the evolution of heat
must also cease. Now it has been long noticed that when the
medulla oblongata of an animal was divided or crushed, al-
though the processes of respiration and circulation were kept up
artificially, the animal cooled very nearly or quite as quick-
ly as another the body of which was left untouched. From
this phenomenon some philosophers drew the sagacious conclusion
that the nerves were the sources of Animal Heat; but, as Helig
observes, "if this view exclude chemical action, or changes in the ar-
rangements of the elementary particles, as a condition of nervous a-
cry, it means nothing else than to define the presence of motion,
the manifestation of a force from nothing. But no force, no pow-
er can come of nothing."

In the animal just mentioned we have two of the condition
of Exemacuous - particles of organised matter, and a supply of
oxygen - but the third condition, the removal of the exciting
and maintaining power does not occur, and the particle can not yield. I have spoken of muscular structure, as in this the phenomena are most striking, but the same truth applies to all the other tissues, each molecule of which has its peculiar office and duty, and until its purpose is achieved it remains utterly impervious to the attraction of the oxygen, and perfectly indelible.

Were they at all worthy of notice, a word might here be said of the absurd and contemptible arguments and objections of those who wish might and main withstand and array themselves against the gradual unveiling of reason upon Heaven knows long enough demoted Physiology, saying that "these views are too chemical", that "the human body is not a mere laboratory", and that "vital processes and vital laws must be taken into account", etc. etc.; and one individual, God helps him, in a long article in the 'Lancet,' relates how a friend of his, having been reading the ...'s works, went mad, poor man, and fancied that his chamber was filled with flames and fumes, and were carrying on with the most approved chemical apparatus. The various processes in his body, from which affecting incident the writer takes
occasion to descant most eloquently on the baneful effects of
the new theories, and at last in the flow and inspiration of his
subject, rises into absolute sincerity against Leibig, his pupils
and admirers, and physiological chemistry and chemists
in general.

Too Chemical for sooth! What then is Chemistry save an
investigation of the laws which govern the particles of mat-
ter? Because the matter happens to be in the shape of a man
of a beast, need we therefore take for granted that it is a contra-
diction to all the known laws which govern the material
world; and fabricate for it a host of imaginary rules in
themselves absurd and essentially false? True, there are
principles in Vital chemistry not yet discovered; true, the
experimenter cannot employ in his laboratory all the combi-
nations of forces which take place within the human body; true,
there are many, many points in this yet infant study that
are obscure or apparently contradictory; but faithful, earnest
inquirers will still go on, adding discovery to discovery, and
linking truth to truth, while those, too wise to care about,
understanding, should our eyes and ears in the snug mantle
of their self-applause, close out to their hearse's idiot words,
and title precepts and explanations, which are as quintess of all meaning, as master and disciple are of comprehension.

But here the particles descend—so far all is tolerably clear, at regards phenomena at least, but now commences a succession of intricate changes and chemical reactions, which in the present imperfect state of physiological chemistry it is impossible exactly to define, and difficult closely to investigate; but the use and advantages of which are, perhaps, to destroy, and render more equitable the exaction of Caloric.

The Nutrient, Stage, or the forms in which the particles are carried to be deposited in place of the wasted tissues, has been already placed at in the shapes of phlegm, albumen, and casein; and now commences the Tissue-digestive Stage, being forms of lower organic grade than the tissue, found in the fluids bathing it, but not in the exceptions, in its most minute traces at farthest: to which class belong Creatin, Creatinin, Succinite, with Lactic and Formic Acids. And lastly comes the Excretory Stage, in which the particles are eliminated from the body by the kidneys, skin and
lumps, principally under the forms of Uric Acid, urea, Ammonia, water and Carbonic Acid.

Of the first, substance of the transition stage, Creatin, as indeed of all the members of this group, but little is known. It is a neutral, crystallizable substance, of the formula \( \text{C}_6\text{H}_2\text{N}_2\text{O}_7 \), which can be obtained by a process pointed out by Chemical, and improved by Liebig, from the muscular juices of animals. It seems to bear a direct ratio to the vigor of the muscle and the rapidity of destruction; thus in the flesh of the heart its proportion is very large; and in the muses which had been hunted to death Liebig found it in quantity ten times greater than in those which had been well fed, and kept in confinement. It is closely allied to urea, to the quantity of which it stands in direct proportion, and if boiled with baryta, that substance may be separated, and crystallized with Uric Acid as a mixture of urea. It is not improbable that it is one of the earliest results of muscular decomposition.

Of Creatinin, another substance of this class, even less is known than of the former. Its formula may be expressed by deducting 4 equivalents of water from the formula of Creatin:
1 eq. Urea $\text{CNH}_2\text{O} + \text{NH}_2 \text{OH} = \text{CNH}_2\text{O} = 1\text{eq. Urea.}$

If to the elements of Thein or Caffein we add those of amidoxy, we have the same result: 1 eq. Thein $\text{CNH}_2\text{O} + \text{NH}_2 \text{OH} = \text{CNH}_2\text{O} = 1\text{eq. Urea.}$

Both Urea and the previous compound, Barros starch, have been found in healthy urine, but it is to be doubted whether in these cases the functions of the skin were carried on to perfection; especially, when it is recollected how nearly modern clothing impedes the free access of oxygen to that surface.

About Sarcosin, the next in order, a crystallizable substance somewhat similar to Thein, perhaps the only circumstance of worth remarking is that, when deducted from Thein it leaves

The formula of Urea: $\text{CNH}_2\text{O} = 1\text{eq. Thein} - \text{CNH}_2\text{O} = 1\text{eq. Sarcosin.}$

$= \text{CNH}_2\text{O} = 1\text{eq. Urea.}$

Inosinic Acid, another imperfectly known compound, bears

The formula $\text{CNH}_2\text{O}_3.$ It is strongly acid, and contributes toward giving the mineral acidity to the fluids found in the muscular structures. It forms salts with lime, barium &c., and is supposed by some to impart to the juice of flesh its peculiar taste.

Lactic Acid, the last of these obscurities is a clear, colorless liquid, highly soluble in water and alcohol, and of an intensely acid taste. Its formula is $\text{C}_6\text{H}_5\text{O}_3 + \text{H}_2\text{O}.$
It is found occasionally in the gastric juice of man, but not in that of the carnivora; whence it is not improbable that it is formed in that fluid solely by the saccharine and amylaceous constituents of the food. Here it may subsist to some extent as a highly soluble form in the blood, an action, however, which can only take place when hydrochloric acid is absent from that fluid, as this at once readily decomposes the lactates of lime.

In the sweat also, though it has not been clearly demonstrated, it is probable that it may exist, as that fluid exhibits an acid reaction, notwithstanding the constant presence of ammonia. It is the only compound, formed from the destruction of nitrogenised tissues, that contains no nitrogen, and some from this reason, deny its existence in the healthy animal fluids.

On the other hand, those who maintain its formation from transformed muscular structure, and insist on its constant presence in the gastric juice, erect on these two questionable assertions a theory rather ingenious than plausible. The gastric fluid, say they, derives its lactic acid in part, if not entirely, from the proper muscular constituents.
secretions from the capillaries which so closely ramify upon the internal coat of the stomach. To these, as to the entire venous system, it has been supplied by the disintegration of tissues, especially the muscular; hence when this disintegration is unusually rapid, as in vigorous exercise, the amount of lactic acid produced and poured into the stomach, is proportionately great, and this acting as a slight irritant upon that organ (or perhaps, as in thirst, the blood itself in some manner communicates a consciousness of its altered qualities) it thus occasions the sensation of hunger. It might be objected to this, that in many wasting fevers the amount of lactic acid formed must equal and even greatly exceed that produced by exertion; and yet in these diseases the appetite for food is almost entirely destroyed.

It will be observed that the formula of hydrated lactic acid is isomeric with that of grape sugar — 2 eq. lactic acid.

\[ \text{C}_6\text{H}_{12}\text{O}_6 = \text{C}_6\text{H}_8\text{O}_5 \]

1 eq. Glucose — and it may readily be pro-
duced from that substance. Thus the mere contact of a protein compound in a state of decomposition is sufficient to bring about this effect; as, in milk, the commencing putrefaction of the casein, causes the rapid conversion of its sugar into lactic acid. So
also in the stomach, the constantly decomposing mucous
membrane of that organ, at a certain point of change, will
cause this conversion of the spun very readily, while at an-
other it transforms it into mannite and mucilage, or into
alcohol and carbonic acid, or into acetic acid and water;
the protein compounds in their decomposition appearing to de-
scend by regular steps, corresponding to the gradations through
which saccharine matters, in the process of *acidification.*

Again another use of lactic acid in the stomach, is
based upon Rock's latter views in regard to the composition
of casein. He considers that this substance, when pure, is
nearly insoluble in water; and that the soluble casein owes
this property to the presence of combined potash, soda or
carbonate. Hence the coagulation of casein by acids is neither
more nor less than a combination of the acid with the
base of the compound, and the liberation of pure, insoluble
casein. This accounts for the rapid coagulation of
milk upon its becoming sour, and the especial rapidity with
which this change takes place in warm weather, as only min-
ute portions of lactic acid need be formed to neutralise the
traces of soda which is milk preserve in solution a very
Large quantity of casein. If this view be correct, and it bears many marks of probability, casein would appear to differ from albumen in nothing but its non-coagulability at the boiling point; and it seems identical with that peculiar form of albumen which appears in the chyle when first formed, and into which the three protein-compounds of the food are converted, previous to their ultimate resolution into fibrin.

These, then, are the principal substances, as far as yet discovered, of the Transition Stage. They are not taken in with the food, and they are not found (excepting traces of lactic acid) in any of the excreta, and they must necessarily have been formed within the body by the action of oxygen on the tissues, and by the metamorphoses which their elements undergo among themselves. What these changes are, and in what order they occur, is not yet known; it is true we may see by our formulas that from these substances, by the addition of oxygen, or of oxygen and water, the various excretions may be formed; e.g.

\[
\begin{align*}
\text{1 at. Kreatin} & \quad C_7 \text{N}_3 \text{H}_{11} \text{O}_5 \\
\text{1 at. Kreatin} & \quad C_5 \text{N}_2 \text{H}_6 \text{O}_2 \\
\text{1 at. Inulin A} & \quad C_{10} \text{N}_7 \text{H}_3 \text{O}_4 \\
2\text{at. Oxygen} & \quad \text{O}_2
\end{align*}
\]

\[
\begin{align*}
\left\{ \text{C}_6 \text{H}_4 \text{N}_4 \text{H}_2 \text{O}_6 & - 1 \text{ at. Uric Acid} \\
\text{C}_6 \text{H}_4 \text{N}_4 \text{H}_2 \text{O}_4 & - 2 \text{ at. Urea} \\
\text{C}_2 \text{H}_3 \text{O}_4 & - 12 \text{ at. Carbonic Acid} \\
\text{H}_2 \text{O}_3 & - 18 \text{ at. Water}
\end{align*}
\]
but without some clear proof, or corroborative phenomena, they explain nothing, and we are left as much in the dark as before.

The last stage of transformation which these substances undergo, is that in which they are eliminated from the system by the kidneys, skin and lungs, in the forms principally of Uric Acid, Urea, Phosphates of Soda, Lime and Magnesia, Ammonia, Water, and carbonic acid. These we shall consider in turn.

Uric Acid. This, though constituting but a small proportion of the solids found in the renal excretion, — fluctuating above, and sometimes below one part by weight in the hundred — becomes, in the eye of the pathologist, of greater importance than any other, from its so frequently forming the material of urinary calculus. It presents a pearly white appearance, and an acid reaction, and is but sparingly soluble in cold water, requiring to dissolve it completely, about ten thousand times its weight, of that fluid.

It would, very probably, never be an ingredient of the urine, if the individuals were in perfect health, and a little
muscular exercise were taken, full oxygenation allowed, and the entire surface of the skin freely accessible to the fresh-ness of the external air. It is formed in the periphery in much proportion that it presents in the urine, but is rapidly converted by oxidation into urea.

\[
\text{Formula of blood} \quad \begin{cases}
1 \text{ eq. water} & \frac{C_6H_5O_3}{H_2O} \\
1 \text{ eq. urine} & \frac{C_3N_4H_6}{H_2O} \\
1 \text{ eq. urea} & \frac{C_6H_4O_4}{H_2O} \\
6 \text{ eq. oxygen} & \frac{C_6H_6O_6}{H_2O}
\end{cases}
\]

By the addition of extra oxygen, ureic acid is converted into urea and oxallic acid:

\[
\text{1 eq. urea} \quad \frac{C_6H_4O_4}{H_2O} \quad \text{2 eq. water} \quad \frac{C_6H_6O_6}{H_2O} \quad \frac{C_6H_4O_4}{H_2O}
\]

Thus when individuals suffering from ureic acid calculi are sent to the country for their health, the appearance of oxalate of lime in their urine, is frequently the earliest indication of improvement; and conversely, when persons in robust health are suddenly deprived of their accustomed exercise and fresh air by confinement in prisons or work houses, nothing is more common than an instantaneous appearance of oxalate of lime.

In the convicts, which are constantly employing vita-
mense. Muscular force, such as tigers and lions, in which decomposition and oxyge nation are going on with greatest rapidity, and which inhale the amplest supplies of oxygen, Uric Acid is entirely replaced by Urea: but in serpents and other inverte, slowly respiring animals, it constitutes, in the form of urine of ammonia, nearly the whole of the excrements.

In persons who have been living highly and plentifully, and at the same time by sedentary habits and the use of alcoholic drinks diminishing the oxygenation of the tissues, it frequently attains so great an excess as not only to be discoverable in the blood and sweat, but to be deposited in chalky masses of Urates of Soda under tendons and in the joints. When an undue portion of substances which combine more readily with oxygen than the elements of the tissues, such as fats and waxes, is taken into the system with the elements, the amount of Uric acid is at once greatly increased; and the same thing is observable in fowls and birds whose diet contains such quantities of oil, and whose thighs, muscular excrescences consist almost entirely of urine of ammonia.

Uric Acid, \( \left( C_5 H_5 N_4 \cdot H_2 O \right) \) according to Liebig's analyst, is an invariable constituent of the urine in health, and holds about
the same proportion as uric acid. Like that substance, it
perfectly true now the alkaline phosphates, and like it, too,
it acquires a greater degree of solubility by this combination.
It is the most highly carbonized of any of the excreta, and
may possibly be occasionally increased when the liver fails to
perform thoroughly its function of eliminating the hydrocabons.

Its formation, in the body, from hippuric acid, is a curious
and important fact, of fact it be, but one scarcely belonging
to the subject of the present brief essay.

Hippuric. $C_6N_2H_8O$. This, the principal constituent of the
urine, amounting, according to Bongerius and Lehmann, to
nearly one half its entire solids, and the most highly nitro-
uric acid, is, as we have
orised object of animal excreta, is, as we have
just said, the result of the reaction of uric acid. Lieb
indeed considers it to exist in the latter substance ready formed,

Together with a hypothetical body, Ureil, and gives the follow-
in formula:

1 eq. Uric Acid $C_6N_2H_8O - \tilde{z} \bar{l} \bar{u} \; \tilde{z} \; (\leftarrow \; N \tilde{c}) = C_8N_4H_4O_2 + 1 \tilde{z} \bar{u} \bar{a}$

Urine is of lime, in its well known forms, is detected in
the urine, by the microscope. There are frequently, seen with it
considerable numbers of crystals of a peculation conformation.
Known as "the crust-bell variety," which for no other reason but that they are usually found with that salt, are supposed to be oxalate of lime also. They are evidently a product of the changes of the urinary elements, and particularly, as entirely (as Dr. Char's recent experiments have shown) a transformation of uric acid; as we have seen oxalic acid to be, and occurring simultaneously with its defective oxygenation and separation of urea; and whether they may not be some modification of this radical urine, or of its compounds, were well worthy closer investigation.

Urea bears a direct proportion to the rapidity of death. In fever, where oxygenation is going on with greatest intensity, during severe and exhausting muscular exertion, in excess of cold, where the muscular tissues are consumed in maintaining the temperature of the body, - in all these it is notable increased: while in anemia and cholera, after severe burnt stage, and in cases of protracted intermittent or of typhus fever, - in short, whenever oxygenation is lessened, the urea proportionately diminishes. This, as well as uric acid, is found in minute quantities in healthy blood, but is, at once becomes standard in that fluid upon ligation of the vessels, - ex-
cition of the Kidneys; Convincing testimony, if any were needed, that these products are not formed by those fluids, but merely secreted, or separated from the blood.

Ammonia, \( \text{NH}_3 \), the most highly agitated animal secretion next to urea, is found in the urine, if found at all, only in the faintest traces, which indeed are most probably owing to the commencing decomposition of that fluid in the bladder, or even in the cavities of the Kidneys, as it is well known how readily this change takes place in retention of urine, which indeed it is almost impossible to keep for any length of time without its urea changing into Carbonic Acid and Ammonia. This reaction may be exhibited thus:

\[
\begin{align*}
1\text{ eq. Urea} & \quad \frac{C_2\text{N}_2\text{H}_6\text{O}}{L} \\
+ 2\text{ eq. Water} & \quad \frac{H_2\text{O}}{L} \\
\rightarrow & \quad 2\text{ eq. Carbonic Acid} \\
\quad & \quad \frac{C_2\text{N}_2\text{H}_6\text{O}_4}{L} \\
\quad & \quad 2\text{ eq. Ammonia} \\
\quad & \quad \frac{\text{N}_2\text{H}_6}{L} \\
\end{align*}
\]

It is frequently found in the blood, and in large proportion in what are commonly known as putrid fevers, but whether it arise here from the decomposition of the urea, while yet in the circulation, or not, and whether it be a proximate cause of the disease or of any of its symptoms, or rather an effect, it is the province of the pathologist to determine.

It is eliminated chiefly by the skin, in the form of lactate.
of Ammonia, with the phosphate, and sometimes the acetate. It had not been detected in the sweat of the herbivora, but it is to be recollected that in them it forms a normal constituent of the urine.

Water, the only constituent of the tissues which contains no nitrogen, is produced in almost every phase of metaamorphoses which protein compounds undergo, and is more rapidly evolved from the system, in various forms than any other of its numerous excretions. It comprises in an average ninety per cent. of the entire weight of the body. From this large production of water, the objection against the theory of Animal Heat has been drawn that the combustion of so much oxygen and hydrogen in a given time as would enter into the composition of the water formed in the periphery in the same time, would liberate a far greater amount of Caloric than is produced in the body, to say nothing of the combustion of the Carbon and Nitrogen: but it must be borne in mind that if these gases combine with the evolution of a certain degree of heat, they have just before been liberated from a preceding combination, with the absorption of a corresponding quantity; but that (as in the combustion of solid bodies,
Such as oils, woody fibre &c.) the general change of the en-
tire compound is to one of greater density, and that the dif-
ference of density between this (or the sum of all the compound
viewed as one,) and the previous state, gives the nett amount
of caloric actually set free and available.

The uses of water in the economy are many and obvious:
it gives the liquid form to the fluids, it is partially or altogether
the solvent of the substances introduced as aliment; it regula-
lates the temperature by its evaporation; it gives the tendons,
ligaments &c. their elasticity and flexibility, and the mem-
branes their flexibility and softness; and is an important
chemical agent in all the changes which take place in the
organism. It is eliminated in the liquid form by the kid-
neys, and by the lungs and cutaneous exhalents in that of
sweat or vapor.

And finally, Carboxylic Acid. It will be readily seen by
comparing the formula of protein, (or the empirical expression of
fibres and albumen,) \( \text{C}_n\text{H}_{2n+2}\text{O}_x \), that it contains a far greater pro-
portion of Carbon and Hydrogen than either Urca or Urin acid.
The ultimate products of its transformations. During the production
of these bodies, therefore, these elements must be set free, or enter
...
into new combinations. How the oxygen for these combination is supplied, we have already shown, as well as the final elimination of the Hydrogen in the form of water; and in like manner the Carbon thus released from its previous affinities takes to itself two equivalents of Oxygen, and is converted to Carbonic Acid. Some portion of this is undoubtedly dissolved in the serum of the blood, and indeed it may be allowed to escape in free bubbles from that fluid by the removal of atmospheric pressure; but by far the greater part combines, as before stated, with the iron of the globules, and in the capillaries of the lungs, where these globules are exposed to the contact of oxygen, it is liberated constantly in its gaseous form. It is produced again, by the descent of some of the transition compounds into the forms in which they are exercised; and how this Acid gives it off upon its conversion into urea, has been shown already. And, as in vegetables, the most remarkable of their vital actions is a constant separation of the elements of this gas, and the employment of the carbon in the production of compounds of a higher scale; so in man, in whom the movements of the vegetable life are reversed, the re-formation of Carbonic Acid accompanies all the processes of Animal Respiration.
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But this will be further noticed when speaking of the Elements of Respiration.

In addition to these substances, the blood is found rich in certain salts which it obtains for the most part from the vegetable kingdom, and which either enter into the composition of certain tissues, or affect the changes which those tissues undergo previous to their excretion; while according to some, they subservi another important purpose, that of preserving the globules in their acid forms, but the value of this hypothesis rests upon the assumption that because the corpuscles are found in that peculiar shape, that shape is absolutely essential and indispensable, whereas what peculiar configuration has to do with their chemical actions, or why they might not circulate oxygen just as well if they were round or flat, I never could discover. But these gentlemen's hypothesis rests on another false assumption—that the form of the globules would be changed by changing the density of the surrounding fluid, while the fact is, that though they might temporarily be swelled out by a denser, or emptied by a rarer medium, (just as in a tube of glass filled with hydrogen and closed above by a porous stop, when its lower end is immersed in water by the rapid escape of the hydrogen a temporary vacuum is formed and the water rises for
a few moments;) yet as soon as an inter change of the fluids had been effected, and an equilibrium of density established within and without the capsule, all tension must be taken off, and the globule must return to its original shape and natural fulness.

These salts are the phosphates of lime, magnesia and soda, sulphate of potash, chlorides of sodium and potassium, fluoride of calcium, and silica.

The phosphates form the principal inorganic constituents of healthy bone, and their existence in the blood may be explained not only from their quick presence in vegetable substance, but from the reaction of the Phosphorus of the protein compounds, which is changed by oxygenation into Phosphoric Acid, upon the lime which occurs in so considerable quantity as well in the food, as in the form of sulphate and carbonate in all spring and rain water.

A peculiar property of the Phosphate of Soda, $\text{P}_2\text{O}_5(\text{Na}_2\text{O})\text{.H}_2\text{O}$, is that it absorbs twice as much Carbonic Acid as Carbonate of Soda, and spits off the whole again very readily. Since it has been thought to play an important part in the function of Respiration.

When the earthly phosphates act on salts of potash they produce an acid salt, the tribasic phosphate of potash with one equivalent of fixed base, $\text{P}_2\text{O}_5\text{KO}_2\text{HO}_4$ and when the same earthly phosphates and
Phosphate of potash set in soda salts, an alkaline salt is produced. The phosphate of soda with two eq. of fixed base — 2 NaO.HO.

On the peculiar properties of these compounds Enderlein found his denial of the presence of carbonate in the blood, and he accounts for their occurrence in the analyses of other chemists from the fact that when the tribasic phosphate of soda with three eq. of fixed base (3NaPO₄) is exposed to the atmosphere, it becomes converted into 2 NaO.HO, PO₃ and Na₂CO₃, Carbonate of Soda. As soon as any portions of ammonia are found in the urine, which, as we have observed, very readily takes place, they are taken up by one or other of these bis- and tribasic salts, and we have a phosphate of soda and ammonia, a phosphate of ammonia and magnesium, or, if available uric acid be present, a tricle of ammonia. But there is yet another important office fulfilled by these salts as lately has shown. Free uric acid is only soluble in about ten thousand times its weight of water; but if phosphate of soda be present, this refractory substance is very readily dissolved and the alkaline phosphate assumes an acid reaction, which, by the way, accounts for this property in healthy urine. At the common temperature phosphoric acid decomposes unite of soda, while at a higher temperature
uric acid decomposes phosphates of soda. Their three salts, although possessing none of the injurious properties of some acids, and none of their causticity, play the part of alkalies to the acids produced in colic and jaundice; and by their nicely poised affinities, and their mutual reactions and distributions between acids and bases, however incidental causes may contribute to a preponderance of one for the other, the general qualities of the excreted fluids remain the same. I am well aware that in this brief notice I have scarcely given the shadow of an outline of any beautiful and ingenious hypothesis; but I am equally well aware of the presumption that it would excite to attempt to develop them more fully.

The sulphates of potash, soda and ammonia form also a considerable portion of the salts of healthy urine, amply and indeed, according to Bergelius and Schmeisser, to double the quantity of all the soluble phosphates. Now part of these may be received in the form of salts in the elements, but in every trifling amount. Wheat and the other cerealia contain scarcely more than traces of soluble sulphates, and animal flesh none at all. They are in great part formed, unquestionably, from the exhalation of the free sulphur in the protein compounds, which are converted first
Sulphides, and finally, as Wöhler's experiments have shown, into sulphates, taking their alkaline base from the alkaline phosphate, which thus become acid salts.

The water of springs and rivers, as is familiarly known, contains a large proportion of sulphates, especially of the sulphate of lime; an amount certainly worthy of being taken into consideration, though I think these gentlemen have omitted to notice it in their calculations.

Chloride of Sodium will be noticed when viewing the changes of the Respiratory Elements.

The fluoride of Calcium and Silica are found in the most minute proportions of every salt in the body, and are chiefly distinguishable in the enamel of the teeth. It has been observed, but I declare I forget by whom, that the teeth of skeletons found at Herculanum and in antique tombs, were far less frequently defective than they are observed at present, and their bones, considering the length of time that they have remained under ground, surprisingly well preserved; and on analysis it was ascertained that they contained a much greater proportion of these elements than do modern teeth or bones. A chemist, noticing this fact, has recently suggested that it may be partially, on
altogether explained by reference to the comparatively modern
custom of closely boiling flour, by which means a far more com-
plete separation is effected of the bran, in which these substances
almost entirely reside. However, this is somewhat foreign to
our subject.

Gelatin, pectin, chondrin and gelatin, all, according to
Murad, modifications of one substance, are, as far as has yet been
shown, exclusively animal products. In the technical sense, therefore,
they must be formed from the protein compounds, though they con-
tain more carbon hydrates and minerals than protein, and yield
the tars of that body, when acted upon by alkalies or tested by
hydrochloric acid. Some physiologists hold that gelatin may
be formed from gelatin by the separation of some of its elements
and the addition of oxygen; but while this assertion is alto-
gether devoid not only of proof, but even of plausibility, the
most decisive experiments have shown that such is not the
case. Animals fed on gelatin alone, invariably waste away,
and at length die, with all the symptoms of starvatin.

Convalescents who are kept on a diet consisting almost exclusively
of gelatin, remain emaciated as long as this regimen is continued,
while they rapidly gain in blood and flesh as soon as once more
mysterious element is allowed. And even were proof wanting in this question, it would appear unreasonable, and contrary to all the established principles of physiological chemistry, to suppose that, in the animal organism, from so passive a substance as gelatin, tissue should be produced possessing the peculiar powers of muscle; or that blood and flesh should be formed by a process of destructive decomposition.

These objections, however, do not obtain against the hypo-
thesis that these substances may be dissolved in the process of digestion, and enter again in the system into the formation of gelatinous tissues: in the contrary, all experiments tend to prove that they are the commonest this is their true destination
and office. The gelatin of the bones devoured by a dog is entirely digested, and nothing but the bone earth is found in the faces.

No trace of them is discoverable in any of the excretions, and hence they must have been applied to the subsistence of some purpose quite economy, and must be separated in some other than their original form. And if the dissolved gelatin of the food can be applied directly to the replacement of the wasted tissue composed of that substance, it is a conclusion of perfect anatomy to suppose that the dissolved gelatin should at once be
employed to restore the disintegrated cartilages, muscular structure, tendons, membranes, and vascular walls.

The undeniable fact that convalescents may recover on a gelatinous, but not strictly gelatinous diet, offers no contradiction, but rather confirmation of this theory. For if we admit that on a diet of pure protein compounds the gelatinous tissues must be formed from the elements of blood, it is obvious that if the constituents of these tissues be supplied at once newly formed, the blood will be so far saved from that expenditure, and allowed to apply itself to the production of muscular fibre, and the accomplishment of its other vital purposes.

Elements of Respiration. For the support of animal life, and the proper performance of animal functions, a certain elevation of temperature is necessary. The human body, as careful experiments have proved, at the Equator of the Pole, preserves internally almost precisely the same degree of heat. Even in the violent extremes of climate the variation from the normal standard 

...is comparatively trifling. Now why this should be so, is a difficult problem to solve; for more difficult
than to explain how it is so. It is true we can set wide limits, and say that at such a temperature the fluids would be vaporized, and at such a temperature condensed; a narrowing the boundaries, shows that at a few degrees lower certain solids cannot be dissolved, and at a few degrees higher certain solids must be decomposed; but contrast these limits as closely as we may, to range of temperature in which life can be said to be narrower still. Yet while admitting that this remarkable fact is one of the questions which Physiology has yet to answer, one may delight ourselves with the lucid explanations which she has given to other parts of the theory.

We have seen that in the descent of the animal heat is constantly evolved by the combination of their elements with oxygen. How this heat may be given out with sufficient rapidity to preserve the constant temperature of the body; but in order to effect this the decomposition and of course the excretions on which that decomposition depends must be proportionately rapid.

In the carnivorous animal these conditions obtain, as in the hunter savage, and they are obliged to use an immense amount of muscular exercise to liberate the requisite degree of caloric, or, in other words, to furnish material for respiration. But
The conditions of man's existence are such as render him incapable of going through the constant, rude violent exertions and displays of energy which make up the life of the lion or the tiger; and Nature has provided in his food substances which, while in so perfect and passive an equilibrium as to combine readily and spontaneously with oxygen, furnish a far greater degree of heat than the tissues of the body.

Of all organisable substances hydrogen by oxidation gives out the greatest amount of Caloriné, and next to this carbon; hydrogen stands lowest in the scale; hence of all alimentary substances those which contain the most hydrogen or hydrogen and carbon, are best adapted to the support of animal heat. Substances of this sort are Sugar, Glucose, Amy, Starch, alcohol and fat; and these compounds from the Elements of Respiration.

According to dietary calculations, which it would be superfluous here to detail, in order to keep the body at the same temperature during equal times, there are required of Cane Sugar 100 parts; Glucose 106; Starch 97.2; Alcohol 53.8; Fat 40.2; and of Flesh 309.7. "Pure flesh therefore burns the least, and fat the greatest values."
an Element of Respiration."

Fat, &c., &c. The amount of fat in the system bears with the other tissues a direct proportion to the capacity of oxygenation, and consequently to Respiration. To have seen that by violent exercise of function the muscular tissue is more rapidly consumed, and in this manner the fat disappears; the animal substances sharing the oxygen between them as remote causes incline them. Thus, want of exercise promotes the deposition of fat; and in the infant, in which two states are requisite, the higher temperature than in the adult, and deposition of tissue constantly exceeding the consumption; these conditions are fulfilled by the butter and sugar contained in the milk of the mother: for while they take the place of the other animal products as Respiratory Elements, in this process, as we have seen, they supply of all other substances the greatest degree of heat. In the adult, on the contrary, who neither grows nor gains, the carbon, hydrogen, nitrogen and oxygen given off from day to day are exactly equal to the Carbon, hydrogen, nitrogen and oxygen consumed.

Hibernating animals, who are about commencing their
winter's sleep are always found remarkably blunt and fat, but in the spring when they leave their den they are insensibly lean and wasted; and during the whole of this period their temperature, although lower than when they are in a state of activity, is yet far above that of the surrounding air. Even scarcely any amount of muscular or other tissue has been consumed in this time passed in a state of torpidity. The principal and almost only substance, therefore, which has combined with the inspired oxygen must have been the fat.

While the inhabitants of tropical countries rely for subsistence chiefly upon the succulent vegetables and fruits which their climates so luxuriantly produce, the natives of arctic regions, as is well known, devour immense quantities of ices and fatty substances, and perish unless they are supplied.

In the caesarian, whose life is continual fever-stiffness, the amount of fat taken in as food is small, for less than that of muscle and blood; while in the insect herbivora the diet consists mainly of mucous and saccharine matter, which as we shall see, are readily convertible into fat; and as a general rule, the consumption of adipose substances in our
inverse ratio to the rapidity with which the tissues are de- 
stroyed.

It were superfluous here to multiply facts and illustrations 
on a subject already so clearly proved and so familiar, enough 
has already been said to show that the purpose which fat 
submerges in the body is to assist in maintaining the Animal 
heat.

When this substance is taken into the stomach, and while it 
remains in that organ, it continues, for the most part, to entirely 
unchanged, as the paste is strong, acid, and in an acid 
fluid it is insoluble. But no sooner does it reach the duodenum 
where it meets the alkaline secretion of the pancreas, the soda 
which had been previously formed from the salt, and the bile, 
which as we shall see, is an alkaline soap, than the paste 
passes into the form of an emulsion, the emulsion becoming 
more and more perfect until it is pour'd with the chyle 
into the venous blood. In the blood it is discernible by the 
Microscope in the form of small drops or globules which, 
according to Arber's experiments are enclosed in 
a capsule of albumen. But that gentleman goes further, 
and says that there are the primitive productive mole -
cules or cells. Now apart from the utter unreasonable-
ness of a proposition like this, that an alluminoous cakeule
should by filling itself with fat become a living, growing,
sel1 reproducing cell; capable of becoming here a part of
muscles, there a bile ecle, and here again a particle of
brain — apart from all this, how different are these oil-drops,
varying in every conceivable degree in size, now larger, now
smaller than the conuences, from the uniform proportions
of the cell. Are the life-endowed cells by those quiet work
the human organism is constantly built up and shaped out like
a coral reef by its cannot architect, mere rags of a substance
itself a product of decomposition? Experiments like these,
as Mr. M.elder observes, give us no more insight into the
true vital cell process than does the formation of bubbles
from a solution of soap.

Before proceeding futher with the complicated transfor-
amations of fat, it may be well here to notice Liebig's beautiful
and consistent views in regard to its production originally,
and its formation from other hydrocarbons.

We must admit, from the proofs which Organic Chem-
istry furnishes, that all the non-nitrogenized vegetable
principles are derived from Carboxylic Acid and the elements of water, and that their composition is accompanied with the liberation of Oxygen. Now we may consider Carboxylic Acid as composed of a Radical, Carboxylic Oxide, and one equivalent of Oxygen \( \text{CO} + \text{O} = \text{CO}_2 \); and substituting \( \text{R} \) for the Radical, we have Carboxylic Acid = \( \text{R} + \text{O} \). Thus when this Carboxylic Acid is decomposed in the plant, it may lose one fourth of the Oxygen, and become a reduced form of the radical.

\[ 2 \text{CO}_2 + \text{O} = 2 \text{CO} = 2 \text{R} + \text{O} \] = oxalic acid. In this way the modifications of these substances present a perfect analogy to nitric or any other multi-form acid.

But now let us assume that an equivalent or more of the oxygen has been replaced by hydrogen upon its separation; at once new compounds are produced according to the amount of oxygen separated, and according as it is the oxygen of the Radical, or the oxygen extraneous to the Radical which has been removed. Thus \( \text{CO} + \text{O} = \text{Carboxylic acid}, \text{or} \text{R} + \text{O} \); and \( \text{CH} \) being the radical of the hydrocarbon, we may have \( \text{CH} + \text{O} = \text{R} + \text{O} \); or \( \text{CH} + \text{H} = \text{R} + \text{H} \), carburetted hydrogen gas.

Thus if we add to the body whose formula is \( \text{C}_4 \text{H}_8 \text{O}_6 \), and which may be derived by the separation of 2 equivalents...
of oxygen from Malic, or 30 from Tartaric acid, 1,18,
1 ½, or 2 eq. of water, we obtain the composition of lignin
$C_6\text{H}_5\text{O}_7$, starch $C_6\text{H}_{10}\text{O}_5$, gum $C_6\text{H}_{11}\text{O}_5$, and of Glucose
$C_6\text{H}_12\text{O}_6$. And these transformations do certainly occur
in the vegetable, and in all is oxygen separated, and wa-
ter assimilated.

For the fatty substances the radical $C_3\text{H}_6$ is assumed, and
this Butyric Acid, $C_4\text{H}_8\text{O}_4$, becomes $8R+4O$; Malonic Acid,
$34 R+20$; and Stearic Acid $68 R+7 O$.

As Carbonic Acid in the vegetable yields up one half its
radical oxygen to be replaced by Hydrogen, and thus $C_2\frac{O}{2}H_2\frac{O}{2}$
Carbonic Acid, becomes $c. \frac{O}{2}H_2\frac{O}{2}$ Grape Sugar; so in the animal
Grape Sugar may reassume its lost Oxygen, and return to
Carbonic Acid and water. And this very process occurs in the
laboratory in the transformations of a saccharine product: Alcohol.

As the metamorphoses of the particles in the Animal
Economy is not governed by those complicated laws which
have regulated their ascent in the organic scale, (and which
we have in reason to describe as characterized by an ap-
propriation of photosynthetic force,) but a simpler and graduated
ascent, at every step approaching nearer the Inorganic.
Kingdom, it might be thought, that these transformations in substances of lower grade might be accomplished out of the body; and in one case at least, the change of glucose into lactic acid, this has been actually effected; the chemical modification existing only in the addition of oxygen, and the separation of water and carbonic acid:

\[
\text{Glucose} + 6\text{H}_2\text{O} + 40 = \text{C}_4\text{H}_8\text{O}_4 \quad \text{lactic acid} \\
\text{H}_2\text{O} \quad \text{water} \\
\text{C}_4\text{O}_6 \quad \text{carbonic acid}
\]

As all the crystallizable fatty acids have the same type, we may conclude their modes of production to be analogous, if not identical.

Fat. \(c_n\text{H}_{2n+2}\). Human fat exists principally in the forms of stearates and margarates of glycerin, variously united. They are soluble in albuminous fluids, such as the serum of the blood, and in this state they exist in the yolk of the egg. In the periphery they meet with oxygen under the favorable circumstances mentioned before, and are probably converted, in part, into water and carbonic acid, but chiefly into bile.

This fluid, the bile, as secreted by the liver, exhibits an alkaline reaction, and consists of soda, derived from the chloride of sodium which is decomposed in the stomach, but how we know not,
and while its chlorine becoming hydrochloric acid imparts the necessary acidity to the gastric juice, the soda is taken up into the blood to form the bile in the biliary— with a peculiar and characteristic acid, the Choletic. Its formula, as given by Dumas, is $\text{C}_3\text{H}_5\text{NO}_2$. From its containing nitrogen it is evident that the products of some of the consumed tissues must have aided in its composition, as nitrogen exists in none of the elements of Respiration. It has been subdivided into two acids, the Choletic and the Cholectoid; and has been forced to yield numerous other products, which, however, are so obscure and their existence, as such, in the body, so problematical, that it is needless here to notice them further.

When it is considered how large a quantity of bile is secre-
ted in every twenty-four hours, (amounting in the adult to about 17 oz.) and how minute a trace is found in the excretions—the pieces yielding but two of their weight to alcohol, and this on incineration giving evidence of no soda—it is obvious that the fluid must subserve some important office in the economy, and must escape in some other form. In the urine it is never found, in health, and although an enema of bile is rapidly absorbed, not a trace of it can be detected afterward the renal excretion.
None of the various eliminated products contain the slightest particle, and it must therefore have escaped from the lungs as water and carbonic acid.

When the bile is poured into the duodenum, and meets with the chyme, its alkaline reaction neutralizes completely the acidity of that fluid, and the now alkaline chyle acquires the power of dissolving and assimilating the various oils and fats of the food. With these, the bile, which is itself most perfectly soluble, enters the blood, and is now entirely and finally oxygenated in the periphery; its nitrogen possibly joining itself to some of the disintegrated tissues, its carbon combining with the sulphuric and phosphoric acids of the metamorphosed Protein to escape by the kidneys, and its hydrogen and Carbon assuming the forms of water and carbonic acid. The amount of Carbon thus exhaled from the lungs, is actually more than half secreted during the same time by the liver; so that the objection of some physicians, who assert that the bile must find some other way of escape, and who will persist in searching for it in the faeces, is altogether unfounded.

When we reflect on the small portion of fats or oils
and the large quantities of starch and sugar contained in the articles which form the diet of the herbivora and ruminants, and remember that the tissues of these animals correspond in quantity exactly to the amount of protein compound in these substances, being capable only of formation from agotised bodies; and at the same time observe the rapid production of fat in their organisms, - no other conclusion can be drawn but that these amylaceous and saccharine products have been converted in their systems into this fat, a conclusion more readily acceded to after observing the close similarity between the two classes, as just noticed, and the ready convertibility of the former into the latter.

Starch, during the process of digestion, as ample experiments have proved, is resolved into sugar, and that most probably glucose, or grape sugar, a change which depends simply upon the addition of the elements of water - thus 1 equivalent of starch $\text{C}_{12}\text{H}_{22}\text{O}_{11} + 2\text{H}_2\text{O} = \text{C}_{6}\text{H}_{12}\text{O}_{6} = 1\text{eq. glucose}$. This change also can be effected in the laboratory by means of sulphuric acid. At what particular point in the process of digestion this latter place is not clearly known, but it is probably at an early stage, as after a meal of carinaceous
food the chyle exhibits evident traces of sugar.

Now if this starch or sugar (soon followed by changes of starch) meet in the periphery with sufficient oxygen, it is converted into Carbonic Acid and water; while if this gas be not supplied, it undergoes a further change into fat: as e.g., Glucose $\text{C}_6\text{H}_12\text{O}_6 + 6\text{O} = 6\text{CO}_2 + 6\text{H}_2\text{O}$, but again

$\text{C}_6\text{H}_12\text{O}_6 + 4\text{O} = 6\text{CO}_2 + 6\text{H}_2\text{O}$, Butyric Acid.

Thus in this very transformation there is thrown open a new supply of oxygen, and a new source of Animal Oxyd; but it must be borne in mind that though these various transformations may modify the time in which the heat is given out, no greater amount of Caloric can be ultimately evolved by any of these substances than that which is furnished by the final combination of all their Hydrogen and Carbon with the oxygen of the atmosphere.

The last Element of Respiration which we shall consider is Alcohol. This substance is itself a product of previous Eor- maceris, being formed from Glucose sugar, (which in the formula may be considered as a hydrated bi-carbonate of the oxyd of Ethyl, though it seems to contain no carbonic acid as such) by a separation of Carbonic Acid. It may be shown thus:

\[ 1\text{eq. Glucose } \text{C}_6\text{H}_12\text{O}_6 = 2\text{eq. Ethyl }\text{C}_2(\text{H}_2\text{O})_2 + 2\text{O} + 4\text{CO} + 2\text{H}_2\text{O}. \]
Thus the availability of Alcohol as a means of evolving heat must be diminished by the amount which has been expended in the earlier Metamorphosis. It possesses however the advantage of extreme solubility, and evinces a greater readiness to combine with Oxygen than any other Respiratory Element; so that although it does not by its own elements augment the amount of fat in the human body, it supersedes that substance in the periphery by its stronger affinity for Oxygen, and thus causes its deposition, unconsumed, in the intestines of the tissues and on their surfaces.

When Alcohol is taken into the stomach its low specific gravity, and its exceedingly willingness of solution, cause it to be immediately absorbed by the minute venous capillaries in which the elementary bile buds, and hence it proceeds directly to the lungs, and from them to the arterial and peripheral system. Its readiness of evaporation causes its odor to be so discernible in the expired vapors; but with this single exception it is eliminated as Alcohol from no organ of the body, nor does the slightest trace of it occur in any of the tissues.
Thus the inorganic elements mount by the energy of the impulse step by step until they reach the acme of organic life; then step by step they descend to their original station, again to rise, and again to decline. Yet slowly and imperceptibly the quiet, strong resistance of nature gains ground; all things are striving toward an approaching, an concentration; and though ages elapse, the companionship of Zeus must at last give place to the reinstated reign of the Titan.

Meanwhile Life follows on Life, every age has its flow, every Action its Reaction, and the symphony of Existence moves on with measured beats like the pulses of a Mighty Heart.
An Inaugural Dissertation
On Cinchona and its Preparations
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
Ogilvie H. Crapster
of Baltimore, Maryland
The mind which has been occupationally directed to the investigation of a favorite subject is unwilling to persuade itself that its powers, however small, have been concentrated in vain. Since the faintest rays, when collected into a focus, can produce some degree of illumination. It was an infusion of this kind, which led me to think on a subject, and write out the results of my limited observation and experience, and the present paper, whilst it is but a production called for by custom, which an extended observation may find useful.

The subject to which our attention has been directed has within itself the relation, which an external agent may bear to living matter, and the effect it may produce upon the living economy. In the proper arrangement of this subject, many difficulties have to be encountered, and hence, much may begin which is imperfect and empirical.

The proper treatment of Fever had always been a
Subject of unusual interest, with whose whole objects have been to pursue the study of Physic, with an eye single to practice. And I regret to say that there is no subject in which there is so much difference in sentiment. (And perhaps we may add) so much useless speculation. Every author has his peculiar definition, and builds upon it his peculiar theory. Laying the views of each aside and profiting by observation, we are brought to view the effect of different substances upon the animal economy. Among them are the medicines calculated to correct certain morbid conditions of the system, by acting upon the vitality of the muscular fibre.

Dmetics are those remedial agents, which are calculated to build up the system without exciting the action of the pulse or animal heat. The activity of the digestive organs increased, peristaltic motions promoted, the strength of the system increased, health and vigour given to the body, and the whole animal economy benefitted.
We have many theories in regard to the mode of distribution of tonics, but I think it is now admitted, that they are taken in the circulation and then distributed to all parts of the body.

Having alluded to the want of a well-established theory, and the certainty of partial empiricism, we are brought to the consideration of our subject by:

**Quinine and its Preparations**

The introduction of this medicine into practice shows one of those accidental discoveries, which characterize many other valuable agents.

Quinine has long been known as a medicine in Peru, and hence its common name Peruvian Bark. It was first used in Europe in 1640 when the country Quinine was cured of fever by means of it and hence its name Quinine.

It has been called Virtue Bark, because of its having been recommended by the followers of Typhla (the Father of the Virtues), it was introduced into practice, after having met with considerable
Opposition by many eminent Physicians. Its efficiency however, soon overcame the groundless claims against it.

There are many different varieties of bark utilized by Botanists, but our observation must be confined to the "genus" and cannot extend to individual varieties mentioned by many authors. The tree is said to be found among the mountains and attains considerable size. They are harvested during the dry season which from May to September, it is prepared for market by being sun-dried and indiscriminately packed in Spanish hides. These bundles are afterward refined, and the different kinds assorted and brought to our market innumerable of Pale Bark, Yellow Bark, and Red Bark. There is a variety of Pale Bark, brought to United States in the shape of guilty and is obtained in the Province of Lore and the Flat from Guanard. This is much used, but is not so frequent as the
Yellow Bark. This is the second variety, it is
more darker colour than the pale, and is in
large quills. It is much more fragrant.
Public attention was first called to this
variety in 1790 by Robert, who considered it
powerfully fibring.

Red Bark, comes in thick, flat, large pieces,
is heavy, firm, and dry, when pressed it is
of a brownish red colour, is much more bitter
and astringent than the other varieties.
These are much valued in the treatment
of diseases of an intermittent type. Though
we regret to say, that much imposition is
practiced upon the public by the adulteration
of them. Hence the necessity of observing the
different characteristics of the several varieties.
For instance it is necessary, seldom to observe
the colour of the fracture. Which in the
common variety, is clean and even, externally
extremely of a bright cinnamon colour.
The yellow Bark, the fracture is fibrous.
The colour is of a deeper red. The Red Bark breaks with a smooth, brittle fracture, composed of three layers, and when powdered presents a reddish colour. There are other varieties of bark, which are called "Carthagina Bark," which are of an inferior quality.

Though the medicinal qualities of all the varieties depend upon their alkaline principle, cinchonia and quinia, and especially upon the latter.

Cinchona, in solution, when taken into the stomach, excites a warmth in the epigastrium, which diffuses itself over the abdomen and even the thorax. When the stomach is irritable, it generally excites nausea and vomiting, purging sometimes accompanies the use of this remedy. The pulse is generally quickened, and when we give it in large doses, it gives rise to distressing cerebral symptoms, which give an other marked by pain in the head, ringing in the ears.
Draft p. 7. In small doses it is a valuable tonic and in low typhoid cases it is indicated. And if soon it has passed into the suppurative stage, it is often of much service in supporting the system until the mobil action ceases. And in the latter stages of typhoid scarlatina, palpita, measles, small pox, measles, at a tonic in all cases where the system is exhausted by purulent discharges. But in all cases where we administer Cinchona we must examine closely, to know whether we have irritation of the stomach &c. for it does harm, when we have these complications. But it has another property much more valuable than its tonic power, i.e. its antiperiodic power. By which it breaks the chains of mobil action and interrupts the progress of the disease.” And by what means we know not but it acts as an antedote to the mobil poison (Malaria) and in the treatment of fevers caused by it, the Yellow or Red Fieal is refused.
Because the contain more Quinia. Unlike excipients
they do not add to the excitament in fever.
In the treatment of intermittents, it has been
always thought proper to empty the stomach
by an emetic or cathartic. And in the inter-
mination commence the use of the Cinchona.
The cold infusion is the form in which this
agent is administered; it is much better
retained in the stomach in this way.
Dr. Chvost recommends, that when it is necessary
for us to give this remedy to children, that we
should make an infusion with milk, which
distorts the taste, if taken immediately.
In intermittents, we should commence with
0.5 to 0.7, to be repeated every three hours.
When it excites nausea or vomiting, we should
combine with it a few grains of Belladonna
and when it runs off by the bowels add
Sulph. Orcii gr. v. to x. Cinchona generally arrests
the paroxymns of Intermitents. But when
complicated with other diseases.
It is necessary to remove these complications.

Before the Cinchona will be of much benefit.

It has been frequently found necessary to introduce this remedy by other surfaces than the stomach. Thus when the patient is unable to swallow, we can inject it into the rectum by which means it exerts its full power and in a much shorter time than when given by the mouth, when used in this way we should combine with it a few drops of Oil of Cinchona, as it is apt to purge. From the large quantity of Cinchona which it is necessary for us to use to check intermittent

"The stomach being generally irritable and not able to retain it, Chemistry has came to our assistance, and extracted from it the two well known Alkalies Cinchonine and Quinina the latter of which possesses all the physiurgic qualities of Cinchona and is much more grateful to the stomach. There are a great many different
process by which Quinina is obtained but is used by us in combination with Sul. Acid. Sulphuric Acid is added to Cinchona with a quantity of Charcoal. the acid unites with the Quinina forming a Sulphate Quinina and the charcoal absorbs the impurities. Thus obtained, it is of a silty, fine, needle shape crystals, interlaced among each other grouped in star like leaf. its taste is intensely bitter, it is slightly soluble in cold water, soluble in alcohol, it is decomposed by the Alkaloids.

Owing to the high price of quinina we find it frequently adulterated with Starch Sul. Lime, but we can generally detect this by tests being precipitated when we add an excess of Acid which dissolves the quinina. It produces all the effects of cinchona upon the system, though in a more marked manner. Its effects upon the brain are more striking though some persons are much more susceptible
To its influence than others, when we find central disturbance after the use of quinine we may know that it had been occasioned by its use, and we know by this that it is exciting its peculiar influence upon the system. We have frequently from its use partial sleep, which may last from two to ten days. Sometimes irritates the stomach and we have giddiness. Quinine may be substituted for cinchona in all diseases in which the latter is applicable and in the cure of intermittent it has entirely superseded the bate, though it sometimes happens that we are obliged to resort to the use of bate, when we have used the quinine without benefit.

Quinine is now considered as a useful antidote to malaria, and hence it is our sheet-anchor in all diseases attaining an intermittent type. During the past season a great many patients in the wards of the Infirmary treated for this disease.
And by the use of this valuable agent we were able to arrest the paroxysms in a short time. And of the whole number treated there, but two returned with another attack of Intermittent, and the class of patients treated there, were generally Irish laborers at the mine canals near our city, and were unable to stay longer at the infirmary, than it was necessary to arrest the paroxysms, and this I suppose will account for the few returning with another attack. In all cases where the patients remained for some time in the wards, quinine was continued one week after the paroxysms were arrested.

In the treatment of Intermittents we should (as in the use of Cinchona) empty the stomach by means of an emetic or cathartic, and in the interval, Dr. Wood recommends that we should give quinine in doses of from quarter to one two hours. But Prof. Chess gave it in doses of from quarter to one two hours, and in the
way, he was able to check the paroxysm in a very short time. And if it proved obstinate he gave it in larger doses, until it produced cerebral disturbance. When he discontinued its use for a short time

In Remittent Fever, which is also caused by the poison malaria, quinine is equally efficacious. We use quinine in this disease as in Intermittent Fever. We must sometimes commence with much larger doses than the simple intermittent, and endeavour to bring the patient under its influence before we have a return of the paroxysm. In Pernicious Remittent, another form of the above diseases, quinine is invaluable. He, and rescue a patient as it were from the jaws of death. In this disease we can seldom precede it with an emetic, but must commence the use of quinine in large doses at once, frequently in combination with Cupricum, during the months of August.
September and October, we received a great many
patients with this disease in the 13th. Infirmary.
And the Majority were Sailors belonging to the
coast Schooners. and contracted Puerperal
remittent. whilst upon the coast of Georgia.
One case in particular, in which I saw the
beneficial results from the use of quinine, I shall
now mention.

James Waugh. Seaman, native of Maine
had been on the coast of Georgia since May last.
when he had an attack of Puerperal Remittent
for which he was treated for in the Marine
Hospital of Savannah, and was discharged on
the 1st of June covered. He enjoyed very good
health from that time, until the first of Aug.
when he sailed for Baltimore. A few days
before he reached our port, he was taken with
headache, pain in loin, repeated regions
followed by violent fever, for which he was
treated by Dr. Dalliel of Broadway, without
much benefit. When he arrived at the.
Infirmary. His extremities were cold, scarcely able to detect any pulse at the wrist. Body covered with cold perpiration. tongue with some fur. Speech subdued, and involuntary evacuation. He was seen immediately after his arrival by Dr. June, who ordered Guininc pot. at once, to be followed by three grain doses every half hour.

Aug 5th 3 o'clock P.M.

Pulse of our patient is 120 force small and weak. Extremities still cold. He is now sensible, but disturbing cerebral symptoms from the use of Guininc. Also partial deafness. I now ordered lotionisms to extremities.

Aug 6th. Reaction has not taken place and patient very much improved. Still very deaf from the use of the powerful dose of guininc. He gradually improved and was discharged of the 29th of September, perfectly well.

I might give you many other cases similar to this healed by Drs. June & Power.
in the same way, (viz by quinine) but that will suffice.

One other case of this debate I will mention which the patient was unable to swallow.

And in the absence of our Resident Physician was treated by Dr. W. J. Dorsey, with quinine and Cupricum by the rectum, and the patient ultimately recovered.

Another very good method (recommending by Prof. Chmey) of using this medicine, when we wish to produce its effects quickly is to remove the outside with Nitric Acid and sprinkly the surface with quinine. in this way it takes immediately in the circulation, and produces its full effects in two hours. By the rectum in four. and in the mouth in six.

It is not only in fever produced by malaria that quinine is beneficial, but in any disease which marked by its periodicity, and is repugnable to the same mobile posture.
Thus, Rheumatism, Neuralgia, Dorsolith
Depository and Asthma. Very frequently
assume a periodic character, and are
equally under its influence.

In Periodic Rheumatism especially I have
seen much benefit from the use of quinine
When O'Brien admitted into the Surgical
Ward of the Infirmary, Dec 23d. Came from
a Malarious District. Has been labouring
under Acute Artricular Rheumatism for three weeks
and the attacks came on regularly every day
at one o'clock. Dr. Smith ordered quinine
giving every two hours, under which treatment
he recovered in a few days.

Neuralgia, quinine is used in this
debarke both when periodic and constant.
In the latter form it is a valuable agent
acting as a tonic, but its effects are more
certain in the periodic form.
An enlargement of the spleen, one of the
sequels of Intermittent Fever, quinine-
During the past year, owing to the high price of Quinine, a substitute has been prepared for it, which is called Salicine. An extract from the bark of the willow, claimed to be equally efficacious, in the case of Intermittent Fevers, gave it a trial at the Infirmary, and the results were not very favourable and in some cases we were obliged to revert to the use of Quinine to arrest the paroxysms. Notwithstanding it has been found wanting in many cases its cheapness, in connection with the fact of its being indigenous, gives it claims upon our attention, and we hope the time is not far distant, we shall be able to find some domestic substitute.

Having now complied with the regulations of our institution, as far as was in my power, in connection with subject, I respectfully draw my effort to a close, hoping that the attempt may be the means of  

Investigation of the remedy before me.

I am now about to leave those with whom I have been associated for the last two years. And whilst I regret it, I feel by their example, and influence, I have profitably devoted my time and attention to the consideration of useful medical subjects.

[Signature]

[Name]
An Inaugural Dissertation on Mysteria

Submitted to the examination of the Provost, Regents, and Faculty of the University of Maryland for the degree of Doctor of Medicine

By George H. Taylor of Missouri
It could scarcely be expected of one who has but little time and many urgent engagements to enter into a minute description of a disease which presents such a variety of symptoms and respecting which nothing definite is known. All that a student can do in such a case is to give the ideas of those who have written before him and whose views are more extended and satisfactory. The subject which I have chosen for my inaugural dissertation is wrapped in a cloud of mystery from beginning to end; and the practitioner is often thrown off his guard when there is no just cause for alarm; he is apt to mistake the disease for one of a violent inflammatory character and use the antiphlogistic treatment to its fullest extent whenassaftido would meet every indication. There is no disease so
well calculated to deceive the medical attendant as this, sometimes putting on the most violent and distressing appearance which would lead the inexperienced eye to suppose the patient was dying whilst to use the language of Dr. Wood 'tis a mere adulation on the surface of life—another strange thing is that amid such apparent distress, nutrition seems to go on with perfect integrity and the patient remains plump and even rosy. This appearance would be sufficient to lead us to suspect the existing state of affairs—-but any one condition of the corporeal frame is not to be looked for nor is it to be expected as every grade of appearance from the rosy bucksome dame to the weak and emaciated frame of Confirmed Phthisis will be presented in Hysteria. The class of persons most subject to Hysteria are weak chlorotic girls whose nervous
System predominates (Dr. Lacy says that chlorosis does not predispose to hysteria).
The causes of this disease are very numerous, all impressions to which the nervous system is susceptible and all the various cast of minds which affect the proper equilibrium of mental and physical exertion aids in a greater or less degree in the production of that peculiar state which predisposes to hysteria. Anything making a sudden impression upon the nerves. Such as love, anger, fright, joy, evil anticipations or the gloomy cast of some minds will act as an exciting cause in developing the morbid tendency and bringing it into action. The kind of light literature much in vogue among the fashionable part of society is of an exciting character and those persons who have a weak body with a strong and brilliant imagination and whose
Mental powers are cultivated many years in advance of their physical age, apt to be so deluded by such thrilling incidents and their minds taken off the sober train of thought to which it was accustomed and more particularly by making them wish for familiarity with the other sex that their nervous system is thrown off its proper balance and hysteria is ushered in with all its evil train of symptoms. The sight of a person in a hysterical convulsion tends to another person previously exempt into a similar attack. The uterus and its appendages are the seat of the disease much more often than all the other organs of the body—the reason why this is obvious is because it very rarely occurs in the other sex and almost always occurs in the female during the active period of the uterus.
and we know when the functions of this organ is suspended the nervous system suffers to a greater or less extent, not necessarily inducing a paroxysm. It has been stated that pregnancy suspends this tendency and in some cases has proved entirely efficacious in removing it, but in the majority of instances it returns if the health and general condition of the patient be not materially improved which is not at all likely unless some other disease be eradicated which existed in the constitution at the same time. It is an almost endless task to enumerate all the symptoms which have been pointed out in all the forms of hysteria. At the approach of a paroxysm there is some uneasiness in the epigastrium and difficulty of breathing.
vague feeling of distress and uneasiness all over the body which gradually increases, until the patient becomes so much agitated that the nervous centres can no longer tolerate it and relief is sought in violent muscular exertion, which after lasting a longer or shorter time is succeeded by a calm, a vacant look, and an almost unaccountable feeling of insignificance. Sometimes a large quantity of pale limpid urine is voided which seems to afford considerable relief. The paroxysm does not come on and go off as above described but there will be presented many differences in respect to character, duration and symptoms. Tendermoph along the course of the spine is almost always to be remarked by making pressure on the spinous processes of the
vertebrae. Great distress in the region of the epigastrium arising generally to other causes than disturbed nutrition. During a paroxysm the body is in some instances bent forward (Episthotonos) and backwards in a perfect arch (Episthetonos) while being inclined to either side (Plenosphonos) is not of so frequent occurrence as those above mentioned. They appear in some instances in the most seeming distress with their arms and legs in constant and violent motion and will take two or three strong men to restrain a weak girl and keep her in bed from injuring herself and others. The gastric derangement will often seem to be great but by making gentle and continued pressure if it be of a nervous origin it will be relieved.
but if it be of an inflammatory character it will be aggravated.
Tenderness of the abdomen is common when the bowels are distended with
flatus or feces and this tenderness often exists to so great an extent as to stimulate peritonitis which by
observing the pulse and general condition of the patient could
nearly be expected to be any thing but nervous. The countenance in
the one is haggard and indicative of great prostration whilst in the
other the suffering appears superficial and no great prostration is apparent.
And you will notice the glosus
hystericus which annoys the patient
with feelings of immediate suffocation
they imagine a ball is ascending
their throat and often express great
concern for fear of being overwhelmed.
by it. Spasm of the glottis is another occurrence which we are apt to mistake as it very closely simulates laryngitis— but by taking into notice the previous history of the case and by observing that the spasm is relieved by the relaxation of the system from suffocation, we can mostly come to accurate conclusions—but in some instances where the former history of the case could not be ascertained the most experienced have failed to detect it under its new garb—and have even gone so far as to make an opening in the trachea. The difficulty with which some women menstruate induce an attack at regular periods, which has given rise to the erroneous and vulgar idea that the moon exercises
Some influence over it. The patient is alarmed and uneasy in expectation of an attack, the invasion of which as a matter of consequence is only facilitated and assisted in its advancement by disquieting the nervous system. The mind like any other powerful excitant aids in the development of this morbid tendency. The regularity in the occurrence of the paroxysms have led some to the conclusion that it is nothing more than a malaria modified by the peculiarities of constitution. The sulphate of quinia if this be the case would be worthy of trial as it is proven by experience that this remedy exercises a peculiar beneficial influence over all diseases of a periodic character.
Among the diseases counterfeited by hysteria are: gastritis, nephritis, apoplexy, peritonitis, laryngitis, asthma, inflammation of the brain, and organic disease of the heart—sometimes attended with the bellows sound, during the paroxysm—which generally is not to be detected after excitement has passed off; this is never observed except the patient be very anaemic. The appetite is often depraved, craving articles of food which are entirely indigestible and not at all suited to carry on the necessary purpose of nutrition. There is often a disposition on the part of the patient to practice deception, they will tell you that they have not voided their urine or they will say that
they have been passing stones from the bladder and instances are on record in which stones have been represented to have been voided which were not in any point like a urinary calculis. The patient will tell you that her bladder is distended and is solicitous that an examination be made and the introduction of the catheter will often afford relief for a short time if the same measures be resorted to the practitioner will be troubled by the earnest and repeated solicitations of the patient when timely determination on his part would have proved entirely efficacious, and at this time it seems to them an impossibility to walk or to make any kind of muscular exertion.
The disease occasionally makes its first impression by suspending the voice after which more evident symptoms ensue. My preceptor Dr. James A. Turner of this city had a case in which the first and most prominent symptom was aphonia brought on by exposure and stoppage of menstruation—another case I saw when his pupils in which crying, laughing and singing were the only symptoms present, and brought on by a similar cause.

The management of these different circumstances occurring in this disease must be of course somewhat dissimilar. There is no man however experienced who is not occasionally deceived by the fallacious way in which this disease insinuates itself into the peculiarities of constitutions.
If tenderness be observed along the course of the spine it should be obviated by cups, leeches or issues which may be continued as long as the strength will permit or until the tenderness disappear. Local to general bleeding should be preferred and as little blood as possible be taken to meet the indications because the class of persons most subject to hysteria are chlorotic. The loss of a moderate quantity of blood will often leave the patient in a feeble and anaemic condition the effects of which may be seen for months as the blood making powers are in a depressed condition. During the convulsive paroxysms much may be done to shorten it and this is of the utmost importance as secondary depression follows such violent excitement
The administration of some one of the nervous stimulants will become requisite and as little restraint as possible be employed to keep her in bed. Sprinkle some cold water on her or apply some pungent smelling substance to the nostrils the object of which is to make a quick and decided impression upon the nervous system, but if the extremities be cold with a languid circulation in spite of the means already spoken of something of a more stimulating nature should be employed in conjunction with frictions to the extremities and inner part of the thighs. If there appears to be much congestion of the brain, effusion of the face and engorgement of the veins cold lotions would be of
Service to the head—It is particularly necessary that the bowels be well moved as fecal accumulations act as an exciting cause by producing unnecessary irritation. Prolonged attacks make it less susceptible to the impression of the remedies. The functions of the uterus should be kept in mind and when out of order should be instantly corrected as the health is always affected by it—after the patient has suffered long from hysteria with disordered menstruation the mental faculties are observed to fail sometimes and you will have almost every grade from mere mental debility to the most violent insanity. But generally they are of
a melancholy character with all kinds of foolish whims. The vicarious is a very curious deviation from natural menstruation and often appears in hysteria which seems a provision for, in some degree the means of mitigating the constitutional effects of suppressed menstruation. It is recorded to have taken place from the nostrils, eyes, gums, lungs, stomach, anus, bladder, nipples, ends of the fingers and toes from joints, the axilla from stumps of amputated limbs, from ulcers, varicose tumours and from the skin. Generally the mucous membranes being most frequently the seat of the discharge which may occur at regular periods and no great mischief result though
Delicate organs be it rare and they often have a carious smell when this secretion is small. During the paroxysm rigidity of the muscles are to be counteracted by a warm bath which will relax the muscles and invite back the senses if they be suppressed. But if it does not succeed and no contraindicating circumstances be present Chloroform may be given with decided benefit; it would relax the muscles quiet the nervous system and put the patient in a calm and profound sleep from which the patient would awake perfectly relieved and if it seem repeat the same means until you have subdued this spasmodic tendency which can soon be done by Chloroform.
The general health of the patient should be attended to and every thing calculated in the slightest age to disquiet the nervous system should be avoided. County rides on horseback or in carriage residence among the mountains light nutritious diet and regular bathing in cold water constitutes the principle hygienic rules to be enforced. The change of a married person to single life particularly agrees with some women and to such of these who could embrace such an offer it would be as well for them and it has been observed more than once of such women that their health gradually improved unless recovery was the consequence.
But an imperfect view of this subject has been taken and its pathology has been entirely omitted which must of course be disagreeable when medical authors have given us nothing precise. I have endeavoured to give but a plain description of the most common forms of hysteria and passed silently by a great many things which you may think almost as important as those I have taken notice of. The consolation I have is that I have discharged this duty to the best of my knowledge and hope that it may be kindly received by my teachers.

George Nash Taylor
An Inaugural Dissertation
on
Pneumonia
Submitted to the examination
of the
Provost, Regents & Faculty of Physic of the
University of Maryland
for the
Degree of Doctor of Medicine
By
William J. C. Rogers
of Baltimore
Pneumonia is most frequent of all the parenchymatous inflammations of the lungs. This may be caused by the application of any cooling influence to the body thereby exciting undue activity in the circulation of the lungs and the blood conveyed to the lungs being more venous than customary calls for increased respiratory action in the organs, this increased flow of blood bring the organ into a state liable to inflammation. It has also been attributed to excessive exertion. The inhalation of asphyxiating gases and vapours such as alcohol in its various forms these causing congestion it then only requires reaction to convert this congestion into inflammation. The bites of some venomous serpents and other poisons may excite pneumonia possibly by the blood containing this poison circulating through
The lungs. It has been supposed by some to be of an epidemic character, and it makes its appearance frequently in eruption fenes upon the entire subsidence of the eruption. There is also occasionally disordered preceding the eruption which frequently occurs upon its appearance.

Bronchitis Hooping cough Melaena of the inflammation of the gum Rheumatism. Sore accidents. Surgical operations Tubercles in the lungs themselves may all bring on inflammation in the lungs in the majority of instances by first causing congestion and this congestion lighting up inflammation. Since the discovery of auscultation and percussion we can ascertain with more precision the pathological process of pneumonia can could be obtained in any other way.
Their means we apply our lenses to
the very seat of the disease. I
shall now attempt to describe the sig-
ners. At the first appearance of in-
flammation in the lungs if we apply
our ear over the affected spot we
will hear a peculiar sound with
the usual respiratory murmur. It is
a fine crackling or creaking sound
like that produced by rubbing one's
hair over this ear or like salt when
thrown upon a heated iron also
like the creaking of a healthy lun-
g when pressed between the fingers.
This sound is called creaking or chon-
emics or shall and is pathognomonic
of the first or engorged stage of the
disease. The parts where this sound
can generally be heard are below
the scapula inferior margin of the
scapula and over the lower lobes of
the lungs which far more often are
the seat of the disease than the up
—per. This crepitation is generally
noticeable at first and heard with the
respiratory movements, but after the
disease has made some progress it is often the only sound heard on
the diseased portion of the lung.
And when we have this increased
crepitant rhonchus we begin to have
some dulness on percussion which is
to be detected by comparing the disea-
sed spot with a similar spot
up and down the body.
The progress of the inflammation
is understood by the crepitations
becoming more irregualar and
only heard at the last of each in-
spiration and as the lung begins
to suppitate it is only heard when the
patient coughs or takes a deep in-
expiration and when the suppuration becomes more perfect it is not heard at all also as the creptant rhonchus diminishes the respiration on the sound side becomes louder in proportion to the disease on the opposite side this is termed purule respiration.

In the second stage therefore we have dulness on percussion and on applying the ear we cannot distin - guish the creptant rhonchus on the usual respiratory murmur but now we frequently have a blowing or whistling sound taking their place this is termed bronchial respiration and is most frequently heard when the patient coughs.

A singular resonance of the voice is also sometimes heard at the same points termed Bronchophony. In
The third or suppurative stage with the dulness on percussion of the second there is frequently a coarse mucous ronchus and this is the only evidence of the termination of inflammation. If the suppuration becomes complete and an abscess is formed in any part of the lungs we have no sound informing us of this until some of the matter is spat up then we have gurgling and eccentric respiration owing to the bronchi communicating with the cavity.

I will go on to give some of the symptoms of this disease. Like other inflammations of a serious character it usually begins with a chill sometimes this chill does not make its appearance until after the pain, distaste, languor, pain in the back and limbs a disordered state of the stomach and
hoarseness and sometimes is not felt at all but the first is by far the more common than after this chill & chills silent reaction takes place and after this reaction is set up we have another train of symptoms occurring such as fever, pain in the breast and distress with more or less cough. This fever may last for a short time but the local symptoms show then delayed though it is not generally as violent after these symptoms make their appearance though they sometimes continued and afford a serious obstacle to our diagnosis. One of our first symptoms is pain in the chest which is sometimes very severe and at others dull and deep seated and more to be compared to a feeling of weight than pain. This easefulness is found most frequently below the sternum. Chairs
and mammad but when acute pain is felt we generally blame it in the hide owing to a complication of pleurisy. Now with this un雷斯pporp pat in we generally blame cough aggravating it this cough at first being dry or the expector being indicative of Bronchitis and is by no means equivalent to the severity of the inflammation.

Recovery is a much slower indicator of the severity of the disease yet this also is not infallible as patients are often unaware of its existence when it can be overcome by breathing a little more frequently. This frequency of respiration sometimes reaching to as high as from thirty to sixty respirations in the minute when in the healthy adult it is only about twenty in the same time. The patient frequently assumes and posture when this disappears
is excessive on his back or side with his shoulders elevated. He avoids all exertions such as talking or moving from their causing pain and increase of dispiration. As the disease proceeds, the dispiration becomes more apparent. The pulse is quick, sharp, and generally full at the beginning of the disease but becomes weaker as the disease advances. The tongue is frequently furred with great thirst, loss of appetite, head ache, pain in the back and limbs, depression of strength, urine dark colored and blood when drawn exhibits the buffy coat with a concave crescent turn and we also have frequently delirium withKick up of the stomach.

These are symptoms most frequently present for the first twenty four or forty eight hours and during this period we have expectoration on the
Expectoration is changed from that of bronchitis to the characteristic sputum of Pneumonia, which is a semi-transparent, tenacious mass of a yellowish reddish or rusty tinged owing to the different proportions of blood from the bronchial mucous membrane. Its tenacity varies from that of the white of an egg to a mass that is so tenacious that if you turn the vessel up side down that contains it it will not fall out. Now the distress becomes more oppressive but the pain frequently subsides or is lessened.

In mild cases the disease may go on in this way until the third or fourth day and then gradually die away, owing to the decrease of the inflammation which can be made out by the alleviation of the symptoms. This alleviation consists in the relief of pain.
and disappears. The cough begins to be
looser and of course does not cause
as much pain to bring up the expecto-
ration. The expectoration gradually assumes
more the appearance of the expectoration
of bronchitis; the pulse slowly loses
its frequency and becomes softer the
urine deposits a sediment and is
more abundant in quantity. The skin
begins to be cooler and sometimes
dampened by perspiration. The patient
may now be in perfect health in
twelve or eight days but there is sometimes
some of the symptoms remaining
which should warn the practitioner
that the slightest exposure might bring
about a renewal of the disease even
more dangerous to the patient than
the first attack.

When the inflammation does not ame-
livate as mentioned before it soon
begins to be more formidable. On the third or fourth day all the former symptoms become aggravated and sometimes we have delirium and coma which are dangerous symptoms and often obscure the diagnosis. There is said to be a critical evacuation in most cases of pneumonia. The most frequent of these is a deposit in the urine, perspiration, and free expectoration. There are others less common such as epistaxis. Hemorrhage, ecchymoses and other hemorrhage there are only observed in favourable cases and this change for the better is generally observed in the morning or after one of these critical discharges. All of the former symptoms become lessened in their severity and the disease goes on gradually to clear up. In fatal cases
None of these critical evacuations are witnessed the patient gradually goes on to lose strength. He expectorates with great difficulty or not at all. The expectoration now is frequently changed: it is sometimes of a dirty transparent tinge; sometimes streaks of pus are visible in it; sometimes pure pus with streaks of blood in it; but all these expectorations are greatly diminished in the latter stages of the disease owing, I suppose, to the patient's loss of power to cough it up as patients frequently do not expectorate at all for hours before death.

The symptoms of dissolution are these changes in the expectoration thready intermittent—fever the countenance is cadaverous and conored with a cold sweat—Breathing difficult—with a rattle in the throat and the patient—
this asphyxiated. I will now go on to give some of the evidences of al-
end action in the lungs as are obser-
red in post mortem examinations.

The effects of inflammation upon the
lungs are usually divided into three
stages each marked by their separate
symptoms. The first or engorged
stage the lung is externally of a dar-
ker and more livid kind than
natural it is also heavier than heal-
thy lung owing to the accumulation
of blood within it if you press it
it does not yield as clear a crepi-
tus as it would in a healthy condi-
tion and instead of rising upon the
removal of pressure it retains the
indentation. When such lung is cut
into bloody serum containing nu-
merous air bubbles flow from it.

The colour of diseased lung is not
always the same varying from crim-
don to almost black which can be
restored to its healthy colour in a
great measure by washing it.
The figures which the disease has
made can be distinguished by the
amount of air in the trunks in
the lesser degrees of inflammation of
inflammation there is a good deal of
air in the lung and becoming lip
and lip according to its intensity
you have also lip and lip expul-
sion in the same way and the accu-
lation of serum is larger in in-
tense cases which have lasted but
a short time.
The second stage or that of Wespita-
tion the lung feels solid and there
is not that expulsion felt that there is
in the first it is also greatly leas-
er than healthy lung and appears
to the touch more like linen than lung.

The fingers can be easily pushed through

lung of this sort. The lungs also
appear larger when the chest is op-

ened owing to their not collapsing
from the pressure of air without

its colour is not of so deep a red
as lung in the first stage. The ap-

proach of the third stage is marked
by the lung becoming lighter in co-

lour of a salmon colour or dirty
pink and resembling marble from
the mixture of black pulmonary
mattie. It is now heavier than at
any other period and can be ea-

sily crushed to a pulp by squeezing
it.

The third stage or that of purulent
infiltration can be easily diagnosti-
cated by the lung assuming a yell

lowish gray or stone colour or
Bluish green if you cut into it at this period no matter fauces in the early stage of suppuration but there is evidently pus retained in it for if you squeezed it it will be crushed to a more bulky, evidently containing pus. When this stage is more advanced it becomes of a straw colour or dirty yellow if you cut into it now pus oozes out more or less as the lung has suppurred. This purulent matter is sometimes found in large abscesses or in smaller ones diffused throughout the lung.

Treatment: Bleeding in our first and most reliable resort in the first stage or that of engagement and the sooner we use this remedy in the disease the more likely it is to be advantageous. The patient
should be bled sitting or standing up from a large orifice the blood should be allowed to flow until some symptoms of fainting make their appearance and the pulse becomes softer or if it were contracted until it becomes fuller.

The resection frequently brings speedy relief both to the pain and discharges and if this amendment is not observed the remedy should be repeated only not to such extent as before at the next visit which should not be longer postponed than from four to eight hours after the first bleeding.

Local bleedings from cups or beakers are also of great benefit if there is pain they should be applied over the affected portions of the lung. The next remedy of
null
importance is the tartarized antimony which should be given in doses not sufficient to vomit if possible but this can rarely be accomplished until the stomach becomes somewhat trained to its use by the dose that would vomit and purge when first given would not in all probability do so a second time unless it had been truly given. We should begin with a small dose about one third of a grain every hour to be increased according to its effects to two grains. A grain is frequently added in small doses to prevent emesis.

In the treatment of the second stage mercury is said to be of most advantage if should be given to produce its specific effect.
upon the gums. A good form of administering it is to give one grain of calomel every hour combined with opium to prevent its acting as a cathartic. Blue pill or the Hydrag. cam. Creta should be used instead of the calomel if it produced irritation of the bowels but if after we have tender gums and the patient appears more and more debilitated the plants should be resorted to such as ammonia wine porter &c. with a more nutritious diet. The patient's bowels should be kept once a day regularly and another remedy of importance is blistering. This should not be done as long as there is any great heat of skin or much fever but when there is difficult expectoration and a
good deal of dyspnea at such
time as this. Sclerosis may do a
vast deal of good but to accomplish
this the Sclerosis should be large.
The great objection to Sclerosis is
that it prevents our making out the
progress or retrogression of the disease
by auscultation or percussion. I
will now go on to give the history
and treatment of two cases of this
disease noted at the Baltimore
alms house.

Case 1st. Thaddeus Kisten, German In
vand the Hospital March 12th a
man of medium size apparently
having enjoyed good health before
the present attack. Age 26.
He has taken five days rine with
a severe chill followed by consid-
erable reaction and considerable
vascular excitement. He complains
A&ke cough and pain in his chest. On examination, the first- and second-division, the second-division cough, and apprehension, were present. In the 2:00 p.m. hour, the patient was observed coughing up a blood-stained expectoration. This event was confirmed by further examination of the lung, and symptoms of the hemorrhage were noted in the second and third division of the lung, as well as in the attendant.
symptoms - Pulse full and frequent - Skin hot and flushed - Chills - Throat irritable, dull and incoherent. Much dizziness urine high colored and on examination contained an excess of uric acid. Tongue firm some difficulty in articulation - Bowels open - Ro and et Potassae tartar 82 1/2 oz gra 3/4 oz. 5 & table spoon every second hour Eight cups before and behind

March 13th Patient much worse than day previous pulse high and skin hot all symptoms increased. Great distress
Ro Ammoniae Carbonis pro xx & 1/2 per one every three hours in connection 3xxv

March 14th Patient not so well as yesterday pulse 120 agitation of all the symptoms distress excessive
went to active stimulant, carbonate of ammonia and brandy.
To alum ligatures 1/2

Take allus 1/2

in

pillulae 1/2 one row and an hour after

B. Phos ammoniac 3 1/2 do carbones 3/4 pul

gum acacia 3 1/2 aqua distil 3 1/2 s tabl upon

full every four hours if pill does not

operate give an injection Medicine

given to me awhile the patient died

at 11 a clock A M

Autopsy Both lungs edematous and

thorax very much distended with

lung much purulent infiltration. Remnants of old tubercles about the bron

chial glands and absorption of the

matter. Pericarditis very extensive

existed in addition to the endocarditis.

Beautiful pale Membrane and effusion

in the Pericardium to the amount

of six ounces Sympth of the Pocks

of three lines around the heart.

Much fibrin collected in the cavities
of the heart and principal vessels large clot in the left side owing to the obstruction in the lungs. Thickening of the valves and deposit of pectoral lymph. The abnormal sounds heard were dependent on the pericarditis not on any alteration of the valves. Little thickening in the auriculo-ventricular valve —

Case Second

Mr Butler an American by birth a man of tall stature and thin person. Entered the Hospital March 21st. This man has been engaged on the almshouse farm as a common labourer generally has enjoyed good health 50 years of age History While at work some days ago he got his feet wet a short time afterward he was seized with a severe chill followed by fever
giddine5 in his head &c. He com-
- plains of pain in his right side in-
creased by a full inspiration. On
examination was discovered bron-
chial respiration. Bronchophony
and sub-epiploic dullness at the base
of the right lung, and no dullness
on percussion. Respiration a little
accelerated. Vascular murmur au-
dible over the left lung. Tongue
slightly furred, no appetite, no
nausea. Bowels open. Urinates fre-
quently. Pulse fuller than usual. Not acce-
lerated. Skin cool and relax. char-
acteristic expectoration in abun-
dance.

March 22st. Dr. Buckler saw him
today; on examination he detected
dullness on percussion in the right
lung. Bronchial respiration and
Bronchophony. Sub-epiploic dullness, rule.
104 and full rate very well marked.
Considerable engorgement. Expectoration
not as bloody or cough as bad.
pain still sharp upon taking a deep
breath and tender on percussion
indicating Pleurisy.

23rd Patient better. This morning pulse
104 not as full dizziness not a great
Continue medicine. Bowels free.
Nothing more good respiration quite
Natural. 40 gtt every three hours

24th Patient very little improved
If any slept some last night.
Four high. Pulse strong. 40 gtt every
two hours till nauseated.

Man is very weak and prostrated.
Auscultatory signs not as favorable.

25th He marked change in his con-
dition. Pulse 112 and not as full.
as on yesterday continue treatment.

26th. Patient worse. Pulse increased in frequency and diminished in force. Intermittent rate over the middle and lower lobes of the right lung. Bronchophony and Bronchial respiration. Dullness on percussion. The rate is much coarser and apparent early near the surface of the lung. Probably some Empysemoid Pulvis.

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27th. The man complains of increased debility. Pulse quicker and not as full. His appetite is more marked. Auscultatory begins most grand. Same treatment continued.

28th. Patient worse. All the symptoms aggravated. Dullness increased and over greater space. Great distention over high. Urine high coloured. Much prostration and great debility.
Stimulating treatment

29th. Patient died last night about 12 o'clock.

Autopsy reveals the right lung very much diseased. Pneumonia in the second running into the third stage. Perfectly solidified and fibrillation running integra great effusion of bloody serum. Lung diseased except about two square inches a small portion. Emphysematous lung immensely enlarged weighing from six to eight pounds. Left lung healed thin but very small. There is an extensive effusion of lymph on the pleura covering the lung and that of the pleura costalis. The condition of the pleura accounts for the great tenderness on percussion.

I have said nothing of the complications of pneumonia as the subject would
occupy more time than I could prop 
ibly devote to it as I hope this will 
be deemed sufficient

Yours very truly,

W. H. Rogers