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 numerous errors in titling, names, titles, and/or years. To address these errors, an edited and "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. Stoffan, Historical Library and Preservation Officer; Maria Millington Parkes, Metadata Management Librarian; Angela Cochrane and Carol Harling-Bixler, Preservation Division; Sarah Hawks, Alex Salome and Megan Wolff, Services Division.

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HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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UNIVERSITY OF MARYLAND

THESES

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A dissertation on

Cholera Bilirosa

Submitted to the examination

of the

Right Revd Bishop Kemp D.D. Provost

The

Regents and the Faculty of Physic of the

University of Maryland.

for the

Degree of M.D.

By

Benjamin F. Stewart A.B.

of Virginia

Cholera Biliosa

Under whatever aspect we contemplate the Liver, its importance is apparent - The complexity of its tissues, the obscurity of its functional utility and the diversity of its morbid phenomena all equally excite our admiration and command our attention - Fortunately for mankind the labours and inquiries of the pathologist have been more fruitful than those of the physiologist - No facts incontrovertibly shew what the final cause of the biliary excretion may be in the animal economy - It is true much speculation has been indulged in in all ages by medical philosophers on this subject; but, even at the present period, the reasonings and arguments employed can be considered in no other respect than as ingenious hypotheses, wanting that solid foundation, fact, which alone can constitute the basis of sound theory - Notwithstanding, however, the darkness which involves the office executed by the Bile in the healthy animal, as the index of disease in its parent organ or its appendages, it is sufficiently demonstrative. It is not merely from its effects exhibited in the alimentary canal that we deduce our opinions as to the condition of the Liver, but at various and remote points of the body, we are admonished by our senses of this circumstance by its actual presence - In the skin, conjunctiva, tongue, serum of the blood, &c we remark it - This extensive & palpable expression of diseased Liver

certainly claims our thanks to divine wisdom, as there is no viscus whose range of morbid susceptibility is so great. From the slightest functional disarrangement to the highest organic lesion, we observe the scale almost infinitely divided. Diseases of this viscus, however, are not altogether frequent in all countries or in all seasons: but, it is in tropical climates, miasmatic districts and latitudes subject to great and sudden vicissitudes of temperature that we are to find them in their most appalling living.

With these preliminary observations, let us now proceed to consider in detail that form of hepatic disarrangement denominated by Doctor Good "Cholera Biliosa." The term "Cholera" is of ancient use. Celsus derives it from the two Greek words χολε and ῥεω, meaning literally bile flux. The adjective biliosa is subjoined by that learned author to designate its specific difference, having comprehended under his genus Cholera, three distinct species. He objects to the old appellative, Cholera Morbus, that it is pleonastic. Might not his epithet be adjudged tautological? - on the present occasion, however, de verbis non est disputandum either cognomen being sufficiently intelligible.

Doctor Good thus defines Cholera Biliosa. "The vomiting and purging frequent and copious, with a redundance of bile." Cholera is both epidemic and sporadic; idiopathic or symptomatic. It is of idiopathic

cholera that we chiefly propose to treat at present. In this form, it does not belong to the class of pyretic disease - the distinguishing signs of fever, as increased heat and vascular action, foul tongue &c being absent. The pulse, nevertheless, is a valuable guide to the practitioner for it instructs him by its variations in force and frequency how to adapt his therapeutic means to the exigency of the case -

Symptoms - Cholera generally commences its attack by nausea, or a desire to stool - Cardialgia - a sense of weight and fulness is felt in the region of the Liver. accompanied with great commotion in the alimentary canal. But a short interval intervenes before violent emesis and Catharsis follow - the contents of the stomach and intestines being first ejected, succeeded by the copious evacuation sursum et deorsum, of a bilious fluid, attended with excruciating tormina - Soon the abdominal muscles are brought into sympathetic contraction and if art do not interfere, spasms seize upon the muscles of the extremities. the strength is rapidly exhausted, frequent syncope, hiccough, colliquative sweats and cold extremities in brief succession appear, hurrying their victim to the tomb - The matter evacuated is frequently so acrid as to excoriate the fauces and rectum producing violent tenesmus - So vehement is this affection sometimes that the most vigorous constitution will succum

to it in 24 hours. Rarely, however, are its symptoms so extreme; or its event so lamentable under its worst form. Frequently in the course of two or three days it will abate spontaneously. But as this issue is always problematical, it would be a criminal degree of hardihood and inhumanity which would permit us to confide in it. For admitting that life may not be immediately hazarded, our duty prompts us always to avoid the consequences of disease by curing, if possible, the exciting malady. And in the present instance, we surely may look for effects violent in proportion to the causes. The English Hippocrates, Sydenham, in his enumeration of symptoms, mentions the additional one of "inflammation of the intestines and abdomen". That enteritis may supervene upon Cholera, as it not unfrequently does, upon Spasmodic colic, is very possible. but it can then be no longer cognizable as Cholera. it merges itself in another class of diseases generically different. When Cholera occurs in Bilious Remittent fever as it frequently does, then this complication no doubt does occasionally take place. Whether indeed there be an actual inflammation of the intestines even then is by some respectable writers disputed. When this state of the bowels exists in the fever alluded to, the condition of the liver is generally very different from what it is in Cholera. it is locked up. its secretion, if it secrete at all, is obstructed. But what more particularly distinguishes this symptomatic Cholera from the idiopathic is that there is pyrexia in the former and not in the latter. For when it occurs in bilious fevers, it is most commonly

been in the hot stage, coming on as reaction takes place. As a sequela of Cholera, it is presumed, inflamation does not often happen - Death in many cases too soon interposes for such an effect - and even where life is not thus rapidly destroyed - where the morbid irritability of the Liver and its consentaneous parts is allayed, we are not to expect inflamation except from imprudence during convalescence. In this state there is undoubtedly a strong predispositions, but it should be the care of the Physician and the patient equally to guard against exciting causes -

Causes - The causes of Cholera divide themselves into remote or predisposing and exciting -

Solar Heat is the most common remote cause - That this subtle agent lays the cornerstone of Cholera, is inferred from that disease appearing epidemic in that season in which its intensity is greatest and longest continued. Hence in the warmest latitudes as the East and West Indies and in the hottest seasons as June, July and August, Cholera is most prevalent - gradually disappearing as the diseases of Marsh Miasma approach - So potent and so certain did Sydenham esteem this cause, that even in the latitude of Britain, he looked forward with as much certainty for Cholera in August as "the appearance of Swallows in the Spring or Cuckoos about the dog-days - Has Heat any elective attraction for the Liver impairing its powers, or is that organ weakened pari passu with the rest of the body? We have no reason to suppose any

elective affinity between Heat and the Liver - How then do the best authorities defend the position that Heat alone will sometimes produce Cholera? Where are all the powers of the system are duly balanced, whether in a state of debility or vigor, we can not see how disease of one part more than another should occur, where the cause acts equally on the whole - But if we suppose the Liver or any other part to be diminished in its relative tone in the smallest degree, then as it is less capable of resisting morbid impressions, so is it proportionably liable to be first attacked - It must be in this way that Cholera is accounted for when heat alone produces it - an undue capacity being previously induced - There is but little difficulty in conceiving the principle upon which heat exerts its predisposing power - Like other powerful stimuli, when excessive in degree or quantity, it will produce indirect debility - Slight additional causes in this state are adequate to excite disease especially where these additional causes act unequally - But why in this state of proclivity to disease, have we Cholera rather than any thing else - The truth, I believe, is that it depends much upon the nature of the exciting causes, and the relative capacity of the different viscera, whether we shall have Diarrhoea, Dysentery, Typhus Fever or Cholera - all the modifications of disease being occasionally produced by the same remote cause, Heat, acting on the body under different circumstances -

The exciting causes are very numerous - Suppressed perspiration from exposure to a damp or cold atmosphere after the long continuance of hot and dry weather - by wet feet - by damp linen, &c. "Here again we must suppose an undue relaxation in the vessels of the Liver previously existed, in order to account for this product, rather than Pneumonia or some other acute disease. The consequence of suppressing the cutaneous secretion, is that the debilitated vessels of the Liver become inparcted and the Portal circulation impeded. The excitable secernents are provoked to a more violent action, and as the quantity of secreted fluid is increased, so by the agency of the same morbid influence, its quality is vitiated - Besides the causes acting from without, there are many which produce their effects through the stomach and intestines - such as various acescent and indigestible vegetables as greens of different kinds, especially of the Phytolacca in some latitudes - unripe fruit - corn-bread in those not accustomed to it - putrid meats - rancid oils - all the variety of shell-fish as Crabs, Lobsters, Oysters, &c - So commonly is it produced by shell-fish that in those sections of the country where they abound, Cholera is not unfrequently endemic from that cause alone - Many habits have an idiosyncracy in relation to some particular article of diet which is never indulged in at any season without exacting the penalty of this formidable affection. Hence we account for its sporadic appearance - In a highly predisposed state any thing

which weakens the stomach either directly or indirectly will induce it, as excess either in eating or drinking - especially after great fatigue, fasting, &c. The justly celebrated author of the Study of Medicine enumerates with the causes "a superabundance of acrid bile". According to the view of the present writer, this constitutes the principle diagnostic of Cholera; and cannot, he conceives, without a total perversion of our ideas of cause and effect, be admitted as giving origin to it - Supposing even that considered "superabundance of bile" as the Proximate cause in the sense given that phrase by Wilson Philip and others, still it is equally objectionable; for, the morbid action does not consist in the fluid secreted, but in the gland secreting that fluid. In the language of Pathology, bile is the causa causata and not the causa causans - "Sed hic est Homero nonnunquam dormire".

Pathology - Writers all agree that Cholera has its seat in the Liver. That the Stomach, intestines, Muscles, &c are brought consecutively into morbid action - This is no doubt the fact in a majority of cases - but we may doubt whether invariably. For instance, where from idiosyncracy, is it not probable that the chain of morbid phenomena may commence in the stomach, bringing the Hepatic system secondarily into disease thro' the influence of that powerful sympathy which connects the alimentary canal with all its collateral organs? In whatever way the causes act, we must suppose a congested state of the Liver to be induced - This comes

tion may sooner or later be succeeded by the symptoms already enumerated according as an adequate exciting cause is applied - or, it is possible, that counteracting causes may so change the state of the system as that an equilibrium in its powers be produced without any obvious expression of disease. Why the stomach and bowels so readily consent with the Liver is manifest from their close anatomical connection; but, why the muscles of the abdomen and extremities should be involved can only be accounted for on the principle of that inexplicable sympathy which pervades the animal machine, binding its several parts together - a principle often recognized, but little understood - As to the character of the fluid evacuated, there is but one opinion among authors viz: that it is vitiated bile. Celsus uses the following terms in speaking of it: "Bilis supra infraque erumpit, primum aquæ similis, deinde et in eâ recens caro lota esse videatur, interdum alba, nonnunquam nigra, vel varia". Of the modern writers, Cullen, Good & others express similar sentiments. The venerable Cullen writes as follows: "The matter rejected both upwards and downwards appears manifestly to consist chiefly of bile - From this last circumstance" says he" that the disease depends upon an increased secretion of bile, and its copious effusion into the alimentary canal; and, as in this it irritates and excites the motions above mentioned, I infer, that the bile thus effused in larger quantity is at the same time of a more acrid quality" - We here readily perceive the relevance of the griping and tenesmus incident to the disease - Similar senti-

ments might be quoted from the Study of Medicine, but these are judged sufficient -

Prognosis - There are few affections in which the controlling influence of Medicine is more predominant. If the Practitioner be opportunely called, possessing a proper Knowledge of his enemy and the weapon most efficient in laying him prostrate, he may generally without hesitation pronounce favorably as to the issue - In the worst cases neglected even in the paralyzing arm of death shall almost have severed the vital thread, we are not to despair - But with vigilance and care, sedulously cherish the remaining spark. Knowing by experience that appearances are often deceitful and that the powers of life have a wonderful recuperative energy when the causes that trammel them are removed -

Treatment In the whole Nosological catalogue, there is scarce a single disease which requires, in ordinary cases, so simple an apparatus Medicaminum as Cholera - Our object is to check the exorbitant action of the Liver and to allay the irritability of it and its associated organs - To effect this, we immediately have recourse to Liquid Laudanum, which better answers our purpose than any thing else - By its peculiar tendency to check all the secretory processes, except that of the Skin and Uterus, it is admirably adapted to the first indication - And by its anodyne and soothing quality it is no less effectual in the second - It should be our object to restrict our patient to an entire abstinence from drinks, if possible, as they generally aggravate in proportion to their quantity. If any be allowed (and it is difficult to prevent their use altogether) they should be such as

by their stimulant influence give a temporary tone to the stomach. They should be cordial and agreeable to the palate lest they offend. Perhaps strong brandy water is the best auxiliary to the Laudanum. As to the dose of Laudanum, no determinate quantity can be fixed on, as it must be proportioned in quantity to the violence of the symptoms. Several ounces have been given in some extreme cases with the most salutary effect. Nor are we suddenly to discontinue the medicine on the cessation of the symptoms. They are apt to reappear. We therefore should gradually withdraw it. Opium in the solid form is of no use, as before it can exert its influence on the stomach, it will be rejected. Blisters are too slow and so are all the preparations of Mercury were they admissible on other grounds. But sinapisms to the epigastric region; and in the latter stage to the extremities will often render essential service. Where the patient is seen early and there is much plethora, venesection will often avail much, in some instances greatly abridging the violence and duration of the disease. These are the principal remedies worthy of trial.

What are we to say of the debilitating plan of Sydenham and his followers even of the present day? Does it not seem preposterous to be employing agents to debilitate, when we wish to remove debility? To increase secretion when our object is to restrain it? Let it not be inferred that we would detract from the high reputation of that great patriarch in medical science. Considering the era in which he flourished, we must trace his wisdom in devising and successfully prosecuting a practice so far ex-

calling that of his predecessors - It is true Sydenham employs Laudanum, but both as to time and quantity, it would seem to be defective - Possibly Cholera might have been of a milder type in his age than now - For certain it is that the Physician who would now depend on twelve or twenty drops of Laudanum given at considerable intervals would often to his chagrin and confusion, witness the triumph of the pale destroyer - But the treatment of Sydenham is perhaps the least exceptionable of the plans of cure laid down in Authors - He went only so far as thoroughly to wash out the irritating contents of the stomach with chicken water among the mildest fluids which could be selected - Not so with Doctor Forbes - He improves on him by recommending Antimonials!

Finis -

An Inaugural Dissertation
on
Enteritis

Submitted to the examination
of the
Right Reverend James Kemp D.D. Provost
and to the Regents of the University of Maryland.
For the Degree of Doctor of Medicine

by

James B. Robertson

of

Somerset County Maryland.

Anno Domini 1826.

To Dr Henry H. Hyland

Dear Sir

My Course of
edical Studies having at length brought me
the Composition of my thesis; permit me Sir,
dedicate it to you as a Small mark of
spect for your Character as a Gentleman and
lent as a Physician; and for your politeness
nd attention towards me, whilst prosecuting
the Same under your Care

I Remain
Sir
Your Grateful Pupil
James B Robertson

Enteritis.

There is perhaps no disease in the whole range of Nosology requiring more prompt and energetic treatment than the one now under Consideration.

I am aware of my incapacity to treat of this disease in a manner which its importance requires and therefore hope that the Gentlemen to whose inspection this treatise is submitted will not Condemn it with rigour. Enteritis is an inflammation of the intestines accompanied with pain in the Abdomen, nausea, vomiting, Costiveness and fever.

The disease for which enteritis may be most readily taken is Colic; but it may be easily

distinguished from it. In enteritis there is fever, a quick, hard and tense pulse, the pain is increased by pressure which is not the case in Colic.

The causes of this disease are poisons, vitiated secretions, obstinate costiveness, intus-susceptio, strangulation of any part of the intestinal canal; vicissitudes of the atmosphere or the application of cold to the body whilst in a state of perspiration, it may also be caused by cold drink taken whilst the body is heated. Enteritis commences with pain in the abdomen especially in the umbilical region, which is very much increased on being pressed, it is also accompanied with sick stomach, nausea

and Vomiting, costiveness, white tongue, heat, thirst, great Anxiety, hard small and tense pulse.

After this disease has Continued for Sometime the bowels are affected with Spasms and the whole region of the abdomen becomes exceedingly painful and the muscles of the abdomen rigidly Contracted. This disease may end in Ulceration, Scirrhus or gangrene; or it may terminate in resolution.

Enteritis should always be Considered as a dangerous disease, as it frequently terminates in gangrene in a very short time from its attack, its termination in gangrene may be known by a sudden Cessation of pain, sinking and

irregularity of the pulse, cold sweats, syncope &
hickup. Its termination in resolution may be
known by the following marks, gradual abatement
of the pain, the passage of natural stools, universal
diaphoresis with a firm equal pulse. Its ter-
mination in ulceration may be known by the
cessation of the febrile symptoms, periodical pains
in regions, and by pus being found mixed with
the discharges from the bowels. Dissections after
death evidently shew the ravages of this disease
in the intestinal canal there are frequently
found adhesions of the diseased portion of
the intestine to the contiguous parts in

ome cases the intestines are found in a gangrenous ulcerative state, intus-susceptio and constrictions are also found, the vestiges of inflamation of the peritoneum, mesentery and omentum are also found on dissection in this disease.

In the cure of this disease our first object should be to lessen the impetus of the blood and remove obstruction from the intestines, In the commencement of this disease blood letting is the first remedy indicated which may be repeated according to the violence of the symptoms regardless of the apparent debility of the patient, this remedy will frequently supersede the necessity of all

these remedies if carried to a sufficient extent
in the incipient stage of the disease, the pulse in
many cases of this disease will not become soft
untill the inflamation be entirely subdued,
after general bleeding has been carried to as
great an extent as the strength of the patient
will admit, we may then resort to local bleed-
ing by leeches applied to the abdomen, these
remedies being carried into effect and the
inflamation subdued, a large blister applied
to the abdomen is the most efficacious remedy,
after which we may resort to purgatives to re-
move the constipation, calomel has been used

this is perhaps not an eligible practice unless
lives be concerned, Castor Oil and Supertartrate
potash are among the best purgatives in this disease.
Emollient and Aperient Injections should be
employed. In the last stage of the Disease when
inflamatory Action is entirely subdued, warm
fomentations to the Abdomen and the warm bath
may be beneficially employed. We should be
very Cautious in the administration of Opium in
this disease, but in the last extremity Opiate
injections perhaps would not be inadmissable.

And now Gentlemen, having imperfectly
stated of a Disease which Calls forth the ex-

ertions of the Physician as much as any other
sian in the whole nosological Arrangement,
ermit me to make my Grateful Acknowledgments
the instruction I have received from Your in-
aluable lectures, Receive my best wishes
r Your future welfare and happiness,
ay You ever maintain that standing which You
w hold in the Medical World.

An Inaugural Dissertation

on

Indigestion

Submitted to the Examination

of the

Right Revd James Kemp D D Provost

the

Regents and the faculty of Physic

of the

University of Maryland

for the

Degree of M. D.

by

George Wm Harris

April 3rd 1826

Few diseases are less understood, or treated upon more incorrect principles, than the one known under the vague and indefinite term, Indigestion; which is the more remarkable, when we consider, the frequency of its occurrence, its consequences, and its connexion with other diseases. In the present dissertation, we propose to treat, first of its symptoms, secondly of its causes, and lastly of its cure. The symptoms are either such as arise from the undigested food itself, or from that state of the stomach, and bowels, which causes the disease, and the irritation, of their nerves, occasioned by the undigested food, or their own vitiated secretions. The symptoms arising from undigested food, are heartburn, flatulence, painful distension of the stomach, torpor of the bowels, and eructations of various kinds. From that state of the stomach and bowels, which causes the disease of which we are treating, symptoms of a greater variety arise. The symptoms caused by undigested food, are often for a long time, the only inconvenience experienced by the patient, which goes to prove, that the stomach may for an indefinite time suffer, without involving the general system. Persons after eating, frequently experience a sense of oppression, flatulence, and acid eructations, whose general health is in other respects very good; these symptoms readily yield, upon observing a more abstemious diet, or using one of a more digestible quality; and if the constitution be unimpaired, and other causes, calculated to debilitate, be obviated, the stomach readily recovers its healthy action, without the aid of other means. But from inattention on the part of the patient, or some other cause, a constant repetition of

the above symptoms continue to take place, which, sooner or later in different cases, involve the rest of the alimentary canal, in the disease. Their secretions suffer in quantity, and very probably in quality. The bowels become irregular, and are moved with more difficulty than formerly, and are frequently distended, and tense some hours after eating. But as these symptoms are easily removed by some gentle aperient, and the patient restored to his ordinary state of health, they give but little uneasiness; and the first circumstance, that alarms him, is a sense of general debility, which at first occasional, soon becomes permanent, and then so far from considering his disease as one of little importance, he views it as one attended with the greatest danger; his mind becomes anxious, and desponding, and he imagines, nothing less than some important derangement, can produce the anxiety, and despondency which he feels. After a continuance, of a shorter or longer duration, of these symptoms, a manifest change takes place in the alvine secretions; which change is evident, from the different colour of the discharges at different times: sometimes they are very dark, approaching to black: at other times pale, and in a short space of time, exhibit all the intermediate colours: occasionally, the food passes through the digestive organs, very little altered by the digestive process. The sensible alteration, which takes place in the appearance of the alvine discharges, is generally attended, by corresponding changes in the other symptoms. The stomach is more easily, and more frequently oppressed. Diarrhea frequently attends, followed by fits of constipation, which are

more or less easily relieved, according to the duration of the disease. Dr Wilson Philip, than whom higher authority cannot be quoted, mentions, that after this state of things has continued for some time, a permanent spasmodic stricture of the Rectum takes place, giving a tape-like appearance to the feces, and suggesting the idea of organic derangement, until an examination proves the contrary. The same author mentions, that a less permanent stricture is more a frequent occurrence. As it is impossible, for so important a part of the animal economy, as the alimentary canal, to suffer long, without involving the general system, other symptoms soon manifest themselves. These are different in different cases, Pains are felt in various parts of the body. The patient is harrassed, with frequent spasm of the trunk and extremities; and occasionally experiences, temporary loss of power in the latter. Feelings, of endless variety are experienced, by those labouring under this most distressing disease, to describe all of which would far exceed the narrow limits of our treatise. The system, exhausted, and worn down, by the frequent attacks of the disease, finally sinks a victim to its ravages, unless timely aid be brought to its assistance. Having given as full, and as correct a history of the ~~sym~~ symptoms of the disease, as our imperfect knowledge of the subject will admit, we shall now, agreeably to the order we proposed in the commencement, proceed to consider its causes.

In considering the causes of Indigestion, we shall find, they are as much influenced, by the sympathy of the alimentary canal with other parts of the system, as its symptoms. The causes of

Indigestion may be treated of under two heads. The first is, of those which act directly, and immediately, upon the stomach itself. The second is, of those which act upon the whole body, or particular parts of it, but in consequence of which, the stomach, chiefly, or almost wholly affected. In considering the causes of this disease, we do not think we could do better, than give a transcript of those given by Dr Cullen: the accuracy of whose observations, upon this and every other disease of which he treats, is conceded by all.

Of the first kind, are certain substances taken into the stomach; such as tea, coffee, tobacco, ardent spirits; opium, bitters, aromatics, putrids, and acescents. The large and frequent drinking of warm water, or of warm watery liquids. Frequent vomiting, whether excited by art, or arising spontaneously. Very frequent spitting, or rejection of saliva.

Those causes, which act upon the whole body, or particular parts of it, are an indolent sedentary life. Vexation of mind, or disorderly passions of any kind. Intense study, or close application to business of any kind, too long continued. Excess in venery. Frequent intoxication, which partly belongs to this head, and partly to the former. The being much exposed to moisture, and cold, without exercise. In fine so extensive, and intimate, are the sympathies of the stomach, that whatever cause produces considerable derangement of any organ of importance, it may be ranked, as one of the causes of indigestion. Having treated at some length, of the symptoms, and causes of indigestion, we shall, in the last place, consider its cure.

The primary object, in the treatment of this and all other diseases, is to remove, so far as it is practicable, the remote causes whenever present. As many of the remote causes of this disease are particularly apt to recur, it requires great attention on the part of both Physician, and Patient, to prevent such recurrence. The first part of the treatment of this disease relates to Diet, and a proper regulation of the exercise of both mind and body; a due regard to these, with an occasional aperient, will frequently in the forming state of the disease, effect a cure without the aid of other means. In regulating the diet of a Dyspeptic, we frequently have to encounter peculiarities of constitution, to which no general rule will apply. But as experience has taught the diet best adapted to a stomach enfeebled by disease, by this experience, in all ordinary cases, we must be governed. A person, labouring under indigestion, must not only select food most easy of digestion, but he should, with the most sedulous care, avoid repletion, as a cure is impossible without attention to this point. It will not be sufficient for the patient to confine himself to a regulated diet only for a week, or a month, but very frequently he will have to continue it for years, if he expects his cure to be permanent. No disease is more liable to a return, than the one under consideration; and for this very obvious reason, the causes which first give rise to it are of constant application, without the precaution which we have enjoined. All tough, oily, and acescent substances, particularly when taken

in combination with fluids, are most difficult of digestion; consequently a diet, the reverse of this, is best calculated for a dyspeptic. In the first stage of indigestion, a diet consisting mostly of animal food, and stale bread, is best adapted to the condition of most patients. With few exceptions, the flesh of old is much more easy of digestion, than that of young animals. Most kind of game is easy of digestion. Fish is an improper article of diet, as it is difficult of digestion, and affords but little nourishment. Eggs, when not boiled too hard, is an agreeable change, if the patient will avoid excess. The fat of meat is much more indigestible, than the lean. High seasoned food is particularly injurious, as it excites a morbid appetite, which inducing the patient to take more food, than the stomach can digest, he is troubled for a considerable time after eating, with those symptoms, which we mentioned when treating of this part of our subject. Vegetables are generally improper, owing to their tendency to fermentation. But in this class of substances, as in all others, some are more easy of digestion than others; and which these are, a slight attention, on the part of the patient, will readily point out. Fruit of all kind are to most patients oppressive; but as we more frequently meet with peculiarities of constitution with respect to fruit, than other articles of diet, it is impossible for us to give rules of general application. With respect to liquids, none can be so proper as water, but in regulating this part of the treatment, we must be governed very much by the habits of the patient, as it would be more than folly, to deprive a patient enfeebled by disease, of a stimulus,

which, in health, his habits had rendered necessary to the support of his usual vigour of body, unless we have positive assurance, that the most limited quantity aggravates the disease. Since then it is frequently necessary to indulge our patient with Alcohol in some form, it becomes necessary to consider under what form it is least pernicious. The imported wines, ale & bottled, suited to the majority of Dyspeptics, and of these, Port, from some peculiar quality, which it possesses, is best. but not unfrequently, this is found to disagree with patients, and then we are compelled to give the preference to some one of the other wines; and still more rarely, owing to Idiosyncracy diluted spirits is the only form, in which Alcohol can be administered. Of this, and many other circumstances in diet, every individual must be his own judge, as no rule can be given of universal application. The exercise, of the patient in the treatment of this disease, is of equal importance with the diet. The exercise of the patient may be of various kinds, viz; friction, gestation, and that, which requires the exertion of the patient. The last, when the strength will justify, is of all exercise the best. There is none, which produces such uniform, and regular exercise of the muscles and joints; none, which better promotes the circulation, and consequently invigoration of all the functions of the system. The gentlest kind of gestation is sailing; which is serviceable in all cases of debility, and particularly so in debility of the alimentary canal. Riding, on horse back, or in a carriage, is a very agreeable, and useful mode of exercise: particularly the former, and ought always to be indulged, unless

particular circumstances forbid. But very frequently the debilidty of the patient is so great, that he can only use the exercise of friction, and even when his strength will admit of either of the other kind, it is found a most powerful adjuvant. Whatever kind of exercise is adopted, the great object demanding our attention, is to avoid carrying it to the point of fatigue; for when taken to that extent, the injury, it produces, counterbalances all the good that can possibly result from its employment. The rules, recommended for the regulation of the exercise of the body, are equally applicable to that of the mind. As the mind becomes irritable and despondent, when the diseased leads a life of idleness, his employment should be such, as will abstract his attention from his situation, and engage it without fatiguing it. Nothing is better calculated to dispel the despondency, which is a never failing concomitant upon this disease long protracted, than the company of friends, who constantly present to the patient, the fairest side of his future prospects. The time of day, at which the exercise, of either mind or body is taken, is of the first importance. Exercise should be taken in the forenoon, as in the debilitated, there is always some tendency, to fever in the evening. Early to bed, and early to rise is a maxim in the treatment of this disease, from which, none can long deviate with impunity. Rules, given with respect to diet, and exercise, are seldom of themselves sufficient for the removal of this disease; more particularly after its continuance for some length of time. We shall now consider, what is

termed the medical treatment of Indigestion. Upon this part of the treatment, we shall be very concise, and condense what we have to say in as few words as possible, as we have dwelt at some length upon that part, which relates to the regulation of diet, and exercise: upon a strict attention to which, the cure (as we have more than once mentioned) of the disease principally depends.

When we first undertake the cure of a case of Indigestion, the first symptom, generally which we have to contend with, is a feeling of oppression about the stomach, the removal of which is easily effected by a gentle emetic followed by a mild aperient; and a proper attention to diet obviates the necessity of a repetition of the emetic, which is of first rate importance, as frequent vomiting (as we have before mentioned) is one cause of the disease. Dyspeptics are harassed by no symptom more than acidity, the removal of which is generally easily effected, by some one of the Alkalies or alkaline earths, but the practitioner should be governed, by attending circumstances, in his choice of these articles. When acidity is accompanied with torpor of the bowels, Magnesia is the corrective; when the contrary obtains, some preparation of chalk is necessary. But should neither Diarrhea, nor constipation be present, Soda is the best Antacid. As simply neutralizing the acid generated in the stomach, and relieving its attending symptoms, can in no manner restore the digestive organs to their original state

of health, the principal indication of the physician must be to remove that state, which gives rise to these symptoms: which indication is best fulfilled, by restoring tone to the digestive organs in particular, and the system in general, by the administration of Medicines derived from the class of Tonics. Of these, the preparations of Iron are considered the best. The Muriated tincture of Iron has been recommended, but I believe, has never received a very extensive trial. Bark, and in fact all the bitter Tonics, (as we might have concluded reasoning a priori) have been successfully used in this disease: but in the use of these medicines, we should always bear in mind, that their long continued use will produce the very disease, which their judicious administration is so efficacious in removing. Of the numerous remedies employed in this disease, none perhaps, has equal claims with Mercury, given in small doses. No medicine can so effectually remove those biliary symptoms, which are sooner or later induced, through the medium of that sympathy, which exists between the Liver and the organs of digestion. The bowels should be regulated, by the occasional administration of some mild cathartic. Should all our remedies fail, and the disease in spite of our best endeavours continue to progress, it sooner or later, extends to other organs, giving rise to a new and complicated train of symptoms, no longer partaking of the character of that idiopathic disease, which we proposed only to consider in this treatise.

An Inaugural Dissertation on Arthrosia Podagra

Submitted to the examination of the Right Reverend James Kemp D.D. Provost and the Faculty of the University of Maryland for the Degree of Doctor of Medicine

by

Silas Larsh
of
Baltimore - Anno Domini MDCCCXXVI.

To

Samuel Baker MD.

Dear Sir

Permit me as one of your pupils, to dedicate to you these few and imperfect lines as a mark of respect, (though trivial) arising from a sense of consciousness of your ~~[illegible]~~ virtues as a Christian, and your talents and dignity, as a Physician and Teacher.

The author

Introduction.

It is not my intention to endeavour to investigate the validity of the Theorist, nor to attempt to unravel and render visible any of those Arcana of the science of Medicine, which we may contemplate as being hid within her temple, not to be brought into view by the pen of the youth, nor the vain attempts of the inexperienced Theorist; but only by that indefatigable industry & perseverance of application which has characterized the lives of many of our predecessors! For vanity would fall to the lot of him who would attempt to pry into the secret paths of nature, without being acquainted with her highway's. —

I must therefore be content with describing that which has already been described, & the subject which I have chosen for this dissertation is that of Gout, the affects of which are as well known by the Epicure, as its Pathology & Therapeutics is by the Physician.

On Arthrosia Podagra.

This disease manifests itself in persons of robust and large bodies, of large heads, and of full and corpulent and more especially in those of gluttonous habits; though this is a description of persons who are more obnoxious to Gout, yet it may make its appearance in others who exhibit a life of great regularity and abstemiousness, and when this is the case it is from hereditary predisposition.

This disease, has been confounded with rheumatism, in consequence of its apparent resemblance, but the difference upon examination is very manifest; it is a hereditary disease, and in this it differs from rheumatism, and in the latter disease there is seldom or never a metastasis, which frequently occurs in gout: Rheumatism

seizes the large joints, the smaller are generally affected with gout, they differ also in their remote causes, for some of the causes which give rise to gout, could never produce rheumatism; another diagnostic mark between rheumatism and gout, is the dyspeptic state of the stomach

This disease may be acquired and trans=mitted to Posterity: It affects women as well as men, and generally appears in them about the period of menstruation; Children have it when hereditarily predisposed; Eunuchs are seld=om troubled with it, they are supposed to be fortified against it by castration.

It attacks by paroxysms, generally in the Spring, and comes on but once in two or three years, but after it has occured for some time

it appears annually or oftener, and the paroxysm is of longer continuance, it is also more easily excited, and less inflammatory.

It generally comes on about one or two. O. Clock in the morning, and when it attacks the big toe or foot, it is called Podagra; those persons who have experienced the paroxysms of gout are generally warned of its approach by the following premonitory symptoms, such as a coldness or numbness of the lower limbs, also a sense of pricking or formication, slight shiverings, and a sediment in the urine, the part which it seizes upon is very painfull and of a pale red colour, it is tense, swollen and of a shining and smooth appearance, but it never suppurates (except in protracted or neglected cases where the calcareous

secretion is suffered to be formed, then you may have an ulcer, produced by the irritation of this deposite) and in this it differs from common phlegmonous inflammation: The stomach in this disease, is not necessarily affected, there is fever, the skin is dry &c. and sometimes there is a calcar=eous matter deposited under the skin consisting of urate of soda. The kidneys are also attacked with the gout & from these it is translated to the extremities and vice versa; the Brain, Liver, Stomach, Lungs and Rectum are sometimes im=plicated, also the Bladder and when this is affected you have acute pain at the neck of this organ, also strangury, and a discharge of thin acid mucous from the urethra.

The terms Tonic and Atonic are used

by author's, the former where it is highly inf-
-lamonatory, and the latter where the inflamma-
-tory symptoms are not so manifest.

When the gout comes on in the usual way (attacking the extremities) and is translated from these to any of the viscera; it is called retrocedent; but when it attacks some of the viscera first, it is then called misplaced gout; and when the gout does not confine itself to one part, but moves from place to place it is then called irregular.

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The causes which excite gout are various, such as intemperance in eating and drinking; Indolence, sometimes ceasing from hard labour will produce it; much application to study; also the sedative passions; excess in venery; a

sudden change from a spare to a full diet, or from a full to a spare diet; a sudden cessation of an habitual discharge; also sudden exposure to cold, when the skin is in a state of perspiration, or wet applied to the feet, they all however concur in producing either direct or indirect debility. a sprain will produce it where the person is predisposed.

There is no disease perhaps within the bounds of nosology, about which Author's differ so much as respects the treatment in this; for we find some who recommend it to be treated with cordials and a phlogistic regimen, while others directly opposite, treat it with evacuants and an antiphlogistic regimen; Patience and flannel have also had their share in the jargon of the

day; the limits of this dissertation will not adm-
it of my noticeing the demerits or merits of the
above diversified treatment, I shall therefore con-
fine myself to that which is most generally
approved.

The treatment of Gout may be divided into
Paroxysmal and Interval.

In a regular paroxysm of gout, where the extr-
emities suffer, and where the constitution is
in other respects healthy bleeding from the arm,
or the application of leeches to the inflamed
part is of great utility, also diaphoretics,
emptying the bowels and dipping the part
in cold water, or a frigorific mixture, though
some object to this, for fear of a metastasis, but
there is no danger of this, if it be used discrim

=inately; for this treatment is to be avoided when there is any thing like debility in any impor=tant organ, although we cannot bleed general=lly in this case, we may apply leeches, and the pain may be palliated by epithems, such as cloths wet with ether or alcohol and applied to the part, to be renewed when they become dry; also a liniment made by triturating opium with oil of almonds and applied to the part, at the same time gentle aperients or injections may be used; when the pain is very acute, & the inflammatory symptoms have in some degree subsided, opium may be given: The diet is to be reduced gradually, and stimulating drinks should be avoided.

In Irregular gout, the indication is, to transfer

it to the extremities, and there fix it, and in order to do this we must stimulate by warm tonics; and a generous diet, the feet are to be put in warm water, which weakens and debilitates them, for if they be weaker than other parts, the gout will fix upon them.

In misplaced gout, we must use brandy, ether, musk or opium which is the best, it should be given freely; and in addition to these we must apply external irritating articles, such as sinapisms, the camphor liniment, & even the moxa itself, and the extremities should be put into the warm bath. In retrocedent gout the treatment is much the same, for we must use external irritants, a light but generous diet with wine, & keep the bowels open with rhubarb or magnesia

During the interval, temperance in eating and drinking is to be strictly adhered to, regular exercise is to be used, taking care not to carry it so far as to induce fatigue; In the young and corpulent it is necessary that they should abstain from animal food and wine; fermented liquors are to be avoided, though in elderly persons who are habituated to the luxu=ries of the table it is necessary to reduce their diet and manner of living gradually; The bowels should be kept regular; Going to bed early, and rising early should not be omitted; Hard labour is recommended by some, in short every thing should be attended to during the interval which will strengthen and invigorate the system.

An
Inaugural Dissertation
On
Phlegmasia Alba Dolens Puerperarum
submitted to
Doctor James Kemp Provost
and
the Faculty of Physic
of the
University of Maryland
for the degree
of
Doctor of Medicine
by
Haines McKay
March
1826.

Phlegmasia Alba Dolens Puerperarum

This disease commonly known under the designation of Phlegmasia alba dolens puerperarum from its being supposed peculiar to the puerperal condition, is one of very great importance whether we regard the interesting subject of its or the great diversity of opinion entertained respecting its pathology. On this latter account it is rendered a subject also of no little difficulty. It has of late years engaged the attention and employed the pens of some of the most eminent members of the profession whose different productions are not less characterized by discrepancy of sentiment and contrariety of statement than ingenuity in speculation and ability of execution. To inucleate from these discordant and distracting representations and theories the truth and present it in its native & simple garb perhaps will be deemed no easy task for one just treading the vestibule of the temple of medicine. And when it is remembered that the rare occurrence of the disease and the retiring delicacy of its ordinary subjects secludes it from the observation of the student of medicine, a failure to

so this will meet with indulgence from the liberal and candid critic.

Notwithstanding this disease cannot be supposed of more modern origin than many others of the puerperal state, it does not appear to have challenged the close observation of the ancients writers. Mr White about forty years ago appears to have been the first who wrote a regular Treatise upon this subject, since which time the attention of the profession has been more particularly called to it and we have been favoured with the speculations of Drs Ferriar, Hull, Denman and others. A critical examination of the views of these gentlemen is precluded by the nature of the present essay. In the course however of our reviews we shall take the opportunity to touch some of the prominent points which their performances present.

The disease before us appears to consist in a peculiar inflamation of the lower extremities and parts adjacent. ~~Hd~~ From the white appearance of the swelling the French call it dépôt du lait, and hence the term milky leg regarding it as a translation and deposite of the milk in the affected member: In this idea they were confirmed by observing in some cases that breasts became flaccid not reflecting that the secretory process of

the mamona was suspended by the attendant fever. Besides in many cases the breasts are overflowing with milk and the child is nourished at them. It is said only to occur in lying in women and never during pregnancy and to appear in no other part of the body than the lower extremity. The state of the lochia exerts as little influence over it as the milk and it attacks every variety of subjects, neither rank age, employment nor habit furnishing an exemption from it; and season or local situation occasioning any difference in this respect; as already remarked however it is a disease of comparatively very rare occurrence. According to the records of the Westminster General Dispensary says Mr White out of 1897 women only five were attacked with it and of 8000 in Manchester only four. It usually makes its appearance in twelve or fourteen days after delivery though sometimes much later and sometimes reaches a considerable heighth in twenty four hours. It generally commences with pain in the groin or some neighbouring part as the hypogastrium, hip or loins. The pain winds around along the inner part of the thigh and is accompanied with a sensation of stiffness or weight descends to the Gastrocnemii and becomes very severe and often excruciating. The parts soon begin to swell usually commencing

above and spreading down the thigh and leg until the member is distended throughout its whole extent to dou=
=ble its natural size; the swelling presents a white smooth and shining appearance, its temperature is greater than the sound limb; it is very elastic to the touch not pitting like the oedematous affection and is exquisitely tender when handled, If scarified little or no fluid escapes from the punctures, and when the limb is placed in the horizontal posture the swelling does not subside as in drop=
=sy of the cellular membrane. The conglobate glands especi=
ally of the ham and groin are also swollen, knotty and hard. The accompanying fever is seldom considerable or of long con=
tinuance and upon its subsidence and the diminution of the pain and tenderness the limb feels heavy stiff benumbed & weak. It rarely is reduced to its former size and most commonly is considerably enlarged during the life of the patient, also ~~more~~ she is more liable to cold in the affected member which feels weak and stiff after exercise. After one limb recovers it sometimes seizes on the other; but according to Mr White never attacks the same member a second time. The last named gentleman regards the swelling of the labia pudendi of the side affected a path=

ognomonic symptom and says that it never crosses a line passing down to the glutial sulcus from the naval depression.

This disease is often of long continuance but seldom if ever terminates in suppuration or gangrene and is very rarely fatal.

In approaching the investigation of the pathological part of this subject we feel no little timidity and hesitancy. The lymphatics vessels which all agree and chiefly interested in the proximate cause of this disease, pass from the inner and outer side of the foot in the course of the saphena veins whilst a deeper seated set accompany the great arteries of the limb. They all however concentrate at the inguinal glands and passing over the brim of the pelvis go to form with the set from the opposite side the common receptaculum. Most if not all the writers on the subject agree in an inflamation in these vessels whilst they all differ more or less in regard to its cause and extent. The idea of Dr Denman is that this inflamation depends upon an absorption of some acrimonious matter secreted by the uterus which he supposes is in a state of morbid action and that this acrimony irritates, inflames and produces an obstruction of the glands. But in refutation of this view it is maintained that cases occur

where the uterus is healthful and its secretion unvitiated.
The theory of Doct. Hull so far as we have been able to learn it from the statements of others does not appear very distinctly to exhibit the proximate cause. He supposes the inflamation to extend to the muscles, cellular membrane and cutis and that there is an effusion of coagulable lymph instead of the proper fluid of the lymphatics and also that the large blood=vessels and nerves participate in the inflamation. But this descrip=tion appears far better to suit a description of phlegmonous inflamation, and were it correct instead of a glabrous white tu=mefaction we should certainly witness a swelling of a red ap=pearance and attended with constitutional symptoms far more se=vere and dangerous than are usually found to accompany the present affection.

Mr White who has the merit of first calling the attention of the profession more particularly to this subject supposes that the continued pressure of the childs head in labour upon the lym=phatics where they lie between the uterus and the brim of the pelvis might produce a rupture or laceration of them and consequently extravasation, especially as the anterior edge of the pelvic bason is sometimes very sharp. He has sustained this opinion with

much plausibility and ingenuity. The length of time which elapses before the inflamatory symptoms appear he argues, sustains the probability of this lesion having taken place. For the inflamation extends gradually from the point of injury to the glands which become obliterated, and the pain and swelling ensue. He also supposes that the protracted recovery results from this lesion and obstruction of the lymphatic trunk and that the effused fluid cannot be absorbed until by inosculation and anastamoses a new channel is provided. But the argument on which he appears chiefly to rely is that as the new channel lies beyond the action of the injurious agent in future parturient efforts the disease can and does never occur a second time in the same limb. If this be the state of the fact it is difficult to obviate the force of the reasoning.

But Mr White finds in Doct. Ferriar an ingenious and formidable opponent. Doct. Ferriar's opinion is that the disease consists simply in an inflamation of the absorbents of the limb: that they are rendered incapable of performing their function by the thickening of their coats and the obstruction of their glands; but the arteries being in a sound state, the exhalants continue to pour out their fluid which must accumulate in the cellular membrane. He supposes this state of things to differ from oedema only in the inflamed state of the lymphat=

ies and the complete suspension of absorption which proceeds though imperfecly in the latter disease. He impeaches Mr. White's doctrine on the ground that the swelling does not always begin in the groin and brings forward a well attested case in which it was confined to the calf of the leg and did not extend above the knee, and another in which the swelling began in the foot. The rupture of a lymphatic he maintains if it could produce distention of the limb would produce it immediately, at least in the neighbourhood of the rupture. But he contends that when a lesion of a lymphatic trunk does take place, as it often must in dislocations when the capsular ligament is extensively lacerated, as such swellings follow though the luxation be not reduced for months. He also adduces the case of a lady aged 53 who never had a child & of another in whom it occurred twice in the same limb. The last case mentioned is given in the words of the patient Mr. Bellot surgeon of Old Ham which is very interestingly detailed; and constitutes one of the two cases in which it occurred in a male.

Doct. Ferriar supposes that cold and moisture may be the remote cause of this affection and that there are circumstances attending parturition abundantly sufficient to account for

it without supposing a laceration of the lymphatic trunk. For during the last months of gestation the Uterus pressing upon the venous trunks of the lower extremities produces a venous congestion in the extremity. This by the laws of the constitution must be followed by increased effusion of the exhalant vessels which imposes an increase of duty and consequently action on the absorbents. The absorbent vessels then stimulated he thinks may be occasional causes, readily be thrown into inflamation. Such may be the violent considered the violent pressure which takes place on the part during delivery. The constitution also he argues is much more irritable after than before. The balance of the circulating fluids is suddenly changed. There are new determinations and new sympathies produced in a state of great debility agitation and anxiety. In circumstances so peculiar he thinks it not surprising that inflamation of the absorbents should take place.

Doct Good appears disposed to entertain nearly a similar opinion on this subject and indeed if we admit the cases adduced by Doct. Ferriar Mr Whites theory cannot be maintained and the opinion of his opponent presents fairer claims to our adoption than any other that has come under our notice. In treating this disease conformably to this pathological view he states that it will be removed in

two or three weeks instead of continuing several months or longer.

As this disease is evidently of a local affection and where the constitution becomes implicated it is only secondarily involved; generally measures of a very active character are seldom required indeed the fever would hardly ever call for the lancet which is more indicated by the excruciating pain than the arterial excitement. In some cases one or two moderate bleedings may be advantageous particularly in entonic habits; But it should be remembered that this remedy will not alter the state of the limb as regards the swelling - gentle purgatives will be most proper. Dr. Ferriar recommends particularly the acidulous tartrate of Potassa from the decided influence it appears to exert over the absorbents. In the phlegistic diathesis the antimonial diaphoretics would appear to promise advantage, also after proper evacuations should there remain much irritability pain and restlessness anodynes may with much propriety be resorted to, of which perhaps the pulvis Ipecac. Compos. as uniting the soporific and diaphoretic properties seems to possess the strongest claims and is very generally recommended.

The preparations of Mercury appear not to succeed so well as we would be disposed to imagine whether exhibited internally or locally applied by inunction. The most important

and efficient means however are of a local character as we might infer from the nature of the disease; local bleeding by leeches repeatedly applied according to the urgency of the symptoms often affords immediate relief. To this may be added after sufficient depletion with great advantage the use of blisters – an eminent professor of the University of Maryland states that he has often found much benefit from them by applying a small epispastic immediately over the seat of the pain and so much relief has been afforded by this practice to the sufferer as to induce them when the pain shifts & reappears to request a recourse to the same remedy. Some practitioners envelope the whole limb in an emolient poultice and anodyne fomentations as of poppy heads; promise to be of service. But what is better a swathe of flannel wrung out of hot vinegar may surround the whole limb and be renewedly applied warm whenever it becomes cold. This last mentioned means aided by gentle aperients is said to have been adopted with invariable success in all cases; in one of the regulated lying in Hospitals in London. When the acute

stage has passed over and the limb is merely affected by swelling and sluggish stiffness indicating debility and inaction or when as is sometimes the case Oedema is the result we must have recourse to more stimulating means and in delicate habits a prudent course of tonics with generous diet may be required to rally the exhausted energies of the constitution and through that the part. Doct Good states that he has found the common vol. liniment with laudanum the best application doubtless it is very proper. The oleum camphratum or liniment um saponis compositum perhaps might be usefully subjoined. But what is perhaps of more importance than either long continued and gentle friction with the hand or flesh brush should not be omitted – a laced stocking or elastic flannel bandage skilfully applied should be constantly worn till the part is able to support itself. Bathing with sea water will also be advantageous. But bathing in the sea itself promises singular benefit in all cases as it unites with it necessarily change and purity of air with exercise and mental diversion and recreation which are very grateful to the invalid after be-

ing so long secluded from society and confined to the pre-
cincts of a sick chamber —

In concluding I cannot take leave ~~of the~~ of this institution without giving expression to the grateful sense I entertain in consideration of the many valuable lessons both theoretical and practical that have been taught me by its enlightened professors, and their unexceptionable deportment and kindness toward me as a pupil. —

H. McKay

An Inaugural Thesis

On Asthma

Submitted to the examination of the

Right Rev. James Kemp, Provost

and

The Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Geo. P. Jacob

March 1826

Thesis

Every one who is at all conversant with the usefull and all important Science of Medicine, will at once admit, that it is far from perfection, in consequence of the many different and new causes which are daily generated to produce new diseases, or different types of the same disease.

In saying that there are different types of the same disease, I do not wish to be understood that those regularly organized diseases which invariably present themselves on the application of certain poisons, are changed in their essential characters; but are only modified in consequence of the different circumstances under which they present themselves. Still they possess those characteristic symptoms by which the Nosologist may form a perfect diagnosis, although there may be

as much difference in the same disease, at different times and under different circumstances, as there is in the size and stature of different men: or between the expanded mind of a Newton and the contracted sphere of that of an Idiot.

Here, however, I would wish to draw a line of distinction, between those regularly organized diseases, which are invariably the consequence of the application of certain poisons, as before stated, and those which are merely the effect of contingencies and which will even operate to baffle the attempts of Nosologists to arrive at a perfect diagnostic or characteristic system of Nosology.

We can readily conceive, that the Nosologist can point out those diagnostic symptoms which will allways and under all circumstances distinguish Canine Madness from Syphilis; and we will as readily admit, that they can no more be changed

from the one to the other, than that the offspring of a Cow can have the characteristic marks of a Horse. But will the Nosologist contend that he can invariably distinguish inflamation of the lower part of the Trachea from Bronchitis, or that of the Meninges of the Brain, from that of the Brain itself, or a slight affection of the Pleura from that of the Lungs themselves with as much certainty, as the Botanist can distinguish an Oak from a Tulip, or a Zoologist can, a horse from a Sheep?

These are the circumstances which will ever operate to render abortive, any attempt to form a a perfect diagnostic System of Methodical Nosology.

But although we cannot look for a perfect System, yet we are not insensible of the inestimable value even of those very ingenious, though we must say imperfect ones, which have been

presented to us at different times and by some of the most distinguished and most devoted cultivators of Medical Philosophy.

Among the most conspicuous of those we will find one, in whom talent, industry and youth will ever find a friend, more especially if devoted to the cause of that science and from whom (than from none better) I will take the character of the disease of which I propose to treat.

Asthma, the subject of the following essay has been confounded with many other diseases which are totally different in their causes as well as their essential characters.

Every difficulty of breathing or shortness of respiration, whether from exercise, strangulation hysteria, or any other cause has been denominated Asthma and here as in other places we

have cause to regret that authors have been so fond of lengthening out the catalogue of diseases, as to enumerate, merely the symptoms of diseases for diseases themselves.

Asthma, has been considered by the illustrious Cullen, as well as by many other Authors, as a spasmodic disease and we very readily agree with him in thus considering it, in some cases, but we think that the symptoms of Asthma may be accounted for (and probably Dr Cullen wd have accounted for them) without the aid of spasm, had he not been haunted by this his favourite theory. But he seems determined to have the influence of spasm to help him out of all difficulties and he might have done very well if had placed the spasm in the right place, for of all the parts of the body, the Bronchiæ and Trachea are the least calculated to be affected

by spasm. The scalpel of the anatomist can not find muscular fibres in the bronchia, sufficiently powerful in which to authorize us to place the power of producing the phenomena which present themselves in asthma; but we can very readily conceive how the spasmodic affection of the diaphragm, intercostal and other muscles of respiration, may diminish the capacity of the chest and thus produce the phenomena of asthma. We can also conceive how the debility of the vessels of the lungs and consequent accumulation of blood in them may also produce asthma.

Thus we may have two kinds of the same disease, presenting nearly the same phenomena but totally different in their causes and requiring different treatment.

We will then divide asthma into two species, viz; spasmodic and plethoric. Although

Dr Cullen seems to think that "a preternatural and in some measure a spasmodic action of the muscular fibres of the Bronchia", are always concerned in Asthma yet we think that he almost understood the pathology of Asthma when he says "As asthmatic fits seem thus to depend upon some fulness of the vessels of the lungs, it is probable that an obstruction of perspiration and the blood being less determined to the surface of the body, may favour an accumulation of blood in the lungs and thereby be a means of exciting Asthma." Probably had the Dr not been prepossessed by his favourite theory, as before observed, he would have accounted for the phenomena of many of the paroxysms of Asthma without the aid of spasm, though we are of the opinion that there are some cases of Asthma, presenting different symptoms, to explain which it would be necessary to call in the aid of spasm.

Asthma is thus defined by a late and highly approved Nosologist of whom I have already spoken.

"Spirandi difficultas, per intervalla subiens; cum angustia in pectore sensu, et respiratione cum sibilo strepente, tussis sub initio accessus difficilis, vel nulla, versus finem libera; cum sputo mucoso sæpe copioso"

Symptoms – From the definition already given of this disease it is understood that a difficulty of breathing, recurring at intervals, with a sense of narrowness in the breast &c are the most usual symptoms. According to Dr Cullen it is very often ~~an~~ heriditary disease and seldom appears sooner than the age of puberty. The paroxysms sometimes attacks very suddenly; sometimes they approach gradually, attended with a sense of suffocation and the patient is not able to rest in a horizontal position. If the patient attempt to

talk he makes short sentences as he is almost exhausted for want of air in attempting a long one. There is a tickling in the throat which excites coughing, which is done with great difficulty, but when expectoration takes place it is a source of much relief. According to Dr Cullen the attacks of Asthma are generally in the night, which may be accounted for in the position of the body being recumbent, as well as the defenceless state in which the system is during sleep; the pulse is variable but most generally depressed; the face in the first paroxysms is turnid and the eyes are protruded but in the advanced stage of the disease the face is pale and emaciated. A paroxysm is excited by exercise, by walking up stairs, by walking facing the wind, by anger & sometimes by joy; in consequence of which, the patient is rather disposed to sadness and to avoid exercise or any thing which may hurry the cir-

culation of blood through the lungs. Sometimes however the patient is very much elated immediately after the cepation of a paroxysm, in consequence of the great relief obtained.

When the disease has progressed sometime the vital as well as the natural functions are impaired in consequence of the blood not being properly decarbonated by the lungs; hence Dyspepsia and all its consequences.

This disease according to Dr Cullen though often threatening immediate death, seldom occasions it and persons often attain to old age in this disease When it does prove fatal, it is by a congestion of blood in the lungs, which compresses the air cells and thus by cutting off a communication between the lungs and atmosphere causes suffocation. Dr Cullen says that in young persons, it sometimes terminates in Phthisis Pulmonalis, which probably is not the case unless

the patient be Strumous. It sometimes ter minates in Hydrothorax by debilitating the vessels of the thorax and causing an accumulation of blood with an effusion, of what is generally called Serum, but is rather a peculiar dropsical fluid, the consequence of a morbid secretion.

Asthma has been divided into many Species as, the moist, the dry, the Spasmodic and many others, We choose to comprehend them all under two species viz Spasmodic and Plethoric.

The Spasmodic Asthma, is the consequence of causes applied to the nervous system, of which Dr Cullen enumerates, passions of the mind, particu lar odours, frights &c "And," says the Dr "that this is an affection of the nervous system appears pretty clearly from its being frequently attended with other spasmodic affections, as Hysteria - Hyp ochondriasis &c This variety of Asthma is to be treated by venesection, which will relax

the muscular fibres and thereby subdue the spasm, and afterwards with anti spasmodics - such as Musk, Camphor and particularly Opium to regulate the action of the Muscles. After which exercise and tonics will restore the tonicity of the muscles.

That variety of Asthma which I have called Plethoric may arise from an opposite state of the body, for the body may not be in that nervous state which causes the other, but may have causes to act on the lungs debilitating them and thereby produce local plethora. For the system may be in the highest plethoric condition, but if we have no point weaker than another we shall have no disease. So when I speak of Plethora in this instance I mean a local plethora or a remora of blood in the lungs.

Proffesor Potter deriving this disease analogically has denominated it Apoplexia Pulmonium, which

is very expressive of the state of the lungs in Plethoric Asthma

Diagnostics.

Asthma as we have already said has been Confounded with many other diseases, as well as symptoms of diseases; as Dyspnœa, Aneurism of the Aorta, Angina Pectoris, Pneumonia, Hydrothorax &c. It is unnecessary to point out the distinction between Asthma and Dyspnœa; as the latter is only a symptom of the former, as well as of many other diseases.

Asthma may be distinguished from Aneurism by the gradual approach and Constant presence of the Symptoms of Aneurism, while Asthma recurs at intervals. There is a pressure and Constant uneasiness in Aneurism, while in Asthma there is a peculiar straightness of the thorax; and when the Aneurism has enlarged Considerably, the pulsation of a tumour may be felt in the situation

it Occupies, which no longer leaves a doubt as to the Character of the disease.

From Angina Pectoris; By a numbness down the Arms which is an attendant on Angina, which is not on Asthma. – By the Symptoms of Angina suddenly going off and the Sufferer becoming quiet, while those of Asthma go off gradually.

From Pneumonia; 1st By pyrexia being an attendant on Pneumonia which does not attend Asthma, and it is an extraordinary fact "says Dr. Potter that Asthmatics feel more Comfortable in an atmosphere where the Yellow fever prevails." 2nd By being more easy in a recumbent posture in Pneumonia and better on one side than the other which is not the Case in Asthma, but this is not a Certain diagnostic for sometimes the patient feels more at ease in an erect position. 3rd By the pain being generally on one side in Pneumonia, while it is deep seated, and not well defined in Asthma. – From Hydrothorax, By a dropsical

diathesis and Edematous swelling of the legs and feet which generally attends the latter disease, with a scarcity of urine. In Hydrothorax the patient is often seized in his sleep with a difficulty of breathing by which he is awoke with a violent palpitation of the heart, which are removed by placing the patient in an erect posture, In the advanced stage of Hydrothorax a fluctuation of water may be perceived, which does away all uncertainty.

Causes of Plethoric Asthma

We will divide the causes into predisposing and ex=
=citing, and first of the

Predisposing Cause

Which is debility of the lungs, by whatever cause pro=
=duced, whether by mechanical injuries, as fragments of stone or any other foreign body received into the lungs, a great shock of the thorax attended with injuries of the lungs, the reception of dust in the lungs from atten=
=ding mills, Cotton factories &c By Phthisical or scrof=
=ulous state of the lungs, or by repeated attacks of

Catarrh or any other diseases which weaken the lungs.

Exciting Causes.

The exciting Causes are such as accelerate the cir=
=culation of blood through the lungs, as violent exercise,
walking up stairs, a sudden change from a denser to
a rarer atmosphere, by ascending a mountain or burning
Coal or any other combustible substance in the room.
by the repulsion of an eruption from the surface of the
body, which causes a determination of blood to the viscera
and consequently to the lungs, By a suppression of any
accustomed evacuation as the menses, hemorhoids &c.
Asthmatics generally live better in Cities than in the
Country, in low vallies, than on mountains, in consequence
of the greater density of the atmosphere in those situations.

Prognosis.

Our prognosis will be formed according to the urgency
of the symptoms, If the patient be seized suddenly, and
seems almost exhausted for want of Air, and if those
attacks are very frequent; and either will not submit

to a from peculiar circumstances cannot obtain medical aid, the prognosis is unfavourable, but if the patient be in such a situation as to obtain assistance this disease hardly ever proves fatal.

Method of Cure

We have already noticed the treatment of spasmodic asthma and it only remains for me to point out the most approved and successful method of treating that variety which I suppose to arise from local plethora; and from the pathological view which we have taken of this disease, the remedies very naturally present themselves and first in rank is bloodletting, the modus operandi of which is obvious to every one, by taking off that load under which the vessels of the lungs are labouring and equalizing the circulation; this is the most prompt and only certain remedy in a violent fit of Asthma, Sometimes from a long continuance of the disease, the vessels of the lungs are so much debilitated that they cannot contract and empty themselves after venesection

section has been used and the vis a tergo taken off, in this case blisters act very beneficially by strengthening weakened vessels. From the conclusions we have already drawn viz. that the symptoms of Asthma are dependant on the want of the sufficient expansion of the lungs and free circulation of blood through them, emetics appear likewise to be useful, by causing those long inspirations which are consequent upon the violent exertions made in vomiting, as well as the general relaxation and evacuation they produce. All tight bandaging and other causes which may excite this disease should be avoided, and the patient should live abstemiously and take moderate exercise - the exercise of sailing is the best, and a voyage to sea has been known to cure it. Flannel should be worn next the skin which keeps up a termination to the surface and thereby diminishes the flow of blood to the lungs. Changing the climate together with labour and abstemious diet will well almost certainly cure it in the first stage.

The patient should go to a more moderate and uniform climate, keeping the bowels regular and preventing the irritation of accumulated fæces in them is a good practice. In the paroxysm our remedies should be prompt and energetic, if it arise from plethora, copious blood letting should be immediately enjoined and a blister over the region of the part affected is generally preferred by Authors, but as I suppose they act through the medium of the nervous system, if they be applied on the inner parts of the thigh or arms as being the most sensible parts, they may prove equally if not more effectual.

If the disease be of that variety which I have called Spasmodic, Vene sect. may likewise be necessary for the reasons I have already stated after which Opium, Musk, Camphor &c should be used.

In Conclusion I beg leave most respectfully to give expression of the very high esteem and respect I entertain for the Professors, to whom this imperfect essay is with sentiments of the highest esteem, gratitude and affection most humbly dedicated, for their very amiable and unexceptionable deportment to me, for which I shall ever feel a high sense of gratitude

George Pacot

11

On the
Physiology of the Liver
An
Inaugural Dissertation
submitted to
Doctor James Kemp Provost
and the
Faculty of Physic of the
University of Maryland
for the
degree of Doctor of Medicine
By
John H. Bayne
March
1826.

To
Thomas Sumner M. D.
this is respectfully dedicated by his
friend and Pupil
the
Author

On the physiology of the Liver

From the most remote period of medical antiquity up to the present day, we see the physiologist directing his attention to the investigation of the functions of the liver; which from its situation; the proportion which it bears to man as a whole; and from its peculiar and interesting conformation, has been productive of conclusions the most opposite in character — Each one endeavouring to deviate in some measure from his predecessor, has either adduced some rational opinion or has hazarded some absurd hypothesis; every one tenacious of his own production has been anxious to give it publicity, and at the same time has been equally zealous in its propagation. But, without giving countenance to the absurd speculations of some, and degrading doctrines of others, we are unhesitatingly constrained to say that we are indebted to our ancestors, and cotemporary preceptors for every particle of knowledge

which we presume to think we profess on the subject; yes, we are conscientiously coerced to say that we feel ourselves obligated to that unprejudiced examiner of physiological opinions in the University of Maryland for the inculcation of numerous facts, as well as, for the eradication of many preconceived false impressions. — To enter into a regular detail, or even attempt to generalize the multiplicity of theories now before the world on this subject would be nugatory and would greatly transcend the limits assigned this ephemeral dissertation — We see one writer making it supreme director of the system; another has made it an apparatus for the secretion of a fluid to be eliminated as useless; another supposes it to have efficient agency in the process of assimilization; another supposes it to produce unequivocal and important physical changes in the animal economy; another supposes it to combine with excrementitious part of the chyme, and thenceforth act as a stimulus to

the peristaltic power of the intestinal canal, by which it is evacuated, thereby preventing the noxious consequences which result from fecal accumulations. When we view the extreme vascularity of this viscus; the two distinct sets of vessels which carry blood to it, the one set for the secretion of bile the other for its sustentation; we must be instantly struck with a belief, that it performs an office eminently useful to the animal. Bell believes from the immense quantity of blood which circulates through the liver, from the slowness of its motion which is peculiar to venous blood, after having gone through the circulation of the intestines, is a provision of nature for the discharge of carbon, besides the secretion of a fluid to stimulate the intestines. In this position he has the support of Fourcroy. Dr Rush in his essay on the functions of the liver and spleen speaks thus, "The design of the liver I believe to be, to receive the blood from every part of the body,

In order to subject that which has not been completely assimilated or deprived of its chylous properties, to a secretory process, and after, to pour the product of this secretion into the duodenum, to be absorbed or otherwise taken up by the lacteals and conveyed with the chyle into the blood vessels in order to be completely converted into red blood, for the purpose of serving the various and important uses for which the fluid is intended in the human body — Another one of our most intelligent and beautiful writers [Dr James Johnson] in his invaluable work, to show the necessity and use of the hepatic secretion, says, "This immense gland is the largest in the human frame; for neither the brain, lungs, heart spleen nor kidneys can be compared with it; and now since nature has never been accused of supererogation throughout her works, we may safely conclude, that the importance of this organs function, or

the animal economy is commensurate with its magnitude." — That this organ performs an office indispensible and salutary every one must admit. It is through the regular functional action of the liver that the healthful operations of the animal is perpetuated — It is through the medium of the liver that the skin, intestines and by that inexplicable relation which exists in the system, every part is stimulated to the performance of their respective functions. For from a torpidity of the liver, or from obstruction of the excretory ducts preventing a free egress of bile into the duodenum we have a train of the most unpleasant consequences; we have its characterizing tinge; a sense of lassitude; an aptitude to motion; depression of spirits; indigestion; anorexy &c. On the other hand from a redundant and vitiated secretion of this fluid, by its acrimony produces incessant intestinal action; tenesmus tormina; inflamation; prostration of strength

emaciation &c. both tending to prove the bad effects arising from a disarray in the liver.

The Ancients believed the liver to be an organ by which the nourishment was prepared; and Fourcroy has attempted to revive the doctrine; supposing the long protracted circulation through the liver was destined to unite more intimately the molecules of the blood with the new nourishment — But late writers seem to pass over silently these speculations.

It seems yet to be a disputed point among some of our most scientific and distinguished modern writers, whether the bile is excrementitious or not. The bile certainly is an excretion as far as relates to its presence in the liver, biliary cysts and ducts. But its mere entering the duodenum at the point where chyle is seperated, seems to argue powerfully its subservency to digestion; not that here as some have said that a seperation of the proximate principles of bile takes place,

that the portion enters into combination with the nutritious part of the chyme and bestows upon it the sensible qualities of the chyle, whilst the other portion unites with the excrementitious part and is expelled by the peristaltic action of the intestines — The experiment of Dr G. Fordyce proves incontestably the futility of such argument — He tied the ductus choledocus communis, which evidently excluded the bile, and yet he found chylous fluid in the lacteals. Calculi have also been formed in the ducts preventing the discharge, and yet the assimilatory process has continued for some time, but not so well in consequence of the intestines being deprived of their wanted stimulus ——

We therefore, conclude by saying that in our humble belief, the chyle is formed by the peculiar secretory process of the lacteals alone; and that the bile merely combines with

the excretories of the mass, at the same time stimulating the intestines to its expulsion, by which the lacteals are left unobstructed to exert their elective power.

An

Inaugural Dissertation

On the

Vis Medicatrix Naturæ.

Submitted to the consideration

of the

Regent and Medical Faculty

of the

University of Maryland

For the

Degree of Doctor of Medicine

By

Stephen Wesley Rosnet

of

Baltimore

March 1826.

To the Medical Faculty of the University of Maryland, whose diseminated and exalted science it is to preside over the affairs of a great and a justly celebrated Institution, and whose benevolent relation it consequently becomes to dispense health and happiness to a thriving and so zealous community is this humble effort, most respectfully dedicated by one who feels proud only in being one of the alumni of so beloved an Alma Mater

Matters of a doubtful nature seem to obscure the perception of every one, in a measure, engaged in scientific pursuits — This has been more remarkably the case the more distant we trace philosophy from the present period. The progress of time however with all its associated auxiliary means is rapidly developing truth and presenting it less encumbered with that garb of obscurity which has always had a tendency to obstruct the view of the inquisitive and to hide from him the much desired object of of his research — Still however very much yet remains unseen and of course unknown.

But when we come to be more particular, and to investigate the condition of the respective part

which form so imperfect a whole, we find them marked with the same traits, & presenting the same obstacles which are apparent upon a general view of science. In the profession of Medicine to which our attention is more especially directed, there is much which tends to bewilder the mind, however energetic in its operations, however undefatigable in its exertions. Whilst proposition, assertion and supposition constitute in a great measure the basis, the superstructure must necessarily remain incapable of resisting the vigorous attacks of the inquisitive and the shrewd discrimination of the judacious intellect

These I think enter far into the composition of those materials which appear, abundantly, about the threshold of the Medical Area and with which a novice must unavoidably contend before he can gain admission to enjoy the rights and privileges of an indweller.

To make the grounds which we have taken more tenable, let us state for example, a subject which, whilst it has produced much contention in the medical world, still remains as it were sub judice. I have reference to the existence of a vis medicatrix naturæ, and the comparative influence ~~influence~~ which it exerts with

the Healing art in the preservation and res-
-toration of health. Let it not be inferred how
ever, that I presume, that any attempt on my
part can accomplish what infinitely more force
could be productive of no decided impression.
Our object is merely to draw the inference, af-
ter summing and comparing a few argu-
-ments; and after the result of this comparison
the inference will show what impression is left
upon our mind.

The existence or non existence of a vis
medicatrix naturæ is one of those interesting
questions which fall under our notice as es-
-pecially fraught with all that tends effectual-

ly to elicit warmth of discussion and consequently to attach importance to the reply.

Haller appears to have been looked up to by his cotemporaries, as a strenuous advocate for this power; which we contend to be inherent in the entire animal creation.

The success he met with in supporting this doctrine, every one conversant with Medical History must at once laud and even be surprised at. — his Vis Insita we believe is one of the first allusions made to the existence of this principle - a happy hint and one which has resulted I may say in the confirmation, or in the least, in the probability that

the affirmative of this question is correct.

If we indulge in a liberal and unpre-judiced consideration of the animal creation, notice the almost innumerable liabilities it labours under to the many and unavoidable inroads that may be made upon it by external causes, acting both physically and mentally, we may readily and reasonably infer, how great the necessity for every unbiased mind to admit ~~of~~ the innate existence of some almost super-natural agency in the animal economy, capable of acting the part of the defensive and of warding off the unsparing attack of ~~such~~ insidious and merciless invaders.

To establish in a great measure the existence of such a power and the influence which it exerts, it is only necessary to take a glance at the condition of the Healing Art, centuries past and gone and the result of disease upon the system during this period. We might even trace back in our minds, (and be plausibly supported too by analogical deductions drawn from just reasoning) a period, in which a pretension to the healing power of Art was rather a curse than a blessing to the objects because it was not administered well judgement and correctness of its administration — That it benefitted Society but little at that period the authenticity of the records of history corroborates - for example in stating the many famous

table accounts of the sufferings and mortality of thousands, who have either been besieged during long protracted wars ~~and~~ or of those who have fallen victims to the iron hand of affliction under various other circumstances — But that complete restoration to health in numerous cases took is likewise well establish and concerning the truth of which none will for a moment can entertain the least shadow of doubt. Now since what was then termed the Italian art was rather an injury than a benefit to the invalid (in as much as it was directed without regard to the present admitted general principles of the science) we must in accordance with all justice, attribute the restora-

tion from disease, to some other source than the healing art — and pursuing the same kind of ratiocination we are compelled in the end to give the credit to the vis medicatrix naturæ — ~~but~~ and in doing so we find cause to boast triumphantly, that what was then considered a mere dependant upon fate, or something equally futile and groundless, has now reared itself among the most noble of Professions, the Science of Medicine.—

In thus arguing, however, we will not pretend to define the nature or attributes of this preserving principle in the animal economy; but from its effects, we may justly form an exalted opinion of its attributes and char-

-acteristicks - In forming this opinion how-
-ever, we do not wish to be considered, as attack-
-ing perfection as an attribute or to be esteem-
-ed guilty as some have justly been of ascri-
-bing to the creature attributes exclusively pe-
-culiar to the Creator - This we esteemed profan-
-ity in asmuch as upon such a consideration, we
give to the creature attributes emanating from
the Creator yet without perfection; in so far as
they occasionally prove incompetant in effecting
the object for which, we conceive, they were design-
-ed. not that we consider the Ves. Mag. not sub-
-ject to error in the administration of the duties
assigned her, but perhaps she may be frustra-

ted by the superior force of the offending adversary – so that in the supposition that this principle is an emanation from Deity himself we at once call in question His Omnipotence by acknowledging His incapability to accomplish where His Omniscience directs.

That some principle exists in the animal economy to which may be ascribed, readily and justly, the restorative agency already alluded to, we shall from what has been said take as granted we – indeed writers general ly admit it – none I believe positively deny it. We shall now proceed to notice what relation, the Vis Medicatrix naturæ

bears to the Vis Artis as it may be termed exponent of success and efficacy of observation.

In entering this field of controversy, we are aware that many have preceded us not less inquisitive nor yet perhaps with less reluctance. They have however left it entirely satisfied that their struggles have been crowned with the comfortable assurance of the Truth unsullied by doubt or misapprehension. We boldly follow their example nor shall we be disheartened if we but meet with the same success.

The existence of a principle by means of which the system is either loosely protected against the inroads of decrease, or when unwarily surprised

by an insidious foe, meets him like a courageous heroine at all points, and paralleling his deadly effects, gloriously expels her antagonist from her domains before his exertions have become destructive to the objects of her charge, is not effectd as we conceive by a mere mechanical operation or chemical process, but by means at once astonishing and still not altogether explicable.

It is an influence vigilant in executing yet powerful and extensive in its operations. To render unquestionable this fact it is only necessarily to observe the numerous and important cases in which her exertion is influenced in maintaining the balance of

health, and her exertions to restore it when counterbalanced by disease - her success we find wonderfully satisfactory ~~and successful~~ even when deprived of the combined assistance of the healing art.

Unaided and unassisted, then, we frequently observe her to be the fruitful source of health and happiness — The same however cannot be said of the ~~its~~ medicatrix artis - and when we attempt to enumerate and to sum up cases where success has followed ~~its~~ the latter's operations exclusively, we find ourselves at a loss, not being able to present one well authenticated case - & It would be thought be an arduous task - nay it would be impossible - for if the grounds which we have taken be granted

us, we look upon the principle in the animal economy as continually exerting its influence, and the Healing Art of course cannot, at any time, be directed unless with the Cooperation of the Vis Med. naturæ. Here then we must deduce an insuperable inference in favour of our position – that since nature unaided by art is competent to the restoration of health and that art effects nothing exclusive of the assistance of nature, we are bound to acknowledge the superiority of the ~~latter~~ former (vis naturæ) over the ~~former~~ latter (ars) as a preserver and restorer of health.

Respecting our subject we have thus far argued generally – But if it were ne-

say we might carry our reader to the Annals of Surgery - to the general principles of Pathology and in fine to the entire circle of Medical Science - When we might gather a Copious Stock of collateral arguments, by which we might strengthen and embellish the comprehensive position we have taken - we might deduce for example the knitting of a broken bone, the repairment of breaches of continuity and innumerable other conditions of the system, in which disease is repelled or effectually eradicated - These might be urged most forcible (and most explicitly too) in support of the Opinion that the Vis med. nat. is superi-

or in point of efficacy in preserving the vestiary health. To complete the comparison between the two great agencies, the Vis Med. nat. and the Vis Med Artis. We may familiarly represent the former, to a frugal and industrious housewife, whose constant and indefatigable exertions are all directed in the most prudent and successful manner to the preservation of order, neatness and regularity in the administration of the various duties devolving upon her. The latter with the same propriety we may represent as a noble hearted consort whose only duty in relation to the affairs of his fair bride is

to relieve her when she is oppressed with business, either directly or indirectly, and to afford such auxiliary means, as will be conducive to the accomplishment of the object to which their mutual concern is so solicitously and so happily directed. In the close of my dissertation, I wish to remove any thing like a suspicion that I have spoken in a manner derogatory to the cause of one of the most noble of sciences — This ~~[illegible]~~ I have not been my object — I have only designed to support the principle, that Nature does nothing in vain; and that Art although admirable cannot be Supernatural — "Behold the lilies of the field they toil not, neither do they

spin, yet Solomon in all his glory was not arrayed like one of these" — —

An

Inaugural Dissertation

on

Gastritis

Submitted to the examination of the Right Reverend James Kemp D.D.
Provost. and of the Medical Faculty of the University of Maryland
For the degree of Doctor of Medicine

By

Joshua Soule Jr

of

Baltimore

March 25. 1826.

To

Henry W Bassett M.D.
U.S. Navy.

This treatise is inscribed
as a tribute of
Friendship.

March 25th. 1826

Of Gastritis

Dr Cullen places this disease in the order Phlegmasia of his nosological arrangements; and defines it, a typhoidal Pyrexia, attended with anxiety, heat and pain in the Epigastric region, increased upon taking any thing into the stomach; - a propensity to vomit, and immediately throwing up what is taken - with a hiccup.

An objection has been made to the first part of this definition, the fever bearing little resemblance to typhus except in the general debility which attends it; for even the pulse, if we except its fulness, is different from typhus, and the most marked symptoms very rarely show themselves —

Dr Cullen divides Gastritis into two varieties - viz:- Gastritis phlegmonodea, and Gastritis Erythematica

Symptoms

The definition just given comprehends the chief parts of them - The pain of the stomach is extremely acute, and accompanied with a sense of burning heat - It is not always confined to the Epigastric region, but extends as low as the false ribs, and often shoots to the back a considerable increase of pain is experienced upon receiving any thing into the stomach, and also upon even the slightest pressure

The pulse is frequent, small, contracted, more or less hard, and sometimes intermitting. Authors also mention a strong pulse, but it is very rare

The thirst is urgent, and upon receiving a mild fluid into the stomach, there seems to be an abatement of the pain. The fluid however is soon rejected, and but a transitory relief is obtained

The depression of strength in this disease

is very general and sudden. Syncope sometimes takes place, and the Patients complains of great anxiety about the Praecordia

The bowels are costive, though not obstinately so, unless the inflammation has spread to them; but the constant vomiting opposes an obstacle to moving them

Gastritis is occasionally attended with more than the usual symptoms — Sometimes the patient complains of difficulty of breathing, which does not arise from the inflammation having spread to the Lungs, (for then the other symptoms of Pneumonia are present), but from the inflammation of the Stomach rendering the descent of the Diaphragm painful. The degree of Dyspnoea will depend in a great measure upon the part of the Stomach occupied by the inflammation

General convulsions have been enumerated among the symptoms of Gastritis; but these probably arise more frequently from irritations of the spinal vice, which sometimes produce Gastritis, than from the disease itself.

Hydrophobia has also been mentioned as a symptom of Inflammation of the stomach; and one or two cases are reported, as attended by this symptom.

There are instances on record, in which it appeared on dissection, that inflammation of the stomach had existed, when few or none of the foregoing symptoms had appeared.

Gastritis may be distinguished from Cardialgia, though many of its symptoms attend the former disease. In Cardialgia there is no vomiting, or fever, as in Gastritis.

In spasms and flatulent pains, the pulse is nearly natural, nor do we have the sudden

depression of strength which attends inflammation of the stomach. In them we seldom have vomiting, nor is it so constant, nor so constantly excited by the ingesta. The increase of pain upon receiving any thing into the stomach is much less remarkable, nor is there any increase of pain upon pressure, one of the best diagnostics of Gastritis.

In Spasm of the stomach, a case most likely to be mistaken for Gastritis, there is such a sense of suffocation and contraction, that the voice is often suppressed, which in the latter is not the case.

Lawrence observes that it is almost impossible to distinguish Gastritis from inflammation of the Epigastric muscles. The pain, as in Gastritis is increased on pressure, but it is also increased and in a greater degree by the motions of the muscles, which is not the case in inflammation of the

stomach - The state of the pulse in the former is also very different - Instead of being small and feeble, as in Gastritis, it is frequent, full, and hard. There is little or no tendency to vomit in this case, as in Inflammation of the stomach. Some degree of swelling of the muscles may be observed, but this symptom is not constant, and there is often a fulness about the stomach in Gastritis.

The Erythematic inflammation of the stomach comes on more insidiously than the Phlegmonic, and is best characterised by the inflammatory colour of the fauces, the hoarseness and rapidity of the Pulse. The inflammation often extends through a great part of the alimentary canal, as well as the Oesophagus, (and often a subsidence of the sickness, produces Diarrhoea and mucous discharges from the bowels - It is sometimes so gradual, and tardy in its progress, as to produce little fever, or even local disturbance for,

many days, or even weeks. — In some instances, where the inflammation is of the Erythematic kind, the symptoms are such as characterise Phlegmonic inflammation of the stomach; for the Erythema spreads to the stomach from the mouth and produces the usual symptoms of Phlegmonic Gastritis; but they are generally less violent.

Resolution is to be considered the only favourable termination of Gastritis, a tendency to which may be known: by the general mildness of the symptoms and particularly by their yielding to the proper remedies. When the symptoms are severe, and do not remit, the period of resolution is past within twenty four hours; but in less violent cases, it may happen after the disease has lasted several days. —

Gastritis seldom terminates in suppuration. When the symptoms continue without any considerable

remission, and at the same time without a great degree of violence, for a week or two, we may expect the termination. When an abscess is formed, there is a remission of pain; generally preceded by rigors; and great anxiety, and a sense of weight about the praecordia, are complained of by the patient — The febrile symptoms are milder than those which accompany the inflammatory stage, and by degrees they assume the hectic form —

Abscess of the stomach generally proves fatal, unless it opens into the stomach, in which case the matter is discharged by vomiting and stool, and the ulcer soon heals.

When the symptoms are unusually violent, and do not yield to the proper remedies, we may expect gangrene to take place. The presence of gangrene is indicated by remission of pain - the pulse becoming more frequent,

and feeble, the anxiety and debility increasing, with cold, clammy, and partial sweats - it is always fatal.

Causes of Gastritis

In both varieties of inflammation of the stomach, the causes are the same — There is no cause so common as checking perspiration by drinking cold fluids; as cold water, ice water, ice punch &c Going suddenly into the water, while the body is much heated, or passing suddenly from a high to a low temperature, will excite this disease —

Acrid vegetables taken into the stomach, as raw cabbages and turnips will sometimes excite this disease.

Acrid substances taken into the stomach may excite Gastritis - under this head may be arranged the drastic cathartics, as Jalap Scammony, Elaterium &c - The drastic emetics may also be arranged under this head; as well as certain poisons as the oil of vitriol; corrosive sublimate & arsenic

Large doses of Nitrate of Potash, or large quantities

taken by mistake, as an ounce, or more has produced this disease.

The more irritating articles of diet may be ranked among the causes of this disease. Animal food, and fermented liquors, often renew it in those who have lately laboured under it. The excessive use of the latter will excite it in those least predisposed. Pickles constantly used have also been enumerated among the causes of Gastritis.

Inflammation of the Stomach may arise from acrid matter generated in the body, as sometimes happens in ulcerous affections of the fauces and oesophagus.

Dr Cullen thinks that Erythematic inflammation of the Stomach, is occasioned by the application of acrid substances

Few things apply a more hurtful irritation to the Stomach than overdistension. When food is taken in too great quantity, and at the same time of difficult digestion, so that the distention is kept up

a considerable length of time, it may occasion inflammation of the stomach.

Blows upon the region of the stomach, or wounds in the stomach or neighbouring parts, may excite the disease

Inflammation of the neighbouring parts, as the liver, kidney, and peritoneum, and particularly, of the Oesophagus and Duodenum, may extend to the stomach, and give us Gastritis

In eruptive fevers, it sometimes happens on the sudden disappearance of the eruption.

Treatment of Gastritis

Gastritis has often been represented in a more dangerous light than is perhaps altogether correct, for in neither variety is it frequently attended with fatal effects under judicious treatment.

Blood-letting is the remedy upon which

we chiefly depend, and there is no case in which it is carried to a greater extent than in Gastritis. Copious venesections have been very generally recommended, and found of the highest advantage, particularly in robust and vigorous habits. To be of any decided avail, however, this plan should be commenced as soon as the symptoms show themselves; and if they do not yield, it should be carried as far as the habit will bear. In this instance we employ bloodletting with the view of increasing the strength of the pulse, and it is only as it produces this effect, that it gives relief. Sometimes the circulation is so feeble in Gastritis, that it is impossible to procure the proper quantity of blood. This languor of the circulation occurs even in the space of a few hours - hence the necessity of early evacuations.

It is frequently the case that the symptoms Gastritis immediately disappear on a large

quantity of blood being suddenly taken away; but a recurrence almost always happens to a greater or less extent.

We are to be governed altogether by circumstances with regard to the repetition of the bleeding. If the symptoms do not remit after the first blood-letting, it should be repeated, the effect produced upon the pulse being our guide respecting the quantity to be drawn.

As it respects evacuations from the bowels, they must be solicited by cathartic clysters, as the condition of the stomach prevents the exhibition of medicines by the mouth, which serve only to increase the disease. But there are exceptions to this. In cases where Gastritis has been produced by over-distention of the stomach, the patient is often tormented by ineffectual efforts to vomit; we should then, at the same time that we employ

the usual remedies of Gastritis, have recourse to means of lessening the contents of the stomach. Emetics and Cathartics taken by the mouth, are the only effectual means of accomplishing this object. Emetics produce too much irritation in this condition of the stomach. We, therefore endeavour to relieve the stomach, by the exhibition of those cathartics which do not irritate; at the same time we make use of cathartic injections, as solutions of the neutral salts. This practice as stated by Eller has often proved successful.

The drink of the Patient should be attended to. Mild acidulous drinks, given frequently and in small quantities may be allowed. but they seldom fail to increase the vomiting

Local bleeding is seldom recommended in Gastritis although good effects are to be expected from it, and particularly in those cases when general blood-letting

is no longer admissible —

Blisters are obviously improper in the first stage: but after the inflammatory action has been reduced they should never be omitted.

When Gastritis has been excited by exposure to low temperature, the patient is seldom relieved, untill the secretion of the skin is restored. Hence the necessity of friction. It has been recommended to rub the whole body with warm oil, and the practice has been found very useful. The warm bath has been found of great benefit in the treatment of this disease. The patient should remain in the bath untill he begins to faint, he should then be wrapped in flannel, and a sweat will generally be produced

In the event of suppuration, and the abscess bursting a milk diet, with the mildest food, and in small quantities at a time, is the only plan to be pursued.

Medicine is of little use, and if the patient be saved it is by the accidental seat of the abscess.

If a gangrene take place, all further exertion will be in vain.

When the Erythematic variety of Gastritis is occasioned by acrid or poisonous substances, a brisk emetic should be speedily exhibited, and afterwards such antidote as the character of the poison may direct. When the cause is internal, mild, diluent, and cooling diluents are to be employed. Blisters should be applied, and the bowels kept cool by laxative clysters.

Inflammation of the stomach is occasionally found as a symptom of Eruptive fevers, as Measles and Small-pox.

An Inaugural Essay

on

Ophthalmia

Submitted to the examination of

The Reverend James Kemp D. D. Provost

and the

Regents and Medical Professors

of the

University of Maryland,

For the degree of Doctor of Medicine

by

Edward Miller

of Maryland

1826.

To

John Beale Davidge A. M. M.D.

This essay

Is most respectfully inscribed

as a testimony of respect & esteem

By his sincere friend

and Pupil

The author.

Ophthalmia.

The eye being a very vas=
=cular and delicate organ is subject to
a number of diseases and among which
ophthalmia is the most frequent and
not the least formidable, there are sever=
=al species of this disease, and may be
either idiopathic or symptomatic depen=
=ding on some other affection of the eye
or parts in its neighbourhood, but it
is generally idiopathic, it is also seen
modified by specific constitutional

diseases as struma, syphilis &c. There is a species called Egyptian ophthal=
=mia which is said to be contagious. There is also another variety of this disease in which there is little or no redness or apparent inflammation but in which the pain is very acute in this variety the membrana hya=
=loides is primarily affected.

The Symptoms of this disease are great heat, pain, red=
=ness of the tunica conjunctiva owing

to the red globules of blood entering the small vessels which in health carry only lymph, the coats of the eye are not the only parts affected hence the glands in the neighbourhood are more or less affected which in the first stage impairs their functions and causes the secretions to be lessened but after the inflammation has somewhat subsided the vessels become relieved and a preternatural and morbid secretion is the consequence

there is also great uneasiness and in=
=tolerance of light, and swelling of the
palpebra which produces a sensation
as if particles of dust or sand were in=
=troduced under them, and if the inflam=
=mation is great headache, nausea and
pyrexia.

The causes of simple acute ophthal=
=mia are generally the same as those
which produce inflammation in
other parts of the body therefore those
persons who are of a full and robust

habit of body or irritable tempera=
=ment are most liable to it, debility
from other disorders sometimes pro=
=duce it, disorders of the digestive or=
=gans, blows, sudden changes in the
temperature of the atmosphere from
heat to cold, exposure to an intense
light or heat, violent and long con=
=tinued exertion or straining of the eye
acid vapours coming in contact with
the organ, foreign and acrid substan=
=ces lodged under the eyelids a severe

cold in which the fauces and pitui=
=tary cavities are affected has caused
this disease, the suppression of any
habitual discharge is said to have
caused it &c.

In the treatment of ophthalmia
we should in the first place remove
any predisposing or exciting cause
which may have produced or tend
to protract the disease, where it is
depending on any disorder of the
general system or any other apparent

cause we should in the first place attempt the removal of such cause or all our endeavours to remove the disease will prove ineffectual If the disease is mild and simply local it can generally be cured by low diet and mild purging but if it be a violent case and the gen=
=eral system sympathetically af=
=fected we must carry our antiphlo=
=gistic treatment to the fullest extent by bleeding, purging, low diet and

by keeping the patient confined to a dark chamber and after the inflam=mation has somewhat subsided we may bleed topically, blister, and moisten the eye occasionally with the saturnine lotion. in the other varieties of ophthalmia we must at=tend to the primary constitutional disease or we never can accomplish a complete cure.

An Inaugural Dissertation

On Syphilis

Submitted to the Examination

Of the, Right Revd James Kemp D.D.

Provost

The Regents & the Faculty of Physic

of the

University of Maryland

for the degree of M.D.

by James Watson

April 3rd 1826

The scepticism which prevails with respect to Medical science, is such, as to strike the most casual observer. The feelings of its votaries (excited by the disbelief, with which they too often perceive their favourite science to be regarded) would very naturally induce them, to enquire, into the cause of the scepticism, which prevails with respect to Medicine. Many there are, who seem to take a pride in the disbelief of every thing, which is not capable of mathematical proof: & their want of application too often induces them to deny the existence of things; which might perhaps be made evident by their favourite mode of demonstration. The character of this class of disbelievers is such, as to give no weight to their objections & no uneasiness to the followers of medicine. But there is another & a more respectable class whose character, & whose talents, are such; as to command our respect & esteem & to whose good or bad opinion, we are by no means indifferent.

How often do we see men whose abilities have exalted them to the highest rank in their several vocations, & whose virtues have gained them the esteem of their fellow men; how often are such men seen, to regard the truths of our science with a smile of incredulity, or to inveigh against them, with all the bitterness of disappointment. The characters of many engaged in the medical profession are frequently such, as to give no favourable idea of their vocation. But we suppose that it would be no ~~easy~~ very hard task to distinguish the faults of an individual, from the defects of this profession, & there are surely few communities, in which some redeeming spirits are not to be found, whose merits

will atone for the general faults of their brethren, however numerous they may be. It is often the case, that men with organs naturally defective, or whose constitutions have been ruined past all hopes of recovery, appeal most unreasonably, to the physician, the one, expecting him to be more bountiful than nature herself; & the other requesting a restoration of that, which he has destroyed & lost forever. The man of dissipation expects a cure in spite of his excesses. The man of business, is unwilling to forego the prospect, of fortune & of splendour. The student who has gained knowledge, & renown, at the price of a pale cheek, & sunken eye, appeals to his physician for some elixir; which shall restore freshness to his cheek & brightness to his eye, even while inhaling the fumes, & exhalations, from his midnight lamp. Often these errors are discovered too late, & medicine & its followers, are reproached with a keenness, sharpened by disappointment & despair. However satisfactory it may be to the votaries of medicine to trace out the causes which give rise to scepticism on the subject, the doubts of their opponents will be more readily removed by examples taken from the list of diseases; which when uncontrolled by the physician, carry devastation & death in their train, but which, by the aid of medicine may be deprived of their noxious powers, & rendered temporary in their duration. Some might deny the existence of diseases, thus under the controul of medicine, & would quote the old adage, that doctors will differ, in confirmation of their opinion. But such difference often relates to matters of so little importance, that the welfare of the patient, is not interested

in their decision. That there are many diseases then completely within the controul of medicine, cannot be denied, even by the most sceptical; & of this we have a most striking example in Syphilis.

This disease when left to the powers of nature alone, is one of the most terrible with which mankind has been afflicted. The vis medicatrix naturae, (which in other diseases, often puts the physician to the blush, & restores to vigour & to health, him, on whom the physician has placed the seal of destruction,) here stands disrobed of all her power, & leaves the patient, to die a death, the most loathsome & disgusting. But medicine steps in to the aid of the unfortunate, & restores to health & to happiness, him, whom nature has left to death & despair. As a stumbling block then to medical sceptics, & as an example of the worth of our profession, I have chosen Syphilis, for the subject of my Thesis —

With respect to the derivation of the term Syphilis, authors seem to be very much at variance. One is inclined to derive it from, συς (porcus) & φιλια (amor) amor porcinus. Syphilis the individual supposed to have been first affected with it, is said to have given his name to the disease. By others it is derived, from συφλος filthy; & again by some, from συ & φιλεω, importing mutual love. To the last derivation I would give the preference, it being indicative of the most prominent circumstance attending the propagation of the disease; for however incompatible the malady inflicted might seem to be, with the sentiment implied in the original; it is never the less certain, that but for the sentiment therein expressed, the

disease would soon be at an end. With respect to the origin of Syphilis the most discordant opinions have prevailed. According to the whim, or caprice, of authors, it has been made the offspring either of ancient or of modern times; has been bandied about, from one country to another & though too common in all, has been held too loathsome, to receive a a birth place in any. Poetry whose province it has usually been to sing the praises of so, Πελεω; has in this instance, deviated from her usual course & through the pen of Fracastorio; has given some insight, into this disease arising from the improper indulgence of mutual love. But the poet in the very commencement, either disdaining an earthly origin for his theme of song, or more probably being ignorant of the place of its nativity; has with the genuine poetical license, called in the gods to his aid, & has represented the disease under consideration, as a punishment, inflicted by Apollo, on a shepherd Syphilus, for some insult offered to himself. But the origin of this disease is not attributed to the wrath of offended deity by the poet alone. By a German divine, it is said to have been sent as a visitation from heaven, on Charles 8th for having violently deprived the emperor Maximilian of his betrothed bride. But the infliction of this curse on a single individual & on one too, kept aloof from the people, by the dignity of his station, was insufficient to account for the rapidity, with which it spread through all orders of society. Hence by the same divine, that curse, which in justice ought to have been confined to the King alone; was extended to his subjects, so that we might say with Homer, that "for the kings offence the people died." By some

less credulous, with respect to the direct interposition of providence in this instance; & certainly more learned in the history of their profession, the disease in question has been considered, as one, of very great antiquity. By them it has been traced back to the times of the Romans, & of the Greeks, & even the old Testament itself, is said to furnish evidence of its existence. By many however Syphilis is considered as of much more modern date; & the year 1493, is the time it is supposed by them, to have first made its appearance. In 1794 it made considerable ravages in the French army engaged in the siege of Naples, & at the breaking up of that siege, it is supposed to have been disseminated by them, through a great part of Europe. Many of the advocates for the modern origin of Syphilis in Europe have not stopped here, but connecting the time of its first appearance, with the return of Columbus from America; they have attributed its introduction into Europe, to the followers of Columbus, who they say, contracted during their intercourse with the inhabitants of the new world. Thus connecting the discovery of America with the introduction of a disease, which at that time, was considered as more than an equipoise, for all the advantages to be derived from the discovery of the new world. To this opinion of the introduction of Syphilis into Europe by the followers of Columbus, we are by no means willing to subscribe. There is good reason for believing, that the disease existed some time before the return of Columbus & his followers. Suppose it however to have existed amongst these men, at the time of their return; is it credible that from so small a number of persons (& those confined to the neighbourhood

of the seacoast;) that the disease could have extended so widely, & to regions so remote, in so short a time, if such has been its origin. But was there any such disease prevailing among the crew of columbus, at the time of their return. There is not the least reason for believing this to have been the case; for no such disease is mentioned as prevailing among them, at the time of their return, & such was the type of Syphilis at that period, that it is quite improbable that it should have prevailed, without attracting the attention, & exciting the fears, of every one. Did Syphilis exist among the aborigines of America at the time of its discovery by Columbus. It might or it might not. Certain it is, that there is no positive proof that it did. Why then pass from the old, to the new world, in search of the origin of this disease; why pass by nations overwhelmed in debauchery & vice, who are notorious for those courses, most calculated to continue the disease & therefore to be considered as most likely to produce it; & look to a nation, of the most simple mode of life, whose wants & necessities left them neither time, nor inclination, to plunge into the depths of debauchery. Under such circumstances, we think it much more reasonable to look to the old world, for the origin of this disease. As has been before observed the old Testament is said, to hint, at some such malady, & perhaps even the kings of Israel, were not entirely exempt; for who more likely to contract it, than a man with 300 wives & 500 concubines.

However authors may disagree with respect to the origin of Syphilis, there is one circumstance in its history, in which they very well

agree, which is, that the disease at this day, has lost much of that malignity, which rendered it so formidable, at the time of its first appearance. By Linnaeus it was arranged in the same class with Small pox Measles &c. on account of the febrile symptoms, that attended it. By most authors who describe its first appearance, it is not only represented, as being attended by febrile symptoms of a most violent type, but by them, it is compared to & even called the plague; being not only attended with carbuncles, buboes, & other glandular abscesses, belonging to plague; but like it also, proving very quickly fatal. By degrees however the disease appears to have assumed a chronic form, & is thought by men of experience & observation to be still continuing, in its course of amelioration. This amelioration has been accounted for in different ways, by different individuals. The virus has been said to loose much of its virulence, by passing through different individuals, & generations, & having to cope with the strength of several constitutions. The remedial powers of mercury have also been supposed, to strip the ~~virus~~ virus of much of its power, & to hand it down, in a much milder form to succeeding generations. A late author of high standing in the medical profession, has attributed this change in the virulence of Syphilis to an instinctive principle in the constitution, which is perpetually labouring to subdue the disease. We hope the labours of this instinctive principle, will not be confined to the eradication of Syphilis alone, but will be extended to other maladies, with which we are afflicted, & which (according to this author) we might hope to see effaced, from the long list of human afflictions, by the aid of this principle. It was long a matter of controversy

with medical men whether, Syphilis & Gonorrhea were distinct diseases, or whether, they are only different forms of the same disease, assuming a difference of appearance, in consequence of the difference, in the nature of the surfaces to which the venereal virus, happens to be applied. The arguments & experience of Mr. B. Bell, confirmed, & strengthened, by the observation of the most judicious surgeons of the present day, have nearly put this question beyond dispute; so that few are found at this time, who contend for the identity of the two diseases. Of the nature of the Syphilitic virus, nothing more is known, than of the nature of any other poison; for the essence (if I may so speak) of any poison, seems quite beyond our comprehension. Concerning the circumstances necessary for its communication, our information is rather more accurate. It is now very well ascertained, that the disease can only be communicated, either by the direct application of the matter of the virus, to some part of the body; or that it must be transmitted from parent to child, like other hereditary diseases. The virus cannot be communicated from one person to another, through the medium of the atmosphere. Most generally the disease is given by one person to another, during sexual intercourse; the poisonous matter being directly applied to the organs of generation. A child may be infected during parturition, by Syphilitic sores on the pudendum of the mother; A diseased child, will infect its nurse; & a diseased nurse, will infect a child taking suck from her breast. Midwives in attendance on women, who have Syphilitic sores on the pudendum; & surgeons while dressing sores of that description, have been known to contract the disease especially, where the hand happens

to have any portion of the cutis abraded, thereby bringing an unprotected surface, into contact with the virus. Although Syphilis is generally communicated, by the application of the virus, either to an abraded surface, or to one covered with a very thin cuticle, as the glans penis, inner surface of the preputicum &c.; still, from the experience of eminent surgeons, there is not the least doubt, that the virus cannot be applied to any surface of the body, without considerable danger of exciting the disease. Cases are mentioned in which the disease has been excited, by wearing the apparel of a person who had been infected & who had permitted some of the virus to attach itself to the apparel; & this too, some months, after the virus had been applied to the clothing. Usually the matter when applied to a surface, excites inflammation & ulceration, before it is taken by absorption into the system; but it is well ascertained that the matter may be taken up by the absorbents, & carried into the system, without producing any previous inflammation, or ulcers, on the part to which it had been applied. This no doubt would happen most readily, where the virus was applied to parts covered by a very thin cuticle, as the glans penis, preputicum &c. In this way the disease has been communicated by matter left on the lips in kissing & a person has been infected by drinking out of the same cup, with an infected person. It is acknowledged that the virus cannot contaminate the system after having been taken into the stomach, for this as all other animal poisons, seems to be destroyed, by the action of the gastric juice. There is no fixed time (after the application of the virus) at which the ulcerations (which are usually the consequence), may be expected to appear. The time of their appearance, will depend much on the nature of the surface to which

the poison is applied; on the constitution of the patient, & on the virulence of the poison; for it is well ascertained by experience; that the poison of Syphilis is not equally active, & powerful, in every instance. The disease after exposure during sexual intercourse, may make its appearance in 24 hours, or in six weeks or later. The most usual time, is 4 or 5 days. At first, a titillation is felt over the whole glans penis, producing a frequent desire to void urine. The whole glans appears more tender than usual; but there is one spot, more painful & tender than the rest, & on examination, we find a small pimple containing a serous fluid. This bursts in a short time, leaves a sore, foul slouchy, & foul at the bottom, with hard & elevated edges. This sore has been called chancre by the French, & the term has also been adopted, by the English & American surgeons. The glans & prepuce are the parts most usually affected with chancre, but any part of the genitals, perineum & pubis are occasionally affected. The number of chancres varies much, generally there are two or three, but sometimes, the whole of the prepuce is covered by them. The matter discharged by a chancre is of a dirty green hue, often tinged with red, of a thin consistence & large in quantity, considering the size of the ulcer, from which it is secreted. Chancres on those parts of the body covered by firm thick skin, are different in appearance, from those on parts covered by a thin cuticle. The skin appears red for a short time then ulceration breaks out, without any previous swelling or elevation of the skin into vesicles, & a thick fœtid matter is poured out, which becomes dry & hard, forming a crust on the ulcerated part; this crust when removed, discovers a foul ulcer, of a very red colour, with irregular jagged edges. Chancres are generally of small size & not inclined to spread or to penetrate deeply. In some cases however

they assume a phagedenic character, & destroy the parts on which they are situated extensively, & rapidly. This has been attributed to some peculiarity in the constitution of the patient, & in some cases, to an uncommon degree of virulence in the infectious matter, for many cases of this character have been traced to one individual as the source of infection. The next symptom, & one which generally succeeds to Chancre is Bubo. This consists in a painful swelling of one or more of the lymphatic glands, & is supposed to be produced by the absorption of the venereal virus by the lymphaticks. Chancres as we have just said usually precede bubo, but this is not invariably the case. It seems necessary for the formation of a bubo, that the venereal virus should be absorbed, and conveyed by the lymphatics, to the gland; & this it is well ascertained may happen without the existence of chancre. Bubos are most likely to be produced by chancre, where there is a moderate degree of inflammation. Hence they generally occur in the early stage of chancre, or where inflammation has been excited by the application of some irritant, as caustic. Very high inflammation, & an indolent state of chancre, are alike unfavorable to the production of bubo. Bubo is most frequently situated in the glands of the groin, these being the glands, nearest the part generally affected. Ulcers on the lips, tongue &c cause enlargement of the glands under the tongue & at the angle of the jaw. Ulcers in the throat, cause enlargement of the glands of the neck; & sores on the hands, affect the glands of the axilla. The glands whose lymphaticks are seated immediately from the surface, are those which are always affected. That they should be primarily affected is plain from the manner in which the virus is usually applied, but why the internal glands should not become affected during the progress of the disease, is not so plain. The first symptom of bubo, is a slight degree of pain. On examination the gland will be found a little

enlarged, & sometimes, the lymphatics extending from the gland to the chancre, are tense & inflamed. Generally the gland continues to enlarge until the 8th or 10th day when it will have attained the size of a pigeons egg. The pain which was at first slight, is now more severe, & extends to all the neighbouring parts. Having arrived at this state, unless interfered with, it goes on to suppuration in the usual manner. Syphilitic bubos suppurate much more quickly than other glandular swellings, but not so soon as common abscesses.

The two symptoms already assigned; chancre, & bubo; are those, produced by the venereal virus before it has entered into the general mass of the circulation, & have been called, Local symptoms. There are others which arise from the introduction of the virus into the circulation & have been called constitutional symptoms. The former have also been termed primary, & the latter secondary). The first of the secondary symptoms usually makes its appearance in the throat, & this occurs sooner when the virus passes from a chancre into the system, without producing a bubo in its course. The throat at first is affected with a slight soreness, such as generally arises from cold, to which it is usually attributed at its first appearance; but on examination a small ulcer will be perceived, situated, commonly on one of the tonsils. This ulcer is at first small, foul, & attended with some swelling & an unhealthy redness of the surrounding parts. In most cases, these ulcers progress slowly, but sometimes they extend very rapidly, passing from the tonsil along the arch, and destroying all the soft parts in its progress. In some cases the throat is affected with an inflammation of a copper colour, which shifts from one part to another without producing any ulcerations for some length of time. Ulcers of the throat

are not very painful, even when they are of large size. At first the soft parts alone are affected, but unless some remedial measures be adopted, the bones of the palate become diseased, & will be destroyed. After Syphilis has existed for some time in the throat, we begin to perceive some signs of it in the ~~throat~~ nose. Sometimes it attacks the nose before the throat, but this is not its usual course. The patient at first complains of a stoppage, in one of the nostrils, with pain & soreness on one particular spot. On examination it will frequently happen that no signs of disease are apparent to the eye, for the spongy bones are very liable to be affected, & if so, they cannot be seen. But if the diseased parts be visible, together with a swelling of the Schneidarian membrane, a small ulcer is perceived, covered with a brownish crust, which when removed, is very quickly renewed. As the disease progresses a large quantity of thin fœtid matter is discharged. If the spongy bones be affected, the matter is of a dirty dark appearance, & still more fœtid. These symptoms are accompanied by an epiphora, which is attributed to the obstruction of the nasal duct, emptying into the nostril of the side diseased. If the septum be diseased, the bones soon give way & the nose becomes flattened, nearly to a level with the face. The internal parts of the nose are oftenest diseased, but the external are not exempt. Venereal ulcers often arise in the mouth, in every part of it. The soft palate is oftenest diseased, & ulcers in this part, often proceed very rapidly, destroying the soft parts first, & then the bony structure underneath. The skin is liable to be affected with Syphilis, in the form of copper coloured blotches, about the size of the finger nail. They give little pain, but their appearance is attended with itching, in the parts where they break out. When scratched a furfuraceous matter is removed, from their surface, leaving the blotch of a more lively

red colour. They are most likely to appear on the breast & arms, but are not confined to those parts. At first they disappear, without doing any apparent injury to the skin; but they soon reappear, & after having returned several times, a scab is formed, on the removal of which, an ulcer is found underneath. Those parts that are usually kept covered, are those on which the blotches are most likely to appear. They will from the breast & arms, proceed down the extremities to the toes, the nails of which, are often destroyed by the ulcers which succeed, to the blotches, about their roots. When the constitution has been tainted for any length of time with the venereal virus, ulcers will occur on any part of the body. Generally they are preceded by blotches, & may be considered as the symptom in which blotches are likely to terminate. The bones of a person who has been long infected with the venereal virus, often become affected with nodes, by which are understood, hard firm tumours, arising from the osseous part of the bony structure. The first symptom of their approach, is marked by some uneasiness in the part. On examination a small firm tumour may be felt, which is very hard & immovable. This continues to enlarge till it attains to the size of a small walnut, by which time the ~~tens~~ integuments inflame & ulcerate, exposing the bone beneath, in a state of disease. During the enlargement of the node, the pain increases until the patient suffers the most excruciating torment, which is attributed to the distension of the periosteum since a free incision into this, relieves the pain. Nodes are most likely to occur on those bones that are most thinly covered, as the, os frontis, tibia, &c. Nodes when improperly treated seldom cause ulceration of the soft parts, tho no treatment is capable of removing the enlargement, when it has once taken place. Independent of nodes

the bones of venereal patients, often give great pain, especially when they are warm in bed. Warty excrescences near the anus, alopecia deafness, blindness, clefts in the palms of the hands, & soles of the feet, are enumerated among the consequences of syphilis.

The time when syphilis may be expected to appear in a person after exposure to infection, depends much on the constitution of the patient. The same individual is not equally liable to infection at all times & some have been known to be entirely proof against infection. The disease is supposed to be very much influenced by climate; & either extreme of temperature, is thought to be alike unfavorable to its continuance. It is said to be propagated much more readily in the East, than in the West indies; & Dr. Good supposes it to be much more prevalent in England, during the warm season.

In taking a view of the treatment of Syphilis from the time of its first appearance to the present day, we must be struck, by the great variety of remedies that have been resorted to for its cure. Mercury was early adopted; but either from some impropriety in the mode of exhibition, (whereby very injurious consequences were often induced) or from the inconvenience necessarily attendant on its use, it was laid aside for other remedies, thought to be equally efficient & less dangerous in their use. Of the many remedies which have been extolled as specifics, by far the greater number, are now supposed to be possessed of no virtue & of the few that are now used one only perhaps can be viewed as a specific. Opium, Conium, Belladonna & allay pain & retard the progress of the disease, but they are not to be relied on for a cure. Among the diaphoretics Mercury, Guiacum & Sarsaparilla are chiefly used. Sarsaparilla is relied on for a cure by some surgeons of eminence. Others view it only as an adjuvant to mercury & to the opinion of these last I more willingly subscribe. The mineral acids may be considered as good tonics, but of the generality of metallic preparations that have been recommended.

within a few years past the English surgeons have adopted a practice, which consists in confining the patient to the strictest antiphlogistic course, & many cases are said to have been treated successfully, in this way, without much aid from medicine. The treatment of the disease in Spain & Portugal (where it is said to be cured without mercury) has also been brought forward, as additional evidence, that Mercury is not indispensible for the cure of the disease. Whether the cures said to have been effected by this new practice will prove to be complete, time alone can determine. Even the warmest advocates of this mode of treat=ment acknowledge, that the cure is much more tedious than under the use of mercury. The secondary symptoms are also much more frequent where no mercury has been used; being in the former case as 1 to 10, & in the latter only as 1 to 75. The experiment is at least a dangerous one, & until the efficacy of the plan is better established by further trial, we are still justified in declaring mercury to be the only antidote for the disease, known at this day. Of the modus operandi of mercury in the cure of Syphilis, much has been written though nothing appears to be known. Some have considered it as stimulating the emunctories & thus causing the virus to be thrown off from the body. Others have assign=ed it an antidotal power, supposing it to come into contact with the virus, & by its chemical power destroying its activity. The advocates of this doctrine have urged in support of it, the fact, that the poison of Syphilis when mixed with mercury, is no longer capable of communicating the disease. In the conclusions drawn from this fact we put but little faith, for we do not consider it as proof of the antidotal properties of mercury. That Mercury is a cure for Syphilis however, is sufficient for our purposes, whether we understand its modus operandi or not. It does not seem to be a matter of very great importance what preparation of mercury we use in the cure of Syphilis.

The main end to be attained, is to introduce a sufficient quantity into the system for the cure of the disease; & that, in such a manner, as to avoid any of the injurious consequences, which are apt to arise from the incautious use of mercury. These are most apt to occur from the use of very large doses; hence where time does not press it is best to use small doses & to bring the system under the influence of the medicine gradually. The extent, to which mercury must be used, & the length of time that it must be continued, will depend very much on the violence of the disease. In cases of mild Chancre, if the mouth be made sore, & kept so, for 8 or 10 days after all signs of the disease have disappeared, the patient may be reckoned safe. But in more obstinate cases a slight ptyalism should be induced; & the medicine continued for a longer time. In cases of secondary affection, we are advised by Mr. B. Bell to continue the use of mercury, six weeks, after all signs of the disease have disappeared. When the disease is progressing very rapidly; mercury may be used in larger doses until it is checked, & then it must be continued in small doses, till the cure is complete. While a patient is under a course of mercury more especially if ptyalism be induced, care must be taken to avoid cold; & flannel should be worn next the skin, & the diet must be light & not of a stimulating kind. The treatment of Chancres has given rise to some debate, some wishing to heal them up, as soon as possible, by local applications; while others have trusted to the use of mercury internally, & have rather viewed the chancres as signs, by which they can judge of the progress of the cure.

It has been objected to mercury, that it is not always a cure for Syphilis. But in such cases it will be found that Syphilis is combined with some other affection, in which mercury cannot be used. But where no such combination

exists & the patient is able to bear the remedy, it is known rarely to fail.

It might happen in cases purely Syphilitic that the disease has been allowed to progress so far, as to be beyond the reach of the remedy. But in such a case, the patient might be said to be in the grave, even while living; & the only objection to the remedy would be, that it could not raise the dead.

Dissertatio Medica Inauguralis,

De

Effectibus Ebriositatis;

Quam,

pro Gradu Doctoris, summisque in medicina honoribus ac privilegiis rite et legitimé consequendis, Nobilissimæ facultatis medicæ Universitatis Marylandiæ examini subjicit.

Gulielmus Thomas Stephens

Anno Domini MDCCCXXVI

Viris Eximiis.

Samueli Baker M.D. Baltimoris

dilecto suo praeceptori;

Nec non

Reverendo Isaaco McCallas Philadelphia. Hanc dissertationem inauguralem grati quidem animi summaque observantiæ testimonium lubens offert

Auctor

De effectibus ebriositatis.

Res, de qua nunc agitur, cum medendi scientiæ, tum reipublicæ, mihi permagni esse momenti videtur. Igitur eam indagare conabor. Noster patrius Rush in clarissimis inquisitionibus hoc subjectum solertissimé illustravit. Inter multos nosologos veros, qui varios morbos descripserunt, nullus invenirri potest, qui ebrietatis paroxysmum designavit. Sive quod percognitum, sive eum memorare non operæ pretium fore arbitrabantur

Cum autem consideremus effectus fatales nonunquam esse, certé nos oportet ea reme-dia indicare, quæ maxime valeant eos mederi. Paroxysmus et effectus.

Si aliquis non magnam quantitatem accipit, pustionem scrobiculi cordis, cerebri plenitudinem, vultus aurorem, pulsus frequentiam auctam, et titubationem sen-tit. Hi sunt effectus quum magnam quantitatem non bibit, sin magna quantitas accipiatur, indicia simil

=ia apoplexia sunt; et effluvium vini non redolet, quare non dignoscamus, sive æger verâ apoplexiâ sive ebrietate afflictus est. Hinc in duas varietates ebrietatem dividerem, excitantem et apoplecticam. Pro priore nihil prescriberem, sed posteriori sanguinem a brachio detrahere, donec emesis incitatur, et parvo tempore sanabitur. Nunc si hic paroxymus primus sit, non volet repotare, et hac esset tempestivitas ei persuadere usum vini omnino relinquere, quod

cupiditas libendi ei gradatim revertit, qui se indulget. Donec diuturna consuetudine fit, quod dicamus, perditus est, quotidie paroxysmum habet, sine cena se ad lectum confert, mane gravi capite surgit, mentem nec corpus volens exercere. Similis viro septuaginta annorum locum in eus domo occupat, familia eus ei non placet, amor conjugis non refertur, liberi sine amore eum timent. Facultates mentis functionesque corporis morbida fiunt; ergo eas des

scribere enitar, et nulla animatio est nisi ebriosus, verè animal sui generis, qui nulli usui vel ipsi vel alii; sed reversum est, ullo morbo chronico afflictatur, qui ebrietate fertur quæ sors eorum qui magnis poculis se ingurgitabant. Epilepsia, Apoplexia, Dyspepsia, pecoris morbi, Hydrops, Stomachi densatio, Paralysis, Raucitas et Tussis, Diabetes, Diarrhœa, et Mania, rex morborum, qui proprii ebrioso sunt, et quos transmittet posteris. Sed fortunatè humano generi

ebrietas non immedicabilis est; modus preven
=tionis; quotidie quantitatem diminuere, et ex
=ercitationem commendarem, et mentem al=
=icui gratiori gustu vini attrahere eniterer.
Quanquam certe scio me differe ab doctore
Rush qui dicit, ebriosos usum Alcoholis re=
=pente relinquere posse, paucaque pocula
veteris vini quotidie potarent; quæ pres
iptio vere discors mihi videtur. Quia ebriosi
repente usum vini impunitate relinquere
non possunt, in conformatione cujus

sententiæ Armstrong in febrem temulen-
tam inspice. Ebriosi nonnulli usum ardentioris
potus pro usu vini relinquunt, hæc commutatio
sapiens mihi non videtur, quód alcohol om-
nes potus fermentatos pervadit et aliquis qui
ebriosus fieri disponitur usu Zythi ita fiat. Hu-
necessitatem libendi nil stimuli videmus, acidi
potus utiles in ætate sunt. Romani milites
etiamque duces acidam aquam potare
solebant, dictum est. Catonem qui oc-
toginta annos vixit, in pugna nil nisi

acidam aquam potare. Antediluviani, ubi illum temulentum videbant, obstupefacti sunt. Nae primus ebriosus erat de quo legimus. Samuel eum succum vini bibisse et factum inebrium esse dicit. Fortunatum fuisset si ultimus ille vir qui inebrius fuerat. Respublica profecta esset et non est serò, si medici et legislatores nonnullos conatus facerent ebrietatem supprimere. Infeliciter nostra alma patria ita hoc potu profusa est, ut omnes procurent

Quanquam usum sanitate reprobo, tamen in morbo advocatus sum, et sæpissime parcius in multis morbis, præsertim in ultima scena uti contendo; magnas quantitates frequenter nobis dare oportet, quód non ægrum ebriosum facere possumus, sed hoc loco prescriptio medici et non ægri, et ille semper prescriberet; propterea medici soli morbos noscunt, quibus ebriositas originem dat. Ægrotatione solum usum admittam, meam opinionem defendere me decet, sciens opiniones multorum clarissimorum mihi obluctandas esse, multi nos stimulare

priusquam imus vicinitatem malariæ, pro intentione nos ipsos defendendi viru recommendant. Quanquam ullam theoriam contra hanc dare non possum praeter hominem tam frequenter, dum sub impulsu stimuli, respirare; circulatio aucta est, et quid systema non imbutum est cum viru, non video, quod certum est, debilitas excitationem succedit et tunc corpus non posse virus resistere. et mihi bonum est, quod meos antagonistas scriptoribus Tropicorum et devastationibus quas morbi Malariæ ebriosis in nostra patria commiserunt, referre possum; quot juvenum

videmus mori Biliosa febre ebriositate contracta et quot illustrium virorum uno morborum quos supra memoravi, mortui sunt. Est mihi per magna copia, sed contentus ero mortem Alexandri et Paracelsi et multorum aliorum qui in acme vitæ Baccho sese immolaverunt, designare. Hactenus de ebriositatis effectibus noxiis et corpori et menti, scripsi; et nunc parvas ~~lin~~ lineas in illud felicitati domesticæ quod necesse est, occupare enitar. Imprimis ebriosus ejus res negligit, obliviscitur æs alienum dissolvere, ejus servos non

recognoscit; domus rimosæ fiunt, agri inculti sunt, raró domi invenitur, quia illic fanatur, quærit illos qui participant excitantque, sic invit donec unus morborum ebriositatis eum arripit, et tunc inter eum et sepulchrum non longum tempus est, cui gradatim appropinquat. Ebriositatis hos effectus dicere desinam et pauca dicam quæ mihi bona visa sunt. Sæpe meditatione, cur nostri legislatores hoc malum non conati sunt supprimere, stupui. Variola et Typhus Icterodes sæpe considerationem occupaverunt; dum ebriositas, pessimum vitium cui humanum genus sub=

jectum est, vix unquam animos ullius senatus occupavit.

Ebrietatem reprobatam frequenter ab rostro divino solo audi-
mus, et si nulla templa habebamus, nusquam ebrie-
tatem culpatam audiremus; et hic unicuique æquum
decet me dare et dicere, Clericalem professionem liberi
-orem esse ab ebrietate quam ulla alia, non faciens
meam secundam, quanquam noxios effectus noscit,
at usus immoderatus liquoris spiritui cursum tenebit
dum Politia parvo pretio alembicos censent, tabulæ
eburneæ magno pretio et illæ unum vitium tantum
sed tabulæ vinosæ parvo, illaque janua omnibus vitiis

sunt. Ebrietate quot urbium captæ sunt, quæ parvam requiem procurantes inhabitatores ebrietati sese committunt, et obsessoribus facilis præda fiunt. Regna sunt versa sunt, vicinia depopulata sunt et ebrietas remota causa solennis epidemici, uno verbo, pauci ebrii si dimidium decerum suorum vivunt; et nunc his paucis paginis quas in hoc subjectum scripsi, finem dabo, dicendo pauca verba illis infelicibus hominibus qui Bacchum adorant (quæ sunt) Deum adoratis, qui in progressu temporis tuum animum disturbari causabit, ut si pro unico filio flebatis; et vobis qui procul stant non vadatis proprius, ne capiemini.

Dissertatio Medica Inauguralis
De Rheumatismo
Quam

Examini Admodum Reverendi Iacobi Kemp D.D.
Præfectiis
Professorumque Universitatis Marylandiæ
Pro Gradu Doctoris Medicinæ
Sextio Nonas Aprilis
Anno Domini 1826.

Submittit.

By
Frederick L. Grammer
of Annapolis
Maryland

Memoriæ

Gulielmi E. Pinkney M. D.

de Annapoli

Hac imperfecta Dissertatio dicata est,

Amico et discipulo,

Auctore.

Situs Rheumatismi

Rheumatismus affectio fibratæ texturæ corporis esse definitus est, et tendinæ majore exparte ~~partes~~ affectæ sunt. Universa sententia "affectionis articulorum" a Doctore Guliehmo Cullen utitur. Sed in dissertatione de hôc morbô a Doctore Carolo Scudamore Londini, nimis indefinita esse fertur; quippe aliquas partes structuræ complectitur, quæ in dubium vocatæ sint, utpote certa sedes morbi. Videlicet, Ligamentum Capsulare et Cartilaginem.

Ligamenta, quæ pequentius infestantur, sunt ea quæ ad tendines et musculos attinent. Thecæ tendinum, fasciæ, aponeuroses et bursæ mucosæ, sunt partes quæ pequentius ligamentis infestantur. Doctor Carmichael Smith in ejus dissertatione "de inflammatione" definit, Rheumatismum acutum esse

inflammationem fibrarum ad musculos pertinentium.
Sed Scudamore hanc perceptionem argumenti nimis indefinitam, si non plane falsam esse putat.

Si fibræ ad musculos pertinentes, essent communis sedes inflammationis, essent tumor et tenerilas in ipsis musculis, expressius quam accidere sentimus, et necessarie nonnulla densatio fibrarum auctâ determinatione sanguinis producta.

Huic contraria, in hôc morbô fere accidere invenimus. Quamvis accessum magnitudinis in portione tendinosâ sentimus.

Nervi interdum afficiuntur, ut ex morbô, qui dicitur Ischias nervosa, quæ affectio Poplitis est, cognitum est. De hâc formâ morbi nihil dicam. Professor Nathaniel Potter hujusce universitatis, tendines et fascias præcipuam sedem morbi esse putat. Hujus eruditi sententiam magni

æstimo, et has esse partes crebius affectas, vie in eam magnopere me juvat.

Inutile amplius de hâc parte mei argumenti dicere censeo, quemadmodum non dubito, quin quæ dixi, ampla descriptio morbi esse putabuntur.

Causæ Rheumatismi

Mos est auctoribus plerumque causas hujus morbi, in tria genera partiri. Videlicet, Predisponentia vel Remota, Excitantia et Proxima. Sed quoniam causam excitantem et proximam unam et eandem esse censeo, nihil de his separatim dicam

Causæ Predisponentes

Predisponentes causas quinque hujus morbi enumerabo.

1 Quæcunque causæ debilitatem inducunt, vel universam vel localem, huic morbo antedisponunt.

2 Insalubris conditio functionum digestivarum,

confundens systema nervosum, et irritabilitatem et debilitatem producens, Rheumatismo antedisponit.

3 Perspiratio profusa, quæ corpus noxia impulsioni humidæ et frigidæ atmosphæræ male disponit, efficacissima predisponens causa putatur.

4 Tempus anni predisponens est causa, plus minus==ve actuosa, secundum gradum humiditatis et mutabilis temperiei quæ tum prævaleant. Autum==nus auctoribus plerumque putatur tempestas qua Rheumatismus crebrius occurrit. Quia tunc vestimenta æstiva nondum omittuntur, et vicissi=-tudines caloris et frigoris occurrunt. Hic Morbus certe occurrit crebrius hac tempestate anni sed nonnunquam vere occurrit.

Ætas inter causas predisponentes hujus morbi numeratur. Homines omnium structurarum, morum et temperamentorum, ex ætate pubertatis ad triginta quinque annos, hoc morbo indiscriminatim invadentur. Homines temperamenti sanguinei huic morbo maxime disponuntur. Viri frequentius fœminis ab eo affectantur. Et causa non latet, quia humori et frigori magis exponuntur.

Causa Excitans

Immutatio temperiei sola causa excitans hujus morbi mihi esse videtur. Hinc quamvis morbus in omnibus regionibus existit, præcipue in his regionibus occurrit, in quibus vicissitudines caloris et frigoris occurrunt.

Diagnosis

Hic morbus sæpe pro Arthritide acceptus est, sed symptomatibus sequentibus discernatur. Remissiones a dolore et febre per diem non sunt æque distinctæ in Rheumatismo acuto ac in Arthritide acutâ. In aggressione primâ Arthritidis raro plus quam una pars et rarissime plus quam una pars eodem tempore afficitur. In Rheumatismo articuli majores sunt partes, quæ frequentius infestantur. Sed in Arthritide articuli pedum et manuum invaduntur. Et usus eorum præpeditur, non secus ac si pacti et contusi essent.

Stomachus in Arthritide item invaditur. In Arthritide

est effusio serosa in membranam cellulosam, foveam digito cedens, inflammatione subsidente, et turgescens conditio vasorum vicinorum. observatus quam in Rheumatismo.

Symptomata Rheumatismi

Acuta forma hujus morbi variis symptomatibus discernitur. Plerumque incipit algor, qui succeditur calore, siti, anxietate, impatientia et duro, pleno et celere arteriarum pulsu. Dolore acuto fere infestante quendam magnum articulum. Dolor magnopere augetur motu. Articulus paulo post cruciatu afficitur, et etiam nonnullo rubore et tumore, qui tactui dolorificus est. Tumore incipiente nonnunquam levatur

dolor, Sed in toto non removetur neque articulus a reditu morbi defenditur.

Urina, in principio hujus morbi, tincta est rubro colore et est sine sedimento, sed ut morbus procedit et remissiones febris fuint majores, deponit lateritium sedimentum. Hoc a nonnullis auctoribus criticum esse putatur. Sed Doctor Cullen dicit, non esse semper in toto criticum. Nam morbus pergit multo post tale sedimentum in urinâ observatum est. Ego, nihilominus, puto, si non sit in toto criticum, ut symptoma propitium sit.

Dolores manifeste per noctem augentur, corpore servato calidiore. Cum his symptomatibus est anorexia universa lassitudo et oppressio animi. Sanguis extractus,

hoc in morbo venæsectione, crustam inflammationis exhibet. Lingua alborem ejus conservat. Sunt quoque dolor capitis, ardens calor cutis et tenesmus.

Methodus Medendi

In tractandis medicamentis quæ hoc in morbo utuntur, nihil prorsus a me addi potest. Jam antea tam multum de hoc dictum est. Attamen, inter prima medicamenta, venæsectionem et applicationem hirudinum, ponere deberem. Commendantur omnibus auctoribus, et profecto sunt nulla medicamenta excellentiora in tractatu hujus morbi, et nunquam omittenda sunt. Professor Potter justissime observat. Est nullum remedium tam efficax quam

venæsectio tempestiva. Cum inflammatio increbescit, utilissima est, et nulla pro causa omitti debet. Repetenda est, dum dola, cum pulsûs tensione et duratione sit. applicatio hirudinum, in tractando hoc morbo, commendatur, ubi doloi et tumoi arti=culorum extant, post febris diminuitur crebris venæsectionibus. De his nihil dicam, quoniam de usu earum experimentis nihil compertum habeo. Proxima remedia quæ commemoro sunt cathartica. Cathartis est utilis hoc in morbo, temperando impetum circulationis, subigendo inflammationem et excitando systema absorbens. Est utilior cum catharticô salinô producitur. Sales neutrales sunt optima cathartica, propter qualitates

refrigefacientes. Calomelas est utilis, cum datur consilio purgandi, sed sape uti non debet. Calomelas prescripta nocte, consecuta cathartico salino postridie, hôc in morbô utilis est.

Emetica. De usu Emeticorum paululum dicam, his nunquam a me adhibitis. Ferunter esse utilia, cum adhibentur principio morbi. Non dubito, observat Scudamore, quin emetica, adhibita initio morbi, sint utilia moderando vim symptomatum, quæ formata sunt. In casibus hujus morbi, concomitatis symptomatibus plane biliosis, laudantur, et sine dubio utilia sunt. Essent prima remedia, nisi venæsectio postulatur.

[illegible] est. Si [illegible] est utilis, eam dicimus
[illegible] hunc modum, [illegible] ut non dicat. Deinde
[illegible] modo, [illegible] [illegible]
[illegible] est utilis.

Tertio. Si [illegible] [illegible] dicam,
[illegible] [illegible] est utilis. Quorum [illegible]
utilis, eum [illegible] [illegible] [illegible]
[illegible], [illegible] [illegible], [illegible] [illegible],
[illegible] [illegible], [illegible] utilis [illegible]
[illegible] [illegible]. [illegible] [illegible]. Si [illegible]
[illegible] [illegible], [illegible] [illegible]
[illegible] [illegible], [illegible] [illegible] [illegible] utilis
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

Sudorifica. Hæc sine dubio sunt remedia pretiossis=
=ima in tractando hunc morbum. Conjuncta Cathar=
=ticis utilissima invenientur. Pulvis Antimonialis
parvis ~~pro~~ portionibus bonum diaphoreticum est.
Pulverem Doverii, qui compositus est ex Ipecac=
=uanha, opio et sulphate Potassæ utilissimum
inveni. Non debet adhiberi, donec arteriarum
actio succumbit.

Opium adhibetur hôc in morbo ubi aucta actio
cordis et arteriarum oritur ex viritatione productâ
dolore. Conjunctum aliis medicamentis, videlicet,
Catharticis et Diaphoreticis opinor, tuto adhi=
=beatur. Non debet adhiberi in principio morbi.

Sed ubi dolor augescit, et pauxilla vel nulla febris extat, magnô cum commodô adhibentur. Epispastica et Fonticuli. Prior horum remedi=
=orum, puto, tuto adhibita et inventa esse utilia, ubi applicantur parti dolore affectæ. Usus sum iis magnô cum commodô. Posterioribus nunquam usus, de iis nihil dicam.

Cinchona, in hâc formâ Rheumatismi, a multis auctoribus laudatur. Haygarth notat, post stomachus et intestini satis expurgati sunt a pulvere antimoniale, dedi, per multos annos, pulver=
=em Corticis Peruviani, dosibus quinque, decem et quindecim granorum, quâque secundâ, tertiâ vel quartâ horâ, et gradatim auctis ad viginti, triginta

et quadraginta grana. dicit, ut, sub hôc tractatu, in multis casibus, dolores, tumores, sudores et alia symptomata inflammationis, expresse et celeriter subsideant, donec valetudo penitus restituitur. Notat Longius, præter Hydrargyrum in Syphilitide, sunt pauca aut fortasse nulla exempla, ubi remedium tam celere solatium et absolutam convalescentiam, in morbo tam terribili, præbet. Hæc, in acutâ formâ hujus morbi, laudatur, sed ducor credere, eam raro utilem esse. certe est remedium pretiosissimum, cum adhibetur consilio impediendi debilitatem solam, dummodo intestini nacti essent naturalem conditionem et cutis facta esset relaxata.

Regimen et Diæta. Ægrotus in hoc morbo æque ac in aliis morbis, ex algore defendendus est, corpore calidis vestimentis tecto. Temperies dormitorii ejus esset temperata. Ignis est utilissimus ut tempestas qua morbus occurrit, eum postulat. Diæta ægroti esset perlevis et potissimum diluentibus consistere debet. Pulmento tenui, thea et fructibus subacidis, videlicet, aurantiis et uvis sustineretur. Febre subsidente, reditus ad usum cibi animalis per gradum esset, et permitti non debet, donec ulla febris extat.

Rheumatismus Chronicus

Nunc ad secundam partem mei argumenti procedam. Morbus vocatur Rheumatismus chronicus cum forma acuta per longum tempus procedere permittitur. Ex Acutâ plerumque oritur præcipue cum venæsectio non utitur ita ut reducat inflammationem. Chronica ex acutâ formâ symptomatibus sequen=tibus decerni potest. In Chronico Rheumatismo pauxilla vel nulla febris existit, tumor et rubor evanescunt, sed dolores adhuc invadunt quosdam arti=culos torpidos. Termini, attamen, inter Acutam et Chronicam formam non sunt apte notati. Cum dolores concomitantur febre, tumore et rubore

articulorum et sunt severiores nocte, forma est considerando Acuta. Sed cum articuli dolore affecti, non sunt rubri, cum sunt fi=gidi et torpidi, cum sudari non possunt, et nulla febris manet, considerandus est Rheumatismus Chronicus. Hæc forma diversos articulos afficit, sed crebrius afficit eas partes, quæ teguntur multis musculis, et frequenter utuntur. Habemus, exempli gratia, morbum, qui vocatur Lumbago, affectio musculorum vertebrarum Lumbor=um, et Ischiadem vel Sciataca m, quæ affectio Coxendicis est.

Diagnosis

Sententiæ propositæ de hoc argumento tam satisfactoriæ sunt, ut distinctio difficilis mihi non esse videtur. Rheumatismus chronicus a chronicâ Arthritide facile dignosceretur, ætatem et consuetudines ti discendo. Facillime agnosceretur partibus, quas invadit, ut hic minores articulos nunquam afficit, sed ille semper. Stomachus non adeo invaditur in hôc morbo quam in Arthritide. Censeo inutile, de hâc parte mei argumenti, ampliare, ut in priore parte meæ dissertationis, symptomata diagnostica Acutæ formæ

hujus morbi et Arthriticis dedi, quæ majore ex parte applicabunt ad Chronicam formam duorum morborum. Nunc memorabo medicamenta quæ in hâc formâ utuntur.

Methodus Medendi

Medicamenta, quæ in tractatu hujus formæ morbi utuntur, numerosa sunt. Ea memorabo, quæ frequentius utuntur. Primum quod memorabo, est Calomelas. Quamvis hoc medicamentum in Acutâ formâ hujus morbi raro utitur, est magni in Chronica. Exhibitus minutis in dosibus, ita ut producat moderatum Ptyalismum, invenie

etur utilis ita ut alterationem in Systemate pro=
ducat. Frictio Mercurialis, ubi sunt nullus acutus
dolor, nulla organica lesio partis et parva
vel nulla generalis febris in hoc morbo
laudatur, et sine dubio, esset utilis, sub
talibus conditionibus. Calomelas conjuncta
Opio, in hâc formâ, bonum remedium est.
Epispastica et Fonticuli, in tractatu hujus
formæ morbi etiam laudantur. Prioribus
magnô cum commodô usus sum, et opinor, esse
medicamenta magni pretii. Utiliora sunt in
hâc quam in Acutâ formâ morbi. Posterio=
=res, non dubito, etiam utiles invenientur.
Sulphur junctus cum Guaiaco magnô cum

commodô in hâc formâ morbi utitur. Fertur esse utilis, in excitando perspirationem et æquando circulationem generalem. Multa alia Diaphoretica commendantur in hôc morbô, quæ ~~cendeo~~ inutile commemorare.

Camphora efficacissime exhibeatur ubi cutis est arida et dura. Preparatio, quæ vocatur Linimentum Saponis Compositum, est bona localis applicatio, mitigat dolorem et diaphoresin excitat.

Colchicum Autumnale in magnis dosibus fertur esse utilis in Rheumatismo Chronico. hôc usus sum sæpenumero cum magnô commodô.

Datura Stramonium necnon laudatur in hoc morbo, ~~ille~~ concomitatur viritatione, celere sed debili arteriarum pulsu, tumidis articulis, et incomitato ullo dolore nisi sit motu. Praeparatio hujus remedii, quo frequentius utitur, saturata tinctura est.

Arsenicum etiam habet locum inter medicamenta quae in tractatu hujus morbi utuntur. Fertur esse praecipue utile in Rheumatismo Syphilitico et in eo, quae nonnunquam imprudenti usu Mercurii producitur. Balneum tepidum fertur esse remedium magni pretii in tractatu hujus morbi. In hoc ac in aliis morbis caute uti debet. Balneum

frigidum etiam commendatur. Hôc usus sum magno cum commodo, et opinor, esse remedium pretiosissimum. Aqua saturata sale solatium præbet.

Cinchona. De hâc in priore parte meæ dissertationis, dirigi actionibus cordis et arteriarum superatis, adhibeatur consilio impediendi debilitatem, et utilis invenietur. Sub talibus conditionibus nunquam omitti debet.

Extractione Sanguinis Sencsectione et hirudinibus laudantur tractatu hujus formæ morbi. Sed opinor, sunt utiliores in acutâ formâ.

Sunt multa alia remedia, quæ in hoc morbo utiliter, quæ censeo inutilia commemorari

Finis

An Inaugural Dissertation on Opium

by

James C. Elias on of Geo. Town D.C.

for the degree of Doctor of Medicine

Submitted for Examination to the

Rt Right Revd James Kemp S.T.D. Provost

and to the Rt Regents of the University of Maryland

1826

To Dr Saml. B. Baker

Dr Sir

Permit me to dedicate these few lines to you as a mark of respect not only for your talents as a phisician and professor in the University of Maryland but also for your virtues as a Christian and private Gentleman.

You will please to accept my thanks for the very polite attention ~~with~~ which you have always treated me with —

I remain Yours
Verry Respectfully
The Author

Among the many articles of the materia Medica daily employed in the practice of medicine, none are more frequently exhibited. none affects the human frame more powerfully. and fewer are more frequently the subject of medical reasoning. than Opium

It is of the utmost consequence to the practising physician to have a thorough knowledge of such medicines as affects the body - either in a healthy or diseased state. therefore the investigation into the nature of medicines of noted efficacy cannot be superfluous but on the contrary be productive of the best effects.

Almost every circumstance relating to this remarkable medicine has been the subject of dispute and that authors have differed materially not only as to its component parts and modes of action. but in their accounts of the facts relating to its natural history. late experience has however so far ascertained the manner of its production and preparation as to remove every difference on these parts —

Opium is placed at the head of the class of medicines termed narcotics it is the inspissated juice obtained from the capsules of the papaver somniferum a plant indigenous to Persia. Arabia. and Egypt. (it is also cultivated in Gardens in this country. a piece of ground sixty square yields half of a pound) in all those countries where opium is manufactured large fields are carefully tilled for the purpose of producing it. and its sale constitutes no inconsiderable branch of commerce. the manner in which the opium is obtained from the poppy is by making longitudinal incisions upwards at Sun set. these incisions are to be made and repeated for several evenings until each capsule has received several incisions and then they are allowed to ripen their seeds. the juice which exudes is collected in the morning and being inspissated to a proper consistence and made into cakes of from four ounces to a pound. by working it in an earthen pot in the Sun's heat. these cakes are sometimes covered with the dried leaves of the poppy. this is a test

of its quality. the Turkey opium is of a dark brown colour externally. internally or when reduced to powder of a dusky red. its smell is peculiar. faint and disagreeable. and its taste bitter. pungent and acrimonious.

Chemical Composition. the peculiarities of Opium are resin. Gum. Gluten. Sulphate Lime and Potash. Narcotin. an acid and a peculiar alkaline cristalisable substance to which the name of Morphia has been given. and which substance is supposed to posess the narcotic principal. the acid principal has been denominated the meconic acid. and exists in a state of combination with the morphia. forming a meconiate or Supermeconiate.

The effects of Opium on the living system are produced in a greater or less degree. according to the parts of the body it is applied it is a Stimulant in the first instance and afterwards acting as a Sedative. if a Strong watery Solution of Opium be made. (in the proportion of ℥i. to an ℥i. of water) and a small quantity be poured into the Eye. it occasions immediately pain. and lasts

for several minutes. occasioning inflammation both of the tunica adnata and palpebrum. attended with an effusion of tears. after elapse of twenty or twenty five minutes. if we pour a small quantity of Spirits diluted with water into both eyes. the pain is more considerable in the eye in which none of the Solution had entered. which proves the positions laid down.

It does not appear to have much action on abraded surfaces. Some suppose it to exert no power whatever. Cullen's remarks on this this subject are entirely in favour of the external application of Opium. and his opinions should ever be looked up to. and indeed my own observations almost justify me in believing its utility. Unedy or balsams liniments &c. are still used in our hospitals -

the effects of Opium internally appear to be in proportion to the quantity given, in small and regular doses it increases the force and frequency of the pulse. in large doses its excitant operation is transient. but renders the pulse fuller and stronger. and afterwards slower than at the time of taking it. Secretions and excretions are

impeded in every part of the system except the skin the discharge from which is evidently augmented - Opium at first excites the sensorial powers but afterwards lessens it. if given in a large quantity it produces torpor insensibility and sleep. tremors convulsions &c -

In the Eastern Countries opium is used like wine and spirituous liquors in civilised Europe and America. an Eastern traveler gives an account of its effects on the Turks. speaking of those who give themselves up to its immoderate use. he says." destined to live agreeable only when in a sort of drunkenness. they assemble in the market of Opium eaters. arriving in the evening by different streets. their pale and melancholy countenances would inspire compassion. were it not for the distorted figures which are the consequence of the disorder. presents the most ludicerous and laughable picture. pills of Opium are soon distributed. the most experienced swallowing larger quantities. they wait in some particular attitude for an agreeable reverie. which at the end of an hour or two at the most never fails to animate those animal

machines. and make them gesticulate in a hundred different manners. this is the moment when the actors are happy. each of them returning home in a state of total inebriety. but in the full possession of a happiness which reason is not able to procure him. deaf to the hootings of the passengers they meet with. who divert themselves with making them talk nonsense.

the same thing happens in private families when the master sets the example of this strange debauch.

previous to entering upon the use of Opium in particular diseases. a few remarks upon the preparations and doses. and modes of exhibition seems requisite.

Opium is generally employ.d either in the solid form or tincture if we wish to produce a sudden impression the tincture should be given. in this form it is immediately diffused through the stomach. in pill form, it requires a considerable time for its solution. in some particular habits. given even in very small doses its action is very distressing, to obviate this different preparations have been given, 19.r of Opium rub.d up with x gr. of the carb potash and dissolved in an oz of water may be taken without the least inconvenience. the black drop. is an excellent preparation. and may be taken by those who cannot endure opium in its solid form. Doses must vary according to the intention of the prescriber. the constitution of the patient and the nature of the disease. i.t. ij grains acts as a narcotic ℞ fa gr.s frequently repeated will keep up its exhilirating influence. from habitual use it renders the system

less sensible to its impressions and larger doses are required to produce its effects. than those who are not addicted to its use

Incompatible Substances Oxy Muriate of Mercury. Acetate of Lead: Alkalies infusion of Galls and Yellow Cinchona. infusion of Green Coffee.

The first thing to be done for counteracting the injurious effects of too large a dose is the exhibition of a powerful Emetic and for this purpose a large dose of Sulp Zinci ℥i. or Sulp Cupri. dissolved in water should be swallowed immediately and the vomiting kept up for a considerable time and urged by titillation of the fauces. large draughts of vinegar and water or other acidulated drinks and the powers of the habit kept up by brandy and water Coffee and cordials. the sufferer should be kept awake and if possible to be in continual motion.

Milk and water thrown into the Stomach and pumped out again by means of a Stomach pump such as invented by Dr Physic of Philadelphia

All medical writers agree that Opium is inadmissable at least, while inflammation continues in any degree considerable. Many phisicians do not use Opium even after copious depletion in inflammatory diseases. altho. Stimulants are to be avoided in active inflammation by lowering the excitement and diminishing vascular action. by venesection and other evacuants and adhereing to the antiphlogistic regimen we may then employ Opium, in combination to advantage. when excitement depends on morbid irritability and sensibility it acts very beneficially. Dr. Armstrong used Opium with great benefit in peritonitis. his mode of practice was to bleed his patient ad deliquium. after recovering from fainting he gave 3 grains of Opium. if in three or four hours there was much excitement he bled a second time, as before and repeated the Opium 2 grains, this practice was continued the 3 time if necessary, after which Calomel and Opium was given. which was generally attended with Sleep. a free perspiration. and the patients woke with perfect relief —

In Pneumonic affections after inflammation has been subdued. Opiates in combination with antimonials are universally admitted to be serviceable –
In Chronic Coughs they are almost indispensible to allay irritation –
In Chronic Bronchitis after proper evacuation. Opiates are remedies of great utility. lessens Cough &c
In Rheumatism after the violence of inflammation is subdued by venesection and other usual means. the skin dry the pulse soft. Opiates are used with great advantage particularly in combination. Dovers powder. or which is perhaps a better preperation. Nitre potash ℥ss. Ipecac. 1 ℈. Opium 1 ℈. the Neutral Salts counteract the Stimulant effects of the Opium. the ipecac determing to the skin, Diluents can be used also.
In Typhoid forms of fevers to relieve Subsultus tendinum. Tremors. wakefulness &c. in most cases in most cases Opium is not so good as the more diffusible Stimulants. Camphor. Ammonia Ether Musk &c. they do not produce Stupor. Opium does

and thereby destroys intercourse with friends. when used in such cases. it should be given in regular doses and at regular periods. to prevent relapse when it acts too freely by diaphoresis. the mineral acids counteract that defect.

In Intermittants. where viscerial obstruction has been removed Opium has been given to stop the paroxism. writers have differed at what time it should be given, some say a half an hour before the expected paroxism. the feelings of the patient clearly indicating its approach. one or two hours before is the proper time of exhibition before the expected paroxism. Combined with Camphor. it generally stops the chill. Lind & Trotter recommend Opium in the hot stage of intermittants. it should never be given at that time.

In Gout. when affecting only the extremities it is best to trust it to patience and flannel as is commonly done. in that species called irregular atonic or retrocedent, commonly call'd Gout of the Stomach

no doubt remains as to its utility by fortifying and supporting the Stomach — Opium has been given in large quantities in such cases —

In Haemorhages of increased excitement Opium is injurious. depending on nervous mobility it is useful —

Haemoptesis after phlogistic diathesis has been allay^d. Camp^r and Opium may be employ^d.

Uterine Haemorhage succeeding delivery and in the unimpregnated State Opium is particularly useful —

In Diarrhoea unaccompanied with fever its astringent effects are highly useful. combined with Ipecac renders it more valuable —

In Cholera of infants in the second Stage after febrile Symptoms are subdued. if the disease is properly treated from the first offset. Opium is hardly necessary in any Stage. generally given in Combination with Calomel in irritable habits —

Cholera Morbus. Cholera sadulty — Opium is

an invaluable remedy should be administered in large doses ℥i of the Tincture every half hour, aided by strong brandy and water. Mint Sling & Sinapisms &c. Johnson on diseases of tropical climates recommends large doses of Opium ij and Calomel ℥i. – if Cholera is connected with diseased Liver, we can give Calomel in small doses and Opium, which is more suitable to this climate –

In Colica Pictonum. Opium is highly extolled, used in large quantities from ½ grains to ℥ij. Oleum Ricini used freely. S.B. recommends it in 5 grain doses, follow by Calomel ℥iss and Oleum Ricini, this to be repeated until the disease yields. in Bilious Colic Opium is inferior to no remedy except the Lancet, it should be combined with Calomel –

In Dysentery, after the inflammatory action has been subdued, and there is tenesmus remaining the Dovers powder is a good formula, or Opium ij ℥iss combined with Ipecacuanha ¼ grain – exhibited frequently, followed by Laxatives, Oleum Ricini –

In Tetanus. Opium is used to a great extent. Dr Archer gave 1800 grains in as many days in a case of tetanus several other physicians have used it very freely & Baker recommends 5 grain doses every 3 hours to be increased. in all Lacerated and Gun shot wounds, where there is reason to fear tetanus, Opium should be used as a preventative (freely) to produce tranquility — an interesting case is related by Dr Baker in his Lectures shewing the value of Opium in this disease — where amputation had been proposed by Dr Gibson, but was overruled by Dr B. who forfeited his reputation if he did not cure the patient without amputating —

In Mania a Potu. Opium is useful, in those cases which arise from Suspension of Stimulus, attended with frequent weak pulse, trembling tongue, natural fulness, and debility. should be given in ½ grain doses every 2 or 3 hours, until the patient is composed, when in this state he will fall asleep and when the patient awakes he will be quite rational. Mania a Potu arises from too much Stimulant; sometimes then it is necessary to treat it in a different way —

In Gangrene. that species attending on old age call^d gangrene of the toes. which begins at the toes and travels upwards. caused by a want of energy in the system. mild astringents applied to the parts. and Opium given internally. to give the constitution time to recover its elf —

In Diabetes Mellitus opposite views have been given of this disease, for its treatment from the Phlogistic to the Stimulating remedies. O there is great irritability quick p[illegible] — with great advantage. d[illegible] [illegible] me Brahm —

An Inaugural Dissertation on Cynanche Trachealis

Submitted to the examination of the Revd Bishop Kemp.

For the degree of Doctor of Medicine

By James H Clagett
Member of the medical society of Baltimore.

April 3rd 1826.

To the Medical professors of Baltimore

This dissertation is respectfully

inscribed as a Tribute of Esteem

for their Virtues. & admiration

of their Talents by

The author

Introduction.

Among the many disorders to which the human frame
subject to. there are few that require of medical men
ore attention than the subject of this Essay. And
though it be a disease which is not so common as
ne others. it is so deceitfull such and terrifying
its approach. that it sometimes proves fatal before
re is any suspicion of its nature or danger. and is usually
far advanced when discovered, as to be beyond the
ach of medical assistance. Of late years physicians
ave paid particular attention to this subject but
y differ widely with respect to its nature & treatment
As the institution of Maryland requires a thesis to
written on some Medical subject by every candidate for
degree of Doctor of Medicine. I have with diffidence
detaken this subject not with an intention of offering
y thing new. but merely to comply with the rules of the
stitution. which I hope will be satisfactory.

Cynanche Trachealis

This is a disease very difficult to be defined owing to its attacking so many different parts. It may consist in a difficult respiration and peculiar shrill noise in respiration attended with cough & inflamation of the wind-pipe or Glottis with no apparent swelling in the fauces, and in most cases a perfect and natural deglutition is enjoyed by the patient.

In speaking of persons subject to the disease it has been considered untill lately to be entirely confined to children. It is said that General Washington died with this disease, and there are cases of this kind repeated noticed by practitioners of this country. Children are sometimes affected with this

disease while sucking, but are more liable to it after they are weaned. Children are subject to this disease between two & twelve years old. but are most subject to it from two to seven years of age.

Of the history of the disease it has been generally supposed that this disease was unknown to the ancients, they did not describe it with accuracy. Dr. Home observes that ~~they~~ there is little to be learned from inquiry & still less from Books. It is true that before he favoured the world with his most excellent ~~tra~~ treatise on this disease & his dissections of those who have died of it. physicians were ignorant of its nature. But that the disease was till then unknown seems very improbable

Many circumstances in early times prevented

its discovery. The age of the patients ~~commonly~~ commonly affected with it, from whom little could be learned; the slow & insidious approach of the disease in some instance, from which circumstance the physician was seldom called to visit the patient untill it was too late; and above all the great aversion that people had to dissections, which alone could have unfolded the nature of the disease, were insurmountable difficulties. However of late years parents have been apprised of the danger of neglecting the complaints of children and have applied to physicians much sooner.

I have said this disease seldom attacks infants till after they are weaned. after this period, the younger they are the more they are liable to it. the frequency of it becomes

less as children becomes more advanced: & there are no instances of children above twelve years of age being affected with it. It attacks children of the midland countries as well as those who live near the sea. it does not appear to be contagious & its attacks are frequently repeated in the same child. It is often manifestly the effect of cold applied to the body. & therefore appears more frequently in winter & spring season. It commonly comes on with the ordinary symptoms of a catarrh, but sometimes the peculiar symptoms of the disease show themselves at the very first.

These peculiar symptoms are the following: a hoarseness with some shrilness & ringing sound both in speaking & coughing as if the noise came from a brasen tube. at the same time there is a sense of pain about the larynx some difficulty

of respiration, with a wheezing sound in inspiration as if the passage of the air were straitened.

The cough which attends it is commonly dry & if any thing be spit up it is a matter of purulent appearance. & sometimes pelms resembling portion of a membrane. Together with these symp=toms there is a frequency of pulse a restlessness & an uneasy sense of heat. When the internal fauces are viewed they are sometimes without any appearance of inflamation. but frequently a redness & swelling appear: & sometimes in the fauces there is and ap=pearance of matter like to that rejected by coughing

With the symptoms now described & particularly with a great difficulty of breathing & a sense of strangling in the fauces the patient is sometimes suddenly taking off.

There have been many dissections made of infants who had died of this disease & almost constantly

there has appeared a preternatural membrane lining the whole internal Surface of the upper part of the trachea & extending in the same manner downwards into some of the ramifications. This preternatural Membrane May be easily seperated & sometimes has been found seperated in part from the subjacent proper membrane of the trachea, this last is commonly found Entire that is without any appearance of Erosion or ulceration but it frequently shows the vestiges of inflamation & is covered by a matter resembling Pus. like that rejected by coughing & very often a Matter of the Same kind is found in the Bronchia sometimes in cosiderable quantity.

From the remote causes of this disease from the catarrhal Symptoms commonly attending it. from the pyrexia constantly present with it. from the Same kind of preternatural membrane

being found in the trachea, when the Cynanche Maligna is communicated to it. & from the vestiges of inflamation on the trachea discovered upon dissection we must conclude the disease consists in an inflamatory affection of the mucous membrane of the trachea & larynx producing an Exudation analogous to that found in the Surface of inflamed Viscera & appearing partly in a membranous crust & partly in a fluid resembling Pus.

Though this disease manifestly consist in an inflamatory affection it does not commonly end in Suppuration or gangrene.

The secretion & troublesome circumstances of the disease seems to consist in a Spasm of the muscles of the Glottis which by ex=ducing a Suffocation prevents the common consequences of inflamation.

An Inaugural Dissertation
on the
Non-Contagion of the Measles
Submitted to the Examination of
The Right Rev.d Bishop Kemp Provost
The Regents and Medical Faculty
of the
University of Maryland
On the thirtieth day of March
Anno Domini One Thousand
Eight Hundred & Twenty six
For the Degree of Doctor of Medicine
by
Tilghman Dixon
Frederick County Md.

Thoughts on the non-contagion of the Measles-

In choosing a subject connected with Physick, and suitable to my present purpose, much difficulty has arisen in my mind; and when I reflect that the heads and pens of so many illustrious and truly scientific men; have been employed upon diseases their causes, symptoms and cure, my embarrassments are much increased, and nothing but necessity would induce me to give my thoughts (on a medical subject) publickly- In compliance with the rules of the University of Maryland I proceed in delivering my thesis- The subject which I have chosen for this occasion after much deliberation is an humble enquiry into the disease designated by systematic nosologists "Rubeola"; and I trust that in pursuing this enquiry my remarks will be such as become a learner, and one who cannot boast of the experience of many years- In differing with the opinions of all ancient, & most modern medical writers, is with the sole view of truth

and when engaged in discriminating between truth and errour, it is the right of every man to dissent from the opinions of all men, if he conscienciously believes that incorrect views have been taken as facts, because sanctioned by a great name; and to differ is not to detract.— To demonstrate beyond a doubt is not my object, but I shall be content with the humble hope, to awaken the attention of others to the research. I have for a considerable time seriously doubted the contagion of the Measles, and when I read the work of Professor Tolter on Contagion, my doubts were considerably strengthened; and in pursuing my subject I hope to give such reasons for my dissent from a general opinion; as to acquit me from the charge of vainly orchimerical speculations, and place my views into a much stronger light than plausibility. I shall confine myself chiefly to the nature of the disease under consideration

and point out briefly the difference of Measles from known and indisputably contagious diseases. In the first place I must be indulged to premise that no disease is strictly contagious unless its exact similitude can be produced on the healthy subject by the secretions of the body under morbid laws. Thus in diseases which are truly contagious, this impression can be made on the healthy subject either from the Contagious effluvia arising from the morbid secretion, being received into the lungs; by actual contact of bodies, and by inoculation; I therefore view Variola a contagious disease, because it can be communicated by inhalation; by contact and by inoculation. I hold Lues a contagious disease for it can be communicated in the two latter modes; and Syphilis is communicable in the same way. These three diseases are strictly contagious; and when communicated to the healthy body, they produce their offspring whose features it is only

necessary to behold and we recognise their common parent Contagion. All diseases of the class contagious are governed by fixed and unalterable laws not controuled in their appearance by climate or season, not to be arrested in their progress till they find no more materials to act upon and attack alike the young and old, the plethoric and the emaciated, the man of ease and luxury, and the peasant who toils daily for his bread; neither age sex, place nor climate are exempt from the laws of contagion - In support of my ideas of contagion I will add the definition given by the learned & scientific Professor Potter in his memoir on Contagion

"I define, says he, contagion a vitiated secretion brought in contact with the nerves by inoculation, or a morbid secretion emanating from a sick to a healthy body received into the lungs giving rise without the agency of any other cause to its own similitude in a body previously healthy"

I trust that the fact is now established that no disease can be considered contagious unless it obeys the laws of known contagious diseases and produce its own similitude on the previously healthy body without the agency of any other cause. I will now proceed to show that the Measles obey different laws. 1st. that they are controlled by climate and season 2nd that they do not attack indiscriminately 3rd and that they cannot be propagated by the effluvia arising from the secretions of the body, by contact or by inoculation. In support of my first assertion it will only be necessary to appeal to the recollection of every practicing physician, who will bear testimony that the Measles appear uniformly in our country, as an Epidemic disease; at about every six years. (vide Rush & Potter) the seasons when they appear are about the month of January & cease about the last of May & the Autumnal season from October to December is the usual time

when the Measles appear in our country. That acute observer of diseases Doctor Sullivan observes "that the Measles commonly appear as an Epidemick first in the month of January and cease soon after the summer solstice" it thus appears that Rubeola are controuled by the temperature of the weather never prevailing in the summer season, and returning at regular intervals, therefore differing from all contagious diseases as materially as a fit of Podagra differs from an attack of Cholera – In support of my second proposition I cite the authorities of Rush, Currie, and Sullivan, who all observe that children are the most frequent subjects of measles, herein they again differ from all contagious diseases, whose attacks are indis-criminate, increasing in proportion of the surrounding healthy bodies – This brings me to my last and most important proposition, that the measles

cannot be propagated by the effluvia arising from the morbillous secretions, to the previously healthy body; without the aid of other causes and that ~~they cannot be communicated to the healthy body without the agency of other causes~~ either by actual contact or by inoculation. In proof of my last proposition, I will detail a few out of many cases that will establish the fact clearly; that a contaminated atmosphere or other predisposing cause; is as essentially, and absolutely necessary as the presence and operations of marsh miasma is to the generation of our common Billious fevers. The following detail I have from a medical Gentleman of unquestionable veracity who then practiced medicine in Tennessee — A number of Boatmen went to New Orleans in the Spring of 1815 — and many of them contracted

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the Measles, they returned to their homes; many of them had families with whom and their neighbours, they had constant intercourse during the whole course of their disease, but in not one single instance did they communicate the measles - Can it be supposed that if the Measles were contagious, they would not have infected the greater part of those who came in its sphere of action, no one however sceptical but will admit that such must have been the inevitable consequence - Why did not the disease spread under such circumstances? I answer because it is not capable of producing its similitude without the agency of some other causes, and therefore not contagious - But farther the Measles were prevailing in Baltimore in 1816 as an Epidemick, a gentleman who was in the City at the time contracted the disease he went to Caroline County unconscious of his

complaint, the eruption not having appeared the day after his arrival the disease was developed, and during its whole course, six children were exposed to it in the same room, and no one became diseased. Could this have been the result in a case of Varioola or Psora? no one will answer affirmatively. An auxiliary cause (the constitution of the atmosphere as in most epidemick diseases) was wanting here to propagate the Measles. I will close this part of my subject by the corroboration of some facts taken from Professor Tollers memoir on Contagion. He says "in the fall of 1814 the Pennsylvania militia were marched to the encampments near this City, many of whom had the Measles, but the disease was not propagated to any of the Maryland or Virginia troops" It would appear from these facts, that a general

diffusion of the cause through the atmosphere is essential to their multiplication. He further says "that solitary cases of Measles have often been introduced from the contaminated atmosphere of a neighbouring state into this City, but on no such occasion have they become epidemick, nor have they been thus communicated to any individual within the sphere of my observation" When we reflect on the frequent intercourse of the Soldiery stationed only one mile apart, and under the same General order, performing the duties of guards, where they must of necessity be confined for some hours in the same quarters — and Gentlemen acquainted with the insubordination of Militia cannot doubt but the Soldiery were associated under the most favourable circumstances to receive a disease of a contagious nature. But not one solitary case occured of their propagation —

so that not a "hook remains whereon to hang a doubt" – If this disease was contagious it must have multiplied "like the locusts of Egypt" and spread destruction and death amongst our soldiery.

The only rational deduction that can be drawn from the above facts is, that the Rubeola are not contagious, but are Epidemick requiring a peculiar constitution of the atmosphere, to make an impression on the healthy body, therefore differing from the unalterable laws of contagion – This brings me to the latter part of my last proposition, that the Rubeola cannot be propagated by inoculation and therefore not a contagious disease. Here I will have to contend with the authority of a Gentleman who stands high in the medical world for science and investigation, and whose benevolence of disposition entitles

him to the respect of all who know him, in differing with this Gentleman, I hope to avoid the charge of presumption, and give such reasons as shall make my dissent laudable. Dr. Holme instituted at Edinburgh a series of experiments, to render the Measles milder by inoculation as had been done previously in the Small pox; the Doctor believing Rubeola as Contagious as Variola entered on his experiments with every certainty of success, and in giving the result he says "the success of the operation was equal to my hopes" the eruption appearing six days after the inoculation, and the symptoms milder than they usually are in the Casual Measles. That many of the twelve persons on whom Doctor Holmes experimented took the measles is certain but that they did take it in consequence of inoculation, is to me more than

problematic - My reasons for this conclusion, shall be given in the investigation of the time, place, and manner of the Doctors experiments - The first mode of experimenting by the Doctor was to receive on cotton the secretions of the morbillous patient and introducing it into the nostrils of a healthy person but he failed in communicating the disease in this way - In pursuing his enquiries he observes "I then applied directly to the Magazine of all Epi=-demic diseases the blood, taking it from the eruption when most fever was present, and receiving it on cotton and applying it over the incisions made in the arms of the persons to be inoculated" - He took the blood from the most cutaneous veins, and took every possible precaution to give success to his operations - We have admitted that many did receive the disease but when we reflect that at the very time he was

conducting his experiments, the measles were prevailing as an Epedimick disease in Edinbor'. It will be far from a satisfactory conclusion, to say that it was from inoculation the disease was produced; but in pursuing the Doctor in his experiment, as to the place and manner of his operations; we shall find reasons strong as "Holy writ" to satisfy us that the disease was not propagated by inoculation - Many sorrowfull patients were confined in a room of the Hospital; and into this room the Doctor brought his patients, and inoculated them - Now the atmosphere in, and about the City; was such as to produce the disease in thousands, and to predispose others to its attack; then taking persons already predisposed into the room of a Hospital, crowded with patients, it can easily be supposed what the effect would be, this confined atmosphere in the room was

was sufficient to kindle the embers of a disease lurking in the body, as a glass of wine at dinner has often been the exciting cause of yellow fever, in the system of a person who had been exposed to the miasmatic atmosphere – But to place the impossibility of propagating Measles beyond a doubt, it is only necessary to state that many similar experiments to Doctor Holmes's have since been made and in no one single instance have Rubeola been communicated by inoculation – I will add one more fact proving the total dissimilarity of Measles from any known contagious disease, for instance Variola if the Variolous Virus, be introduced into the arm of a person (who has had the disease) we will produce a local disease – Now take the secretion of Measles, and introduce it into a persons arm, who has never had the disease and we produce no greater inflammation than by

dipping the lancet in cold water & making a puncture

I have pursued the enquiry as far as time and opportunity will allow and now most cheerfully resign it with a hope that a candid allowance will be made for the imperfections contained in this my first essay –

An
Inaugural Dissertation
On

Rheumatism

By
John Keene.
of Baltimore.

Respectfully submitted to the consideration of the
Medical Professors of the University of Maryland
March
1826

Rheumatism.

There are two species of this disease, one the Acute, the other Chronic, of these there are several varieties. When the pain is confined to the loins it is called lumbago, and sciatica when the hip is affected, when the pain is confined to the joints of the extremities it has been called articular rheumatism. The common remote cause of all these varieties is the same, long exposure to cold, wearing damp clothes. This disease is more frequent in cold than in warm climates, it appears more frequently in autumn and spring than in winter or summer, it may however occur at any season if there are frequent vicissitudes of heat and cold. — The causes producing this disease may affect persons of all ages but those from the age of puberty to thirty five are more generally its victims, children from long exposure may have the disease. All constitutions are liable to be attacked with rheumatism when exposed to the cause, but it more frequently seizes those of a sanguine temperament. This disease is particularly distinguished by the pain in the joints, the muscles, fascia &c. are also often affected. The pains frequently run along the muscles from one joint to another, the pain is increased when the muscles belonging to the affected joints are brought into action. The smaller joints as those of the fingers and toes rarely suffer, the larger are generally attacked as the hip, knees, and of the superior extremities the shoulder=

Introduction.

There are two species of this disease, one the Hernia the other Bronchi of these the second consisting in an the pain is confined to the lungs it is called Bronchitis and Pleurisy when the lungs affected when the pain is confined to the pleura of the intestines it has been called Enteritis Peritonitis. The same we assert some of all their varieties of the same being referable to Gout, accompanying Gouty affections disease is more frequent in such than in those elements, affecting more frequently in autumn and spring than in summer, it more common at any season of life, are frequent accompaniments of Gout and Rheumatism.

The same producing this disease more affect persons of all ages but those in the age of puberty to twenty five are more generally affected than those of any age or sex may have the disease. All constitutions are liable to be affected with Rheumatism when exposed to the cause but it more frequently occurs those of a sanguine temperament. This disease is characterized with acting violently on the pleura the muscles thereto are subject of the affected. The pain frequently more acute the muscles fibres are found to be tense, the pain is increased when these muscles belonging to the affected pleura are tense, it will extend the muscles pleura on those of the pleura and they cause suffer the most pain attended on the top those and of the subjacent extremity the most the

= and elbow joints. Rheumatism is sometimes confined to one particular part of the body, but it often affects many parts of it at the same time, in this case it is ushered in with a chill, which is succeeded by symptoms of fever, the pulse is frequent and hard. The fever sometimes is formed before the pains are felt but commonly the reverse of this takes place. There is sometimes but one joint affected there is then not much fever. The pains do not generally remain long in the same joint but wander from one to another, and often return to parts that were formerly affected, in this way the disease may continue for a long time. The disease sometimes seizes on internal parts as the lungs, pleura, diaphragm &c. in this case we have symptoms of pleurisy, sometimes the head is affected. The fever attending rheum= =atism has an exacerbation towards evening and is more considerable through the night the pains are also more severe when the patient is warmly covered in bed. When the pain in the joints continues for some time, they become swollen, red, and extremely painful when touched, the pain is increased by motion. The swelling is said to often relieve the pain, it does not allways do so. Rheumatism is generally attended with some sweating which takes place early in the disease,=

it, is seldom free or copious. The urine is often at first pale but soon becomes high coloured depositing a red sediment. Blood drawn in this disease presents the same appearance as that in any other highly inflammatory affection. Rheumatism rarely terminates in suppuration it may do so in scrofulous habits. The disease sometimes produces effusions of a gelatinous fluid which is generally absorbed. The disease in the acute form runs on from two to three weeks. as the fever abates, the severity of the pain in the joints is diminished, should the pains continue after the removal of the fever they are not so severe, and are generally confined to one or two joints, having but little disposition to shift their place. This disease may be mistaken for gout from which it may be distinguished by the diathesis and habits of the patient, the stomach is not disordered in rheumatism as in gout rheumatism affects the larger joints, and gout the smaller as the toes and feet. The above are the symptoms generally attendant on acute rheumatism. the chronic differs from it chiefly in the degree of inflammation and continues a much longer time. When there is no fever, the joints being painful without redness, cold, and stiff-

not easily made to sweat and when the pain is increased by cold and relieved by the application of heat, the case under those circumstances has been considered as chronic. The pain and stiffness is increased by changes of the weather, it is said that persons affected with this disease can often predict a change of weather before it is indicated by the barometer. Chronic rheumatism is not so apt to seize on the internal organs as the acute, it most frequently attacks the loins, hip and knee, its symptoms are in most respects like those of acute rheumatism, with the exception of the fever and redness of the joints. The skin in the chronic species seldom exceeds the natural temperature and the pulse is rarely above eighty strokes, the joints are not so swollen as in the acute species. The disease continues to an indefinite period, and sometimes only ends with the life of the patient. Cold, the common cause of the acute is also the cause of chronic rheumatism. Straining and violent spasms are also mentioned as causes producing the disease. Pains resembling rheumatism may arise from deep seated suppuration, the pains from such a cause resemble the lumbago and sciatica. Lumbago has been confounded with nephritis, or Calculi in the Kidneys, the proper

nephritic affections are distinguished by some irregularity in the secretion of urine and by a numbness extending down the thigh. — . —
In acute rheumatism there is an inflammation of the parts affected, and a phlogistic diathesis of the whole system. When the disease is very inflammatory (which it always is in the acute form) it requires all the powers of the antiphlogistic plan to subdue it. The first indication in the cure of acute rheumatism is to reduce inflammatory action, to accomplish which there is nothing so effectual as timely blood-letting which should be often repeated and drawn in quantities proportionable to the degree of inflammation present. Whilst the pain, fever, frequency, and tension of the pulse continue the lancet must not be sheathed but used with freedom. Cases may be met with in particular habits which will not bear much general bleeding, in such local blood-letting may be employed with considerable advantage, for which purpose leeches may be applied to the affected parts. Blood-letting is not always carried to that extent which the acute form of the disease requires to effect a cure. Local bleeding may be used in some of those cases called chronic with considerable benefit. If inflammation is not completely subdued the patient will often have chronic rheumatism, distorted limbs &c. . —

Purging is not so useful in this as in many other inflammatory diseases, certain Neutral salts are useful from their cooling nature such as the Sulphate of Soda, Sulphate of Magnesia &c. a combination of Nitre and Jalap is said to be a useful purgative in this disease. Calomel has been recommended in the acute form of rheumatism, I think it a medicine of doubtful efficacy and would not employ it in this form of the disease. Where the joints are much inflamed there is no local application with the exception of leeches that appears to be of much benefit, next to blood-letting and purging. I think diaphoretics merit particular attention, they are useful in rheumatism in common with all those diseases arising from the influence of atmospheric vicissitudes. In diseases from this cause there is torpor of the perspiratory vessels and whatever has a tendency to re-establish that important function, may be considered as generally useful in the treatment. In the selection of diaphoretics we must be governed by the degree of inflammation present &c. Where there is high febrile excitement we must select those that have a tendency to reduce the action of the heart and arteries, for which purpose Nitre, Ipecacuanha, preparations of Antimony &c. may be used. Dover's powder is a valuable diaphoretic in cases unattended by much fever.

When the joints remain stiff after the removal of inflammation, friction with mercurial ointment will often remove it. Chronic rheumatism requires a plan of treatment very different from the acute. This is considered a disease of debility, and is treated on a tonic plan. There is perhaps no disease in which the remedies recommended are so numerous as in this. Among which are the following. Stimulating diaphoretics may be employed with advantage in cases attended with a languid circulation, cold skin &c. Dover's powder may be employed. Eupatorium perfoliatum is very useful. It may be given in infusion, made by pouring a quart of boiling water on three or four drachms of the leaves, of which the patient may take a wineglass-full every three or four hours. This article is said to be used with advantage in the decline of acute rheumatism. Guiacum. The volatile tincture is a good remedy. It may be given in doses of one or two teaspoonsfull. An infusion of the Laurus Sassafras is said to be useful. Dr. Bigelow informs us that he gave the bark of the Prickly-ash (Xanthoxylum Fraxineum) with great advantage in chronic rheumatism, he gave it in doses of ten or twenty grains. The Saponaria Officinalis is useful, a decoction made by boiling two ounces of the

-root in three pints of water, all of which may be taken in twenty four hours. Stramonium. this article is a remedy of considerable value in this disease, a teaspoonfull of the bruised seeds may be put in a quart of spirit, the patient to take from ten to sixty drops, sweating the parts with the leaves is also said to be useful. The bark of the common Holly, is highly spoken of, it is given in decoction made by boiling one or two ounces of the bark of the root in a gallon of water for forty or sixty minutes, it may be taken in doses of a wine glassfull twice a day. The juice of the berries of the Phytolacca Decandria, is very useful, it is to be used in the same manner that cherries are used in making bounce, this article is said to have cured some of the worst cases of this disease.
I have used the bark of the Black Hawthorn with considerable success in several severe cases of chronic rheumatism, one or two ounces of the bark of the root (recently obtained) is to be steeped in three pints of spirit, of this the patient may take a half to a wineglassfull morning and evening, it is an agreeable bitter and used as such by many of the country people.
Bark may be used with advantage in many cases of this disease.
Arsenic. in the form of Fowler's solution is recommended as being useful=

in this disease. The powers of this remedy are said to be more decidedly evinced in syphilitic rheumatism, and in that variety which is sometimes the consequence of the imprudent use of mercury. In rheumatic pains from the latter cause it is said there is no remedy more effectual. Although Mercury is an improper medicine in the acute form of rheumatism, it is one of considerable value in the chronic, when carried to sufficient extent it frequently cures the disease. Opium is a good auxiliary to mercury, it allays irritation and pain, and prevents it from acting too violently on the bowels, a copious discharge from which is generally hurtful in cases of this kind. In that variety of rheumatism brought on by exposure to cold, when under the influence of mercury, a second mercurial course is said to be our best remedy. Friction with mercurial ointment may be used with advantage in chronic rheumatism. Among the external applications which have been useful are Blisters, the stimulus must be kept up. Mustard. Oil of Sassafras. Oil of the Monarda punctata. Oleum Terebinthine. Tinctures of Cantharides, Camphor, a liniment composed of sweet oil and Camphor is useful. The patient must wear flannel and avoid exposure to cold &c. &c.

An Inaugural Dissertation On Hydrocephalus Internus

Submitted to the Inspection of the Faculty of Medicine of the University of Maryland

By

Richard T. H. Pew

To

Doctor John F. Heavey

This Inaugural Dissertation on Hydrocephalus Internus is respectfully dedicated as a small specimen of Esteem and friendship by his friend and pupil

Richard T. H. Penn

Baltimore

March, 13th

1820

Hydrocephalus Internus.

It is as we might most naturally suppose, a general
without one exception among all sects of men, that in treating
any subject to lay down some general principles, upon which
foundation of the subject in question might be derived
st, and these principles should be so arranged as to afford
ficient support for the subsequent discussion — Even so with
Physician — He should in the first instance lay down one
neral head, from that make some subdivisions from which
e might naturally make such inductions, as the subj
h in question might admit — " —
In treating upon Hydrocephalus internus, from the above
mode of reasoning, the most proper subdivision of this
isease would be three, to wit, Pathology Symptomatology
tology and Therapeutics — each of which we shall endea
vour to say something of — as they respectively stand
the first of which has given rise to many and various
and we may almost say fruitless discussions —
We are now to speak particularly, or give a more det
ailed account of that effusion of fluid which

y place in the Sentricly or cells of the Brain, denom
ed by the Nosologists of the present day Hydrocephalus
nus — In treating of this subject we shall be guided
irely by the signs which have been entertained, by some
our predecessors, of the true nature of its pathology
we are well aware of the many and various opinions
h have been entertained concerning this disease
are deeply conscious that it is veiled and clouded
many obscurity, we know further that it is a
ease which has been acknowledged by very many
be an incurable malady, one that baffles the
forts of the Physician, and ninty nine cases out
a hundred takes off the poor sufferer, in the
reater and larger majority of cases the poor little
fferers are hurled into Eternity, in the bloom of
outh — Therefore the importance of the subject in
oint cries aloud upon the physician for a mature
onsideration ——

This is a disease, as we before said, that attends
the younger part of society, more particularly a
tiseases of infants attending Childhood from

the time of Birth or soon before, to the age of puberty we are naturally prompted to ask the question why this disease is more particularly attendant on infancy? the most natural inference is that it may be owing to the imbecility or structure of the head or that age which for the most part favours the effusion in the Brain the head is naturally the largest part of the infant containing the most blood and therefore naturally the weakest part of the body — Moreover it seems to be a law of the animal economy, or system, that where there is the most blood, or where there is a preternatural determination of blood to any part, there an effusion or a secretion is most likely to take place because the part rendered more excitable to the operation of the exciting and remote causes from the laxity of the parts concerned — Any cause that will tend to weaken, or diminish the energy of the Brain and nervous system, to throw the senses into such a state that will favour the effusion of this particular fluid, which is said to be by some (and there are not few at this

time but those who subscribe to this opinion in every respect resembling water and by others the Serum of the Blood, we are inclined to subscribe to the opinion that it is neither Serum of the blood or water but a particular fluid sui generis which differs in many respects from them both as Chemical analysis has sufficiently proved, it differs from the serum of the Blood in this one respect if not more, that is Serum will coagulate by the application of heat and acids, but this fluid will not coagulate by heat or any other agent that we can employ — Neither is it a secretion from the exhaling, as it is supposed by many — for if that were the case it would form an exception to this one general rule, that in proportion to the ~~activity~~ Energy and life of any system of bodies will be its activity in performing its office — Now it is admitted on all hands, that in Hydrocephalus internus there is a chronic inflammation of the Brain when there is inflammation there must be of necessity a certain degree of activity of the

parts, this state followed by disability, and lastly a diminished action in the function of the parts concerned is the consequence is the consequence of Disability, and who is there that will deny that the ophalmy are seriously concerned and involved in this Chronic inflammation upon which the disease strictly depends —

It appears (says Dr Eberly in his treatise on the Materia Medica) to be generally admitted that this disease is of a Gastric origin or irritation. The albine discharge affords unequivocal proof of great functional disorder of the Liver, they very commonly consist of large quantities of black or green and glairy Matter de Bile, & seldom if ever exhibit the appearance of natural and healthy Evacuations. This we have no doubt at sometimes the case in such cases it may be considered as symptomatic solely depending upon organic derangement.

This effused fluid is deposited in the Ventricles or cells of the Brain, sometimes considerable, and at others but a small quantity, is deposited, Some have been

so far mistaken in the pathology of the disease as to suppose that the deposition was really the cause of the disease, and not the effect. This dangerous hypothesis has been long eradicated from the pages of the enlightened medical histories, why it is so more the cause of the disease than the increased quantity of morbid secretion of the liver is the cause of Bilious fever — they are both the effect and not the cause, nothing more than corresponding cause and effect to the great disadvantage and disgrace of the enlightened practitioner of medicine —

This disease is either symptomatic or idiopathic, its nature is governed solely by the action of the remote and exciting causes, all of which act either by directly or indirectly diminishing the energy of the brain and nervous system and ultimately producing chronic inflammation attended for the most part by fever, this fever does not amount to that high as to present an effusion if it were phrenitis would be lighted up in lieu of hydrocephalus — Dr Rush calls this grade

of Fever Phrenicula as indicating a low state of fever; it is ascertained that if the inflammation be high no effusion can take place, this is the distinction between Hydrocephalus internus and Phrenitis, ——

The fluid varies in quantity from one ounce to four or six or more, so that where there is such a large quantity collected a portion of the Brain must be absorbed or melted down as it were —— What shall we think of an opinion, supported by many, that there are no absorbants in the Brain, but that the process of absorption is carried on by the veins of the part. The argument if it may be termed so, is that there cannot be discovered by any microscope any such system of vessels as absorbants, this is a very lame argument indeed, scarcely worthy of a moments refutation, QUERY Can or can there not exist any regularly organised mass of living matter, more especially such an important one as the Brain without such a system of vessels? no one could dare deny the existence of the cholaris in the Brain which serve to secrete

a halitey for lubrication — if there were no Abs
obants the Head would be come insupportable —

This disease is generally Connected
with some general Scrophulous habit, But it may
be produced by other Causes which may Act
Either Directly or Indirectly —

The Direct Causes are, falls — Bruises on the
Head — Certain positions of the Body — as stoop
ing on the head, &c — or any thing that tends to
produce inflammation of the Brain —

The indirect Causes are more numerous
the following diseases appear to produce this
Disease indirectly, such as, intermittent, rem=
ittent & continued fevers, there are very common
Rheumatism, Pulmonary, Consumption, most
of the Eruptive Diseases, Worms, Dentition
Colic, Palsy, Melancholy, Dysentary, Scrof
hula, The sudden stoppage of any habitual
discharges &c when the fluid suddenly collects
it resembles Epoplexy, one is the Effect of a sud
den, the other a gradual Collection —

The Symptoms of this disease are very various, sometimes attended by very many, and at other times comparatively very few, The patient is for the most part, calm, with some degree of languor, and sluggishness, often drowsy & perhaps, but at intervals cheerful, & apparently free from disease, loss of appetite, they now become sick at the stomach and puke once or twice a day, Skin for the most part hot & dry, during the beginning & incubation of the disease, soon after these symptoms have come on, the patient often feels some pain in the head, generally the pain is in the forehead sometimes in the side of the head which causes the patient to rest his head on his shoulder, the head reclining on the effected side, the affection of the head frequently alternates, with that of the stomach, the sometimes being less when the affection of the head is greatest & is accompanied at this time other parts suffer pain, as the bowels, extremities, Back & neck, between the scapulae at this time the head is free

When the disease has proceeded thus far the patient suffers much from the impatience of light. The eyes then become much excitable and the too brilliant light gives much pain from the sensible state of the Retina caused by the extension of the inflammation — Cries much, very restless — much wakefulness at night — sleeps but little, broken slumbers — often interrupted by frightful dreams grinding the teeth — picks the nose, constipated bowels sometimes soluble, the pulse at this time does not indicate much cerebral derangement, differs little from the natural state — at this period the system is extremely fluctuating, the eyes of one or both eyes are turned inwards to the nose — the pupils dilated from the insensible state of the Retina — much Emesis — pain in the head increased frequent pulse — Breathing quick & hurried — flushed face, Epistaxis of the tonsils place — delirium more especially if the patient has arrived at the age of puberty — the patient at this period becomes much more irritable

the interrupted slumbers are now succeeded by an almost lethargic stole or torpor, the strabismus or dilation of the pupils increases, the patient lies with one or both Eyes open or half closed which when minutely examined are found to be insensible to light, the vomiting now ceases, the food offered is now taken with Eagerness, the bowels costive — the Eyes now become suffused with blood, the face deadly pale a spot or blotch about the surface the patient gradually sinks and death finally closes the scene — " — " —

Treatment —

With regard to the treatment of this formidable malady very little has as yet been said concerning it, owing we do presume to the erroneous impression of its being an incurable disease; for such has been its fatality wherever it has made its appearance, that it has baffled and bid defiance to the treatment of the most eminent and successful practitioners: It has been almost universally believed that this disease is not to be cured by medical art. There have been some, however, who have treated this malady with

the most gratifying success. Dr Rush has made reference to several cases he treated with success; and Drs Black-all ~~has~~ ~~with~~ and others, of high respectability in medical science, have recorded cases they treated with similar success. ~~But~~ That doctrine which inculcates the impression, there are maladies which the Father of our being has destined to resist the influence of medical art, should now be discarded. ~~With~~ Rather let us concur in that theory of Rush, the bright luminary in the American medical republic, which breathes ~~that~~ this sentiment of humanity; that there will at one, and in hope, no distant, day, be but three outlets to life.

The disease, the subject of this Thesis, being one of a big inflamitory grade; consequently demands the most energetic antiflogistic treatment. In all inflamitory cases, our object must be to keep down the inflamatory action of the arterial system, and restore the ~~tone~~ lessened of action in the vessels of the part affected. The most immediate and powerful remedy to which we can resort, for reducing the inflamitory action of the arterial action, is, the use of the lancet. This then should be our first step in the plan of treatment

By the operation of venesection, in Hydrocephalus, we not only prevent, in a great measure, ~~the~~ a farther effusion of the fluid; but also ~~to~~ restore the equilibrium of action in the arterial system; and thereby strengthen the absorbents of the part affected. There can be, ~~no~~ in the employment of this remedy, no established rule laid down, as to the quantity of fluid to ~~the~~ be drawn. This must be left entirely to the judgment of the Practitioner. He must determine only by the state and condition of his patient: and the ~~force~~ grade of the disease. It may be laid down as a general rule, that whenever we employ a remedy, we ~~must~~ should ~~employ~~ carry that remedy to such an extent, as will produce the desired effect. For, otherwise, we ~~will not~~ only be ~~doing~~ no benefit would accrue from the remedy used; but a material injury might, possibly be the result ~~from it~~.

The second remedy in the incipient stage of this disease, to which we should resort

is cathartics. All writers of celebrity, who have treated of this disease, have dwelt considerably on the importance of this remedy. With regard to the extent in the use of this remedy, the general remark we made while speaking of venesection, is no less applicable here; namely, we are to be guided by the state of the patient and virulence of the disease. The modus operandi of cathartics has a peculiar effect in promoting the absorption of fluid in the animal system. Dr Eberly in his invaluable work of on Materia Medica & Therapeutics has treated of their effects in the promotion of absorption, with his usual accuracy and discernment. Their effects, says the learned Dr, in promoting the absorption of fluids, are principally confined to the internal cavities. This effect they produce by a twofold operation, to wit — by first depositing the bloodvessels of a portion of their serous contents, and secondly by augmenting,

the reabsorption of serum from the cavity in which it may exist in a state of morbid accumulation. It is an incontrovertable fact, established on the solid basis of direct experiment, that absorption is accelerated in proportion as the quantity of fluid circulating through the sanguiferous system, is diminished. There is doubtless a constant effort in the system to preserve an equilibrium of action in the arterial ~~action~~ system: an inordinate loss by one emunctory is counterbalanced either by a greater absorption from some of the internal cavities, in which it may be accumulated, or by the diminished action of one or more of the other serous emunctories: thus when a brisk cathartic is ~~given~~ administered, the circulating system is deprived of a large portion of its watery fluid; the

consequence of ~~of~~ ~~ubi~~ this, the absorbents are called upon to supply the deficiency. They go to work and take up the fluid that may be effused and carry it into the circulating system: from whence it is conveyed out the system by some of the natural emunctories. Having thus defined the effects ~~produce~~ cathartics produce in dropsies, ~~they~~ we can no longer entertain a ~~reason~~ rational doubt of their efficacy in Hydrocephalus Internus. The most usual cathartics employed in this disease are the neutral salts, calomel, jalap and others of the same class. These are the cheap remedies upon which we mostly rely for the cure of this complaint, but we may bring to our aid some other class of medicines which are comparatively speaking of minor consequence. The best of these are Diuretics, Diaphoretics, Blisters, cold applications, and not the least important, Mercury, in such a form as to produce Ptyalism. The modus operandi of each

of these remedies are sufficient to recommend them to the attention of Practitioners, Digitalis the once highly Estimated medicine, among the ancient Practioners, has now fallen very much in estimation of modern Physicians, yet it is entitled to some consideration among all — Mercury in such a form as to produce Ptyalism is of inestimable value in certain cases, it will at times produce a desired effect when all others have failed, — The use of active Stimulants in the last stage of the disease, are necessary, merely to support the system as long as possible, to mitigate the pangs of Death —

An Inaugural Dissertation

on

Cholera Morbus.

Submitted to the consideration

of the

Right Rev'd James Kemp D.D. Provost.

and of the

Medical Professors of the University of Maryland,

For the Degree of Doctor of Medicine.

By

Franklin Waters

March 1826

Preface

It being customary and even necessary for those who are candidates for the degree of Doctor of Medicine in Universities, to write a thesis on some subject, connected directly or indirectly with medicine: it has ~~been~~ before fallen to my lot to submit to the medical professors of the institution in which I have had the honour to be a pupil, a dissertation. And not being able to advance any thing new, I have for this purpose chosen Cholera Morbus, and in treating this subject I have first noticed the most common phenomina, and their proximate cause, secondly the remote or predisposing and exciting causes, thirdly the appearances on dissection as mentioned by authors, and last of all what from a limited experience and observation appeared to be the best plan of treatment.

A Dissertation
on
Cholera Morbus

A violent vomiting and purging of a bilious matter, with painful gripings, spasm of the abdominal muscles, and of the muscles of the inferior extremities, constitute cholera Morbus.

It is a disease of warm climates, in which it appears in all seasons of the year, and its occurrence is very frequent; but in cold climates it appears generally in the warmest summer month's, particularly in the month of August. and the violence of the disease seems to be in propotion to the intensity of heat.

From what we have said it would appear, that our disease consists in a preternatural secretion of bile, the quality of which is vitiated. The circumstance of the bile being more acrid than in health, is rendered clear we think, by the violently painful gripings and spasm attending this terrible malady. For in a healthy state of the biliary organs the bile appears to be an inoffensive fluid, and is by some Physiologist's even

It might be urged in opposition to our views of the subject, that the presence of a preternatural quantity of bile effused into the intestines, unaltered in quality, might produce all the phenomena of the disease. This is in our view (as will appear from what we have already said) quite problematical.

The agency of the bile is attogether (by some authors) denied, in producing this disease; they make the stomach its primary seat, and the increased quantity of bile a mere symptom, in evidence of which, they bring forward the circumstance of the bile not appearing in the first ejections from the stomach.

This argument proves nothing, and to us appears futile for it is by the very effort of vomiting itself that the bile is pumped up into the stomach: hence it cannot appear until some efforts have been made, by which the former contents of the stomach is thrown up. The bile then begins to appear.

Those efforts are excited in the following way. The acrid bile is effused into the duodenum, which it irritates, the stomach sympathizes and is brought into action.

Further in opposition to the stomach's being the

primary seat of this disease we would add the improbability of a mere irritation in the stomach ~~[illegible]~~ producing such an enormous secretion of bile, so immediately, without the biliary organs being first predisposed, how such an event could occur we cannot easily conceive.

Perhaps it may be proper before we proceed further, to notice the symptoms and progress of our disease more particularly. It usually comes on with soreness and pain, (which we think may always be refered to the duodenum in the first stage of the disease,) flatulency of the stomach, and acute griping pains in the bowels succeeded by a severe vomiting and purging of a bilious matter; a burning sensation is somtimes complained of in the alimentary canal, great thirst, a hurried respiration, and frequent but extremely feeble pulse, which, if the disease continues uninterrupted, soon become extinct.

When the disease is not very violent these symptoms after continuing for some hours, cease gradually leaving the patient in a very weak and exhausted state; but where the disease proceeds violently, there follows great ~~[illegible]~~ depression of strength, cold clammy

sweats, considerable anxiety, cramps of the legs, coldness of the extremeties, and hiccups, with a sinking pulse which soon closes the scene.

We shall now proceed to enumerate some of the most common causes of cholera; at the head of which we shall place heat. Great heat is perhaps the only predisposing cause of genuine cholera: it produces not only congestion about the portal system, and consequent increased secretion of bile, but perhaps that change, which renders it more irritating than the ordinary secretion.

Though it will appear from what we have said, that cholera depends for its existence on a congestion of the liver; yet, it is equally certain, that certain articles taken into the stomach, will call the disease into action, by their irritation there, being imparted to the liver, which is already predisposed by the remote cause.

The articles above alluded to, are, unripe acid fruit over quantities of ripe fruits, in short vegetables of every description, will occasionally excite cholera; fermented liquors, stale meats, rancid butter, crabs, oysters, and lobsters are said to have frequently excited this disease.

The Diagnosis of Cholera is certainly simple, and may be given in a few words, for the Symptoms already mentioned, are sufficient to enable us, to distinguish it from any other disease. Although, all, or many of the symptoms of Cholera frequently take place in Yellow Fever, and in the common remittent bilious fever, yet the Fever itself (which is not proper to ~~the~~ Cholera) the season of the year, and the local situation of the patient, will at once, teach us the true nature of the disease.

From diarrhoea and dysentery. From the latter it may be most easily distinguished, for dysentery is always a febrile disease, attended generally, by bloody mucous ~~stools~~. The absence of vomiting in diarrhoea, the violent pain and cramp, together with the matter discharged in cholera, are sufficient diagnostics.

Cholera may be distinguished from Colica pictonum by the state of the bowels, which, in the latter disease are obstinately constipated, though a large quantity of bile is sometimes thrown up by vomiting.

The appearances generally to be observed on dis-

must be mischievous.

Large quantities of warm diluent drinks has been employed for the purpose of allaying irritation, and facilitating the discharge of the bile, this also in the two well marked cases which fell under our care appeared to be quite unnecessary: the indica-tions as appeared to our view, was, to counter-act the irritation speedily, which was success-fully done by large quantities of opium, which is decidedly the most efficient remedy ~~which we~~ in this disease that we possess; it seems to answer all the indications of Cholera, it allays irritation, sup-presses spasm, and counteracts the debility indu-ced by the disease. In this I am warranted by the experience of our very able and distinguished Professor of the Theory and Practice of Physick in the University of Maryland.

All drinks should be proscribed except a

little brandy and water, which should be made strong and cautiously ~~administered~~ administered; notwith-standing caution, all fluids are somtimes rejected; for such is the irritable state of the stomach in some cases, that even laudanum, both liquid and solid are thrown up immediately on being taken into it.

In one of the cases which I have had occasion to see, the tincture was rejected while solid pills of opium remained quietly on the stomach, and produced the desired effect; but should these be rejected it may be given per enema.

Sinapisms applied over the region of the stomach, and to the extremities, are said to have done much towards the relief of patients in Cholera; though a more eligible plan is, to allow them to remain until the excitement is in some degree raised, then, remove them, and to the same parts apply epispas-tics, the permanent effects of which are generally desirable

Green mint bruised and made wet with brandy, applied to the epigastric region, is recommended by very high authority as a very useful remedy in this disease, rubbing the patient all over with a sponge wet with warm Spirit, has been recommended as a very useful practice in Cholera.

The End

AN
Inaugural Dissertation
ON
BRONCHOCELE.

Submitted to the Examination of

THE RIGHT REV. JAMES KEMP, Provost,

and

THE REGENTS OF THE

UNIVERSITY of MARYLAND.

For the DEGREE of DOCTOR of MEDICINE.

By FRANCIS B. BARCLAY, of

PENNSYLVANIA.

To

Dr. William Watson M. M. Honorary Member of the Philadelphia Medical Society

Bedford,

Pennsylvania.

Dear Sir,

Accept as a tribute of gratitude and esteem, the first fruits of that study, which commenced under your patronage; and be assured that a lively recollection, of the many favours received from you, can only be terminated with the life of

Dear Sir,

Your very sincere friend,
& ever affectionate pupil

Francis B. Barclay.

Non fingendum aut excogitandum sed

Inveniendum.

To rescue from oblivion, those important truths which have hitherto eluded medical research; to investigate and explore the intricate phenomena which for a long lapse of ages, have obscured the fair field of Medical science, and to enable the mind of man, to comprehend such subjects with ease and facility; are the sole motives of an inaugural essay. —

Although in medicine as in other sciences, the limited faculties of man precludes the probability of his arriving at perfection; still it gives him pleasure to reflect, that by experience, and the judicious exercise of reason, he may be conducted to the attainment of grand and important truths, by which the evils incident to human life, may be ameliorated or destroyed. — Unfortunately the advocates of medical science have floated too long on the tide of theoretical speculation, neglecting to confine their attention to the narration of simple facts, substantiated upon the broad and immutable basis of experience and observation. In order that no posible objection may be offered, to the opinions supported in this essay, the Author assures his reader, that the strictest attention will be paid, to facts, deduced from the highest Authorities, rejecting all those opinions, which may in any

degree partake of novelty, unsanctioned by the sober dictates of reason and philosophy. As the disease termed Bronchocele has for some years past, been making considerable progress in the interior of our country, without physicians being perfectly acquainted with suitable remedies, for its eradication and cure; it may not be deemed useless proposition to make a few remarks, relative to this singular affection.

All surgeons of the present day mean by Bronchocele, an enlargement of the Thyroid gland (ab βρογχος trachea et κηλη tumor). It would be superfluous to describe the situation of this viscus, as every one in any degree familiar with Anatomy, is sufficiently acquainted with those important parts. A variety of names have been given to this disease as it occurs in different countries. The french & swiss have called it Goiter, it has also been called Boccinm or Botium. The celebrated Heister called it Trachocele. Profser has treated this disease at considerable length as it appeared in the mountainous parts of Derbyshire, call it Derbyshire Neck. The greeks gave it the more applicable appellation of Bronchocele. In enumerating the symptoms which characterize this disease, it would be proper to proceed with caution & circumspection as all authors, that have written upon the subject, have described it with different modifications. Notwithstanding this seeming discordance they all agree, that women are more exposed to its attacks, than men,

young subjects, more than grown up persons; those of a loose and relaxed habit of body, than those of a robust and sanguine temperament. In those districts bordering upon the Alps, and other lofty mountains, where the disease is endemial; it occurs frequently at the period of 8 or 10 years of age, and gradually increases in magnitude, developing the most prominent features which mark its destructive progress. The swelling is at first soft, without any fluctuation, and free of pain; the skin retains its natural appearance, but as the tumour advances in size it becomes unequally hard forming projecting prominences, upon the anterior part of the neck. Sometimes the skin puts on a copper colour, the veins of the neck become varicose, the face is flushed and there is frequent headache accompanied with lancing pains through the body of the tumour. Frequently it affects the voice and impedes respiration, by its pressure upon the recurrent nerves and muscles of the Hyoid bone & Thyroid cartilage; The voice is generally hoarse and the breathing performed with a wheezing noise; Idiotism is sometimes a companion of this disease, as particularly noticed by Lairy in his passage through Maurienne, a valley surrounded by the Alpine mountains; almost all the inhabitants were affected with Goiter, which deformed the face and rendered its features hidious. The skull was diminutive in form and peculiarly hard and thick. - Fodue who is among the most enlightened authors, that have written on this subject,

and who investigated its causes with more than common industry; and application proves to the satisfaction of all, that the mental faculties were considerably weakened and enervated in many cases of this singular disease He says that children previous to its appearance are uncommonly beautiful, possess a fine skin, with red cheeks, large blue eyes, and light hair, with a lively agreeable disposition.

Every thing changes when Bronchocele appears; the eyes grow dull and heavy the cheeks are pale & wan, the speech and breathing difficult, and the whole countenance manifests hidious deformity. The same author has seen the disease hereditary. Many physicians of great eminence in their profession have considered all affections of this gland, under the appellation of Bronchocele, which practice is not only injudicious, but highly injurious to professional fame. All those sudden enlargements of the Thyroid gland which may originate from difficult parturition or proceed from injuries on the neck; will be excluded from the title of Bronchocele, as they generally speaking disappear spontaneously. The following symptoms cannot fail to distinguish it from all other affections of that viscus. According to the language of Baillie, its growth is slow and gradual, it is capable of acquiring an enormous magnitude with little or no pain or inconvenience it commonly occurs at an early period of life, the peculiar sensation it yields to the touch, being that of more or less firmness; but not of

great hardness, and by the health being uninterrupted; It has also been confounded with scrophula, without being in the most distant manner related. Scrophula depends upon general debility and relaxation of system; in the other the patient complains of no weakness and performs the ordinary avocations of life, with the alacrity of a person in the best health. Scrophula is a universal disease, and seldom fails to manifest its effects in several parts of the body, at the same period; the other is exclusively a local affection of the neck. A strong healthy person becomes affected with Bronchocele by residing a few years in those districts where it is Endemic. Scropulous attacks, are never in this way. One appears in particular countries; the other invades all without exception: One affects most particularly women, the other all sexes alike. Scrophulous tumours end mostly in suppuration; Bronchocele never does, unless means have been resorted to, to produce that effect. In short those medicines which cure one; are insufficient to check the rapid progress of the other. In some rare cases, where a section was made of this gland; it was found to consist of a number of cells, which contained a viscid transparent fluid, these varied in size in different parts, some were as large as a pea, others infinitely smaller.. In several dissections of this gland by the celebrated Hunter, the subject has been more fully elucidated. The causes of this disease are involved in considerable obscurity, in consequence of the different forms which it as-

assumes in the countries, where it is most prevalent. We shall briefly enu-
=merate the principal opinions on that head, and then proceed with
the most approved methods of cure.

The notion that snow water occasions Bronchocele, is totally
void of foundation, and manifests great want of penetration and dis-
=cernment; in those historians who inconsiderately offer their opinions to
the public on subjects that demand the investigation of Medical minds;
For on that supposition, why is the disease, common in the Midland &
lower countries, and extremely unfrequent in more elevated situations, &
particularly; what reason can be assigned, why the inhabitants of those
districts that lie contiguous to the glaciers, and who drink no other water
than what descends, immediately from those immense reservoirs of Ice
and Snow; are not subject to this malady. Even in the environs of
Naples, the Island of Samatra and the East Indies; this disease
reigns, uncontrouled and uninfluenced by the vicissitudes of weather,
or the singularities of the inhabitants. This last argument alone will
be sufficient to lay aside any further controversy. An opinion has long
prevailed, which was first promulgated by Mr. Prosser and afterwards
advocated by Dr. Hunter; That Bronchocele was nothing more than
a dropsy of the Thyroid Gland; This bold and unwarranted assertion
was adopted by the illustrious Baillie, long celebrated in the annals of

medicine for his anatomical knowledge, as well as persevering industry in the promotion and advancement of general literature. - With great deference to these high opinions, we may be permitted to remark; that their premises are as false, as their conclusions are erroneous, and have a greater tendancy to involve the disease in obscurity, than remove the veil which at present envelopes it. To support their favourite hypothesis Mr. Prosser produces a case where upon dissection, cysts were found containing a transparent watery fluid, and on this single instance, they have bottomed their groundless assumption. - If it depended upon this cause, our indications of cure, would be demonstrative and easy; perforating the Gland to evacuate the contained fluid, and the liberal use of invigorating medicines; such as strengthen, and give tone to the general constitution, rousing into action the relaxed fibre; would ultimately overcome the Dropsical Diathesis, and effect a permanent restoration of health. But no one instance well authenticated has ever been presented to the public, of a cure being effected under such circumstances. It is admitted by all physicians, that Dropsy is a disease of the general constitution; consequently general remedies, will be requisite for its prevention and cure, it is always accompanied with more or less debility, and oftentimes insupportable anguish to the patient. Bronchocele as before mentioned, is exclusively a local affection of the neck. We feel assured that these distinctions will be sufficient to prevent future opinions from sliding into pop-

popular estimation, which are unworthy the consideration of dignified science. It would be unjust to pass by the opinion of Th: Saussure & M Foodue whose accurate researches and profound examination on Philosophical subjects deserve to be weighed with the greatest respect and liberality. They attribute the production of Goitre, not to the waters, but chiefly to the concentrated heat of the climate and stagnation of air. They seldom observed the disorder in elevated grounds, but mostly in damp moist valleys, surrounded by trees, impeding the suns rays and free ventilation. But the theory most consonant to reason & supported by the greater majority of facts deduced from superior source supposes; that the disease termed Goitre proceeds from a deposition of calcareous matter in the substance of the gland, thereby causing a gradual evolution and morbid enlargement of its ~~structure~~ texture. As Switzerland has been the seat and throne of this disease for many years; as there is no country so open to its extensive ravages and depredations, it will be proper to examine with scrutinizing accuracy its appearance in those regions, so hostile to the health of its inhabit-ants. The springs that supply drink to the natives are impregnated with a calcareous matter, called by the Swiss Tuf, (similar to the incrustations in Derbyshire) so minutely dissolved, as not in the least to affect the transparency of the waters. It is therefore not

improbable that the impalpable particles of this substance, thus minutely dissolved, should introduce themselves into the glands of the throat. We ground this opinion upon the following facts and observations. In all those districts where Goitre abound, this calcareous deposition or Tuf, is invariably present in the waters, as well as in the vicinity of the springs. In Derbyshire, in the valleys of Savoy & Piedmont, also near Turin & Milan great quantities of Tuf are observable. The inhabitants of Friburgh are much addicted to guttural excresencies, the principal springs supplying the Town with water; Issues from a stone quarry, upon which are formed large depositions of Tuf. The pipes that convey the water to Berne, are charged with the same calcareous sediment. Instances are recorded of persons who laboured under guttural excresencies, which are much increased in magnitude, while they resided at Berne; but invariably diminished on removing to other places, where the waters were not so loaded with Tuf.— All the springs at Lucerne are impregnated with tuf. (one excepted) Those persons who drink of this spring alone are entirely exempted of any swelling, whereas the surrounding villages exhibit marks of its effects. Although these waters appear perfectly transparent, yet the vessel in which it is boiled, becomes speedily and thickly incrustated, as to render it necessary to be cleared twice a week. The waters which yields this deposition, are as clear as crystal: A still stronger proof is that

Surgeons have frequently extracted concretions of Tuf from several Goitres. The same substance is often found in the stomachs of Cows and in the Goitreous tumours to which even the dogs of the country are subject. Removing the person from the country, or forbidding him the use of the waters entirely, unless purified first; this is an effectual method of removing this affection. Those who have resi=ded in the Western parts of Pennsylvania can furnish repeated instances of the recovery of persons from Bronchocele by removing to others parts of the country, where the waters were more pure.- This we have from respectable authority. M. Saussure & Fodue observe that Goitres are seldom to be found a certain distance from the level of the sea. This is no doubt owing to the springs being too near their sources to have ~~sufficient~~ dissolved a sufficient quantity of calcaceous matter, or so minutely as to be necessary to the generation of Goitres.- But though the causes enumerated by these gentlemen may not produce, they may assist in producin guttural excresencies by relaxing the fibres, and disposing the glands of the throat, to admit more easily the introduction of the impalpable particles. Thus women and children whose frames are more feeble and enervated than mens; are most liable to be afflicted with these swellings, and the natives of those districts

most subject to Goitres, are extremely wan & livid and much addicted to Intermittent fevers, and other disorders proceeding from great relaxation.. It appears therefore from the preceeding observations that the arguments of Saussure & Fodre are insufficient for the effect in question without the intervension of some more powerful agent. If the concentrated heat of the climate and stagnation of air, are essential to the formation of Goitres; those excrescencies could never be found where these causes are wanting, which is not confirmed by fact and observation. If waters impregnated with Tuf; or with certain calcareous substances, produce goitre; wherever there are Goitres the Natives must drink waters so impregnated; and this accords with fact and experience. To the same causes may we attribute the case of Idiots; for the latter generally accompanies the former, such is the nice and inexplicable connections between our bodies and minds, that the one ever sympathizes with the other. It is by no means an ill grounded conjecture to suppose, that the same causes, which affect the body, affect likewise the mind; or that the same waters, which create obstructions and Goitres, should also occasion mental imbecility & derangement. We are also informed from the most creditable authorities, that in all those parts of Europe, where this disease abounds the same calcaceous deposition is perceived about the springs & other

places; so that viewing this opinion in every light, appears to agree with our just ideas of the subject.

Having thus briefly discussed the principal theories connected with this remarkable disease, and justly exposed to the eye of censure, the incorrect views and unstable foundation on which many of them have been reared, we flatter ourselves that all further disquisition will be laid aside, as trivial & useless, compared with the theory which experience has induced us to lend our feeble support. As every disease has its proper antidote no matter how unfavourable the auspicies, under which it has been generated; no matter if the first applications, however timely administered, be rejected as unimportant & injurious; still a rigid enforcement and perseverance in the course, best calculated to effect its final subjugation, are the only rational prospects of producing a cure. Thus it is that all those improvements so essentially necessary to the promotion of a science, has elevated that of Medicine to the conspicuous rank, which it now maintains. The principal medicine which has been so successfully used, and the efficacious results, manifested by its operation on the system, so extolled by all eminent practitioners is the Burnt Sponge. To enhance the beneficial operation of any medicine, it is necessary

that it be repeatedly given, by every one at least baffled, in those complaints where happy effects have been witnessed from its judicious and careful exhibition. By this attention many important & useful discoveries may be added to the acquisitions already made. It is thus that the burnt sponge, has been brought into such general notice. Different formulas have been proposed by different practitioners in testimony of its permanent and lasting impression on the enlarged gland. Dr. Chestow of Gloucester has found the following formula invaluable ℞. Spongiæ Ustæ ℥ss, Gum: Arab: q. s. M. ft. Trochis: He has also given saline purges, occasionally, combined with Calomel in small quantities; in all stages of the complaint, with the happiest effects. Mr. Prosser cured the majority of his cases with the Burnt Sponge combined with Calomel in small doses, and not unfrequently the factiticious Cinnabar was used with evident advantage. He generally gave a purge, previous to commencing with the sponge. ℥ss was then taken morning and evening, for 6 weeks together, with Laxatives to avoid costiveness. Some physicians have resorted to burnt cork and Pumice stone in combination with the sponge, when other remedies had failed. The London Medical & Physical, abound with innumerable examples wherein the medicine overcome all opposition, effecting a complete restoration, after being persisted in

for a considerable length of time. Doct. King an eminent surgeon in London, has given it to the extent of ℥ss at a dose, without in the smallest degree impairing the other functions. In delicate habits it sometimes excites nausea and other symptoms disagreeable; and in such cases an immediate omission should be practised for a time. It is a general established rule, that in persons rather advanced in years, Bronchocele is not easily overcome, therefore it would be advisable, that all persons apply as soon as possible, before the more prominent features manifest themselves. In Ireland they give the Sponge in form of Lozenges, with more decided advantage, it can also be given in the form of pills, electuary or Liquid. Particular care should be taken, that the medicine be not left off too soon, as unpleasant consequences has resulted from such imprudencies. Doctrs. Erdman and Pierson of London both, highly recommend the use of Lozenges. In some rare cases, where all the preparations of Sponge, were used in vain, the following has succeeded to the great satisfaction of the patient & Physician. ℞. Spongæ Ustæ ℥ij Gum: Arab: ℥ij Pulv: Cinam ℥ss Syrup: Simp: q. s. Ft. ft. Pil. XXIV. - Care must be taken that no more syrup, be used than is absolutely necessary to make the ingredients cohere. The Lozenges must

then be well dried before the fire, on an oiled plate to prevent them from sticking and bottled up tight. One to be taken twice or thrice a day according to circumstances. The worst cases of this disease have been cured by this formula, even where deglutition & respiration had been greatly impeded. In the 13th. Vol. of the medical Commentaries Dr. Lane mentions his having administered the sponge in the form of Lozenges, to two young Ladies with the desired success, & twelve years afterwards he saw them without the least return of the complaint. Besides this truly valuable article, there are several auxiliaries of lesser note, well worthy of notice as Blisters repeated & long continued. External applications, as rubbing the part with a dry towel or Aqua Ammonia acetata; two or three times a day. Burns recommends topical detraction of blood, as highly beneficial. In the 15th. Vol. of the medical commentaries, Mr. Copeland relates several cases of Children at Leith, being cured in a few days, by the application of oil, saturated with Camphor to the tumour, assisted by the internal use of Burnt Sponge Dr. Hamilton in his treatise on scrophulous affections, informs us, that he removed entirely, a swelling of the Thyroid Gland in the short space of a month, by directing ℥i Cathart: Amar: every morning and the same portion of Bark, during the day,

with the external use of Mercurial Ointment. Seatons have been advised, drawn through the gland, and Issues in the vicinity but with what success we are not informed. Muriate of Baryte, Belladonna & Digitalis have all been exhibited. Our learned Professor of Surgery has advised the Cicuta as eminently calculated to arrest the progress of Goitre, as well as to eradicate it when once formed. Calcined eggs, with red wine, are also among the list of remedies. This disease is one of that description, which frequently continues incurable, from the great length of time generally necessary to produce any change. We have no doubt, but the Burnt Sponge would prove much oftener successful, but persons have seldom the resolution or patience to persevere in its use. Every case wherein a long course was established, bear witness to this fact.

It has been recommended by several celebrated Surgeons, when every other remedy has failed; to extirpate the enlarged gland, as the most speedy and effectual method of Cure. The elegant Latin historian Celsus adopted this practice. The experienced Mr. Goch opposes it as unwarrantable & dangerous in every point of view, but particularly, on account of the large & very numerous bloodvessels, which are diffused through its texture

In the 2d. Vol. of the medical commentaries, his objections are stated at large. He relates two, cases, one of which he was forced to desist in the midst of the operation, from the profuse hemorrhage, that took place and the patient died on the 8th day. The second person whom he operated on, was only saved by continual pressure on the parts, after many fruitless efforts to secure the bleeding vessels. - Other surgeons have taken out the gland, with success; and among these Mr. Pallatau, who boasts of finding no more difficulty in this operation, than any other he ever performed, so that we have men of undoubted abilities in the healing art, both for and against its extirpation. In the present enlightened period, all surgeons are inclined to place implicite confidence in the opinions of Mr. Gooch, whose rank as a surgeon, the scientific world acknowledges. Another plan has been adopted which is more rational; that is, to cut down and tie, the superior Thyroideal Arteries, which at once diminishes the Volume of the tumour, and the source whence it derives nourishment, is destroyed. Whether any cases have been cured by this method, we have not been able to ascertain.

On concluding this dissertation, I should do injustice to my own feelings, were I to omit mentioning, in

terms of peculiar satisfaction the many obligations I am under to the worthy Professors of this University. To be particularly grateful to either ~~one~~, would be acting unjustly by the remainder for you have all with paternal advice & laudable precept, directed my pursuits, encouraged my labours, and promoted my advancement in the acquisition of truth. Long may you continue to receive the grateful acknowledgments of your pupils, and be regarded, as their respected instructors, while you remain the Patrons of Industry and the promoters of

Medical Science.

"On Respiration"

March 1826

The subject of Respiration presents a feild the most interesting and inviting of any, over which the Physiological enquirer is called to expatiate - And although in the language of a recent and very eloquent writer many of the questions it involves have to the present hour descended in a mantle of Cimmerian darkness and the commencement et recueil has not hitherto led to any established doctrine still the interest it inspired is rather heightened than diminished.

The researches and discoveries of modern Chymistry have likewise imparted new attractions to the subject, which, whilst they may have allured the visionary theorist to venture out into the Sea of unprofitable speculation, furnish to the philosophic mind - ample encouragement to proceed in the path of accurate observation

and rational deduction. When we take a view of the purposes, to which the organ concerned in the respiratory function is subservient, as primarily employed in furnishing us with the means of vocally communicating and interchanging our ideas, and ventilating and filling for the purpose of nutrition the vital fluid we cannot fail to be struck with its importance in the animal Economy. Occupying a place midway between the digestive and assimilatory functions it bears a striking analogy to the principal organ engaged in the former; for whilst the Stomach draws on the animal & vegitable Kingdoms for supplies to repair the daily waste of our corporeal frames, the Lungs obtain from the air of our atmosphere a pabulum Vitæ not less essential to the Comfort, the happiness and subsistance of the animal

The connection existing

between these important organs in the ultimate intention of their respective functions is not less intimate than might be inferred from this obvious analogy. And the extraordinary and wonderful phenomena which the persevering and laborious researches of the Phylosophers of the present and recent times have brought to light, have almost imparted to science the air of Romance and registered, as the sober deductions of a sound phylosophy what before was only supposed admissible in the fanciful fables of the Eastern Nursery.

It would argue vanity in me upon the present occasion to travel over the whole of the extensive field that lies before us. The ablest most experienced and best disciplined minds have not enjoyed the privilege of traversing it, with a steady and unfaltering step and whilst those masters in phylosophy

have often been obliged to proceed with a cautious and timid advance it becomes the Tyro to content himself with ascending some of those eminences, which they have recently attained, and from these prominent points to view the field as far as the steady light of reason will permit him.

It is impossible in my very humble opinion to obtain an adequate and comprehensive view of this subject without taking a hasty glance at the Digestive process. The important fluid, which is the result of this process, and which cannot pass to the manufacturing departments of the economy without being at first submitted to the ordeal of the pulmonary function ought to claim my attention but the very short time allotted me prescribes the possibility.

The Respirable Gas which is the efficient agent in the production of

-tinctly all communicating with each other and inclosed in a delicate investment of cellular tissue, which is a septum of separation between them & the adjoining lobules. One of the divisions of the Bronchia and one of the Pulmonary artery enters into each lobule. the latter appears to be metamorphosed into innumerable radicles of the Pulmonary Veins. The surface of the Lung is covered by the pleura, a serous membrane similar to the Peritoneum in its structure, and throwing it out again. We are also all well acquainted with the fact that without Air they cannot exist. What then is the Nature of Respiration? Physiologists have divided the Gases into the Non-respirable or those which cannot be taken into the lungs and the Respirable, or those that can. Of the first class there are only two, carbonic acid Gas and ammoniacal Gas. If an animal be placed in an atmosphere of either of these, the moment they come in =

in contact with the upper part of the Trachea they cause the Epiglottis to fall down over the glottis, completely closing the canal and of consequence the ancient dies of suffocation - not from having taken these Airs into the lungs - as is very evident from dissection as none of the Gas can be detected in them.

The Respirable Gases, that is those that can be received into the lungs, without injurious to their capability or fitness for the support of life, are subdivided into four classes. The first comprehends Hydrogen and Nitrogen Gases - If an animal be placed in either of these it dies - yet they have free access to the lungs as is evident on dissection and Physiologists assert that they do not exert any direct noxious power - as they, there is no apparent change in the blood, the marks on blood - Hence they act negatively by excluding and occupying the place of that kind of air which is so essential to the support of life. The second class comprehends the various sorts of ~~Hydrogen~~ ~~Nitrogen~~

-hydrogen Carburetted Hydrogen Gas Sulphu-
-retted Hydrogen, Carbonic Oxyd and Nitric Oxyd. These
can all be inhaled but the Animal inhaling them
dies. In this Case the Blood is found to be materi-
-ally altered. the muscular fibre is changed
in relation to its irritability, and some sup-
pose they can perceive a change in the
nervous System. This then acts not only by
excluding Atmospheric Air but by exerting
a positive noxious influence. With regard
to One of them, the Oxy carburetted Hydrogen
it changes the blood from a dark to a fixed
colour. The third class consists of those that
are not fit for respiration because they
are too stimulating. these are Oxygen &
Nitrous Oxyd Gases. Animals will live in
these for a Considerable time and have
the power of life in an increased degree,
but eventually die. That they do no die
from a deficiency of air in quantity is suf-
-ficiently manifest from the circumstance
that if they be made to breathe the air in a
receiver till they die, a second animal
placed in the receiver will live for some time,

when

when they have breathed, the circulation becomes more vigorous and active and all the usual effects of stimulation are manifested. The only Air that can be breathed with security and safety is that in the fourth Class. the Atmospheric Air. such is the Constitution of this from the great quantity of Nitrogen abounding the activity of the Oxygen that it is eminently suited to the support of Animal life. a very important question now presents itself. Does any change take place in the Air that is respired? Dr Black was the first who observed that Carbonic Acid Gas was given out during expiration. This is easily proven by breathing into lime water through a tube and the water will become turbed from the precipitation of Carbonate of Lime. An other question now arises, "is any of the Air inspired entirely lost?" and it is now stated that it is liable to considerable variety. although all agree that some is lost.

It indeed had long before Black's time been observed that atmospheric Air always suffered deterioration by being breathed but

no.

no accuracy of opinion on this point could be expected when they were unacquainted with Oxygen and the constitution of the Atmospheric Air. When Carbonic Acid was discovered by Doct. Black and the constitution of the atmospheric Air by Lavoisier, then the Doctrine of Phlogiston was introduced into the Case - They supposed that as charcoal imparted to the atmospheric Air phlogiston, so according to their notions the Blood imparted to it phlogiston - But they soon found that carbon was given off by the animal, to effect which, Oxygen must be introduced into the lungs - and this was found to apply to all animated nature - even insects and fishes - They found it necessary to determine how often a man respired in a given time, & observe that by the term Respiration we include inspiration and expiration - I beg it also to be noted that by expiration we do not throw out all the Air contained in the lungs and consequently by inspiration we do not receive a ~~sufficient~~ volume of air sufficient to fill their whole capacity - but it appears that the number

made

made by one man was very different from that made by an other - Hales thought there was 20 twenty in a minute - according to Sir Humphrey Davy, twenty Six or twenty seven being in the same time - Taking twenty in a minute for the mean this will give 28800 inspirations in 24 hours - the reason of this great contrariety of opinion on this question was that in any particular person the number of inspirations must depend on his constitution and the state of his body and mind at the time of making the experiment - How much Air is taken in at each inspiration? This depends in any particular case upon the size of the person the capacity of the lungs, the state of his health. The average quantity is about 40 cubical inches - In an ordinary sized man the lungs are capable of containing 280 inches and by expiring forcibly he may throw out 70 or 80. but by an ordinary ~~sized~~ expiration he throws out about 40 and on inspiration takes in 40 cubical inches - Hence in One minute he takes in 800 cubical inches - in an hour 48,000, in a day 1.152.000 - By weight he takes in about 52 lbs of Air in

in 24 hours. a considerable portion of the air is thrown out again that is inspired, but in a very different state. it is not Oxygen and Nitrogen only but is mixed with carbonic acid Gas.

Where did the Carbonic Acid derive its Oxygen from? Was it from the Air? This is ascertained with facility. We know that when Oxygen unites with Carbon forming this Acid there is no increase of Volume in the Gas. hence if a portion of the Oxygen of the Air inspired enters into the Constitution of the Carbonic Acid, the Air expired including the Carbonic Acid Gas ought to be equal in Volume to the Air inspired in any given time and this is the State of the fact. How much Oxygen is consumed in Respiration. According to some 36 cubical inches in a minute, or 51840 in twenty hours. If this much Oxygen is thus consumed and is wholly occupied in forming carbonic acid. if this be equal in volume to the Oxygen gas used, there ought to be 45000 inches of this thrown out of the lungs in 24 hours. This will make the Carbon thrown out in that time equal to 9/4. If then man consumes 45000 cubic inches

or twenty five cubic feet in a day of oxygen and it constitutes 1/5 part of the Atmosphere. He must rendered unrespirable or unfit for Combustion in that time 125 cubical feet of the Air - for this much is necessary to him - 2/4 lb. of Charcoal or carbon as I have just stated, will be thrown off.

The Arabian Tales it has been fancifully discovered hieroglyphically or rather perhaps allegorically the history of alchemical or other eastern science - Be this as it may the Eastern Story of the Nursery which relates to a young Lady from whose lips Diamonds fell whenever she spoke certainly ~~contains~~ appears to have some connection with our present Views of the Subject of Respiration -

The only changes in the Air that is respired are its losing a portion of its Oxygen and becoming mixed with Carbonic Acid.

Now what are the changes induced in the Blood by respiration - In the lungs the blood comes in contact with a membrane, which is not more than 1000 part of an inch in thickness & it is at least equal in extent to the external surface of the Body. On one side of this membrane

we have the Blood, on the other Air. If it it difficult for any One to conceive how the Air can act upon the Blood through this membrane let him recollect that animal membranes are very easily penetrated by the Gases. So that when Oxygen is attempted to be retained in Bags composed of animal membranes the Gas invariably escapes, though the membrane be doubled, and this membrane when compared with that of the lungs is found to be three or four times as thick. The Atmospheric Air then is applied to the Blood through the medium of this membrane and at this moment several important changes take place in the Blood. Its Colour is changed from a Black or Venous to a florid red Colour, and the Chyle which could be traced to this point disappears. Synchronous with these changes to the appearance of Carbonic Acid and a little Water.

Can these changes be produced in the Blood out of the Body? Some of them can partially. If we put Venous Blood into a Dish and allow it to stand sometime exposed to the Air, we will find the Surface of the Crassamentum in contact with the Air of a much lighter red Colour than that in

in contact with the skin or if we put venous (and according to Lavoisier phlogisticated) blood in a bladder and hang it up in the air, the external part of the blood will be of a redder colour than the central - and this effect will be more evident if we use a moist bladder, in which state it approaches more nearly to the character of the membrane of the lungs. There is at the same time the disappearance of the Oxygen and the formation of Carbonic Acid. But there is an important change which cannot be produced in this way out of the body, the disappearance of the Chyle - If we take a portion of blood from between the termination of the thoracic duct & lungs and expose it to the air - the Chyle does not disappear. This circumstance plainly proves that there is something peculiar in the lungs upon which the effect depends. What is the source of the Carbon which enters into the constitution of the Carbonic Acid? The celebrated and much lamented Lavoisier was engaged in the investigation of this subject at the time he was dragged by his brutal executioners to the scaffold. From the papers which he had left

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behind, it was found that he had arrived at this conclusion, that the Venous Blood arrives at the Surface of the Lungs charged with a large portion of Carbon & Hydrogen, that it comes to the lungs only to throw off these, that it accomplishes this end by the aid of the Oxygen of the Air, a portion of which unites to the Carbon converting it into Carbonic Acid & a portion with the Hydrogen forming Water. But if all the Oxygen that is consumed is found in the Carbonic Acid, where is the Oxygen for the formation of water? Hence it behoves us to look to an other source for the Water.

Afterwards it was supposed by Lavoisier that the Blood in the lungs possesses the power of separating the Oxygen and Nitrogen of the Air, combining with the Oxygen and carrying it along throughout the System, at the extremities of the Arterial circulation where the process of assimilation is going on, Hydrogen & Carbon are developed unite with the Oxygen of the Arterial Blood and enter the Venous System in the form of Carbonic Acid and water, which are brought to the lungs and thrown out.

But this theory is in diametrical

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opposition to every known principal of Chymical investigation. The question is easily decided. If Carbonic Acid Gas exists as such in the Venous blood, we might by a portion of this blood and applying a very little heat, yea even exposing it at the ordinary temperature occasion the extrication of the Gas. But this cannot be effected in the smallest degree.

Murray supposed that the great point of difference between venous and arterial blood was that the former contains much more carbon. One reason he assigns for this is that if we examine animal matter & compare it with the food we shall perceive that the former contains a larger proportion of Nitrogen and a smaller proportion of carbon and consequently as we take in more carbone than is requisite for the support of the System, that the superabundant portion must be separated at the places of assimilation, that is at the extremities of the arterial system that this rejected portion is found in the venous system, brought to the

Lungs

Lungs and is thrown out by the instrumentality of the Oxygen of the Air; and this is the only change necessary to the Conversion of Venous into Arterial Blood. If the Carbon floats along uncombined in the blood there can be more difficulty in the Oxygen uniting with so much Carbon, at the temperature of the lungs, unaided by any thing. But the Carbon cannot be simply mixed in the Blood, but that it is bound by Chemical Affinities, which are not to be overcome simply by the weak attraction of Oxygen at this temperature. How is it accomplished? There are some results which cannot be obtained by one or two principles but may be by three four or more. For instance there are some results which are not to be produced by simple elective, which may be by double elective attraction. The result here is not from the action of one or two, but all the principles engaged, remove one of them and you can not obtain the result. Now when we consider the character of the Chyle & find it contains every principle necessary to every part of the System. We must take into consideration the power exerted by each

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principal. The Chyle disappears when it arrives at the lungs; its principles have entered into other combinations, which are preliminary steps to the ultimate result.

When Venous Blood arrives at the lungs it contains a superabundant portion of Carbon, which must be separated. But this cannot be done merely by the Agency of the Oxygen. It appears then that the Carbon of the venous blood is in a state of Chemical combination with a portion of Iron and that the Carburet of Iron is being combined with the other principles of the blood; this is followed to the lungs by the Phosphoric Acid of the Chyle; the Oxygen exercises its affinity for the Carbon and at the same moment the Phosphoric Acid its affinity for the Iron. In this way the Carburet is decomposed, carbonic Acid is formed and eliminated, subphosphate of Iron is formed which gives the Arterial blood its florid colour. This salt is not found in the venous but arterial blood. The Blood now proceeds to the extremities of the

of the arterial circulation to form them by the process of assimilation, fibrine, bone, and every other part of the System. The phosphate of Iron is decomposed here, the acid unites with the lime to form Bone at the same moment there is an evolution of Carbon, this combines with the liberated Iron which gives to the Venous Blood its dark modena colour and is brought by it again to the lungs.

Doctor Black discovered that when Oxygen combines with Carbon Heat was evolved; Crawford found that the capacity of carbonic acid for heat was less than that of these uncombined and hence a large quantity must be evolved in the lungs from the formation of Carbonic Acid. This was ascertained to be too much to be actually liberated in the lungs as it was more than would render Iron red hot. Crawford ascertained that the capacity of Venous blood for heat was less than that of Arterial Blood is formed it absorbs as it were the Heat evolved from

the formation of carbonic acid before it can become sensible. When the Blood arrives at the extremities of the Circulation and is changed to Venous blood, it returns to its former capacity for heat & hence gives out all the heat which it had recieved in the lungs and which had become latent heat in it. These extremities being at every point of the system, heat consequently is given out at every point. Some of late years have been so obstinate as to assert that the principles on which Crawford built his theory were gratuitous assumptions; for instance the fundamental principle of the theory; the difference of capacity between the arterial & Venous Blood. Those who thus opposed the theory were John Davies and Brodie; but if you examine the experiments of these men you will find them totally insufficient to overturn Crawfords principles. According this is the theory which is at present adopted by nearly all the Scientific Chemists. Man's temperature is about 98° and he preserves this uniformly in a high or low

=Temp=e

Temperature. It was for some time supposed that ~~man~~ it was impracticable for Man to tolerate a heat above an 100°. But this was controverted by the following ingenious experiments of Priestly, Fordyce and Sir Joseph Banks. Those Gentlemen, "clothed in nature's garb" entered into a Room at the temperature of 260°: when they remained still for a short time and felt their skins it was cold, when they walked about it was scorching hot. Their breathing was very refreshing. So hot was the Room that water placed in a bowl evaporated so rapidly that it refused to rise about 140°. They pouring oil over it and prevented its evaporation. In 20 minutes Eggs in the Room became hard. In 13 minutes Beef was done by blowing the air upon it. The Gentlemen ~~suffered as it~~ felt no deleterious effects and the temperature of the System was preserved at nearly its natural points. It was at first supposed that the System was capable of destroying heat or that it had the power of generating

cold

An Inaugural Essay on Dysentery.

In submitting the following essay to the inspection of the Faculty of the University of Maryland, as a necessary step for obtaining a medical degree, I cannot forbear following the example of many of my predecessors, in soliciting indulgence for the imperfect performance of a task, imposed by necessity, and undertaken with much anxiety and apprehension. The variety of pursuits which necessarily occupies the mind of the medical student, must in general prevent him from paying such exclusive attention to any single subject, as will enable him to elucidate what was before obscure, or to throw any light upon what was already known. In general, therefore, he must content himself with the more humble office of

of arranging the observations and experien
of others, in such a manner, that the prai
of industry may be granted him, although that o
invention or originality be denied.

History of the Disease.

The Dysentery generally makes its appearance about the end of summer, or the beginning of autumn, at which period intermittent fevers are most prevalent.
It frequently begins with great lassitude, and inability to motion, chillness, thirst, loss of appetite, headache and other symptoms of fever, as great heat, nausea, vomiting and an uneasiness at the pit of the stomach; it sometimes however appears with various affections of the alimentary canal, costiveness, and pains resembling those arising from colic, these symptoms generally usher in the disease.
By neglecting these symptoms the disease gradually gains strength until the patient is attacked with flatulence, griping, and an inclination to go to stool, in attempting this however, little is voided, but a degree of tenesmus attends, and every stool is

preceded

proceeded by sharp gripings, after this there is generally a short respite from pain, this however, is but of short duration indeed. The matter voided by stool is various, at first it resembles a simple purging mixed with bile, and more or less tinged with blood sometimes indeed a pure and unmixed blood appears to be voided. The griping continues to increase and the tinesmus becomes more considerable, the fever also increases, which is mostly of the remittent kind. The stools also become more frequent, and painful, accompanied with a vomiting of a bilious matter. Unless the disease be checked at this period, the stools become still more frequent attended with a very foetid smell, the tinesmus also increasing, nothing excrementitious is voided except when the the patient is under the operation of a cathartic;

and

and even then it is voided in the form of scyballa or round balls, after this there is an alleviation of the pain, griping and an inclination to go to Stool: this however is but of short duration; for the troublesome symptoms soon return with increased violence, small filamentous or sebaceous matters appear in the stools, accompanied with an extremely foetid and cadaverous odour. The pulse, which until this period had been hard, tense & full, now becomes small & frequent. The countenance appears dejected, the eyes lose their accustomed lustre, the tongue & teeth become very foul, and covered with a tenacious slime and the patient is troubled with hiccup & great prostration of strength. The debility continuing to increase the pulse becomes weak, quick & almost imperceptible: the stools become smaller and more frequent and are often passed involuntarily.

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The pain & griping which until now had tormented the unhappy sufferer, suddenly ceasing, both the patient & friends are elated with joy at the prospect of a speedy recovery. Their hopes, however, are but transitory: for the nausea vomiting & hiccup returning, the pulse exceedingly weak, & frequent, deglution difficult, gangrene takes place, delirium, and subsultus tendinum come on, the extremities grow cold, and "death like an insidious enemy" comes and relieves the miserable patient from all his sufferings.

Of the appearance on dissection.

The dissections of Pringle, Cleghorn, and others show that no part of the alimentary canal, escapes the ravages of this disease, but that the stomach and intestines have all at one time or other, been found affected. In some places the intestines appear

flaccid

flaccid, while in others there is inflamation, suppuration and gangrene. The villous coats of the colon & rectum are often either abraded or changed into a slimy substance. The liver, gall bladder, pancreas and most of the abdominal viscera have been found in a diseased state. From the above appearances we are able to determine with clearness the inflammatory nature of the disease.

Diagnosis.

There are but two diseases I believe with which Dysentery may be confounded, these are Diarrhoea & Cholera Morbus; on account of which a few diagnostic symptoms may not be totally useless. Dysentery may be distinguished from Diarrhoea by the stools in the latter being composed of thin excrements, whereas in the former nothing excrementitious is voided, except when a brisk

cathartic

cathartic has been administered and by a diarrhoea being seldom attended with fever whereas Dysentery is accompanied with an evident degree of pyrexia. Dysentery may be distinguished from Cholera Morbus by the more violent and frequent purging which attends Cholera & by Cholera seldom being attended with fever.

Prognosis.

It would indeed be fortunate for us, could we always form a just prognosis in any disease. But as long as diseases continue to change so frequently, and during the present imperfect state of this part of medical knowledge, to attempt, hastily to prognosticate, is only to expose ourselves to the ridicule and contempt of our patients. For Doctor Rush has seen persons recover after the appearance of those symptoms

which

which have been set down by authors as fatal & marked beyond our remedial power. While on the contrary he has seen many die, in whom all the most favorable symptoms were present. This alone should prevent our prognosticating rashly.

Causes

Dysentery is more a disease of warm than of cold or temperate climates, hence we have various caus. which will produce this disease. Warm days succeeded by cold evenings, or any other cause that tends to obstruct perspiration, hence we see it more prevalent in those persons who lead a military life exposed to all the changes of weather; improper articles of diet will cause the disease: Doctor Potter says that a whole regiment of soldiers, during the late war, was seized with this disease, in consequence of

being

Treatment of Dysentery.

It must be evident to the most superficial observer that the cure of this disease must in a great measure be regulated by the duration & violence of the symptoms above enumerated: When the disease is recent and the fever moderate gentle purging and diaphoretic medicines, will generally be found effectual in removing the disease.

But when (as not unfrequently happens) the pulse is hard full or frequent, the heat, thirst, or headache considerable, accompanied with a great degree of tinesmus, and inclination to go to stool, distressing sickness at the stomach, and intolerable pain, the disease instead of being light & transitory, is frequently extremely violent & obstinate, and requires the most powerful remedies to subdue it

which

which we shall now proceed to consider.
First of Bloodletting: When the pulse is full, quick or hard or where the patient complains of excruciating pain in his head or bowels, bloodletting will be the most useful remedy; in determining the quantity necessary to be taken, as no positive rule can be laid down, much must be left to the Physician's own judgment, we must therefore be entirely guided by the habit of the patient, season of the year, but above all by the state of the pulse, and should be pursued as long as the pulse will bear it.
Secondly Emetics. In the beginning of the disease, if the stomach is affected with nausea & vomiting an Emetic should be administered which by evacuating the contents of the stomach will procure an

alleviation

alleviation of the troublesome symptoms, & allow time for the application of other more powerful remedies; as it respects the most proper Emetic in this disease, some have lavished great encomiums on Ipecacuanha, it has been considered a specific by some, but although a very useful remedy in this disease it can never be considered a specific at least if we judge from the observations and experience of practitioners on this subject. Small doses of tartar emetic may be given every half hour until vomiting be produced; this will act both upon the skin and intestines. So as to prove cathartic & diaphoretic. Purgatives: These are a principal remedy in dysentery, and upon their judicious employment, the cure will in

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a great measure depend; they act very powerfully in reducing the morbid excitement in the blood vessels; they also relieve the griping & tinesmus, and bring away scybala, which if allowed to remain, would irritate the intestines, and prove a source of harrassing pain to the patient. The neutral Salts have been employed with great advantage oleum ricini, is another purgative, indeed from its oily nature, it appears peculiarly suited to the cure of dysentery. The Rheum Palmatum was formerly a very favorite remedy but it is too astringent and is very apt to increase the griping.

Injections. When the pain, griping & tinesmus are violent oily injections are of peculiar service they appear to sheath the intestines and defend them from acrimony. The injection

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