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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 written for the University of Maryland for the Degree of Doctor of Medicine/Doctor Physic during the years 1813-1827. The individual dissertations were bound together during 1907-1. The original tables of contents for the bound volumes contained multiple errors in spelling, letters, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The people and teams who investigated and corrected the tables of contents were: Richard J. Beck, Historical Collection Preservation Officer; Maria Milagros Pedraza, Metadata Management Librarian; Angela Cochrane and Carol Harling Henry, Resources Division; Sarah Hovde, Acquisitions Librarian; and Megan Wolff, Services Division.

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University of Maryland Theses

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

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

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

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UNIVERSITY OF MARYLAND

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UNIVERSITY OF MARYLAND

THESES

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An Inaugural Dissertation On Symptoms and Diagnosis

Respectfully Submitted
For the examination of the
Provost, Regents and Faculty of Physic
of the
University of Maryland
For the
Degree of Doctor of Medicine

By
William D. Lyles
Anne Arundel Co
Maryland

day, how they ever originated; The humorilists who conceived all diseases to reside in the fluids of the body, and with this view of the pathology of all diseases, prescribed remidies, which doubtless, were often contra indicated and deleterious, there were those again, who maintained the opposite of this, that all diseases were seated in the solids, and they too had their particular nostrums, which were supposed to eliminate diseases from this part of the system.

Long after indeed, when better notions were entertained of the seat of diseases, and pathology more fully understood, as well as symtoms ~~they~~ were more attended to, we hear physicians eminent for their skill, declareing, that there was no means of discriminating one disease from another, situated in the same cavity, pneumonia and pleurisy for instance so different in their seat and gravity, were regar=

ded, as the same disease.

Happily for mankind, the mind of man was not content to rest in this darkness, and we see a Harvey arising, establishing beyond doubt the circulation of the blood the phenomena which produced it, and consequently a way was opened for the discovery of those diseases which affected it, taking a leap over a wide space of time, we behold Laennec apperaing, with his grand theme for discriminating the different diseases of the chest, Latham those of the heart. and thus medicine, like other sciences, has progressively marched onward, until the time has arrived, when no longer the same erroneous notions are entertained of the pathology of diseases, and when correctness of diagnosis has got to be a test, by which to discriminate, a physician who understands his profession from an empiric.

Symptoms and Diagnosis, hold an intimate relation to each other, our facility for determining the latter depends upon our acquaintance with the former, and in consideration of this connection we propose, after giving the definition of the word symptom, and other symptoms employed to denote different conditions, to speak of the most prominent which some of the organs of the body present.

When we employ the term symptom as relating to disease we wish to convey the idea, or take it for granted, when we hear the term employed by others, that there is something present in the part, to which we refer, differing from the performance of its natural functions something out of the course of health, interrupting the functions of a part.

When about to make up our dignosis from

symptoms, as to what a disease is, we do it with more facility by remembering that there are certain symptoms which under similar circumstances are peculiar to certain diseases, and these are called pathognomic. we may hear for instance on applying the ear to the chest crepitation, denoting the presence of liquid in the chest, but it only becomes pathognomic of pneumonia when we take into consideration the rust coloured sputa, and other symptoms peculiar to it.

Again in making up our diagnosis, it frequently becomes necessary that we bring to our aid, what are called commemorative symptoms, a knowledge of the previous history, and condition of the patient, as for instance we may have palpitation, and other marks of disordered action of the heart, seemingly dependent on organic disease of that organ, and we only discover its true nature when we learn that the patient has had several attacks of rheu-

matism of the joints. There are also direct and indirect symptoms, the patient may refer to a part as being the seat of his disease, when in reality it does not differ except, so far as the sensations of the patient are concerned from its natural state, and it is only by reference to other parts, that we can ascertain the true nature of the disease, a familiar instance is afforded in injuries of the ulnar nerve at the elbow, when a tingling sensation is felt in the little finger, in diseases of the liver pain is often felt in one or other of the shoulders, and instances are related in which severe pain was complained of in the knee, when there was aneurism of the femoral artery in the thigh, and the moment the artery was tied the pain ceased in the knee, and of indigestible articles of food causing pain in the foot and ancle. The meaning then of these terms, and ~~the~~ taking into consideration one, or all of them, in making

up our diagnosis, will greatly facilitate our progress.

There are certain parts to which we refer to gather indications of disease. The tongue from its participating with any general derangement of the system, and its intimate sympathy with the stomach, becomes a valuable index, in a great many of the general disturbances of the system, and all derangements of the stomach. and the appearance and colour it ~~presents~~ affords valuable information in making out our diagnosis. We may have it enlarged with indentations on its side, showing the influence of mercury. Its redness may be owing to the condition of the blood, or a great abundance of it in the organ, in the former case it would be produced by an undue arterialization of the blood, and in the latter either by an over excitement of the general circulation, or inflamation of the stomach, the former condition would be determined by ascertaining

whether there was any obstruction to the respiration, the two latter from each other by reference to other symptoms, to which the latter affection would point.

A furred tongue is generally characteristic of fever, and the nature of the fur is said to indicate the character of the fever, as when the fur is white, thick, uniform, and accompanied with moisture, it is an open active fever, in which though the symptoms be violent, it has no malignant tendency. When the fur is short, adhesive and rather scanty, permitting the redness to appear through it, with tendency to dryness, it is generally a sign of prostrated, and obstinate form of fever, which is apt to assume a low nervous, or typhoid form. In bilious disorders the tongue usually presents a yellowish hue.

The pulse. The evidences which the pulse presents, are regarded by the professional, and unprofessional (and that correctly) as being very important. So great indeed is the importance attached to it, that the physician, (who) neglects in every case to examine it, is regarded ignorant of his profession. It demands the attention of the physician also, because of the fallacy attending it and the wrong inferences which are likely to be drawn, unless caution is exercised in its investigation.

To appreciate the symptoms, which the pulse presents in disease, it is necessary to understand its natural condition during health. The pulse, is the blood making its way through the arteries, corresponding to the systole of the heart, and caused by the contraction of the left ventricle of that organ and of the artery itself. As a general rule this contraction occurs in a healthy adult

male about 70 times in a minute, and about =10
= 80 in females. The pulse is faster in children
being in children of two or four years from
100 to 125, and decreasing in frequency, as
they advance in age.
It is important to remember however, that
the pulse varies greatly from this in man=
y instances, even in perfect health, instances being
related of the pulse of children, beating be=
low 60 while in old persons it exceeded 80.
Temperment also modifies the frequency of
the pulse, it being more frequent in the
nervous and sanguine, and less frequent
in the bilious and phlegmatic, position of
body, period of day, exercise, mental emotion.
it being more frequent in the standing than
sitting posture, in the morning than eve=
=ning, during exercise, than in a state of re=
=pose. Mental emotions, may increase or de=
crease the pulse according as they be exciting
or depressing, the former increasing, the

frequency of the pulse. the latter decreasing it, hence the rule inculcated as long ago, as the time of Celsus, to wait on visiting a patient until, all excitement, occasioned by the presence of the physician shall have subsided, before we judge of the state of the pulse.

In making out our diagnosis, therefore from the pulse we must take into consideration the individual differences, which exists in different persons, during health, and the circumstances, which modify it, in any particular case.

The qualities of the pulse that we most regard, are its frequency, quickness, regularity, fulness and hardness. In all diseases of excitement the pulse is increased in frequency, and it may occur in the opposite condition of the system also, or that of debility, from some irritation existing at the same time in the system, or from weakness of the heart, it being unable to supply the system with blood, is driven to

frequent contractions to compensate for its want of strength*, slowness of pulse on the other hand is generally produced by depressing causes, when there is no exciting cause present, (although) the pulse may be slow, although irritation be present, as in inflamation of the brain or apoplexy, or from want of sensibility of the nervous centre.

Quickness of pulse is different from frequency, it being applied to those cases, in which the pulse occupies less time, than usual for its beat, although the number of beats in a minute are not increased. This quality of the pulse generally indicates irritation with debility, and is caused by a quick short contraction of the ventricle.

Irregularity of the pulse, frequently exists in persons, who are in health. A pulse is considered irregular, when the number or force of its beats are unequal, it being more frequent, and feeble, at some times than

at others, or when there is an intermission or absence of a beat at the time that it should occur. These irregularities of the pulse, may indicate disease of the heart either functional or nervous, or it may be produced by disease within the brain, simple disorder of the stomach, or be the consequence of mere debility.

The intermittent pulse is frequently found in old persons, but unless disease be pres= =ent it is not generally constant.

Fulness of the pulse is that condition, in which the artery is equally distended with blood, and on applying your finger the impression is conveyed of its striking a large portion of your finger. This condition may depend on general plethora, on a prolon= =ged and forcible contraction of the ventri= =cle, or on relaxation of the arterial coat.

The opposite of this, the small pulse, where the artery is not filled out, indicates

an opposite condition of the system, deficiency of blood, feebleness of the heart, or tonicity of the arterial coat.

A hard pulse, that condition of the artery which resists compression, and continues to beat under your finger, when you press, pretty firmly on it, is the last we have to mention. This condition may exist with either the full or small pulse. It generally denotes if not habitual with the patient inflamation of some organ, and is considered especially when connected with fulness an indication for bleeding.

It may be owing to hypertrophy of the left ventricle of the heart, or diseased state of the artery itself.

The respiratory functions. These are the next, and last organs, which we propose men=
=tioning as affording indications of disease and they truly demand the attention of the physician, because of the many symtoms, which they afford, which although similar in appearance, indicate very opposite conditions of the lungs.

Dyspnœa may indicate various conditions of the lungs Congestion, or consolidation produced by inflamation, mechanically resisting the entrance of air, to some part of the lung, the portion to which the air has access, is driven to additional duty, to counterbalance the want of action in the affected part, effusions of any kind in the same way, spasm of any of the muscles concerned in respiration, as in Asthma, pain whether depending on inflama=
=tion as in Pneumonia and Pleurisy, or simple rheumatism as in Pleurodinia. Dyspnœa is a com=
mon symtom in that fatal disease phthisis.

We have also this condition produced by the state of the air, as when it is too rarefied, or irrespirable from containing poisonous gasses of any kind.

Cough. This is generally a symptom of irritation of the mucous membrane of the respiratory passages, whether caused by the presence of foreign bodies, such as dust, acrid substances, pus, mucous, or blood. or the condition of the atmosphere itself.

Inflamation also would give rise to the same phenomena, either by increasing the sensibility, of the part or giving rise to effusion. It is a symptom of most of the affections which we have spoken of under dyspnoe, Pleurisies, Pneumonias, consumptions &c It also affords symptoms not directly connected with the air passages, as in inflamations, of the stomach, ~~stomach~~ intestines, Peritoneum, Hysteria.

Expectoration is the act of discharging the secretions or fluids from the air passages. To an experienced eye, the colour and consistence

of these secretions or fluids, presents valuable information in diseases, as for instance how important to him, in making out his diagnosis, is the rust coloured sputa in pneumonia, or the frothy tenacious sputa of bronchitis, or the flow of blood.

We have more means of investigating diseases within this organ than perhaps any other. They are open to our senses of touch sight and hearing, and since the immortal discovery of Laennec's, the diseases within the chest, which were before so difficult to diagnosis, have become simple from the exercise of these three senses and so important are they to science, that (now) the experienced physician, if often able by simply casting his eye at the external configuration of the chest, seeing its flatness and want of expansion, to read the presence of the most fatal of all diseases, or by the application of the

ear. he may hear the knell of death within
His touch too is important, for by it, he
is often able to decide whether disease is
present or not, and taken in connection
with other means of investigation, even to
ascertain its nature.

In conclusion we would quote the words of
another, that in making up our diagnosis
it is necessary to avoid the common error
of trusting, too implicitly to any one sign
however valuable in itself, to the neglect of
of others, which are capable of affording
him useful information, and in diseases
of any organ it will be necessary for him
to take symtoms into connection, and to employ
all his senses, before he can ascertain the
nature of the disease, or the remedies which
are indicated.

An
Inaugural Dissertation
On
Typhus Fever
Submitted
to the
Examination
of the
Provosts, Regents, and Faculty of Physic
of the
University of Maryland
for the Degree
of
Doctor of Medicine
By
Philip Rivers

Typhus Fever, particularly at this time, is a subject of great interest to the medical practitioner of Baltimore, and other large seaport towns; having prevailed somewhat extensively during the summer and fall of the last year, and to some extent yet prevalent. It is sufficiently evident that we derived it from Irish emigrants to this Country, driven over here in such numbers, in consequence of their deplorable condition in their own native land. In writing down what I shall have to say upon this subject, I shall be as brief and unpretending as possible. What is required of me, is simply to state upon paper, as much as I may be able to recall of what I have seen, heard, and read, during the course of my studies, upon the subject about which I have thought proper to write

The duty prescribed for me as I understand it, is all that I shall attempt to perform. Others may desire preeminence in this field, and labour to obtain it. All such have my best wishes for their success. For my own part, I prefer, for the present, at any rate, rather to repress any such ambition, lest it should prove to be a failure, and stand as an illustration of the truth, no doubt, too frequently illustrated, that it is possible for the mind, as the vegetable (pardon the expression) to be rotten before it is ripe.

As to the initiatory symptoms of Typhus, they are much the same as those of fever generally, and, above all, of Typhoid fever. The patient complains of headache, more or less constant and severe; wandering pains in the back and limbs; soreness of the

muscles; chilliness, especially along the spine, mingled with flushes of heat; increasing weakness, nausea, and, perhaps vomiting; loss of appetite; and withal, a general sense of weariness and lassitude, which indispose him to either mental or physical effort. Along with these premonitory symptoms, if examined, he will be found, frequently, to have some bronchitis; sometimes, in fact, the first thing noticed. In this condition, and with these symptoms, our patient may wander about for several days, becoming worse however every succeeding day, until, at last, he is driven to his bed.

By this time, perhaps, the character of the disease is sufficiently declared. Most, or all of the above symptoms exist in an aggravated degree, together with others peculiar to this stage. His

headache has become violent; his eye suffused and injected; his tongue dry, fissured, trembling, and with difficulty protruded. This last, however, is not invariably the case. Through the whole course of the disease, the tongue may be, and sometimes is, moist, though always coated, more, or less. Mere weakness has become prostration, frequently, almost absolute. Vomiting occasional, and not very harrassing heretofore, has, by this time, become either more frequent, and more severe; or been superceded by extreme epigastric tenderness, indicating that the stomach is deeply involved. In connection with all this, there are much stupidity and confusion of mind. Frequently by this time, if not before, bronchitis has developed itself, slight, or severe. The surface is morbidly hot, of a dark dingy hue, and covered to a greater or less

extent with the characteristic eruption. This eruption usually makes its appearance from the fourth to the sixth day, and consists of numerous spots of a dusky red, or purplish colour, varying in size from mere specks, to the third of an inch in diameter. The majority of these spots for the first day or two after their appearance, are of rather a bright red colour, and disappear under pressure. After this they assume their distinctive character, occasionally fading away, and appearing again, so that the patient may have two or three successive crops in the course of his attack.

The amount of this eruption, not always the same. In very mild cases, quite scanty, and offers considerable difficulty in distinguishing it from the eruption of Typhoid. This variety, however, is far from being frequent, and this is fortunate

for those who advocate the nonidentity of the two diseases. For if, with the present well-marked and distinct features of Typhus, physicians can hardly be induced to regard it as a distinct disease, what would be the case if the resemblance were closer? That there are some points in common must be admitted. Such are, the state of the tongue, sometimes; the pulse, and the general febrile condition. Diarrhœa an almost constant condition in Typhoid, is sometimes present in Typhus; the results however of a different cause. In the former fever, of follicular ulceration in the latter of weakness or relaxation We have prostration in both. But that there are more points by which their non-identity is rendered unquestionable, must be as readily admitted by those who have seen and compared, and studied the two diseases. These are, the

more severe and protracted head-ache in Typhus; the suffused, and injected state of the eyes; the dingy hue of the face, and of the whole body; excessive tenderness over the epigastrium; and, most important of all, the pathognomonic eruption. This eruption, save in some rare cases, differing materially from that of Typhoid fever. In Typhus, very many irregular dark coloured spots upon a dusky ground; in Typhoid, but a few bright red, well-defined rose-coloured spots, set off upon a clear surface. In reference to the suffusion and injection of the eyes, and the cloudy hue of the face, I have to say that they are considered by some almost of themselves pathognomonic of the disease. Besides these differences in the symptoms observed during life, there exist differences quite as palpable in the lesions revealed by post-mortem. Ulceration

of Peyer's and Brunner's glands, so uniform in Typhoid fever, is seldom or never met with in Typhus. In the latter the mucous membrane of the stomach is generally found considerably injected, softened and corrugated. The first two conditions are more especially characteristic of ~~of~~ Typhus, because the gastritis which produces them, is comparatively but seldom present in Enteric fever. Softening and enlargement of the Spleen are also usually observed; but these lesions are, perhaps, quite as frequent in Typhoid. In a recent report of 63 Autopsies of Typhus, made at the Royal Edinburg Infirmary, by Dr Benarnetto, the most constant lesions were softening of the Spleen and the evidences of Bronchitis. This same gentleman, speaking of the organs which he found to be the seat of disorganization, alludes to a peculiar deposit which he observed, and which he has

denominated typhous; bearing, according to him, a similar relation to the condition of the blood in the disease of which we are speaking, as do, the cancerous and tubercular deposits in those diseases. He describes this deposit as consisting of a yellowish or flesh coloured exudation, sometimes shaping into a brownish colour from the admixture of more or less blood. When first formed it is of a tolerably firm consistence, but rapidly undergoes the process of softening &c. The Doctor's opinion of the pathology of the disease, is, that it consists in a primary alteration of the blood, caused by the peculiar miasm or poison producing Typhus fever; that under such circumstances, local inflammations are setup in particular organs; and that the exudation attending these inflammations, instead of presenting the usual appearances, and

undergoing the usual transformations, become modified, so as to constitute the typhous deposits. In reference to these statements of Dr Bennett, I am, of course, unable to form any opinion. The deposit, he speaks of, may exist, but I do not know of its ever having been observed in this country. And the pathology he gives may be the correct one, though, as yet, little seems to be known of the nature of the disease. I prefer therefore waiting until time, and a farther investigation of the subject, shall either substantiate, or disprove.

The cause of this disease, whose symptoms, diagnosis and pathology, I have attempted to sketch, is a specific poison. This specific poison is generated among persons who are crowded together in close,

filthy, ill-ventilated apartments; living upon unwholsome food, and breathing constantly the same contaminated atmosphere. For a long time it was thought that this disease was peculiar to certain parts of Ireland and Scotland; but it is now, I belive, admitted, upon all hands, that wherever the above circumstances exist, Typhus may, and probably will, exist also. It is, moreover, no longer a matter of dispute, that, when once engendered, it may propagate itself by contagion. This, it undoubtedly does. Nor is this contagion so feeble as some seem to suppose. Many persons in this country, in good circumstances, and good condition, both as regards mode of life, and general health, have contracted the

disease simply by a few visits to those sick with it. I may say here, that against this fever there is no known prophylactic, except to avoid what has been mentioned as its procuring causes. Patients sometimes, aye frequently, recover from this disease, who have had nearly all the symptoms of a moribund state: so that the prognosis is uncertain. Generally, however, a sudden and decided accession, and an abundant eruption, especially when accompanied by bronchitis, afford reason to apprehend a fatal termination. If the attack be severe, and the bronchitis severe, the prospect of recovery is exceedingly discouraging.

Of the treatment of this disease I have now to speak. So far, I think, I

have been as simple, and as brief, as in the outset I promised to be; and as I desire to preserve something like consistency to the end, I shall still continue to be faithful to that promise. In the discharge of this duty, all that I desire is to give satisfaction; and if, in the impression I entertain, in relation to what is required of me as a Student of Medicine, I find myself to be in error, then have I entirely mistaken the character of the gentlemen with whom it is my fortune to have to deal. Feeling confident that I am not mistaken, and conscious that to the best of my ability I shall have discharged my duty; when it is done, into their hands I cheerfully submit my fate.

In the very beginning of this disease

before the chilliness and other symptoms of what may be called the 1st stage, have given way to reaction, it is rare that the physician sees his patient, unless this condition is protracted, and the patient is in immediate danger; as, we are told is sometimes the case, from deficiency of reaction, or its entire absence. This does not often happen it is true, but when it does, the indication is to procure, as speedily as practicable, reaction In the cold stage of Intermittent fever, especially the pernicious form of it, where the indication is the same, in order to rouse up the system, and equalize the circulation, an emetic is sometimes resorted to, where the depression is not too great; making choice of those articles whose

effect upon the heart and and arteries, is the least apt to increase the mischief. Here too, this remedy might, in some cases, with equal propriety be applied. The various internal stimulants, brandy, ammonia &c with friction upon the surface, the application of mustard plasters, and in some cases, hot turpentine fomentations, will also be necessary.

But under ordinary circumstances, the treatment is usually commenced with a cathartic, and indeed cathartics are required of an uninitating nature throughout the whole course of the disease, where there is not, as is most frequently the case, any real contraindication. By different writers are different cathartics recommended. Rochelle salts seems to be the

favourite of one whose opinion merits the highest regard. A combination of Calomel and Rhubarb by others; the object being, in the beginning, thoroughly to evacuate the bowels; afterwards the laxatives should be of the mildest kind, and repeated, only as often as may be necessary to prevent the accumulation of the vitiated excretions in the alimentary canal, where their presence is always injurious

Venesection is seldom if ever necessary. The strength indeed should be husbanded as much as possible, and from the commencement to the end of the attack, most religiously should this object be kept in view by the physician in his ministrations.

However, the local abstraction of blood is often necessary. Where the brain, stomach or any other organ seems to have become the seat of inflammation or active congestion in the course of an attack of Typhus, cups or leeches may often be resorted to with great advantage to the patient; and indeed, are, in many cases imperatively demanded. Where the congestion is more passive in its character, and the smallest loss of blood would take away too much from the waning strength of the patient, dry cups may be, and ought to be preferred.

Refrigerant diaphoretics, as the ordinary saline mixture, and the acetate of ammonia in solution are in common use. Sometimes those of a gently stimulating nature,

such as, the infusions of Serpentaria, of the flowers of Arnica, and even Contrayerva and Angelica.

Stimulants by some are used from the very onset of the disease, or at any rate, immediately after the free operation of some saline purgative; others again defer them until the disease is somewhat advanced, and symptoms of debility begin to develope the reality of that condition of the patient

The former plan of treatment, or something very much like it, has been found to be the most successful at the Balt. Almshouse

I have been informed, that, in this institution, the common practice is to give in the first place, as a purgative, about an ounce of Sal Rochelle. After this has operated, Spiritus Mindereri

in half ounce doses three times daily; or, where the debility seems to be greater Carbonate of ammonia or quinine. The former in doses of five grains, and the latter of three grains, three times per diem, in solution. Infusion of Serpentaria, strong Coffee, best tea, are also allowed. If there be diarrhoea, Rhatany in infusion; as this symptom is thought to be dependant upon weakness.

As to external stimulants I may mention, flying blisters as recommended by Bazes; Sinapisms to the extremeties; frictions with Cayenne pepper, hot brandy and oil of turpentine. These are useful in prostration, and where the heat of the surface is greatly below par.

All complications which may arise in the course of an attack

of Typhus, and the patient should be frequently and carefully examined in order to their discovery, should be promptly met, but always with a prudent regard for what is known to be the character of the disease, and for what is, in the particular case, the condition of the patient.

The patient chamber should be kept well aired, or rather ventilated: his linen should be changed frequently, and all descriptions of filth removed as speedily as possible. His diet farinaceous at first, afterwards of a more nourishing character.

During convalescence the patient should be carefully guarded against exposure to cold, and his diet, altered such, as his condition requires

I might mention, many more little things, which ought to be attended to; some done, some left undone, &c I forbear —

An Inaugural Dissertation on Necrosis.

Respectfully submitted to the Provost, Regents, and Faculty of Physic of the University of Maryland, for the Degree of Doctor of Medicine,

by

William Haig.

Baltimore, Md.

February, 1848.

To

Nathan R. Smith, M.D.

Professor of Surgery in the University of Maryland.

Dear Sir: It is with no ordinary pleasure I do myself the honor of inscribing the following pages to you. I should be doing injustice to my own feelings, however, did I not express my deep regret that they are so little worthy your attention.

I inscribe them to you, my dear sir, not in testimony of my high appreciation of your private and professional worth, (to give which here, might not be seemly,) but in grateful remembrance of the many acts of kindness you have conferred upon me and mine, not only during late, but former years — years long since passed.

That halcyon days may ever attend yourself, and those you hold most dear, is, be assured, the aspiration of

Your obliged pupil,

William Craig

Necrosis.

—"—

The writer deems it proper to state, that he is indebted to the Lectures of the Professor of Surgery in this University, and to various authors for much of the following composition. He has not been particular in giving his authority in every instance, trusting that a general acknowledgment would be sufficient.

—"—

Necrosis, the strict meaning of which is mortification, is, by the general consent of surgeons, confined to the death of bone.

Pathology.— Necrosis commences with an acute inflammation of the bone itself, or its periosteum, (the latter being the most important in its production) attended

with acute pain either in the part affected, or in the joint nearest the disease. When the pain is first located in an articulation, it generally leaves it in a day or two, and becomes permanently located in the part affected. From the commencement of the pain, severe symptomatic fever of inflammatory character, arises. Under inflammation, the periosteum swells, hardens, and matter forms beneath it. It is then forced out, and the bone depends entirely for its support upon the internal periosteum and medulla; but these being inadequate to furnish the requisite nutriment, a part, or the whole of the bone perishes. It generally happens, however, that the shaft alone suffers, whilst the heads, owing to their possessing an independent vascularity, remain unimpaired. The local affection generally terminates in suppuration, frequently as soon as the fourth or fifth day, and

this event, should it occur, is seldom protracted many days beyond that period. Although the whole limb swells very soon after the attack, there is no marked tumefaction in the part affected, until the matter makes its escape from the periosteum, and is diffused beneath the adjacent soft parts. Whenever this occurs, the extreme pain and symptomatic fever, which, till then, have continued unabated, subside, but do not entirely leave the patient. Necrosis sometimes, though rarely, arises from suppuration of the internal periosteum, and produces effects similar to those just described.

The abscess that accompanies Necrosis soon bursts naturally, when it arises from intense inflammation, situated so as to involve the skin. But when the bone is surrounded by a great thickness of soft parts, and the inflammation is

chronic, the quantity of matter daily increases, the cavity which it occupies, becomes greatly enlarged, and considerable pressure is made by the abscess on every side. The bones and tendons resist for a long time, the progress of the matter; but the cellular substance yields, and different sinuses form, which sometimes run to a great distance from the main collection of matter, especially when the abscess lies under an aponeurosis. After the ulcerated openings have emitted for some time, a profuse discharge, the sinuses, if considerable, receive the name of fistulæ, on account of their edges becoming callous, throwing out fungous granulations, and there being impediments to cicatrization. These impediments are caused by the dead portions of bone, which, whether loose or adherent, act as extraneous bodies in hindering the sores from healing. Not many years ago, it was thought that in this disease,

the matter was invariably sanious, acrid and fetid. This opinion, however, no longer exists. Weidmann ascertained that the suppuration from ulcers situated over diseased bones, continues white and laudable as long as the patients health is good; but that it deviates from these properties in proportion as the health becomes impaired.

When bone dies, Nature separates it from the living parts. This separation occurs precisely at the point of union between the dead and living portions. Concerning the means employed by Nature in effecting this separation, a variety of opinions have been entertained. Hippocrates believed that the dead part was pushed away by a fleshy substance which grew underneath it; Van Swieten conceived that the dead part was forced away by the incessant beating of the arteries; M. Fabre ascribed the separation to the extension and expansion of the vessels; and others supposed that the exfoliating piece of bone became loosened by

the suppuration, and partly by the rising of the new granulations. But Weidmann explains that the true mode by which the separation is effected, consists in the absorption of the particles situated between the living and dead parts of the bone, in such a way, however, that the first loses a great deal of its substance; the last, scarcely any thing. After the dead bone has come away, the swelling of the periosteum subsides, and the living bone recovers its original hardness and solidity.

Nature's last objects are, to rid herself of the dead bone, and restore the loss of substance which the bone has suffered. The latter is effected by so extraordinary and wonderful a process, that one might almost doubt its reality.

"Whenever there occurs a favorable respite," says Dr. Nathan Smith, in his Essay on Necrosis, "the conservative powers of nature, always active so long as vitality remains,

rally for the purpose of remedying the injury inflicted upon the bone. The process instituted for this purpose, varies according to circumstances.— When the portion of dead bone is small, and situated on the side of one of the long bones, granulations will shoot from the surface of the sound or living bone, and, as occurs in mortification of the soft parts, will push the dead bone off from the living, and finally urge it through the opening previously formed, and disengage it from the body. This is more likely to happen when the soft parts have been divided, early in the disease, over the whole length of the dead portion of the bone.

But in those cases in which a large portion of the circumference of the bone is affected, and especially when, to some extent, the life of the whole circumference has been destroyed, there is formed a bony structure, which attaches itself to the healthy bone near or at the part where it has separated from the sequestra or dead

portions, around which it forms a bony case, complete, excepting the apertures through which matter flows, and which must thus remain open. The new cylinder of bone does not closely embrace the dead; hence, and also because it overlaps the ends of the long bone, it is considerably larger than the bone of the sound limb."

Cases are recorded in which the clavicle, the scapula, the ulna, the whole, or a part of the lower jaw bone, the whole cylindrical shaft of the humerus, and the lower ends of the radius and ulna have been reproduced. The observations and experiments of various authorities prove, that it is the long bones which are most frequently reproduced, though the flat bones are not entirely destitute of the power of regeneration, since experience fully evinces that when a portion of the skull is removed, either by a wound, by disease, or by the trepan, nature always endeavours to cover the deficiency; the edge of the aperture extending themselves by means of a bony sub-

stance furnished by the periosteum, the dura mater, and cranium itself. But still the reproduction is imperfect, as an unossified place is always left even when the bone has lost only a small piece like that taken out by the trephine; and when the destruction is very extensive, there is no reproduction. This fact, which is proved by the observations of Lariard, Pott, Sabatier, &c, is particularly noticed by Sir Astley Cooper. The power of reproduction in the bones is particularly active in the early periods of life, and in healthy subjects; but it is languid, and even annihilated, in old persons, pregnant women, and in venereal, cancerous and rickety patients.

The bones most frequently affected with necrosis, are, the tibia, femur, lower jaw, clavicle, humerus, fibula, radius, and ulna. The time of life most subject to this disease, is from twelve to eighteen years of age. Necrosis of the lower jaw, however, seldom

occurs before the age of thirty. No climate, age, sex, mode of life or condition is exempt from this disease. Childhood and puberty are the periods most liable to it. The same thing may be said of persons who labour hard, and are much exposed to external injuries. Every bone of the human body is subject to necrosis; but those which are superficial and enter into the formation of the extremities, are more frequently affected than others whose situation is deeper. Necrosis less commonly attacks the spongy substance of the bones, because it is endued with a higher degree of vascularity.— On the contrary, it is oftener seen in the compact substance, where the vital principle is less energetic and more readily extinguished. As a modern writer remarks, a very slight injury will frequently occasion an extensive exfoliation from the surface of the cylinder of a long bone; but a musket ball may pass through the cellular structure of an epiphysis, or lodge in its

substance, without giving rise to necrosis, suppurative inflammation being much more likely to occur.

Diagnosis. — The disease makes its onset with a high degree of fever, severe pain, restlessness, delirium, &c. The pulse is frequent and quick, the stroke sudden, and the artery small and hard to the touch. At first, the patient has occasional chills; but when he complains of a sensation of cold, the skin, to another person, feels hot. The tongue is furred with a soft white coat. When matter is formed, it accumulates sometimes rapidly, sometimes slowly, and causes great pain by distension of the periosteum. The pain in the beginning, may be in a neighbouring joint, — for instance, if the disease is in the tibia, the pain may first be in the knee; but after the disease advances, the pain will be located in the

diseased part. Although no disease is more painful to the sufferer, yet when the periosteum gives way, and the matter makes its way to the surface, becomes pointed, and the surgeon opens it, there is a cessation of pain and an abatement of the disease.

The diagnosis of this disease is difficult, owing, in some measure no doubt, to the fact that authors have failed to treat the subject so fully as its importance demands. It is sometimes, in its early stage, confounded with acute rheumatism, and when this is the case, the golden opportunity is lost. When further advanced, it is confounded with phlegmonoid erysipelas, and white swelling of joints. Necrosis may be distinguished from acute rheumatism by the pulse being smaller, harder, and less easily compressed, and by the symptomatic fever and constitu-

tional irritation coming on sooner after the local attack, and being much more severe. Suppuration, which very rarely occurs in rheumatism, finally removes all ambiguity. Besides, necrosis usually attacks persons at an age when rheumatism is not so likely to occur. It is distinguished from phlegmonoid erysipelas by the skin being less concerned, the fever less general, the swelling of the limb, and by there being generally less pain. It is distinguished from white swelling, by the fenestram, and the joint itself being in tact.

Causes of Necrosis. — Anything that interrupts the nutrition of the bone, is regarded as conducive to the origin of necrosis. Some of the causes are external, and others constitutional. The external causes which injure the periosteum and medullary substance,

and thus produce necrosis, are wounds, contusions, pressure, fractures, comminutions, acrid substances, caustics, and extreme degrees of heat and cold. The constitutional causes are, sometimes, fever of bad type, small pox and measles. Scrofula, lues venerea and scurvy are also diseases that frequently produce such mischief in the bones as terminates in necrosis. It is likewise well ascertained that mercury will produce the disease, especially in the lower jaw bone.— This happens, however, either in consequence of mercury having been introduced too quickly into the system, or because the patient exposes himself to cold, or deviates, in some other respect, from a proper regimen. An internal necrosis, affecting the spongy texture of bones generally, arises from constitutional causes, though sometimes an external cause, which seems to affect only the surface of a bone, extends

its action to the interior, so as to destroy the medullary membrane and produce an internal necrosis. — This circumstance, as Weidmann observes, ought not to surprise us. As numerous vessels quit the periosteum to descend into the body of the bone and ramify on the medullary cells themselves, and freely anastomose there, it cannot be difficult to conceive how inflammation, which is at first confined to the outside, may (through the medium of these vessels, which serve as conductors to it) penetrate more deeply, and extend its ravages in every direction.

Treatment. — When necrosis has arisen from lues venerea, scrofula or scurvy, &c, the medicines calculated for the cure of these affections must be exhibited, ere any favorable changes can be effected in the state of the diseased bone.

If the surgeon is consulted at

the commencement of the disease, he should make an incision, corresponding to the extent of the inflammation, through the soft parts down to the bone and through the periosteum. By this means, the disease will be at once arrested, and the case reduced to a simple incised wound, which will soon heal.

When a deposit of matter has formed beneath the periosteum and within the cavity of the bone, or where none has been deposited within the cavity, there is no disease which more imperatively demands the aid of the surgeon. To avoid the disastrous consequences arising from the deposit of matter, it will be necessary to bleed, leech, purge, and give an emetico-cathartic. An incision should then be made through the soft parts, and the periosteum be divided as far as it is separated from the bone. In the second place, should matter have been deposited in the medullary canal,

a button of bone should be cut out with a trephine, to give passage to the matter. If the opening be sufficiently large to give it free exit, and the remedy be resorted to in season, it will always succeed in arresting the further progress of the disease.

When a sequestrum has resulted, it becomes the duty of the surgeon to assist nature in her efforts to get rid of it. Frequently, indeed, she is unable to accomplish this process, and it is only from surgery that assistance can be derived. When a piece of dead bone is still adherent at some points, its extraction should be postponed until it has become perfectly loose. Were it forcibly pulled away, there would be danger of leaving a part of it behind, which must have time to separate ere the cure can be accomplished. But when a fragment is sufficiently loose, it is to be taken hold of with a pair

of strong forceps and extracted. Should the ulcer have a very narrow opening, it must be enlarged in order to facilitate the removal of the dead bone. Sometimes the dead fragment protrudes from the ulcer, and projects externally, so that, if loose, it may be extracted with the fingers.— A case is recorded in which an individual removed, with his own hands, nearly the whole body of the tibia. There are cases, however, which present more difficulty,—such are those in which the sequestrum is included in a cavity, either of the original or new bone. The treatment of these cases consists in exposing the bone, and making in it an opening of sufficient size for the removal of the loose dead fragment. After the performance of this operation, the ulcers commonly heal very favorably, the health is restored, and the functions

of the affected part are but slightly, if at all impaired. The operation should not be too hastily entered upon: if it be, the dead portion of bone may be found still adherent to the adjacent parts. — Neither should it be delayed too long; for in that case, the patient may be irrecoverably reduced, while the new bone, on account of the hardness which it has acquired, cannot be so easily perforated. In cases in which necrosis has existed several years, great circumspection is necessary, and the surgeon should carefully endeavour to ascertain that the dead pieces of bone have not been absorbed, nor come away by degrees with the discharge, lest a useless operation be performed. Should the surgeon operate as soon as the sequestrum becomes loose, he will find the new bone so soft that it can be divided with

a knife, a circumstance that materially facilitates the operation.

In some cases of necrosis, amputation affords the only chance of saving the patient's life. It sometimes happens that the cavities in which the sequestra are contained, communicate with those of the neighbouring joints, which then become filled with matter, and caries attacks parts of the bones to which the necrosis does not extend. Occasionally, also, a necrosis is complicated with another disease in its vicinity. Besides, such may be the reduced state of the patient's health, and the particular condition of the necrosis itself, that the constitution cannot hold out during the time which would be requisite for the detachment of the sequestrum. Under such circumstances, amputation is indispensable, and should not be delayed.

The instruments that may be required in this operation, are, a probe, knife, round saw, and one or more of Hey's saws, several pair of strong forceps, and a pair of cutting forceps,— together with a chisel and mallet, which latter we have frequently seen of great service.

The importance of a thorough knowledge of necrosis cannot be too highly appreciated. One instance, at least, has occurred, even in this city— aptly styled, the City of Monuments— in which a surgeon, not knowing the disease under which his patient was labouring, determined to amputate his right arm at the shoulder joint, and having made the necessary preparations, invited his friends to witness the operation. But Providence decreed that that valuable member should not be sacrificed. A consulting surgeon, called in, by the friends of the patient, on the eve of the operation, detected the true nature of the affection, and by the

simple operation for necrosis, saved the limb, and restored to it all its former usefulness. He who has performed one such act, saving not only the limb, but, it may be, the life of a fellow creature, has passing through his mind, a consciousness above all price — one which the world "can neither give nor take away" — and one, too, that will yield him solace when "honor's voice" shall fall listlessly on his ear.

An
Inaugural Dissertation
on the
Diagnosis and Treatment
of
Pneumonia.
Submitted to the examination
of the
Prevost, Regents and Faculty of Physic
of the
University of Maryland
for the degree of MD
by
John de Butts

Pneumonia has been defined an inflammation of the air cells, and parenchymatous structure of the lungs. Like most other diseases it has been devided into the acute and chronic forms. But as the latter is of so seldom occurrence, it is my intention to confine the few remarks which I have to make, to the former.

Until the discovery of auscultation, nearly every disease of the chest was supposed to be, either, pneumonia or pleurisy. Consequently, nothing is more common than, in reading the writings of physicians before that time, than to find the symptoms of the one mistaken for those of the other, and vice versa.

But since the adaptation of that valuable aid to diagnosis, it has been well studied, and at the present state

of science, well understood.

The symptoms of pneumonia are numerous. But none of them are so peculiar to this disease alone, that they are not found in some other affection, or even absent in this. There is, generally, pain either acute or obtuse, attended with febrile excitement, cough, and dyspnea; all of which are generally ushered in by one or more rigors. The dyspnea is more or less troublesome according to the seat of inflammation; Which if seated in the upper lobes, will occasion more dyspnea, than when seated in the lower portion of the lung. The cough is often slight and dry in the beginning, but grows more violent and painful afterwards, attended by a serro-mucous expectoration, which becomes more viscid as the disease advances. This sputa which is

the characteristic expectoration of this disease, has in some cases been entirely absent, or only for a short time present. But it is by far more frequently present, and when present, is sure to be the result of pneumonia in some portion of the lung, although not indicated by dullness on percussion.

These symptoms are attended by physical signs, which more particularly point out the three stages of this disease.

The first stage, is that of simple congestion. But as the air is still admitted into the air cells, there is no very perceptible dullness on percussion. In its commencement, the first auscultatory sign heard, is an exaggerated respiratory murmur, which is soon followed by a fine crepitant râle, attended by a faint vesicular murmur

which is soon entirely superseded. Dr Stokes says "that we may always designate the first stage of pneumonia by the sudden occurrence of this puerile respiration, accompanied by fever, and excitement of the respiratory system". The crepitant râle is heard in a deep inspiration which bursts apart the walls of the air cells, which are glued together by the viscid mucous poured out between them.

As the lung becomes more congested, the air cells are more closed, and the lung consequently more solid, eliciting a marked dulness on percussion. This dulness, generally marks the commencement of the second stage. In this stage, which Andral has called red hepatization, the crepitant râle is replaced by bronchial and sibilant râles together with increased resonance of the voice or bronchophony

The dyspnea is greater, and the sputa are much more viscid and rusty, being also streaked with blood. It clings with great tenacity to the vessel, in so much, that it may be turned upside down without being displaced. The face is dusky and of a yellowish colour, from the hepatic derangement which often accompanies the disease. The lips and nails have a bluish colour with a tongue which is much furred and moist. Very often there is delirium which is sometimes low and muttering, and at others more violent. There is generally some subcrepitant râle heard in expiration and sometimes in inspiration, owing to some bronchitis which usually attends the pneumonia. There is no sign which marks the passage of the second into the third stage, so well as the altered character of the sputa.

In the third stage or ramolissement—

—gris of Andral, the face is generally more sallow, with an anxious expression, the blueness of the lips, and nails are often changed to a more livid hue. The sputa are not so tenacious, and of a yellowish appearance, from the admixture of pus from matter. As the inflammation is resolved, we have often the same signs recurring in a reversed order

Pneumonia is always attended by some bronchitis, and generally some pleurisy. Andral was of the opinion, that in every case where pain was one of the symptoms, there was also more or less pleurisy. But this has not been verified, as cases have occured in which pain was a prominent symptom, but where not the least pleurisy could be detected under the minutest examination.

The semicircular measure of the side inflamed is somewhat greater than that of the side unaffected

Anatomical signs

The anatomical characters, of course, vary as to the extent of the inflammation. In the first stage the lung does not collapse and is of a bright red colour externally, retaining the impression of the finger. It is somewhat heavier than in health, but still floats on being placed in water. It crepitates on pressure, and when cut, the cut-surfaces exude a quantity of bright red frothy serum. In the second stage, the lung has a darker colour externally, being much heavier, and no longer crepitating on pressure as in the preceding stage. It is more friable and easily broken down, its torn surfaces presenting a dark reddish granular appearance, and exuding a dark red fluid, but not so abundantly as in the former stage. On its cut surface may be

seen a number of small white granules, which are formed by the compressed tissues of the air cells.

These, according to Dr Williams' theory, are not formed when the inflammation is seated within the walls of the air cells. This he designates as inter-vesicular pneumonia, but which I have never yet seen. In the pathological changes of the lung, in the third stage, it a yellowish grey appearance externally. It is much softer than in the second stage, and very easily broken down on pressure. The cut surface exudes a purulent fluid, which may be pressed from it in great quantities. The surfaces usually preserve a granular appearance, which is of a uniform greyish appearance throughout. Laennec has called this state, that of "grey hepatization" and by Andral "ramolissement gris"

Abscess is another change which sometimes takes place in this stage, though very rarely. Chomel saw only three cases of pneumonic abscess in twenty five years. And Laennec, who examined several hundred cases of this disease saw but five abscesses in the whole number. When they do occur, they may either be single or there may be several opening into each other in such a way as to form a succession of small cavities. They may also have an opening into the bronchial tubes, pleurae, pericardium, mediastinum, cavity of the peritoneum and even externally through the parieties of the chest. Mr Gross, in his pathological anatomy, states that these cavities may be lined with false membrane. I have never seen those with a false membrane, although I have seen

them surrounded by the solidified lung. We seldom find the pathological changes of each stage separately, but generally the three intermingled. Often a portion of the lung presenting the first stage, spots of red hepatization, together with some signs of grey softening, which gives the cut surface of the lung a mottled appearance. In the bronchi, which are more or less inflamed there is often a sero-mucous fluid. The pleura is sometimes, but not always inflamed, with bands of lymph binding the walls of the cavity together, with more or less serum effused within the pleural cavity.

Diagnosis

The diseases for which pneumonia is most apt to be mistaken, are capillary bronchitis, pleurisy and phthisis.

It may be mistaken for capillary bronchitis, particularly if there is any pleurisy attending it. But the sputa of the former, though it may be streaked with blood, is not rusty nor viscid, like that of pneumonia. The pain of bronchitis is not so acute nor is there any resonance of voice, or dullness on percussion. The râles are also different from those of pneumonia, not being so fine. These two diseases sometimes occur in the same lung, and at the same time, in which case it is extremely difficult, if not impossible mark the line between them. In its first stage, it may sometimes be taken for oedema of the lung. But in this, too, the râle is a mucous or moist râle, and occurring in patients generally who have anasarca or oedema in some part of their body. The sputa are frothy and nothing like those of pneu=

monia. Chronic pneumonia is often mistaken for phthisis, but may be known by the previous history of the patient. This form of pneumonia is very rare. The inflammation seldom reaches the third stage, but gradually hardens and solidifies the lung for which reason it has been called grey hardening, or red and grey hepatization by different authors.

Period of resolution

This varies much more in some cases than in others. Sometimes a pneumonia may be cleared up in forty eight hours, while again it may last for more than six weeks. Andral cites ninety two cases in which the period of resolution was between two and forty two days. Of these, the greater number were between the seventh, eleventh, fourteenth and twentieth days. The most common period is between ten and twenty days.

Prognosis

The prognosis of simple pneumonia is generally favourable, but of course graver, when complicated with other affections. Age and constitution are important considerations. Dr Wood found that persons between the ages of two and twenty two, recovered with more ease and with fewer disagreable symptoms, than patients above that age. In persons above forty, it was much oftner fatal, and in old age, where the vital powers are weakened, it is extremely dangerous. Persons can bear a greater extent of inflamation in the lower than in the upper lobes of the lung. At some seasons pneumonia has more of a typhoid form, which is of cours unfavourable to the prognosis. "In all cases of pneumonia low exceedingly hurried respiration, inability to lie down, very dark and constitant or.

thin brownish or blackish or fetid expectoration, copious diarrhea and colliquative sweats, an extremely frequent feeble or irregular pulse, amounting to 140 in the adult, are all very dangerous symptoms"

Causes and seat

The most frequent causes of pneumonia are cold and damp weather. And, as shown by experience it occurs most often in those months which are most subject to frequent changes of temperature. It may supervene on phthisis, or any other irritating affection to which the lungs are subject, as I have seen in many instances. It may occur in consequence of the retrocession of some skin disease, as sometimes happens in measles. I have seen it also in a case of lichen, where the eruption was diffused through all the mucous membranes. It may be caused from

external violence, or even a shock of the nervous system, but in nine out of ten cases, it is brought on from exposure to cold combined with moist weather. It may have its seat in one or both lungs, in the apex or base, or it may be lobular, affecting but a small portion of one lobe. This happens most frequently to children under six years of age. But it is found to occur much oftener in the lower lobes than in the upper, and in the right lung oftener than in the left. In two hundred and ten cases treated by M. Andral at La Charité, one hundred and twenty one were seated in the right side, fifty eight in the left, and twenty five were in both lungs, The exact set of the remaining six could not be determined. And in eighty eight other cases given by the same author, forty seven were in the lower lobes thirty in the upper, and seven were found

to occupy both upper and lower.

Treatment

The first indication in commencing treatment, is to relieve the lung of its congestion. If the patient be of robust constitution, he may loose from sixteen to twenty ounces of blood from his arm: or he may be bled at least untill there is an impression made, which will be shown by the pulse, or by a diminution of pain. After thus relieving the lungs in some measure from the labour which the have to perform, we follow it up, by a brisk cathartic, and endeavour to keep the bowels open, one or twice a day. In cases where large quantities of blood cannot be spared, leeches or cups are of much service to relieve the after congestion which frequently happens. At pneumonia when taken at its very first stage, when we have the pueile

respiration, may often be cut short by one bleeding, followed by a cathartic. There are some cases, where but a very small portion of one lobe is affected which remain stationary for a long time, never advancing beyond the first stage, and then get well without any treatment. A case of this character, is now in the hospital at the Alms House where there is a spot not larger tha a half dollar, over which there is marked dullness, with a fine crepitant rale. This has remained in the same state for nearly two weeks. Calomel combined with tartar emetic and opium in the form of a pill, is the most common treatment. This by subduing the action of the heart and also acting on the secretion generally, is an excellent remedy. The antimony is often given alone in very small doses, but in some irritable stomachs, it too easily excites emesis. Or sometimes although

it may not have any nauseating effect it sometimes depresses the nervous system to such a degree that it is injurious. The emesis may generally be allayed by some effervescing draught. In those cases where the depressing effect of the antimony is too great, Ipecacuanha may be substituted with much advantage. This allays cough, directs the action of the Calomel and opium to the skin, and by subduing the fever lays the foundation of a mercurial impression on the system. The exhibition of mercury should be stoped as soon as the gums evince any tenderness, it being useless to carry it any farther. This treatment together with some gentle tonics, will often do in simple pneumonia, provided it has not reached the third stage. But where we find the constitution debilitated by previous desease, or when the inflammation has reached its suppurative stage, the tonic

plan of treatment is the most advisable.

When the disease has advanced to any great distance before the case comes under treatment, blood is not taken in such large quantities from the arm, but rather locally, by means of leeches or cups. Serpentaria, given in doses of a wine glass full of the infusion three or four times a day, is an excellent tonic. Sulph Quinine, either, with or without carb. ammonia, is administered with much benefit, particularly in the supervention of hectic fever. ℞ Terebinth may be given in pretty large doses with much benefit. Blisters, by giving a fillip to the system, and by their counter irritant effect, are often used. In persons who have been intemperate before their attack, it is best not to withdraw their accustomed stimulus, lest delirium tremens should supervene, which would prevent the necessary depletion.

While under treatment it is most necessary to have regard to the diet, which should be such as is most easily digested, and at the same time nutricious. It is always better to be economical with the strength, as he is likely to need it before convalescent. Syrup of Squills and seneka may be given with a good result in moderate doses in the decline of the inflamation. Digitalis is another remedy very useful when the pulse remains too frequent after the fever has subsided. "Gangrene may be met with chloride of lime opium, quinia, and the mineral acids especially the nitro-muriatics."

The cough should be allayed by opium lactucarium conium hyoscyamus or one of the other narcotics. Aconite has been found useful in gangrenous eschars of the lungs. A case treated with this remedy left the hospital a few das since perfectly cured.

An
Inaugural Dissertation,
On the
Peculiarities of Woman.
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
Nimrod O. Shipley
of
Maryland.

Feburary 22d
1848.

If ever the casual observer of nature is compelled to believe from the manifest adaptation of means to the end, which everywhere meets his view, that Creation is the result of a preconceived design, and the work of an Omniscient Being; how much more strongly is this conclusion forced upon the mind of the Anatomist, who enters into the penetralia of Nature's Temple, and views the wonderfully complicated, yet perfectly finished and admirably constructed machinery: which makes up the physical organization of Animal-Life.

Then he sees with astonishment appropriately and skilfully used by an unseen hand, all those fundamental principles of Mechanics, the discovery and application of which, have cost Man the labour of centuries, and constitute one of the chief triumphs of his reason.

So perfectly indeed is the Animal System

constructed, and so thoroughly is each organ adapted to the use for which it is design'd, that the most skeptical investigator, when he discovers an organ the office of which is unknown, does not pass it over as useless, but concludes that it is necessarily charged with some important function, in the animal-economy; and applies himself with increased diligence, to discover what that function is.

So wonderfull indeed is the harmony which subsists throughout the whole organization of animated nature, and so perfectly are the systems of various living creatures calculated to enable them to perform the functions appropiate to their respective natures, that the comparative anatomist - from the possession of a single bone, or perhaps even the fragment of a bone, is able to reconstruct the entire skeleton of animals, which have ceased to exist for thousands of years: and having thus reconstructed the solid frame of the animal, he is able by the application of certain physiological laws, to ascertain and describe with accuracy, its

mode of life, and those peculiar habits, which distinguish'd it while living and moveing on the earth.

If then we find these strongly-marked peculiarities of organization, distinguishing the lower members of the animal-kingdom, and such a beautiful and harmonious application of the laws of nature to fit them for filling their place in the vast chain of created-beings, how much more shall we expect to find the same beautiful arrangement, when we come to study the anatomy of Man: formed in the image of his Maker, to rule over the Earth and all things therein.

Man like all other portions of the animal kingdom, is distinguished into Male and female, and as each of the sexes, has a different set of duties to discharge; we must ~~we~~ expect to find upon the principles laid down above, that each of them has its peculiarities of structure, and organization, fitting it more paiticularly for the performance of the

various functions which are assigned to it. —

It is of the peculiarities which distinguish Woman from Man that we now propose to treat, and although as the general and ordinary functions of life, are carried on in the same manner, the outline of the system and its general organizations are similar, still there are distinctions, though marked, which enable the Physiologist even in surveying the skeleton to distinguish that of the female from the male.

To Man it is given as Lord of the Lion part, and Eagle eye, to go forth in majesty and power, and subdue the Earth, and enjoy the fulness thereof. — To Woman is entrusted a different mission, she is not to be regarded as a mean creature designed to administer to the gratification of passion, but as a rational intelligent moral agent, whose business it is to be the Friend ~~of Man~~ and Companion of Man, to soften by the influence of her society, the asperities of life, and to cause Man, powerful as he is mentally and physically, when he has

achieved those conquests which his strength enables him to accomplish, to pour his spoils into her lap, lay his laurels at her feet, and feel that the richest reward he can receive, for all the trials and dangers he has encountered, is her approving smile.

In order therefore to fulfill this portion of her mission on Earth, it is necessary that Woman should possess beauty of appearance, gracefulness of motion, and fascination in conversation; accordingly we find that her physical organization corresponds to these objects: as in Man we see the principal object is strength, we find that which we may term the motive portion of his system is fully developed, the osseous part is large, and furnished with roughnesses and protuberances, which are calculated to give greater force to the muscular action.

In Man we see fully that whole complicated system of levers, pulleys, pillars and arches, which are necessary to give the greatest possible strength: as on the other hand Woman is rather a passive than an active agent in the concerns of Life, we

find her differently formed: the first external peculiarities which strike our view, is her diminished stature, generally about one twelfth less than that of man, her bones too are smaller, smoother, and more perfectly rounded, the muscles which in man are large, and stand forth in bold relief, are in her smaller, and enveloped in an adipose deposit, which fills up the interval between them, and gives to the external surface of her body, that roundness and smoothness of appearance, which makes every transition from large to less, and every motion a perfect verification of Hogarth's theory, "that the line of Beauty is a waveing line". Here we see accomplished one of the ends which nature had in view; Woman thus modeled in beauty, arrests the attention of man, excites his desires, and causes him to turn ~~aside~~ from the path's of Ambition or gain.

But she has still another and nobler office to perform,—for as man is distinguished from the rest of the animal kingdom, not only by his erect posture, but by his intellectual faculties; it is necessary that she who is to be the companion of his

leisure moments, and induct him into the sweet enjoyments of domestic life, should possess intellectual faculties of a high order, yet in order that they should please, it is necessary that they should be of a different stamp from those which characterise man himself: they should be such as will give variety and pregnancy to the tedious monotony of idle life, so that when the excitement of the stronger passions have been thrown aside, and for a time laid at rest; and man seeks repose in the privacy of his own home, from the labours of a bustling world, there may still be something to excite and arouse his mind, and produce in it that mild yet active emotion, which constitutes the greatest luxury of mental life.

Accordingly, we find the distinction between the sexes here strongly marked for as the mind of man is grave, steady, and contemplative, and as we see the bony and muscular portions of his system strongly and fully developed so we find the vascular system large, and consequently the circulation is carried on —

uniformly, vigorously - but slowly; with a nervous system - comparatively inert, in consequence of the phlegm produced by the above cause; so on the other hand, in Woman we find the osseous and vascular system smaller, the muscles less fully developed, and nerves resting on a soft and elastic couch, which protecting them from all rude and harsh contacts, gives the most full play to their sensibility, and as in consequence of the smallness of the circulatory vessels, all the fluids circulate through the body with less volume but greater activity, we find the mind operating with more intensity and rapidity in woman than in Man.

'Tis hers to glance through the fields of thought, taking in at a single view, the various subjects which present themselves; and by noting their contrasts and agreements, to bring together those that are apparently dissimilar, and thus produce that sprightliness of thought and conversation, which is termed wit: which blended with sound reasoning faculties, fluency of language and extent of information, gives such peculiar -

fascination to the society of intelligent females. Thus enabling her to perform her highest mission by weaning man from the dominion of his passions, giving polish to his manners, and elevating his moral nature, these things belong however to the Phychologist, and we will therefore pass on to notice those peculiarities in the organic structure of woman, which fit her to be the Mother of the human race.

In order more fully to understand the peculiarities which mark the female organization it will be necessary for us to dwell for a moment upon those traits which are common to both sexes.

MAN (and we here use the term in its generic sense) is made up of solids and fluids, variously arranged and modified.

As the solid or osseous portion of the human system forms the substratum and permanent framework of the whole structure, we shall in the following analysis of female peculiarities, turn our attention in the first instance to the bony portion of the system, and here the

greatest and most important deviation of the species is found in the pelvis; upon this member therefore we will now proceed to remark.

In the female we observe the diameters of the pelvis increased in every dimention, the ossa ilia are larger, and more horizontal, that part demonstrated the superior strait, presents an opening both larger and more circular, and is in its diameters the reverse of the male;- the transverse and oblique diameters always exceeding the antero-posterior; in the female, the lower cavity is also larger, and shows the pubes and ischia shorter than the male, and which gives a more divergent direction to them at the same time producing a rounder and larger arch at the symphysis pubis, the sacrum is shorter, much more concave and broader in proportion; the coccygis is moveable and recedes in the passage of the child's head;- We discover by the peculiar arrangement of these bones, that the depth of the lower pelvis or the distance between the superior or inferior straits is less than in the male, thus by a simple, yet

admirable mechanism, provision is made for the more easy and safe delivery of the Child, which with the narrow pelvis, and intractile bones of the Male, would have been impossible.

In passing from the pelvis, to the other portions of the osseous system, we will merely observe that the vertebral column, and the bones of the extremities are shorter in Woman than in man, thus making her stature less than his - generally by about one twelfth. But the next great and strongly marked difference in the bony system is found in the shape of the Sternum and the position of the ribs, the Sternum in Woman is shorter and more arched than in Man, and the costal bones stand off more at right angles, with the vertebral column; thereby rendering the thorax shorter, but compensating for its loss of length by its greater developement transversely, in order to answer the purpose intended.

Upon the elevated and expanded chest, the Mamma which enables the female to give nourishment to her offspring - find

a secure place of attachment, upon which they can repose firmly, conveniently, and gracefully.

From the mamma we pass by a natural transition to the discussion of the softer portions of the system, the only two of these to which we think it necessary to give a particular consideration are the cutaneous in immediate connection with the cellular tissue and the nerves, the muscles having nothing peculiar about them except their diminutive size, which has been heretofore mentioned.

To the cutaneous and cellular tissues we owe that beauty and delicacy of appearance which arests the eye, and that soft and elastic surface so grateful to the sense of touch, which were necessary to fit woman to fullfill one part of her mission as heretofore described; by enabling her to fix the attention of man, and minister to his pleasure.

Accordingly we find that the skin in woman is more clear and transparent than in man, thus exibiting to view the sportive and

fanciful ramifications of the arterioles, and imparting to the complexion that exquisite variety of shades, which rises from the slightest blush, to the permanent floridness of youth.

These ramifications of the arterioles which exibit themselves through the skin, meandering over the surface with a freedom which strikes the eye of the beholder, and fills it with admiration; is owing to the following causes.

The blood in Woman derives less support from the tunics of the veins upon its return to the heart, than in Man, this with a more relaxed habit, causes the veins to become distended and conspicuous.

But the skin has also another impor=tant duty to discharge, for it not only forms the covering which binds together, and protects all the other tissues of the body, but in Woman during pregnancy, when the uterus can no longer confine itself within the pelvis, the skin together

with the muscles of the abdomen give it support, and furnish it a place of rest.

Of the cellular tissue it is only necessary to observe, that to it, and the larger deposit of adipose matter immediately under the skin, is owing that plumpness which characterizes Woman, and perfects the symmetry of her form, by rounding off those projections, often almost deformities observed in Man.

From these tissues which may be considered as merely passive we will pass to the examination of the nerves and their influence upon the system, which is active and important.

They present in Woman a greater delicacy in size, but they possess a more exalted degree of sensibility than in Man, and are supposed to be more strongly and easily acted upon by external agents, hence we find Women more subject to spasmodic diseases! From this refined and

intense activity of the nervous system, also spring (in addition to the sensibility of character heretofore pointed out as one of the principal charms of Woman.) that ardency of affection, and warmth of feeling which peculiarly fit her to discharge the duties of a Wife and Mother, and which causes her, particularly when acting in the latter character, to watch over her helpless Off spring with untiring fondness; and to derive the highest pleasure from providing for, and administering to its wants.

But the pleasure which she thus derives from the warmth of her feelings, has a terrible offset in the list of hysterical diseases, to which her exquitely sensitive nervous system subject her, as well as in the low spirits, doubts, fears and gloom, which hang around and annoy her during pregnancy

This brings us naturally to the consider=ation of an organ or class of organs, which are peculiar to the female, and whose influence upon her system has been considered as not

second in point of power, to any other; an organ whose sympathies are so greatly extended and influential as to expose the individual to some of the most distressing, obstinate, and at times dangerous diseases (we allude of course to the uterus and its dependant organs.) We might here cite the authority of numbers to prove almost its powers of ratiocination, or at least of its exalted intellect, but we permit such gross and absurd notions, to rest undisturbed, with the dust of their promulgators; or enjoy that oblivion which the progressive roll of years is fast ensuring. nor need we even notice one so monstrous as that which Aretaus has committed in his preposterous opinions on this subject; "it has gone to the tomb of the Capulets" and we cannot do better than let it repose there with the many other exploded and forgotten absurdities. We will therefore pass to the great question, —

Is the uterus the modifier (if we may use the term.) of the female system to the

extent that it stamps upon her, all her char=acteristic peculiarities? or in other words, would we be correct in saying with Vanhelmont "Propter solum uterum mulier est id quod est"

Although we are constrained to ad=mit the uterus to have an influence in the system more or less powerful, still we cannot now be=lieve, that it is the sole modeler of the female system: Many have fancied the uterus to possess a life almost independ of the existance of the female, and Sydenham, Cullen and some others, not wishing to go the same extent with some of their predecessors and contemporaries have modified their doctrine into one, — ascribing to the uterus the power of pro=ducing, or at least of modeling diseases.

Again we have others who are disposed to consider the uterus "as a simple passive, ac=commodating organ" and of course as such, could be dispensed with, or removed from the body, without the system suffering from its absence; they conclude it can have little

sway in the management of the functions of the body.

Thus we are at once presented with hypothesis, directly contradictory, but advanced by authority - which should not upon every occasion be set at naught, for instance upon the defensive, in the first theory, are enlisted; the persevering and awful Sydenham the ingenious and talented Cullen, the erudite and masterly Good, together with a long train of others whose opinions are entitled to the highest respect, while the other is also supported by authorities which offer some arguments evincing depth of thought, and extensive range of intellect. yet we are nevertheless disposed to agree in toto with neither, but from reading, and our own extremely limited observation, we embrace the doctrine advanced by the highly gifted teacher of Midwifery, and the diseases of Women and Children (Doctor Dewees late of Philadelphia.) Dr Dewees says in a word "We are of the opinion, that the uterus ranks

in the first order of the viscera, that its health is very necessary to the general health of the system, but that it does not exert any particular power over other portions of the body, more than any other important viscera would, under the same circumstances, namely of disease, that its influence is greatest while performing or giving evidence of its best state of health - namely pregnancy"

Although we feel that this essay is extending itself to a somewhat inordinate length, we cannot dismiss the subject of the uterus without adverting to the periodical discharge of sanguinous fluid, which takes place from it, and is known by the name of the menses, this discharge which usually commences from thirteen ~~years~~ to sixteen - years of age, in this Country, and terminates at from forty - to fifty.

We think it unnecessary to describe particularly, its commencement is considered as marking distinctly the

age of puberty, and its cessation has been thought by many distinguished writers, to be fraught with peculiar danger to the female system.
Broussais says "cessation of the menstrual discharge is a prolific source of congestion or some variety of disease"

As we cannot entirely agree with this distinguished French pathologist, and as we feel it might be considered presumption in us to differ from so high an authority, we shall offer no apology for sheltering ourselves behind the same eminent writer whom we have heretofore quoted on the subject of the uterus.

Speaking of the menses and the consequences arising from their regular or irregular flow, Dr Deneese when he comes to treat of their cessation says "the vulgar error that women at this period of life are always in danger, is replete with ~~danger~~ mischief to the suffering sex, and I feel it a duty to declare, that they are not necessarily more obnoxious to disease

at this, than any other period of their existance that they are sometimes liable to a desease at this time, and that disease one of the most terrible in the long list of human infirmities, I admit, but must nevertheless insist that Cancer (the disease to which I allude, and the one so much dreaded.) is more rare in the uterus than in certain other portions of the body, for instance, the mamma, and perhaps I am within the truth when I say, that there are three instances of the latter, to one of the former.

If latent disposition to disease, either in the uterus or other parts become active about this period of life, it is not because the declining menses excite them, but because the disease is slow in developing itself and is perhaps kept in check for a long time by the menstrual discharge serving as an important evacuation, especially when the uterus may be the seat of the com=plaint, in such instances the foundation of the disease was laid perhaps at a time when the menses when the most perfect, as

regards period and quantity; consequently they could have had no agency in their production but on the contrary (from its frequently relieving the engorgement of the vessels) served to keep it in ~~check~~ subjection for a long time, not as a specif=ic discharge, but as a mere depletion, or in other words, if an equal quantity of blood could have been by any other means, as certainly abstracted from the uterus, the same favourable result would have follow'd.

Coincidences in the human system are so common, that they are frequently mistaken for cause and effect, hence the cessation of the menstrual discharge, and the appearance of scirrhus and cancer are considered as cause and effect." (Dr Dewees on ~~Children~~ Females - page one=hundred and forty seven.)

Upon such opinions we need offer no comments, the language is plain, and the objects marked out as the aim of his remarks sufficiently clear and well proven we can therefore at once dismiss this part of our subject.

We might here proceed to comment upon diseases incident to pregnancy, but will content ourselves with a few remarks upon the subject of Conception as it is one of the peculiar attributes of the Female.

We will not dwell upon the many theories which have been broached, with respect to the part that each Parent performs, in imparting vitality to the foetal germ from which is to spring the future Man - we will here only remark, that Women seldom betray the same anxiety for sensual indulgence which we discover in the Male.

Whether it proceeds from a dificiency of natural stimulus, or the effect of moral education, we are not able to say, however we should think that caeteris paribus - the act of union was as highly delightful to the female as to the Male, this may well be, and yet the desire may not be so great: may not the mechanical irritation of the vulva and vagina in coition compensate for the deficiency of natural stimulus

But we have adverted to this subject, rather for the purpose of calling your attention to the

beautiful and harmonious manner in which Nature carrys on her works, by showing the sym-pathy which exists between the distant organs, one necessary to the protection of the foetus, the other to the nourishment of the Infant.

The uterus and the Mamma, though situated widely apart, are still so intimately connected, that when the first has ceased to be necessary by the birth of the Child, the causa natura which invites a plethora to the uterine vessels, and thus produces the healthy menstrua which prepare the female for impregnation, and produce a fullness of the uterus during pregnancy thereby furnishing support to the foetus, appears instantly to transfer its power to the lacteal vessels situated in the Mamma, and convert through their agency, the fluid which had heretofore been supplied to the uterine vessels, into that pure and nutricious milk, which flows almost spon-taneously from the breast of the Mother, for the support of her Child.

We have finished our

survey of the peculiarities of woman, and think that it fully justifies the conclusion that she has been placed on Earth, by a Benificent Providence to fill a high and important mission both morally and physically, and that Omniscient wisdom has admirably adapted this last best gift of God to Man, to the purpose for which it was bestowed, and we cannot but feel a higher reverance for, and deeper attachment to the medical Science, when we feel the Mind expanded by the Magnificent views which are opened to us by its Study.

An
Inaugural Dissertation
On
Intermittent Fever,
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
Jacob D. Thomas,
of Maryland

Intermitting-fever has been divided by authors into quotidian, tertian and quartan; which has reference merely to the intervals between the accession of the paroxysms; 24 hours in the quotidian, 48 in the tertian, and 72 in the quartan.

The fully developed ~~type~~ paroxysm of either type is usually the same; it commences with a creeping chillinesS along the spine; with languor, or a sense of fatigue; paleness, or slight collapse of countenance; lividity of the nails, occasioned by the recession of the fluids from the surface, and languid circulation of what remains in the smaller vessels; the temperature of the surface is reduced, and a feeling of universal coldness prevails, and not unfrequently to a much greater extent than the temperature of the surface would lead you to ~~ex~~ expect. The skin is dry and rough, especially on the extremities; shiverings, tremblings,

or rigours occur. Sighing, oppression or anxiety at the praecordia, yawning, stretching, oppressed respiration, occasional short cough, and nausea is also frequently present; aching of the back and limbs, or bones, as it is usually expressed; clamminess, and disagreeable taste in the mouth; the tounge is white; appetite lost; urine limpid, and frequently voided. The bowels commonly constipated, although the opposite sometimes does obtain; for with a sickness and bilious vomiting, there is not unfrequently a simultaneous purging; thus constituting a Cholera Morbus, which continues a shorter or longer period, sometimes only during the cold stage, at others during the whole of the period of the chill and fever if not interrupted; thus swallowing up as it were, or taking the place of, both chill and fever, destroying their distinctive characters; and appearing again at the usual period

of exacerbation. The pulse is constricted, small, and weak, and often hurried; the mental powers are weakened or oppressed. Such is the cold stage, or stage of accession.

These symptoms having continued for a longer or shorter period, from half an hour to three or more, are succeeded by transient flushes of heat, at first alternating with rigours, which diminish as the flushing and heat increase; until the surface gradually recovers from its sunken or contracted appearance, the body first, and the extremities last: the heat still increasing to a more or less intensity; headache and throbbing of the temples; turgescence of the countenance and skin; a full, strong, and frequent pulse; high coloured and scanty urine; intense thirst; hurried breathing, with but little abatement of the aching pains; these are some of the most frequent and prominent symptoms of the hot or second stage.

After a time varying from two to eight hours, perspiration breaks out over the forehead and breast, extending rapidly over the whole body, and soon becomes profuse; all the unpleasant symptoms now abate rapidly, all the secretions seem more abundant, the bowels more easily acted on, the mind more composed; in short, the whole animal machinery is again set at liberty to resume the functions of animal and organic life, and all the relief that would flow out of the change from a diseased to a healthy action, the subject now enjoys.

But this relief, is only for a season, hostilities are only suspended, there is no actual peace, it is but a truce, and that too not unfrequently a Mexican one, which only affords time for the enemy to recover fresh energy to renew the onset, which it will do after an interval of 24 hours if a quotidian,

48 hours if a tertian, and 72 if a quartan. The most common of these forms is the tertian, which is considered the primary type of intermittent fever. These form the regular types of intermittent; but there are others which are irregular; as the double, triple, and reduplicating tertian; the double, triple, and reduplicating quartan, &c.; of these the double tertian is most common, and differs from the quotidian only in having, on alternate days, fits corresponding in time of accession, severity, character, and duration. The ~~effects~~ triple tertian has two fits on one day, and one on the next: a duplicated tertian has two paroxysms in alternate days, with one whole day of intermission; a double quartan has a fit on one day, a slighter fit on the next, and a complete intermission on the 3d day; the paroxysms returning in a similar manner on the 4th and 5th; a triple quartan has a fit on each day — on

the two usual days of intermission; but as in the case of the double tertian the fit of each differ in character and period of accession, so that the one returning every 4th day is alike. The duplicated quartan has two paroxysms on one day, and two whole days of intermission. Besides these, intervals of from 4 to 8 days may occur, or even longer periods, 7, 14, or 21 days, as periods of relapse. The longer the period of intermission the more readily will be the restoration of health; but during this intermission the patient often complains of weakness, of heaviness or pain of the head; of a sense of cold, shivering from the slightest reduction of temperature; want of appetite. When the disease is suffered to continue some time, although it does not change its type as it is prone to do, the patient becomes weaker, looses flesh, has a sallow hue, experiences enlargement of

some of the viscera, the spleen, liver, or pancreas, most generally the former, with a deranged state of the secretions and excretions, the disease passing into terminations that end in death.

When the disease involves any of the viscera it presents diversified symptoms, according to the organ especially affected. If the stomach be principally diseased, a severe burning pain is felt in that region, with distention, nausea, and vomiting; distressing flatulency; dry or red tounge; high coloured and scanty urine; sallow or depressed countenance; imperfectly developed hot stage; a quick, contracted pulse; pungent heat of the trunk, with little alteration of heat in the extremities; intense thirst; hiccough; headache, and delirium. If the liver, you look for the pain in that region; a tenderness on pressure over that organ; pain in the right shoulder;

oppressed breathing, or hurried respiration on little exercise; bilious vomiting; diarrhoea, or a dysenteric and morbid state of the stools, which assume all the varieties of appearance peculiar to a disturbed state of the bowels; the stool sometimes dark or bloody, at others no bile being present they have an ashy grey appearance. The skin appears jaundiced, sallow, harsh, and husky, no perspiration to give it the soft natural feel.

If the bowels are chiefly disordered the fever assumes a dysenteric character; the evacuations being very morbid; sickness and vomiting are less urgent or altogether absent; and the hot and sweating stages are imperfectly formed.

The spleen is enlarged almost as a necessary consequence in this disease when uninterrupted; but it being an organ not so essential to life as the preceding ones,

there are not the same constitutional symptoms prevalent; it may be enlarged a long time without materially altering the general health.

These complications may coexist, or one or more predominate; but they seldom continue long without assuming still more dangerous forms; great prostration; dropsical effusions in the larger cavities, either alone or with anasarcous swellings; syncope; quick, small, and weak pulse; great thirst; anxiety and oppression; and lastly, delirium, coma, and death close the scene. These are a few, and most of the prominent morbid effects of this disease.

But to these may be added a number of others; the lungs and brain may both come in for their share of morbid alterations, both functional and organic, which may be readily recognized, and claim prompt

attention on the part of the practitioner.
Amidst all this diversity and complication of morbid phenomena and effects there is yet another form of intermittent fever that must not be passed over unnoticed. It is the diversified form it assumes according to constitution and predisposition to particular diseases of some individuals, independent of a peculiar epidemical trait that each succeeding epidemic assumes; such as at one time great determination of blood to the head, or much gastric irritability, or irritability of the bowels; at another time the force of the poison is spent upon the nervous system, without much vascular disturbance; at another time great arterial excitement, without any especial determination to any of the organs before mentioned.
But it appears in a masked form which

sometimes receives the name of misplaced intermittent; it shows itself principally in the nervous system in the form of a neuralgia as sciatica, headache, toothache, hysteria, painful affection of some one or other part; periodically observing the same types of chill and fever, but unaccompanied by either; and is readily recognized by its paroxysmal and intermitting character, and must be met with the same treatment as the more fully developed and less obscure intermittents.

The prognosis of Intermittent fever it is evident must depend upon the pathological condition in which it presents itself.

Just in proportion as the different organs enumerated are implicated, compounding the disease, so must the prognosis be unfavorable.

The circumstance of more favourable states of the disease being liable to dangerous complications, or structural changes, ought not

to be overlooked — apoplexy, coma, paralysis, fatal congestions of some one or other organs very essential to life may supervene.
As to the diagnosis; there seems to be but little difficulty in recognizing this disease in a few days; nor is it so important, as the same fever although of the remittent or continued type receives ~~in~~ nearly or about the same treatment; and in this respect differs from the older and far inferior way of managing the disease.
When we come to speak of the cause of Intermitting fever, after taking an impartial view of facts of which we are furnished ~~with~~ in abundance, the most plausible conclusion to be arrived at is, that there is a subtle and mysterious aerial agent called Malaria, of which, like electricity or magnetism, we know but little, but by its effects, as the predisposing cause; how this agent is formed is perhaps yet to some extent unsettled, but

it seems however that the mass of evidence goes to show that it is an emination resulting from the decomposition of dead organic substances; heat and moisture in proper or certain proportions being the only agents necessary to produce it on any part of the face of the globe, where organic matter, animal or vegetable, or both, exist, and the requisite quantity of heat and moisture are brought to act simultaneously upon it in a proper degree. It will appear manifest from this that certain locations are liable to, or exempt from, its production, depending upon their geographical position in latitude and longitude, as well as to their topographical locations as to situation to receive the action of the solar heat on a surface already properly moistened in the same latitude, therefore the same community may suffer in different degrees owing to slight differences of position; as for instance in a previously

healthy district a stream is made to overflow its banks by an obstruction in its course or heavy rains; there intermittent and remittent fevers are sure to prevail, varying in intensity as the inhabitants are distant from the centre of infection; in one section shaded by the trees of the forest little or no disease is known until the hand of industry removes the more bulky vegetable productions, and the forest mowed down, the sun now has access to the surface which gives out this newly found poison to an extent capable of producing disease.

This poison is further increased by the hand of cultivation in turning up to the action of intense summer heat the soil containing the accumulated animal and vegetable deposition of years, which same section is rendered more salubrious by active and long continued cultivation, the proper relative ~~[illegible]~~ proportions of

the generative causes being destroyed. It has been observed that primary formations with a sandy soil and undulating surface are exempt from disease resulting from this poison, owing to the rain percolating through the sand and running over the undulating surface; whereas, in secondary deposits flat surfaces impervious to water yielding by evaporation the moisture it receives, carrying with it into the atmosphere a portion of decayed animal and vegetable matter, for which vapour or moisture it has a peculiar affinity; it may be arrested too by being drifted through a skirt of woods, impinging itself against the trees and their foliage in its onward course, the woods serving as safeguard to the settlement beyond this boundry. That this poison may be accumulated and held in position for a length of time we have seen a melancholy instance in a location where intermitting fever prevailed endemically

in a moderate and manageable form everywhere within a certain limit, except one dwelling which had been untenanted: during the formation of this poison the house was closed, unventilated, and damp.

No sooner however than it was occupied, the rooms heated, the moisture dissipated, and the poison set afloat, the inmates one after another, in rapid succession, fell sick with a fever of a typhoid type loosing all traces of an intermitting character, depressing the vital energy by its intensity, ending in disorganization and death; thus showing that by its intensity from accumulation this same poison is capable of producing disease entirely different in malignity and characteristic features from intermittent fever.

Notwithstanding this poison is the chief agent in producing so much mischief, this agency, however powerful and in every respect essential to the formation of

intermitting fever, may justly be termed only the predisposing cause, and the only one capable of producing such a result; and that this predisposition too to disease may lurk in the system for a shorter or greater length of time is annually exemplified in miasmatic districts; there will be frequent threatnings of symptoms of the formative stage of one or the other types of bilious disease, and yet not break out, perhaps, at all in many instances, when the heavy frosts of autumn comes to the rescue and destroys the poison, by which the inhabitants are released for the time being, and time gained through the winter for this propensity to wear out of the system. But all are not so fortunate, there will be some exciting cause which is traceable to any agent which has for its effect a depressing or debilitating influence, excessive fatigue, night watching, any severe mechanical injury, impro-

prieties in diet, fear or any of the depressing passions, the loss of blood or a dose of salts to call it into action; hence the very common saying in those districts, "If you get bled or take a dose of salts you'll get the ague."

It requires in many instances however a long time for this predisposition to wear itself out of the system, a year may elapse and if sickness from cold or other causes is induced it will partake of the intermitting character, although at the time there is no Malarial influence exercised; this predisposition adheres with more pertinacity to those unaccustomed to breathe and dwell in such an atmosphere.

Having enumerated most of the prominent characteristic symptoms of intermittent fever, as well as the predisposing and exciting causes; our next step will be to give a very brief account of the manner of

treatment; which must be varied to suit symptoms; for every case points out its own mode of cure; therefore our few remarks will be confined to general principles.

The leading intentions which should be kept in view in the treatment of the paroxysm are, 1st to guard against congestions of important viscera during the cold stage, secondly, to protect internal organs from the effects of excessive reaction in the hot stage, and thirdly, to promote an abundant perspiration whereby the vascular system may be relieved.

Warm diaphoretics and external heat are the means not usually pointed out to fill the intentions indicated in the cold stage; but there is a condition in this stage that may be met and promptly relieved by bloodletting: it is when, notwithstanding there are severe rigours and shiverings, oppressed and hurried breathing, the skin is hot, and pulse full

and active; here the lancet can be resorted to with marked success; the abstraction of blood to an extent to produce a sensible effect will unburden the system, calm the commotion of the heart and arteries, remove the oppression in respiration, procure a full and free perspiration; thus cutting the paroxysm short, and warding off the shock the system would have to sustain, if suffered to go unmolested: but if on the other hand the heart and arteries are less active, the surface cold and shrunken, and the saving of the vital fluid important, as it doubtless would be, our chief reliance should then be placed upon the application of ligatures around the extremities; warmth external and internal; and in some cases stimulants are indicated, in the employment of which our object should be to select those whose effects will not likely continue over to the hot stage, and one of the best is Carb. of Ammonia.

The second or hot stage must be as scrupulously guarded, and as promptly met, as the cold; here too Nature points out the means which, whilst they are the most succesful, they are at the same time the most grateful to the patient; the temperature of the body is to be reduced by cold applications to such parts as suffer most, and at the same time administering cold drinks both to satiate the burning thirst, as well as to rob the body of excess of heat, bringing the temperature down to the sweating point, where this refrigerating treatment must stop; but our most powerful means where there is much excess of action for its subjugation, is to be found in the Lancet: when the fever is at its height and relief most needed, tie up the arm and draw blood from a large orifice until a sensible effect is produced, which will cause an amelioration of all unpleasant

symptoms of this stage, accompanied by a reduction of temperature, and a free perspiration.

Next to the lancet are evacuants, puking and purging; either one or both, if they be not contraindicated by that effect spontaneously already.

The stomach and bowels should be relieved of all irritating substances, either by an emetic where there is not too much gastric irritability, or a cathartic of calomel followed in a few hours by some other purgative to ensure its action. These evacuants are all important not only for present relief in the hot stage, but their effect prospectively is of equal benefit, for they do not only invite the sweating stage earlier, but they prepare the system for another very important set of remedies, of which we shall consider hereafter.

The selection of our therapeutic agents in

the treatment of this as well as all other diseases must be made according to the symptoms and idiosyncrasy; if there be tenderness in the epigastric region or if there is irritability of stomach emetics ought not to be administered as a general rule; but when they are tartar-emetic is to be avoided, ipecacuanha being far more safe. If however these contraindicating symptoms be not present, and the patient ~~stomach~~ will tolerate tartar, it will be found to be the most efficient emetic that can be employed, on account of its exerting a more general influence on the animal economy; it subjugates arterial excitement, and holds it under control longer and more effectually than any other emetic, producing more relaxation of the skin, as well as the other emunctories, reducing the temperature of the body by the elimination of these

secretions at a time when every vessel is surcharged with their respective fluids. It is during the hot stage therefore that this emetic is most beneficial.

It will be perceived that emetics are not only beneficial in ridding the stomach and bowels of their contents, but also by their relaxing the system and unlocking all the natural outlets for the escape of recrementitious matter. The same rule that guides our selection of emetics must be observed in making choice of purgatives; when there is great irritability of the stomach and bowels drastic purgatives must be avoided. Calomel is perhaps in this disease the one which we may expect to derive the most advantage from; it has of all others the greatest latitude of application, and seems to be a purge best suited to bilious disease, either alone or in combination with some other cathartic of a more

active character, the action of which it does, by combination, materially modify. After a well directed use of the lancet, emetics, and purgatives, as they are ~~directed~~ indicated, there will be a limit to their usefulness; we may derive still further benefit from another class of remedies to be found amongst diaphoretics; in the decline of the fever of each paroxysm, and of these agents perhaps the best are those the least stimulating, as the solution of tartar, Spt. Nit., &c., accompanied with mild diluent drinks.

Now, having, by the means already spoken of, conducted the paroxysm to a safe and desirable termination, our next object is to prevent its return, which is the cardinal and important point to attain; for the sooner this is accomplished the less mischief there will be to combat in the progress of our treatment.

The Intermission. Happy for mankind it is, that our treatment now is no less effectual than simple, and for this purpose numerous remedies are recommended, or have been; there are Cinchona bark, Cyanuret of iron, Arsenic, Pepsin, Eupatorium perfoliatum, Spider's web, Cornus florida, Ginger, &c. none of which however are near so useful as the sulphate of quinine; but all doubtless are of more or less benefit; and some of which may be employed with decided advantage. The sulphate of quinine is given with a view to its antiperiodic properties, also to cut short at once the disease: its exhibition should be commenced immediately after the subsidence of the paroxysm, thus giving time to insure its specific effects upon the system, before another fit shall have come on. It may be given in form of pill, solution, powder, as an enema, or endermically, depending altogether upon the circumstances of the case. The dose of quinine may be said to be about

5 grs, which must be varied according to the urgency of symptoms or the particular susceptibility of the patient to its specific effect; it will occasionally be found necessary to increase it to as much as 20, or 30 grs, but seldom more than this can be taken with safety. We always know quinine to be exerting its specific influence by the effects produced on the patient, such as ringing or buzzing in the ears; he may also become delirious, in short we know it by the head symptoms it gives rise to, and it is with this view sometimes it is given, for instance, in extreme bad cases where a small dose would not check the disease, or where we apprehended danger from another paroxysm occurring. This remedy should be continued until all apparent disposition of the paroxysms to return shall have gone. Some of the other remedies mentioned will we further notice, except arsenic; and this only to say it is a remedy more likely to do harm than good, and should never be employed until every

other rational plan of treatment had failed, and then its use must be guarded by exceeding caution.

We have said before that our chief means for the cure of an intermittent is sulphate of quinine, and it will seldom or never disappoint our expectations if properly administered. It probably comes nearer to being a specific for this disease than any other article of the Materia Medica. But there still is one objection to the article, for in some parts of country where ague greatly abounds, and chiefly amongst the poorer classes, its very high price in some cases places it beyond the reach of those who would be most benefitted by it. There is therefore a great desideratum to be attained, the substitution of some article that will fully supply the place of Quinine, and which can be furnished at a sufficiently low price. This desideratum appears to be attained in the very recent discovery of the Sulphate of

Berberine, which, it is said by those who have examined the medical properties of the salt, will fully supply the place of the sulphate of quinine in its action on the human system. It is obtained by easy chemical process from a tree in Demarara, the supply of which is said to be unlimited, and can therefore be produced at a price which will put it in the ~~hands~~ reach of those most requiring its benefits. It yet remains to be tested by the profession generally, and should they unite in the high recommendations already given of its efficacy, it will be hailed as a valuable addition to the treasure of our already rich Materia Medica.

An
"Inaugural Dissertation"
on
Delirium Tremens
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 C. Gibson
Session
1848

Delirium Tremens.

Delirium Tremens is a nervous affection; What is a nervous affection? may pretty be asked; we know nothing at all about it, and the name amounts to a confession of our ignorance.
Pathological Anatomy has discovered alcohol in the Serum that is often effused in the Ventricles and other parts of the brain; but whether the poison acts directly by stimulating the nervous mass, or indirectly by rendering the whole System abnormally irritable, remains yet to be decided —
The predisposing causes to delirium tremens are alcohol, Opium, mental exertion, continued for a long time without sleep, febrile diseases and other causes which reduce the general strength.
But Alcohol is by far the most common cause, indeed almost the only one, for it is not often that we see it caused by Opium; Dr. B. H. Coates in an article on delirium tremens published in the North American Medical & Surgical Journal for 1827, states that he has seen cases caused by the intermission of the use of Opium: Dr. Chapman says that he has seen the disease brought on by the use of Tobacco, now in this case the delirium is the consequence of the primary effect of Tobacco, for it has a direct sedative influence on the brain, not Stimulant

Delirium Traumaticum as described by Dupuytren comes more under the direction of the Surgeon; delirium tremens may come on after a debauch, in such a case it is commonly a person of weak constitution and irritable temperament, or one not accustomed to such stimuli, or in tipplers when by some accident their accustomed dram has been stopped: In the latter class slight symptoms are often observed in the morning which disappear after the use of their usual stimulus.

The disease may supervene after various acute diseases.

Delirium tremens is commonly divided by authors into two forms though in practice it is often difficult to say which form we see, in consequence of the many complications it may have, together with the difficulty and often impossibility of obtaining any information from the patient.

In the first form delirium supervenes during the debauch, or soon after, in this case the stimulation is very great either because of the quantity of stimulus or the susceptibility of the patient to the effect of ardent spirits, this case is complicated, for it consists of the directly exciting effect of alcohol upon the brain, and the

= debilitating effect of suspended stimulation;
here we have common delirium tremens which is very slightly modified combined with vascular congestion and irritability of the brain.
The countenance is of a dark purple, not bright red tint as in apoplexy, it is very apt to terminate in convulsions, or coma may come on more slowly, and the disorder puts on the third stage.
When the excitement is of an active inflammatory type the delirium will assume the character of ordinary meningitis and the symptoms of delirium merge into it, or the symptoms of the disease may be predominant.
We must not confound this form of meningitis with true meningitis or cerebritis which may occur from an injury of the head.

Writers generally divide the second form into three stages, this is styled true delirium tremens by some and common by others most of them distinguish three stages, the first is called horrors by those who have experienced the sensation, the most characteristic symptom is an expression of dismay and anxiety upon the countenance of the patient, =

this together with the tremor form the only characteristic symptoms of the disease, there are other pathognomonic characters though they are secondary. The patient is depected, sad and irritable, he is harassed by unpleasant dreams, in the morning there is nausea, loss of appetite, occasionally cramps of extremities the pulse is soft, slow often feeble and irregular, there is excessive perspiration from the slightest exertion, the extremities are cold and clammy, trembling of the hands, and particularly of the tongue when protruded, the mind is unable to direct itself long to any particular subject, the complexion depends upon the previous habits of the patient, pale if he has not been long intemperate, but generally it retains the usual tint of the drunkard's countenance. "In this stage of the complaint, restlessness continues throughout the night, and of course the patient is unable to sleep, sometimes the sleeplessness is the first symptom of the disease, but in the majority of cases it attends the restlessness and is strictly proportioned to it.
The agitation may gradually subside and the patient

= recover, or the disease may pass into the next stage" (Meadie's System Prac. Medicine)

~~Pat~~ Pathognomonic symptoms of the second stage are very much like those of the first in an aggravated form; the Pulse is frequent and small, the tongue is generally furred and moist, and profuse perspirations are apt to break out, in consequence of the great muscular exertion but the most distressing symptoms in this stage of the disease are increased tremors, vigilance and restlessness. Those horrible hallucinations which formerly harassed him only during the night, and which he was able to dispel by slight effort of courage are now continually before him in the most appalling forms that his imagination can depict.

The pupils are more contracted though not remarkably so. Now in a mild case or a severe one judiciously treated these symptoms gradually abate, and the Patient falls asleep which is essential to recovery. Nature hereby often shows us the treatment we should adopt, that is quiet the nervous disturbance and sleep will follow as a con=

-sequence. Often we have cases merging into the third stage which is characterized by depression of the vital powers, the coldness of extremities gradually diffusing itself over the surface of the entire body; the pulse increases in frequency and the sufferer is detained in bed with difficulty, though he is becoming feebler every moment, and is now bathed in perspiration, pupils more contracted, it is with difficulty that his attention can be attracted, gradually growing ~~colder~~ comatose and remaining so, some time before death, or this stage of the disease, may terminate in violent convulsions, and death.

Delirium tremens is often found complicated with diseases of the viscera, of the thorax and abdomen, both acute and chronic, we most commonly have thoracic complications as pneumonia and bronchitis in the winter; diarrhea and dysentery in the summer.

The direct complications we may have at all times such as cerebral congestions, acute and chronic gastritis, and diseases of the liver, especially the fatty or whiskey liver.—

Anatomical Character

There are no regular Anatomical lesions, some have found symptoms of inflammation and congestion of the brain and its membranes, these are probably accidental; the most common lesion is serum effused in the ventricles and under the Arachnoid; Again this may proceed from the impaired condition of the circulation and respiration.

Doct. Percy has obtained Alcohol from the brain of a person who died from drinking, and from the brain of various Animals that died from the Effects of poison

These facts assist but little in Explaining the Phenomena of the disease. We must class this disease among those functional disorders of the nervous system, which have no peculiar Anatomical lesion, until the further researches of Pathological Anatomy afford reasons to think and determine otherwise.

The Diagnosis of delirium tremens is rendered difficult when it is impossible to ascertain the previous history of the Patient on account of his

own inability, or the unwillingness of his friends: When it is complicated with inflammation of the brain the difficulty is very much increased

Now with regard to the treatment our first and great object is to produce sleep: How is this to be effected? Common sense tells us by quieting the irritation of the nervous system, for we have seen Delirium Tremens is a disorder of the Cerebral functions: the brain is in a state of debility and depression; the exciting cause of the condition which I have just mentioned is the deprivation of the accustomed stimuli: To put the brain in the proper condition for performing its functions is first to stimulate it, then as its normal state is being restored, we withdraw gradually the artificial support, and so by degrees conduct it safely to health and recovery:

It appears natural to us that as the disease was induced by the cessation of the use of Alcohol, the most rational mode of treating it would be to restore the accustomed stimulus, and such experience indeed has

shown to be the most certain and speedy mode of cure.

This treatment is strenuously advocated by Dr. Gerhard, he treates his patients in the Philadelph.a Hospital by giving brandy in small doses just enough to quiet the ~~patient~~ Patient then gradually withdrawing the remedy as the necessity for the shaking ceases.

This treatment has been objected to not from its inefficiency but in regard to its morality; they say that the drunkard knowing his bane and antidote to be one and the same will value it more for its latter quality and forgive ~~the~~ the former, this objection should certainly be regarded, and as we have a remedy which is considered preferable by a very large majority of the profession it undoubtedly should be resorted to at first, that is if our morality think there is no danger of our patients becoming Opium-eaters.

Dr. Klapp of Philadelph.a adopted the Emetic treatment, he was induced to try

this plan from observing that the disease was apt to occur from the cessation of vomiting in the intemperate and that delirium was relieved by vomiting: this treatment has found a few supporters.

Dr. Kuhn's treatment was to confine his patient in a dark apartment, and let the disease take its course leave it to Nature's efforts, there are grave objections to this plan, which are apparent to the most careless observer,—.

I remarked previously that our object in this treatment of the disease is to procure sleep, and I said that to obtain this was to quiet the nervous system; now Opium has this happy effect, it should be administered in pale doses from two to three grains, but with caution for we should be careful not to narcotize the patient: It is often impossible to retain the opium on the stomach:

Some of the other preparations should be tried Morphia is considered the best.

Even this is sometimes rejected, or if retained does not seem to have the desired effect; then by administering the drug in the drink to which the patient has been accustomed, we obtain our object.

In treating old and debilitated patients it is necessary to use the accustomed stimulus freely and also in cases assuming the typhoid form: the bowels should be kept open by a mild cathartic and in the first stage when there is reason to think the stomach oppressed by its contents an emetic may properly be given.

Delirium tremens complicated with inflammation of the brain must be regarded with caution for we are between Scylla and Charybdis the safest plan is to deplete cautiously. The room should be dark and quiet for the sleep of the patient should be undisturbed.

Injection of Hops prior with opium has often been found beneficial, it supports the

system and assists the narcotic in inducing sleep. To quiet the tremors some of the nervous stimulants should be given, among the best are Asafoetida and oil of Valerian. Determination of blood to the brain should be treated by bloodletting and cold applications to the head, and by purgatives.
Should there be coma or convulsions a blister must be applied to the scalp and the most diffusible stimulants used, as Carbonate of Ammonia, and a stimulating enema will be of advantage.
To say anything of the prophylactic treatment is useless, good advice not being often regarded, perhaps the patient had better be referred to a temperance lecturer, who would give him a longer dissertation on the prophylactic, than I am disposed to do —

John C. Gibson

An Inaugural dissertation,
On the

Conditions requisite to the production of Malaria; and its morbid operation upon the Human economy.

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 George D. Mudd
of Md

It is with no small degree of diffidence that I now attempt to write an essay upon a subject relative to, and connected with the wide and extended science of Medicine, and were I not acting in obedience to a firmly established custom - a custom universally and peremptorily enforced by the schools of Medicine, upon all those, whose aspirations prompt them to seek admission, among you, as a member of your profession, before they are entitled to an examination as to their qualifications, - I should certainly and willingly, shrink from the task.

But, the time is now near at hand, when, I am, no doubt, with an anxious and oppressed mind to response to the general call, that will be made, upon all those who are anxiously

expecting, soon to terminate the period which they have allotted for their colle=
=agiate attendance, with a realization of their desires and anticipations, and it behoves me as one of those, now to be backward, preparatory to the ordeal which is now before me; though I commence not without reluctance; knowing my inability to do justice to any subject relative to the great, the great science of Medicine.

I commence the task the more reluctantly, and I consider it a task the more greatly, as I feel myself entirely unable to compete with many of those acting now in my capacity, whose theses are now being, and have already been submitted to your perusal. Theses, the result of ingenuity, comprehension and talent, I fear, far beyond that which I can herein manifest.

But the despondent and disconsolate feelings, that might otherwise possess me, are banished upon the pleasant reflection, that nothing novel, or interesting, will, or can be expected from me, inexperienced and intellectually feeble, as I am, upon any subject relative to the science of Medicine - subjects, which, from an early period in the history of the world, have received the scrutinizing attention of the ablest men that have ever contributed to the advancement of science, - subjects, which in their ultimate analysis have baffled the skill of the most profound, and still continues to afford many insurmountable obstacles, to the penetration of the deepest minds, and the the brightest and most scintillating genius.

And finally being consoled under the plausible and ostentatious conviction, that my knowledge of medicine, and

qualifications, to be admitted amongst you, and by you, as a member of your noble profession, will be tested, not so much by this piece of writing, as by my conduct, when shortly, I shall appear before you for an examination, I shall proceed "æquo animo"

That the human body during the brief period of the manifestation of its vitality, is continually surrounded by many injurious influences, occult and noxious agents, calculated to interrupt the healthy and regular performance of its functions, and thereby to arrest it in the further perpetuation of its vital properties, is now one of the best established truths, a truth daily verified in the fact, that it is the tendency of those morbid agents of the material world, to a premature consignment of the human body to the grave,

that the physician in the humane practice of his noble avocation, is called upon to obviate.

In the times of antiquity, when fable usurped the place of truth, and when genius, where she was found, wandered in idleness over the gloomy fields of oblivion, but little was known, or but little notice taken of those multifarious and lethiferous agents which tend to the destruction of man, but, when better and brighter days had come, when genius began to extirpate from the land ignorance and barbarism, when the Medical profession, which had been overwhelmed by the dark clouds of obscurity, began to make her beautiful appearance beneath the lucid spots; - genius was no longer allowed to waste her time in idleness. The votaries of medicine conscious of the

all important task they had to perform, prefsed forward with the energy and vivacity, ever characteristic of enthusiastic feelings, into the rich fields of science, and those great causes by which disease is engendered in the human body, appear to have been among the first subjects that attracted their attention. They have never been neglected, they have received the attention which their importance demanded; and among the many early recognized causes of disease, Malaria has held, and still holds, an important station, on the Etiological list; and whatever may may be the doubts of a few authors, as to whether Malaria produces any morbid or deleterious influence upon the animal economy, it is certainly regarded, and justly too, almost unanimously by the medical profession as one of the most fertile sources of disease to which we are exposed. It seems that no def=

=inite ideas of Malaria, were existen=
=ce previous to the 16th century; the an=
=cients, however, were well aware of the
facts that certain forms of disease were
peculiarly prevalent in certain localiti=
=es and districts, presenting a marshy
or fenny aspect; and that in regions when
those low and marshy lands were not
found, the inhabitants were comparitiv=
=ely free from those forms of disease.
The Greek phisicians have personified
it under the emblem of the many he=
=aded monster, whose devastating infl=
=uence was so severely exercised over the
luxuriant fields of Argolis, that it was
made one of the labours of the potent
Son of Alcmenus, to rid the country of
this dreadful source of pestilence.

But whatever notions the ancien
=ts may have had concerning Miasmata,
it appears that their account given of th=
=em previous to the days of Lancisi were

imperfect and unsatisfactory; and it appears to have been reserved for this distinguished author to put forth distinct and definite ideas concerning Malaria, who, about the year 1695, published and sent forth into the World his ever memorable work entitled "De nosiis paludum effluviis."

By this work the attention of Physicians ~~were~~ was ardently directed to the subject, and from the time of its publication, up to the present day, physicians seem to have spared no pains in the investigation of the nature and qualities of this peculiar poison. - They have in the height of enthusiasm analyzed the atmosphere of districts in which the influence of the poison was strikingly manifested. - They have analyzed over and over again the waters taken from the marshes of Malarious districts: but the material of the poisonous effluvium, appears at all times to have

entirely eluded their research, it has proven too subtle for detection by any agents as yet at the command of the physician, or the Chemist, and consequently we remain, as yet in entire ignorance with regard to its intimate nature. The Medical world even in the present advanced state of science, know nothing of its physical or Chemical properties: and we are reluctantly, now, driven to the conclusion, that we can recognize the Miasm, only by its specific effects upon the human economy.

It would seem, that it is not the contamination of the atmosphere with all kinds of impurities that constitutes Malaria, or to which the name Malaria is applicable, but, to a specific, poisonous effluvium, or emanation, arising from the surface of the Earth, when acted upon by certain agents of which it would devolve

upon me to say a few words.

Heat has at all times been consid=
=ered as one of the conditions necessary
for the development of the poison
now under consideration, and th=
=at it is such, however we may explain
the manner of its operation - we are
justified in expressing our conviction
from the observation of plain and ob=
=vious facts, and the observations, which
have actuated us in assigning to Heat,
a place in the Etiology of Malaria, are
that those forms of disease, which
are now (I might say) universally, cons=
=idered as the effects of Marsh Miasm, viz
Intermittent and Remittent Fevers, are
more prevalent in warm than in col=
=der and more Northern climates; That
those diseases are very rarely met with
beyond 50th or 60th degree of North Lati=
=tude, and are never found beyond the
Arctic Circle; that in our own clim=

=ate the effects of the Miasmata are more strikingly manifested during the seasons and months of the greatest heat; beginning to show their effects about the latter part of August, and declining as the season begins to grow cold, and lastly, that in the farthest northern Countries, that the poison is evolved, it is principally, in the production of Intermittents, that it manifests itself, and as we start from hence and go South, we find Remittents prevailing, or the cases of Intermittents assuming a more pernicious type, and still farther South, we find the Fevers assuming almost a continued form, or a considerable degree of Malignancy, these Fevers then seeming evidently, to hold somewhat of a direct, relation to the warmth of the seasons or of the different latitudes.

That moisture exerts an influence in the origin of Malaria, is perhaps as certain and obvious, as is the agency of heat; it has indeed been a matter of common and popular observation, even almost from time immemorial, that Moisture was in some way accessory to the origination of a poisonous ~~influence~~ agent, which produced a deleterious influence on the inhabitants of those regions within the sphere of its action. The Ancients well knew the great danger incurred by the habitation of low and Marshy districts, and as might have been before said they well knew the greater danger of those localities in certain seasons of the year than others, and those being the periods of the greatest warmth; but away from the observations of our Ancestors, it is obvious to all of the present day. We know that during many

seasons, when there are but few cases of Intermittent, and Remittent Fevers. those, are almost exclusively confin=
=ed to the inhabitants of low and m=
=arshy districts, or to those who are wi=
=thin the sphere of the action of the poisons evolved from those places.
We know that many places, which are almost uninhabitable, on account of their unhealthyness, have been ren=
=dered comparitively healthy, by drain=
=ing and cultivation, such has been the case with London, as, Mr Watson tells us, where formerly Fevers of a Malarious origin were very prevalent; James the 1st and Oliver Cromwell both, dieing of Intermittents contra=
=cted there, but, is now peculiarly health=
=y, a change attributable to nothing else than an improved method in drain=
=ing and Sewerage, of this no more;

Now it seems evident, that, heat and Moisture are agents ministering to the production and evolution of Malaria, do they exert their agency by favour=ing the production, and growth, and subsequently the decomposition of vegetable matter? or do they oper=ate, when other circumstances are fa=vourable, in a manner we are not yet competent to explain, excluding the decomposition of vegetation?

It has been supposed, from the times that the attention of Physicians was directed to the subject, by the wr=itings of Lancisi, or from the time that ideas definite, were entertained with regard to the poison, that the humid decay of vegetable matter was the great cause of Malaria, and that Heat an Moisture were act=ive agents principally, if not only, as

contributing to this decomposition, but, it is but fair to presume, that the universal invocation of vegetable matter to explain the cause of Malarious disease, arose from its universal prevalence, and an inability upon the part of Medical Men to give any other plausible explanation; but facts are yet wanting as appears to me to prove that vegetable matter alone whilst undergoing decomposition, does give rise to Intermittent or Remittent Fevers.

Whilst I would scorn the idea of advancing any new theory or supposition myself, upon such a subject as this, or any other subject relative to Medicine, whilst I express my sorrow in being constrained to dissent from an opinion now entertained by such a majority of the medical profession, by men of profe=

=and ability, by men whose talent
it would be idle for me even to hope
to attain, and last, though, not least,
by my preceptors in the "University
of Maryland." I am gratified, when
I consider that it is one of the nob=
=le prerogatives of Man, and to express his belief.
=e myself, that I am honest, when I
express my belief, in the origin and
morbid influence of Malaria, indep=
=endent of Vegetable decomposition,
for it appears to me, that facts are
now before the Medical profession,
which, if coolly and candidly taken
into consideration, must tend very
materially, to subvert, the very preva=
=lent opinion of the universal agency
of vegetable matter in the production
of Malaria, and to render it evident that
Malaria has produced its most devas=
=tating influences, when it could not
by any means be ~~traced to~~ refered to

the decomposition of vegetable matter.

1st we have the decomposition of Vegetable Matter taking place in great abundance, without giving rise to disease. Dr. Watson tells us that the rotten Cabbage leaves of Covent garden, and those which taint the air, from the neglected dust holes of London, give rise to no Ague. It is said that in the West India sugar ships, the drainings of the sugar mixed with the bilge of the hold, create a horrible smell of vegetable putrefaction, without giving rise to any Malarious disease. Again it is a matter of common obs=-ervation ~~with~~ in the western parts of our country, (with which the writer is fa=-miliar) that on those plantations where large crops of Hemp are raised, and where, by the dressing process, large quan=-tities are continually lying and under=

=going decomposition, there is no more ev=
=idence of Malarious disease there, than
elsewhere. Dr. Dunglison says, that
the steeping of hemp has generally been
considered as an unhealthy process, and
so it is, says he, when the locality is Mala=
=rious in which it is carried on, and that
there are numerous examples to show that
the process is not at all unhealthy where
Malaria does not previously prevail.
The same Author again says, that veg=
=etable decomposition has been more
commonly invoked, in as much as veg=
=etable matter is almost every where to
be met with, but the evidence in favour
of it is to him becoming ~~to him~~ every
day, more and more unsatisfactory.
But the converse of those facts which
have been stated are the most remar=
=kable and conclusive. Dr. Watson in Holland.
says in the year 1794, the British army,
encamped in a land, the soil of which

was a level plain of sand, for a great ex=
=tent of country, where no vegetable ma=
=ter existed, or could possibly exist; but
a few stunted Heath plants, here Int=
=ermittent fever exercised a most dev=
=astating influence over the troops, It
has been objected to this, that by an in=
=undation of the land vegetable matter
in abundance, might have been ming=
=led with the sand, and there undergo=
ing decomposition, but, here it is only ne=
=cessary to say, that the sand was within
a few inches of its surface, universally
percolated with water, which, so far from
exhibiting any signs of putrefaction, was
perfectly clear and potable. It might
again be said, that the poison was gen
=erated by the vegetation surrounding
the sandy desert, and migrated to the
interior, but this is contrary to one of the
ascertained peculiarities of the poison
for, it very clearly demonstrates that Mal=

=aria has a pretty strong affinity for the foliage of trees and shrubery, and con=
=sequently, we suppose, that it would have been departing, in the case supposed, from this ordinary peculiarity.

Dr. Watson again tells us, that the soil in the Island of Walcheren is very similar to the above described, con=
=sisting principally, of sand, and ab=
=out one third of clay, here the Br=
=itish army, after a hot and dry sum=
=mer, suffered to an extent which Dr. Ferguson tells us was unprecedented in in the annals of warfare.

Dr. Watson again says in the year 1809, several regiments of the British Army, took up an encampment in a vast hilly ravine, which, had lately b=
=een a water course, pools of water still remained among the rocks. So pure that the Soldiers were anxious to bivouac near them for the purpose

of using the water. Many of them were seized with Remitting Fever before they could remove from the bivouac the next morning. Dr. Ferguson tells us, till then, it had always been believed that vegetable decomposition ~~was~~ was essential to the production of Malarious poison, but in the instance of the half dried ravine before us, from the stony bed of which, the very existence of vegetation was impossible, it proved as pestiferous as the bed of a fen. and lastly Dr. Watson tells us, that the river Tagus is at Lisbon, about two miles wide, and separates a healthy, from an unhealthy region. On the one side is a bare hilly country: the foundation of the soil, and the beds of streams being rocks, with free open water-courses among the hills, and on this side it is healthy; but the flat ground on the other side

though as dry superficially, being perfect=
=ly flat and sandy, is most pestiferous.
Moreover, in and near Lisbon, there are
numerous gardens, where they keep water
during the three months, absolute drou=
ght of the summer season, in stone
reservoirs: These reservoirs containing
water in the most concentrated state
of foulness and putridity, are placed
close to the houses and sleeping rooms
the inhabitants literally live and bre=
=athe in their atmosphere. yet no one
ever heard, or dreamt, of fever being gen=
=erated amongst them from such a
source.

It is a very common thing for phys=
=icians, when called upon to give the
reason, why, a certain family are mo=
=re unhealthy, than their neighbours, or
those living in the same district of
country, to attribute it to some Mill=
pond, to some pile of decomposing vegeta=

=table Matter, or to some hole or vat, in which decomposition may be going on, and, it is generally an easy matter for them to find some such a place, either real, or imaginary, in the vicin=
=ity of almost every dwelling, by which they can satisfy the family of the ca=
=use of their illness, and put them to work to get rid of the offending ma=
=tter. and in all probability, by the time they have succeeded in so doing, the po=
=ison has either ceased to be evolved, or has worked its way through the systems of the persons affected, and they recovering their health, feel convinced that they ha=
=ve got rid of the cause of their disease, now one such a case as this, well marked, would no doubt, cause a great many per=
=sons to adhere with great tenacity, to the opinion that Malarious diseases are caused by vegetable decompositions, and such ca=
=ses as this have we believe frequently happened.

but an occurrence is now void in my re-
-collection, which, shew to me the fallacy
of many of these cases, and first cau-
-sed me to ~~doubt~~ entertain doubts, of the
agency of Vegetable putrefaction, in the
production of Malaria.

Case. A family of my acquaintance was
attacked early in the fall, or the latter part
of Summer, with many cases of Intermi-
-ttent Fever, and some cases of Remitt-
-ent, the unhealthy season having not
yet hardly arrived, it devolved upon
the attending physician, to give his opin-
-ion as to the cause of their early sickne-
-ss, in his enquiries he perceived, that, there
was a Distillery in operation in the
vicinity of the dwelling, and that one
of Vats was lying out of use, and the
water therein showing some degree
of putrefaction, his enquiry went no
farther, he had here found a suffi-
-cient cause to account for all their

cases of sickness, but as the season advanced a little farther, Ague and Fever, and also Remitting Fever became very prevalent throughout the whole neighbourhood, and no vats, or holes of water, in which decomposition was going on, could be found near every dwelling, sufficient to account for the disease. But the Distillery which I have mentioned was shortly after suspended in operation, and all the vats and wells were partly filled with water, in a very concentrated state of foulness and putridity, but the inhabitants of the dwelling in the vicinity were afterwards proverbially healthy.

Dr Ferguson whose ability cannot be doubted or questioned, who has undoubtedly taken more pains in his enquiries into, and who has more minutely observed the circumstances under which Malaria is

evolved, and whose authority is consequently greater ~~upon~~ this subject than that of any other man, especially says, that in the most unhealthy parts of Spain, we may in vain towards the close of summer, look for Lakes, marshes, ditches, pools, or even vegetation.

Now it is but natural to infer, that if in the cases mentioned by Dr. Ferguson and Dr. Watson, of the encampment of the British army in Holland, in the Island of Walcheren, and in the hilly ravine, where no vegetable matter could be seen for a great extent of country, where no decomposition of matter of any kind was evident to their senses, or could in any way be made manifest, the troops suffered so severely from Malarious diseases; in those regions where vegetable matter in great quantities is present, and where its decomposition is manifest to our senses the inhabit-

=ants should suffer far more serious=
=ly, L. C. if we suppose malaria to be the
product of vegetable decomposition
Or in other words, if Malarious diseas=
=ses did arise in such great abund=
=ance, as a consequence of vegetable
decomposition, in places, where no
evidence whatever of this decompos=
=ition was manifest, or where there
was no vegetation to become decomp=
=osed, then I say it ought to follow
as a consequence, and I think it will
be allowed by every one, who seriou=
=ly looks into the matter, that in
those places where vegetable matter
is present in abundance, and its
decomposition ~~is~~ manifested in every
way possible, and especially by its
putrid smell, we should have those
diseases in greater abundance, or dis=
=playing a more pernicious or ma=

malignant aspect in their character; and if those diseases were in any sort of proportion to the evidences of vegetable putrefaction, which there were in the cases mentioned by Dr Ferguson, and that which we have in almost every section of country, the human family would certainly be destroyed by the violence of disease.

Many more facts which render it doubtful of the universal agency of the decomposition of vegetable might be mentioned matter, in the production of Malaria, but it is not consistent with the time, which I have allotted for the writing of these lines, nor do I deem it necessary for it appears to me that the facts stated by Dr Ferguson and Dr Watson, several of which I have herein mentioned, stand unanswered.

Now it has been said that the facts

mentioned by Drs. Ferguson and Watson as the result of their observation, are insufficient to stand against the conflicting opinion of such an overwhelming majority of Medical men; but facts are facts, wherever found and in whatever manner collected, and facts adduced from experiment and observation must always stand invulnerable against speculation and hypothesis. Theory it is true when plausible and ingenious, is powerful, and has done a great deal but fortunately for science and the Medical science in particular, she can never advance one step, when facts stand opposed to her.

Of the many peculiarities of Malaria, such as its being moveable by the Wind, loosing its noxious

properties by passing over the sur=
=face of water: its attraction by
the foliage of large and umbra=
=liferous trees: its evolution and
consequently its morbid operation
being lessened by tillage and cul=
=tivation: its greater danger during
the night than at any other time
I can say but little. All these pro=
=perties of the poison appear to be
pretty well established by the resu=
=lt of experience and observation.

The fact of Malaria ceasing to
be produced or its effects being
rendered less apparent by Cultiva=
=tion has been brought forward as ten=
=ding to establish the fact that it
is produced by the decomposition
of vegetable matter the cultivation
being supposed to destroy to a con=

=siderable degree the previously existing vegetation; but we presume it is far from being established that cultivation does lessen the existence of vegetation, on the contrary there can be no doubt that it very frequently increases very materially its production, and also its subsequent decomposition: and certainly this cultivation of the land according to our view with regard to the production of Malaria, might lessen its production, by altering the texture of the soil, and changeing that condition of the surface of the land, under which the agents ~~of~~ Heat and Moisture ~~to~~ successfully exert their agency in the production of the poison.

That the morbid operation of Malaria upon the human body, is greater during

the night than at any other time, ap=
=pears to have been long since observed,
and is now well established by obser=
=vation. whether Malaria is more
copiously evolved during the night,
whether it becomes more poisonous and
concentrated during that time, or whe=
=ther the body is in a condition more
susceptible to its influence during
the hours of sleep, it is not so easy
to determine, but it seems probable,
that as the aqueous vapour of the
atmosphere becomes concentrated and
deposited on the surface of the gr=
=ound in the form of dew, by the ra=
=diation of heat from the Earth,
Malaria may in obedience to its
affinity for water and aqueous va=
=pour tend toward the ground, and
become more concentrated, and con=
=sequently act with more violence

upon the human system.

This fact of the more virulent operation of Malaria during the night, has been brought forward by Mr. Roche, and supposed by him, to be a sufficient cause to account for the periodicity of those diseases to which it gives rise. He ingeniously argued that fever could not assume an intermittent type, without the cause was of the same periodical character, and that the accession of the paroxysms was separated, by virtue of a tendency of our organs to reproduce certain acts which had once taken place, even when the cause primarily provoking them no longer continued to operate.

Although the more virulent operation of the poison, during the night, might appear somewhat reasonable in accounting for the Quotidian type

of Fever, supposing the patient to remain constantly exposed to the operation of the Miasm, yet we know that persons may be exposed to the poison but a very short time, only long enough to experience one paroxysm, and removing immediately to a district which is proverbially healthy, will still continue to experience a regular recurrence of the paroxysms.

Mr Rocke says, that the paroxysms are continued by virtue of a tendency of our organs to continue certain acts, which are once set up in the system, or in other words, that they are continued by the force of habit, but this habit must certainly be first set up, before it can continue, and granting that habit has an influence, which no doubt it has, we still want some explanation of the occurrence

of the second and third fits, after certain determinate periods, to give a commencement to the habit.

This theory is perhaps less plausible than Cullen's, who attributed the regular recurrence of the paroxysms, to a diurnal revolution, to the periodical movements of the animal economy; this again might with plausibility account for the quotidian type; but it certainly can give us no explanation of the Tertian, Quartan, and other types, because we know of no bidual or two day habit of the human economy, we know of no two or three day revolution. Theory then in the present state of our knowledge, cannot explain the cause of the periodicity of Malarious diseases, many of them are ingenious and imposing, many have arisen and fallen again in rapid succes-

=ion. This is one among the many subjects in the medical science, upon which speculation and hypothesis has long since been busy, but as yet we know too little about the mysterious operation of the nervous System; although the Nervous element no doubt plays an important part in the pathology of those diseases, a link is wanting in the chain which herein leads from cause to effect, and the human mind will perhapse ever remain unable to accomplish its union.

Apart from theory and speculation the medical profession are I may say unanimous, in recognizeing Malaria as the principals or perhapse the sole exciting cause of Intermittent and Remittent Fevers, and as such it no doubt stands preeminent in these latitudes, and in

our own climate, on our etiological list, and perhaps more than any other one cause ministers to the production of human misery and affliction. It has been suggested by Dr McCulloch that Hemicrania, Tic dolorevux, and many other neuralgic ~~affections~~ affections, which generally assume an intermittent or periodical character, may be caused by this poison, and indeed judgeing from the circumstances connected with their occurrence, their being most frequently amenable to the same remedial agents, that are Intermittent fevers, there appears to be nothing absurd in such a supposition, but as I have gone to a much greater length than I had anticipated in writing these lines, I can say nothing upon this subject in this place. I must now conclude

these discommated and desultory remarks. If they should appear preposterous to you, as Dilitantes, and no doubt they will, I must respond with submission to the consequences: my prolaptical lines have already been written: the time for a prevenient to your adverse conclusions has already passed by: and I shall now approach ~~the~~ with anxious anticipation of a happy result, the final day; the day when it will be determined whether I am in a condition to pass forward on that eventful stage, on which the physician must walk, without endangering the life of my fellow being, over which the practitioner of Medicine holds such a controll.

An
Inaugural Dissertation
on
Asthma,
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 J. Rich
of Baltimore.

No doubt, every physician is aware of the difficulty, under which the student of Medicine labors, when about to choose the subject of his Thesis. Many of different kinds suggest themselves to his consideration; some, requiring deep research and minute investigation, might seem peculiarly adapted for a display of his attention to study, his stores of knowledge or his well trained judgment in selecting the most approved and correct opinions; others, concerning which there has been much speculation, might afford ample scope to his fertile imagination; while others might give him a fine opportunity of showing how much experience he has had and how much he has profited by that experience. For my own part, while endeavoring to fulfil the requirement for a thesis to be laid before the Faculty by every candidate for graduation in Medicine, I wish to devote a few pages to a disease, whose symptoms have long been well known and described through a long chain of years, by numerous authors, with but little difference;

a disease painful indeed and truly harassing to the patient as well as requiring the greatest skill of the physician effectually to remove it —— I refer to Asthma. This is not a very common disease; but it is peculiarly interesting from the degree of bodily suffering and anxiety experienced by its victims; from its often attacking persons otherwise or at other times apparently healthy, from its occurring in paroxysms as well as from the old age to which many attain who have been most of their days subject to its dreadful torments.

It was known to the earliest practitioners of medicine, and we find a portion of the writings of almost all medical authors, from the days of old Hippocrates down to our own times, allotted to the description of its symptoms; the discussion of its most probable causes, and the best modes of treatment. It derives its name from the Greek word ἄσθμα or more probably from ἀσθαίνω I gasp for breath, and may be defined extreme difficulty of breathing, coming on in paroxysms, but generally

entirely unattended with fever. From its derivation we may judge that this name was formerly applied to all cases of laborious respiration, and it appears from the descriptions and definitions of the older authors — such as Willis, Hoffman and others, that this was adopted as the name of a certain class of diseases; but they divided them afterwards according to the different causes which gave rise in their opinions to the same effect, difficulty of breathing. It is however at present only applied by the best physicians to the spasmodic form; but many persons laboring under disease of the respiratory organs and troubled with dyspnea will tell you they are asthmatic; considering Asthma a distressing but by no means a dangerous affection.

The medical writers who have described this disease, have said almost the same things of its symptoms, whether they wrote in times long past or during the present century; nor can we find any important general symptom left out or

improperly stated even in the earliest treatises. As there has been such an agreement and as I know my own observation can add nothing on this score, I respectfully beg leave to copy the description of the phenomena of a paroxysm from the writings of Cullen, who has been so justly acknowledged a most accurate observer of diseases, and a most correct delineator of their symptoms. In his "First lines on the practice of Physic", paragraph thirteen hundred and seventy six, he thus writes; "The attacks of this disease are generally in the night time or towards the approach of night, but there are also some instances of their coming on in the course of the day. At whatever time they come on it is for the most part suddenly with a sense of stricture and tightness across the breast and a sense of straitness in the lungs impeding inspiration. The person thus attacked, if in a horizontal situation, is immediately obliged to get into somewhat of an erect posture and requires a free and cool air. The difficulty of breathing goes on for some time

increasing; and both inspiration and expiration are performed slowly and with a wheezing noise. In violent fits speaking is difficult and uneasy. There is often some propensity to coughing but it can be hardly executed." The face of the patient during an attack is at first pale but afterwards becomes livid and turgid from his violent efforts and the imperfect arterialization of his blood. His pulse is generally quick and frequent, small, feeble and sometimes irregular, and the impulse of his heart is greatly augmented, but his extremities are cold. There is relaxation of the sphincter muscles, especially those of the rectum and bladder, and he has frequent calls to pass his faeces and urine. The urine is pale and discharged in large quantities. If during the paroxysm we uncover his chest, we will see that though he is making such efforts to receive air into his lungs, his ribs seem scarcely to move at all; his lungs look distended and puffed up and the principal motion appears to be effected by the diaphragm

and abdominal muscles. Percussion gives us an abnormally clear sound throughout, and if we apply the stethescope over the lungs, we are unable to hear the natural respiratory murmur; the vesicles seemed to be perfectly filled with air at rest, but in inspiration we hear a sibilant or wheezing noise. If we get our patient to hold his breath for a few seconds and then take a long inspiration, by applying our ear over his chest, we hear the air for a time making its way slowly into the air cells and then seeming suddenly checked. These phenomena generally continue for two or three hours; but towards morning his breathing begins to grow less and less laborious, his sufferings gradually diminish, he is at length enabled to cough up a considerable quantity of mucus, which affords him speedy relief, and exhausted by his violent efforts, he sinks into a calm and refreshing slumber. When he awakes, he feels weak, unable to make much exertion, the muscles of his thorax are sore and he has pleuritic

stitches which however soon pass away. These may be the last of his troubles, or the fits may come on again several nights in succession, rarely more than three or four, becoming gradually less severe until they leave him altogether; allowing him a period of respite until the hour of his agony again arrives. Sometimes these attacks happen at regular intervals, but generally they follow no rule of time, occurring only after some trifling cause. But we must not suppose that these paroxysms come on without any warnings, on the contrary we almost always have certain premonitory symptoms; the patient loses his appetite; becomes silent, morose and very much inclined to sleep; feels chilly and a general sense of discomfort; suffers considerably from indigestion, and his stomach is distended by great quantities of flatus. These feelings sometimes last for two or three days; sometimes only an hour or two; but, after having experienced them once, he is, almost always after=

wards, able to predict from the occurrence of these prodromes, the time for the return of his dreaded enemy.

This disease occurs to both sexes and in persons of all ages; but it is more common in men than in women, and persons in the middle period of life are more subject to it than others. It seldom attacks prior to the age of puberty; and hardly ever makes its appearance, for the first time, in old age; but when it has once seized upon any one, "like other spasmodic diseases, it facilitates its own return": when it has occurred once, it is more than probable that the patient will suffer from it again and again. Instances have been reported however, in which it appeared in childhood, and left the patient at the age of puberty, without ever returning. Asthma is often hereditary; the predisposition to its attacks being inherited by children from their parents; and persons of a nervous temperament seem much more liable to it than others. It often at=

tacks individuals of plethoric habit, but it rarely continues for any length of time without producing considerable emaciation. It is a common belief that Asthmatics will never be attacked by Phthisis Pulmonalis; this indeed seems to be a very correct opinion as tubercles have been rarely if ever found in the lungs of those who had been subject during life to these spasms, and we know that Emphysema of the Lungs is often a cause of Asthma, and that it seems impossible for tubercles to exist in an emphysematous lung.

We would naturally look for aid and assistance in our labors after the causes of this "morbus maxime terribilis" to the scalpel and investigations of the anatomist who has in numerous instances given us almost the only clue to the proper and most successful treatment of human maladies. But we do not derive much knowledge on this subject from dissections; the morbid appearances of the bodies after death, which afford us so much valuable information with regard to many other

diseases, do not throw much light upon the disor=
der under consideration; indeed, in many, and I
think I may say with truth, in most instances,
we can discover no appreciable lesion whatever; no
alteration, which could be considered as the ori=
gin of such irregular and morbid actions; and
in other cases we would find it difficult or im=
possible to distinguish between what gave rise to
these fits and what resulted from them. This might
at first sight seem strange, that a person, well
acquainted with the appearance of all parts of the
body in health, could not, after an attentive search,
determine what alteration was the cause of such
disturbances; but let us consider that this disease
seldom or never destroys a patient during a
first attack or rather that a fit of Asthma hard=
ly ever causes death, without being complicated
with some other disease and we will then under=
stand why it is that the anatomist can give the
physician so little aid, and be the means of af=
fording to the sufferers from this malady, so little

comfort. We will perhaps then have some idea of the difficulty in determining between the origin and the complications of a disease which had been for years hovering around the subject, ready to pounce upon him at any moment, and during its attacks, giving the most intense suffering, as well as wearing out the strength of the most robust and emaciating the most plethoric, and yet seeming unable without some help to extinguish the flame which it had reduced to a single spark. Sometimes however we do find evident lesions; two cases are reported, in one of which there was manifest alteration of the spinal marrow and in the other, of the pneumogastric nerve, and whenever there exists disease of the heart or of the lungs, we find their peculiar changes.

Although there has been so much agreement in the descriptions of the symptoms, by authors of different times, yet the causes of this disease have given rise to many and very different opinions. Prevailing theories have almost always been inter=

woven with the discussion and explanations of its formation; and the fact, that the physicians in almost every age have written so differently with regard to this part of the subject, may be considered a fair index of the obscurity in which its principle cause has been involved. I do not pretend to bring forward any new position, or to defend any old one by new and more vigorous arguments; the time, generally taken up by the medical student in his preparations for obtaining the Doctorate, does not suffice for any such elaborate study of one subject, without neglecting others, as would enable him to make new discoveries; but I will endeavor in a few words to mention one or two of the opinions most entitled to respect and some of the arguments by which they have been defended. One of the writers on this disease, (Dr. Bree in his practical inquiry into disordered respiration) endeavors to prove that the fits of Asthma are brought on by an accumulation of serum in the extremities of the air pipes, which

takes place under the influence of some of its exciting causes. One circumstance might seem at first sight alone sufficient to overturn this explanation, and to prove that it is impossible for an amount of fluid capable of embarrassing the breathing to such an extent, to exist in these air tubes; for we see that the smallest drop of any liquid endeavoring to pass into the larynx is always most energetically resisted, giving rise often to great distress. He, on the other hand, contends, that this accumulation is gradual and insidious; that the serum does not pass through the larynx but is poured out in the vesicles themselves and does not consequently give rise to this distress; that, after this gradual infiltration has gone on for some time and the fluid has become considerable in quantity, nature perceives the embarrassment under which she is laboring and endeavors to relieve herself. This is the reason that the respiration becomes more rapid just before a paroxysm; in order, that by an increased number of expirations a large proportion

of this serum may pass off, or rather, be cast off in vapor; at the same time the action of the absorbents is increased, so as, by the union of these two forces, to restore the equilibrium between absorption and exhalation. After these endeavors to get rid of the offending matter have been continued for some time, if the desired effect be not accomplished, more violent efforts are made, and instead of the quickness of breathing, we have a paroxysm of Asthma perfectly established. He thus, I believe, considers this disease a salutary effort of Nature, a series of spasmodic contractions, instituted for the purpose of expelling from an internal organ of great delicacy of structure, particles which have no business there, but which might, if allowed to remain, give rise to more serious consequences. This manner of proceeding too, is quite like many other phenomena of the human fabric, thus, the fact before referred to, that any substance, as a drop of water, for instance, getting admission into the larynx, will excite violent coughing

in order by this means, to get rid of it. We have also numerous other instances of the same nature; when we take a pinch of snuff into the nostrils, sneezing comes on and thus carries off the noxious and irritating particles; when a gall stone obstructs the duct and prevents the proper flow of bile, the muscular action is increased and the stone thus eliminated. When there is accumulation of faces in the intestines, their natural peristaltic motion is for a time interrupted or suspended, but directly we have convulsive contractions, and they are enabled by an increased number of efforts to throw out their contents; again when any very irritating matter passes into the stomach, the peristaltic motion may become inverted, active vomiting may be excited and the injurious substances thus discharged. The author before mentioned further endeavors to strengthen his theory, by an examination of the causes assigned by other and older writers, and by the results of numerous

anatomical investigations. — There is another and more satisfactory explanation however, which is more favorably received by physicians of our own times. This considers Asthma a spasmodic disease of the excito-motory nerves, and its upholders support their view by the number of symptoms it presents, so very similar to what we notice in other spasmodic and nervous disorders. Thus, we have the pale urine, so like that of hysterical women, the excessive flatulence, the suddenness of its approach and departure; besides there often exist spasms in other parts of the body, at the same time that we have one of these attacks. We also notice that persons, at the commencement of their fits, often rush to a window, throw it up and remain there a considerable time with perfect immunity, even in the coldest and most severe weather. The supporters of this doctrine, taking advantage of the numerous cases in which there have been found no traces of any lesion after death, bring them forward as another argument in their favor. The muscles which

they believe to be affected by these spasms are the fibres, which surround the air tubes; and these have been proved to be muscular by examinations with the microscope and to be subject to spasmodic action from the facts that considerable contractions have been produced in them by galvanism and electricity, and that irritation of the par vagum has caused sensible contractions in the rings of the trachea.

Let us next inquire into the exciting causes, those agents or circumstances which bring on an attack by lighting up these morbific actions. These are very numerous and the manner in which many of them produce their effects seems totally inexplicable. Thus, some persons dare not sleep a single night out of the country; others again seem to have less uneasiness when in the tainted atmosphere of cities; some can not stay in one city without experiencing an attack, but may dwell with perfect security in another. Different parts of the same place or different rooms in the same house have been likewise known to affect

those who are predisposed to this disease. But the principal exciting causes may be divided into three kinds; viz. conditions of the atmosphere, odors or particles of matter floating in the air, and disturbances of the body or mind. Cold and moisture as well as heat and moisture, all sudden changes in temperature, East and North East winds have been often accused of bringing on these attacks. Storms are supposed to produce the same effect by the diminution in the density of the air with which they are usually accompanied. Nearly all kinds of powder, the smoke of Tobacco, fetid smells and strong perfumes have also been known to act injuriously on the lungs of persons subject to these paroxysms. It is a well known circumstance that Asthmatics dare not inhale the powder of Ipecacuanha, nor will they remain in an apartment where a bottle of that drug is uncovered. There is a gentleman in this city, who is always attacked by one of these fits, the night after he has opened or seen a bag

of fresh Rio coffee opened, and new made hay, straw=berries, roses and musk have been known to act upon many in the same manner. Again, the passions of the mind, whether agreeable or otherwise, when violent, intense study, great bodily exertion, and indeed, whatever causes general debility, have a tendency to produce one of these paroxysms. Some affirm that repelled eruptions and hemorrhoids have given rise to this disease; and disorders of the stomach, including under that head excessive distension and long fasting, are generally acknowledged to have a similar tendency. Gout sometimes leaves the joints and attacks the lungs giving rise to a well characterized fit of Asthma; but the diseases which most commonly cause it are Emphysema of the Lungs, Chronic Bronchitis, organic diseases of the heart and all affections which give rise to congestion of the pulmonary tissue.

The diagnosis of this disease is not difficult; few maladies can readily be confounded with it, in=deed none present sufficient resemblances to lead even

a tolerably careful observer into a mistake. But there is one disturbance of function, or rather one symptom, to which the term Asthma is often improperly applied, even by physicians; I speak of Dyspnea. This confusion, I think, does not arise from any want of care in the observation or classification of the accompanying phenomena, but from the circumstance that so many persons seem forced to give the name Asthma to every species of difficult respiration, whereas it should be restricted to those cases which come on suddenly and spasmodically and which present those peculiarities already mentioned.

To a young practitioner, who had never before seen a person laboring under one of these paroxysms, the thought would most probably present itself that he was about to deal with a remarkably serious disease; that he had good reasons to entertain fears for the recovery of his patient, and to pronounce a very grave prognosis. The violence of the symptoms and the great distress and anxiety of the sufferer are calculated to

excite such apprehensions in the mind of those who are unacquainted with its phenomena and its general manner of terminating. But the termination is not apt to be anything like so serious as might have been at first supposed. Indeed, it is an exceedingly rare thing for a case of uncomplicated Asthma to prove fatal; it is not the disease itself, but the complications, which we have most ~~to~~ reasons to dread. Hence, when called upon to manage one of these attacks, we should carefully examine the chest, consider attentively the symptoms, and endeavor to discover whether there is any other mischief, any disturbance of function or alteration of structure in the lungs or heart, the organs most likely to be disordered in this disease. If we ascertain that there are no complications, we may expect, that our patient, unless he was greatly debilitated before, will be well again in a few days; but if we find that complications do exist, we must then pronounce concerning his fate according to the seriousness of the disturbance which gave rise to the Asthma, or the diseases with which it is conjoined. But we would do well

to remember, that great caution and circumspection must be used in pronouncing upon the probable termination of any disease. Sad consequences to both parties have resulted and may often again result from disregard to this consideration; even though we ourselves should feel ever so certain of the issue, circumstances may occur which will totally alter the situation of our patient. There are very great temptations, it is true, for a physician to tell what are his patient's prospects; but they are still greater when the case is in the hands of a young man; the friends of the sick person are, perhaps earnestly and constantly soliciting him to ascertain whether there are good grounds for hope, and he is too apt to give a positive answer not only to gratify the friends of the sufferer, but also to show his professional knowledge, his acquaintance with disease. But what could be gained by so doing? If the physician thinks there is no hope, and tells his patient so, then this very information may be the means of hastening the death of the sick man; for who can imagine the wretchedness of life without hope; yes, it is hope in many

instances, that, like the sight of home to some long absent traveller, buoys up the patient, gives him new strength and enables him to overcome obstacles which would otherwise overwhelm him. If on the other hand he represents the disease as a trifling matter, a slight indisposition which will last but a day or so, and it terminates fatally, the friends of the lost one must conclude, that he did not perform all that he might have done, or that he did not know what to do, that he is either an ignorant fellow or what is far worse, negligent of his duty and a trifler with the lives of his patients. There may be cases, however, in which we will have to speak plainly and to acquaint the patient or his friends with our opinion; we should then weigh carefully every thing, form accurately our prognosis and make it known to a person, who is calm, discreet and careful; but in every instance, we should be very cautious and avoid speaking too positively, as a slight circumstance may determine contrary to the most accurate calculations.

When called upon to treat a person laboring under one of these fits, we should, in the first place, use all our

endeavors to put an end to the paroxysm. For this purpose, we would proceed in the following manner; if the subject is plethoric and his dyspnea severe, if he has never had an attack before, or if his paroxysms have been "few and far between" and his pulse and other symp= toms do not contraindicate it, we would tie up his arm and bleed him; not to a very great extent how= ever, as the disease generally leaves its victims weak and exhausted. But if his dyspnea is intense and the state of his pulse and constitution would not war= rant the use of the lancet, we would then have a few cups applied to the back of his neck or between his scapulae. If the attack had come on directly after a full meal, or if his stomach or liver had been na= turally torpid and overloaded, we would administer an emetic. We would next resort to the Narcotics and Antispasmodics; we would probably either administer cautiously Opium or its preparations, advise the pa= tient to smoke the leaves of the Datura Stramonium or give him the tincture of Lobelia Inflata. We are strongly advised by some to use this last agent in large doses as an emetic, in the

commencement of the paroxysm, — but it seems to produce much greater relief when administered in small and repeated doses until its nauseant and relaxing effects have been obtained; if headache and vomiting come on during its use, it should be immediately discontinued. Expectorants often do much good, and the inhalation of Sulphuric Ether or of the Chloroform seems well calculated to be attended with considerable benefit, and, I think, a fair trial of its virtues should be made. After we have conducted our patient safely through one of these paroxysms, our efforts must not cease, but we must strive to prevent their future recurrence. We must pay great attention to all his circumstances of life, and endeavor to give such tone and strength to his system as will enable him to overcome this morbid tendency. We should make him avoid all exciting causes, and if his occupation or place of residence is improper advise him to change it. We should give strict orders with regard to his diet, allowing him to partake only of such articles as are easy of digestion and sufficiently nutrient, and only such quantities of these as can be easily acted upon by his stomach. Our patient should also take a sufficient quantity of gentle exercise; it should not amount

to fatigue, but be regular, moderate and continued; he should by no means engage in any violent exertion. If his circumstances would allow it, he would in all probabilities derive great benefit from travelling during the winter through some more genial clime; a sea voyage generally agrees well with Asthmatics, and the value of the benefit from travelling would be greatly enhanced by the company of a careful yet lively friend. We should advise him to sponge his chest every day with vinegar and water, salt and water or simply cold water; or to commence the use of the shower bath during the summer and continue it regularly every morning throughout the year. Tonics may also have to be administered; but we should remember that a person is much more affected for better or for worse by those substances which enter his system by pounds, than by drugs which are administered by grains. The use of tonics, combined with proper diet and exercise, will prove of great service; but we should not depend upon them alone to the neglect of other and more important indications. His bowels should also be kept regularly open, his general health carefully attended to, and if there exists any other disease, we should use all our endeavors for its

speedy removal or mitigation.

I have thus endeavored, gentlemen of the Faculty, to go over, as succinctly and clearly as the nature of my subject and my own abilities would allow, some of the most interesting and important points in the consideration of this disease, and I now respectfully present them for your examination. To your eyes there will most probably appear many faults both of omission and commission; I lay them before you however, not in a presumptuous spirit, but because I feel assured that you will extend to me all that indulgence which I so greatly need. Before concluding, allow me, gentlemen, to present to you my earnest and heartfelt thanks for the kindness and instructions, I have received at your hands during my connection with the University of Maryland. Day by day, have I witnessed your earnest endeavors to prepare your disciples for the noble yet arduous profession in which many of them are about to engage; and time after time have you proved to us by your examples, that it will often be necessary to risk comfort and safety in our efforts to alleviate the sufferings and

overcome the diseases of our fellow creatures. May your examples prove beacon lights to guide us in the paths in which we should walk; may your instructions sink so deeply into our hearts, that when you shall send us forth with the divine commission "go, heal the sick," we may by close study and reflection, be enabled to carry out faithfully, carefully and zealously the objects of our mission; may many years of increased prosperity roll over this venerable institution and may our preceptors, in their endeavors to benefit mankind be blessed with long life, health and happiness.

An
Inaugural Dissertation
on
Pleurisy.
Submitted to the examination
of the
Provost - Regent and Faculty of Physic
of the
University of Maryland.
For the
Degree of Docter of Medicine
by
Aquila T. Ridgely.

This is truly an enlightened age. Wise statesmen have brought the wild passions of men into subjugation to a civil code & united the most complex varieties of the human race beneath the beneficent influence of a political econo-my. Letters are now in the meridian of excellence & to the careful gleanings of the lore of the ancients add all the expe-rience of more recent times. The arts are fostered in every land & who shall say but that ere long the great masters of Flo-rence & of Rome shall exist only in song, whilst their divine productions shall have been eclipsed by the genius of our own age. Science has spread her broad aegis over the Earth. The Earth-the air-the sea, have all succumbed to her resistless power. Time & space & the

bulwarks of Nature, are to her no barriers. Not content with passing over moun-tains, she passes through them. Impa-tient at the tardy pace of the Locomo-tive, she despatches the winged Light-nings, as trusty bearers of her imperi-ous mandates.

But it is more particularly with Medicine & with Medical Science that we are now interested. Has she kept pace with her sisters in civilization & improvement? Has she done aught to increase the indebtedness of man towards her? Or- has she been idle, whilst all else, influenced by the ir-resistable power of the Mind, have hurried onwards with Herculean strides towards perfection? The answer is plain- is evident. Go to the drear a-bodes of Poverty- go to the sumptuous palaces of the Rich. Ask them, who.

it is, that ever ready at their call, allevi-ates their sufferings & rescues them from Death. It is the Physician, who treads with philanthropic steps upon the high-way of Disease & wards off its darts or withdraws its sting.

Great improvements have been made in Medical Science. The in-ductive minds of her Philosophers have enabled them to trace Disease to its source & bid it declare its nature & its name. Particularly has this been the case in regard to diseases within the thorax. Enclosed within that bony for-tress they had hitherto set at defiance all attempts at investigation. Notwith-standing the bold assaults of the pioneers of the profession, all remained in darkness & obscurity. True - to some extent succes-ful - they were enabled to adopt plans treatment, in many cases excellent, yet

they were like seamen far at sea without chart or compass to direct their course. They knew by general symptoms that some malady was reigning amongst the viscera of the Chest - but they did not know the exact organ affected or the amount of the mischeif. But a new era was about to commence in the annals of Medicine. The veil which had for ages been thrown around those diseases was about to be withdrawn. Darkness was to be converted into Light & those com-plaints which had been the most ob-scure were now to become the simplest & most readily understood. Acting upon an analogy within the comprehension of every one, but which Philosophers had failed to apply, Avenbrugger - a German, about the middle of the eighteenth century introduced to the consideration of the Pro-fession the practice of Percussion.

It remained for Laennec to make the more brilliant discovery of Auscultation. With these - Percussion & Auscultation - we can mark & interpret those changes & phenomena which are undergone within those dark & well walled chambers of the chest. "Indeed," says Dr. Watson, "in a vast number of instances, we can tell, as positively as if we saw them, the actual condition of the thoracic viscera - we can follow step by step the successive processes of disease & of repair in which they are involved. We can penetrate beyond those symptoms which denote deranged functions & detect & understand those much less fallible symptoms which arise from alterations of structure.

With these few preliminary remarks, which we have endeavoured to make as brief as possible, we come

to the consideration of our subject. Of Aus-cultation & Percussion we would merely speak incidently. It is to one of those di-seases, whose nature & phenomena they have so completely & beautifully revealed, that we would now direct attention - viz - to Pleurisy or inflamation of the Pleura.

In order that we may have a clearer & more comprehensive idea of our subject & be able the more readily to under-stand & appreciate the symptoms & circum-stances which may hereafter present them-selves, we shall first ~~[illegible]~~ depict as con-cisely as we can, the various morbid anatom-ical alterations which are characteristic of the disease.

In inflamations of serous mem-branes that of an adhesive character is chiefly to be dreaded & expected. The events of adhesive inflam-ation, are, as all observers inform us, the ef-fusion of serous fluid or of lymph, or of both.

The pleura being serous sacs must of ne-cessity obey the same laws & undergo the same changes as other tissues of similar structure. Accordingly, in inflamation of the Pleura we sometimes have the op-posing surfaces of the sac firmly glued together, as it were, by one or by successive layers of lymph. Sometimes it is distend-ed to a greater or less extent by an effusion of serous fluid. Again we frequently find the pulmonary pleura adhering in places to the costal, whilst in the intervening portions they are kept far apart by interposing fluid.

In the first place we would no-tice that form of the disease, wherein coag-ulable lymph only, or where a large pro-portion of lymph & a very small propor-tion of serum has been effused. In the majority of instances the lymph thus poured out will enter into the formation

of false membranes. When it is first de-posited upon the surface of the pleura it is of the consistance of paste & is of a dull white colour. That which is at first so soft & weak gradually becomes harder & harder. After the lapse of a vari-able length of time - from a few hours to a day or two - minute red points may be seen studding this paste like substance. These grow larger & larger & finally little lines may be seen traversing the part. These little lines, increasing in size, soon inosculate with the vessels of the vascular system & receive into them the same pure blood, which conveys ~~blood~~ life to the whole animal machine & those same layers of matter which sprang into existance, from the midst of disease become part & parcel of the human frame. As we have stated before, these false membranes vary in ex-tent. Sometimes they merely connect small

portions of the sac, whilst in other instan-ces the whole surface of the pulmonary pleu-ra is bound immovably to the unyeilding wall of the thorax. But this coagulable lymph does not always become organised. Sometimes granular deposites are thrown down, which do not nor can not assume the appearance of false membranes. Sometimes tubercles form in this lymph & sometimes ossific matter is deposited. The age & constitution of the patient seems to exert a controlling influence. In the young & plethoric lymph that has a tendency to become organized is far more apt to be effused than in the old & infirm.

Most frequently in Pleurisy the effusion is of a liquid character. This liquid is for the most part composed of serum & is limpid & colourless or of a pale straw or lemmon colour. Flakes of albuminous matter may be seen floating about in this fluid medium. Together with this serous

liquid we often see a thin layer of lymph coating the inner surface of the pleura. Sometimes the transparent fluid is very perceptibly tinged with blood. Or again blood itself may be exhaled from the in-flamed membrane. The quantity of the effusion thus poured out into the sac may vary from several drachms to as many pints. So long as the integrity of the sac remains the fluids which it contains are in the plurality of cases inodorous.

It occasionally happens that air or gas is found within the diseased pleura. The gas appears in some instances to have been caused by the decomposition of the morbid contents of the sac & in others to have been exhaled from the Pleura itself.

The consequences arising from the presence of this serum or bloody fluid are easily forseen. They will be in propor-tion to the amount of the effusion. It

be slight the yeilding Lung will be some-what encroached upon & its volume will be lessoned. But if the inflamation has been extensive & its ~~volume~~ products abun-dant, the Lung will be compressed & for-ced towards its root & will be seen, res-ting by the side of the vertebral column, entirely collapsed & containing no air. The mediastinum will ~~have~~ been be thrust out of its natural location & may be found upon the healthy side. The in-tercostal depressions will be obliterated. The diaphragm will be pushed down-wards & thus the size of the abdominal cavety will be lessoned & the situation of its viscera will be interfered with. When the Lung has been very much compres-ed it sometimes assumes the form of a thin cake &, being divested of its cel-lular tissue, resembles a half putrid muscle. It is then said to be carnified.

We have noticed the different events of inflamation of the Pleura - but there remains an alteration in its appearance of which we have not yet spoken - viz - redness. Could we often have opportunities of searching for it in cases of the incipient disease we should in all probability, never fail to find it. It is redness, not of the serous coat itself, but is caused by the injection of the sub-serous cellular tissue.

Let us call to remembrance some of the general symptoms which would announce to us that this malady was reigning in the thorax, whose peculier province it is not only to subvert & destroy the functions of viscera so vitally important to the enjoyment of life, but also to create new tissues which are entirely useless & harmful & whose existance could never have been designed by mans great architect.

The general signs of the disease are pain,

preceded or accompanied by rigors – cough – embarrassment of respiration – fever & inability or unwillingness to assume certain attitudes. These, as we have said, are the general symptoms, but if our knowledge stopped here we should still be liable frequently to fall into error & our diagnosis would often be unsatisfactory or incorrect. Here, however, Percussion & Auscultation come to our relief. Of the knowledge which they afford us we shall speak hereafter, we shall now review in few words the symptoms which we have enumerated above.

First – as to the Pain. It is of a sharp lancinating character & is felt whenever in the performance of respiration the thorax is expanded beyond a certain limit. This feeling of being stabbed or stich, as it has been aptly denominated is generally experienced in that portion of the Chest which corresponds to the lateral

attachments of the diaphragm. Why the pain, which is sometimes dependant upon so extensive an inflamation, should be restrict-ed to so small a sphere we are unable to deter-mine. Sometimes again it is felt in the shoulder-under the sternum- in the hypochondrium-or, where our reason would have induced us to expect, along the whole side of the chest. This pain is increased by ~~pressure~~ cough-ing- by some postures of the body & in short by any circumstance which may cause pres-sure upon the inflamed part.

Cough is another symptom of Acute Pleu-risy. It is a frequent attendant of the de-sease, though not a constant one. It is not of a loud or explosive kind, but on the con-trary is mostly low & half suppressed. The cough alone affords us but little pathological information, but the appearance of the mat-ter expectorated frequently denotes to us that the origonal disease has becom com

plicated by the presence of another.

We have said that the respiration was -embarrassed. Indeed there are obvious moral as well as physical reasons why it should be so. The bulk of a lung being in many cases considerably lessened - or perhaps one whole Lung being so compressed as to be impermeable to air, it follows as a nec -essary consequence that the supply of Oxygen, which is so requisite to the due ar -terialization of the blood, will be part -ly cut off. This happens, too, at a time when the heart, under the stimulous of inflamitory fever, is contracting with far more than its accustomed ~~[illegible]~~ fre -quency & is forcing the blood to the lungs with more than usual rapidity. The re -sult is Dyspnaea. Again - Suppose that the effusion was not sufficient to essentially decrease the size of the lung but that the patient suffered from the lancinating pain,

of which we have spoken, whenever he inspired beyond a certain extent. He would instinct-ively avoid thus expanding the chest & Na-ture would be required to make up in fre-quency what she lost in the length of the inspirations. Caeteris paribus, the Dysp-noea is said to be greatest when the effusion has been sudden.

The febrile movement in the outset of the disease is often considerable. The pulse is remarkable for its hardness & is of advan-tage to us in discriminating between this & other maladies.

With regard to the posture of the pa-tient & his inability to assume certain at-titudes much has been written. Most writers on Pleurisy deem it worthy of no-tice, yet they are far from agreeing with each other as to what this posture is. Some affirm that the patient lies upon the af-fected side — some assert that he prefers

the healthy side ~~&~~ whilst others take a me-dium ground & declare that at one period of the disease he reclines upon the sound & at another upon the healthy side. This we believe to be the most probable view but are willing to consider it as adhuc sub judice.

This much for the general symptoms. They afford us much information but they can-not be said to be pathognomonic of the disease. We have other resources upon which we may rely. There are other means by which we can detect the mischief that is going on-viz. by physical signs. These naturely resolve themselves into those which you derive from mere inspection of the chest & those which are obtained through auscultation & per-cussion.

Upon inspection of the Chest the changes in its appearance will depend upon the amount of the inflamation & the stage of the disease.

If we see the patient very early we will notice that the healthy side alone expands ~~in~~ at each inspiration. He keeps the lung which is en-veloped by the diseased pleura as still as he can. He dares not expand it for fear of the acute pain which he would suffer. The al-terations are most marked, at a later pe-riod, when the effusion has been abun-dant & has neither been absorbed nor dis-charged. The diseased half of the thorax will be distended & will be larger by actual measurement than the healthy half. The intercostal spaces will have arisen to a level with the intermediate ribs & fluctuation may in many instances be detected. The ribs of the affected side will be elevated & appear as though the patient had taken a full inspi-ration. But there is another condition of the thorax which is the very opposite to this. We refer to that form which is styled by Dr. Watson "retraction of one side of the chest."

It is met with where there has been a large accumulation of fluid, which fluid has been absorbed or removed from the pleura. Where the lung, bound down by adventitious membrane, fails to expand & fill up the space it formerly occupied. Under such circum-stances the corresponding wall of the chest being prefsed upon, on one side, by the weight of the atmosphere, whilst there is a vacuum upon the other is forced inwards. The dia-phragm is thrust upwards - the shoulder is drawn downwards & it sometimes hap-pens that the spinal column becomes lat-erally curved. The mediastinum is forced out of its proper place & the heart is dislocated so to speak. These alterations will in all prob-ability accompany the patient through life but as they do not present themselves untie after the inflamation has been subdued they are indicative of no dangerous contin-gency. These

There is another characteristic of pleu-ritic effusion which can be felt if it can-not be seen. If ones hand be laid upon the parietes of the chest in its natural & healthy condition he will feel a vibrato-ry thrill communicated when the person speaks. When one of the pleura has been distended with fluid & the lung has ceased in the performance of its functions no such vibratory thrill will be met with. This deviation from its usual condition is rendered apparent by contrasting the health-y with the diseased side. In some very rare instances no vocal thrill is communi-cated during health. Then, of course, we shall be deprived of the benefit of that which is otherwise an important & easily ascertain-ed sign.

Let us now see what auscultation & percussion will teach us in regard to this disease. If the ear be laid close upon the surface

of the healthy chest the air will be heard to enter into & to fill the lungs & then to retire again & leave them. This is a kind of rust-ling or murmuring sound & is called the respiratory murmur. When the lung has been compressed by effusion this res-piratory will be modified or disappear, both because there is less air entering into the lung & also because the lung is pushed in towards the vertebral column & is consequent-ly farther removed from the ear. When the effusion has been very great the air will be squeezed out of the air cells & there will be no respiratory murmur on that side whilst upon the other it will be far more noisy than is natural. If there be not too much liquid within the chest acoustic principles will enable us to detect bron-chial respiration, or tubular breathing as it has been called & bronchophony or tubular speaking. This bronchophony undergoes in Pleurisy curious

modifications. Instead of its usual sound ~~the~~ we hear a "twanging vibration - a cracked, discordant tremor, resembling the squeak of Punchinello or, as some think, the bleating of a goat." This is termed Aegophony & is heard in no other desease. This striking modification of the voice as heard within the thorax is most distinctly audible beneath the inferior angle of the scapula & it is necessary for its production that the fluid should not be too abundant.

As soon as ~~the~~ fluid has been exhaled into the cavety of the pleura there will be a diminution of the hollow sound it was accustomed to give back on percussion. In proportion as the quantity of the fluid increases the hollow sound will be given at a smaller portion of the chest & where it is not given there will be dulness the most absolute. This dulness may be over only the ~~the~~ most dependant parts or it may

be universal. It is interesting not only as teaching us that there has been effusion but it also demonstrates to us ~~not only~~ more forcibly than words could tell us the exact amount & situation of the fluid. If we tap upon an empty barrel we shall have the hollow sound of which we have been speaking except that in the thorax it will be slightly deadened by the presence of the lung. If we tap upon one which contains fluid we shall have the dull sound. So it is in ~~Pleurisy~~ the pleura. As high up as the fluid extends we shall have dullness, above that we shall have the hollow sound. But dulness may occur from solidification of the lung. In this case, however, the dulness must be the same in whatever position the patient may be placed. It is not so when the dulness depends upon the presence of fluid. In accordance with the laws of Hydrostatics the fluid must gravitate to the low

-est portion of the cavity. If the patient stand up it will be resting upon the diaphragm - if he lies upon his side it will be upon its depend-ant surface - if he stoop it will be beneath the clavicle. Thus will it change its loca-tion as the patient alters his position. As the dulness is always over the part cor-responding with the fluid it must ever be like it ~~chan~~ varying its situation. Hence the difficulty of diagnosis between dulness on percussion arising from solidification of the lung & that which is symbolical of effusion into the pleura at once vanishes. There is one condition of things which may interfere with the ~~obsc~~ application of the above truths - that is, where so much fluid has ac-cumulated as to fill up entirely the deseased side of the thorax. Then change of position will effect no alteration in the universal dulness which prevails.

Then other principles must be invoked & the diagnosis can not be difficult.

The most common cause of Plew-risy is cold - especially when combined with moisture or sudden vecissitudes of temperature. It may be produced by most of those causes which occasion internal inflamation generally. It may be brought on by the irritation subsequent upon fracture of a rib or it may arise from a punctured wound. It is often, too, a consequent of other diseas-es. The progress & termination of the disease will be very much influenced by the manner in which it was occa-sioned. Sometimes air gets into the pleura by the same means which served to light up the in-flamation. But it is obvious that it would be too tedious for us to attempt to notice the different forms which the di-sease would assume in consequence of

the causes which induced its inception.

Pleurisy may terminate in resolu-tion - in adhesion - or in death. In the ~~former~~ first case the inflamitory symptoms sub-side - the liquid, if any has been effused, is absorbed - the lung expands as the li-quid disappears & finally assumes its nor-mal position. The next best termination is in adhesion. In this case the respiration remains slightly embarrassed but the patient possesses complete immunity against the recurrence of the disease upon that side of the chest. Again it may end in a shrink-ing inwards of the diseased side & a par-tial or entire uselessness of the correspond-ing lung. In uncomplicated Pleurisy death is exceedingly rare, yet it may en-sue. When it does the mode of dying is u-sually by Apnaea or Asthenia.

We should not omit to state that in in inflamation of the pleura, as in all other,

inflamations accompanied by exten-sive febrile movement, the blood pre-sents the buffy coat.

We now come to the considera-tion of that which in any malady is of the first importance & which happily in this disease is easily arrived at & may be expressed in few words - viz - the treatment. We have but to apply, mutatis mutandis the treatment of inflamation generally, especially that of an adhesive character.

The antiphlogistic regimen should be enforced in all its particulars. This is a useful & necessary collateral assist-ant to us in our management, but the great remedies are blood letting & mercury. Bloodletting tells in all inflamations, particularly in those of serous membranes. As soon as we have been called to see our patient & have ascer-tained that he has Pleurisy we should bleed him. Bleed largely & until some

marked abatement has taken place in his general symptoms or until syncope is about to supervene. If we see the patient very early we may even bleed to actual syncope. When we see him again if the stitch in the side & the difficulty of breathing have return-ed & the pulse be firm & hard we should again bleed. We may accomplish much by topical abstraction of blood. Cupping & leeches may be employed with certain prospect of advantage.

Mercury from its well known prop-erty of stopping, controlling or altogether preventing the effusion of coagulable lymph is a valuable resource. It should be given with the view of its exerting its specific influence over the system. Let it be pres-cribed in small & repeated doses in combi-nation with a small quantity of opium to prevent its escape by the bowels. Our indication may be expedited by having the

mercurial ointment well rubbed into the axilla & inner side of the thighs. Tarter Emet-ic, which is so heroic in inflamations of mucous membranes is not so efficacous in this disease, but may be administered in nauseating doses at its commencement. It may then do good by moderating the action of the heart & arteries. By the above treatment faithfully carried out the desase may usually be speedily subdued.

After the violence of the inflamation has been overcome we often have unequivocal evidence of the presence of liquid within the thorax. We endeavour to accomplish its absorption by keeping the veins empty. The patient must live upon light diet. "The more," say Broussais, "the more the patient eats the sooner he will die." We give Mercury so as to keep the gums tender. We likewise give Diuretics & Cathartics, such as causcopious watery discharges. We may also give, with

prospect of advantage, & having in view its al-terative action, the Protiodide of Mercury. Blisters, whose efficacy in the inflamitory stage is at best doubtful, may now be em-ployed with benefit. Under this treatment the effusion ought soon to disappear. In some instances, however, it goes on to accumulate & the patient is in imminent danger of per-ishing by apnoea. Or the contents of the sac may suppurate & hectic fever be set up & then if no aid be rendered he will gradually become exhausted & die from Asthenia. In such a state of affairs the operation of Paracente-sis thoracis is often performed. We shall not pause to consider the mode of its per-formance. It is a surgical operation & in accomplishing it the surgical knowledge of the Physician will be called into requi-sition. The principal question which interests us, is, under what circumstan-ces it would be admissable to tap the

thorax & thus subject our patient to the hazards which must inevitably accrue from the admission of air into its cavity.

We believe that it ought to be performed whenever the pressure of the fluid threatens to cause suffocation. Whenever we see the patient gradually wasting away from its effects. Lastly - we should not hesitate whenever we have ascertained that the imprisoned fluid consists of pus.

An

Inaugural Dissertation,

On

The Principles, of the Practice of Medicine;

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

Pho L. Frey,

of York County,

Pa,

January 28th 1848

In submitting to your consideration, a few remarks on some of the general Principles; by which we should be influenced, in the Practice of Medicine: I shall notice briefly, some of the branches of Medical Science, with which we must become acquainted; before we are prepared to diagnose and treat disease; on scientific and proper principles: which alone can enable us to adopt, a successful and reasonable Practice. A knowledge of which it becomes our imperative duty to understand in all its variations that we may be able to render all the assistance in alleviating and removing the sufferings of our fellow man which our Science is able to afford. Then as conscientious, and reasonable men; we should never rest satisfied, untill we are prepared to administer, all the aid, that art will enable us to do, in the removal and cure of disease.

A knowledge of the Anatomy, and structure of the human body; will be one of the first steps, toward obtaining the requisite means; by which we shall be prepared, to detect any disease or alteration,

in the structure or function, of any of its organs.

We should know the Anatomy, and structure, of all the various organs of the body; their position respectively, and their relative position, in regard to each other; with the function performed by each organ, or set of organs, in the Animal economy.

After having ascertained, the physiological action of all the different parts, which make up and constitute the whole body: we must in the next place, know the changes which may be produced, by disease of those organs, and the signs afforded to us, by which we are enabled to detect it; with the character, and nature of the same. If our patient is suffering from any disease of the internal viscera, it becomes a consideration of the utmost importance, to know, what part is diseased, and to what extent; also what complications, if any; with the probable cause, and the means which are calculated, to remove the same, and effect a cure.

In diseases of the chest, which are of so great a variety, and often requiring the most minute

investigation and discrimination; to make a proper diagnosis of the particular disease, which may be existing in that Cavity: which can only be obtained satisfactorily, by a skilfull application of the ~~means~~ physical means, of diagnosis of disease of those organs.

Diseases or affections of the heart, are generally characterised by excited or over action in that organ; which may be the effect of different causes, as in organic disease of some part of its structure, its action will be laboured and excitable; but we may have increased action produced, by inflamation of some of its appendages, or it may sympathetic: also a very common cause is debility of the system generally; with a knowledge of these facts it becomes an important consideration, to know the cause which produces the palpitation or over action of that organ, that we may be able to effect a cure, by removing the cause.

The frequency of its action, in a debilitated condition of the system, may be accounted for, from the fact, that, the quality of the blood, has become so altered; that the proper nourishment or stimulus, is not

afforded to the heart and vascular system to keep up their wanted action or tone; but by being weakened and relaxed it endeavours to make up its want of power by increase in frequency of action, which often amounts to great violence upon the patient exercising himself too freely. It will then be an important consideration, in our practice or Medical treatment; to ascertain the cause which produces, the irregular or excited action. Thus in the treatment of all diseases, it should be our first and grand object, to ascertain the producing cause, and adopt a corresponding treatment

Affections of the heart, dependendent on debility, though they are often very alarming to the patient, are generally quite under the control of treatment.

Our first object will be to strengthen the system generally, by which means we will bring about a healthy action; by giving proper tone to all the organs of the body, for the performance of all their different functions. One of the best remedies which we can make use of in these cases is some of the preparations of iron. Vollettes Proto. Carb. or the Liquor Ferri Podidi

are as good as any of the Chalybeate preparations, used in conjunction with other remedies, as the nature of the case may require. The heart will return to its normal action, when proper tone and vigor, are again restored to the system. The principle upon which the preparations of iron, exert such a beneficial influence, in anemic or debilitated cases; is dependent on a specicific action of that Metal, on the blood, by increasing its red globules: which contain some salt of iron, by which the arteriolization of the blood, is effected; it having a great affinity for oxygen, which acts as a stimulus, to the whole body, producing healthy action, in all its parts. The more iron there existing in the blood, the more oxygen will be absorbed; and the more carbon will then be demanded, and an increase in the quantity of food, will be required; to afford the necessary amount of carbon. Thus we will be able to restore the System, to the proper healthy tone, required for the performance, of its various functions; and thereby remove, various morbid actions, of which our

limits will not permit us to treat. In the treatment of all chronic cases, attended with deficiency in the red globules of the blood, we may expect to derive some benefit, from the use of some of the ferruginous preparations; in conjunction with such other Medicines, or means, as may be required to meet the circumstances of the case.

We may often have the constitution of such patients to improve under the us of iron, yet from the incurable nature of the disease, must inevitably prove fatal.

We come in the next place, briefly to notice, some of the causes and symptoms, of inflamatory diseases; and a few of the general means of treatment. They are generally characterised by increased action in the heart and arteries, followed or attended by increased heat, which we term fever; and more or less pain especially in those organs which are principally suffering from the inflamation. Inflamation or fever may be produced, by a variety of causes, such as,

cold or wet, or taking any substance into the system; which acts as an irritant or poison to the parts, with which it comes in contact, and producing inflamation in those organs. Other organs will also suffer, either by sympathy or by absorption of the poison; as we see the liver and spleen suffering, from the poisonous influence of malaria; they appearing more susceptible to the action of the poison, than those organs with which it comes in contact. Again we may have violent inflamation, with great febrile excitement, produced by direct exposure to an exciting cause; as inflamation of the respiratory organs, and air passages: such as pneumonia, pleurisy, bronchitis &c, often requiring the most strictly antiphlogistic treatment, if not contraindicated, by some condition of the system which will not bear excessive depletion: We must then vary our remedies, according to circumstances sometimes administering tonics and stimulants to our patient, to support the sinking powers of life: while we use depleting, sedative, or nauseating

remedies to reduce the inflammation, and subdue the disease. Those of an acute character, attended with great pain and febrile excitement; as a general rule we employ antiphlogistic remedies, such as bloodletting, emetics, cathartics, nauseants, anodynes, and such other means as may be required to relieve the patient, and remove the disease.

But we should be aware that many acute and febrile, or inflamatory diseases, will not bear great depletion, especially venesection.

In the treatment of fever, if it be one likely to assume a typhoid form; or where a sudden sinking of the powers, of life may occur: if we employed the lancet, we should use it with the greatest caution; although the febrile excitement may be very considerable, and we might expect to derive benefit, from its employment; yet, we should make use of other means, to subdue the inflammation; and reserve all the strength, we possibly can for our patients, that we may be the better prepared to support them, when the

stage of prostration occurs. Some of the exan= 9
themotous fevers are of this character, among which is scarlatina Moligna, a very common disease; proving very fatal in many cases, where the lancet is too much employed. Again in acute and painful affections, where we might expect to relieve the violent symptoms of the disease, by bleeding; as in acute articular rheumatism: yet when we know there may be a metastasis of the local pains, to some internal or vital organ, and thereby making the case a much more grave one; we should then be cautious in its employment, and not hazard so unfavourable an occurrence.

When we are about to prescribe for a patient, suffering from some morbid derangement in the system; we should in the first place ascertain the cause and seat of the complaint.

Then we should endeavour to ascertain, whether the parts effected, are suffering from derangement of function, or structural lesion; and to

what extent the alteration, has taken place.

If we have then made a proper diagnosis of the the case, and know the pathology and nature of the disease: then with a proper knowledge of the medicines or means, which are required for its cure; we will be prepared to adopt such a course of treatment, as will be most likely to prove beneficial, and result in a happy issue.

When we have a patient that has suffered from an acute or tedious attack of disease, which has left him very much reduced; we should not trust to the unaided powers of nature, (which are so much exhausted) to restore him again to health: but we should employ such means, as are calculated to give energy and tone, to the system. This is a consideration which seems to be too much neglected, by many Physicians, who permit their patients to linger on for a length of time, without assisting the feeble efforts of nature, to restore strength and tone to the system; which it often fails to do; and some chronic disease becomes established in the system, and ultimately carries off the

patient, and which might often have been prevented, if proper means had been employed in time: this we believe to be the cause, of so many chronic diseases occurring, after severe attacks of sickness. 11

The principal means which we employ, as medicines, to assist the feeble efforts of nature, in restoring proper tone and healthy action, to all the organs of the body, when great debility exists; are the class of Medicines called tonics, which invigorate and give tone to all the functions of the system.

These are a class of medicines, of which Physicians entertain very different opinions, in regard to their action; some contending that all tonics are stimulant, and that all stimulants are tonic: now we will not pretend to deny, that tonics may not be stimulant, or that a stimulant may not be tonic; but that they are not necessarily so. Many of the substances belonging to the class of tonics are possessed of stimulant, and tonic properties combined; as in the aromatic tonics: but we may have a tonic united with a sedative, as the Prunus virginiana;

or we may have them united with astringents, as in the vegetable tonics which contain tanin; and also in many of the mineral tonics. 12

We conceive the action of tonics and stimulants, to be very different, though both acting on the nervous system. Stimulants excite nervous action, and call forth nervous influence; by which means the powers of life, are elevated for a time; but will eventually sink, below what they were, before the stimulant was employed: in consequence of the nervous influence being exhausted. Tonics instead of increasing immediately, the energy of the nervous system, or exciting it to action; gives tone to the nerves which is more permanent, by supplying nervous power, upon which all organic action must depend.

In a practical point of view, it is of the utmost importance, to make a proper discrimination, in their action; otherwise we might be deterred from using them, when they would be of incalculable value; if we laboured under the idea, that all tonics were necessarily stimulants, and therefore inapplicable.

In the treatment of all cases attended with debility; 13
Tonics of some kind, are among our most efficient means of cure; combined with such other remedies, as circumstances may require. Remedies which we term antiphlogistic, are those means which we employ for subduing inflammatory, or febrile action, in the system: they are numerous and of various kinds; some of the most important of which, are blood-letting, cathartics, emetics, nauseants, sedatives, anodynes, revulsives, &c. Blood-letting is one of the most powerful agents, which we possess, for reducing excessive and excited action, in the circulatory system.

We sometimes employ it for the purpose of producing relaxation, of the muscular system; where there exists great rigidity of the muscular fibre: as in adjusting a dislocation, where the patient is strong and robust, we may use bleeding for overcoming the resistance of the muscles. It is also a valuable agent, in tedious or protracted cases of parturition; where delivery cannot be effected, in consequence of the resistance of the parts.

When we wish to obtain the revulsive effect of bleeding, or to make a decided impression on the system; we draw the blood from a large orrifice, the effect of which appears to depend more, on the sudden extraction of the blood, than upon the quantity drawn. But when we wish to take a large quantity, for the purpose of diminishing the amount of blood, in the circulation, we extract it more moderately. In congestion of any of the vital organs, it is one of the best means we have; affording the most prompt, and efficient relief.

Bleeding exercises its revulsive effect, by changing for a time the course of the circulation; thereby giving relief, to the suffering organs which have given way, to the injecting force of the heart: and affording time for them to recover their contractile power, or tone, to resist the impetus of the circulation; which has been diminished by the sedative impression of the bleeding on the heart and arteries, and also from the quantity of the circulating fluid, being lessened.

In hemoptysis, uterine hemorrhages, &c. we sometimes employ bleeding as a revulsive agent.

In the treatment of inflamatory and painful diseases, 15
requiring antiphlogistic treatment; we will generally find antimony, anodynes, and other means combined, or used in conjunction with the bleeding; a safer practice, than to depend entirely, on copious and repeated extractions of blood: unless antimony is contra-indicated; as in cases of inflamation, tenderness, or irritability of the bowels; forbidding the use of that agent.

We come in the next place, to make a few remarks on a class of substances called Emetics; which are medicines that produce vomiting, often proving one of the most efficient means of Medical treatment, that we can employ. They are capable of fulfilling various indications, both as emetics and nauseants. But in their application it should be recollected, that all the substances belonging to the class, have not the same effect: While some produce great nausea, and excise, a powerful depressing influence on the system, producing often a very decided revulsive, or antiphlogistic effect. Others act more promptly, and are therefore often more applicable; where we wish to

empty the stomach as speedily as possible, in cases where some irritating, or poisonous substance, has been swallowed. We often resort to emetics in engorgement of the internal viscera, especially the liver and lungs: where they appear to exercise not only a relaxing influence; but also a mechanical effect, produced by the action of the Muscles, exercised in vomiting; the first effect being that of nausea, promotes the flow of the natural secretions, of the organs. The second or Mechanical effect, being that of compression, assists in the expulsion of the morbid or unnatural secretions, which have been collected or retained in the organs; And the expulsion of which, is often one of the most desirable objects, which we wish to accomplish. In some affections of the respiratory organs, emetics are among our chief means of treatment. Those diseases of the lungs or air passages, where an excessive secretion of viscid mucus is deposited, or retained; or where there is a formation of false membrane, we then wish to procure their full action, as emetics and nauseants, and select such as are capable of fulfilling

those indications. In the choice of the particular substance which we should employ, we must be guided by the nature of the particular case we are treating. When we wish to make a decided impression on the general system, Tartar emetic is one of the most certain we can use. In spasmodic affections of the lungs, as in Asthma, where we desire the nauseating effect of the medicine, we may employ Lobelia But where we wish to produce a very prompt, and speedy emesis, for the purpose of expelling the contents of the stomach; the sulphate of Zink or Copper, may be the most efficient.

The substances belonging to this class of Medicines, are capable of fulfilling various other indications, besides that of emetics, and nauseants; according to the manner or doses, in which they are administered.

Cathartics are Medicines of more general application than any other single class of Substances. Some of the most important Medicines, which we possess, belong to this class; and are capable of producing a greater variety of action, and fulfilling more indications,

than any other division, of the Materia Medica; many of which our limits will not permit us to mention. 18

Cathartics are substances, which will produce an evacuation of the contents of the intestinal canal, by the natural passage; they are remedies capable of exerting a very decided effect, on the system generally; or merely removing any offending or retained matter, that may be lodged in the bowels. In the treatment of many diseases, purgatives, are our ~~most~~ principal, and most efficient means of treatment. As revulsive or excitant agents, they often prove beneficial, in checking the course of the disease, by ~~the~~ their irritant or excitant action upon the bowels; which revulsive effect may change the tendency of the disease, and thereby enable us to remove it. disease.

Different substances, belonging to the class of cathartics, are capable of producing very different results.

In the treatment of Hydropic affections, we employ those which are of a drastic character, producing copious and watery stools; and which, by their exciting effect, produce absorption of the watery fluids, which may have been effused, in the cavity of the

abdomen or thorax, or in the cellular tissue; when used in conjunction with such other remedies as may be necessary, will often finally effect a cure. Some of the substances belonging to this class, have a specific action on some part of the intestinal tube, as aloes on the large intestines. Others on some organ or particular part of the system; as Calomel, which has a specific action on the liver, and Salivary glands

Mercury then from its action on the liver, becomes useful in the treatment of inflammatory, or febrile diseases of a bilious character, to excite action in that organ, and promote its healthy secretions. In all diseases complicated with a biliary derangement, we may expect to derive some benefit, from the use of Mercury in some part of its treatment; either employed as a cathartic, or an alterative. But Mercury should be judiciously administered, and care be taken, that it be not too freely used, as it is a Medicine, which exerts a powerful influence on the system; which if incautiously used (as it too often is) may do more mischief, than good.

In the treatment of all acute affections, we employ purgative Medicines, either as aperients, evacuants, or cathartics, during some stage of the disease.

It should not be forgotten in the treatment of those diseases, which are complicated with, or likely to assume any gastric inflamation; as in remittent, and some other fevers, that we should not keep up a purgative action, for too long a time; and should generally employ, principally, the milder cathartics; which are the least irritating; and endeavour to prevent, rather than excite any gastritis, or inflammation of the bowels.

We might go on to notice, various other classes of medicines, their properties, and therapeutical Value in the treatment of disease. with some of the indica- indications which they are capable of fulfilling, and the manner in which they appear to produce their effect, on the system. We might also notice various affections or diseases, in which their use would be required; with some of the different circumstances attending particular cases, indicating

the use of one substance of the same class, in prefer- 21
to another possessed of the same general properties;
but not equally applicable in the same case.
If we know the properties and therapeutical appli-
cation, of the Medicines which we employ, in the
treatment and cure of disease. Then in the last
place, it becomes an important consideration, to make
a proper diagnosis of the disease, which we are about
to treat; and which will often require, all the skill
and judgment, that we are capable of exercising:
Which knowledge can only be fully obtained, by
close observation, and study of disease at the bed-side;
and which should be done, by every Physician, who
would conscientiously perform that duty to his fel-
low beings, which his profession requires him to do;
and have the consolation of knowing, that he is
able to administer, all the relief to his patients,
that knowledge and art can afford.

Inaugural dissertation
on
Epilepsy
submitted to the inspection
of the
Regents, Provost and Faculty of physic
of the
University of Maryland
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Degree of Doctor of Medicine
by
Benson Bond
of Maryland
Feb. 1848

It has long been the opinion of the most eminent of medical men, that more real knowledge may be added to medical science, by the revision and illustration of those facts, which are well authenticated and founded on observation, than any attempt to promulgate false theories, or baseless hypotheses. Impressed with the justice of this doctrine, and the propriety of acting upon it, I have determined to confine myself in writing this essay, to those general facts and most approved of theories, that may be collected and culled from the leading authors of the day: not attempting to advance any new speculations that may be immature or superfluous within themselves.

The subject that I have selected is unquestionably one of the most deplorable and distressing maladies to which the human frame is subjected, when either looked upon in it's direct phenomena, or in the consideration of its remote sequelae. Though it's tendency is not to the immediate destruction of life, yet it's great liability to produce habitude, impairment of the intellectual faculties, total abolition of the reasoning powers, and finally ending in fatuity or dementia, (a condition more appaling than death itself) renders it an object of perpetual terror and dismay to all whom it may attack. I speak of Epilepsy.

It is impossible to give a complete definition of this disease, owing to the numerous and various forms under which it presents itself, and the differ-

ent conditions by which it is modified.

"A man — says a recent eminent writer — then, in the apparent enjoyment of perfect health, shall suddenly utter a loud cry, and fall instantly to the ground, senseless and convulsed. He strains and struggles violently. His breathing is embarrassed or suspended; his face tingid and livid: he foams at the mouth; a choking sound is heard in his windpipe; he appears to be at the point of death by apnoea. But presently, and by degrees, these alarming phenomena deminish, and at length cease. The patient is left exhausted, heavy, stupid, comatose; but his life is no longer threatened, and in a short time he is, to all appearances, perfectly well. The same train of morbid phenomena recur, however, again and again, at different, and mostly at irregular intervals".

This constitutes, I think a good description of the most ordinary forms of epilepsy; but by no means is it applicable to all of its varieties. It cannot be expected, that a disease so striking and frightful in its character, should have escaped the observation of the earliest writers. We find it accurately described by Hippocrates, Galen, Aretaeus, and other of the most eminent of Greek physicians; also by Celsus and other Latin authors. By the Romans, epilepsy was denominated Morbus Comitialis, from its frequent occurence in the assemblies called Comitia. Hippocrates ridicules the association of supernatural influence with this disease, though he calls it Sacred. He observes, that if it is attributed to the Gods, its cure should be sought in the temples.

Epilepsy sometimes comes on without any previous admonition to the patient; but frequently there may be observed, prior to an attack, certain abnormal sensations, which are regarded as premonitory symtoms.

The occurrence of these warnings, are said by the most accurate observers, to take place in about one half of the cases. These premonitory symtoms differ greatly in their nature, and also in regard to the length of time they make their appearance previous to an attack of the disease. They sometimes appear several hours or a day before; but in by far the greater number of cases, only a few moments; Sometimes giving the patient time to ward off the attack, or to place himself in such a position, that he may not be injured by the fall, or

against the objects around him. Often they make their appearance such a short time only, before the attack, that the patient has not time to take advantage of them. The symtoms above refered to, present themselves in a variety of forms, and the sensations accompanying them differ greatly.

The patient may not be aware of any disagreeable or altered feelings; but he may, on the contrary, be more than naturally gay, lively, and cheerful; or he may be low-spirited, gloomy, and desponding. There may be increase of appetite, or total loss of it with nausia and vomiting; great activity in the secretion of the kidnies. There may be unpleasant sensations felt about the head, such as, pain with giddiness and vertigo. Often the nerves of special sense seem to

be influenced by some morbid action, and the patient sees unreal objects; or his vision may be greatly impaired or destroyed. He sometimes hears strange sounds; unnatural odours are frequently perceived: vomiting is a very frequent precursor of an attack of epilepsy. But the most strange and unnatural phenomenon, occuring in epileptic patients, is what has been called Aura Epileptica. This sensation has been compared to a stream of cold air, or the trickling of cold water upon the part; or to the sensation of heat, pain, itching &c. It generally begins in the extremities, and proceeds towards the brain, or it may stop at the stomach on its way from the lower extremities, and immediately the patient looses all conciousness, falls, and the paroxism commences.

It has long been supposed that this phenomenon is produced by an injury to some external part, and then transmitted along an efferent nerve to the brain; or that frequently the primary injury is located in some other part, and transmitted sympathetically to the part whence the aura commences. After the appearance of one or more of the above described symptoms, lasting for a longer or shorter time, or without any indication of its approach, the epileptic attack, begins.

The patient falls suddenly as if struck by some unseen hand, sometimes utering a piercing and thrilling shriek, truly horrorfying to all who may hear it. There generally is also violent clonic spasms of the voluntary muscles.

The forehead is corrugated; the eye-brows knit: the eyes roll from side to side with great rapidity, or they are turned up, so as to show the white sclerotic only. Frequently they are fixed and immovable.

The muscles of the face and mouth are contracted to one side, presenting to a beholder an object appalling and ludicrous: the jaws close with great violence, grinding the teeth, and the tongue is often caught and violently bitten, so that the foam that issues at the mouth becomes bloody. The neck is twisted laterally, or the chin is thrown down upon the breast; these positions may be assumed with great rapidity. The arms and legs are thrown about with great violence; the thumbs and fingers

are rigidly flexed; the muscles of the trunk are frequently affected with tonic spasms. Often during the paroxysm the urine and fæces are discharged, and there is also priapism with seminal emissions. There is paralysis of all the senses; the eyes are insensible to the brightest light; the pupils remaining uncontracted; the loudest sounds, and most fragrant odours are unperceived, and the sense of feeling is entirely destroyed. The circulation is languid; the breathing difficult and obstructed; the face livid and suffused, and the veins of the neck greatly distended.

The heart palpitates violently, whilst the pulse is frequent, small, and irregular. Generally in the

course of a few minutes the convulsions and muscular rigidity cease, the patient remaining comatose, or he may return quickly to his senses, and then pass off into a profound sleep. Sometimes neither coma nor sleep follows the attack; but the patient returns to his ordinary duty as if nothing had occured.

Generally when he first becomes conscious he appears confused in thought, perplexed, and astonished; but gradually returning to his natural condition. But there is another form of this disease, in which the symptoms are greatly ameliorated, or some entirely wanting. There may be little or no convulsion; no coma; but mental confusion, giddiness with loss of consciousness; this state lasting for a few moments, and

the patient returning to his natural condition, scarcely aware of the attack.

Sometimes he remains in whatever position he may be in when attacked; his eyes are fixed and staring vacantly; tears flow freely, and there is generally some slight contraction of the muscles of the face and hands. This condition lasting for a short time, he recovers, and then falls into a deep sleep. That this is a form of Epilepsy, we know by its frequent occurrence in individuals who are affected with the graver form, and the great liability for the two to alternate, commencing in the milder form and passing into the graver, and vice versa. This has been called Epileptic vertigo, whilst the severer the Epileptic fit.

The duration of a paroxism of Epilepsy

differs greatly. In the milder form it lasts only a few moments; whilst in the graver from several minutes to many hours. The average duration is from five to twenty minutes. Where it continues for a long time, it seems to be composed of a number of paroxysms following each other in rapid succession. The interval between the paroxysms is as various as the duration of the paroxysms themselves. After one attack there may be no recurrence of the disease at all, or at very long periods; months or years frequently may elapse. They observe no regularity whatever, at times commencing with frequent recurrences, and then diminishing. Frequently several paroxysms occur at short intervals, and then months

elapse before another attack. In some cases regular periodicity is observed, particularly in females, when it occurs in connection with the catamenial discharge, and in miasmatic districts when it seems to be influenced by miasmatic laws.

During the intervals the patient may appear to enjoy good health; but there generally is something in his appearance, or mental condition to show us that the cerebral functions are more or less impaired. The period of life most common for the commencing of Epilepsy seems to be previous to puberty. During infancy the child is often attacked with convulsions, resembling very much those of Epilepsy, and it is said by some authors that the majority of Epileptics appear to have

been affected with convulsions whilst infants. During the periods of first and second dentition, Epilepsy is very apt to declare itself, also about the change of puberty; in truth it may begin at any period of life. The natural tendency of this disease is that of deterioration, not that any great alteration can be perceived after one attack; but that this disease is likely to recur again and again, increasing in severity with each occurrence. As the disease advances the brain becomes more and more disordered; the memory and intellect becomes greatly impaired, and at length the patient sinks into complete imbecility. This change is very gradual, and is thought by some

authors more frequently to be preceded by the epileptic vertigo. There is generally great alteration in the appearance of an epileptic; the face assumes a brutish expression, and the features become enlarged and disproportioned. There is also disorder in the motor functions; paralysis, or permanent contraction of some of the muscles occurs.

The organic functions however, remain unimpaired; the appetite and digestion are good, and the generative powers are perfect; conception and gestation are actively carried on.

Its course may be completed in a few months or years; but generally lasts for a long time; the patient may reach old age, and otherwise enjoy good health.

Dissection after death of persons who have laboured under epilepsy reveals to

as nothing satisfactory, or to explain the singular nature of this disease.

We wonder naturally look to the brain for some change to account for the singular phenomena, which are observed; but there we find no lesion that is constant or explanatory. The brain often presents the appearances of chronic inflammation, such as, congestion, softening &c. In cases where there has been much impairment of the mental faculties previously, the membranes are often congested and reddened, and the vessels greatly enlarged; the white matter is softened, or hardened and injected; the grey is also altered in its consistency — pale or slightly reddened.

We frequently find within the cranium exostoses, tumours, and spicular of bone making pressure upon the cerebral substance; or a animal

thickening of the bony walls, and thus compressing its contents. Also thickening of the membranes, abscesses, effusions. The cerebellum is frequently found diseased, and making pressure on the Medulla Oblongata. We frequently find lesions in the heart, lungs, alimentary canal, and liver; also gall-stones, calculi in the bladder et cetera. But none of these lesions are constant in this disease, nor would they be sufficient to indicate that the disease had existed.

The causes that have been assigned to Epilepsy are numerous. Inheritance has been dwelt upon largely by most authors, and with some justice. For it can very often be traced in a direct line for several generations; or it may alternate and leave one or two

generations free, and then make its appearance again among their progeny. Some peculiar malformations of the head undoubtedly may be considered as rendering one liable to this disease, particularly when it occasions pressure upon its contents. Also, in the same way may any injury done to the brain by external violence occasion it.

An attack of cerebro-meningitis is supposed by some to be among the most efficient causes. The scrofulous diathesis is very common in epilepticks, and it is said by high authority, that Epilepsy is as true an indication of this diathesis, as tubercular consumption, or psoas abscess. Any great disturbance of the cerebral functions when long continued, or in excess is apt to bring on an attack.

strong mental emotion of any nature, as terror, for instance, frequently induces it. In congenital cases terror in the mother during pregnancy is thought to produce it. The sight of a person in a fit of Epilepsy, particularly, when it occurs in an assembly of nervous females, not only brings on an attack in those subject to it, but frequently occasions the disease in those who were previously healthy. The force of imitation is said to be capable of inducing it, and persons who have long feigned Epilepsy, have at length actually become affected with the disease. Drunkenness, excess of venery, abuse of alcoholic liquors, have all been accused of producing it. Frequently it seems to supervene upon the retrocession of cutaneous eruptions; the healing of old ulcers,

the suppression of discharges; also upon the occurrence of profuse, or unnatural discharges. Irritating substances in the alimentary canal, as worms, indigestable matter, or accumulated fæces have been assigned as causes. The same may be said also of irritants situated in any part of the body.

This disease it appears is seated in the brain, and consists of some unnatural action, or irritation of that organ. This morbid action varies greatly in intensity, and the effect produced is in proportion to the degree of irritation, or the excitability of the brain. It may only suspend or entirely destroy cerebral action. In Epilepsy it seems only sufficient to destroy mental action action, whilst the motor function

remains unimpaired, but is acted upon by disordered volition. The excitability of the brain may be so great as to be acted upon by ordinary causes; or the irritation may be kept up by some unnatural impression constantly applied, but only showing itself at intervals, the brain exhausting itself of this irritability at each paroxysm, and returning to its normal condition, but becomes again affected as the irritation accumulates. This morbid impression may arise from some foreign matter acting upon the cerebral substance, or transmitted to it sympathetically from some other part of the body.

Apoplexy and hysteria are the two diseases with which Epilepsy is most likely to be confounded.

from the former it may generally be distinguished by the convulsions; but in the latter stages they resemble more. The countenance in apoplexy is generally livid and suffused; but it is pale in Epilepsy. The duration of the latter compared with the former, and the history of the case generally forms evident criterion. In hysteria there is not that suspension of consciousness, which attends Epilepsy - the globus hystericus, the alternate laughter and tears form distinctions. There is no coma in hysteria, nor do patients injure themselves by falls, or by biting their tongues. The breathing also is easy and smooth, not noisy and difficult as in Epilepsy.

There are various species of convulsions, as in children during dentition,

and during active inflamation of the brain, which resemble this disease, but can be distinguished by accurate observation. This disease for various reasons is frequently feigned, particularly by those wishing to excite compassion, or the pecuniary charity of the public, and by sailors and soldiers desirous of being discharged. But the imposition may be detected; for the impostor is in possession of all of his senses, and they may be variously acted upon. By blowing snuff up into the nostrils, violent sneezing may be produced, whilst in real Epileptics it would have no effect. The eye may be subjected to bright light, and the pupil will contract if the disease is only simulated. Threats may be made in the hearing of the supposed impostor, and some actually carried into execution

which will cause the reality of the disease. The feigner generally selects the place for his exibition where he may be seen, and where there is no probability of being injured by the fall.

The prognosis of Epilepsy is most generally unfavorable, though a disease often recovered from. Whenever it can be traced to inheritance, or when any congenital taint of constitution prevent, such as the strumous diathesis, the prognosis is bad. Also when there is associated with it malformation of the head, or when it depends upon lesions of the brain, such as tumours, abscesses, &c, the case is obstinate when the disease has lasted for a long time, or when the fits recur frequently, and is associated with impairment of the mind, or imbecility. The prognosis is more favorable when the disease has its origin from any external

irritation, and when that irritation is removable, as when it depends upon worms in the alimentary canal, stone in the bladder, tumour pressing upon some nerve &c. Also when it comes on anterior to puberty; for at that period it sometimes ceases, as upon the appearance of the catamenia discharge, or after impregnation. The disease sometimes ameliorates without any assignable reason, giving delusive hope to the patient, but generally recurring again with all of its former gravity. Amendment takes place almost under any new mode of treatment, so that practitioners should be careful, and not come to a hasty conclusion.

The treatment of Epilepsy divides itself into those means, which are addapted to the paroxysm, and those which are

to be resorted to during the interval.

The first thing to be done when an attack declares itself is to prevent the patient from injuring himself during the convulsions. He should be placed upon a bed with his head elevated; all his garments should be loosed, particularly those about the neck; a piece of cork should be placed between the teeth to prevent his injuring the tongue, and if the convulsions are violent and dangerous he may be restrained by the aid of assistants. When there is much congestion of the brain, or the tendency to apoplexy great, bloodletting should be resorted to; cups may be applied to the back of the neck, or temples, together with cold affusions to the head.

The extremities if cold may be immersed in warm water if practicable, or mustard sinapisms applied to the ancles.

It is thought by some that the paroxism may be shortened by cramming the patients mouth with salt. Whether this has any effect, I cannot say. During the interval there may be something of more importance done towards the relief of the patient. The first thing to be attended to is to remove any real or supposed exciting cause of the disease. Secondly to attend to the general condition of the health. If there be any marks of plethora, means should be taken to obviate it. We may in some instances bleed, but with great caution for fear of producing the opposite condition. But local bleeding may frequently be resorted to, together with saline cathartics. Strict attention must be paid to diet, and regular exercise; but should anemia occur, we must endeavour to correct the condition of the blood by tonics. The mineral or vegitable may be used; but more

dependence is placed in the various salts of Iron, also the nitrate of Silver. But the best of all tonics is the shower-bath; and when convenient frequent sea-bathing should be used. The recreation of the mind and body must be obtained.

All sources of irritation must be carefully sought for and removed. The most common is worms in the alimentary canal; among this class the tape-worm and lumbricoides are principally found. The oil of turpentine will most always effect their removal. When the liver is disordered it must be treated; or when there is gastric disturbance, or uterine derangement, remedies must be employed for their removal. In children during dentition, when the gums are much inflamed and swollen they must be lanced. Surgical operations are frequently required, when

there are spicular of bone, or tumours pressing upon nerves; or when there is indentation of the skull, the trephine is often had recourse to, and in some cases with perfect success. When syphilitic affections of the head are present, mercury and the iodide of potassium are highly important remedies. Benefit may be derived from counter-irritants; blisters to the back of the neck, or behind the ears, or setons and issues.

It has been recommended to make a deep incision along the sagittal suture, and to be kept open by means of issue-peas, so creating a free and copious discharge. Means must must resorted to to diminish the excitabilaty of the brain, and this is best effected by tonics and narcotics. Among the former, the nitrate of silver possesses the greatest share of confidence, given in doses of one fourth to the third of a grain three times a day.

But it must always be remembered that this remedy is capable of producing perpetual discoloration of the skin, and corrosion of the stomach. The sulphates of copper and zinc, or the ammoniated copper may be used without as much danger as the nitrate of silver, and their effect is thought to be greatly increased by the addition of assafetida. Opium should always be combined when these salts are used. The valerianate of zinc is a preparation that has become much in vogue of late, and generally found very useful, given in doses of one or two grains, and gradually increased. The various preparations of iron have been employed; and the acetate of lead has effected many cures. The sulphate of quinine is the most important of the vegetable tonics, and is particularly indicated when the disease presents a paroxismal form, and occurring in malarious districts.

Valerian, assafetida, musk, camphor, and other antispasmodics have all enjoyed some reputation; but excepting the first two, they are not much employed.

Of the narcotics, Stramonium and belladonna are the most efficient. Opium may be used when there is no tendency to plethora, or congestion of the brain, however with caution. There are a great many other remedies which have employed in the treatment of Epilepsy, such as indigo, oil of turpentine, oil of cajuput, phosphorus, strichnia &c.

Each, and all of these, it is probable, you may have an opportunity of trying during your treatment. There are certain precautions which should be strictly attended to in the management of Epileptics. The patient should never be allowed to visit places where there would be danger from a fall, or where there is water, particularly

alone. He should not sleep in a seperate appartement, or when it cannot be avoided, his bed should be so provided as to prevent his falling out in case a paroxism should occur during the night. The attack may be warded off frequently when the premonition is sufficiently long by various means. One is by dashing cold water over the head and face - another by applying ammonia to the nose, or by interrupting the precursory symptoms.

An Inaugural Dissertation on Puerperal Fever.

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 James A. S. Carpenter. of Lancaster, Penna.

Baltimore February 1848.

To the
Medical Faculty
of the
University of Maryland
this Thesis
is respectfully dedicated
by the
Author.

Gentlemen

The period of my pupilage being now about to expire, and it being obligatory upon every student of medicine to present an essay of his own composition on some subject pertaining to medicine; prior to his application for the degree of Doctor of Medicine I have selected Puerperal Fever, for my theme; not that I expect to be enabled to throw any light or advance any new ideas upon a subject, that has been a prolific source of dispute, among the most eminent members of the Medical Profession, but in order to comply with the requisitions of the Faculty of Physic of the University of Maryland.

In presenting this my Inaugural Essay filled as it is with imperfections, yet I do so with confidence, resting assured that you will receive it with kindness, and not subject it to that criticism to which it is open, but freely overlook the errors, that may have been committed by, the

Author

Puerperal Fever.

Of all the dangers to which the lying-in woman is exposed, this is the most formidable. It is fraught with peril, and if the progress of the disease is not speedily arrested, the chances of the patients recovery are very slight. It is very evident from the writings of the most ancient medical authors, that this disease was known to them although their accounts of it are very short and imperfect. The attention of physicians was particularly drawn to this disease when it appeared as an epidemic in the year 1664 in the lying-in wards of the Hotel Dieu, in Paris; and since that period it has often occured in the principal cities and lying-in hosptals in Europe. In regard to the contagion or non contagion of this disease, there is a great want of unanimity among those physicians who have had abundant opportunities of seeing and treating this disease, but it is my opinion that after studying the essays of Drs. Gordon, Hay, Armstrong, and other eminent writers, that the disease is

contagious. Thus it is that "man is liable to err," but such are my opinions at the present time.

Causes. These may divided into the predisposing and determining. The predisposing causes are errors of diet either of too exciting a nature, or of bad quality. a depressed anxious and desponding state of mind, a sedentary life and the abuse of coïtus. Women of a delicate constitutions, which have been weakened by previous disease, are more predisposed to this peculiar fever which may depend upon a peculiar noxious state of the atmosphere or to the communication of contagious miasm. The determining causes are, the energetic contraction of the abdominal muscles, upon the uterus in expelling the fœtus; long and tedious labour; the influence of the tampon used in arresting hæmorrhage; exposure to cold; injuries inflicted upon the womb, during a severe, protracted and instrumental labour; by the forcible introduction of the hand into the into the uterus to rectify the position of the child, as in turning or removing the placenta when it is adherent; putrefaction of.

coagula, or of parts of the placenta, which may have been retained within the uterus; the death and putrefaction of the fœtus in utero; excessive joy caused by a safe delivery; the reception of news of a depressing character; too much company and conversation, too soon after delivery; rising from bed, and engaging in any exercise before the womb has recovered its position and non-gravid volume; the sudden suppression of some usual secretion, as the perspiration, the milk or the lochia; the application of cold to the whole body, or particular parts of it as the vulva or abdominal muscles.

Symptoms. Puerperal fever generally makes its appearance from the second to the fifth day, after delivery; but it may appear much sooner or later than these periods. It occasionally comes on, immediately after labour; and it has been known to take place at the commencement of labor. It is ushered in by rigors, which sometimes are so slight as to escape notice, and at others so severe as to shake the bed, upon which the patient is lying.

The rigors are followed by high fever; accellerated pulse, either full, hard vibrating, or small sharp and wiry. The skin is hot and dry and the thirst excessive; there is oppression at the præcordia, nause, retching and vomiting; anxiety of mind, lassitude uneasiness, weakness, headache and horripilation. The pain in the abdomen is occasionally very severe; it is sometimes restricted to the hypogastric region at others, to various parts of the abdomen; in circumscribed spots; and very frequently it is felt over the whole of the abdominal region The patient compares the pain to a burning, twisting, and laceration of the affected part, which is greatly increased upon motion, coughing or hiccough, or by any thing that disturbs the relations of the peritoneum. The respiration is short, laborious and difficult. The peritoneal coat which lines the diaphragm is sometimes inflamed, in which case respiration will be much impeded, and hiccough results as a natural consequence. The blood presents the buffed coat, and the skin although generally.

hot and dry is sometimes moist. Very often the patient is troubled with a short, dry, hacking, cough which causes great uneasiness. As the pain in the abdomen increases, it attains a great size often as large as before delivery which is caused by the effusion of serum or lymph, and also by the accumulation of flatus in the intestines. The patient lies on her back with her head and shoulders elevated and supported by pillows, her knees are flexed, in order to relax the muscles of the abdomen, and also to prevent the bed clothes from pressing on the abdomen and by their weight increasing the pain; she tries to keep the diaphragm contracted as much as possible and her breathing is a succession of short, rapid inspirations.

The state of the tongue cannot be depended upon as it is very variable in its appearance, and varies according to the stage of the disease, and the state of the system at the time of the attack. The lochia are generally suppressed or diminished in quantity and their odor is fœtid, but in some rare cases they continue to flow naturally; the mamma

become flaccid and occasionally painful; the secretion of milk is generally suppressed, but in some cases it continues to be secreted until within a short period of dissolution. The urine is scanty and high coloured and (after standing for some time it becomes turbid) and is voided with pain and difficulty. The intellectual faculties are sometimes disordered, but in general they are unimpaired up to the period of dissolution. In some cases, there is total cessation of pain a few hours before death; the patients friends entertain hopes of her recovery but in a very short time their hopes are proved to be fallacious

Diagnosis. "Milk fever is known, by throbbing irritation and enlagement of the mammæ, and by the pain being confined to them, while there is any febrile excitement, while in Puerperal fever the pain commences in the abdomen, and the mammæ are neither distended, nor painful, but much more flaccid than natural; the sickness and nause are more urgent and the pulse is much quicker

Simple hysteritis, may be known by a burning, throbbing pain, fulness and oppressive weight in the region of the uterus, and frequent calls to pass the contents of the bladder which is voided with great difficulty; by the uterus feeling hard and strong, it is also enlarged and exquisitely tender when pressure is made upon it; by violent pains darting through to the back and down to the groins and thighs and by the soreness and fulness, being more confined to the hypogastric region, while in puerperal fever the whole abdominal region may be implicated. The ephemera called the weed is ushered in by strong rigors, which generally in less than an hour are followed by heat, thirst, and general excitement, which generally terminates in about twenty-four or thirty hours, by profuse perspiration and absence of abdominal irritation will prevent its being confounded with puerperal fever In after pains at certain times pressure can be borne without uneasiness, while in puerperal fever the abdomen is sore to the touch, and pressure

always aggravates the the pain. In the first there is no accession of fever nor accelerated pulse, the pains are grinding like those of labour, and are succeeded by intervals of complete ease; while in puerperal fever there is an accession of fever marked by an uncommon rapidity of pulse, and the pain is without intermission"

False Peritonitis. This disease is some what similar to the malady under consideration but differing from it in its chief feature, there being no tympanitis. It appears a day or two after labour, and is characterized by the most acute pain in the abdomen which in some cases is preceded by shivering or a chilly sensation; its onset is sudden; and it rapidly reaches a degree of intensity, little inferior to the worst forms of inflamation. The secretion of the milk or the lochial discharge are not suppressed, the pulse in general is but little accelerated; the skin not much increased in temperature the tongue natural, the intellect perfect. and though pain in the head and

loins may be present is comparatively trifling
The treatment of this disease is very simple and
will give way to full dose of Opium combined with
a few grains of calomel and Dr Ferguson was
in the habit of prescribing a full dose of the
Pulvis Ipecac. Compositus, which generally gave
a quietus to this disease. I had almost
neglected to mention a most important diagnostic
If pressure is gradually applied over the abdomen
instead of increasing the pain, but with relief
and the withdrawing the hand suddenly
cause as much pain as sudden pressure
Prognosis, is very unfavorable and leaves but
little to hope for. It may be considered favorable
diminishes in size; when the lochial discharges
and the secretion of the milk are established;
when the pain becomes less acute and is only
felt over a small surface; when the pulse looses
its frequency and irregularity; when the respiration
is easy, deep and slow, the tongue clean and
moist; the thirst less ardent; the bowels more

easily acted upon; the patient gets refreshing sleep, and is able to change her position, from her back to her side: this a very favorable symptom, denoting a subsidence of the inflamation. The unfavorable symptoms are a quick weak fluttering & hard compressible pulse; violent pain and tension of the abdomen; the respiration is laborious; violent rigors, a rough, dry, and brown tongue; the patient vomiting matter of a dark brown color; a cold clammy sweat breaking out over the face and body; there is repeated shiverings; the stools black and passing involuntarily; also a circumscribed crimson blush similar to hectic; subsultus tendinum; picking at the bed clothes; a state of muttering delirium; the patient slipping down from the pillows into the middle of the bed; & a cessation of pain.

When these symptoms are present the case is hopeless.

"The disease may terminate in resolution, suppuration and gangrene, or it may pass into a chronic state.

The termination by resolution, about the fourth up to the sixth day, by the diminution of the pain and other symptoms, by the softness, slowness and fulness, by the re-establishment of the lochia, and of the secretion of the milk, and by the patient being able to lie with ease, either on her back or side.
The termination by suppuration occurs where the pain and tension of the abdomen becomes less; when the pulse though still frequent becomes soft; where the patient has irregular chills, with coldness of the extremities, and where there is a feeling of weight, in the hypogastric region, and when fluctuation is discovered on palpation, no doubt exists as to the presence of fluid in the abdomen.
When the disease terminates in gangrene, the sensation becomes dull, the pain ceases suddenly; the abdomen smaller; instead of burning heat, a sense of coldness supervenes, the pulse is weak and intermittent, and the features become more decidedly altered; attacks of vomiting come on attended by delirium; the sphincters relax and

admit the escape of insufferably fœtid matter, accompanied by a treacherous calm, during which, the patient expires. When an attack of puerperal fever does not increase in violence, but yet continues to prevail, it passes into a chronic form; the abdomen continues somewhat tumid and painful to the touch, or else it becomes more and more tympanitic. Occasionally there are intervals of calm but the pain, nause and vomiting, recur from time to time; the emaciation becomes extreme; at length a colliquative diarrhea supervenes, attended with a low continued fever, with consumption, and marasmus; the effusion goes on, and the patient after much suffering dies."

Treatment. The most strict antiphlogistic must be resorted to, The patient should be placed in the semi-recumbent position, and the blood allowed to escape in a full stream from one or both arms, until syncope is produced; leeches should be applied to the abdomen and the bleeding from them encouraged by a warm poultice, made of flaxseed

meal and spread in such a manner, that the pressure 7
shall be equal upon every part that it covers. A dose
of calomel should be administered, to unload the
bowels which are generally constipated, and if its action
is not sufficiently prompt, an enema may be used.
If at the next visit which should be made in a few
hours, the pain has returned, venesection should again
be resorted to, until the pain has disappeared, and
if advisable the leeches may be applied; small doses
of calomel and opium should be administered and
the system got under its influence as speedily as
possible, in order to arrest the progress of the inflamation,
to prevent the effusion of fluid into the cavity of the
peritoneum, and also to effect the absorption of any
fluid that may be effused; and the opium, to
prevent the calomel from irritating the bowels and
causing excessive purgation, and also to quiet the patient
and produce sleep if possible. An occasional saline
draught, to determine to the skin, or what is better,
or eight or ten grains of the carbonate of potash
in solution, may be taken with advantage. Emetics

have been recommended by Doulcet, but I would think, that the inflamation would be aggravated by their use. The application of blisters to the surface has been highly extolled, but their operation is too slow, and the application of leeches is prevented, and we loose one of our best diagnostic marks, by the surface being denuded of its cuticle, as to whether the affection is on the increase, or decline, The best place to apply them is to the inside of the thighs, to act as a revulsive Antimony in small doses, and also Digitalis, have been used with advantage, in conjunction with the other antiphlogistic means, to subdue the inflamatory tendency, The oil of turpentine may be used with benefit, when there is tympanitis. Ice has been found of benefit, applied in a bladder over the abdomen, and Prof. Michalis of Keil has used it both internally and externally, with success. In the second stage, the strength of the patient should be supported stimulants, cordials, and of easily assimilated nourishment, Brandy, wine, ether, ammonia, opium quinia, and aromatics, may be used, but if any

fluid has been effused, art can be but of little service to the patient.

An
Inaugural Dissertation
on
The Method of Medical Investigation
Submitted to the Examination
of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
For the
Degree of Doctor of Medicine
By
Allfickes
of
Maryland

A Synopsis of the General &
Clinical principles kindly
inculcated by Drs Chew and Power

"Medical Investigation, ~~its Past and Present~~"

Wide Spread gentlemen is that collection which your general regulations place before the graduate: unbiased as also uninstructed in his choice he selects from the accumulations of olden time, or from ces when the feast of modern fantasies; Yet with all submission it does appear this extended scene of subject matter, a very desert to honesty, but a fairy garden to others not perhaps over fastidious. Consequently gentlemen I waive at this time ~~trace~~ all discussion of specific disease, and avoid the derangement of scrutinizing and sifting for novel truths where experience has not vouchsafed them, and where imagination would yield her products plausible though dangerous, amusing though useless.

The matter to which I would call attention is general though not the less interesting

I would take a most concise glance of the grand and comprehensive methods of Medical investigation since the time of Hippocrates. Look at the rapidity with which the pendulum of its theories swings from one point of the segment to its opposing: by the application of common sense ask why these revolutions? and institute the question to what do they lead, where in truth at present do they point us: Call it the philosophy of science or what not, language is conventional but its object, yet the subject of our present inquiry presents food for long, judicious, and amabating investigation, it is the substance of Medicine, its majesty, in fact the economy of the human mind.

The universality of Medicine, the many and varied theories of its essence

the diversified aims to which its application has been made subservient politically and religiously point out its inherent worth, and testify the reality of that which these unworthy and ignorant abuses evidence and stand so vividly expunctive of. The strong spiritual and worldly arm of the ancient Magi, the gloomy foretodings the fair and false prognostics of the American Medicine man, the Medical fanaticism generated midst the Chaos of revolutionizing France - all point out the extent of this traditionary science, the sanity of mans own study mentally as well as physically; Now it is not paradoxical thus to hold with Dr Johnson that the universal belief of a combination of facts or principles is sure and unequivocal evidence

of truth from which these combinations spring and upon which they are based. And from this we most assuredly hold that the impositions and absurdities of a system from the beginning of time exercising an influence socially and civilly stand the surest circumstantial and direct evidence of its actual existence. The mind of the dark and Middle ages was acute and zealous yet to this science it knelt in homage and reverence; yea the knowledge of advancing civilization has not dispelled the charm, but placed it on the eternal basis of truth and nature. The modern ministers and votaries of this system of physics are the sciences of the universe. Chemistry, physique, astronomy all palpably aid its wants, and strongly corroborate its pretentions. The arts indeed we call as witnesses

and act as proofs by antagonising its hygienic aims or verifying its predictions: Commonsense, experiment, reason comparative and checide stand likewise its opponents. Before extending this inquiry let us for a moment ask what is science? – Science properly so called is the knowledge of the laws of phenomena and its tests a power to predict when the circumstances are known; the association of these effects and their derivative laws constitute the system, not indeed that every truth of possible existence as regards the particular science must be known since then it would be the counterpart of Omniscience, and not the subject matter of man's origin. But say our opponents take for granted there exist four laws of phenomena, can possibly the name of science be ascribed when these laws few in fact are subject

to change and modification under circumstances of apparently the same character: this indeed at first sight is a plausible objection, since Science assumes as its basis that the laws of the existence are constant: not only so but this principle is the foundation of all scientific reasoning, is collected from all experience, taught by all observation, and is an original propensity of the human mind. The bulwark of this objection is found in the Ultimation of Medicine the application of remedial measures to specific disease, and the strength of the attack in the varying character of the therapeutical principles upon which medicines are administered to maladies of a like nature, origin & principle:- Thus "Malignant Cholera" presents a barrier to the action of remedies, absorption is prevented

and death the consequence; also the specific effects of mercury are often unpossessed in the gastro enteric patient; yet cannot these seeming anomalies be explained, is not the absorption of mercury based upon a given condition of the mucous membrane of the intestinal canal from the fact that it is through the surface of this canal that internal absorption must progress: but in the aforesaid diseases this given state is not only modified, but totally changed. In the low forms of typhoid maladies, the nervous influence, the creator of vital action is so depressed and sustaining that the stimulating influence of applied remedies, fails in producing that excitation absolutely required by organic life for the exercise of its peculiar functions

and thus we fail in accomplishing after the constitutional efficacy of Mercury & its compounds. Again the Mechanical or philosophical principle of Endosmose tells us that a membranous tube filled with liquid of nearly a solid consistency will remain unchanged if in contact with that even less consistence much more so if possessing qualities more allied to solidity. Not only will this law of dead matter maintain its influence in Cholera, but under these circumstances if indeed absorption takes place, the removal of the remedy marked to the varied parts of the animal frame is prevented by the impressibility of this consistent fluid circulating through the capillary system. Such is the condition of the intestinal canal

during Malignant Cholera or its later stages, under its excitation the watery particles of the blood are exhaled, and it is left so drained of its serum as to create the physical impossibility of passing through its vessels. ~~The apparent inconsistency~~ Thus the failure attending oft-repeated and assiduous trials of mercurial agents in these diseases presses not a contradiction to the general principle — since it is a law that an active inflammatory stage of mucous membranes intermits glandular, membranous & circulatory absorption. The apparent inconsistency of the cases but now cited does not in reality exist, but is merely the consequence of incapacity on the part of those daring to act the interpreters of nature; assimulating diseases partially resembling the one the other, yet so modified by

concomitant circumstances as imperatively to demand the development of new scientific laws for these new phenomena. The many shackles which have embraced this Science from the beginning of time she is now disrobing one by one: the Rosicrucian doctrine of sympathy is long exploded; and the denunciations of the Rationalist and Empiric are fading individually by the stronger light of their combined lustre. Anterior to the age of Hippocrates medical philosophy did not exist; The superstitious priest drew from his sacred temple the votive tablet of Empiric medicine; But the father of physick saw indeed the majesty of this Empiricism: he it was who by the association of these facts drew general deductions and from these latter deduced the first laws of truth. Although as must

be admitted the just association of classified facts with experimental deductions constitutes the only scientific method of medical investigation, yet a too great & isolated reliance on the processes of reasoning is dangerous in the extreme and absurd in its consequences. Ignorance and presumption stare it boldly in the face, and the corruptions incident to rational Philosophy must ever be guarded by the stern test experimental tests. Facts indeed substantiate our fears since the absurdities and abuses engendered by this system induced a thorough revolution and produced a sect of medical inquirers — the Empirics — diametrically opposed to the dogmatists. They deemed closet abstractions the essence of folly, and stamped the character of distrust upon

all experience save that derived from direct observation: The causes of disease they would discard, anatomy was contemned, Pathology and morbid phenomena utterly disregarded. I am not gentlemen to recall the many ancient and modern theories of Medicine, but merely speak of those comprehensive plans and processes followed at different periods for its study and developement; of the general state of the medical mind during those periods, and of the influence of this mental disposition upon the investigations of physicians for benefit or injury. I dare not attempt an inquiry into the explanations and principles of specific diseases: - The Humeral pathology advocated by Hippocrates and Galen its modification by Boerhaave, or the theory

of solidism advanced by Hoffman and strengthened by Cullen, the no=tions of Brown Broussais, Rush &c. This would require extended knowl=edge nurtured by deep reflection. In reviewing the previously mentioned plans of medical investigation the most superficial observer must be struck by the thorough and radical change — Now ac=knowledging the influence of Dog=matism, we see it again in a new light diametrically opposed — The Empiric philosophy, If either we shout or can stand the embodi=ment of medical science, Why this shifting character? Can it be ascribed to man's constitution, is it the desire-of-ever-wished for change, — No these are absur=dities, the true cause is the intrinsic

on the grounds of either singly and its total incapacity to answer the ends of true science: The pendulum has swung from one point to its opposite and meeting in a common centre unites with dual truth to give medical wisdom. We all must admit that Empiricism in union with the dogmatist plan, or facts as observed by the senses experiment with judgment forms the only process of scientific study. Such in fact is the present state of the medical mind. Louis and his followers stand the exponents of this system and by the continued evolution of new truths proves its efficacy. The maxim of Rousseau may well represent its true basis "That all science is in the facts and phenomena of nature and their relations."

and not in the mind of man who discovers and interprets them" They move upon the strict principle of observation, and reject all opinion-reasoning.
The scanting of morbid phenomena, the analyses of disease by the senses, the disregard of all opinions unsupported by direct experience constitute the mode of their investigations. The Traditions of the Fathers they reject as apocryphal, holding that medicine as other kindred sciences has and professes in reality but one aim the determination of truth; they maintain indifference to the result of researches that the issue be so near as possible the approximation of truth. The science and practice of physic is prosecuted not as it may be

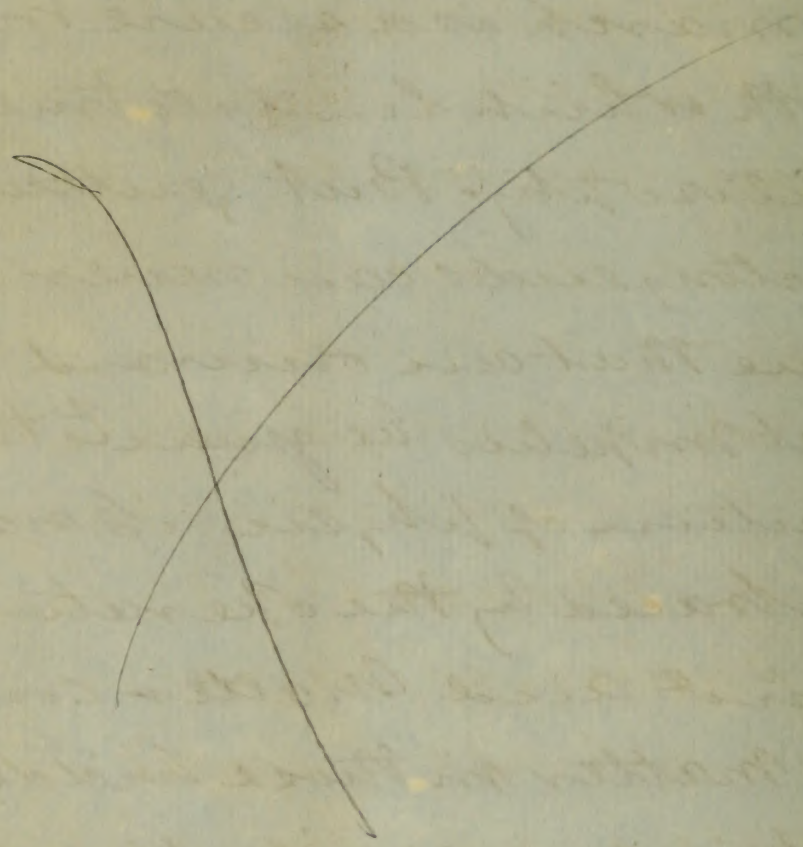
not as it was but as it is.
Thus the aid of imagination is
totally scouted, and the abstractions
of reason disregarded as danger-
ous and pregnant with error!
That man in the seclusion of
his closet should faithfully de-
cipher the cause origin & nature
of disease as well as its treat-
ment & prognosis is a doctrine
equally injurious as false.
To appreciate the physiological ac-
tion of remedies demands ex-
periment and observation, these
being instituted therein to deduce
a similarity of action in all dise-
ses is a religion worthy a jesuit per-
haps, but unjust to the patient, and
contradicted by experiment and
pathological truthes. The medi-
cal philosophy of the present day

rejects all deductions made from external nature, such a process proved indeed be contradicting to itself since deductions emanate from established laws not "per se", although Chemistry may teach us that the pathology of disease and the Therapeutical application of remedies succumb in a measure to the operations of dead matter.— Yet the supreme and primary governing force from which the substance of a science must be formed are the vital laws: the laws which direct regulate and extend human life; laws which have surely existed in the vale and shadow of darkness, yet which

are now peering above this horizon in the beauty, usefulness and lasting truth of their character: 81- is to appreciate justly these laws that the present mine of medical investigation has been sprung, and it is from the arbitrariness of these laws that the rebuke of returning empiricism has been cast upon Louis and his school — although the Empirical plan be followed thus far that the proofs of reason be regarded as nought unless substantiated by experience — Yet mark the issue, The experimental tests are made with impartiality, the observation of these experiments is strict, and from one grand and numerous observations a rational Induction is made —

For example the administration of a neutral salt was known to prove beneficial in Enteric fever, this long existed as an Empiric fact, yet by extended observation in this disease and by the application of Medical Chemistry, the blood was found deficient in its salts; this was not only a physiological fact firmly established but its cause reasonably evolved. In my preceding remarks mention is made of that process now so prevalent, namely the necessity of repeated and numerous observations prior to the establishment of a result; Numerical methods and averages now in fact constitute medical development, and supply vacant speculations by statistical certainty and mathematical truthes

its tendency is the total destruction of all abstract inquiries, and its march is a secure branch of that path which leads to true medical philosophy. But gentlemen satisfactory ends can never be determined save that an onward straight and just impetus be given to the prosecution of physic: its nature is embraced by the operations of mind and matter conjointly — by matter in those hidden and intricate organizations whence spring vitality and its functions — by mind in its mysterious relations to this organization, its varying influence over its every action and relationship: Now we hold that it is by a just consideration of these functions and their phenomena in health



and disease, by seeing each individually and in their varied combinations, by a careful analyses of these phenomena by the action of our senses, by a strict estimate of their individual value and relation. - not only applied to the symptoms of disease but to its pathology, etiology and Therapeutics, - That these ends must be accomplished. Do we not all admit that this matter of medicine inquiry is too lightly weighed by members of the profession? if not account for the many vaunted remedies continually promulgated, remedies the result of their application merely being entitled to a repeated experiment, and the issue of

which test is a forgetfulness as sudden as their origin. "Look at that which in strict reason and experience is necessary to attest the action and value of a new remedy or method of treatment – The identity or exact relation of the cases in which it is employed – a right estimate of the habits, and temperament moral as well as physical of the subjects of experiment – due observation of the indirect or secondary as well as direct effects – and such observations applied not to one organ or function alone, but to the many which constitute the material of life". Yet is there not one other circumstance which in its bearing

has much retarded medical advancement = a desire ever to explain Hypothetically the nature of disease neglegent of its treatment: had the same mental strength exhausted in the Theory of contagious maladies, whether they be attributable to a disturbed equilibrium of atmospheric electricity, to the development of vital animalcular or vegetable spores, or again to the fermentation of the fluids, been bestowed upon their treatment or prevention the issue might have been a mitigation as in variolid, a complete or partial exemption as granted by the industry of Jenner and the result of his assiduity; Had the moments

passed in vain discussions as to the Theoretical character of Inflammation, its dependence on the debility or morbid effort of the capillaries, been yielded to its treatment the antiphlogistic regimen might now exist more sure than its present reality — A fact of untried relationship must not be accepted, a phenomenon of single existence should not be too credulously entertained, or its mental association be grounded as a principle. Thus gentlemen have I glanced at the state of the medical mind at different periods The fascinating glare of Rational Physic and the morbid struggle of Empiricism, we have hastily traced the.

aspects of each upon the true advancement of our profession and have attempted to prove that a just appreciation of each an impartial association of the two constitute the scientific mode of medical inquiry - we have exemplified this union, and wished to lay down the principles of their development. Specific disease I have waived deeming it equally important that the student by his thesis evince an estimate of the principles you have inculcated, the truths you have advanced, and the example you have placed before him. From you we desire the fundamental elements

of medical knowledge, the im=
petus of future usefulness, and
from you we have gained
that instruction by which
our after studies must be
regulated -- I conclude
gentlemen feeling grati=
fied in my connexion with
this institution, wishing for
your individual happiness
and prosperity, and the suc=
ces of our Alma Mater

An Inaugural Dissertation
On Scrofula

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 J. W. Page of Maine.
Feb. 22. 1848.

To Joseph Roby M. D.
Professor of Anatomy & Physiology
in the University of Maryland,
The following Thesis is respectfully inscribed
as a Testimony of admiration for his Talents
and acquirements - and for the Skill with
which these abilities are brought to
bibrally to promote the Science of Medicine -

J. W. P.

Scrofula is a disease of the constitution characterised in its developement by an albuminous secretion.

It presents itself under many different forms, as particular circumstances in a condition favorable to its production determines its peculiar secretion to one organ or another.

It manifests itself by certain external signs, of which swelling of the subcutaneous lymphatic ganglia is the most conclusive.

Though sometimes hereditary, the general cause of this condition of the system is diseased nutrition, but it originates in various agencies, either acting separately or associated together.

The influence of curative agencies on this disease is essentially affected by the locality in which the deposit occurs.

A multitude of opinions have prevailed in regard to the nature of this

disease. Theories based upon an imperfect knowledge of the relation of organs, upon the assumption of organic changes which did not exist, or upon a fancied virus have from time to time been promulgated by the ablest men of our profession, and supported by ingenious argument to sustain the sect or school in which they originated. Many of these have given rise to corresponding modes of treatment, and have obtained a wide diffusion, but not one has stood the test of later scientific investigation - all have been proved destitute of any foundation upon well established facts. Until a comparatively recent period the malignity of the disease was supposed to be exhausted in the production of the glandular tumor and to it all remedial means were applied. But the progress of the knowledge of pathological anatomy - the more rigid investigations of the symptoms of the disease during life, and of the internal disorganizations after death, have demonstrated

the characteristic phenomena of Scrofula displayed so generally among the different organs of the body as to indicate beyond doubt a tainted constitution. This morbid state of the system denominated the Scrofulous diathesis is characterised by a peculiar deposition, displaying itself in different forms according to the seat of the deposit; but every where identical in character. "In the human subject" says a writer of extensive observation "it appears to me that crude tubercular matter, from whatever organ obtained, differs as little in its microscopic as in its general and chemical characters. When examined by the aid of the microscope, crude tubercular matter can scarcely be said to present any regular structure, as it is merely made up of minutely granular matter, oily spherules, some shapeless albuminous flakes, or shreds, and a few irregular corpuscles" while all who have submitted it to minute chemical analysis, have found it mainly composed of albumen, fat or oil globules, and certain alkaline

salts. The scrofulous diathesis is also characterised by the peculiarity of the inflammation which it produces - which generally assumes a chronic form - is attended with little heat or pain, and after suppuration leave abscesses which heal very slowly. This is distinguished by the name of scrofulous inflammation, and the purulent discharge occasioned by it is frequently mixed with broken down tubercle in the form of curdy matter. "What is the nature of this affection?" says a medical writer - "is a question which cannot be fully answered, in the present state of our knowledge. We know that, generally, the vital energies are enfeebled, and the blood impoverished or depraved. It is highly probable that the tendency to the tuberculous deposition is due directly to the condition of the blood. But the state of the blood must itself be dependent upon some deficiency or depravation of the functions by which it is elaborated, and we are thrown back upon some original vice in the organic constitution."

The opinion has long been prev

alent and is now entertained by many, that persons possessing the Scrofulous constitution present certain natural physical traits. Thus persons are said to be predisposed to it, who exhibit a delicate white skin, with a rosy blush spread over the cheeks & contrasting with the surrounding pallor; large humid blue eyes, with long eye lashes and a pearly sclerotica; a narrow flattened chest & high shoulders - tumidity of the alae nasi and of the upper lip - a want of firmness in the flesh, which is soft & flabby - a remarkable development of the head, and in childhood a precocious intellect - especially has the complexion & the color of the hair & eyes been regarded as an indication of Scrofulous predisposition. But recent observations made upon large communities of individuals and in every variety of circumstances & occupation, and statistics gathered from competent and attentive observers in almost every climate. Show "that there is the utmost possible variety in

the external characters of those who present undoubted scrofulous taint. When the taint is made evident by scrofulous deposits, we find in one case the hair and complexion are dark, in another light; in one the cheeks are rosy, in another pale; in one the alae nasi are expanded and the upper lip is tumid, in another both of those features present opposite characters. So that it becomes a matter of great difficulty to determine whether the presence or absence of those signs is most characteristic of a scrofulous constitution. Thus however favorable the constitution may be for the deposit of scrofulous matter, and however well marked may be one or more of those physical signs which are said to indicate the scrofulous diathesis, we have no certain sign of the existence of the disease until sufficient evidence can be obtained that the deposit has taken place, and this sign is most apparent to our means of observation in the consequent swelling of the subcutaneous lymphatic glands, which is generally

the first symptom that attracts attention. When however the scrofulous tendency is strong: the apparent symptoms of the disease are not confined always to the glands. The skin & celular tissue become morbidly affected. Indolent swellings abscesses and obstinate ulcers form in these tissues. The conjunctiva is subject to scrofulous inflammation, and the mucous membranes generally are more or less morbidly affected. The same condition of the system which indicates a predisposition to scrofulous affections of the external glands and tissues favours also a similar condition of the internal glands, and the deposition of tubrculous matter in the vital organs and their investing membranes. It is at present a subject of controversy among medical writers whether scrofula & tubrcle are to be considered as identical diseases. And many distinguished authorities are arrayed on either side. By some there is held to be several distinctive marks. That scrofula generally attacks the age before puberty, tubercles after. That scrofula is developed in the form of

swellings of single glands, attended with no colliquative secretions, and for a long time no change in the bulk of the body, while the contrary takes place in the Tubercle disease. That with Scrofula the character of torpidity, with tubercles the character of excitement of the circulating system prevails. That Scrofula appears chiefly in the glands of the lymphatic system, whereas tubercle appears in the substance of the organ, and there is less affection of the lymphatic glands. That Scrofula proves curable in all forms, Tubercles almost in none; Scrofula lasts a long time, Tubercles hasten quickly to an issue" – Now, whatever important differences these distinctive marks may indicate in the treatment, they need not necessarily indicate any difference in the nature of the disease. For by chemical analysis the tubercle in its elements is found to be identical with the Scrofulous deposit in the glands & elsewhere. That the disease should attack different organs at different periods of life, is only in accordance with the well established fact that the tendency

of disease at different periods of life is to different organs. That in the different organs the deposit should present different forms. the development of the disease be accompanied by different symptoms and the prognosis & treatment be widely different is to be ascribed to the structure of the tissue, and the importance of the organ affected. The distinctions result from the seat and not from the nature of the disease. The parts most frequently affected are, according to Louis, first, the lungs; then the lymphatic glands, the pleurae, the intestines, the spleen, the liver, the peritoneum, the brain & membranes, and lastly the pericardium, stomach, kidneys, pancreas &c — Thus this peculiar secretion may be deposited in almost any portion of the body & often in many parts at the same time, giving rise to morbid affections, which have received different names according to their seat & character. In the lungs they produce phthisis; in the pleurae, chronic pleuritis; in the peritoneum, chronic peritonitis & abdominal dropsy; in the mesenteric

glands, tabes mesenterica; in the arachnoid, hydrocephalus; in the lymphatic glands, external scrofula; and in the bones, white swellings, caries, necrosis &c.

Children often exhibit the characteristic marks of Scrofula at so early an age as to lead to the inference that their damaged health was derived from the parents. Whether the disease is directly communicated from the parent to the child seems doubtful for it is rare that a child presents any marks of Scrofula at birth though the disease is often rapidly developed soon after indicating certainly a scrofulous cacheyia, or a constitution favorable to the development of the disease. Such children are generally feeble the offspring of feeble or diseased parents circumstances which seem to favor the development of Scrofula, but which are far from invariably producing it. Nor is it evident what kind of disease or feblenesss in the parent tends most to induce the development of Scrofula in the child. Besides this hereditary influence,

many other causes favour the development of the disease, almost all of which are of a character tending to depress the powers of the system, and to impoverish the blood. Very many of the alleged causes of Scrofula have been found by recent investigations to have much less efficiency in the production of the disease than had for a long time been ascribed to them. and of those which do possess an influence, it is difficult, not to say impossible, to estimate the force of any one, as others are almost sure to be intimately associated with it. Recent & extensive statistical information shows, contrary to long prevailing opinion, that the development of Scrofula is not so influenced by climate or temperature, as to bear any definite relation to the warmth or coldness of the country in which the disease is found, that the deaths from Scrofulous diseases bear no definite relation to the closeness with which the population is crowded together, that particular occupations & social conditions exercise

a greater influence on health & the duration of life than is produced by impure air, but do not operate in the production of Scrofula as a specific agent, or a direct cause. These indirect causes however do act in connection with diseased nutrition, which is the general cause of that condition of the system which we term Scrofulous. Diseased nutrition in a vast majority is produced at an early period by insufficient food, or improper feeding. It is supposed that the most influential cause of Scrofula in our large cities, is the use of the milk of cows fed on distillery slops, and confined in close stables. Under these circumstances nearly all the animals become tuberculous, and the milk undergoes important changes in its composition so as to contain so little of the nutrient properties, as to be incapable of making butter or cheese. It is such milk that forms a considerable portion of the food of a majority of the children of our cities. Diseased nutrition may arise too from

an impaired digestion, dependant on a feeble Constitution - or some of those indirect agencies may be sufficiently active or by being associated together may so impair the functions of digestion as to lay the foundation of Scrofula, even though the food may be judicious in kind and abundant - so that the disease may as frequently be found in the pampered child of luxury as in the cottage of the peasant.

There cannot be a doubt that if proper preventive precautions were taken Scrofula would be less frequent & less formidable than it is - To insure a healthy constitution, there should be a sufficiency of appropriate nourishment - and that this may be properly assimilated pure air should be freely supplied to the lungs and active exercise taken to such an extent as to insure a vigorous circulation. In other words, those measures which are the essentials of good health, are the great preventives of this protiform disease. The curative treatment of Scrofula has always been involved in great doubt & obscurity.

Influenced by the doctrine "that all disease is finally to be brought under the control of art;- that there is no malady to which the human body is liable, for which a prevention or a cure does not lie somewhere concealed in the unexplored recesses of nature" - there has been from the earliest ages a search for specifics for scrofula. The claims of a legion of agents have been advanced. Some of them coupled with the superstitions of the times have held the human mind in strong subjection. But to the present day none has been discovered upon which we can rely for the cure of the disease - none which are proved to have any specific action. Of all the remedies offered, none perhaps have been more fairly tested, or employed with results so satisfactory as Iodine - a principle obtained from the common seaweeds so abundant on the sea coast and which have been for ages synonymous with every thing most useless - "bilis algâ" was with the ancients an expression of utter worthlessness. This agent - though not an absolute cure of the disease - has in its

various combinations by its alterative action upon the economy such a control over various forms of the disease, as to prove its discovery one of the greatest triumphs of modern art over disease. Though Scrofula in some of its forms has been thus subjected to the dominion of medicine in others it is entirely beyond its control. "It is a disease" says Boz, "in which death & life are so strangely blended, that death takes the glow & hue of life, and life the gaunt & grisly form of death a disease which medicine never cured, wealth warded off, or poverty could boast exemption from - which sometimes moves in giant strides, and sometimes at a tardy, sluggish pace, but slow or quick, is ever sure and certain."

An
Inaugural Dissertation
on
Scarlatina
Submitted to the Examination
of the
Provost Regents and Faculty of Physic
of the
University of Maryland
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Degree of Doctor of Medicine
by
Henry Austin
of England
Feby 8th 1848

Scarlatina or scarlet fever is a contagious febrile disease, characterised by inflammation of the fauces, and attended generally during some period of its course, by an eruption of a bright scarlet colour, resembling that of rubeola, with this distinguishing characteristic, that in scarlet fever, the rash is lighter, and has been compared to a boiled lobster, while in measles, it resembles more the tint of the raspberry. This eruption may also be known from that of the latter disease, by its being more diffused, and feeling smooth to the fingers, and from its appearing on the second day, and sometimes at the very commencement of the fever, while that of rubeola does not appear till the fourth, and frequently-

as late as eighth or tenth day. Scarlatina was, 8
for a long time, confounded with measles, and
from the description of its phenomena, by
the older authors, the two would seem to
have been considered by them, as a variety
of one and the same disease.
Ingrassias has the credit of being the
first, who alluded to it as a distinct af-
-fection; in a work published in the year
1556. It was afterwards noticed by Coytar
in France, and by Morton in England;
but Dr Withering has the honor, among British
physicians, of being the first, who fully and
distinctly pointed out the differences between
the two diseases.
Most authors make three varieties of scar
let fever; first scarlatina simplex; in which
variety, we have the rash, with little or no
sore throat: secondly, scarlatina anginosa;
in which, both the skin and throat are
decidedly implicated: and scarlatina maligna;

which, as its name implies, is the most terrible of all its forms.

The symptoms of these three varieties are essentially the same, differing only in degree and intensity. The disease usually sets in with shivering, lassitude, and rigors with pains in the back and limbs; frequently, with severe headache; sometimes with delirium; and occasionally with nausea and vomiting. The fever comes on with a quick pulse, hot dry skin, flushed face, furred tongue, cosiderable thirst, and great muscular debility.

With the fever, we have inflammation of the fauces, which are often red and swollen. Sometimes this symptom comes on after the fever. Upon examination we find this redness diffused over the interior of the mouth. The tongue, though coated with a white or yellowish white fur, presents projecting papillae upon its surface, while its edges

and tips are red. The rash, as I have before stated, makes its appearance on the second day of the fever, earlier or later. It is generally seen first upon the neck, face, and breasts, and then gradually spreads over the trunk and extremities.

The colour is said to be deeper about the groins and flexures of the joints.

Its time of diffusion occupies about twenty four hours. Sometimes the eruption appears in minute red points, which rapidly coalesce into broad red patches, and, in the course of a few hours, form a scarlet blush all over the surface of the body. But great diversity exists, in the amount and extent of the eruption.

Sometimes, we have very little, presenting only a few scattered points, here and there, but more frequently, we have it well diffused over every part of the surface.

The colour disappears under pressure, and

returns, when the pressure is removed. Whatever increases the general excitement tends to deepen it; hence the colour is most intense during the exacerbation of the fever, and is increased, whenever the patient cries, or is otherwise agitated. This reddened surface is not generally elevated, but sometimes, it has a rough feel, owing to the enlargement of the papillae.

We, not unfrequently, observe, upon the neck, in the axilla and bend of the elbow, a crop of small miliary vesicles, which make their appearance, at different stages of the complaint. Minute pimples and pustules sometimes mingle with the eruption, during its decline. The cutaneous affection is attended with a sense of burning or itching or other irritation, which is very distressing to the patient, and often interrupts his sleep. The fever is more intense towards evening, occasionally attended with delirium, and

comatose symptoms. The bowels are generally constipated, but in the more advanced stage, we have diarrhoea, and sometimes, irritability of the stomach. The disease attains its height, from the fifth to the ninth day, when, in favorable cases, all the symptoms begin to decline, the heat of the skin diminishes, the pulse becomes fuller, the tongue throws off its fur, yet remains red and glossy.

About this time, desquamation of the cuticle begins to take place. It falls off in scurf or scales, from the face and body, and in large flakes, from the extremities. Sometimes a glove or slipper of cuticle comes away at once.

Scarlatina Simplex is the mildest form of this disease, and, as Sydenham has said, seldom proves fatal, except, through the officiousness of the Doctor.

The fever, in this variety, manifests itself,

about the third, or fourth day, after exposure to the contagion. The rash makes its appearance, on the second day after the fever sets in. Sometimes, this rash is very limited in extent, being confined to the face and neck, amounting to nothing more, than a scarlet blush, which is accompanied by a slight febrile movement.

An entire exemption from inflammation of the fauces is very rare. With proper management, no danger is to be apprehended, from this variety of the disease, unless from some ~~[illegible]~~ intercurrent inflammation, or unpleasant sequela.

Scarlatina Anginosa. This form of the complaint comes on, with soreness of the throat, which is one of its most prominent symptoms. Stiffness of the jaws, difficulty of deglutition, are often complained of, at the commencement of the attack.

The eruption is generally later, in its appear-

-ance, than in the simple form, which shows itself, on the third day, instead of the second, and as a general rule, is not so copious or diffused, being confined to the hands or arms, at other times, to the trunk, where it is seen in small patches.

Still, in many cases, it is as intense and diffused, as in the simplex variety.

The fever is usually more severe, and the pulse more frequent, than in the form, we have already considered. There is also a greater tendency to delirium or stupor.

The inflammation advances with the march of the disease. The eyes are often red and irritated, though not suffused, as in measles.

The tonsils and velum palati are red and swollen; hemorrhage also, from the nostrils, sometimes occurs, and patches of concrete exudation, resembling false membrane, are generally seen upon the tonsils, at an early period of this affection. These patches are of a white,

yellowish colour, and are often very exten-
-sive, covering the whole surface of the
fauces and running down into pharynx,
as far as can be seen.
These exudations are generally very soft,
so that they may be scraped off, with a
paper knife, or spoon handle. They were,
formerly, thought to be the gangrenous portions
of the mucous membrane, but when removed,
they leave the surface, for the most part, merely
reddened, without any organic change.
Sometimes, they really do cover ulcerated
surfaces, and may even be gangrenous. At times,
they extend down into the larynx, giving rise
to pseudomembranous croup, but this is a very
unfrequent occurrence. This condition, of the
throat, gives a very offensive odour, to the
breath. As there is, almost always, a swelling
in the region of the parotid and submaxil-
-lary glands, it has been thought by some, that the
parotid
is the seat of inflammation. This may sometimes

be the case, but more frequently the cellular tissue, or the lymphatic glands (these being external) become hard and painful, so much so, that the patient is prevented from opening his mouth. Deglutition becomes both difficult and painful, so that liquids taken into the mouth, will be returned through the nostrils. There is too, at times, swelling which becomes so great as to impede respiration.

The nasal passages are often closed, by the swelling of the mucous membrane.

This adds to the suffering of the patient, by compelling him to breathe through his mouth exclusively, producing dryness of the tongue and lips. At a more advanced stage, a yellow and very offensive discharge takes place from the nostrils. This discharge is often very acid, and excoriates the orifices and upper lip. A similar secretion is also swallowed, and probably gives rise to gastric irritation and diarrhoea, which frequently occur, towards the close

of the disease. The alvine discharges are so acrid, as to excoriate the anus, recovery being very much retarded, by the suppuration, which follows, and adds much to the danger of the complaint. The fading of the rash begins a little later, than in the simple form. The fever and sorethroat continue sometime after desquamation commences; the incrustations, upon the fauces, either separate spontaneously, or are gradually absorbed. Sometimes this anginose form of scarlatina takes on the typhoid character, which event, the physician will regard, with the greatest solicitude, being fraught with the most foreboding consequences, yet recovery does sometimes take place, even under these discouraging circumstances, but it is after a long and tedious struggle in the repair and resistance of organic mischief. However, in the majority of cases, the patient does well.

Scarlatina Maligna. This is the most formidable

of all the varieties of the disease, now under consideration. Sometimes, the fever sets in, with extreme violence. Typhoid symptoms rapidly come on, and the patient sinks at once, under the virulence of the poison. Death takes place in children, about the third day.

The symptoms, in this type of scarlet fever, are the same as those, of the two varieties already discussed, but are of a more intense and alarming character, the pulse being quick and irregular, the tongue dry and red, the eyes look muddy.

There is a very acrid and fœtid discharge, from nose, and a tendency to hemorrhage, from the nose, bowels, and kidneys. Sometimes, we have no eruptions at all, if any, it is faint and partial, and soon fades away. Still we have some desquamation, about the seventh day, the condition of the patient being of the most alarming character, and

full of pus. As the disease proceeds, the rash may continue unchanged, the throat becomes foul and slough, the maxillary glands sometimes swell enormously, and the fever is considerably increased. This swelling causes constriction of the fauces, and stiffness of the neck.
A tendency to coma is produced, by its pressure upon the Jugular veins, preventing the return of venous blood, from the head. Thus it appears, the system is re-inoculated with the poison.
The mucous membranes suffer in every direction; we not only have those of the nose, mouth, and fauces, taking on inflammation, but, those also of the stomach, and intestines, giving rise to a very foul, smarting diarrhoea. In some cases, where the disease is less violent, or the powers of the system are greater, the symptoms are those, of the anginose variety. The signs, by which the violence of

the disease may be suspected; are pains in the loins and extremities, a greater tendency to delirium, or stupor, a weaker, but not slower, pulse, and a later appearance of the eruption, which is delayed till the fourth day.
As the disease advances, the symptoms assume a more decided typhoid form, the pulse becomes weaker, the skin is irregularly heated, the rash either disappears, or changes to a purple colour.
Sometimes ecchymosis and petechiae are seen; the throat is of a dark red or mahogany colour, the teeth and lips are covered with sordes, and there is considerable destruction of the soft parts.
Gangrene and deep ulcerations often form about the throat, palate and tonsils, and an exhausting diarrhoea sets in, bed sores form about hips and sacrum, at length collapse takes place, with a fluttering pulse, cold clammy skin and involuntary stools,

and death closes the scene, about the end of the second day.

The sequelae of scarlet fever are perhaps as distressing, as those of most contagious diseases; in fact there are few maladies, to which, human nature is liable, that leave, behind them, a longer train of evils.

Among the most common, are very troublesome abscesses, which form about the parotid and submaxillary glands.

Sometimes the discharge of pus, from these sources, is of such an exhausting character, that the patient, after having struggled through an attack of scarlet fever, dies of hectic. Under the most favorable circumstances, the constitution is a long time recovering its wonted tone.

Occasionally, an abscess opens in the ear, and causes a long, continued and obstinate discharge. He also may have necrosis of the bones of the ear. In some cases, the Eustachian

tube becomes closed, either by the inflammatory thickening of its coats, or by union after ulceration. Dr Watson tells us, that he has known pain and swelling, of the larger joints, to supervene on the disappearance of the eruption, simulating, very closely those of subacute Rheumatism, with this distinguishing characteristic, that they were eased and benefited by friction, and that the heart was in no way implicated. But the most common sequela, of scarlet fever, is anasarca, serous infiltration into the submucus areolar tissue, attended often with dropsy of the larger serous cavities.

This is the most serious, of all evils resulting from this disease. It appears to follow the milder, rather than, the severe cases, which may be owing to bad management, by exposing the patient to cold, too soon after desquamation commences, or

before he has entirely recovered. This sequela is generally, in the form of anasarca, but occasionally in that of ascites, hydrothorax, hydropericardium, and even hydrocephalus. This affection generally yields to treatment, unless the heart, or brain, is involved. Usually, the urine presents the appearance of ale, and contains albumen, and is said to be associated with that condition of the kidneys, which has been observed, in the early stages of Bright disease.

As to the pathology of Scarlatina, I shall say but very little, as our knowledge, of this part of the subject, is of a very limited extent. So far however as anatomical research has gone, we find congestion of the capillaries of the skin, ulceration of the tongue, tonsils and fauces. Sometimes the rash entirely disappears after death, leaving no lesion of any kind discoverable, which throws any light upon the disease, or explains its results. —

The prognosis, of this complaint, is very uncertain. The mildest cases, apparently, often assume the most malignant type, and the patient appearing free from danger and no unpleasant symptoms present, within themselves, he suddenly dies from cerebral derangement, while some cases, of the most unpromising and malignant kind, get well.

Still, after the patient has convalesced, under the most favorable circumstances, there is great cause for apprehension of the serious, secondary results. There is, in some people, a certain predisposition to the most violent forms of scarlet fever, and even in some members of the same family, we find this aptitude to take on the worst form of the disease, while others will have the mildest attacks.

Parturient women are liable to this affection, and in most cases it proves fatal.

We should, however, be guided in our prognosis by the character of the prevailing epidemic.

If the symptoms are mild, we may, with some degree of confidence, predict a favourable termination. When, however, the eruption is late in coming out, or is very scanty, or suddenly retroceedes, in connection with other unpleasent symptoms, profound coma, ecchymosis, or hemorrhagge, a livid, or purple colour of the rash, great prostration, indicated by a very feeble pulse, cold skin and involentary discharges, we should be very guarded in giving our prognosis.

With respect to the treatment of scarlatina, no definite rule of practice can be laid down. This, like many other idiopathic fevers, seems to have a course of its own to run, and that course, it will run, in spite of all, medical science can do.

Nothing appears to cut short the disease, yet we can do something for the patient, which may add considerably to his comfort.

We should be constantly on the alert for the

symptoms, and treat them, as they develope themselves. In the early stage of the complaint, an emetic, followed by a purgative, seems to be a favorite mode of treatment, pursued by many eminent practitioners. Dr B Rush, in an article on Scarlatina, published in the year 1789, tells us, that in every case that he was called to, he began the treatment, by giving a vomit joined with calomel. This vomit was either tarter emetic or ipecacuhana, according to the prejudices, habits, or constitution of his patients, and so highly was, this method of treatment, estimed at that time, that it was adopted by most of the physicians in New York, New Jersey and Delaware, with the happiest results. The same authority adds, that in no case, where the vomit mixed with calomel was given, did it fail of completely checking the disorder, or of so far mitigating its violence, as to dispose it to a favorable issue, in a few days. Bleeding is not adviseable, except in the most

inflammatory type, and even then should be resorted to with great caution.

Cups, or leeches, applied to the throat, rather than the temples, will afford great relief to the head, as well as the fauces and tonsils, which are generally swollen.

We may also do much for the throat and mouth, by the use of gargles, such as the following, chloride of soda in solution, dilute muriatic acid, given in flaxseed tea, or gum water, nitrate of silver, from ten to thirty grains to the ounce of water, or a solution of the sulphate of zinc, or copper, which may be applied by means of a camels hair pencil, or a mop of cotton. The muriated tincture of iron is also a valuable astringent, and highly useful in this affection, as a gargle.

The offensive odour of the breath, may be corrected, by the use of chloride of lime, or dilute pyroligneous acid or creasote.

The bowels also demand attention, and should

by no means suffered to remain costive. In the milder forms of scarlet fever, all that is necessary to do, is to keep the bowels open by mild laxatives; the patient may take saline draughts, which are grateful and cooling; the citrate of ammonia thus administered is highly recommended.

Dr Watson speaks very highly of the chloride of potassa, in the proportion of a drachm to a pint of water, the whole to be taken during the day. Whenever debility comes on, we must endeavour to sustain the strength of the constitution, by the administration of tonics, such a quinine, infusion of Peruvian or red oak bark, spirits mindererus, compound-vitious powder. In the accidental diarrhoea, castor oil, combined with opium, will be found very useful.

When the patient is recovering, he should be watched, till the period has gone by, when the dropsical symptoms are likely to appear. He should be well protected from all exposure

to cold, wet and fatigue. It is generally, by neglect or imprudence, that these symptoms are brought on.

When dropsy does occur, it may be treated with purgatives, or diuretics, and the warm bath. But should there be any indication of inflammatory disease within, we must adopt the most active measures. We have not to contend with the original poison, but with acute inflammation, with the sudden effusion of fluid, the mere presence or pressure of which, upon vital organs may prove fatal, we must try to arrest the inflamation by purgatives, and the use of mercury. Belladonna is believed, by many, to exert a protecting influence, against the contagion of scarlet fever.

But this is a disputed question, some physicians speak of it in the highest terms of praise, while others have no confidence in its prophylactic virtue.

An
Inaugural Dissertation
On The
Remedial Powers
Of
Quinine
Submitted to the examination
Of The
Provosts, Regents, and Faculty of Physic
Of The
University of Maryland
For the degree
Of
Doctor of Medicine
By
Benjamin Berry

In the catalogue of medicines to none has nature assigned greater virtues than to the substance in consideration, in every quarter of the Civilized World, its benign influence has been felt and acknowledged; hundreds and thousands of lives which would have been sacrificed to the poisonous exhalations by which we are encompassed, have by its kindly influence been preserved. All previous medicines registered in the annals of medical lore, for the extirpation of this aeriform morbific poison from the system, sink into insignificance in comparison to the great boon conferred upon humanity in the discovery of this magical substance. The country in which we live. The great South and West, teeming with enlightened inhabitance, animated with manufactures, enriched by commerce, and smiling in agricultural beauty, owes much of its prosperity to this simple powder. How earnest then,

should be the call for each labourer in the field of medicine to cooperate in efforts to elucidate the subtle principles which regulate the perfect action of this medicine and to reveal to the world its intrinsic excellence and value. And although the subject presents a wide field for speculation, still we are compelled to eschew as far as practicable theory and rest satisfied with such facts as come well authenticated or such suppositions as at least carry a degree of probability with them. And here may I venture a few suggestions in explanation of its modus operandi; may it not act by immediately decomposing or neutralizing the malaria or whatever we may consider or term the poison which generates fevers; thus the antidotal effects of ammonia to the poison of serpents and spiders may be considered as illustrative of its action. That Quinine cures fevers, by repairing the losses occasioned to the nervous

System by the poisonous causes of fevers, I think much less probable, since the action of quinine is too rapid to admit of its assimilation with the vital organism. It has been observed that it is a medicine whose action is sui-generis, altering or modifying the vital organism in such a peculiar manner as tends to restore health. That it exercises some inscrutable, mysterious influence on the system, of which we only know the result, defies contradiction

With these preliminary remarks, I shall proceed, not without some diffidence, to notice more particularly, the uses of the sulphate of quinine as a remedial agent. I shall speak of it as a tonic, anti-periodic, and Sedative, as we can present all that is desirable on the subject, most advantageously, under this arrangement.

On the tonic power of the sulphate, it is not needful to be at all prolix. We give it, in convalescence, as a remedy for pure debility, from any and every cause. We say it is tonic, because it obviously augments the general tone and vigor of the system. It displays this feature very frequently, in the stomach, before we perceive any decided constitutional manifestations. The appetite is revived, the degestive powers excited into more healthy action, and the work of assimilation is more complete and natural. It might be affirmed, that the remedy in these developements is truly an alterant, because it is gradually effecting most happy changes. We are aware, that every tonic is necessarily an alterant, and the persistent use is essential to the desired result. Hence we give the sulphate, as a tonic not for a few days but for weeks, in small doses at first and then gradually augmented. Ordinarily, we prescribe from half a grain (to a grain) per day, or oftener

according to circumstances; and slowly increasing, we give it, at length in doses of two or three grains. This course of procedure is safe and successful, in ordinary cases

As an antiperiodic we hold the sulphate in much higher estimation. But in the first place, we may be asked what we mean by antiperiodics, and I must beg leave to reply by reference to palpable facts. Ague and fever is held to be a periodical desease, or desease of periodicity; this no one doubts, an individual has a chill succeeded by a hot fever, which conduces to bring on a sweating stage, and in this way the natural secretions may be restored at least for a time. the individual now experiences a complete intermission, untill the third day, brings again with it a recurrence of the preceeding phenomina. And so the chain continues for months, unless

you strike out a link or two by remedial agency, the patient takes the sulphate and a link is striken out, a thousand do the same all with a like results, the facts prove that periodicity was the grand basis of the morbid action some how or other, and they equally prove that the sulphate of quinine, being its proper antidote, has broken the morbid associations, by its action through the stomack on the nervous system. From these facts may we not proclaim that the true mode of meeting all fevers that are stamped with periodicity whether more or less palpable is by remedies that so affect the organism, as to meet precisely this state of things, and to these remedies are wisely given the title of anti-periodics.

Experience and observation of the many eminent Physicians of our country, have ~~long~~ since convinced them, that; the fevers of the United States, are essentially periodical, and if you would treat them success

=fully the doctrine of periodicity must never be forgotten; no not for an hour. In short I feel no hesitation in affirming that periodicity can be detected in a very large majority of those fevers not characterized by obvious organic lesions, and that it, is, the most tangible basis for suc=cessful remedial efforts.

We are told that, the anti-periodic power of the sulphate is variously developed. Where the morbific agency is comparative=ly feeble, and the deseased associations not bound as by an iron band, small doses general=ly answer all desirable ends. But where the opposite state is present, the success of the medicine will depend very much on the size of the dose, and the quantity introduced into the system, in a given time. By this I wish to imply the endermic use as well as that by the mouth and rectum

I beg leave just here to introduce the following case furnished by Doct, Mitchell

of Madison; Ind, which I think is in point, it occurred in his practice in the summer of 1845

" Mr. S— aged 35 returned from the South to Madison, and was attacked a week after with a slight chilly sensation, succeeded in a few minutes by an intense and long continued chill, little subsequent fever, and no perspiration. I did not arrive while the patient was in the paroxysm, but learned from those present, that throughout the whole of it there was scarcely any pulsation at the wrist, The countenance was cadaverous, tremors constant, a total lack of motive power, and the entire surface of an icy coldness.

"The aspect of the case was very much that of a dead or dying man. Calculating that it was a case of severe intermittent. I left twenty grains of the sulphate of quinine, to be taken in five grain doses, every hour. I was summoned on the next day, with the tidings that the paroxysm had recurred with great

severity; and finding the symptoms much more appalling, I became alarmed for his safety. I determined to remain all night, as the paroxysm began about ten P.M and fearing another would prove fatal, it was my fixed purpose to put the sulphate to the test, at 5 in the evening, I began with thirty grain doses, and repeated them every half hour, as the untoward effect was manifest, these were continued until 9 P.M; and now, having administered 240 grains. I thought if the patient was not safe from another fit, medicine could not save him. I discontinued the sulphate, and watched the case till the dreaded hour passed by, there was no recurrence of the paroxysm, and I retired to rest. On the next day, the sulphate was renewed in small doses, and continued for three days, with the effect of complete restoration to health."

The writer continues; This case is a good illustration of some points made and forcibly expressed by

the late Dr. Johnson in his excellent work on the diseases of tropical climates. The patient from residence in the South, had acquired a fixed predisposition to fever. The elements thus far, were incorporated with his being, and all that was needful to display morbid phenomena, was a sufficient exciting cause that was realized in a change of residence to a region decidedly more salubrious. Had the man remained in the South it is more than probable he would have escaped the severe attack which nearly destroyed him. The case teaches moreover, that when ever the evidence of the paroxysm is above the ordinary grade of intermittents. We can scarcely give too much of the sulphate during the intermission.

We may also cite the case reported by Dr. Cobbin, of Virginia, in Dunglison's Medical Intelligencer, of August 1841. It has a very direct application—

The patient had an ague of eighteen months standing, that had resisted various remedi=al efforts. Dr. C. applied a blister to each extremity, and one over the epigastrium, an hour before the expected paroxysm. To the denuded surfaces, an ointment was applied, made by rubbing five drachms of the sulph=ate of quinine with four ounces of simp=le cerate. The whole of this was spread on cloths, and laid on the blistered surfaces, eight hours after the blisters had been applied. These dressings were not disturbed until the parts had healed. The result was a per=fect cure, and that, too, without a single inconvenience.

Associated with the antiperiodic property of quinine, it possesses diapho=retic properties, which latter, no doubt, enhance its value as a febrifuge. It does not probably exert an immediate action on the cutaneous vessels, but possibly, in

overcoming the deseased action, establishes indirectly the secernent function. By combination with diaphoretic medicines, we may frequently improve this property of Quinine; where gastro-enteric symptoms do not forbid, I believe it is sometimes given in conjunction with the nitrate of pot ash, with the effect of increasing diaphoresis, and of lessening arterial action.

The question that next arises is, can Quinine be given with safety or advantage at any other stage of fever than during the apyrexia, Many Individuals at the head of whom is Dr. Dudley of Kentucky, censure the practice of using quinine at any other period than during the intermission of fever, I am convinced however, that it may be used with advantage frequently in the other stages, but that proper judgment and discriimination are required, to know when

it may be safely and judiciously given. In the hot stage of fever, when a very short intermission or remission is expected, or a violent exacerbation is anticipated at the succeeding paroxysm, Quinine I believe may and should be given. Preliminary measures should however be always taken, to obviate, any hurtful tendency that it might at the time exert. These precautionary steps are all such as reduce excitement and counteract local hyperæmia. In this too, we are seconded by those who give quinine in large doses, since they advise antiphlogistic measures, pursuant to the administration of the sedative doses of quinine. We must of course, deprecate its constant employment in fevers without regard to the period, , or other concomitant circumstances. In the cold stage. I have seen it given without, apparently any decided action

When it is given, in this case, to counter-act depression, ammonia, camphor, and warm drinks, are decidedly better. In short, I hesitate, not to say, that no state of the system whatever can present a reasonable objection to the use of the Sulphate, unless it be decided gastro-duodenitis, Nor am I willing to concede, that even inflammation of the stomach and bowels themselves, should present an insurmountable barrier to its administration.

In corroboration of the foregoing remarks, I beg leave to make a quotation from, the American Journal of the Medical Sciences, of a case furnished, by Dr. Holmes of Florida, it occurred in his practice in the summer of 1846.

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first day of inflammation, and congestion in the Stomach and intestines. So great was the inflammation, as lead one to doubt whether it did not take precedence of the desease peculiar to the climate, under which the patient was suffering; the evacuations from the bowels were frequent, the pain so great on pressure that the weight of the bed clothes could scarcely be borne; the throbbing of the abdominal aorta could be as distinctly counted at the umbilicus as over the course of the carotids; the consequent weakness peculiar to all such irritations of the small intestines was great; this irritation had held out against all active agents, for six days, with scarcely any abatement; but conjoined with this, was the desease under which the patient was said to be suffering; towards nightfall of every day, the extremities would become cold, while the heat of the abdomen was always above

its natural standard; the crown of the head, and lips, the fingers, the feet and limbs would be all cold and livid; this would be succeeded by a fever during the night, which at last attained its acme about ten o'clock on the ensuing morning; during the day, the patient would lay in an exausted state, until the evening again would bring about the same alarm=ing cold stage, from some access of which so great was the prostration, that it might reasonably be feared a rally could not be made, The physician who had from the first at=tended the patient, a gentlemen of skill in his profession, but impressed with the idea of the irritating power of quinine, had directed his whole efforts towards the irritation of the intestines, letting the fever run its course unchecked, lest the irrita=ting power of the agent in dispute would ~~to~~ aggravate every symptom, being called in consultation; I took the liberty of asking the

Physician in attendance, on the seventh day, how long he thought the patient could exist, with the fever at such a height as it had now attained, His answer was, not for forty eight hours; and how soon would the simple irritation of the intestines terminate in death, if as uncontrollable as it had heretofore been, "Probably in three or four days" Why not then run this risk of inflammation, check the fever instantly by a large dose of quinine, and have but one desease to contend with, with great hesitation, forty grains of quinine were allowed to be given in two doses in twenty four hours, the next paroxysm of the fever was trifling, and on the ensuing day banished, every effort was now directed to the inflammation, which proved severe and obstinate, but from which, in the course of six weeks the patient recovered. With this we conclude with the ante-periodic powers of the

sulphate; and now, let me say, if we never know what is the essence of periodicity, we know what is far more important, viz., the practical fact, that sulphate of quinine is the grand anti-periodic with which no other agent can be compared, but to be consigned to insignificance.

As a Sedative

I am not aware of any fact, that would positively sustain the sedative action of this remedy. Some intelligent practitioners think it acts thus, even when given in large doses in the stage of high febrile excitement, they suppose it abates the excitement, and thus controls the morbid action. Others regard it as a sedative, when it succeeds in allaying high irritability of the stomach, as seen in ordinary remittents, and in the more malignant form, known as yellow fever. That it has acted most happily in such circumstances, there can be no doubt, and it would

seem to operate then, either as a counter-irritant, or contra-stimulant, or sedative. Nausea and vomiting have been arrested by it, as occurring in most ordinary remittents, and even the black vomit of yellow fever has yielded to its potent sway.

Some of the German and Spanish physicians at Havana give the sulphate of quinine at a very early period of yellow fever, as soon, in short as they observe any thing like a remission, and they speak favorably of its operation when thus exhibited. In these cases the sulphate of quinine was freely given and with a success so marked, that we should feel justifiable in resorting to it as an invaluable and essential adjunct. Nor is it at all difficult to reconcile the declarations of those who believe in the power of the sulphate to allay this gastric irritability of yellow fever, with the statements of others who land the value of the remedy, when given in

the earliest remission perceptible in that dread ful malady. We have only to suppose, that the sedative and anti-periodic powers coo perate, to bring about the happy results.

A few remarks on the admi nistration of the Sulphate and I shall dis miss the whole subject

We are told, that the best period, to administer the quinine is, imm ediately succeeding the decline or abatement of the paroxysm, and at intervals during the intermission or remission. Bearing in mind however that the force of the medicine when properly given in very large doses, is spent in the morbid action to be subdued, in the absence of which the same dose would most probably be injurious. Now we know it is not uncommon for the chill or fever to return at the first accustomed period after the exhibition of the quinine, but it more rarely happens that a second

accession occurs; showing that the medicine required a greater length of time to affect the system; and hence this is proof that the administration of the medicine immediately after the subsidance of the fever is the best period for its use. How frequently do we see buzzing in ears, & dizziness & take place after giving the quinine without arresting the chill. Now if these are the specific effects of quinine, why is not the paroxysm prevented? It is stated by Physicians of eminance, that the full effects of quinine are not manifested until about eighteen hours after its administration; This is probably correct. We know that in treating quotidian fevers if we give quinine on the day the paroxysm occurs, the quotidian will come on the succeeding day at the same time, despite the quinine; Both the chill and

fever, will be of a lighter grade, but will be as distinctly marked, and will remain as long, But on the third day the patient will be entirely free from the desease, and will not experience during any part of the day the slightest symptom of it. In conclusion, I may add, in reference to intermittents and remittents, that "It is said that their prompt arrest, by the liberal use of quinine, is rarely if ever, followed by dropsy; an event often seen, when those diseases were treated with feeble doses of bark and snake root.—

An
Inaugural Dissertation
on
Rheumatism
Submitted for the Examination
of the
Provost, Regents, and Faculty of Physic
of the
University of Maryland
for the degree
of
Doctor of Medicine
By
Thomas Daugherty
of Maryland

Feby 1848.

The word Rheumatism is the offspring of the humoral school of pathology. Its lit-
-eral signification is "fluxion," and it is primitively derived from the word "ρεω", to flow; "ρευμα", a fluxion.

Rheumatism may be de-
-fined to be, a disease seat-
-ed in the muscular and fibrous systems, whose char-
-acteristic symtom is pain. It also shows a remarkable disposition to shift about from one place to another; and in the articular variety is accompanied by a high state of febrile reaction. This disease presents several varieties: thus we may have it occuring in the

simple muscular form, and lasting only a few hours or days; or we may have acute articular rheumatism lasting for weeks; and again, we may have the chronic variety, annoying the patient for years, or even for a life time.

Muscular rheumatism, then, which is the first variety of which we propose to speak, is characterised by pain in the muscle, which is sometimes dull, and sometimes very acute. Some patients descibe the pain as being of an aching character; others say it is lancinating.

This pain is sometimes so severe as to render all

motion utterly out of the ques-
-tion; it is diffused, and is
very much increased by
pressure. Now in hemalgia
when pressure is made, pain
is only developed in certain
points, whereas in the malady
before us, as we have just
seen, it is diffused over a
considerable space.
In this variety there is no
alteration of the skin over the
affected part; there is neither
redness, heat, nor swelling.
In the majority of cases of
muscular rheumatism there
is no accompanying fever,
and after death no anatom
-ical lesions are discovered.
We have no general disturbance
of the system, except, watch-

-fulness and wakefulness, occasion
-ed by the pain.
As this disease attacks muscles
in different parts of the body,
we will have different sym
-toms. When the muscles of the
chest are the seat of the af
-fection, respiration is inter
-fered with; the patient being
afraid to breath freely and
fully on account of the ex
-quisite pain produced in
the muscles. If the abdom
-inal muscles are affected the
patient breaths entirely with
his thoracic muscles.
Now this disease may last
a few hours, or it may exist
for months. It may exist alone,
as a distinct malady, or be con
-joined with articular rheumatism.

When it is complicated with articular rheumatism, we always have fever.

We have already intimated that any muscle may be the seat of this disease, but it has been observed, that, the muscles of the trunk, and those near the trunk, are much more liable to be attacked than those of the extremities.

This disease is common to old persons, but not often but with in children. It is more com-mon to men than to women, because, perhaps they are more exposed to the causes which produce it.

With regard to the causes produc-ing this disorder we may enumerate cold and moisture,

as the most common. Luxury and idleness, also may give rise to it, or it may arise spontaneously or from bodily fatigue. Treatment. When the pain is very acute our most efficient means is the local abstraction of blood by means of cups or leeches. This is the most certain remedy, often effecting an immediate and perfect cure. If the symptoms are not entirely relieved by its first employment, it will be very proper to repeat it. When the pain is not so acute, we may use revulsive means: apply stimulating liniments to the integuments covering the muscle. We may employ diaphoretic drinks; a decoction

of Eupatorium perfoliatum or common boneset will answer as well as any other. We may employ warm fomentations; cloth wrung out in warm wa-ter, which may be qualified with an anodyne, as the watery solution of opium. We may use as an alterative, Iodide of Potassium, or we may give Phosphate Ammonia. The bowels should be kept regular and if necessary rest should be enjoin-ed. These means together with the employment of the warm, the vapour, and the sulphur bath, will generally be found all sufficient to bring about a cure.

We have already remarked that this disease may affect

any muscle in the body: Now it may seize upon muscles in certain regions of the body, and give rise to symtoms which are characteristic of serious maladies, seated in the same regions: and then it becomes a disease of very great interest, and it is im-portant that our diagnosis should be correct in such cases.

Let us then before leaving this part of our subject examine some of the more important seats of the dis-ease.

In the first place we may have it seated in the tho-racic muscles: it is then called Pleurodynia. This

form is characterised by an acute pain, which has usually the seat and character of the pain of pleurisy. It is felt a little below the breast, and is increas-ed by pressure or the least mo-tion of the body. It is very much increased by breathing, and if cough be present it is almost intolerable. An effect of this state of the muscles is, that inspiration is less full on the affected side, and con-sequently the respiratory mur-mur is not quite so loud. When we take into consideration the entire absence of fever and the want of the physical signs, we will not be like-ly to confound pleurodynia with pleurisy. In pleurisy

fever is rarely absent; in pleuro-dynia seldom present.
In this form the great resort is to local depletion.
Another seat of this disease, though, perhaps, not so common as the form we have just been speaking of, is in the abdominal muscles, now when thus seated, the least motion inflicts upon the patient the most exquisite pain; he lies upon his back like a log, and looks very much like a person labouring under peritonitis. The bowels are apt to be constipated from the fact, that, the patient is afraid to make the movements necessary to evacuate them, so excruciating is

the pain occasioned by every motion. Constipation may lead us to suspect colica pictonum; but when we remember that the pain of colic is relieved by pressure, whereas in the disease before us it is very much increased, we will not be likely to make the mistake. Again peritonitis is accompanied by fever, and this will prevent us from mistaking it for abdominal rheumatism; which, latter is not attended by febrile reaction. Local depletion, warm fomentations, &c are the means to be depended on in this form. Another form of this variety of rheumatism is called Lumbago. The pain is seated in the muscles on one or both

sides of the spine, in the lum-bar region, and is very much aggravated by every motion of the body. The patient is stretched upon his back, and is incapable of any motion, the slightest change in posture, producing pain which is almost insupportable. Some-times the pain may be less acute and then the patient is able to walk, but his body is perfectly stiff, and he is unable to stoop or to turn un-less by a movement of the whole body. Now many febrile disorders, especially the exanthematous, are pre-ceeded by severe pains in the loins, but we must recol-lect, that they are accompan-

-ied by other symtoms which indicate their true nature, and are scarcely or not at all aggra-vated by motion. Affections of the kidneys and uterus have pe-culiar symtoms by which they may be distinguished. In affec-tions of the spinal cord, the lesion of sensibility and mo-bility in the lower extremities will prevent us from thinking we have a case of lumbago. Lumbago is somtimes very ob-stinate and is also apt to return As in the other cases we resort to cups, the use of which must be persevered in untill the symtoms are alleviated. We also employ nar-cotic liniments, keep the patient in bed, use mild purgatives, and order low diet. If the sym-

-toms persist after a fair trial of the abovee named means, we may apply blisters to the loins, and dress the blistered surface with muriate of morphia.

The occipito-frontalis muscle may be the seat of this disease, giving rise to severe headache. If we make pressure ~~on~~ the anterior and posterior bellies of the muscle we increase the pain; frowing also gives rise to intense pain. It is distinguished from painful syphilitic nodes, by the rough prominences these make upon the head; and from erysipelas by the doughy feel which it com-municates. It must also be treated by local bloodletting and the internal administration of alterative. The last muscle which I shall designate as the seat of rheumatism

is the sterno-mastoid, giving rise to that slight but vexatious affection commonly called <u>crick of the neck</u>. This is generally caused by exposure to a draught of cold air, or by awkward position; or it may be produced by an abrupt turn of the head. The head is drawn to the side affected, and any deviation from that position is accompanied by so much pain, that the patient carefully avoids all motions of the neck: keeping his head in a fixed and characteristic attitude. This is a trivial complaint and generally yeilds pretty promptly to frictions with the hand or with warm laudanum: If these means fail, as somtimes happens, a few leeches will give relief.

Rheumatism of the muscles of

the extremities is not so common, nor generally so severe as the varie-ties we have been considering. When it does occur it is most frequently in those which are near the trunk; as the Deltoid, and should be treated by stimulating and opiate liniments. Local bleeding is not advisable.

A more serious variety of Rheuma-tism, than the one we have had under consideration, is that, which is called <u>Acute Articular Rheumatism</u> or Inflammatory rheumatic fever. This variety is seated in the fibrous tissue, and is essentially an inflam-mation of that tissue; but the in-flammation is of a peculiar or specific kind. Doubtless other tissues also surrounding the joint may be involved; but then, it is through what is styled Contiguous

sympathy. The terminations of common inflammation are not found to be the same as those of inflammation of the fibrous tissues, and this is a point of some practical importance. The symtoms of this variety are redness, heat, pain, and swelling, with fever. Now this fever is of a high inflammatory kind: the pulse is full and bounding; the cheeks are flushed: there is headache; and copious drenching sweat of an acid smell. These perspirations are exceedingly distressing and weakening to the patient, but afford him no relief. The tongue is covered with a thick, white, dirtyish fur, and is red at its tip and edges: the bowels are consti-

-pated; the urine is scanty and high coloured and deposites a brick dust sediment on standing. The blood is cupped, and presents a buffy coat, which lasts throughout the disease, and cannot be removed by the lancet.

I should have remarked, that, the large joints are more frequently the seat of this disease; though the small ones are by no means exempt from it.

There is one peculiarity, which is perfectly characteristic of this disease, and which serves to distinguish it from all other inflammation; and that is, its remarkable tendency to change its position. Now this metastasis, as it is technically termed, generally takes place in the night: we may leave our

in the evening suffering with acute pain in a certain joint, attended by all the other signs of inflammation, and in the morning find that joint entirely well, and another in a different part of the body suffering. In this way all the joints of the body may be attacked successively. But, there is a large internal organ, for which this disease shows a decided partiality; and that is the heart. Now when the membranes of this organ are implicated the disease assumes a very serious aspect. We have here a vital organ, and when its motions are arrested, life ceases. This migration, therefore, should constantly be suspected and watched for; in order that it may be attacked by the proper remedies at the

start.

Of all the local symtoms, pain is the most constant; and next perhaps, is the swelling. This swell-ing differs in different cases; and indeed two varieties of acute rheumatism have been made out; to which, the names of fibrous or diffused, and synovial rheumatism have been given. In the first, the inflammation com-mences in the neighborhood of a large joint; at first there is not much redness or swelling, but after awhile the parts become puffy, owing perhaps to tingesence of the blood-vessels, and at lenght œdema occurs from effusion into the surrounding areolar tissue.

In the synovial variety the swelling comes on soon after the pain is felt, and is due in this

case to fluid poured out into the cavity of the joint. The form and character of the swelling indicate that the synovial mem-brane is distended; it protrudes through the spaces between the tendons and ligament, and upon applying our hands we detect fluctuation.

It is in the fibrous form, that we have such high fever, (and I should have observed, that, this fever may last after all the local sym-toms have disappeared.) and other constitutional disturbances: whereas in the synovial variety all the symtoms, are less intense, and there is not half so much danger of the heart being complicated. This variety, though perhaps, the safer to the patient, as far as

life is concerned, is nevertheless very tedious, and sometimes rather unmanageable, and may degenerate into structural disorganization.

Acute articular rheumatism may be transfered to any fibro-serous membrane. We may have it complicated with pleurisy- peritonitis- or acute meningitis; but the most common and serious complication is the membranes of the heart. We may also have pneumonia; not so much from metastasis as from the operation of the exciting cause of rheumatism, cold.

The duration of this disease varies. Under judicious treatment it may get well in ten days, but a more common duration is three weeks. It may last three months. It may occur at any period of life, but

is most common from puberty to the thirtieth or fourtieth year. When it occurs in children, we are almost sure to have the heart com-plicated. Men are more liable to it than women, for a reason we have already assigned. About one half of the cases are owing to an hereditary taint, but no one enjoys an immunity from its attacks.

Cold combined with moisture is its most common exciting cause. Fatigue also may operate as a cause to produce it. Persons who have suffered one attack are forever after liable to a recurrence of the disease. They seem to be peculiarly irritable and sensitive; the least atmospheric vicissitudes being felt by them, and changes of weather, predicted

with remarkable precision. This disease may occur in any climate, but is more commonly met with in our variable and temperate climate In cold and moist climates as England and Holland it is very common.

Treatment. We need no other proof, than the many plans, and exclusive treatments of Rheumatism, which have been recommended, and adopted and again fallen into disepute, to conbince us that there is no specific, no absolute treatment for this disease. Whatever plan of treatment we may see fit to adopt, the sooner we begin it, the greater will be our chances of success. The first means that will claim our attention is bloodletting. Now wether we employ this means or

not will depend altogether upon the condition of our patient. In robust and plethoric patients blood letting practiced early will be servicable. When the patient is weak and delicate we must be cautious how we employ the lancet. We cannot depend upon bloodletting alone to cure the disease: it can only be considered as a very useful adjuvant to other judicious treatment. It has been noticed that profuse bleeding favours metastasis to the heart. Local bloodletting is of very little value: we only cure the disease in one joint to have it appear in another. If the disease is confined to one joint we may then resort to local depletion with some hope of doing good. Respecting local means generally, I had as well observe

here as elsewhere, that they are not to be relied upon in this variety of the disease.

We have seen, that the joint is ex-quisitly tender and painful, so much so indeed as to deprive the patient of sleep; now to mitigate this pain, and to procure sleep, we employ anodynes: Opium or Dover's powder, and it is really surprizing to see what large doses are borne in such cases. Some rely upon opium as an exclu-sive means; but we only view it as we did bloodletting, as an auxiliary. In cases attended with much suffering, where the use of opium is indispen-sable, after judicious depletion with the lancet and with purgatives, the Calomel and opium practice may be adopted with the effect of affording present comfort, and

the prospect of future relief, as soon as slight ptyalism shall have been induced.

The plan of treating the disease by purgatives, is highly recommended by some. The plan proposed by Dr Chambers and highly extoled by Drs Hope and Latham, consists in giving purgative doses of Calomel for three successive nights, followed each morning by a strong dose of salts and senna; with this is combined the use of Colchicum and Dover's powder. The advantages which Dr Hope claims for this plan of treatment are; 1. That the patient is generally sound, well and fit for work in a week or ten days after the pains have ceased. 2. That the gums are rarely affected. 3. That it is rare to see inflammation of the heart if

this treatment is early begun. 4. That If the slightest symtoms of endo-or peri-carditis do supevene, a few doses of calomel and opium, given every four or six hours, will generally effect the constitution in twenty or thirty hours, which, with two or three cupp-pings or leechings on the region of heart, almost always place the patient in a state of safety. Notwithstanding such good effects are said to result from such a course, a serious objection is the pain inflicted on the patient by the necessary motion, for such frequent evacuations, and also his exposure to cold. Doubtless however, this, combined with other judicious treatment, would be followed by happy results.

Another plan of treatment is by alkalis, and this is considered a

very judicious plan. They should be freely administered throughout the whole course of the disease.
We may give Acetate Ammonia, Nitrate Potash, or Phospate Ammonia as recommended by Dr Buckle of this city. With the use of alkalies we combine the use of Colchicum. This latter remedy is looked upon as having a specific action in the cure of Rheumatism. Its good effect cannot for a moment be doubted.
The patient should be covered up in bed, and his supply of diet cut off. Diaphoretics are to be avoided. We have already seen, that the patient has profuse sweats.
Bark used to be highly thought of, for the cure of Rheumatism, but it is only during convalescence

or when the disease is strictly intermittent, that we may expect any benefit from it. It is useful then in fortifying the constitution against a relapse.

Nitre is another remedy, which has recently been depended upon as an exclusive means.

In the chronic form of the disease, we find it necessary to sustain the patients general health by allowing a generous diet, and to use medicines of a warm or stimulating character.

As in the acute so in the chronic variety, Mercury is found to be useful. We may exhibit it internally, and also rub the affected part with the compound liniment of Mercury. Hydriodate of potash is another of the remedies, from the use of

which, we may expect happy results. Use it both internally and externally. In this variety, surprizing results are said to follow the free use of Phosphat ammonia.

Guaiacum is a popular remedy in chronic rheumatism. In cases of great debility, with coldness of surface, and in old persons the ammoniacal tincture will be found beneficial. To the list of medicines we have named we may add, Cod liver oil. This oil contains Chloride of calcium, Chlor of sodium, Sulphate of potash, Iodine and Bromine. Some refer its good effects to the Iodine, which it contains; while others denying that Iodine is its active principal, say, that Bromine is the useful element

An
Inaugural Dissertation
on
Phthisis Pulmonalis

Submitted to the Examination
of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
By
Elias C. Price
of Maryland

Feb 1st 1848

To

William Power M.D.

Professor of the Theory & Practice of Medicine
in the
University of Maryland
This Essay
Is most Respectfully Dedicated,
as a Mark of respect and
admiration for his high Professional
attainments; and for his kindness
to the
Author

Phthisis Pulmonalis

The disease of which I propose to treat, may well be called one of the scourges of our land. It is a disease concerning which much has been written, and much has been said. It has afforded an extensive field of investigation for the Pathologist, and a no less extensive one, for the speculations of the Physiologist: and it will still remain an inexhaustable subject, so long as it remains incurable. Perhaps in no subject is the happiness of mankind more deeply involved, than in the investigation of this disease; for what is most to be lamented is, that it is generally, the young, the fair and the beautiful, and those that have a precocious intellect, and highly cultivated mind, that the fell destroyer marks for his prey. Thus is Society deprived of many of its most promiseing and useful members, some of whom fall in their pathway

in the prime of life, while others are nip-
-ped ere the bud has fairly bloomed.

It is not a disease of any particular sit-
-uation; but appears to be known (with per-
haps a few exceptions) throughout the civ-
-ilized world. I should judge that savages are
not so prone to this disease as their more del-
icate and civilized neighbours; for where the
luxuries of a civilized life are multiplied,
there are diseases multiplied also.

It seems to be almost inseperably con-
nected with the scrofulous diathesis, though
the scrofulous diathesis, may, and does occur,
without phthisis, yet I believe that phthisis
seldom occurs, without this diathesis.

It prevails to a great extent in low, cold
and damp situations, especially along the
sea-coast where persons are exposed to the
damp wind that sweeps over the ocean:
for instance, it is a very common disease along
our New England coast. So prevalent is
this disease, that there is scarcely an individual

who has not had to mourn the loss, of either a relative or a friend, by this fatal malady. The prevalance of the disease would be a matter of but small consideration, were it not for the almost certian fatality that attends it.

It is startling to read the assertions made by physicians, as to the mortality by this disease; the average appears to be about one fifth: others that are more incredulous are willing to acknowledge that at least one sixth of the human family die of this fearful malady. In looking over one of the bills of mortality in August, I noticed the average of deaths set down under the list of consumption, was about the former number: this account was taken when summer diseases had been, and still were quite prevalant.

Causes—. This disease like Scrofula is frequently hereditary; but it is not a necessary consequence that a man shall die of phthisis

because one of his parents have died of that disease: but if they both die of it, his chance of escape is very small. Certain occupations appear to predispose to it; some by debilitating and lowering the general tone of the system, others by keeping the patient constantly exposed to the direct application of local irritants to the lungs themselves: as, Stone-cutters, Miners, Metal-grinders &c. Also those that are employed in a bending posture, as shoemakers tailors &c. Depressing mental emotions are said to produce it; as disappointed love, grief, fear and the like. It frequently follows as the sequelae of some depressing or inflamatory disease; of the former typhoid fever seems to exert the greatest influence in producing it; probably by changeing the properties of the blood. But we do not wish to be understood to say that inflamation will develope tubercles, but if they are present we believe it will hasten the fatal calastrophe

When phthisis follows small pox or measles, perhaps it is not owing so much to the inflamation, as to some change which they have produced in the constitution.

Formation of tubercles—. The tubercular matter is deposited from the blood, owing perhaps to an undue elaboration of the fibrine thereof, which being deficient in quality, is unfit for the formative process which is constantly being carried on in the human body; for we are aware that all parts of the body are continually being absorbed, and carried off by the blood upon the one hand; while upon the other, it is continually being repaired and built up by the same fluid. We can understand, therefore, that such constant deficiency in plasticity, must affect the ordinary nutritive process; and that there will be a liability to the deposite of cacoplastic products, instead of the normal elements of tissue; which having no vitality degenerate into tubercles. Whenever tubercles are

deposited, they are liable to increase in size by the continual accretion of matter of the same kind, and which not unfrequently causes several of them to coalesce together. The true tubercles as they have been called, are of a yellowish color, friable, opaque, non-vascular, and about the firmness and consistence of cheese. There is also another variety, which Dr Carpenter in contradistinction to the above, has called the aplastic tubercle. They have been called by others miliary tubercles &c. In this form we find traces of organization in the form of cells and fibres, more or less obvious; they never undergo further organization and are thought by some to be capable of being transformed into the crude cheesy tubercle: at all events, they appear to be very closely connected, for one seldom occurs without the other. They are of a bluish-gray color, semi-transparent and almost as hard as cartilage. They are less prone to soften than the other form.

Softening — After the tubercles have laid

in the lungs for a longer or shorter time, owing to some cause which is not very well understood, they begin to soften; this mostly takes place in, or near the centre.

Simultaneously with this change, and owing perhaps to the irritating properties of the confined matter, inflamation and finally ulceration is set up in the adjacent parts, which thus opens a direct communication from the matter to the bronchial tubes. By the compression which takes place in the act of coughing, the tubercular matter is dislodged, thrown into the bronchial tubes, coughed up and expectorated: thus leaving a cavity in the part which they occupied

These cavities we are told are sometimes lined by secreting membranes formed of fibrous exudation: sometimes there is no membrane intervening, nothing but the rough ulcerated edges of the parenchyma of the lung.

These cavities are seldom empty as we might by their name, be led <u>a priori</u> to suppose;

their contents consists of pus secreted by the lining membrane or from the surrounding tissues, which is sometimes mixed with a small quantity of blood, and occasionally with tubercular matter.

Large blood vessels are seldom laid open by the ulceration. Nature seems to anticipate the consequence, and therefore, take the precaution to obliterate their calibre, and render them impermeable to the passage of the blood. They are frequently found looking like a hard cord, stretched accross the cavity. But when they do get laid open (which very rarely happens,) fatal haemorhage is the consequence. Sometimes an oozing, or exhalation, of a small quantity of blood takes place from the surface of the cavity, which tinges the expectoration.

Generally after this change is once set up in the lungs; it progresses until so large a portion of the lungs is destroyed, that it becomes incompatible with the longer existance of life.

Nevertheless, when a single vomica occurs, the sides may unite together and cicatrize, and the patient be restored to a state of comparatively good health. Again, the watery and albuminous portions may be absorbed, leaving the earthy or saline portions, which may be converted into calcareous concretions, and lie dormant in the lungs for years, or even for life, giving the patient but little uneasiness.

The cavities vary very much in size, some of them will scarcely contain a pea, while others may be as large as a goose's egg, or even larger.

It is said that when the tubercles are few in number, they seem to occupy by preference, the upper, and back part of the upper lobes of the lungs: and also that it is the left lung that is affected (when only one lung is diseased) in a large majority of cases. Now the knowledge of this fact is of no small importance to the practicing physician, for when he is

apprehensive that his patient has incipient phthisis, it is only requisite for him to examine the upper part of the thorax, and if he is well versed in the physical signs, he may soon either quiet or confirm his fears.

Adhesion of the pleura is almost a constant concomitant of phthisis; especially if the disease be very extensive. Sometimes though very rarely perforation of the same membrane takes place. The adhesion of the pleura frequently affords a valuable diagnostic symptom; for as the upper portion of the lung wastes and shrinks away, it carries down with it the adherent portion of the pleura; and it being firmly attached to the parts above, carries them down also; frequently forming quite a fossa, in the clavicular and acromial regions.

The bronchia are always more or less inflamed in the advanced stages of phthisis; especially those that communicate with the tuberculous cavities. Frequently there is ulceration of

the larynx and trachea, or of the mucous membrane lining those parts. It appears that ulceration of these parts, are peculiar to this disease, and syphilis only.

From the text it would appear that this is exclusively a pulmonary disease; but this is by no means the case; tubercles not unfrequently occupy, to a greater or less extent, the intestinal glands. Here as in the lungs, they pass through their different stages, soften down, and escape, leaving a ragged looking ulcer. Perforation into the serous sac of the peritoneum is very rare, owing to the adhesive inflamation that is set up in this membrane, glueing it to the surrounding parts, and thus forming a wall which prevents the escape of the contents of the bowels. I might here remark, that ulceration of the intestinal glands seems peculiar to this disease, and typhoid fever.

Again we sometimes have Miliary granulations or (as Louis calls them,) tubercles, deposited in the omentum; sometimes with

and sometimes without corresponding tubercles in the lungs.

There is also scrofulous tubercles sometimes situated in the brain, but whether they are always connected with phthisis pulmonalis, I am unable to say. In fact there seems to be scarcely a living tissue in the human body which is not liable in a greater or less degree to this deposite.

Sometimes small spherical bodies are expectorated (particularly in the morning) bearing some resemblance to the tubercles of phthisis. They sometimes very much alarm the individual. They are secreted by the mucous follicles of the tonsils, and may very easily be distinguished from the tubercles of phthisis, by simply rubbing them between the fingers, when they emit a very foetid and disagreeable stench.

Dr Watson says "the stomach is often much enlarged and thinned in those who die of consumption; and that the liver is apt to under-

-go a remarkable change, almost peculiar I believe, to this disease. It too, enlarges, and becomes full of adipose matter, greasing the hand and scalpel of the anatomist, and yielding, when heated, an oily substance, which makes a grease spot on paper placed in contact with it. The whole gland partakes in the alteration, is of soft consistance, loses its natural red tint, and assumes a pale fawn color." This degeneration is denominated the "fatty liver."

This disease appears most commonly to assail its victims in the prime of life. It is less frequent in old age, and its fatality seems to diminish according to the advanced age of the patient before he is attacked by it. It most frequently occurs between the age of twenty and thirty; but it is by no means an uncommon disease in infancy, and from that time up to the period of puberty. My Preceptor, Dr. Mahlon C. Price, performed a post mortem on a child but a few weeks old, and found its lung literally stuffed with tubercles.

Women appear to be more liable to this disease than men: it appears in them at an earlier age, and is generally more rapid in its march.

The duration of phthisis is exceedingly variable. Sometimes it runs its course in a few weeks; again it has been known to last for many years. I am acquainted with an elderly Lady who tells me that she has had the disease for about twenty-five years, and that her mother had it about the same length of time. She enjoys a moderate share of health, and is able to attend to her domestic affairs: though she has a very harassing cough, and sometimes hectic fever.

Symptoms—. The incipient stage of phthisis, may frequently pass, unnoticed and unknown, both to the patient and his physician; unless it is scrupulously searched for. Cough is generally the first thing that attracts the patients attention; it is at first dry and hacking, and only harassing the patient at intervals, or when he makes violent exertions: it appears to him

to be caused by some irritation about the throat. It frequently leaves the patient during the summer, and returns again with the approaching winter. After running on for a longer or shorter time, it begins to trouble the patient through the night; and is attended with more or less expectoration. The cough is not however always present; but is generally the most distressing symptom.

If we find tubercular matter in the sputa, we may be certain as to the nature of the disease. The nummular sputa of the French, is said to be characteristic of this disease; but to this there appears to be a few exceptions.

Dyspnoea is not a very important symptom, as it is frequently present in other diseases; and sometimes not very marked in this.

Pain is sometimes felt between the shoulders, in the side or near the sternum, but sometimes it is absent. When sharp pain occurs in the side, it may be supposed to mark the occurrence of adhesion of the pleura to the painful

part. There is however one contingency, of which the two last symptoms are very significant. When, during the progress of phthisis, violent pain of the side, and extreme dyspnoea and anxiety set in suddenly, they denote, with much certainty, adhesion of the pleura and its serious consequences.

Haemorrhage is also an important symptom, when it occurs unconnected with injuries of the chest, disorder of the uterine functions, or diseases of the heart. Blood may sometimes come from the posterior nares and fauces; but its quantity in this case is seldom sufficient to create alarm. At all events its source can generally be ascertained.

All these symptoms are frequently present before the physician is consulted: and then but too frequently he is only to be a spectator to sufferings which he can but partially alleviate.

It was a happy era for the science of medicine when auscultation, percussion and palpation were discovered, and finally united in exploring the

healthy and diseased conditions of the hidden regions of the human body. But it is not our business to eulogize those discoveries, it doubtless long since has been done by an abler pen than ours, we will therefore proceed with our subject.

Physical signs. And first inspection. Simple inspection of the chest may teach us a great deal in this disease. If the disease is far advanced we have emaciation; depression above and beneath the clavicle, which causes the clavicle of the affected side to look more prominent than natural. Sometime also there is depression in the intercostal spaces

But before we proceed further, we must lay down something as a landmark, to guide us in our description of the symptoms. Louis following the example of Laennec, has divided phthisis into two principal stages; "the one anterior, and the other subsequent to the softening and evacuation of the tuberculous matter of the bronchia". Physical signs of the First Stage. In the early part of this stage

Auscultation gives us but little information; but when the tubercles become more developed, inspiration becomes rude, expiration is prolonged, & there is a blowing or tuber sound.

Percussion, also at an early period gives but information, but as the disease advances it gives a dull sound over the affected region.

Palpation comes to our assistance earlier and consequently teaches us more. By laying the hand upon the chest and getting patient to speak we perceive the vocal thrill.

Second Stage. Auscultation now gives us bronchial sound and absence of vesicular murmur. If there is a cavity we have a splashing or gurgling sound; if the cavity be empty there is what is called cavernous respiration; if it be very large there may be pectoriloquy

Percussion — Dullness increased, unless vomica very large.

Palpation — increased vocal thrill. If the cavity contains much liquid we feel a splashing sensation.

Diagnosis. The diagnosis is not always very easy yet by grouping the foregoing symptoms together we can generally make out the

character of the disease. We will not take the trouble to recapitulate the symptoms.

Differencial Diagnosis. We may have several of the physical signs I have mentioned present in pneumonia, but other pneumonic symptoms are generally wanting. One very important point in making up our differencial diagnosis is the knowledge of the different places of selection of the two diseases. We should bear in mind, that phthisis almost invariably first attacks the upper, and pneumonia the lower portions of the lungs.

The disease with which incipient phthisis is most likely to be confounded, is chronic bronchitis: yet the leading features of the two are well contrasted; by the haemoptysis that attends the one, by the expectoration that attends the early stage of the other: by the pain of the former being situated in the side and between the shoulders; that of the latter beneath the sternum; and also by bronchitis generally attacking the lower lobes of the lungs.

symptoms that come on in the Second Stage. As the disease advances hectic fever usually supervenes. This is a very distressing symptom, and it very rapidly reduces the strength of the patient. It usually comes on towards evening with a chilly sensation, followed by fever and a burning sensation of the palms of the hands, and soles of the feet; and in the morning, is followed by a profuse perspiration.

Sometimes aphonia takes place, it may last for a long time before death. Frequently there is only a partial loss of voice, or hoarseness.

The pulse is generally frequent it often amounts to 120, sometimes to 130 or even more in the minute. In some cases however it remains unaffected as to frequency, during the whole course of the disease.

Another symptom is the curved or bird's claw-nail, which is caused by the emaciation and is liable to occur in other wasting diseases: It cannot, therefore, be looked upon being entirely pathognomonic.

Diarrhea is frequently present in this disease, I have seen two cases of phthisis during the past spring and summer, in the practice of my Preceptor, both of which were complicated, and both of which proved fatal. One was complicated with typhoid pneumonia, the other with hypertrophy of the heart. In the former case diarrhea came on a few days before the patients death: for a time medicine seemed to exert some influence over it; but finally it triumphed over remidies, and went on rapidly exhausting the strength of the patient, untill at length death ended the scene.

Edema of the ancles, face and hands, is a symptom that tells of approaching dissolution, unless there is some disease of the heart present, or the patient in the first stage of the disease. In the latter case I mentioned, general dropsy came on before death, this was attributed to the disease of the heart; but it was no less a fatal symptom.

Having mention the most prominent symptoms I shall pass on to the treatment of the disease.

Treatment. We may see almost daily, nostrums advertised, to cure the consumption: but I fear that there is too much truth in the old Song, which says;

"Here's Doctors will cure be the matter what will,
And empty your pockets with wonderful skill."

The latter is but too frequently the great object of the vender.

Notwithstanding the fatality of the disease there appears to be a great may cases of undoubted cure: but the cure is to be attributed, more to nature, than to medicine: yet by a judicious treatment both in respect to medicine and hygiene; we may assist nature in sometimes, in bringing about this desirable change. But we must acknowledge, that in by far the largest number of cases, our best meant endeavours will prove of no avail.

Dr. Watson says; "the treatment to be adopted,

and the plan of regimen to be observed, in respect to tubercular phthisis, resolves themselves into the methods of prevention when that disease is incipient or limited in extent; and of alleviating the most distressing symptoms, when no hope remains of stopping its course, or averting its fatal close?

With regard to the first we should advise the patient to avoid all exciting causes, and point out such occupations as are most suitable to his condition &c. The employment of grinding bark has been said to cure the incipient stage of this disease. If so, I would advise those in whom it was about to occur, to try the experiment: or if this was not convenient, let him take the bark internally, or what perhaps would be better, keep a large pile of it in his garret, and go every day and shovel it about and thus inhale the fine particles of dust which if it acts at all, must act by means of its tonics properties. Reasoning a priori we would suppose that the irritation it would

produce would more than counterbalance its good effects. This is the time to try the effects of a winter in some Southern Country; or a sea-voyage in some mild latitude.

Certain accidental circumstances appears at times to arrest its progress. The occurrence of pregnancy for instance in women. A woman became my patient during the latter part of the past summer. She was labouring under several of the symptoms of incipient phthisis. Her sister had died only a few months previously of the same disease, and I was apprehensive that she too would soon meet a similar fate. About that time she became pregnant, the disease was arrested, and has made no progress since: perhaps after her delivery, it may return with increased violence, as was the case with her sister who died a few week after being delivered. Her's was the second case, to which I have before alluded.

But to return, we are more frequently called upon to treat the disease after it has bona fida,

made its appearance than to prevent the disease before it has occured

Can there be any thing done to relieve the incipient stage of this disease? I believe there can; but hygiene, traveling and exercise will do more than medicine. Let the patient take horse back exercise, use nourishing but unstimulating diet, and perhaps it would be better for him to seek a more congenial climate. Spain Italy, Switzerland, Madeira, and in our own country, Florida and New Orleans are the most noted

There is a long list of medicines recommended for this disease, which goes at once to prove that there is no certain remedy. Prussic acid was at one time highly spoken of; but is now seldom used with a view to its curative effect; it may sometimes be used to alleviate the symptoms. Hydriodate of Pottassa, steel, Creasote, Inhalation of the vapours of tar &c. have been highly recommended.

After the vomica have formed the <u>some times</u> cicatrize; again the tubercles <u>sometimes</u>

turns to a chalky deposite, and lie dormant in the lungs without any further inconvenience. By slowly and cautiously introducing into the system the Carb. of Lime, might we not assist nature in bringing about this happy issue? Limestone water might be a convenient form if strong enough, if not we might add occasionally a small quantity of the carbonate. Aqua Calcis might be a convenient substitute, but it should be given in small doses and not continued too long at a time, for obvious reasons.

Counterirritation may sometimes be useful by establishing a drain in a different part of the body.

In the more advanced stages all we can do is to alleviate the most distressing symptoms and smooth the patients downward path to the grave.

One very distressing and weakening symptom is the night sweats; perhaps the best remedy for this is the dilute sulphuric acid.

but if the patient has diarrhea, it is not generally well borne: the dose is from twelve to twenty drops. The elixir of vitriol, acetate of lead and opium, sponging the surface with tepid vinegar and water, also the compound kino powder, Dovers powder &c. are highly spoken of. When one of these remedies fails, we should try another.

For the paroxysms of hectic we may give quinine, or Griffiths Antihectic Myrrh Mixture. Mur. Tinc. Ferri. Steel if it is well borne &c.

If the cough is very troublesome, we may give some of the preparations of Opium, as Morphia, or the Camphorated Tincture &c. Hydriodic acid is also sometimes used for the same purpose

If the nausea and vomiting should become troublesome, and if attended with Gastritis apply a few leaches, fomentations and blisters. If no inflamation, give prussic acid and soda, the effervescing draught, carbonic acid water, creasote &c.

If the diarrhea becomes very bad, and is likely

to exhaust the patient, we give Opium, Kino, Catechu, the Officinal chalk Mixture &c: or several of these combined together. Also starch and laudanum injections to sooth the irritability of the bowels and thus suspend their action for a time.

By means like these, we may endeavour to smooth the couch of the dying patient, and give him a short respite from pain and suffering, which is of great consideration where we can do no more.

An Inaugural Dissertation

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 Oates Lumsden of Maryland,

February,

1848.

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What the custom is that should be observed under the circumstances which now impel me to act — whether unknown or otherwise; form in its distinct application, only respects the modes of acting and speaking, adopted by society at large in every transaction of life; so that something more specifick than this appears requisite: ceremony will do provided it is that ceremony which respects those forms of outward behaviour made the expressions of respect and deference.

It is in this way that the instructed can have access to the instructor — the scholar commune with the teacher — the benefits wisdom, learning, and experience confer can be acknowledged by the recipient.

Ceremonies too numerously multiplied, to be sure, destroy the ease of social intercourse; the absence of ceremony however destroys all decency.

Lord Bacon, it was he I believe, has said: — Not to use ceremonies at all, is to teach others not to use them again, and so diminish respect to himself.

Of course it is not to flatter, (this would be most egregious folly, even downright arrogance,) I now introduce myself, — it is respectfully to ask attention to what follows as being required of one occupying the position now assumed towards

The Faculty of Physick
of the
University of Maryland.

Acute Articular Rheumatism.

Undoubtedly the phrase here employed can be truly defined pain. Requiring a shivering pronunciation to express it. Old times call it a tormenting distemper, reckon-ed to come from acrid humours.

By many it has been attributed to the prevalence of matter in the system morbifical in its nature. There are those whose opinions now embrace the existence of lactic acid and lactates of Soda and Ammonia in the circulation as originating this painful malady, the blood retaining them after the perspiration has been arrested by external cold. Although this idea is regarded by some as being merely hypothetical, most respectable authorities entertain it.

Generally allowed to be characterized by a

specific inflammation or irritation, there are no parts of the system which can claim exemption therefrom.

Acute Articular Rheumatism is justly regarded as being admirably, perhaps it should be said wofully calculated to produce pain — pain in quantum sufficit to answer the purposes intended by a probational mode of being in which may shine the graces of resignation, of patience, of all the powers of endurance, without complaint or vociferation.

Take into consideration,

The parts assaulted.

These are exquisitely sensitive. What is said of Gout is applicable here. Derived from a word in Latin denominated gutta, i.e. drop, its origin being ascribed to an opinion long entertained, "that a peculiar liquid matter, upon wc. it was supposed that the disease depended, fell drop by drop into the affected joint."

As parts affected, the fibrous tissues of

the joints may be enumerated — the synovial membrane — muscles or their aponeurotic coverings — the periosteum, membrane investing bone, and even the neurilema, the sheath investing the nerves.

No want of pain in rheumatism — the acute articular furnishes a full supply thereof.

Among the victims selected, the knee is often the first to be seized, sometimes both of the knees suffer at once. From the knee it descends to the foot, or mounts to the hip, to the loins, the shoulder blades, elbow, wrist, nape of the neck; thus manifesting a disposition to migrate.

Occasionally a truce ensues or signs of intermission appear, they are signs; like a change of horses on a mail coach line, the interval is atoned for by increased rapidity in future travelling.

Notice,

The mode of its attack. This is rather progressive than sudden. Accompanied in its

advance by contusive pains — soreness in the limbs — pain in the head — restlessness — great complaint of being unwell — stiffness; these symptoms sooner or later usher in more completely the painful malady. In almost every case, fever attends the acute form of rheumatism. In some instances it has been known to anticipate the inflammation; such however is rarely the case.

It should have been remarked that this disease as an inflammation is manifested by fever, preceded by shivering, subsequent heat and a hard pulse.

The individual having this disease is doomed to be a sufferer.

Only to think that when one part is released from pain, then another is arrested — many parts in some instances seized in the same moment, every joint afflicted at once — involving almost the whole exterior of the body. There can scarcely be imagined a

more terrible situation than this.

Incapable of helping himself, the patient evens dreads the assistance necessarily rendered by his attendants, the slightest touch can scarcely be admitted without a sensible aggravation of his pains. The weight of bed clothes is hardly endurable — to avoid their pressure a contrivance is resorted to by which they are arched over his limbs. Even the motion occasioned by walking across the chamber or resting against the bed post, increases his torments.

The danger threatened is another particular belonging to this disease, which should be carefully considered.

"Complications kill — not the disease."

Confined to external parts merely — the surface only being affected — however painful his condition, the patient is in no imminent danger, if he be properly treated.

It is when the disease begins to travel —

when a tendency to what is commonly de-
nominated metastasis appears, then the most
serious apprehensions may be indulged.

The heart ought always to be enquired
after.

"By far the most serious and danger-
ous leap which the diseased action is apt to take,
is to the membranes of that organ."

The most unremitting attention is abso-
lutely required.

Whenever symptoms indicate se-
rious organic disease of the heart as being
associated with rheumatism, a patient investi-
gation by means of auscultation and percussion
should be instituted in order to ascertain, if poss-
ible, the facts in the case.

As a guide under such circumstan-
ces the particulars that follow have been de-
signated. They are: —

Pain and oppression in the precordial region.
Difficult or hurried breathing with or without cough.

Palpitation, increased frequency of pulse.

An anxious, disturbed, or peculiar expression of countenance.

The effects which ensue when the ligamentous structure of joints is attacked, are more liable (so it is supposed) to reach the heart, than when the synovial membranes are involved.

When this disease selects the stomach and bowels as places of resort, (this occurs according to the impression of some more frequently in other varieties than in the acute) it occasions the most excruciating sufferings - the inflammation when violent, resulting fatally.

A case of this sort has been related by a physician very old in his profession. It was that of a robust man whose guts were in a gangrenous state, the consequence of a Rheumatism, first felt in an arm, then in the knee. A cure had been attempted by sweating the patient with some hot remedies.

Profuse perspiration ensued; the inflammatory humour, however, seized the intestines, degenerated into a gangrene, and after a season of most indescribable suffering which lasted thirty six hours, the patient expired.

The importance of Acute Articular Rheumatism on account of the affections that supervene, renders more apparent

The danger implicated.

Although in itself a trifling disease, life not being often curtailed thereby, yet when the heart becomes concerned then is the danger.

Cardiac complications are greatly to be dreaded.

In children more particularly these are to be expected.

According to the experience of Dr. Watson, "the chance of the joint affection being complicated with rheumatic carditis is the greater

in proportion as the patient is the younger."
He never knew the disease occur in an unequivocal form before puberty, without being attended with inflammation of the lining or investing membranes of the heart.

The caution cannot be too frequently insisted upon — Watch the heart. —

Ages between fifteen and thirty five or forty constitute the period, so it is supposed, at which the complaint is most common.

Instances have occurred in which children not exceeding the third or fourth year have had these rheumatic attacks. —

The liver may be deranged by the inflammation of Rheumatism, and when this is the case distressing effects occur.

This has been recognized as the bilious, and most usually found in those districts of country where miasmatic influences prevail.

This form of the disease is characterized by bilious vomiting.

In some cases yellowness of the tongue conjunctiva and skin is usual, together with bilious urine and clay colored stools, from a suspension of the secretion, as in jaundice.

The disease sometimes becomes adynamic in its nature, the fever being accompanied by great prostration. Now it is characterized by diminished force and increased frequency of pulse, by copious sweats during sleep, by great lassitude, and tendency to transposition.

These indications however strongly marked are not sufficiently so to be considered typhous.

The disease may be regarded as to,

The period of its continuance.

Of course this cannot be definitely determined.

Under proper treatment its progress has been arrested in a week or two. Again the time of cure may require three weeks. In some instances it runs on for a period of three months, and even longer than that.

Its Diagnosis is generally considered easy, gout being the only complaint which may be mistaken for it.

As among the causes likely to produce it, It may be remarked that it is especially liable to occur as an effect of cold where the body is fatigued with much muscular exertion.

The limbs mostly exercised are likely to be affected by it.

Over exertion alone, it is thought, may in some cases occasion it.

Moisture, exposure during the relaxation excited by previous exercise, sleeping in damp sheets or upon the damp ground, wet clothes when continued to be worn, remaining in a damp room

are apt to bring on an attack of the Disease.

Sometimes it is hereditary in its descent. Whether this is the case or not, members belonging to the same family are apt to be attacked by it.

A previous attack is good security for a succeeding one.

The diathesis when strong, it is said, is alone sufficient to originate the disease, without the aid of exciting causes.

In the way of Remedies Provided, no malady can be said to have warmer or more numerous friends.

What could be brought together from the various sources that supply them, prescriptions in sufficient number might be found to make almost a Materia Medica.

Still there is no absolute treatment — no heroic remedy — no positive antidote.

Bloodletting is indispensable when a full, tense pulse, and high inflammation indicate its employment.

To bleed for the pain alone, it should be remembered, is never proper.

Condition of the patient ought always to be consulted.

In anemic persons bleeding is inadmissable.

From a person of strong habit xvj or xx ℥ may be taken, some say from xij – xxiv.

Caution must be observed in the employment of this remedy.

Purgatives are thought by some equal in importance to venesection. When used they should be active but not drastic.

Salts & Senna, or Senna with Sulphate of Magnesia – Jalap and Bitartrate Potas.

When the liver becomes torpid, Calomel, alone or in combination will be generally found

suitable.

There should be a suspension of purgation when the bowels become irritable.

Refrigerant diaphoretics are considered applicable to the early stage of the disease, particularly if there be much inflammation.

$\frac{1}{12}$ — $\frac{1}{6}$ gr. Tar. Emet. } given at intervals of 1, 2, or 3 hrs.
V — X gr. Nitre dissolved in water }

When the pulse is rather feeble — Pow.d Guaiac with Dover's Pow.

At the close of ten days or two weeks, provided threatning symptoms divulge themselves Cal. as a alterative is recommended. Colchicum may be given before the mercurial, or as an adjuvant thereto, combined w.h one of the salts of Morphia;

XX or XXX gtts. Wine Colchicum Root } every 4, 6, or 8 hrs.
℥ iss Sulph. Mor. Solut.n }

When heart or brain implicated — lancet freely as possible — leeches or cups freely, quickly succeeded by large blister.

Moderately administered Sulph. Qui. has proven beneficiae.

Phos. Ammonia, X — XX grs. from ejj to vj times in twenty four hours. This is the well known prescription of Dr. Buckler.

Acute Articular Rheumatism has sometimes a way of its own and will not be restrained by interferance.

Time may be put down as a remedy — Six weeks said one.

The disease often will run on to

The End.

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