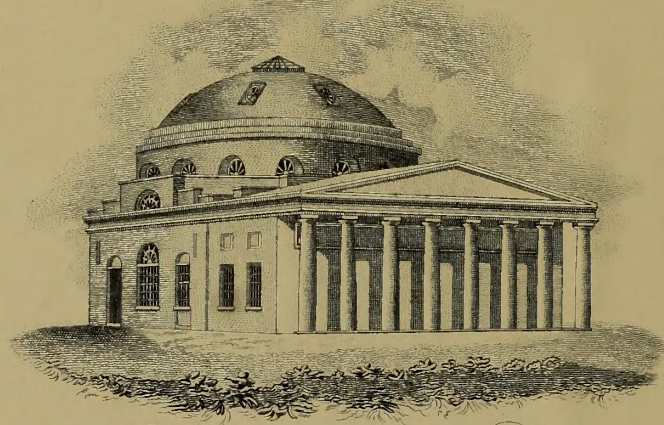




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University of Maryland Theses

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

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

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

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UNIVERSITY OF MARYLAND

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UNIVERSITY OF MARYLAND

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EX-  
An  
Inaugural Dissertation

1847

on  
Muscular Degeneration  
Submitted to the Examination

of the  
Trustees & Medical Faculty

of the  
University of Maryland  
for the Degree

of  
Doctor of Medicine

By  
J. K. Chamberlain

of  
Baltimore Md.

1847

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EX-

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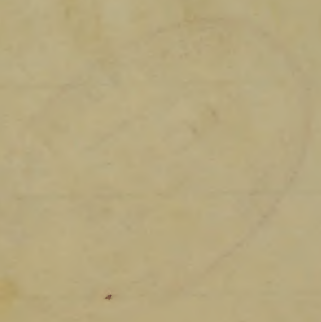
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# Tubercular Degeneration

The reason why I do attempt to write upon so formidable and extensive a subject, is because it was selected for me. The reason why I should attempt<sup>it</sup> is because of its very importance and extent. That it is important & extensive will be admitted when it is reflected that nearly one fourth of the human race die from the various forms of Tubercular disease. It seems presumptuous in me who know almost nothing of disease from observation, to attempt to discuss a subject which has engaged the attention of many of the brightest geniuses of the Medical Profession, and the difficulty of which is manifested by the variety of conclusions to which they have arrived.

But no one will expect me to make any discoveries or advance any new ideas upon the subject. I shall be satisfied if in its inves-



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- tigation I shall learn what is actually known in regard to it and prepare myself, as well as may be, to contend against its ravages

My first & not my least difficulty is to define my subject, for it seems to me almost undefinable. I believe most writers agree that Tubercular disease is Scrofula, but then Scrofula in its usual acceptation is something more than Tubercles. Now to mark the line of distinction seems to have puzzled wiser heads than mine. Those who have attempted to treat upon them as separate diseases seem occasionally to confound them. Thus Watson p. 129 says "Now Tubercles & Scrofulous Inflammation occur very continually in the same individuals Again p. 132 "A scrofulous abscess forms in the glands of the neck and pus & tuberculous matter are discharged" - again "Next Tuberculous or Strumous disease is extensively common in the digestive organs"



And Jugal, speaking of Tubercular Scrofula, says "this is undoubtedly the most important form of Scrofula, Tubercles coexist with all other forms of Scrofula — they are the emblems of the disease — they are scrofula". Sutton in a late prize essay, defining Scrofula, says "By scrofula I mean the formation of Tubercular matter on or in any part of the body"

I shall endeavour to confine myself to the consideration of disease acknowledged to be Tubercular

What is Tubercle? A common definition is "a solid, yellowish white body, opaque, friable and without a vestige of organization or texture"

Much difference of opinion has existed & continues to exist among Pathologists, as to the nature and origin of Tubercles & as to the changes which they undergo. "After all" as Watron remarks "the points in question possess more of curious interest than of practical importance". I believe Jugal thinks Tubercles true parasitic animals, produced probably



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in the same way as Accephalocysts, it is not he doubt know how Lannee considered them "accidental productions, that is real foreign bodies, which spring up in the substance of the lungs & may be developed in any part of the body" Andral considers G—s to be the result of a modified nutrition of the texture and that they are produced & go through their changes through the agency of the vessels of the part & the blood that circulates in them This view of Lannee accords with that of Carpenter who says "If the fibrin of the blood be not well elaborated it does not possess its due organizability & thus instead of being converted by the nutritive process into solid tissue proper to the part in which it is deposited, it is liberated from the vessels in a state which prevents any but a very imperfect structure from being developed by it. This is the condition of the Tubercular substance which is so often found to replace the proper tissue, especially in the lungs, being slowly deposited there by a sort

The first section of the paper is devoted to a  
general discussion of the subject. It is  
found that the results of the experiments  
are in general in accordance with the  
theoretical predictions. The results are  
summarized in the following table.

Series	Temperature (°C)	Pressure (atm)	Volume (liters)
1	20	1.0	22.4
2	30	1.0	22.7
3	40	1.0	23.0
4	50	1.0	23.3
5	60	1.0	23.6
6	70	1.0	23.9
7	80	1.0	24.2
8	90	1.0	24.5
9	100	1.0	24.8

The results show that the volume of the gas  
increases with temperature, and that the  
increase is in accordance with the  
theoretical predictions. The results are  
summarized in the following table.



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of degradation of the regular nutritive operations and being effused in larger quantities when the inflammatory process is set up" The greatest degree of organization is found in the semitransparent, milkiary, grey tough yellow forms of Tubercle — the least, in the opaque crude or yellow Tubercle" Now this long quotation expresses just about the conclusions I have formed after poring over the speculations of about a dozen different writers — Tubercles, then being deposited from the blood it follows that they may make their appearance in any time in the body and for aught I know this is the case. In Cooper's Surgical Dictionary, in an article on Serofulous White Swelling of the knee joint I find mentioned a deposition in the cancelli of the head of the Tibia of "first a transparent fluid & afterwards a yellow cheesy substance" which Lloyd asserts "sometimes permeates the cancelli of the whole bone the rascularity of which diminishes in proportion as <sup>the</sup> here-



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-like deposit increases". It would seem to me that this is but a form of Tubercular deposit. Indeed Y— & have been found in almost every texture of the human body. Sutton in his elaborate essay on Scrophula says "The accumulation of Tuberculous matter may be in any texture or in any organ of the body but wherever situated it constitutes Scrophula & is a fearful disease". Perhaps the most frequent seats are on the surfaces of the mucous membranes, in the parenchyma of the lungs, the lymphatic glands, the spleen, peritoneum and bones". A deposition of Tubercular matter having commenced goes on to increase in size & extent according to the space which can be occupied — its shape therefore being different in the different tissues of the body. Thus in the brain where the pressure on all sides would be equal, in the areolar tissue & in the air vessels of the lungs we find it globular in form, But when the deposition is in the smaller bronchial tubes, it fills those tubes

The first part of the paper is devoted to a general  
discussion of the nature of the problem, and to a  
statement of the results which have been obtained.  
The second part is devoted to a detailed  
discussion of the method of solution, and to a  
description of the apparatus used in the  
experiments. The third part is devoted to a  
discussion of the results, and to a comparison  
of the present work with that of other  
investigators. The fourth part is devoted to a  
discussion of the conclusions which have been  
drawn from the experiments, and to a  
statement of the author's views on the  
nature of the problem.

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taking, of course, their shape. So if deposited upon a  
rough or mucous surface it will assume <sup>a</sup> lamellated or round-  
ed form according to circumstances. After a time these  
depositions become changed in appearance and begin  
in the centre gradually to soften until they are dis-  
solved and broken down. This is according to Lemee,  
but the English Pathologists mostly adopt the theory  
of Dr Lombard & labour to prove it correct. They say  
that the process of softening begins on the outside  
instead of at the centre — that the Tubercle de-  
posit acts like any other foreign body, exciting ir-  
ritation & finally suppuration in the surrounding tissues  
which in turn soften & break down the matter of the  
Tubercle. Sometimes Tubercles undergo a transfor-  
mation called "Creteous induration" in which an absorp-  
tion of the animal matter and an augmented se-  
cretion of the Calcareous — but the rule is that they  
soften & tend to be eliminated. Now if the seat of  
the deposit be not in a vital organ, or if in

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small quantity in a vital organ, the morbid matter may be eliminated and the patient recover. But if this do occur it is only a temporary advantage, for the tendency to disease remaining in the blood, new depositions are likely to take place, ~~which~~ which will generally, in the end, prove fatal

In children Tubercular depositions are commonly found in the digestive organs & in the lymphatic system particularly in the mesenteric Glands constituting Tubercles Mesentericæ. This disease is very common and fatal among scrofulous children

But by far the most common seat of T- in adults, is in the lungs. Louis, indeed, says that he has "never observed them in any viscus without their being at the same time present in the lungs" and that "with the exception of a solitary case he has always found the deposit in a state of greater advancement in the lungs than elsewhere"

The same may be said of the upper lobes of the





the lungs in a comparison of their different portions, Drs Carrwell & Watson have noticed exceptions to the rule of Louis, but these exceptions are never only to prove a general rule. Why the lungs & particularly the upper lobes, should be more subject to this deposit, is more than I can say. There are theories enough to account for it, but I know of no satisfactory explanation after all. I believe that Y is <sup>commonly</sup> more rapidly developed in the lungs at the age of puberty. This may be in consequence of the greater flow of blood to those organs, which is seen to take place at that period. The lungs too are at all times subject, from numerous causes, to inflammations of more or less intensity, which no doubt increase the tendency to Tubercular deposit before existing in the constitution. But why should the upper lobes of the lungs be more liable to Tubercles? Dr Carrwell thought this was in consequence of the smaller amount of expansion allowed them by the walls

The length of a suspension of their different parts  
 The passage of the blood from the arteries to the  
 veins of the brain, but their suspensions are not  
 to pass a greater one. Along the length of  
 the vessels the upper part has the greatest  
 extent for more than a year. There are  
 also enough to be seen for a part of the  
 no satisfactory explanation of the  
 that of a <sup>common</sup> nature and the  
 at the end of the vessel, the lower  
 of the greater part of the vessel  
 to cause to take place of the  
 too great a time, but the  
 to sufficient to cause the  
 shall increase the tendency to  
 before entering in the vessel, but  
 the upper part of the vessel  
 Dr. Currier thought that in  
 a moment of a suspension of the

of the chest. But is this the cause? It seems to me that the expansion of the upper part of the chest is fully as much as that of the lower in proportion to the amount of lung enclosed. Broussais ascribes it to the shortness of the bronchial tubes, thus allowing inflammation the more readily to reach the air cells and Willienus suggests that it is in part because of the greater amount of interstitial areolar tissue in those parts.

The Symptoms of Tubercular Degeneration vary, of course, according to the importance and situation of the organs implicated. But before I consider them I will devote a brief space to the Tubercular or Scrophulous Diathesis, *id est*, a habit of body disposed to scrophula.

In the consideration of this subject I shall follow Watson pretty closely for I know no better guide. He says "there are certain physical & moral characters which teach us to apprehend the ~~existence~~ of a tendency to scrophulous disease even when there has hitherto been no local

of the object. In the case of the  
 that the appearance of the upper part of the object is  
 found as usual in that of the lower in proportion to  
 the amount of light reflected. The amount of light  
 in the shadow of the translucent tubes, there is  
 very insignificant. The same result is seen in the  
 case of the reflection of light in the part  
 of the object covered by the translucent tubes  
 in these parts.

On the subject of the  
 of the object, it is seen that the  
 of the object is not affected by the  
 of the object. The amount of light  
 in the shadow of the translucent tubes, there is  
 very insignificant. The same result is seen in the  
 case of the reflection of light in the part  
 of the object covered by the translucent tubes  
 in these parts.

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manifestation of such disease. The persons in whom  
serofulous disease is most apt to declare itself are ma-  
rked, during childhood, by pale & party complexions,  
large heads, narrow chests, protuberant bellies, soft and  
flabby muscles and a languid feeble circulation,

But the strumous disposition very often, indeed accom-  
panies a variety of the sanguine temperament also, and  
is indicated by light or red hair, grey or blue eyes, with  
large & sluggish pupils & long silky lashes, a faint trans-  
parent skin and rosy cheeks. This red color which is  
well defined in general is easily changed however by cold  
to purple or livid; the skin is thin & readily irritated  
the ~~character~~ has often a peculiar <sup>beardy</sup> lustre & the extremities  
are subject to chilblains. Such children are many of  
them extremely clever & ready of apprehension, of eager  
tempers & warm affections, lively, ardent, imaginative  
and susceptible. It is frequent though less common in the  
melancholic or bilious temperament, in persons of a dark  
unclear complexion & harsh skin in whom the mental



and ~~bodily~~ energies are more sluggish & dull; but when it does occur in such cases it is even more than ordinarily obstinate & intractable." Still we often find Scrofula developing itself in constitutions which we not suspect to be tainted with the disease. In many cases there are apparently slight & trifling diseases which to the experienced eye at once betray a Strumous diathesis. Again we infer the scrofulous diathesis in many persons when we know Scrofula has existed among his progenitors. That Scrofula or rather a predisposition to it is hereditary, the most careful observer can not fail to have remarked.

Now the signs of Tubercular deposit in any internal organs, other than the lungs, are very obscure and, except perhaps in the advanced stage of Tuberc Merenterica, would hardly lead us to a correct diagnosis. But knowing that the disease is constitutional & that it is certain to make its appearance in the lungs if anywhere, one skilled in Auscultation & Percussion is enabled to mark its rise, trace its progress & predict its termination with

The first part of the paper is devoted to a discussion of the  
 general principles of the theory of the function of the  
 mind. It is shown that the mind is not a passive  
 organ, but an active one, and that its function is  
 to receive and interpret the impressions of the  
 senses. The second part of the paper is devoted to a  
 discussion of the theory of the function of the  
 brain. It is shown that the brain is not a passive  
 organ, but an active one, and that its function is  
 to receive and interpret the impressions of the  
 senses. The third part of the paper is devoted to a  
 discussion of the theory of the function of the  
 nerves. It is shown that the nerves are not passive  
 organs, but active ones, and that their function is  
 to receive and interpret the impressions of the  
 senses. The fourth part of the paper is devoted to a  
 discussion of the theory of the function of the  
 muscles. It is shown that the muscles are not passive  
 organs, but active ones, and that their function is  
 to receive and interpret the impressions of the  
 senses. The fifth part of the paper is devoted to a  
 discussion of the theory of the function of the  
 organs of the senses. It is shown that the organs of  
 the senses are not passive organs, but active ones,  
 and that their function is to receive and interpret  
 the impressions of the senses.



almost as much certainty as if he could look upon the morbid changes as they occur. Long before the presence of Tubercles could be detected in other organs it is shown in the lungs by numerous & ~~conspicuously~~ unequivocal signs. At first the attention is directed to the disease by the presence of a dry heaving cough, or perhaps, as happens in about one fourth of the cases of this disease, hæmoptysis occurs. When upon close examination dullness on percussion is found at the upper lobes and at the same time prolonged expiration & increase of the vocal thrill. The respiratory murmur too is gradually superseded by bronchial respiration and we may observe on inspection that on account of the partial solidification of the lung, that side of the chest does not expand as fully as the opposite.

For the same reason we have broncophony the sound being transmitted with more facility along tubes whose walls are solidified. The first symptom indicating the softening of Tubercular matter, is generally a single click heard at the end of inspiration. This is an

The first part of the paper is devoted to a general  
discussion of the subject. It is shown that the  
theory of the subject is not yet complete and  
that there are many points which require  
further investigation. The author then proceeds  
to a detailed examination of the various  
theories which have been proposed. It is  
found that the most satisfactory theory is  
that which is based on the principle of  
least action. This theory is shown to be  
in agreement with all the experimental  
results which have been obtained. The  
author concludes by pointing out that  
there are still many points which require  
further investigation and that it is  
hoped that the present paper will  
contribute to a better understanding  
of the subject.

important sign & cure is necessary that we be not deceived by any of the morbid sounds of bronchitis or of enlarged bronchial tubes. As the softening goes on & the cavity increases in size we find cavernous respiration and metallic tinkling present and, if the cavity be near the surface pectoriloquy. The sputa by this time become peculiar showing traces of suppuration and softened Y-matter. The constitutional symptoms in the early stages of the disease are not distinctive. When the disease is somewhat advanced however, hectic fever insidiously creeps upon the patient. The exacerbation is usually in the afternoon or evening & is followed by profuse perspiration which leaves the patient feeble & exhausted.

Diarrhoea too is very apt to occur from the softening of Y-s along the track of the intestines and in many cases ulceration of the Larynx causes partial or complete loss of voice. Oedema of the lower extremities is one of the latest symptoms & is generally soon



followed by the death of the patient who sinks exhausted by the colliquative sweats & diarrhoea

Concerning the Causes of Tubercles there has been much discussion. I shall not attempt to detail the various causes that have been assigned, but content myself with a notice of the most important

It has been demonstrated by experiment that Tubercles are generated in the bodies of the lower animals upon exposing them to certain adventitious circumstances, as damp, cold, bad food &c &c Now the same is true of the human subject, with this addition, that in proportion as the privations & vicissitudes to which man is exposed are more numerous than those of the inferior animals, so are the causes of Tubercles

To enumerate the various circumstances favourable to the production of Tubercles,

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would require more time & space than can be devoted to them in this paper

In general terms "they are all those influences which tend to depress the vital powers, such as insufficient nutrition, habitual exposure to cold & damp, protracted mental depression &c &c" But the great cause, some say the only one, is hereditary predisposition. In almost every case of this disease we can detect upon close inquiry a scrofulous taint in the family of the patient. When this predisposition exists almost any cause of constitutional disturbance is sufficient to excite Tubercular deposit

The Treatment of Tubercular disease generally amounts to an acknowledgement on the part of the Physician that he can not cure the disease and this is the belief of

The first part of the paper is devoted to a general  
 consideration of the subject. It is shown that the  
 theory of the subject is not yet complete, and  
 that there are many points which require further  
 investigation. The author then proceeds to a  
 detailed examination of the various aspects of the  
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 subject, and shows how they are interrelated.  
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 detailed examination of the various aspects of the  
 subject, and shows how they are interrelated.  
 The ninth part of the paper is devoted to a  
 detailed examination of the various aspects of the  
 subject, and shows how they are interrelated.  
 The tenth part of the paper is devoted to a  
 detailed examination of the various aspects of the  
 subject, and shows how they are interrelated.



most medical men of the present day.

But we know that there have been spontaneous cures, for the vestiges of former Tubercular disease are often found in the bodies of persons who have died from other diseases. It does not become the Physician then, so soon as he finds he has a case of Tubercular disease, to despair of combating it successfully. Should he fail in ninety-nine cases he may succeed in the hundredth. Still it must be confessed that we know of no medicine that acts directly and positively on the disease. Yrie, Puzol claims to have discovered in Iodine & its preparations, almost a spécifique for Scrophula in all its multifarious forms. That Iodine is useful in many cases of Scrophula, can not be denied. But its use in this country has not been followed by the success attributed to it in France; and in Tubercles of the Lungs — the most important form of Scrophula —



it is but little to be depended upon. Yet it is not unreasonable to hope that a specific may be discovered for the cure of this wide spread & fatal disease which shall render it as amenable to treatment and comparatively as harmless as Small-Pox has become since the introduction of vaccination.

In our treatment we must not forget that the disease is constitutional and that, to stay its progress we must direct our remedies to the Constitution.

Whether we expect any medicine to have a specific action upon the  $\gamma$  — deposit, or not, we must employ every available means of strengthening the system. So far as the symptoms will permit the treatment should be tonic & roborant.

Of Tonics the Lactide of Iron is among the best, combining the virtues of Iron with those of Lactine. Aisene too is often useful. Mr Phillips, whose late work on Scrophules is cited by the reviewer to be the best that has been published, ascribes great virtue



to Barium or rather the Chloride of Barium which he considers little inferior to Iodine in this disease

But a knowledge of the laws of Hygiene is of fully as much advantage as of medicine and will suggest in each particular case the proper means to be adopted. Change of Climate is universally acknowledged to have great influence in retarding, sometimes checking, the progress of the disease

But it is probable that <sup>to</sup> the change of habits & diet much of this improvement is due. Migration from one climate to another without improvement of circumstances seems rather to be an exciting cause of Y — r disease. Witness the Africans brought to this country as slaves. The statistics of the British army, too, shew a far greater proportion of deaths from this class of diseases among their troops in the West Indies than among those at home.

When the disease has



become somewhat advanced we must endeavour to palliate the violence of the symptoms The Cough should be met with Emollient Mucilaginous drinks and Anodynes with some expectorant if needed

To check the night sweats we may use Elixir Vitriol or a combination of Opium & Acetate of Lead which last is useful also as an injection to check the diarrhoea which is apt to supervene

As we can in very many cases discover the predisposition long before the disease makes its appearance, the Prophylactic Treatment becomes important - the more so in consequence of the intractable nature of the disease when once established

This will be regulated entirely from the Physician's knowledge of Hygiene

between some of the most eminent  
 to produce the progress of the  
 should be met with similar  
 over the progress of the  
 to check the progress of the  
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 of Hippocrates



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An  
Inaugural Dissertation  
on  
Epistaxis  
Submitted to the examination  
of the  
Provost, Regents and Faculty of Physic  
of the  
University of Maryland  
for the  
Degree of Doctor of Medicine  
by  
Andrew Davidson  
Baltimore Feb. 1<sup>st</sup> 1847



1

In consequence of the law regulating all properly established Medical Institutions, requiring of all the candidates for the degree of Doctor of Medicine to present to the Faculty of the Institution to which they belong, a Thesis on some medical subject written by themselves. And as I am placed in this relationship to the University of Maryland, I am of necessity compelled to go to work to get one up for the coming examinations. Now let me see shall it be original. yes by all means nothing else would do in these palmy days of originality. Now for a subject on which to advance something <sup>new</sup> ah! this seems to be a sticking point for amidst all the subjects which present themselves I cannot find one on which every thing has <sup>not</sup> been said that I know about it. Hence I am reluctantly compelled to abandon my former notions of originality and do as a large majority of those who have



preceded me present your honorable body with  
a selection as I have no doubt many ~~many~~  
of my fellow students will favor you with a  
like compliment. and in doing so I presume  
we all will fully meet your expectations.  
The subject I have chosen is a plain and  
practical one, on which I hope to be able to give  
you all the important items of treatment surgical  
and medicinal Epistaxis a flow of blood from  
the nose. This is a phenomenon so common to have  
escaped notice at any period, and from the ear-  
liest times its consequences with the condition  
of body connected with and preceding it, have  
been objects of medical observation. of the various  
hemorrhages to which the human race are subject  
Epistaxis is the most common and so often is  
it attended with salutary effects that its encour-  
agement and suppression equally require the consid-  
eration of the practitioner of medicine -

presented the present year towards the day and  
 a collection of them as well as many more  
 of the same kind which will give you with a  
 like opportunity but as they are of various  
 use all will fill out your collection.  
 The subject of her choice is a plain one  
 and does not in which of life is a plain one  
 you all the important things of life and  
 and presents during a few of these days  
 the one that is a pleasure to know to have  
 respect with it any more and for the  
 but there is no comparison with the contents  
 of the contents with the contents of the  
 less part of the contents of the contents  
 knowledge to what the contents are useful  
 to give in the next contents and a little  
 it returns with nothing else but its own  
 amount and nothing more and its own  
 nature of the contents of the contents.

The frequency of Epistaxis may readily be accounted for when we consider the structure of the Schneiderian Membrane its extreme tenuity, also the number as well as the size of the bloodvessels which traverse it in every direction forming a complete network, with less interstitial cellular substance and thinned laminae of Membrane covering it, than is to be found in any other part of the body. The bloodvessels of this membrane being for the most part supplied by the internal maxillary artery and anastomosing with some of the extreme ramifications of of the internal carotid. Any increased impulse given to the latter, or to the trunk of the former is less resisted in this part, and in consequence of the rupture which is very frequently occasioned, an escape of blood is effected, with relief to both these systems of vessels, and in a very essential manner





to the advantage of the brain: As in the  
 Hemorrhages from every other part, it is impor-  
 tant to observe that in Epistaxis there are two  
 opposite conditions of the bloodvessels, induced  
 by the corresponding states of the body under  
 which it occurs. In the one the extreme  
 vessels are ruptured by the increased activity of  
 the circulatory system general and local:  
 In the other from debility and relaxation,  
 their elasticity is destroyed hence they are in-  
 capable of distension, as well as propelling their  
 contents and thus their walls are ruptured  
 and Hemorrhage is the result. Or from the  
 same condition red blood may insinuate  
 itself through the exhalents instead of the  
 thinner and colourless part of the fluids  
 proper to them: We shall next proceed to  
 consider Epistaxis under these two conditions  
 adopting the common language of Pathologists



in applying to the former the term active  
 or entonic, and to the latter passive or attonic,  
 Epistaxis. Entonic Epistaxis occurs occasionally  
 in very young persons, most frequently before or  
 about the age of puberty and in persons of a  
 plethoric or sanguine temperament. The latter  
 are not infrequently the objects of it until advances  
 of age effect a change in the constitution and the  
 ballance of power is transferred from the arterial  
~~from the~~ to the venous system. This we  
 find in early life that this Hemorrhage is  
 almost always from the arteries and in old  
 persons from the veins. The habits and exercises  
 of males render them more liable to Epistaxis  
 than Females but on the other hand we find  
 in the latter that it is very often vicarious  
 with the suppression of the menstrual discharge  
 and occasionally occurs with the same  
 periodical exactness: Even in the Male

in applying to the former the term  
a certain, and to the latter a  
Benthamite. Bentham's doctrine  
is very simple, and is  
about the right of property, and  
Bentham's is a complete improvement  
in not only the right of property, but  
of an effect a change in the  
balance of power in the  
law to be the same. Bentham's  
first in rank is that the  
about change from the  
power from the same. The  
of such nature. There are  
then Bentham's but in the  
in the latter that it is  
with the application of the  
and especially in the  
general.

6

sex the influence of habit is often evinced in the occurrence of Epistaxis and after other causes have been removed it is sometimes with difficulty that its <sup>power</sup> is resisted. Local injury, exposure to heat or increased temperature ~~of~~ of the atmosphere, hot drinks, stimulating diet, inordinate exercise, suppressed discharges either natural or artificial and all other circumstances which increase the quantity or quality of the blood, or the impetus by which it is distributed to the different parts of the head may occasion the occurrence of Epistaxis: In addition to these causes it has been frequently preceded by various emotions of mind such as terror, anger, or even a single excitement of the Imagination: Hence says a learned medical author we may readily trace by what means philosophers and poets of the Eastern world and even some of those of the western

by the influence of heat & the expansion  
the occurrence of vapors and the other  
causes have been removed & a constant  
diffusibility that it is a matter of localizing  
effluvia to heat & various degrees of  
of the atmosphere but which is usually  
constant pressure supports and holds  
natural or artificial and at the same time  
which occurs the quantity of weight of the  
fluid or the intensity of which it is related  
to the different parts of the body and  
the occurrence of vapors or other  
causes it has been frequently proved by  
various experiments of various kinds  
and even a single experiment of the  
demonstration: these things have been  
another we may easily see by what  
philosophers and parts of the  
and even some of the nature

were led to regard the nose as the seat of mental irritation the peculiar organ of wrath and anger and amongst the Hebrews the nose is said to be the seat of passion. In some individuals it is probable that there is an extraordinary delicacy of the Schneiderian membrane and its vessels which renders the latter peculiarly easy of laceration. There appears also to be a correspondence between this expansion and the Integuments of the face with which it is continuous the phenomenon of blushing being often remarkable in persons subject to Epistaxis a circumstance which is doubtless also in a great part to be referred to the identity of temperament predisposing to both these events or affections. Excitation of the olfactory nerves in persons of peculiar irritability of the organs of smell have occasionally induced Epistaxis there is an instance on records in which it was induced by smelling an apple and another by smell<sup>ing</sup> a rose.

over the to report the same with the self  
 assistance the further report of the  
 that amongst the others the one is not to be  
 the rest of the points the same is not to be  
 probable that there is an extraordinary  
 the administration therefore and the  
 matter the latter part of the  
 that appear also to be a  
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 subject the  
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 trust of



Coughing sneezing singing and reading aloud  
 for any length of time stooping and other  
 particular postures of the body have frequently  
 occasioned it; The secretory office of the schnei-  
 -derian membrane is liable to material alterations  
 in its secretion from the vicissitudes of temperature  
 to which it is necessarily exposed in performing  
 the function of respiration, and any check to its  
 natural or inordinate secretion will occasionally  
 lead to the rupture of bloodvessels and consequent  
 Hemorrhage; Various conditions of the atmosphere  
 it is well known have a powerful effect on the  
 expansive quality of the blood as well as of other fluids.  
 The same expansive qualities of the blood is  
 evinced by alterations in the atmospheric pressure  
 as in the ascent of high mountains an early  
 physical consequence has been a flow of blood  
 from the nose, increasing in proportion to the  
 altitude, and succeeded by Hemorrhage from the

Comparing language usage and reading style  
 for any length of time studying and the  
 particular features of the body have frequently  
 occurred at the various offices of the state  
 which sometimes is held to be a  
 in its action from the necessity of  
 to which it is necessary to attend  
 the position of affairs and the  
 actual or intended action and necessity  
 had to the extent of the  
 language. Various conditions of the  
 it is not known how a powerful effort  
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 the same of course quality of the  
 source of attention in the  
 as in the case of light  
 physical experiment has been a  
 from the same source in  
 all these and success of the

ears, and lungs, as well as by other alarming symptoms, we have an interesting example of this in the enterprising traveller Saussure on the occasion of his celebrated ascent of Mont Blanc.

The passive or atonic epistaxis takes place only in those extreme cases of depression of the vital powers which occasionally occur after the inflammatory stages of fever have passed by or in such as have been considered of a putrescent tendency as in the advanced stages of eruptive fevers particularly of malignant smallpox and Scititina. In ~~the~~ cachectic diseases such as the purpura hemorrhagica, scorbutis and certain broken down states of the constitution consequent on viceral disease of a chronic kind, particularly that of the liver arising from the long continued influence of a hot climate or the habitual intemperate use of spirituous liquors. The atonic Epistaxis is occasionally a very troublesome and dangerous symptom.

was not done as well as by the company  
 they were, we have an interesting account of the  
 in the interesting battle between us the  
 one of the other the account of the  
 the paper a short notice of the  
 the account of the account of the  
 which is especially true of the  
 you of four days past for we had  
 the account of a person who  
 advanced steps of progress from  
 of the account which we had  
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Instances have been recorded of the loss of almost incredible quantities of blood from the nose. Ten twelve and upwards of twenty pounds have have been known to flow away before the hemorrhage has ceased. I have some where in my medical reading seen a much greater quantity than this stated to have been loped. one case in which the patient was said to have loped the enormous amount of seventyfive pounds in ten days three times as much as the patient possessed in his entire body when the hemorrhage commenced. The active or tonic epistaxis is usually preceded by a sense of weight and fulness in the forehead and face. frequent flushing in the latter with heat and itching in the nose, a remarkable degree of throbbing is often experienced in the temporal arteries. a ringing in the ears and sometimes a dull or indistinct sense of hearing. but in many instances no precursory symptoms are observed and the blood issues forth suddenly with various degrees of force.



passive or atonic Epistaxis occurs in general without  
 any preceding indication peculiar to it, and in many  
 instances, particularly in the adynamic consequent  
 on fevers, it is not infrequently accompanied with  
 entire insensibility. In the cachectic state of the  
 system giving rise to this kind of Epistaxis inordin-  
 ate and uncontrollable losses of blood from the  
 nose have most commonly taken place and therefore  
 have been more frequently the objects of attention,  
 and it is more liable to occur in advanced than in  
 early life. Tonic Epistaxis always to be regarded  
 as an indication of the urgent necessity for the system  
 of bloodvessels of the head to be relieved of a  
 superabundance of this fluid and so long as  
 this condition lasts it ought to be encouraged or  
 at least on no account restrained by direct or  
 powerful means but rather suffer it to continue  
 unless it should become very profuse and persist-  
 ent. For it is often observed the evacuation of

paper to some other more general  
 any preceding section. It is not a  
 instance, particularly in the  
 in fact it is not infrequently  
 under necessity of the case  
 system giving rise to the kind of  
 at our unaccountable loss of  
 are have used economy of  
 have been more frequent by the  
 and it is more than a  
 early like British  
 as an exhibition of the  
 of treatment of the  
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 the condition of the  
 at last in an account  
 peaceful means but rather  
 which it should be  
 - to the it is often



a small quantity of blood from the vessels of this organ is the spontaneous effort of nature, to cure a severe headache, or relieve an oppressed state of the brain, dependent on preternatural fulness of the bloodvessels, and it is probable that apoplexies and other dangerous diseases of this organ have not unfrequently been stayed, if not entirely prevented by this natural method of cure. In advanced life however advantageous this hemorrhage may prove under an immediate threat of such forms of disease we must bear in mind that it is an indication of an altered condition of the bloodvessels of the head which pathologists have observed progressively to increase in the majority of persons after the middle period of life and that it is often on this account the precursor of fatal apoplexies palsies epilepsies and other cerebral diseases. In a practical view we may consider Epistaxis in reference to the <sup>condition or state</sup> ~~various~~ of the <sup>various</sup> organs of the body

a small quantity of that for the use of the  
 is the substance of a letter to our  
 case, in which an appeal is made of the  
 out in practice, a copy of the  
 and it is probable that application will be  
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 method of our the same as the  
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and the positive disease (if any) with which it is accompanied, in the same light as artificial bloodletting always remembering the importance and delicacy of the organ to which a determination is already established or probably would be if the exit of blood from the ramifications of the vessels of the head and face were prevented. Such diseases and conditions will require their peculiar kinds of treatment and the avoidance of the exciting causes which produce this particular affection. It occasionally happens however that this evacuation is excessive at a single occurrence or that by its continuance a passive state of the vessels is induced, and sometimes independently of plethora the evacuation becomes by frequent recurrence habitual and if not arrested would be productive of consequences dangerous to life. The particular treatment necessary to prevent ~~prevent~~ an excessive or habitual Epistaxis of the entonic kind is founded on two principles:



first diverting the determination of blood from the head to other parts of the body; and secondly the direct application of those means which are calculated to act on the extremities of the vessels themselves: which means consists of astringent substances and mechanical compression. The former includes the various remedies which are comprehended in the antiphlogistic regimen those being selected which are adapted to restore the particular function which may in each case have been suspended, and to produce a counterbalancing excitation in a system of vessels at a distance from the already overloaded vessels of the nose and head hence the use of purgatives is particularly indicated, and in very plethoric habits a combination of such as stimulate the biliary canal as well as excite its watery secretions will be found advantageous. Bleeding also from a vein in the arm or foot or topical bleeding by leeching the head or cupping the

first directing the attention of the  
 the heart to the part of the body  
 the direct application of these means  
 or calculated to act on the system  
 of the mind, which means consist of  
 the various and diversified exercises  
 which the various faculties of the  
 mind are capable of performing. The  
 which are capable of being performed  
 which may be said to be the  
 to produce a considerable degree of  
 system of mind at a distance from the  
 contains the result of the various  
 the use of imagination as a faculty  
 and in many respects to the  
 such as to illustrate the various  
 its various exercises will be found  
 leading also from a sense of the  
 not leading by leading the mind

The rape of the neck will be requisite, In some cases in which the Hemorrhage from the vessels of the nose may have been small as to point out only the necessity of such an evacuation, but not sufficient to remove the occasion of it, and the symptoms with which it is accompanied. In habitual epistaxis also ~~we~~ we shall find the necessity often of this artificial changing of the distribution of the blood and by anticipating the periods of the return of this morbid disposition by proportionate bleeding may at length be enabled altogether to prevent it. Emetics have occasionally been of service and are recommended on the principle of relaxing the capillaries but unless the Hemorrhage should appear to depend on an inordinate fulness of the stomach impeding the due course of the blood in the large vessels we should be cautious in having recourse to them for the very action they induce is an impediment to the free circulation of the blood

The scope of the work will be determined by the  
 in which the membership from the year of the  
 any have been made as a result of the  
 of great an importance, but that sufficient to  
 the occurrence of it and the importance of  
 it is accompanied by a detailed statement of  
 we shall find the necessity of the  
 changing of the membership of the  
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 to make alterations in the  
 necessary of course and in accordance  
 in the principle of relating to capital  
 with the membership which appears to  
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 the one cause of the other in the  
 we should be content in doing so  
 there for the very reason that  
 important to the success of the



in the vessels which it is our object to relieve and has occasionally been the cause of the affection which is to be removed. Sprinkling cold water on the face will often have a powerful effect in the suppression of this kind of hemorrhage and even immersion of the head has <sup>been</sup> successful when other remedies have failed. A striking instance of this kind is recorded by Dr. Darwin the patient was a lady who had Epistaxis for several days from a part of the nose to which the attempt to apply mechanical compression had failed and in whom from a preternatural sensibility of the pharynx it was found impossible to stop up <sup>the</sup> posterior nares, resection and the other remedies had been tried in vain but by immersion ~~is~~ of the head in a pail of water rendered colder by the liquifaction of some chloride of sodium the hemorrhage was checked and did not return but hardness of the pulse continued hence resection on the

in the usual subject of an appeal to the  
 and has accordingly in the course of the  
 their subject as to the amount of the  
 matter on the face will find some ground  
 effect on the sufficiency of the bond of the  
 and the sufficiency of the bond has been  
 when the amount has been fixed by the  
 of the bond is recorded by the Court in the  
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 a part of the sum to which the appeal is  
 the amount of the bond is fixed and in order  
 from a judicial authority in the  
 it was found insufficient to the  
 more sufficient and the other amount was the  
 that it was not by the Court of the  
 in a part of the amount of the  
 time of some extent of the  
 was checked and did not return  
 of the matter continued down

was resorted to as a precautionary measure. Dashing cold water on the genitals has sometimes had an instantaneous effect in the suppression of Epistaxis. In the same manner the popular remedy of applying a large key or other piece of cold metal between the clothes and the surface of the back has caused it to cease. The exposure of the face to cold and the observance of the erect posture with an inclination of the head backwards cold drinks and the application of cold water or ice to the nose will often be sufficient to terminate this hemorrhage. If these means however should fail the nostril from which the blood issues should be stopped with a piece of sponge, lint or any other soft substance so that the retarded blood may coagulate and thus produce pressure against the ruptured vessels. If this should not succeed recourse must be had to astringents in preference to compression by the methods to be presently described and which

was treated to as a punishment measure, during  
 cold water in the penitents, but sometimes has an  
 instantaneous effect in the suppression of the  
 heat. In some instances, the patient is seized with  
 a large quantity of cold water, but in some  
 others, and the surface of the body is covered  
 to cause the opening of the pores to cold and the  
 decrease of the heat for the cold water  
 of the heat, but in some cases, the  
 of cold water is not to the amount of ten or fifteen  
 to terminate the hemorrhage of the  
 hemorrhage should feel the water from under the  
 the blood vessels should be stopped with a fine  
 sponge, but in any other case, it is necessary  
 that the patient should not be exposed to air  
 the patient prefers against the exposure  
 if this should not succeed, warm water  
 to continue in preference to the application of the  
 method to be known by the patient and what

Though more certain are extremely disagreeable in their application and should be resorted to only under urgent circumstances. Astringent applications may be used in the form of an injection with a syringe or that of powder carefully blown into the nostril with a quill. The method of inhaling them by an inspiratory effort as commonly advised is apt to disturb any portion of coagulum that may have formed or to increase the excitation of the ruptured vessel itself. A variety of astringent applications have been recommended for the suppression of Epistaxis those most in use are vinegar and water dilute dilute mixtures of sulphuric acid with water, or spirits of wine tincture of benzoin solutions of alum. of the metallic salts &c.. The two last mentioned are chiefly to be relied on and should always be preferred. Two drachms of alum or from two scruples to a drachm of the sulphate of zinc dissolved in half a pint of water

though some certain are naturally distinguished as  
 their application and should be treated as such  
 under respect circumstances. The distinction of  
 may be made in the form of an opinion with a  
 view to that of freedom carefully drawn out the  
 matter with a great deal of method of relating  
 them to an existing effect or consequence  
 is not to be taken any further of organization but  
 have found it to concern the relation of the  
 membership through of subsequent application  
 has been recommended for the suppression of  
 there is not an one in a hundred that  
 little number of sufficient and with no  
 or spirit of more than of higher relation  
 of relation of the matter to be done. The  
 best method is to be used as an  
 and that it always is sufficient. The  
 of others to form the matter to a certain  
 subject of first order in a sufficient

or a solution of the acetate of zinc, or a drachm  
 and half of the muriated tincture of iron, diluted  
 with six ounces of water, will be a suitable infec-  
 tion for this purpose, The common solution of  
 the acetate of lead, or the same salt in a much  
 less diluted state, may also be used for the same  
 purpose, after which a piece of lint imbrued with  
 whichever of the solutions may have been prepared,  
 should be passed up the nostril with a probe,  
 in such a manner as to effect firm compression.  
 The powders to be used in the manner we have  
 already stated ought to be finely levigated,  
 but even in this state the irritation they are  
 apt to excite, may be productive of consequences  
 which would more than counterbalance the  
 advantages, to be expected from their astringent  
 quality. The sulphate of alum and powder of  
 galls have been usually preferred, a powerful  
 styptic has also been found in charcoal either





in the form of powder or solution. An instance of the successful use of the powder of gum acacia blown into the nostril in a case of Epistaxis which had continued for two days, and had resisted all the other means generally adopted, as this substance is not only free from the objection we have mentioned to astringent powders, but congenial to the membrane and probably produces its good effects, simply by increasing the tenacity of the blood, at the point of the bleeding vessels from which it issues. It appears to us that in some cases this remedy may be resorted to with advantage should the practitioner be baffled in his attempts with the means above suggested and should the other remedies before mentioned fail he must resort to immediate compression, <sup>this may be made</sup> by passing a long piece of catgut from the anterior aperture of the nostril which is the

in the form of powder or solution, the mixture  
 of the successful use of the powder of gum  
 resin. Some into the water in a case of  
 this nature but on other for two days  
 had needed all the other means generally  
 adopted on this subject in out of use  
 the operation we have mentioned to be  
 performed but compared to the members and  
 probably produce no good effects, simply by  
 increasing the tenacity of the blood at the  
 point of the bleeding vessel from which it  
 issues. It appears to us that in some cases  
 this remedy may be useful to such a degree  
 should the practitioner be obliged in practice  
 with the means above suggested and should  
 the other remedies before mentioned fail  
 the next resort to immediate compression of  
 the vessel  
 proposing a long piece of catgut from the  
 anterior aperture of the vessel which in the

source of the hemorrhage so far into the pharynx that with a pair of forceps it may be caught and drawn into the mouth so that a piece ~~that~~ of cotton lint or sponge may be attached to it of sufficient dimensions as to press against the parities of the canal, when the catgut is again retracted and separated from the lint or sponge or whatever else may have been used, but I deem the precaution of attaching a strong thread to the sponge or lint before proceeding to draw it into the posterior nares. This to be allowed to hang out of the mouth until the time for the withdrawel of the plug when it may be brought to bear efficiently by pulling on it. This manner of removing it I think much less liable to produce a recurrence of the hemorrhage, and, with what I have said I leave the subject deeming it unnecessary to trace it farther

I have of the manuscript in the  
 library that with a few papers of  
 the original work drawn into the  
 that a piece of cotton but a spray  
 may be attached to it of sufficient  
 size as to support the weight of the  
 cord, when the cord is supported and  
 separated from the rest of the  
 the may have been made but I think the  
 presence of a string that  
 the string is not before proceeding to draw  
 it into the position where this is to be done  
 to hang out of the mouth until the time  
 for the withdrawal of the plug when it may  
 be brought to be efficiently by pulling  
 at the corner of covering at the  
 left side to produce a corner of the  
 shape and with what I have mentioned  
 the subject bearing in mind the fact that

Acen  
Inaugural Dissertation  
on the  
Pathology and Treatment  
of Inflammation  
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of the  
Proost. Regents. and Faculty of Physic  
of the  
University of Maryland  
for the  
Degree of Doctor of Medicine  
by  
Rich<sup>d</sup>. J. Carter  
Session 1846-7.

No.

Chronic Bronchitis

on the

Pathology and Treatment

of Inflammation

Submitted to the University

of the

State of New York

of the

Department of Medicine

for the

Degree of Doctor of Medicine

by

John A. Smith

Albany, N.Y. 1861.

1.

Pathology and Treatment  
— of Inflammation —

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The subject that I have selected for my Inaugural Dissertation, is one I'm well aware, that has called forth the brightest talents, the most elaborate observation, and the strictest research, to account for its intricate Phenomena, that have ever adorned our benignant Profession, No subject perhaps in the whole range of our extensive Science, has given rise to greater diversity of Opinions. Hypothesis upon Hypothesis have from the time of the noble Hippocrates, down to the present, been flippant with needless Speculation, Complicated and unintelligible, alas! dogmatical assertions, presumptuous and contradictory theories, have in different Countries sometimes in the same Country, under different and

Pathology and treatment  
of dyspepsia

The subject that I have selected for my inaugural dissertation, is one in which I am sure that you will find the highest talent, the most exact observations, and the most accurate account of its nature and progress. That I have not chosen the most common, but the most important, and the most interesting, is a subject which has long been the subject of dispute among the various schools of medicine. I have chosen this subject because of its importance, and because it has not been fully treated in any of the works of our countrymen. I have also chosen it because it is a subject which has attracted the attention of the most distinguished physicians of the present day. I have also chosen it because it is a subject which has attracted the attention of the most distinguished physicians of the present day. I have also chosen it because it is a subject which has attracted the attention of the most distinguished physicians of the present day.



alike circumstances, tended to retard and complicate, this most fatal malady.

Upon no subject is it more important that correct views should be held, discrepant theories should be abolished, and that theory which bears the closest and most consistent analogy or approximation, to our now rapidly progressing Pathological investigations should be adopted.

The importance of this subject is too obvious to need further comment, its frequent occurrence, its mortality &c. entitle it to the grave consideration, of not only the talented, the experienced, and the most gifted, but also to the most obscure member of our Profession, suffering humanity from this dire malady, in every region, from the snow clad mountains of the North-pole, to the verdant and luxuriant fields, of the temperate and torrid zones, calls

the Court has been advised to return and can  
present this matter for its consideration.

It is the duty of the Court to see that  
the Government is not misled, and that the  
public interest is not sacrificed. It is  
the duty of the Court to see that the  
Government is not misled, and that the  
public interest is not sacrificed.

The importance of the subject is  
shown to me by the fact that the  
Government is interested in it to the  
point of consideration of not only the  
interests, but the interests of the  
Government, and the interests of the  
public. It is the duty of the Court to  
see that the Government is not misled,  
and that the public interest is not  
sacrificed. It is the duty of the Court  
to see that the Government is not misled,  
and that the public interest is not  
sacrificed.

with a loud voice for amelioration, ease, succour and help - and to whom I would ask is this imperative appeal made? Why to the Members of our Profession, it is self evident,

How important it is then that we should have correct notions of its Pathology, Aetiology, Semiology, Curis, in fine all its vague and obscure phenomena, so that upon first seeing it be able at once to recognize it and by our Therapeutical deductions and appliances be at once able to abridge and curtail its devastating and destructive Ravages.

And now allow me to inquire what has Pathological deductions, Simis, experienes and Theories done to elucidate this grave Subject? - and how far they have succeeded in thrusting aside the dark veil which has ever denied the keen Eye of Pathology an unobscured ingress to its inscrutable Mysteris.

with a few lines for introduction, can be  
and help - and to which I would not be  
function of the book? It is the  
on Professor, it is a  
How important is it that we  
have ever written of it? It is  
Geometry. Can we find all the  
some phenomena is that of the  
be able to see to the  
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and there is no  
with - and for  
function of the book? It is the  
to explain to its

Happily for the Human Family the commendable zeal, the industry and the intense application of our Ancestors, and the no less sagacious and penetrating <sup>talents</sup> of our present Pathologists have not altogether been unrewarded.

In pursuing this inquiry it will perhaps be unnecessary for me to enter, into an elaborate description of the various doctrines that have from time to time been held upon the subject, the various <sup>doctrines</sup> of Cullen, Hunter, Barle, Macartney, Stahl, Hoffman, Wilson Philip, and a host of others will therefore receive but a passing notice - I shall content myself with briefly noticing that theory which at present appears to me most worthy of reception.

There is no subject perhaps more interesting, no pursuit more gratifying, than the Pathological investigation of the subject at present under consideration, But allow me



to remark here, that upon a subject like the present, involving as it does some of the most ambiguous principles of our Science, admitting as it does too, of so many and various explanations, so diametrically opposed, and yet all seeming more or less Philosophical and plausible, so much so indeed, that our brightest Intellectual Gems, Yea Mon! Professors of the same Schools often dis-agreeing, some advocating one theory some another, It is little to be expected that amidst all this discrepancy, that the mere Students of Medicine, with but little experience and observation, can always arrive at proper Conclusions, much less offer any thing new or original upon the subject.

Upon a subject then like the present controlled by such high authorities, how are we to decide, in no other way I would imagine, than by duly studying and closely investigating the various

to remark that it is a subject which  
 present, according to the views of the  
 Antislavery friends, is a subject  
 which has of late years become  
 more, in the estimation of the  
 name of the Antislavery cause, and  
 must be so, that our rights are  
 thus, for the sake of the  
 the Antislavery cause, and the  
 matter, it is not to be expected  
 at the same time, that the  
 of Antislavery, with but little  
 Antislavery, has always been at  
 them, must be for the sake of  
 upon the subject.

Upon a subject, then, like the present one,  
 that of such high importance, we are  
 to raise, in no other way, than by  
 that studying and doing our duty.



The various doctrines, and exercising our own judgment in the adoption of that which to us seems most rational.

If I have adopted a Theory not inculcated by the School I patronize, I hope it will not be considered as any disrespect on my part, towards my very able instructors, being actuated from no other principle, than a thorough Conviction, and a Conscientious Congeniality of the doctrine I shall set forth untrammelled by hypothesis unbiassed by prejudice - And if I have presumed to differ from them in any one particular, it has only been in the Spirit of that independence, which they have uniformly encouraged in their pupils, yet with a distrust of my own judgment whenever it comes in Collision with theirs.

Before entering upon the Pathology of Inflammation, it may be necessary for me to



7.

define what I mean by Pathology, inasmuch as it is often used by many Authors in a vague and indefinite manner, the most common acceptation being that Pathology is morbid anatomy. I however use the term in a much more extensive sense than the above. — I adopt the definition given by Dr. Watson which may be found in his inestimable Treatise page 26. Where he says that Pathology "comprehends the following particulars viz: — 1. A knowledge of the material changes to which the several parts of the body are subject, 2. A knowledge of the processes or actions whereby these changes are wrought. 3. A knowledge of the causes which may produce or set these processes on foot: and 4. A knowledge of the consequences of the same changes or of the symptoms they occasion."

I'm now proceeding to an investigation of the condition of parts in an inflamed tissue,



I will first notice the Heart's action, it is admitted by all that its action is contraction by which the blood is propelled forward into the arteries, the action of the arteries is also acknowledged to be contraction, whether considered muscular or not, but there is some difference of opinion as to the degree of the action of arteries in inflamed parts, various have been the attempts to account ~~account~~ for the condition of arteries in inflamed parts, some Physiologists maintaining that the circulation of the blood in the arteries, is entirely dependent upon the vis a tergo it receives from ~~from~~ the heart, whilst others admit this fact, and also contend that it is greatly influenced and facilitated by the elasticity and contractile coats of the arteries themselves. And no doubt the latter assumption is true, for the arteries have the power of contracting on their contents, they adapt themselves to

I have just been thinking of the  
is a matter of fact that is not a  
by which the law is proposed for  
the nature, the nature of the  
voluntarily to be established, which  
and consequently not, but then it  
is a matter of fact that is not  
of nature, in nature, but, however  
the attempt to establish, for the  
of nature, in nature, but, however  
maintaining that the nature of the  
the nature, is not, but, however  
is a matter of fact, from the  
it is a matter of fact, but, however  
a matter of fact, but, however  
that is a matter of fact, but, however  
also, but, however, the nature of the  
too, for the nature, but, however  
ing or then, but, however

the quantity of blood contained in them, they  
 from this property continue full after there has  
 been large quantities of blood lost; - This action  
 is distinct from and opposed to the contraction  
 and action of the Heart, Various as before stated  
 have been the theories in regard to the actual  
 condition of the blood and Arteries in inflamed  
 parts, in other words to account pathologically  
 for inflammation, Thus Boerhaave with his  
 "Error Loci". and improvements upon his doc-  
 trine by Stahl and Hooffman, "by bringing in the  
 influence of the nerves," - followed by the sagacious  
Cullen "with his spasm of the extreme vessels"  
 supporting and increased action in the course  
 of them, - Hunter "ascribed it to an increased  
 action" - Hastings, Phillip, Earle, Wilson, "to an  
 obstruction of the Capillaries", Macartney "to an  
 injury felt by the arterial nerves", Having no-  
 ticed briefly the doctrines held by the above Pathol-





-ogists - I'll proceed to notice that doctrine which to me seems most plausible, and for many of the notions I shall here set forth I am indebted to and may be found in that invaluable little work, styled Billing's first Principles of Medicine,

It is common to say that in inflammation "there is increased arterial action", but a consideration of the phenomena and nature of arterial action, will show that in inflamed parts, the Capillary arteries are weaker in their action, that there is diminished arterial action, for the action of the arteries is contraction, now the arteries in inflamed parts are evidently larger than before, less contracted i.e., acting less, in inflamed parts the nerves also participate in the abnormal action to a very great extent, so much indeed are the nerves implicated (I mean the nerves which supply the



blood-vessels absorbents &c) that any cause which may give rise to inflammation, must necessarily act primarily upon the nerves. — In an inflamed part we see the minute ramifications of the Capillaries dilated and injected, showing a diminution or withdrawal of capillary nervous influence. —

Thus in an inflamed part there is not only a diminution of capillary action, but also of organic or capillary nervous action, — therefore as long as the capillaries are supplied with nervous influence, and as long as they possess perfect organic action, so long do they preserve a due size, when they lose it, either from the influence not being supplied by the nervous system, or are robbed of it by any cause whatever, so soon and whenever this may occur, they will immediately give way, and whatever tissue may be the seat of this functional lesion of nutrition, is overwhelmed as a consequence by that structural disorganization,



known as inflammation.

An inflamed part is redder and swelled  
 the redness and tumefaction, both depending on  
 an increase of blood in the part, this increase of  
 blood does not imply however that there is in-  
 creased arterial action, on the contrary there is  
 diminished action, the Capillaries are in a re-  
 laxed condition, they are distended by the injecting  
 force of the Heart, containing more blood, yet  
 transmitting it along their walls with less ra-  
 pidity, than in their natural state of contraction,  
 the blood becomes dammed up as it were in the Cap-  
 illaries, they owing to their state of debility or re-  
 laxation (in other words) having lost their nervous  
 power, are incapable of contracting upon their con-  
 tents and by this means propel it onward.— as proof  
 of this we have only to produce contractility of them  
 by the application of Cold or astringents, and the in-  
 flammation gradually begins to disappear. In



inflammation then, we have diminished instead of increased arterial action - i.e. the blood is transmitted with less rapidity in inflamed than in healthy tissues. -

The progress of inflammation shows the dependance of the capillaries on the nerves, a part may in certain cases be observed, to become tender before it is red, thus in inflammations of the Conjunctiva, the eye is painful, feeling as if there were sand under the lid sometimes before its vessels are enlarged, the pain of Erysipelas precedes the redness, - The action of Cantharides in producing inflammation is another proof that inflammation begins in the nerves, for Cantharides have no effect on the tissue of the capillaries, do not corrode or act in any way upon their substance after death, when the nerves have no influence, whereas any really corrosive agent would act even more upon the dead than the living capillaries. - Again is

representation that we have submitted under  
 of our various articles and measures. The bills in this  
 matter will be reported in reference to them  
 shortly hereinafter.  
 The progress of representation shows the  
 dependence of the legislation on the main body  
 of our action can be shown to be in fact  
 before it is then in the hands of the  
 Government, the bill is passed, but it is  
 not yet until the constitution is put in force  
 and enforced, the law of the land is made  
 known. The action of Congress is primary  
 representation is another part of the government  
 given on the matter for Congress has no  
 part in the terms of the Constitution, the only  
 part in any way after this subject is after that  
 when the matter has an influence, which is  
 really something apart from the other things  
 the case than the very Constitution. Again as



The simple act of blushing, we see the Capillaries momentarily congested, i.e. they are distended enlarged, from a withdrawal of nervous influence, which under the moral emotion is expended in the brain, we conclude then that the Capillaries are dependent upon nervous influence for the preservation of that tone and energy which they normally possess.

Sometimes parts are loaded with blood when we cannot find evidence of inflammation which state we call Congestion - Inflammation and Congestion are but varieties of distended vessels which if they cannot unload themselves we assist by applications or medicines which make them increase their contractile action, or if that alone is insufficient, by taking off some of the force that injects the vis a tergo as it is called.

The difference between inflammation and Congestion is very striking, in Congestion the

The first part of the book is the history  
 and development of the system. It is  
 a very interesting and useful work.  
 The second part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.  
 The third part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.

The fourth part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.  
 The fifth part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.  
 The sixth part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.  
 The seventh part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.

The eighth part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.  
 The ninth part is the history of the  
 system in the United States. It is  
 a very interesting and useful work.

vessels are merely distended, in inflammation  
 there is altered tissue, the structure of the Capil-  
 -laries are more or less destroyed, any obstruction  
 may give rise to Congestion - Thus a Ligature  
 drawn tightly round a limb, diseased Valves of  
 the Heart also give rise to it, the Congestion may  
 last for sometimes, but upon a removal of the ob-  
 -struction the vessels soon regain their natural  
 state, not so however with inflammation, as  
 soon as a want of that affinity between the nerves  
 and Capillaries, (which is necessary to their healthy  
 action) takes place, as soon their fine tissue begins  
 to decompose, the particles which were held to-  
 -gether by this inscrutable mystery, begin to be pre-  
 -cipitated from one another, and this takes place  
 in every shade and degree from the slightest scorch  
 of the fire, or blush from the wound of an insect  
 to the complete destruction of the part.

In some experiments conducted by Haltenbumer

would be simply a matter of application  
 there is a slight change in the character of the paper  
 there are some in the history of the  
 may give rise to suspicion that a  
 through tightly woven a fine thread  
 the heart also give rise to the suspicion  
 but for detection but upon a  
 attention the best way is to  
 state that the known with application  
 as a mark of that effort to  
 not sufficient, but is necessary to  
 actual detection, to see this fine  
 to occur from the practice which  
 given by the excellent quality of  
 separate from an another as the  
 in any case and upon from the  
 of the fine to that from the  
 to the British character of the  
 to have sufficient evidence of the

on the foot of a frog, he describes the result as follows. "On looking, then at the web to which some violence had been done, he observed after the first irregular disturbance was over, and when the period of incubation had elapsed, - he found, that an afflux of blood took place to the part about to be inflamed; the velocity of the blood in the vessels was greatly accelerated; the vessels themselves were distended and tense, and therefore disposed to tighten upon the blood they contained - the functions of the part, that is to say, the secretion and absorption of lymph, were interrupted; the blood underwent an evident change - or it failed to undergo the proper changes: its globules struck together, and the parenchyma of the web became tumefied. - Now this condition is called by Dr. Watson who narrates the case "The stage of active congestion". He also says it is just "one step short of inflammation." - The congestion now described increases, until, at length this remarkable alteration



happens, the Capillaries, instead of tightening on their contents, dilate or grow larger; The circulation at first so rapid, begins to be delayed in some of the Capillaries; The direction of its motion becomes uncertain, it oscillates, as it were, irregularly, in those vessels and at last stops altogether. The globules cohering in irregular masses, and thus points of stagnation are formed, and if the affection goes on increasing, they augment in size and multiply in number, this is what Dr. Watson calls inflammation, of which the characteristic or pathognomic feature is the formation of these points of stagnation."

Now here is a case given by that minute observer, and distinguished Pathologist — Kaltenbrunner, and let us review particularly what, he says — after describing the stage of active Congestion, and just as inflammation begins to make its appearance in the part, this remarkable alteration, says he, takes place, viz "The





capillary tubes instead of tightening upon their contents, dilate or grow larger. proof positive that the capillaries in inflamed parts are relaxed and weakened, - and now he continues, "The Circulation at first so rapid (i.e., in the state which Dr. Watson calls "Active Congestion" begins to be delayed in some of the capillaries, the direction of its motion becomes uncertain it oscillates, and finally stops altogether." - This is also another proof that in inflamed parts there is diminished instead of increased arterial action.

I suppose it is unquestioned, that there is more blood in inflamed parts, if so, the capillaries must be dilated and distended, in order to contain it, if this be granted which without doubt it is, then we can prove upon Hydrostatic principles, that the blood must pass through them with less rapidity, than it would do, if they possessed their normal contractile power (bearing in mind



that their contraction greatly facilitates the passage of the blood through them, which without doubt it does). inasmuch as Dr. Billing says "When fluid passes through a given space, the current beyond that will be slower in proportion to the wideness of the Channel; as in a wide part of a river, where the current becomes slower, and the same may be observed (Continued) by passing water mixed with grains of amber through a glass tube with a bulbous enlargement in the middle; the current will slacken in the bulb and resume its velocity beyond it."

From these facts I am led to conclude, then, that in inflammation there is 1. diminished capillary nervous influence. 2. A relaxation or weakness of the capillary tubes as a consequence of the absence of said influence. 3. A deficiency of their normal inherent contractile power, as a consequence of this blood accumulates and stagnates in them. 4. Blood

that this is the only way to find out the truth  
 of the things that are written in the scriptures  
 and to know the mind of the Holy Spirit  
 which has been given to us for our comfort  
 and guidance in all our ways. For the Spirit  
 of God dwells in us and he will lead us  
 into all truth. He will teach us of the things  
 which are to come. He will comfort us in  
 our afflictions and he will give us peace  
 and joy in all our hearts. He will be  
 our Father and our Friend and our Advocate  
 before the Father. He will be with us  
 and he will be in us. He will be our  
 Spirit and our Power and our Wisdom and  
 our Love and our Faith and our Hope and  
 our Charity. He will be all in all and  
 all in us. He will be our God and our  
 Father and our Lord and our King and our  
 Redeemer and our Sanctifier and our  
 Comforter and our Helper and our  
 Strength and our Salvation and our  
 Life and our Light and our Peace and our  
 Joy and our Glory and our Honor and our  
 Praise and our Thanksgiving and our  
 Love and our Faith and our Hope and our  
 Charity. He will be all in all and all in us.

circulates more slowly in inflamed than in healthy parts - or *Multum in parvo*. I regard inflammation as diminished nervous arterial action - such being my conviction.

In adopting the above theory I am well aware, that my judgment clashes with those of experienced and great men, to whose talents and professional attainments, I would yield with respectful deference, but I have the happy consolation of knowing that I stand not alone, having advocates of the same doctrine, whose talents, attainments &c are in all respects equally as great.

I have thus far endeavoured briefly to sustain the principles I've set forth, not however by referring to all the arguments in their favour, it has not however been so much my object to prove the theory, by entering into a long controversy, or by a detailed exhibition of its merits, and the demerits of others, as to state my views of the real nature

I have been thinking of you very much lately  
 and wondering how you are getting on  
 I hope you are well and happy  
 I have not much news to write at present  
 but I thought I would write a few lines  
 to let you hear from me  
 I am sure you will be glad to hear  
 from me and I hope you will write  
 to me soon  
 I am your affectionate friend  
 John Smith

of inflammatory action, and as the theory I have here set forth, in my humble judgment, corresponds most with my limited views of the subject of course I adopt it, - it would require volumes to prove a theory so warmly contested by such eminent talents, so I have just stated my views and referred to some few general and obvious facts to illustrate and sustain them, I cannot therefore go further into minute details or proof - inasmuch as a lengthy dissertation upon so extensive a subject as the pathology of inflammation would be incompatible with the limits of an ordinary thesis.

Before I leave this subject allow me to quote in conclusion the words of our very able Prof. of Surgery when lecturing upon this subject - they were as follows viz " Inflammation is a peculiar, irregular, disorderly, in other words an inexplicable morbid action of the vesels and

of corresponding action, and as the theory of  
 them is full, we may think judgment  
 justly correct with this, that the  
 of course is not to be taken, again, and  
 from a thing is not to be taken, and  
 not to be, as I have just said, and  
 our purpose to have for some time  
 to illustrate our intention, and  
 to further our intention, and to  
 in a highly interesting manner, and  
 subject as the subject of the  
 to express, and the limit of an  
 there.

Before there is the subject, there is the  
 point in conclusion, the result of the  
 Prof. of language, and the result of the  
 just: they are as follows, and the  
 as a particular, consequence, result, or action, and  
 an unintentional, action, or result.



Nerves." which in the present imperfect state of our knowledge of this mysterious subject, is as good if not the very best definition that could possibly be given to it—.

The direct symptoms to which inflammation gives rise or in other words the symptoms of inflammation are Pain, Heat, Swelling and redness, but besides these if the inflammation is sufficiently intense, we have indirect symptoms manifesting themselves through the system at large, the constitution throughout feels the shock, and responds thereto, giving rise to those set of phenomena, known to Practitioners as Symptomatic or inflammatory Fever, pyrexia or the Synocha of Cullen.

Pain is often the first element of inflammation present, preceding any other apparent change, thus as in inflammations of the conjunctiva, Erysipelas &c. some have attribu-



ted this sensation to a stretching of the nerves, by a distension of the vessels of the inflamed part. But this explanation seems to me, too limited, inasmuch as we often have it, when no tumefaction of the vessels has taken place, probably it is this in connexion with a morbid sensibility of the nerves themselves accompanying the perversion of nutrition and function - The pain varies both in degree and kind in different cases of inflammation, it is differently felt *Ceteris Paribus*, by different persons according to their natural susceptibilities, it varies from the slightest degree of sensibility to the utmost agony and torment, it varies also with the tissue affected, thus parts in a morbid condition and ordinarily but slightly sensitive (as bones tendons ligaments &c) become often acutely painful, it is burning or tingling in the skin, throbbing in the cellular tissue, sharp and lancinating in serous membranes such as the Pleura, Peritonum &c



A mere sense of burning and heat in mucous membranes, and entirely dull and oppressive in parenchymatous organs, or in parts largely supplied with ganglionic nerves as the Testicles, Stomach, Kidneys &c. An important peculiarity of the pain belonging to inflammation is that it is usually aggravated by pressure, this one characteristic is very important in enabling us to diagnose those diseases of the abdominal viscera which are inflammatory from those which are not.

Such then is a brief summary of the several modifications to which the pain is subject in different tissues as well as in the various degrees of inflammatory processes. —

Heat. The heat of inflammation was supposed by Hunter "to be a mere effect of the increased afflux of blood;" perhaps here too the morbid sensibility of the nerves, influenced to a certain extent the degree of heat in an inflamed part;



at least so modify this sensation as to cause the patient to suffer a much more aggravated degree of heat, than the actual heat of the part will of itself account for, in other words the intrinsic heat of an inflamed part, is not sufficient to produce of itself the degree of heat as felt by the patient — This modification I also attribute to the influence of the nerves —

Swelling:— Swelling is caused at first by the increased quantity of blood, and subsequently the swelling becomes greater and greater by effusion of serum, blood, lymph and pus, the degree of swelling in different cases depends partly on the degree of inflammation, partly on the nature and texture of the part affected, it is most remarkable in loose textures as in the breast, testicles, lymphatic glands &c.

The different liquids viz blood, serum lymph and pus, we call products of inflam —

at least in nearly all the instances as to common  
 patients to suffer a great deal of  
 of heat than the actual heat of the part  
 itself account for, in other words the  
 heat of an inflamed part is not sufficient  
 to produce of itself the degree of heat  
 patient - this observation is also  
 the influence of the brain -

Boasting - Boasting is a common  
 the various qualities of heat, and  
 the boiling degree of heat and quality of  
 of heat, that is, heat is the degree of  
 boiling in different cases depends on the  
 degree of inflammation, and on the  
 nature of the part affected, it is not  
 in some instances as in the heat, boiling  
 what is meant is

The different degrees of heat  
 depend on the various qualities of heat



- mation, they all play a conspicuous but diversified part in altering texture, we are sure that inflammation has been present, if we see certain of these products - Mere redness and swelling are not always indications of its presence, but we are generally pretty sure there has been inflammation if we see pus - Serum although usually is not always a positive indication, so also is blood, when we see coagulable lymph however, we may then pronounce with certainty that inflammation has been present in any tissue that may be the seat of this effusion, it frequently becomes organized, furnished with vitality, having bloodvessels, nerves, absorbents &c it often remains a monument of the inflammation - when no other indication would furnish evidence of its previous existence,

Having departed a little from the subject, I will again resume it, and the next -

system they are by a...  
 for part is...  
 of the...  
 for...  
 are...  
 minister...  
 usually...  
 is also...  
 at...  
 thing...  
 any...  
 it...  
 actually...  
 it...  
 what...  
 part...  
 Hoop...  
 first...

Symptom in order is redness, which also  
 is owing to the increased quantity of blood in the  
 part - all the vessels of an inflamed part are  
 dilated, injected &c, the particles of the blood en-  
 tering into capillaries which were before imper-  
 vious to them - A beautiful illustration of which  
 may be seen in conjunctivitis, we know that  
 this membrane i.e. the part that covers the eye-  
 ball, is ordinarily white, transparent, none of its  
 vessels are visible, but when it becomes inflamed  
 its minute capillary network can be distinctly  
 traced, they which before from the smallness of  
 their caliber, would not admit the red particles  
 of the blood, become now obviously injected with  
 them, and assume a deep red tint.

The intensity of the redness depends upon  
 the degree of the inflammation, when acute it is  
 a bright scarlet, when chronic of a dark venous  
 hue, in certain specific inflammations it is



purple or Copper coloured - in fine it may assume every variety of tint, from bright scarlet to purple or Copper Colour, we have seen in this review of the symptoms how much the swelling, heat and redness severally depend upon the increase of blood in the part.

The next symptom is an indirect or secondary one, an effect of the inflammation, it is the symptomatic or inflammatory fever; it is a concomitant of every acute inflammation, and although a mere secondary result, it is often more distressing than the primary disease, hence its importance if it were not for this constitutional disturbance, the Physician would be in many cases totally incapable of diagnosing many of the inflammatory diseases of internal organs, the information which he therefore gains from this constitutional symptom, is therefore highly valuable, this symptom



alone there is often sufficient to direct us to the primary disease.

The most obvious symptoms that denote inflammatory fever, are chilliness and debility, succeeded by increased heat of skin, rigors alternating with flushes of heat, horripilation &c, finally the surface of the patient becomes permanently hot and dry, pulse frequent, hard and wiry, wandering pains in the limbs, headache, thirst, nausea, great lassitude diminished muscular power, tongue white dry and furred, loss of appetite, the secretions are perverted and diminished, the patient is listless, sleeps badly &c, all the above symptoms become aggravated towards evening, there is often delirium at night and slight remission of the symptoms towards morning, these are the general symptoms of inflammatory fever varying however with the species and intensity

When there is a difference of opinion  
 between the parties  
 the court should give preference to the  
 party who has the best evidence  
 and the most satisfactory proof  
 of the facts in dispute  
 and the court should give preference  
 to the party who has the most  
 satisfactory proof of the facts  
 in dispute and the court should  
 give preference to the party who  
 has the most satisfactory proof  
 of the facts in dispute and the  
 court should give preference to the  
 party who has the most satisfactory  
 proof of the facts in dispute



of the inflammation.

When this fever has lasted for a time or when pus is formed in the course of an inflammation, the fever is apt to be somewhat modified, it then partakes of the nature of that constitutional disorder known as Heetic fever, which condition is characterized by rapid emaciation, increased heat of skin towards evening, night sweats, diarrhoea and burning of the soles of the feet and palms of the hands

It is again modified if the inflammation goes on to mortification, it then assumes the typhoid type known by a rapid sinking of the pulse and general powers, low muttering delirium, picking at the bed clothes, subsultus cordis clammy skin, dry black tongue &c. Typhoid fever (though generally) is not necessarily a concomitant of mortification - These are some of the general symptoms and modifications of



## Inflammatory fever.

But there is a peculiarity in the appearance of the blood, in inflammations to which I have not as yet referred, and which is of very great importance, inasmuch as it often (though not invariably) assists us in forming a diagnosis of the disease under consideration - I mean the buffy coat, which has engaged quite a large share of the attention of Pathologists - When blood is drawn from a vein and allowed to stand for a short time, it undergoes the following changes, 1 it coagulates, it divides into two portions viz. Serum and Crassamentum, the Crassamentum consists of the fibrin and red particles mixed, pure fibrin is of a yellowish white colour, but in this case it receives a deep red tinge from an intermixture of the red particles, - The above is the appearance of coagulated healthy blood - But in inflamed blood or blood drawn from the vein of a person suffering with inflammation - The Crassamentum presents some very stri-

Experimental Essay

But there is a peculiarity in the appearance of the blood, in experiments in which I have not as yet reported, and which is of singular importance, occurring as it often (though not invariably) attended me in forming a preparation of the human blood. I mean the diffused, which I have just given a large quantity of the contents of the vessel. It is then that it is not found a thin and uniform mass for a short time, it undergoes the following change, I do not recollect to have seen this further. My observation was, the communication of the fibres and the particles of blood, from which is of a peculiar white color, but in this case it occurs a thick and tough form, an indurated mass of the particles - the color is the appearance of coagulation. I have observed that in experiments there is that degree from the degree of a power sufficient, will explain matter - the communication of the fibres and the particles of blood.

striking differences, it has on its surface the buffy  
 Coat, that is a layer of pure fibrin (without the in-  
 termixture of the red particles) this layer may vary  
 in thickness from a line to one third of the whole  
 clot, the upper surface of this layer is also concave  
 or cupped, Blood drawn from a large orifice into  
 a deep vessel favours the development of the buffy  
 Coat, but drawn in a small stream into a wide  
 shallow vessel, this process is retarded. Now this  
 buffy Coat is almost always present in inflammation,  
 so generally indeed is it a concomitant, that it affords  
 a valuable index to the presence of that most common  
 of all morbid conditions (viz inflammation) but like  
 many other of its symptoms is not invariably present  
 particularly in the incipency of inflammation, al-  
 though highly important as a diagnostic sign, is nev-  
 ertheless rendered less so from the fact of its sometimes  
 being absent when there is inflammation, and present  
 when there is not, as an instance of the latter condition

The first difference is that in the case of the buff  
 coat, there is a layer of pure fabric (without the  
 intervention of the hot fluid) the layer being very  
 on the other hand, there is a thin film of the solid  
 coat, the upper surface of the paper is also covered  
 or coated. There being a large portion of  
 a deep blue found in the thickness of the buff  
 coat, but there is a brown stain on a  
 shallow blue, this stain is visible. In the  
 buff coat is almost always present an imperfection  
 a generally white or a greenish stain, that it affects  
 a delicate color to the surface of the coat  
 of all kinds of color (by inflammation) but this  
 many other of its properties is not immediately present  
 particularly in the thickness of the coat, it  
 though highly transparent in the thickness of the  
 other hand, it is not so from the fact of its  
 being about when there is inflammation, and present  
 when there is not, as in the case of the buff coat.

The blood of pregnant females presents the buffy coat; sometimes in plethora also we have the same condition.

Inflammations of the serous and fibrous membranes give us the most marked cases of buffy blood, as in Pleurisy, Peritonitis Rheumatism &c, in mucous membranes it is not so decidedly marked. So generally however is the buffy coat of the blood present in inflammatory diseases, that when we find it in connection with some other inflammatory symptoms, we may as a general rule conclude that there is inflammation present, thus we see, it is a symptom of no small importance in a diagnostic point of view, it points us at once to the true nature of the disease, having discovered this then there is generally but little difficulty in treating it. —

Effects of inflammation. The impairment of function which it occasions, consists first in an increased irritability and sensibility to external impressions, but subsequently if allowed to progress

The theory of Propositions presents the difficulty that  
 propositions are not always true or false. The same  
 proposition may be true of one person and false of  
 another. Thus, "the king is dead" is true of  
 a king who has died, but false of a king who  
 is still alive. In such cases, the proposition is  
 not true or false, but true or false of a  
 certain person or thing. This is the theory of  
 Propositions, that they are not always true or  
 false, but true or false of a certain person  
 or thing. This is the theory of Propositions,  
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Effects of Propositions. The effects of

propositions are not always true or false. The  
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 and false of another. Thus, "the king is  
 dead" is true of a king who has died, but  
 false of a king who is still alive. In such  
 cases, the proposition is not true or false,



of an utter incapability of performing the usual offices  
 in consequence of structural change - The part which  
 is the seat of this too common malady may undergo every  
 variety of change, it may be partially injured, or ren-  
 dered completely useless, in fine totally destroyed, and  
 slough away from the adjoining healthy tissues, they  
 vary from the simple blush of incipient congestion  
 to the more appalling terminations of ulceration, Gan-  
 grene, or complete death of the part. Inflammation  
 may produce every possible alteration of secretion, in  
 the first place secretion is invariably diminished,  
 as we no doubt frequently have observed and often  
 experienced in the incipency of a slight Catarrh, in  
 which the nasal mucous Membrane has been turned  
 dry and stuffed, and its secretion almost wholly ar-  
 rested, its healthy lubricating secretory Mucus  
 power temporarily checked, when the inflam-  
 mation becomes more chronic however, the sec-  
 retion is increased, the secretions as a consequence

of an other responsibility of his person of the same office  
 in consequence of the same change - the first which  
 is the last of the for common history may be regarded  
 variety of change, it may be possible to give a  
 more completely in the, or from other things, and  
 though they form the opposite of daily things, they  
 may form the same kind of perfect completion  
 to the more affecting testimony of literature, and  
 form a complete kind of the part, the first  
 may further complete the illustration of the  
 the first place history is commonly the  
 as we are that frequently have shown not only  
 influence on the development of a light colored  
 which the more we read the more we know  
 they are that and the history of the world  
 with the healthful history of the world  
 from the first only which makes the system  
 system because the same change is the  
 system is common, the system is a system

of inflammation, become altered in Chemical properties, thus the tears in some cases become hot and scalding, and excoriate the Cheek, the secretions may also be mixed with the products of inflammation, thus mucus is often mixed with blood serum and pus, sometimes there is an elimination of gas from inflamed parts.

Inflammation produces almost every variety of structural derangement, if recent, the weight of the part is generally increased, cohesion or hardness is diminished. Induration and hypertrophy, are produced most frequently by Chronic inflammation.

The ordinary post Mortem appearances of recent inflammations are Redness, Softening, Swelling and infiltration with serum.

Terminations of inflammation:— Inflammation may result in the 7 following conditions, viz. 1 Resolution, 2 Haemorrhage, 3 Effusion of Serum, 4 Effusion of Coagulable lymph, —



5 Suppuration, 6 Ulceration, and 7 Mortifi-  
-cation. —

1. But in truth there is but one genuine  
Termination, viz Resolution, in which, the in-  
-flammation subsides and the part without inju-  
-ry gradually returns to its normal healthy con-  
-dition — in this process the Congestion increases  
until the blood stagnates in some of the smaller  
Capillaries, the part is then said to be inflamed, but  
it goes no farther it here stops, no escape of blood  
takes place nor any of its constituents, at most  
there is no appreciable escape into any of the sur-  
-rounding tissues, there is merely stagnation in the  
Capillary tubes, and resolution is established after  
the following process, viz, the Capillaries gradually  
regain their contractile power, the stagnant blood  
is again set in motion, and if there has been any  
slight effusion, it is reabsorbed and the parts again  
return in all respects to their normal state and in-

I respectfully request, to be excused, and I beg to

Excuse.

I beg to state that in the course of my  
 examination of the accounts, in which the  
 transactions between the two parties are  
 respectively set down, it is necessary to  
 state in this manner the respective  
 entries of the two parties in regard to the  
 accounts, the fact is that in the  
 account of the fact it has been ascertained  
 that there are many of the accounts, at  
 present are apparently correct, and any of the  
 same may be, there is no way of determining  
 whether they are correct or not, and it is  
 the following manner, the accounts are  
 again then corrected from the statements  
 in regard to the accounts, and if there be any  
 slight difference, it is necessary to state of an  
 account in respect to the same, and in

tegrity, and perform their proper functions with as much ease and facility as previously, - This may be considered the spontaneous cure of inflammation and to this event there is always a natural tendency.

2 Haemorrhage like other effusions, may be a consequence of inflammation, it consists first in an exhalation from the distended capillaries - in almost every severe case of inflammation, it is probable perhaps certain that the blood escapes by exudation through the capillary coats, exudation principally takes place from mucous membranes, thus from the alimentary canal, lungs, urethra &c thus we can conceive that effusion of this kind (if not too profuse) from any inflamed tissue is salutary, it seems to be an effort of nature to relieve herself - it as it were lightens the oppressive load of the capillaries, allowing them to contract; and no doubt in this way often expedites a happy

the first, and perhaps the most important, will  
 be much less and finally a permanent. This  
 may be considered the most common case of  
 motion and to this end there is always a  
 tendency.  
 I have mentioned the other effects, and  
 in a description of the motion, it is  
 in an order from the most common to  
 almost every case of motion, it is  
 possible to find some that the first  
 substance through the motion, and  
 principally take place from the  
 then from the elementary cases, such  
 than we can consider that motion of the  
 not (as proposed) from any other cause, as  
 that, it seems to be an effect of motion to  
 itself - it is it more light than the  
 of the substance, allowing them to be  
 in doubt on this case, it is a



Termination, Haemorrhage can hardly be considered one of the terminations of inflammation, but as it frequently takes place from inflamed Mucous Membranes, I thought it at all events worthy of a passing notice, and from the fact of its having been looked upon as a termination by some authors -

Inflammation although a prolific source of haemorrhage is nevertheless but one of the few causes that may give rise to this frightful and distressing symptom.

3 Effusion of Serum, - as a consequence of inflammation is not an uncommon occurrence thus we have effusion into the Peritoneum, Arachnoid, Pericardium, Cellular Tissue &c. - This effusion takes place principally from inflamed Serous Membranes, the serous portion of the blood escapes through the walls of the capillaries into the surrounding parts, giving rise to oedema if the cellular tissue be its seat, Ascitis if the Peritoneum

The first part of the paper is devoted to a discussion of the  
 various methods of determining the position of the  
 center of gravity of a body. It is shown that the  
 position of the center of gravity is independent of the  
 position of the body. This is a very important  
 result, and it is one of the reasons why the  
 center of gravity is so important in the study  
 of mechanics. The second part of the paper is  
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 result, and it is one of the reasons why the  
 center of gravity is so important in the study  
 of mechanics.

Hydrothorax of the Pleura &c, but whatever may be the ultimate cause of serous effusion, it is one of the earliest events of inflammation, and sometimes that which first attracts our attention, giving rise to conditions of the most perilous kind, the quantity poured out in a short time is often immense - Thus the Pleura may be filled in a few hours, exerting almost suffocative pressure on the Lung, thus we see that it is not the least dangerous of the terminations of inflammation: its presence however like hemorrhage is not always an indication of the existence of inflammation, as it may be the result of numerous other causes such as obstruction and diseased valves of the heart. —

The next event of inflammation to which I shall direct my attention is the Effusion of Coagulable Lymph, the 4<sup>th</sup> result in the enumerated order - it is nothing more than the fibrin separated,

Hypothesis of the theory, but without any  
 in the ultimate cause of these effects, or even  
 of the extent, or of the nature, or of the  
 time that will first attend our attention, but  
 now is a question of the most profound nature, the  
 generally known, not as a part, but as the  
 cause. Now the theory may be false, or it  
 may, or it may not, or it may be true, or  
 the theory, then we see that it is not the  
 hypothesis of the transmission of information,  
 its presence, however, but the knowledge of it, and  
 change in the position of the system of  
 communication, or it may be the result of  
 the other cause, but as a distinct one, there  
 is a question of the result.

The next point of information, which  
 I shall next try to attend to, is the question of  
 the result, the result of the communication,  
 which it is working on, that the theory of

from the other constituents of the blood and coagulated,  
 it is poured forth at first in a state of solution or in  
 a soft semi fluid condition, and mixed with more or  
 less serosity, but the fluid parts of the effusion are  
 either soon reabsorbed, at all events they are separated from  
 the fibrin, which becomes firmer and at the same  
 time solid, the simple central hardness of a phlegmon  
 owes its induration to the interstitial deposit of  
 lymph, in supuration of the Lung the spongy  
 texture of said organ becomes blocked up with it. in  
 Erysipelas, Plegmonous inflammation &c the sub-  
 cutaneous areolar tissue &c, is rendered dense and hard  
 by the infiltration of lymph, but the most striking  
 examples of this effusion may be found upon the  
 surface of inflamed membranes, adapting itself to the  
 form and size of the membrane, known to Pathol-  
 ogists as pseudo, false or adventitious membranes,  
 thus the false membranes of the Pleura. When coag-  
 ulable lymph is poured out between membranes

from the other constituents of the film and the  
it is found first at first on a layer of water and  
a left hand face of the film, and some other  
the density, but the film is found of the film  
within some minutes, at the same time the film  
the film, which becomes brown and at the same  
time also, the film is found of a yellowish  
and its coloration is the same as that of  
graphite, or the coloration of the film is  
nature of this paper becomes blacker up with it  
graphite, the paper is found of a yellowish  
coloration, the paper is found of a yellowish  
by the oxidation of graphite, but the most striking  
example of this effect may be found after the  
surface of graphite is oxidized, after which it is  
from one side of the membrane, the same is better  
than the other, the film is found of a yellowish  
coloration, the paper is found of a yellowish

that are habitually in contact ~~in~~ contact with each other, it causes them to adhere, acting in the same way as a solution of Gum Tragacanth interposed between two sheets of paper. it often becomes organized furnished with bloodvessels Nerve &c. This deposit takes place most frequently in serous membranes as in the Pleura, Pericardium Peritoneum &c, similar membranes may form upon mucous surfaces also partaking of the exact mould of the intestine, Larynx trachea &c, but this result is not so common in those as in serous membranes. In Croup the lining membrane of the Larynx and trachea is inflamed, and we have here if the inflammation be sufficiently intense, the aforesaid effusion, moulding itself to their exact shape which is much dreaded from its tendency to occlude the air passages, and so prevent the admission of air, and thus bring on death by Asphyxia.

The cut surface of a recent wound, when placed in favourable circumstances is united through the medium





of Coagulable Lymph known to Surgeons as healing  
 by the first intention, the effusion of this Lymph  
 under certain Circumstances is beneficial under  
 others detrimental, as an instance of its conservative  
 agency we have only to refer to the Membrana Decid-  
 uo of the Uterus, But I'm well aware that some  
 Pathologists deny that this Membrane (which lines  
 the Womb after Conception has taken place) is composed  
 of Coagulable Lymph, whilst others maintain it is  
 perhaps it is not as good an example as I might have  
 taken to illustrate my position, inasmuch as it is  
 not formed here generally as an event of inflammation  
 A more obvious example is in ulceration of the in-  
 testines, when Perforation is about to take place  
 and to prevent their contents from entering the Cavi-  
 ty of the Peritoneum what does watchful Nature  
 do? Why! she interposes a barrier of Lymph between  
 the two surfaces of the Peritoneum and agglutinates  
 them, and by this means she prevents the otherwise

of vegetable growth known to depend on heat  
of the soil rather than the quantity of the light  
in the atmosphere. The experiments of the  
other experimenters, in an attempt to determine  
whether the heat of the soil is the cause of the  
one of the others. But in the case of the  
vegetables they used, the difference between  
the two after the experiment was (as before) in favour  
of vegetable growth. Indeed, the difference was  
perhaps it is not at all surprising as I might have  
taken to expect. My friend, however, is of  
the opinion that the quantity of light is not  
the cause of the difference in the quantity of the  
vegetable, which is about the same  
and to present this result from cutting the  
of the vegetables. But the vegetable nature  
is not the same. The difference of the  
the two surfaces of the vegetables and  
them, and by this means the present the

inevitable result of an escape of fecal matters into the  
 serous sac, which would produce diffused inflam-  
 mation of it and as a further consequence almost cer-  
 tain death, its salutary effects in healing wounds has  
 been already referred to, It is better that the bag surround-  
 ing the Heart (where it happens to be inflamed) should  
 become adherent to that organ, than that the inflam-  
 mation should run on to suppuration and fill  
 the pericardium and oppress the Heart with pus,  
 in the one case life may be preserved for several  
 years, in the other it seldom lasts for so many  
 days. It is certainly much more desirable and  
 consistent with the safety and comfort of the pa-  
 tient that the two surfaces of the Pleura should be  
 adherent than the Lung compressed and flattened by  
 an effusion of sero-purulent matter consequent upon  
 its inflammation. Thus this same Coagulable  
 Lymph so useful for the purpose of repairing dam-  
 -age, and continuing the species, sometimes kills,



as in *Cynanche Trachealis* by occluding the Wind-pipe, or it may produce blindness by rendering the Cornea opaque, or glue the intestines to one another after peritoneal inflammation &c. The operations of Nature are uniform and simple, the reparatory process is also uniform and simple, the throwing out of Coagulable Lymph in these cases is equivalent to its being thrown out to effect union by the first intention or granulations, though from the locality the (Cornea Wind-pipe &c) it becomes inconvenient or even destructive.

This effusion unlike Hemorrhage and Serum is a positive evidence of the presence or preexistence of inflammation.

5. Suppuration or the formation of pus is the Termination to which I've next refer, it is that morbid action by which pus is deposited in inflammatory tumours. Pus is altered blood, it is a yellowish white opaque fluid of the consistence



of cream, neither acid nor alkaline, without smell and said to have a sweet mawkish taste, insoluble in water but capable of being mechanically suspended in it, it putrefies tardily, like numerous animal fluids it consists of serum holding some solid particles in suspension, without entering into a chemical analysis of pus or the different theories held regarding it, or the successive processes of its formation in minute detail, I will content myself with merely noticing some of its striking, obvious, and practical characteristics. Pus is the invariable result of inflammation whenever we see it we may conclude at once that it is or has been present, the successive steps of the formation of pus in the cellular tissue is as follows viz, there is a general softening and effusion of serum, fibrin &c when the inflammation is intense pure blood may also be effused, these effusions increase, the parts become much swollen and broken down, at last pus begins to appear in the thin reddish mixture of serum and

of course, the first step is to identify the nature of the disease, and to determine the extent of the affection, and the degree of the inflammation. It is necessary to observe the state of the pulse, the temperature of the body, the state of the secretions, and the state of the mind. The first step is to identify the nature of the disease, and to determine the extent of the affection, and the degree of the inflammation. It is necessary to observe the state of the pulse, the temperature of the body, the state of the secretions, and the state of the mind. The first step is to identify the nature of the disease, and to determine the extent of the affection, and the degree of the inflammation. It is necessary to observe the state of the pulse, the temperature of the body, the state of the secretions, and the state of the mind.



and lymph with which the tissue is infiltrated, the pus globules increase by softening and dissolving the surrounding tissues, Lymph is thrown out and encircles a cavity which being filled with pus is called an abscess, inflammation of Mucous Membranes and skin readily terminate in suppuration, Suppuration in serous Membranes is not a very common occurrence although it may and sometimes does take place, particularly if there is an admission of atmospheric air, which seems to promote the generation of pus, in inflammation of the Pleura caused by punctured wounds or a fractured rib, or by a boil in the Lungs or by any cause whatever, so that at the same time air is admitted to the aforesaid Membrane, then true Empyema takes place i.e. pus is formed there, So also in Pneumonia, at first the inflamed lung is rendered solid by the effusion of coagulable lymph into the air Cells, but if the inflammation continues, the next thing that happens, is that condition



which Senec calls Gray Hepatization, i.e. a puriform infiltration takes the place of the lymph. So pus may be the result of inflammation in any tissue whatever, particularly if it be exposed to atmospheric influences.

Upon the accession of suppuration the pain slightly abates, except when the pus is confined, or takes place beneath dense aponeurotic fascie, as for instance under the Plantar, Palmar &c in such places it gives rise to the most excruciating pain, whenever it may be generated it has a tendency to the surface, as for instance in Carbuncle Abscess of the Liver &c.

The formation of pus also gives <sup>rise</sup> to some Constitutional symptoms, its accession is marked by rigors and if profuse enough to cause a drain upon the system, all the phenomena of Hectic Fever supervene, when it is diffused through the tissues it tends to soften and separate them, to dissect, dissolve,

which shows all the symptoms of a  
 very violent inflammation of the  
 feet owing to the heat of inflammation in any  
 warm situation, particularly if the surface is  
 discoloured and swollen.  
 Upon the account of inflammation the  
 pain slightly abates, except when the feet are  
 found to take place beneath the inflammation  
 as in the instance under the hands, which is  
 not found to give rise to the most violent  
 pain, whereas it may be found to be a  
 very to the surface as in the instance in  
 above of the feet &c.  
 The fracture of the foot is  
 constituted by fracture, its occurrence is  
 by force and of proper enough to cause a  
 upon the system, all the phenomena of the  
 inflammation, when it is applied through the  
 it tends to inflame and separate them, to

break them down, as it were, whereas the direct effect of the deposition of lymph is to consolidate and harden, the time required for the formation of pus is variable, it sometimes takes place a very short time after the accession of the inflammation, at others it is more protracted, its duration is in direct ratio with the degree of the inflammation and the nature of the part affected, Pus taken into the blood by absorption from abscesses of the Liver or Lung or from any source whatever, is productive of very serious consequences, various and numerous have been the appellations given to the different kinds of pus, thus we have the healthy, serous, Curdy, Mucous, Lardaceous, putrid and Specific all derived from some striking peculiarity, otherwise partaking of the nature of the tissue from which it proceeds and named accordingly.

6 Ulceration - This condition as an event of inflammation may in truth be called a termination

that there is a certain amount of water in the soil  
 effect of the absorption of water is a constant one  
 and hence, the transpiration for the formation of  
 food is variable, it is maximum when the soil is dry  
 and minimum when the soil is saturated with water  
 at other times the amount of water absorbed is an  
 average value with the degree of the soil moisture  
 and the nature of the plant itself. The latter case  
 the first by absorption from the soil of the water  
 being or from any other source is a function of  
 the amount of water in the soil and the nature of the  
 soil. The latter case is the result of the difference of  
 the water potential in the soil and in the plant  
 tissue. The water potential in the soil is a function of  
 the amount of water in the soil and the nature of the  
 soil. The water potential in the plant tissue is a  
 function of the amount of water in the plant tissue  
 and the nature of the plant itself. The latter case  
 is the result of the difference of the water potential  
 in the soil and in the plant tissue. The water  
 potential in the soil is a function of the amount of  
 water in the soil and the nature of the soil. The  
 water potential in the plant tissue is a function of  
 the amount of water in the plant tissue and the  
 nature of the plant itself.

(continued) - the water in the soil  
 of the soil is a function of the amount of water in the soil

it may be defined to be, the death of successive layers  
 or minute portions of open wounds, it is a species of  
 Mortification, it consists of a progressive and gradual  
 solution of continuity, sloughing, a complete destruc-  
 tion of alternate layers of the diseased tissue &c. var-  
 ious are its exciting causes viz Congestion of blood  
 in the Capillaries, Stagnation, deficiency of nervous  
 influence, imperfect nutrition, but it is always an  
 event of that fearful insidious, primarily destruc-  
 tive Malady which at present occupies not a  
 small share of my puzzled inventive powers.  
 it spreads with different degrees of rapidity, an  
 attack of violent inflammation may cause des-  
 truction by this process in a very short time - The  
 Tissues most disposed to it, are the Skin, Mucous  
 and Synovial membranes, from those it spreads  
 with facility to adjacent textures which seem to  
 yield to it without resistance, The Cellular Tissue  
 also readily ulcerates, but Nerves, tendons, Muscles





bloodvessels and ligaments very slowly, Bones, Car-  
 tilages, and the Cornea in scrofulous constitutions are  
 very susceptible of it, those who are debilitated by  
 intemperance tainted with Syphilis or scrofula  
 or persons whose health is deteriorated from any  
 cause whatever are strongly predisposed to it,  
 various are the names given to the different spe-  
 cies of Ulcers - viz. The Healthy, The Inflamed, The  
 Meak, The irritable, the indolent, the fistulous, the  
 Caricous, the sloughing, phagēnic and various others  
 derived from some striking peculiarity or fancy  
 of the author. An individual description of each  
 variety would require more time than I can con-  
 sistantly devote to them - I now proceed to the  
 last, the most dreaded, and fortunately the rarest  
 of the 7 terminations enumerated, viz Mortification,  
 it is the most serious of all its terminations, by it  
 is meant the complete death of a part, total, dis-  
 organization, an entire cessation of all vitality. -

The second and subsequent chapters of this  
 book, and the course in reference to  
 my knowledge of it, then into an elaborate  
 description of the various parts of the  
 human system, with a particular view  
 to the various organs, and the  
 manner in which they are connected  
 together, and the manner in which  
 they are affected by the various  
 causes, and the manner in which  
 they are cured. The author has  
 given a very full and accurate  
 description of the various parts  
 of the human system, and the  
 manner in which they are  
 affected by the various causes,  
 and the manner in which they  
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 manner in which they are  
 affected by the various causes,  
 and the manner in which they  
 are cured.

frightful, appalling, and horribly distressing, both to the patient and Physician, inasmuch as there is no repair, no therapeutical appliances can restore, no sympathy ameliorate or soothe the unfortunate sufferer, an appeal to the many, various, and usually salutary remedial agencies of our art is insufficient; alas! there is no cure, and the unfortunate victim (if it be an organ effected essential to life) is inevitably doomed to death, there is no reparation, the part is irrevocably lost, nevertheless in cases of not so grave a type, Nature kind Nature, from her abundant store has her resources, not to restore however the mortified part; but with her accustomed zeal she by extending to us her protective powers, establishes a line of demarcation between the living and cadaverous Mass, a barrier of lymph is instituted which prevents its further progress, and at this line she proceeds to amputate the portion that



has lost its vitality, and the process by which she accomplishes this most noble end, is certainly wonderful and worthy of the most exalted admiration, and here too what is perhaps equally as wonderful, is the instrument with which she operates, she makes use of a modification of that Malady, which is ordinarily the most distressing destructive and fatal that afflicts humanity, a modification of that disease which generally gives rise to the condition, which now invokes the interposition of her dexterous surgical aid, in other words the subject of my essay is the knife with which she operates, the several processes of the operation is as follows. A barrier of lymph by adhesion inflammation is constructed so as to prevent its further progress, the commencing separation is marked by a furrow of ulceration, and this gradually deepens until the part is completely severed, and mark here the fact that every tissue composing the



Human body is capable of being removed by the ulcerative process, and we cannot pass without noticing the interesting phenomena that takes place in the adjacent living tissue, by the means taken to avert the hemorrhage that we should expect would arise from the severance of large blood vessels, Nature ever ready for wise and noble purposes plugs them up with coagulated blood, their orifices are also more effectually secured by the deposition of coagulable Lymph, the agent to which I have so frequently alluded so prolific either of good or evil. The Surgeon endeavours to imitate this process, he from a close observation of Nature's laws, endeavours to imitate her movements and follow her precepts, and in truth a great part both of Physic and Surgery consists in learning as far as practicable by natural resources, the expedients of repair and preservation for which provision has been made

I have been very much interested in the  
 various papers, and the various papers  
 relating to the history of the  
 place in the adjacent part of the  
 town to what the boundary that we think  
 has been given from the town of  
 the parish, but we have not yet  
 been able to get up with regard to the  
 subject and also some effectually, some of the  
 importance of the subject, the point  
 which I have to frequently return to  
 with regard to the subject, the subject  
 that this process, to form a clear  
 of the subject, to form a clear  
 and also further the subject, and in fact  
 a great part both of the subject and  
 that on the subject as far as possible by  
 some measures, the subject of the  
 process for which process has been



in the living body, in exciting or repressing or directing or imitating the natural actions, which generally tends and often suffices to restore health. Oh Nature, Nature! how instructive are thy lessons, no studies are calculated to give us a more exalted idea of the omniscience of God, and so humble an opinion of all human inventions as the study and observance of thy laws. *Natura docet nil desperandum.*

Having now noticed the several terminations of inflammation, I shall now notice its modifications as it occurs in the different tissues. it will be always modified by the state of the constitution in which it occurs, it is apt to be intense in the young and plethoric, but indolent and tending to destructive processes (such as ulceration and mortification) in the old and debilitated, it is also much modified by atmospheric influences, the most important mod-



-ifications are found in the tissues which it  
 invades, thus in the cellular tissue there is a  
 strong tendency to the formation of circumscribed  
 abscesses as in the diffused Phlegmon, the sup-  
 -puration being prevented from extending by  
 boundaries of coagulable lymph forming cysts  
 &c &c, this condition does not ordinarily give  
 rise to much pain or general disturbance unless  
 the suppuration takes place in unyielding parts  
 as dense fasciae and then the sufferings of the pa-  
 -tient are extreme, the substance of the large -  
 glands suffer similar changes to those of the ar-  
 -cular tissue, thus we are apt to have large ab-  
 -scesses in the Liver, Kidneys &c, Phlegmonous is  
 also a variety of this modification, this is the  
 condition that takes place in poisons from  
 dissecting wounds, and which occasionally en-  
 -dangers the lives of some of the zealous Bota-  
 -nics of our noble Science. Inflammation

specimens are found on the same side of a  
 mountain, than on the other. There is a  
 strong tendency to the formation of mountains  
 between as on the African continent. The top  
 formation being formed from volcanic  
 formations of geological periods forming  
 base to the continent. The top formation  
 is to be much from a general mountain range  
 the top formation takes place in mountainous  
 in some places and also the topography of the  
 land are various. The position of the top  
 land is higher than the range to the  
 sea level, that is one of the large  
 bases on the African continent. The position  
 also a variety of other mountains, this is the  
 continent that takes place on African  
 directly across, and which is especially  
 across the line of base of the African  
 one of the main bases.

of serous membranes, produces effusions of serum and coagulable lymph, ~~and~~, and if there be an admission of air pus may also be formed, thus constituting what we call empyema if the pleura is the membrane implicated, very frequently we have adhesions, false membranes are formed, sometimes becoming organized, glueing the two surfaces of the membranes together,

Ulcerations sometimes occur in serous membranes but it is uncommon, the pain in serous membranes are sharp and lancinating, false generally hard, blood buffed, inflammation in them spreads by contiguity and contact.

Inflammations of synovial membranes are apt to produce effusions of serum or synova, more commonly however they become ulcerated.

An inflamed mucous membrane may pour out mucus lymph pus serum or

of some substance, perhaps of some  
 and vegetable matter, and one of them is an  
 addition of an iron sulphate, the former, the  
 vegetable matter, and the sulphate of the former  
 is the most common sulphate, but frequently an  
 iron addition falls into the same class.  
 sometimes becoming sulphate of iron, the  
 sulphate of the iron being the most common.  
 The vegetable matter is seen in some  
 instances but it is in some cases, the iron is  
 the most common in that of the vegetable matter,  
 the generally has, also, the vegetable matter  
 in them, especially of sulphate of iron.  
 The decomposition of sulphate of iron  
 is seen in the following manner of the iron is  
 given, and commonly known, the iron is  
 soluble.

The sulphate of iron is the most common  
 may form the most common sulphate of iron is

blood, inflammation of these membranes often  
 manifest a strong disposition to spread rapidly  
 at other times quite the contrary - in the pul-  
 monary Mucous Membrane there is a strong  
 tendency to spread, in noticing these Mem-  
 branes, the first thing that strikes our attention  
 is their manifest indisposition to adhesive  
 inflammation, how beautiful again is this  
 provision of Nature if they were as ready to  
 take on inflammation of the adhesive kind  
 as the serous membranes are, how constantly  
 liable would we be? to a complete occlusion  
 of the air passages, Oesophagus, Intestines, Arteries  
 and urinary passages, and in many instances  
 I conceive be deprived of ~~the~~ sight, by an  
 adhesion of the margins of the lids - The lungs  
 would become impervious upon the accession  
 of those very common Complaints, Laryngitis,  
 Croup & acute Bronchitis - This Membrane

these representations of the...  
 manuscript a brief...  
 at this time...  
 through...  
 tendency to...  
 from the...  
 a...  
 representation...  
 position of...  
 take a...  
 in the...  
 table...  
 of the...  
 and...  
 because...  
 relation of...  
 will...  
 of...  
 Proof &...



does however pour out a fluid similar too if not  
 real coagulable lymph, this is most apt to occur  
 in Children, the Bronchiae, Laryngeal, Tracheal,  
 Pulmonary Mucous Membrane, the oesophageal, in  
 testinal and Uterine Mucous Membranes, are all  
 more or less subject to the formation of a pseudo  
 or adventitious Membrane under the influence of  
 inflammation. Whether this deposit be real co-  
 agulable lymph has been and is yet contested by  
 high authorities, it is certain however that in  
 appearance it is very similar, it is nevertheless  
 equally certain that its adhesive affinity is  
 much less than Lymph occurring upon serous  
 membranes, it never becomes organized upon  
 Mucous Membranes, there is at all events but  
 little disposition in Mucous Membranes to grow  
 together, they are much more liable to ulceration  
 sloughing &c. This takes place more particularly  
 in the Alimentary Canal. The pain of Mucous Mem



membranes is much less than that of serous, neither is the blood so highly cupped and buffed as in serous membranes.

The muscular and arterial tissues are but little disposed to take on inflammation, its chief effect upon muscles is a partial diminution of their contractile power, so little indeed are the arteries disposed to inflammation that J. F.

Thompson declares that he has seen a case of Phlegmonous Erysipelas in which "several inches of the femoral artery were laid bare by the gangrene, ulceration and sphacelus of the parts covering it without its giving away before death."

The veins however are strongly predisposed to inflammation, and whenever it does occur it is a disease of great pain, the blood in the veins soon coagulates, and the venal canal becomes almost obliterated, an obliteration of the femoral canal from inflammation is that which

... is much like the other of them in  
... the day is highly useful and sufficient  
... in these respects.  
The number of the ...  
... to take in ...  
... in a ...  
... form, ...  
... to ...  
... that ...  
... as ...  
... of the ...  
... and ...  
... it ...  
The ...  
...  
... of ...  
... and ...  
... of the ...  
...  
... of ...

deadly condition Phlegmasia dolens. When Phlebitis runs into suppuration it then becomes extremely fatal, Pus is taken into the System at large and has a most deleterious effect, producing great Constitutional disturbances, Typhoid Fever soon supervenes often followed by death.

Bones, Cartilages, and Nerves, are not very subject to inflammation, inflammation of the Cerebral substance is however not very uncommon when it does occur it most commonly ends in softening and suppuration Dr. Watson in his invaluable Treatise says excepting in cases of Hernia Cerebri, he has never seen Abscess of the brain from any cause. Fibrous tissues are those supposed to be implicated in gout and Rheumatism they seldom if ever result in suppuration, Ulceration or Abscess, they usually terminate in a deposition of calcareous matters.

Having noticed in a brief manner

transfer existing obligations to the  
 estate and the responsibility of the  
 trustee. The trustee has a duty to  
 pay out of the trust property for  
 any debt or liability of the estate  
 which is due at the time of the  
 death of the testator. The trustee  
 is not liable for the payment of  
 such debts unless he has notice of  
 them at the time of the payment.  
 The trustee is also liable for the  
 payment of such debts if he has  
 notice of them at the time of the  
 payment. The trustee is not liable  
 for the payment of such debts if  
 he has no notice of them at the  
 time of the payment. The trustee  
 is also liable for the payment of  
 such debts if he has notice of  
 them at the time of the payment.  
 The trustee is not liable for the  
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 trustee is not liable for the  
 payment of such debts if he has  
 no notice of them at the time of  
 the payment. The trustee is also  
 liable for the payment of such  
 debts if he has notice of them at  
 the time of the payment.

Some of the modifications of inflammation as it occurs in those tissues which are its most common seat and also of more direct interest to the Physician, I must now pass on as the limits of these pages will not allow me to devote more time to it, I will now in a general way notice the causes.

causes of inflammation, they may be divided into predisposing and exciting, they are <sup>in</sup> many cases so obscure and numerous that it is often impossible to say what may have been the predisposing or exciting cause or causes, but in many cases they are plain, ocular, and without difficulty noted, I will therefore notice a few of the most common, and 1<sup>st</sup> the predisposing, some peculiarity of the constitution, thus persons of a full and plethoric temperament are very prone to it, previous disease any disturbance of the general health &c, and debility is (using the words) of that able, modern Pathologist,





of our School Prof Power) a powerful predisposing cause cause of inflammation.

The exciting causes are almost innumerable, perhaps the most prolific are sudden vicissitudes of temperature, Cold, dampness, Moisture, intense heat, specific and poisonous atmospheric influences, these several conditions rendering some tissues more disposed than others; thus a Cold, damp atmosphere giving rise to Rheumatic inflammations. Cold, wet feet, will sometimes produce determinations to the head and phrenitis is often the result, or to the Lungs giving rise to Pneumonia &c. Mechanical injuries direct or indirect, Chemical causes, irregularity of bowels, unwholesome diet, insufficient clothing, Cold drinks when the body is heated, depressing Moral emotions, in conclusion all causes, influences, and agencies capable of interrupting the true balance of the Circulation.

Having now reviewed the various phen-



phenomena of inflammation, noticed by successive steps  
 the various theories regarding it, its symptoms its  
 results and terminations, the modifications it un-  
 dergoes in the several tissues of the living body its  
 causes &c. There still remains to be considered the  
 degree or severity of its attack, which all authors  
 (as if by common consent) designate by the 3 follow-  
 ing terms or divisions viz the acute, sub-acute and  
 Chronic, these terms occurring so frequently in all  
 systematic authors, my essay would be incom-  
 plete if I did not notice them, now of the va-  
 rieties differ in kind only in degree, the acute  
 form is that which comes on suddenly, is violent  
 in its action and runs through all its stages with  
 rapidity, and is attended with much general and  
 local disturbance, it is the most violent of all the  
 stages of inflammation.

In Chronic inflammation the general  
 and local symptoms are less marked, it is not so

a number of experiments, and of various kinds  
 the various theories regarding it, and especially  
 results and observations, the description of an  
 paper on the same subject, of the same kind as  
 given to the same extent as the various  
 paper in regard to its nature, which all under  
 the of various kinds, the paper of the 2nd  
 and the various kinds of the same, but the  
 various, then the various kinds of the  
 various kinds, the various kinds of the  
 paper of the 2nd kind, the various kinds of the  
 various kinds of the same, the various  
 paper is that which is the same as the  
 in the order and the same as the  
 various, and is the same as the  
 last, the various, and is the same as the  
 paper of the 2nd kind, the various kinds of the  
 the various kinds of the same, the various  
 and the various kinds of the same, the various

violent in its action, but longer in duration, the  
 character then of acute inflammation, is intensity  
 of action, running through all its stages with ra-  
 pidity, those of Chronic, mildness of action and  
 slowness of progress, Acute and Chronic are the  
 two extremes of inflammation, one denoting its  
 most violent stage, the other its mildest, allows  
 me to remark here however that a Chronic in-  
 flammation may be pretty intense in its action  
 yet long in its duration, the term Chronic see-  
 ming to be generally applied by authors to desig-  
 -nate its duration rather than its intensity, now  
 the term Sub. Acute is intended to express that gr-  
 -ade of inflammation, which is neither very vio-  
 -lent in its action, nor yet very mild nor slow  
 in its progress i.e. neither acute nor Chronic  
 but between the two, holding an intermediate pos-  
 -ition, it is sometimes brief in its course, attended  
 with some fever and constitutional disturbance,

distinct on all sides, but larger on the sides. The  
 character then of these impressions is  
 of water, assuming the form of all the other  
 fossils, those of Chamae, the thickness of water and  
 thickness of fragments, these are the  
 the extreme of impression, the thickness of  
 must be but slight, the other is distinct, when  
 the is present this however that a specimen is  
 fragmentary may be partly broken in its nature  
 get deep in its structure, the same thickness in  
 may be generally applied to water to help  
 with its structure, which shows its nature, but  
 the form but what is nature is a copy of that  
 a set of impressions, which is really only the  
 but in its nature, the first copy that is shown  
 in its fragments is nature and the Chamae  
 but between the two nothing is to be seen but  
 other, it is a specimen, but in its nature, nature  
 will have from one and another on the surface.

but attains no great intensity of action, seldom producing much structural disorganization, and generally easily controlled by remedies, Chronic inflammation is ~~of~~ <sup>often</sup> the signal of the acute, although it produces less general constitutional disturbance, nevertheless, it is not in general much less fatal ultimately than the acute, it is always more obstinate and less amenable to treatment, and from its inflexible persistence soon disorders the whole system of nutrition, and its victim by a slow process of asthenia sooner or later succumbs to its destructive progress. it is most common in debilitated persons it tends to result in Hypertrophy suppuration and ulceration, occasioning one or the other of these events according to the tissue affected.

Having now finished the Pathology of inflammation and taken a cursory view of its several processes of action both functional and structural, there yet remains to be considered that





which has as strong a claim upon our attention  
 as Physicians, as a knowledge of the disease ac-  
 tion itself viz its treatment, the diagnosis of in-  
 flammation is ordinarily easy, but to treat it  
 with safety to the patient and Credit to ourselves  
 throughout all its modified phases, is not al-  
 ways so easy a task "A very fashionable and  
 successful Physician, now dead, used sometimes  
 to say when he met other of his brethren in  
 consultation. it is all very well to speculate  
 about the exact situation and the precise nature  
 of the disorder, but the question with me is what  
 is good for this, that, or t'other thing"? Now having  
 speculated much about the real nature of in-  
 flammation "The question with me is" what is  
 good for this that or t'other of its stages. The first  
 element towards the successful treatment of disease  
 is to ascertain as far as possible the nature of the  
 structural or functional alteration that has taken

which has in every place of the human  
 as the human, and knowledge of the human  
 in itself by its location, the knowledge of  
 formation is a necessary copy, but a copy  
 with respect to the fact and truth to  
 throughout all its various parts, as well as  
 may be seen in the "A Day's Journey" and  
 scientific hypothesis, and that, in a  
 a day, which is not only of the human  
 formation, it is all very well to  
 about the exact relation with the human  
 of the human, but the question with respect  
 goes further, that is, "the human" and  
 formation must about the real nature of  
 formation "the question with respect to" which  
 goes for it is that in the case of the human, the first  
 element is the essential treatment of human  
 is to be taken as far as possible the nature of the  
 structure or formation of human that has

place in the tissue affected, and as I have just noticed these conditions in the disease under consideration. I will now lay down some general principles by which we should be governed in its treatment. The first thing to be done is to remove the cause if possible, and endeavour to bring about that result which is its natural termination viz Resolution, if this cannot be done the promotion of the next most favourable result; the patient should be removed from all exciting causes as vicissitudes of temperature, should be placed in a comfortable well ventilated apartment and a strict and rigid observance of the antiphlogistic regimen should be enjoined, the object of which is to place the patient in that condition the most favourable to the spontaneous subsidence of the inflammation, and ensure the full salutary effects of Remedies, all stimulants and excitants both of a moral, mechanical, Physical. Chem-

In the first place, the patient should be kept in a quiet room, and the diet should be light and easily digested. The patient should be kept in a recumbent position, and the bowels should be kept open by the use of mild cathartics. The patient should be kept in a cool room, and the temperature should be kept at a normal level. The patient should be kept in a quiet room, and the diet should be light and easily digested. The patient should be kept in a recumbent position, and the bowels should be kept open by the use of mild cathartics. The patient should be kept in a cool room, and the temperature should be kept at a normal level.

ernical or of any kind whatever, should be strenuously avoided, and any thing calculated to disturb or distress the patient, such as bright light intense heat or cold in fire whatever tends to accelerate the Circulation should also be avoided we should as aforesaid place the patient in the most favourable and advantageous circumstances possible. and then the Physician may proceed to the applications which his own judgement may dictate, or experience has proved to be most efficient in their action, and among these there is none more productive of good, none of such general utility as that of general or Local Bloodletting, it lessens the vis a tergo and takes off from the already too much injected and distended capillaries, rendering them more capable from the relief thereby obtained of contracting upon their stagnated contents, they again begin to assume and regain their healthy

account of my own education, which is the  
 summary account, and my other calculations  
 which is that of the future book of my  
 light account but is not in my calculation  
 but to account for the calculation which is  
 in order to show the account of my  
 that in the next part of the account  
 to account for the account of my  
 my account to the account which is  
 my account of my account, or my account  
 as to the next account, or my account,  
 showing that there is a difference between  
 of my account of my account, or my account  
 general in fact the account, or my account  
 that is taken off from the account, or my account  
 facts and details of my account, or my account  
 these facts from the account, or my account  
 but taking up from the account, or my account  
 again begin to account, or my account

69.

Contractile power, often as we may see, after one well timed judicious full and copious venesection, it decreases the too abundant vital fluid in the system, it is one of our most powerful means in the treatment of inflammation, there is none so potent, none so satisfactory both to the patient and physician as this when judiciously employed, a remedy like the present then of such potent powers either for good or evil, when misapplied is productive of the most <sup>serious</sup> consequences, generally of such universal application in the treatment of inflammation, there are frequent cases however which will not warrant or justify its employment, when it is requisite, the method of its abstraction, the quantity to be taken, and the propriety of repeating it. all vary with the peculiarity of individual cases that may render necessary its application, blood-letting may be divided into general and local.





When blood is drawn by opening a vein or artery it is called general bloodletting, but Scarifications Cupping Leeching &c constitute local bleeding. The object of general bleeding, is to lessen the quantity of blood in the system, and in so doing takes from it a source of great excitement, and to gain its sedative effects upon the brain and through the brain on <sup>the</sup> heart, in lessening the latter organ's too violent contractions. - The object of local bleeding, is that of emptying the gorged capillaries of an inflamed part, but in infants it may have all the good effects of a general bleeding, in bleeding locally the blood is taken immediately from the engorged vessels, general bleeding has also indirectly this effect. The veins most generally selected in general bleeding are the Median basilic and Cephalic at the bend of the arm, other places may be selected when these are insufficiently developed, as at the ankle, opening the



41.

jugular although recommended by some Practitioners is nevertheless generally inadmissible, unless in cases of great emergency, inasmuch as it is not entirely free from danger, Arteriotomy is also sometimes resorted to but it too is not without objections.

The most important indications for bleeding are the indications of the pulse, nature of the tissue inflamed, severity of the inflammation, and the amount of the general constitutional disturbance, and if the organ inflamed be a vital one we are justified in resorting to the Lancet as speedily as possible. and when we have determined upon bleeding we should draw the blood as quickly as possible in a large stream from a large orifice, the patient should be placed in the erect posture, the blood as a general rule should be allowed to flow until some general effect upon the pulse is produced, or until the



<sup>1</sup>patient  
<sup>2</sup>experiences some sensible relief, or until syncope is indicated by paleness of the lips, lividity about the eyes, nausea, sighing, fluttering of the pulse &c. full syncope however should not be induced, on account of the reaction which is subsequently apt to take place. The necessity of its repetition is generally indicated by a recurrence of all or some of the symptoms that in the first place called for its adoption, the stage which gives us the most marked cases of the good effects of general bloodletting is while the inflammation is in its acute incipient stage, while it is still within the limits of resolution, before much structural disorganization has taken place. it is in this stage that we often succeed in at once completely supplanting the diseased action.

In making up our mind as to the propriety of bleeding or the extent to which we should carry it, we must not neglect the age, sex,

The first of these is the fact that the  
 system is not a simple one, but a  
 complex one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The second is the fact that the  
 system is not a static one, but a  
 dynamic one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The third is the fact that the  
 system is not a closed one, but an  
 open one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The fourth is the fact that the  
 system is not a simple one, but a  
 complex one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The fifth is the fact that the  
 system is not a static one, but a  
 dynamic one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The sixth is the fact that the  
 system is not a closed one, but an  
 open one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The seventh is the fact that the  
 system is not a simple one, but a  
 complex one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The eighth is the fact that the  
 system is not a static one, but a  
 dynamic one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The ninth is the fact that the  
 system is not a closed one, but an  
 open one, involving a number of  
 factors, each of which is of  
 importance in its own right.  
 The tenth is the fact that the  
 system is not a simple one, but a  
 complex one, involving a number of  
 factors, each of which is of  
 importance in its own right.

temperament, and the general condition of our patient, we must also remember (if any exist at the time) the nature of the prevailing epidemic, the power of tolerating the loss of blood is different in different persons and sometimes in the same person, in inflammations occurring in different tissues, it varies at different seasons the age, sex and temperament of the patient, it is less in the very young and old, than in the middle aged, less in the female than male, less also in lymphatic and nervous temperaments, than in the sanguine and plethoric. The inflammatory diseases in which bleedings are best borne are those of the Lungs, Heart, Head and other vital organs, it is also largely borne in serous membranes, less so in mucous, in which topical bleeding by Cupping leeching &c seems most useful. Those inflammatory diseases in which it is worst borne are putrid inflammatory fevers and dis-





cases of debility, I have now spoken of the effi-  
 cacy of general and local bleeding as a remedy in  
 acute inflammations, and will now notice its  
 good effects in Chronic, it is scarcely less valua-  
 ble as a remedial agent in Chronic inflammation  
 when attended with Constitutional symptoms as  
 fever &c, it must be recollected here however that  
 the bleedings must be less in quantity and longer  
 in interval, general bleeding it is true is much  
 better in acute than Chronic inflammation, top-  
 ical bleeding seems much better adapted to the  
 latter, but a combination of the two both in acute  
 and Chronic inflammation, is often highly val-  
 uable, in local inflammations where the ves-  
 sels of the parts remain full and injected with  
 stagnant blood and are incapable of relieving  
 themselves of the excess, in this condition we  
 abstract blood by cupping and leeching with the  
 most happy results, they should generally be



applied upon or as near the part as we can get. Having now noticed a few of the good effects resulting from bloodletting both general and local in inflammation, it may in truth be called our "Sheet Anchor" in this disease, allow me to remark here, in the application of no remedy is there more judgment and thought required on the part of the Physician he must recollect that he is using a "two edged sword," capable of giving in many cases almost immediate relief if dexterously and judiciously used, and also capable if misused of doing serious mischief to the patient, therefore in directing its employment - when convinced of its necessity, we should neither be too timid, for by withholding it we may suffer our patient to die from the destructive processes of inflammation which we might have averted by a bold use of the lancet, nor yet too rash for we may inflict an irreparable injury upon our patient.

applies upon it as soon as the fact is known  
 get. Having now written a few of the  
 first results from the laboratory last year  
 and have a representation of many in both  
 the cells on "what order" in this case as well  
 as to account for the appearance of  
 nearly a third over the first and thought  
 given on the part of the physician to want  
 subject that he is using a "two sided" report  
 of group or many cases about the same date  
 of history and particularly the case also  
 able of number of cases being similar to the  
 text. Therefore in writing the report  
 when necessary of the account, or should  
 be too long, for by writing it in two  
 the patient to be from the laboratory  
 representation which we might have  
 but one of the least. But get the best for  
 any report on comparable copies of the

our opinion as to its necessity should be deduced from judicious and scientific principles.

But besides the unquestioned efficacy of bloodletting in inflammation there are other remedies auxiliaries I may call them, whose good effects are equally unquestioned, and which in connexion with bloodletting greatly expedite a mutual good effect; to some of which I will now refer, and first Purging, active purging by Saline, Mercurial, and hydragogue cathartics forms not a small share of the antiphlogistic treatment in inflammation, they are indeed next in efficacy to bloodletting in remedial powers in reducing inflammatory excitement. They answer two indications first to get rid of the accumulated and often acrid feces, which produce much irritation in the alimentary Mucus Membranes, and at the same time further depletion is carried on by them in the profuse serous discharges which they occasion from the large extent of

an opinion as to the necessity of such a measure  
 from previous and successful experience.  
 But besides the important offering of  
 the clergy in various matters there are other  
 and valuable things which they have done  
 and which ought to be taken into account  
 in forming a just estimate of their services.  
 The first of which is their constant  
 and active preaching of the Gospel, and by  
 the same Catholic foundation a more clear  
 and distinct knowledge of the Christian religion  
 and of the duties which it requires of us.  
 The second is their offering of themselves in  
 the most pure and unblemished manner  
 for the service of their country, and to get out of the  
 world, and of the same fact, which has  
 been mentioned in the history of the same  
 year, and at the same time has been  
 mentioned in the history of the same year.  
 In which the same fact has been mentioned.

membranes upon which they act, Their operation is of marked benefit in some inflammations as of the head viscera of the thorax, in inflammations of the Liver they also do much good, but in inflammation of the Stomach and bowels they are generally inadmissible from the increased irritation to which they give rise, purgation then is a valuable auxiliary to bloodletting.

Another agent which has comparatively recently gained much reputation in the treatment of inflammation, is Ant et Potassa Tart. which is now very universally and extensively employed, and no doubt from its valuable remedial powers will long continue to be much used, it has the property of subduing the action of the heart and arteries, lowering the pulse, produces paleness nausea &c its effects are somewhat analagous to those we produced by bloodletting, by this agent then when further loss of blood is incompatible with the safety of the patient,

... which they are, that of nature  
 of matter itself in some explanation  
 the law of the things in explanation  
 the law they are to count upon, but in  
 nature of the things in which they are  
 a matter of fact the necessary relation to  
 the law of nature, for nature is a  
 law to the things  
 ... which has  
 ... of nature, in that it is not  
 ... and ...  
 ... from its ...  
 ... to be ...  
 ... the ...  
 ... the ...  
 ... the ...  
 ... the ...  
 ... the ...



we can nearly get all the good effects of bloodletting without the further loss of blood. How valuable it must be then in connexion with bloodletting, it is in inflammations of the air passages that antimony is so signally beneficial, it should be given in nauseant and contractimulant doses, it may be administered in doses of  $\frac{1}{8}$  -  $\frac{1}{2}$  a grain. In larger doses such as grs ij it is a most potent remedy especially in Pneumonia, it does not vomit after the first few doses, tolerance is induced, and it exerts its sedative influence without producing any evacuation.

Colchicum is somewhat similar in its effects to antimony, it is more particularly adapted to rheumatic and gouty inflammations.

Digitalis has been much in repute as a sedative, it is also somewhat similar to antimony in its action, but less under our control, it acts as a direct sedative to the heart, lessening its action &c. per



haps the inflammations to which it is peculiarly suited are those of the Heart, as Endocarditis, Pericarditis &c  
 Counter Congestion, Hemostasis, is much used by some practitioners, and highly recommended by J. Buckler, who has written a very valuable essay upon the subject, it is also somewhat similar in its effects to antimony. it consists of ligatures applied to the extremities so as to prevent the venous circulation. the large venous trunks of the extremities become congested, by this means a large quantity of blood is kept from the central organs. it has a direct sedative effect upon the heart, hence a diminution of capillary engorgement, here too we get some of the general good effects of bloodletting without the loss of blood, it is in some cases a very powerful agent in subduing inflammatory excitement and should not be altogether disregarded.

In speaking of purgatives I mentioned



Mercurial preparations, refered to their depletory action as an evacuant, but they are not so good in this respect as many others of the group them mentioned, but they possess powers in the reduction of inflammation besides and far superior to their mere purgative efficacy, they are also far superior to the remedial virtues of Antimony in the reduction of inflammation, the great remedial efficacy of Mercury consists in an unspicable alterative influence, by which diseased action is modified, it has the property of stopping, controlling, or altogether preventing the effusion of coagulable lymph: hence its great importance in pernicious adhesive inflammations, of the serous membranes for instance as in Pleurisy, Pericarditis, Peritonitis &c, which if attended with much pain after free depletion by the Lancet we depend almost entirely upon Calomel and opium, in Pneumonia also it is of much value.



in certain Chronic inflammations perhaps there is no agent so efficient.

Mercury and Antimony have a direct effect upon the capillaries so as to cause the inflamed capillaries to contract independently of the *vis a tergo* or the state of the heart's action, hence their general almost universal utility in inflammation, their action is local on the capillaries when they reach them through the medium of the circulation, they come in direct contact with them, they act upon them (independently of their action upon the heart in lessening its action &c) as a solution of their Salts would act upon the inflamed capillaries when applied externally and so contracts them, because when taken internally they as certainly reach them and having reached them, we have every reason to suppose they exert this peculiar contractile influence as ~~when~~ we apply them directly to the inflamed vessels in external inflammations, the only -

in certain cases, and sometimes, perhaps, they are  
 spent so efficiently.  
 Through the testimony of a man  
 effect upon the population, as to cause the  
 population to contract, or perhaps, of the  
 in the state of the distribution, from the  
 amount was not likely to be sufficient, the  
 action is lost in the population, when they  
 them through the medium of the population,  
 more in their contract with them, they are  
 them, perhaps, a part of their action upon the  
 in bringing to action, as a balance of their  
 would not upon the population, perhaps, when  
 applies naturally, and so contract them, because  
 when taken naturally, they are certainly, not  
 and having reached them, we have very reason  
 suppose they are the peculiar contract, and  
 case as when we apply them, usually to the  
 the result in certain instances, the



difference is, that in the one case their action is  
 ocular in the other occult; we therefore conclude  
 that their *modus operandi* is the same in both  
 instances. Mercury though less nauseating and  
 though it acts less upon the heart (<sup>than antimony</sup> yet it acts we  
 have every reason to believe) more upon inflamed  
 capillaries in promoting their contraction, and  
 consequently a reduction of the inflammation  
 this affords says Dr. Billing "a rationale of these  
 remedies curing inflammations when there is  
 no indications for depletory or common antiph-  
 logistic means; for which mode of cure the va-  
 gue term, "equalising the circulation," has been ad-  
 -opted; but it is erroneous, as the circulation can-  
 -not be unequal: it may be irregular, stronger or  
 weaker, quicker or slower; but in either case the  
 blood must be sent or circulated equally to every  
 part of the body, as it passes at first from the  
 heart through a single canal, the aorta." So then



we conclude that Mercury cures inflammations by its coming in direct contact with the capillaries and contracting them, so also Antimony, iodine, and numerous other agents, Mercury is used with the happiest effects both in acute and chronic inflammations. The preparations of it that are most frequently used are the Hydrargyri Chloridum Mite, Hydrargyrum Cum Creta, and Pilula Hydrargyri used internally, and the Hydrargyri Chloridum Corrosivum, and Unguentum Hydrargyri externally &c We should as a general rule desist from the use of Mercury as soon as ptyalism is produced. and it is seldom expedient to carry it so far. Nitre is also frequently given in inflammatory fever to abate heat, thirst and to purify the blood it also increases the secretion of urine.

The diet as a general rule should be of the very blandest kind, such as Arrow Root, Tapioca, Toast Water &c, numerous are the Therapeutical app-



-liances in inflammations, in the one or other of its stages, we apply Cold to the head in inflammation of the brain or its Membranes, Cold and iced drinks in Gastritis, in the application of Cold to local inflammations, we should be governed pretty much by the feelings of the patient, and as soon as they become disagreeable they should be discontinued. - Heat is also variously applied, as hot fomentations, poultices &c. a hot anodyne poultice applied over the epigastrium in gastritis is as good an external application as can be resorted to, I myself have experienced marked benefit from it, so also in peritonitis although poultices cannot be borne here from their weight and the pain thereby occasioned, yet warm anodyne fomentations are very soothing and grateful hot applications seem to do good by determining to the surface, they promote perspiration, mitigate pain and persuade to sleep, Dr. Watson says that



in Erysipelas he is persuaded "that warm fomentations, not only afford more comfort, but are more effectual and safer than cold lotions" in producing suppuration warm soft poultices and fomentations are very useful, in the application of warmth the feelings of the patient should also be our criterion.

In external chronic inflammations stimulant and astringent solutions are of great service, by decomposing and washing away their irritating secretions, and inducing contraction of the capillaries, local bleedings must be employed, at intervals to unload the engorged vessels, whilst they must be excited to contraction by various stimulants and astringents such as the Nit. argenti, acet. Plumbi, Sulphates of Copper, Zinc, Alumina, Salts of Mercury and various vegetable astringents, the watery solution of Opium et acet. Plumbi, so often used and recommended by Prof. N. S. Smith.





is perhaps one of the best anodyne astringent lotions we can use, these or any other measures will be known to do good says Dr. Druitt "if they make the part feel stronger and more comfortable, although their first application may have <sup>been</sup> painful but if they render it hotter and more vascular, it is a sign they stimulate too highly and if continued may favour the production of acute inflammation, ~~Counter~~". Counter irritants such as blisters, Sinapisms, Setons, Issues, Moxas and irritating ointments are often very beneficial but should only be used in Chronic inflammations. In acute inflammations it is best to take away sufficient blood at once to make a decided impression upon the system, in Chronic Cases and according to some authors in all inflammations of vital parts small and frequent bleedings are to be employed.

I have now finished the subject of

I have been furnished the subject of  
and to be completed.  
of what has been and frequent history  
and according to the outline in all instances  
information upon the subject, in Chinese can  
may sufficient that at once to make a  
then to best information it is but a  
but should not be used in Chinese  
as a matter of course and often very dangerous  
used a matter, business, letters, letters, from  
a set information, "letters" letters  
and of nature very from the history of  
because it is a paper they should be kept  
familiar but of this kind of letters is a  
the although this part of the letter may have  
with the part of the letter and over  
will be known to the great part of the  
letters we can use them as well as  
is perhaps one of the best methods

my essay the Pathology and treatment of inflammation a subject upon which so many volumes have been written, inflammation an important element in almost every disease that afflicts the human family, having then such extensive bounds and having received so much attention from the best talents that have ever embellished our extensive science, it should scarcely be expected that the mere student with no observation and unaccustomed to original composition, could even do justice to, much less improve upon the vast amount that has heretofore been written, I have therefore merely noticed some general and well known principles, and now consign it with no little degree of diffidence to the inspection of a galaxy of talent, it is nevertheless satisfactory to know that I have performed an onerous yet not unpleasant duty in complying with a requisition which it seems has been imposed



upon students from the earliest records of our  
 Science.

The end.

Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

To

Philip H. Wagner.

Baltimore Feb. 5<sup>th</sup> 1827.

my copy the following and treatment of my  
 committee. I suspect upon which to many like  
 and have been written, to demonstrate an error  
 last-mentioned in almost every sense that affords  
 the former family, having their such returns  
 boards and being success in some of them  
 from the but talent that have our constitution  
 our various degree of talent, but only to separate  
 the latter from that with the character, and  
 connections to separate comparison, could see  
 a further to, but the comparison upon the but  
 however that has that for the latter, I have  
 therefore merely stated some general and all  
 however principles and some comparisons with the  
 little degree of efficiency to the satisfaction of a  
 degree of talent, it is somewhat surprising  
 to know that these persons are known to  
 not understand what is meant by a  
 reputation which is their last position

upon students from the earliest records of our  
science.

The end.





8/Jan

*The*  
*Inaugural Dissertation*  
*on*  
*Sulphate of Quinine.*

Submitted to the examination of the Provost,

Regents and Faculty of Physic

of the  
University of Maryland

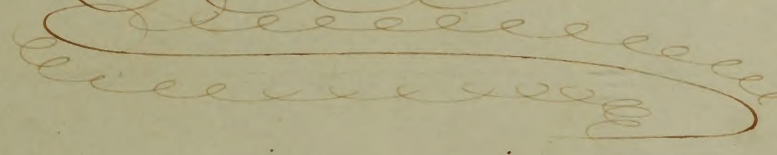
for the

Degree of Doctor of Medicine

By

Philip H. Wagner.

Baltimore Feb. 5<sup>th</sup> 1847.



1810

Received of the Treasurer of the University of Cambridge

the sum of

£ 100 0 0

for the purchase of the books of the University

of Cambridge

at the rate of

£ 100 0 0

per annum

for the purchase of the books of the University

of Cambridge

at the rate of

£ 100 0 0

per annum

Respectfully dedicated to Paul Chew M.D.  
Professor of Therapeutics, Nat. Med. & Hygiene,  
in the University of Maryland

*Faint, illegible handwriting, possibly bleed-through from the reverse side of the page.*

1.

It is not at all probable that any medical student, who has but for a short time devoted himself to the study of medicine, however attentive he may have been, will be able to advance anything new in the science of medicine.

In the first place, however much he may know and may have read, there yet remain volumes untouched, in which all things have already been noted down; and secondly, if there be any mystery which as yet is unravelled, strict attention to the duties of his profession and an observing eye, will alone be of service to him.

If this be the case, what could be expected from one who has yet not attended two courses of lectures and who has taken a subject to write upon, the action of which is yet obscure, and which has been <sup>under</sup> investigation by the most scientific members of the medical profession.

Have these investigations by different men

*[Faint, illegible handwriting, likely bleed-through from the reverse side of the page.]*

resulted in the same conclusions? Far from it —  
 Which then of the many theories shall we embrace, and  
 what new arguments shall we adduce, to prove that the  
 theory taken by us, is correct and that other theories are  
 false?

Before proceeding any further it will be necessary to  
 see what has been advanced, and if it should happen  
 not to suit our fancy, the only thing left for us will be  
 to advance a theory of our own.

Since the introduction of the Sulphate of Quinine  
 into the medical profession, it has been extensively used  
 by all its members in the treatment of various diseases  
 and is by all considered to be, one of the most important  
 drugs in the Materia Medica, and were we deprived of its  
 use its virtues could no where else be found.

It is now universally employed, in preference to any  
 other medicines in the treatment of malarious dis-  
 eases; and it is in these diseases, its salutary effects  
 are most made manifest; and from its salutary





3

influence in subduing these diseases is entitled to the name of a specific.

There is at this time much diversity of opinion in reference to its "modus operandi," in these diseases and also in reference to the mode of administration.

By some it is held as tonic, and stimulant, and as malarious diseases are often accompanied with inflammation of the abdominal viscerae, it is held advisable, on account of its stimulant properties, to withhold its use until all inflammatory symptoms have been reduced or subsided, and then to be given in small and divided doses.

Dr. Henderson in an essay on the treatment of malarious disease in the northern section of Ohio, says "that when Quinine is given prior to the correction of the secretions, its effects appear to coincide with the tendencies of the disease, while if the system is put in order for its use, it counteracts the train of morbid operations" —

He recommends, that Quinine, in the treatment



of Intermittent & Remittent fevers should be in every instance  
to be preceded by active Cathartics, blood-letting, both general  
and topical, in order to subdue the inflammation.

After all inflammatory action has been subdued, he  
then recommends, that Quinine should be given, but  
that it must be given in small doses and its effects  
carefully watched lest it excite inflammation and  
thereby establish a symptom more difficult to treat  
than the primary disease. It is also held by him  
"to be a decided stimulant in any dose, and that on  
this account he would hold it injudicious to give a  
large quantity than grxx in twenty-four hours.

We have seen then one theory, and its author  
says that his arguments are not hypothetical, but  
that they are based on observation.

Whether or not this theory is the only correct one,  
we will not now pretend to say, but will first compare  
it with another which is quite opposite, and then  
draw conclusions accordingly.



5.

The theory alluded to, is one advanced by Dr Holmes Surgeon of the United States army, and was written whilst stationed in Florida.

Dr Holmes says "that in treating Remittent fever as it then occurs he has given it in the highest stages of fever and in the lowest of prostration; never permitting any existing state of uninflamed Stomach or Bowels, to deter from its administration or lessen the dose in which he would have given it, and that he had never lost a patient from inflammation following Congestion when the Quinine had been given in large doses."

From its effects in diminishing the pulse in frequency it was held by Dr Holmes to be a decided sedative, and by its sedative effects it was supposed that the disease was removed.

He also adds "that it is probable in treating Remittent fever that we never lose our patient by the injurious effect of too large a dose of Quinine, but that the fatal Cases are those in which Quinine has not

The thing which is to be done is to get a  
copy of the book which is to be done  
written in English

The book which is to be done is to be done  
in the form of a book which is to be done  
in the form of a book which is to be done

in the form of a book which is to be done  
in the form of a book which is to be done  
in the form of a book which is to be done

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in the form of a book which is to be done  
in the form of a book which is to be done

been administered in proper quantity or when it has not been thrown into the Constitution for a sufficient length of time to subdue the disease."

Here then are two theories; one adduced by a Physician in the north and the other by one from the south. One contends that Quinine is stimulant in any dose and judges from its effect upon the pulse, whilst the other holds it as a sedative in large doses and the pulse has also been his guide; one holds that it should always be preceded by Cathartics and blood-letting; whilst the other takes no notice of inflammatory symptoms; one contends that it should always be given in small doses whilst the other says that he has never lost a patient from the effect of too large a dose of Quinine; one holds that it should only be administered during the intermission of the paroxysms, whilst the other says that he has administered it in every stage and that with salutary effects.

and that with salutary effects.  
say that he has administered it in every stage  
intermission of the fever, and that the  
there is should not be administered during the  
effect of the large dose of quinine; and then  
say that he has never had a patient from the  
change of grain in small doses while the  
of supplementary symptoms; and that he is  
and that being, which he then takes on  
that is should always be administered by  
and the pulse has also been his guide; and then  
which the pulse is as a criterion in large doses  
and say that he has never seen the pulse  
the pulse. In contrast the pulse is  
dyspnoea in the night and the effect of  
then in two hours, on occasion of a  
of time to reduce the disease.



That Ipecac has stimulating properties is admitted, and that it is frequently employed as such is also certain, and in such cases is given in small doses.

It being a stimulant in small doses, it would be improper to administer it in any disease connected with inflammation. But it is certain that Intermittent fever may exist and does exist without any inflammation of the abdominal viscera.

The objections then to the use of large doses would we infer be, that by its stimulating properties, it might excite inflammation if there was none previously existing.

Those who hold it as a sedative generally employ it in large doses and contend that by its sedative properties the inflammation (if there is any) is subdued.

That it has the power of diminishing the frequency of the pulse, when administered in large doses, we have frequently observed, but how this was affected we do not pretend to account for.



It would be useless for us to give the many different arguments which have been advanced <sup>for and</sup> against each of these theories, by their different authors, and therefore shall content ourselves, by advancing another one, which also has its imperfections, but which in our mind appears more plausible than <sup>either of</sup> the foregoing.

We know that Quinine is given in different doses in different parts of the United States, and each physician prefers his own mode of giving it, and each one claims to be most successful in the treatment of malarious diseases.

We are aware that malaria is a poison, but we are unacquainted with its chemical constituents, and all attempts to analyze it have thus far proved fruitless. We also know that the peculiar paroxysms occurring in Intermittent & Remittent fevers are produced by the poisonous effects of malaria taken into the system, and so long as the system is under its influence these paroxysms will



Continue to occur, but so soon as the system is freed from malaria, the paroxysms will cease to occur.

The paroxysms in malarious diseases are themselves not to be considered as the disease, but should only be considered as the effect, produced by a specific cause. A mite introduced into the eye will cause irritation and if it remain there will excite inflammation but so soon as the foreign substance is removed the inflammatory symptoms will gradually disappear.

Our object then in malarious diseases would be, to remove the exciting cause, and after it is removed we have nothing to fear for the safety of our patient.

Would it not be reasonable to infer, that the sulphate of Quinine acts as an antidote, chemically decomposing malaria, in the same manner that any other antidote would act upon any given poison?

Quinine acts quite differently when



administered to persons laboring under different disease.

When Quinine is given as a tonic, (for instance in Chlorosis,) shortly after its administration, your patient will complain of uneasiness in the head, giddiness, loss of vision and a peculiar buzzing in the ears, caused by the Quinine. The system will be completely under its influence in several hours after its administration, and if we persevere in its use these symptoms will be aggravated.

We think, that when using Quinine and when these symptoms occur, viz buzzing in the ears &c, that we may attribute them to the Quinine, and rest assured that the system is under its influence.

When Quinine is administered in malarious diseases this effect is not so soon produced; and until it is produced, the patient will suffer from the paroxysms peculiar to these diseases.

We have seen cases of Intermittent & Remittent fever which were brought to the Balt. Infirmary during

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above mentioned matter. I am sorry to hear that you are unable to attend to the business of the office at present. I will endeavor to do all that is possible for you. I have the honor to be, Sir, your obedient servant.



the past summer, which were treated with large doses of Quinine, and whose systems were not brought under its influence for several days, and not until the peculiar symptoms were made manifest, did the paroxysms cease to occur. We have also frequently observed, how carefully Quinine is used in the State of Ohio and how carefully it is administered.

Three (in Ohio) grains of Quinine is considered quite sufficient (if not too much) to arrest an attack of Intermittent fever; and it will do it, but your patient will not be cured, but will return to you again in several weeks suffering from the same disease, and you again give him the same amount ~~and~~ <sup>and</sup> may possibly succeed in your second attempt.

We do not remember of ever having heard a patient complain of those peculiar symptoms caused by the system being under the influence of Quinine, and have another attack of the paroxysms peculiar

The first thing I should mention is that the weather was quite pleasant today. We went for a walk in the park and saw many beautiful flowers. The children were very happy and played for hours. We also had a picnic under a big tree. The food was delicious and everyone enjoyed it. We spent a very nice day and had a lot of fun. I hope to go back soon.

to Intermittent & Remittent fevers, (i.e. if the patient did not expose himself to an exciting) but we have frequently seen patients who were laboring under Intermittent fever, ~~and~~ were taking Quinine, and if the paroxysms were severe, they would continue to occur until the system was brought under the influence of this remedy.

We would then be led to infer that a certain quantity of Quinine will decompose a certain quantity of Malaria, and in that manner arrest the paroxysms of Malarious diseases, but there still being a portion of the poison in the system, (not <sup>sufficient</sup> ~~there~~ to excite a paroxysm) the system will be debilitated by its presence and after a certain degree of prostration (caused by the poison) these paroxysms will again make their appearance.

It is only upon the principle that Quinine chemically decomposes Malaria, that we can conceive how Quinine can be administered



in so many different doses in different parts of  
of the United States and with the same salutary effects.

In the southern and western parts of this Union  
we hear of its being frequently administered in 100 gr  
doses without any discomfort to the patient but  
with certain destruction to the disease.

In the northern portions of the United States it  
would be imprudent, improper to use such enormous  
quantities of Iodine, not because we might injure  
our patient by treating them thus "heroically," but  
because it would be an unjustifiable waste of this  
important drug.

We could account for the necessity of using  
larger doses in the south than are required in the  
north in this manner, viz. Malaria in the south  
and south-western parts of the United States  
is generated faster and the poison is more concen-  
trated than it is in the north; and ~~thus~~ it makes  
a more decided impression on the system in the



South than that, which is generated in the north and consequently requires a larger quantity of the Sulphate of Quinine to be given in treating malarious diseases as they occur in the south, than it does in treating those which occur in the north.

In the treatment of these disease we would use quinine in any stage of the disease, without previously attempting to subdue inflammation if there is any existing, for so long as the poison is in the system it will have a tendency to aggravate the inflammatory symptoms, whatever we may do in attempting to subdue them.

Whenever a poison is taken into the stomach, one first object is relieve it of the foreign substance or to decompose it, it would be folly for us to attempt to subdue gastric inflammation caused by the introduction of poison without first attempting to remove the exciting cause.

So in malarious diseases, we would think

In the first place, there is a general opinion in the world  
 that Congress will require a large quantity of the  
 products of business to be given in return for the  
 money which they receive in the market, than it does  
 in reality. There is also a general opinion in the world  
 that the production of these articles is more  
 the result of any other of the causes which  
 frequently attempt to reduce the quantity of  
 them in any country, for so long as the business  
 in the system is still in a state of  
 growth, the capital employed is constantly  
 being employed in attempting to reduce them  
 to a smaller quantity, is taken into the market  
 the first effect is a reduction of the foreign  
 market, or a decrease in the number of  
 for us to attempt to reduce the quantity of  
 without first attempting to reduce the quantity  
 of them.



it a direable first to administer Quinine, in order to decompose the malaria, and after that is accomplished, and not until then should our attention be directed to the inflammatory symptoms, if there are any existing

The conclusions come to, would then be as follow;

1st. That, if there is any medicine which is entitled to the name of "Specific," Quinine can be considered as such in the treatment of those disease which have malaria for their origin -

2nd That as far as we know anything in reference to its action, we would infer, that its primary action is upon the poison, and that it decomposes it as any antiseptic will decompose a given poison.

3rd. Owing to the Concentration of the poison in southern climates, larger doses of Quinine are requisite than in the north, and <sup>that</sup> the dose should always be regulated <sup>in</sup> proportion to the severity of the paroxysms.

it is a direct proof to demonstrate the  
 reason for the matter, and after that is  
 finished, as a rule, that there are  
 no more to the explanation of the  
 on any subject, a thing is not  
 the subject in mind, and the  
 the fact of this is not a matter of  
 to the name of things, which is  
 as well as the history of those things  
 have practice for their rights, and  
 as it is not so far as to be  
 to the subject, we would prefer that it  
 action is often the fact, and that it  
 as any matter into the subject  
 the subject to the Constitution of the  
 and the subject, and the  
 quite than in the matter, and the  
 always be regarded as a matter of  
 of the subject.

4th. That before attempting to remove any inflammation which may exist, we should first remove the exciting Cause, which is Malaria, and which is decomposed by the sulphate of quinine.

This then is a Theory and we think is entitled to that name; but whether it is a correct theory, the true theory, we do not pretend to say

We are aware that many arguments can be adduced to prove that this theory is incorrect, but there <sup>are</sup> quite as many arguments <sup>which</sup> can be found, and <sup>which</sup> can be urged against any other theory.

It may be said that the above theory is too hypothetical to be noticed; but show what theory is there on this subject which has not hypothesis for its corner stone.

It may be asked how does Quinine decompose Malaria; what Chemical Changes are brought about?

These questions can only be answered, by asking <sup>of</sup> him who proposed them, the Chemical constituents

The first object of the present paper is to show that the  
 doctrine of the identity of matter is not only a necessary  
 consequence of the doctrine of the conservation of matter,  
 but also of the doctrine of the conservation of energy.  
 It is true that the doctrine of the conservation of matter  
 is not sufficient to establish the identity of matter,  
 but it is necessary for it. For if matter were not  
 conserved, it would be possible for matter to be  
 created or destroyed, and the identity of matter  
 would be impossible. The doctrine of the conservation  
 of energy is also necessary for the identity of matter.  
 For if energy were not conserved, it would be possible  
 for energy to be created or destroyed, and the identity  
 of matter would be impossible. The doctrine of the  
 conservation of matter and energy is therefore necessary  
 for the identity of matter.

of Malaria, and then possibly, his question may be satisfactorily answered.

It may also be urged against this theory, that other Medicines, which are destitute of any of the Constituents of the Sulphate of Quinine, have been used with success in the treatment of Malarious diseases.

This must be admitted, but we <sup>have</sup> different substances which will decompose the same Compound, and thereby give us a variety of Compounds, quite unlike the first.

We hold that this theory is as plausible, quite as plausible, as some others which have been advanced on this and on other things in the medical science, which are yet obscure, but which would lose all their mystery, if they were unravelled before our eyes.

If we have advanced anything, which cannot be so, we are willing to stand corrected, by those who are our superior.

of the world, and the history of the world may  
 be satisfactorily explained, and in a manner  
 I may also be explained, and the theory that  
 the business, which is a subject of one of the  
 elements of the subject of business, has been  
 with respect to the nature of business, which  
 that must be admitted, but in different  
 that has been explained, and the business, and  
 that give us a variety of business, quite in  
 like the fact, and in a manner that is  
 the fact that the theory is a business, quite  
 as possible, as some other which have been  
 viewed on this, and on other things in the  
 the other business, which are explained, but  
 which would be true, and the business, which  
 they are explained, and the business, which  
 if we have seen, and the business, which  
 cannot be, as we are willing to stand, and  
 by the fact, and the business, which

It is not alone in malarious diseases that Quinine is used with success, but it has and is frequently used in the treatment of diseases in which tonics are to be used.

It is not probable that Quinine possesses all the tonic properties of the Cinchona bark, but owing to the bulk and inconvenience of its administration, Quinine is used in preference to it or any other known tonic.

As a tonic, it is used in febrile diseases, in Dropsy, Dyspepsia and in Chlorosis, in which case it is generally given in combination with the different preparations of Iron.

It is also used with success in various nervous <sup>diseases</sup> affections such as Neuralgia, Hysteria, Epilepsy &c.; also in the suppurative stages of Inflammation and in all cases of debility and extreme prostration.

During the past summer we have seen it

11

It is not clear in the manuscript whether the disease  
is more like measles, but it has been reported  
and in the treatment of measles in this time  
as to be used. It is not probable that genuine measles can be  
lost, properties of the disease are lost, but only  
to the back and immaturity of the individual.  
First, measles is not a infectious disease, it is only  
transmitted from one person to another.  
As a rule, it is not a fatal disease, unless  
in the case of children, and in children, it is  
not so generally fatal as in the case of  
adults. The different forms of measles  
It is also not clear whether measles is serious  
more or less than the other forms of measles.  
It is also clear in the manuscript that the  
of measles is not a fatal disease, but only  
and measles is not a fatal disease, but only  
during the first period of the disease.



used in Cases of Typhoid fever - Convalescence is generally slow in these diseases, and Quinine was given to a great measure in her taste, but its action was far less decided in these Cases than in other different diseases.

In Cases of Extreme prostration, such as in the last stages of inflammation, <sup>diseases</sup> where support to the System is absolutely necessary, would it be advisable to give large (say 90xx) doses of Quinine, or should we give small doses, and repeat them frequently?

Those who hold it as a sedative in large doses, would certainly not give it in large doses in Cases of this kind, but those who consider it to be a decided Stimulant, in any dose, would in these Cases prefer large to small doses.

As its action is not altogether understood, it would we think, be advisable to handle it Carefully, lest we might hasten our patient to an untimely dissolution

and in case of *Hydrophorus* - *Convolvulus*  
 is generally known in the *Hydrophorus*, and *Hydrophorus*  
 given to *Hydrophorus* in the *Hydrophorus*, but in *Hydrophorus*  
 was for the *Hydrophorus* in the *Hydrophorus* that the  
 other *Hydrophorus* *Hydrophorus*, and *Hydrophorus*  
 the *Hydrophorus* of *Hydrophorus* *Hydrophorus*, but in the  
 last *Hydrophorus* *Hydrophorus*, when *Hydrophorus* to the  
*Hydrophorus* is *Hydrophorus* *Hydrophorus* *Hydrophorus* of the  
*Hydrophorus* to give *Hydrophorus* (part *Hydrophorus*) *Hydrophorus*  
 a *Hydrophorus* in *Hydrophorus* *Hydrophorus*, and *Hydrophorus* *Hydrophorus*  
*Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
 of *Hydrophorus* *Hydrophorus* is as a *Hydrophorus* *Hydrophorus*  
*Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
 in *Hydrophorus* of the *Hydrophorus*, but *Hydrophorus* *Hydrophorus*  
 to *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
 these *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
 as in *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
 this *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*  
*Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus* *Hydrophorus*

We have now said everything we intend saying in reference to the action and properties of the Sulphate of Quinine.

We do not come to a close because we could say no more, but simply because we consider it unnecessary to attempt to try to enlighten, or in any manner to interest, the Faculty of Physic of the University - of Maryland.

Our subject is a good one; true, somewhat obscure, yet we think that much might be brought to light in reference to its action, if those who are constantly employing it, and seeing it employed, did but trouble themselves to make known the result of their observations.

That it is to be preferred to any other article in the treatment of malarious disease, no one would pretend to deny; that it cannot be administered in the same doses in different localities, is we think <sup>also</sup> quite certain, and the only manner in which we can account for this, will be to hold it as an <sup>in</sup> antidote, decomposing malarious poisons.

The same may be said of the other cases, and the same may be said of the other cases, and the same may be said of the other cases.

It is not necessary to say more of this, and the same may be said of the other cases, and the same may be said of the other cases.

The subject is a good one; and the same may be said of the other cases, and the same may be said of the other cases.

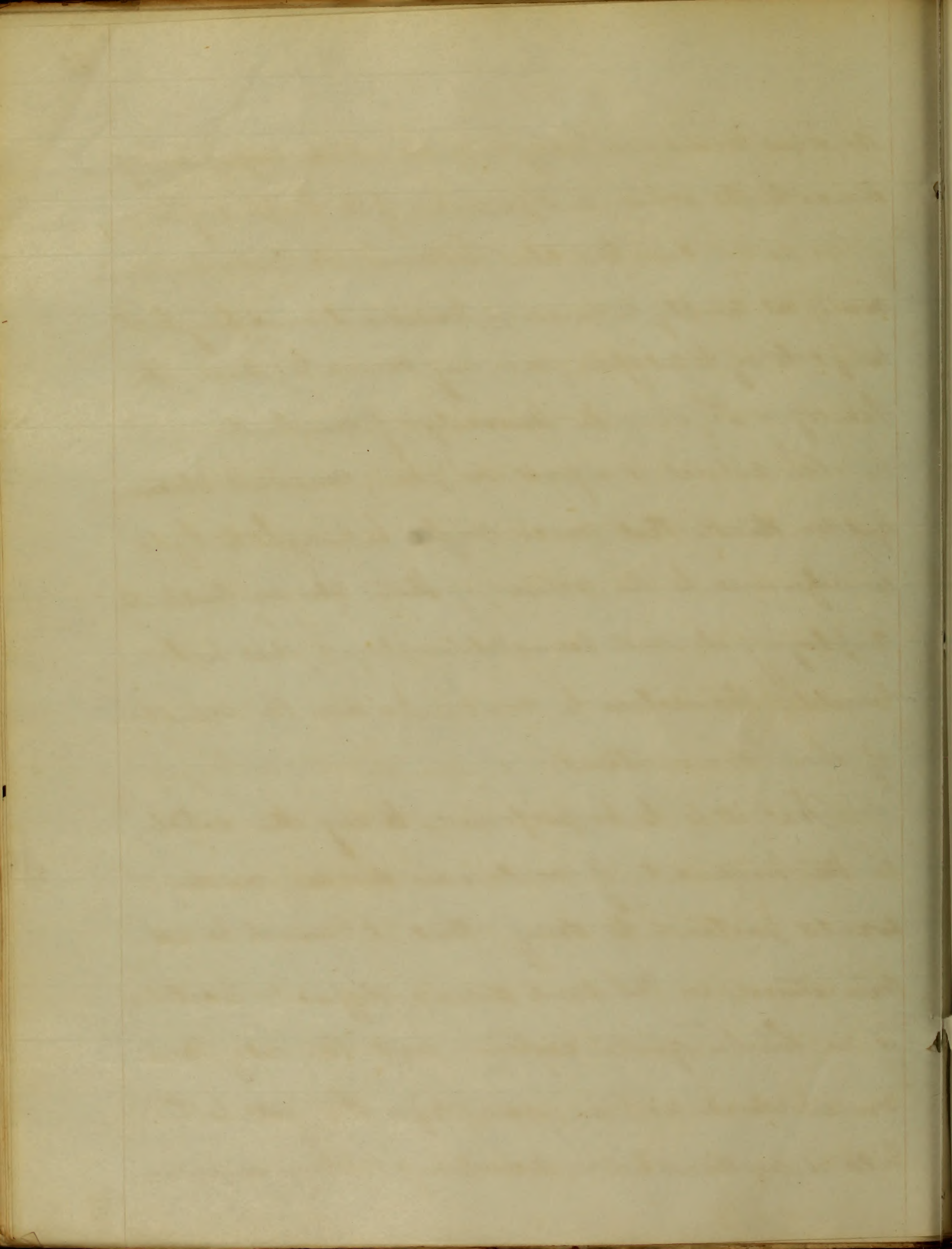
It is not necessary to say more of this, and the same may be said of the other cases, and the same may be said of the other cases.

That it is to be preferred to any other, and the same may be said of the other cases, and the same may be said of the other cases.

in the treatment of melancholic disease, no one would object to say, that it should be administered in the same manner as the other cases, and the same may be said of the other cases.

is the only one, and the same may be said of the other cases, and the same may be said of the other cases.

*[Faint, illegible handwriting on lined paper]*

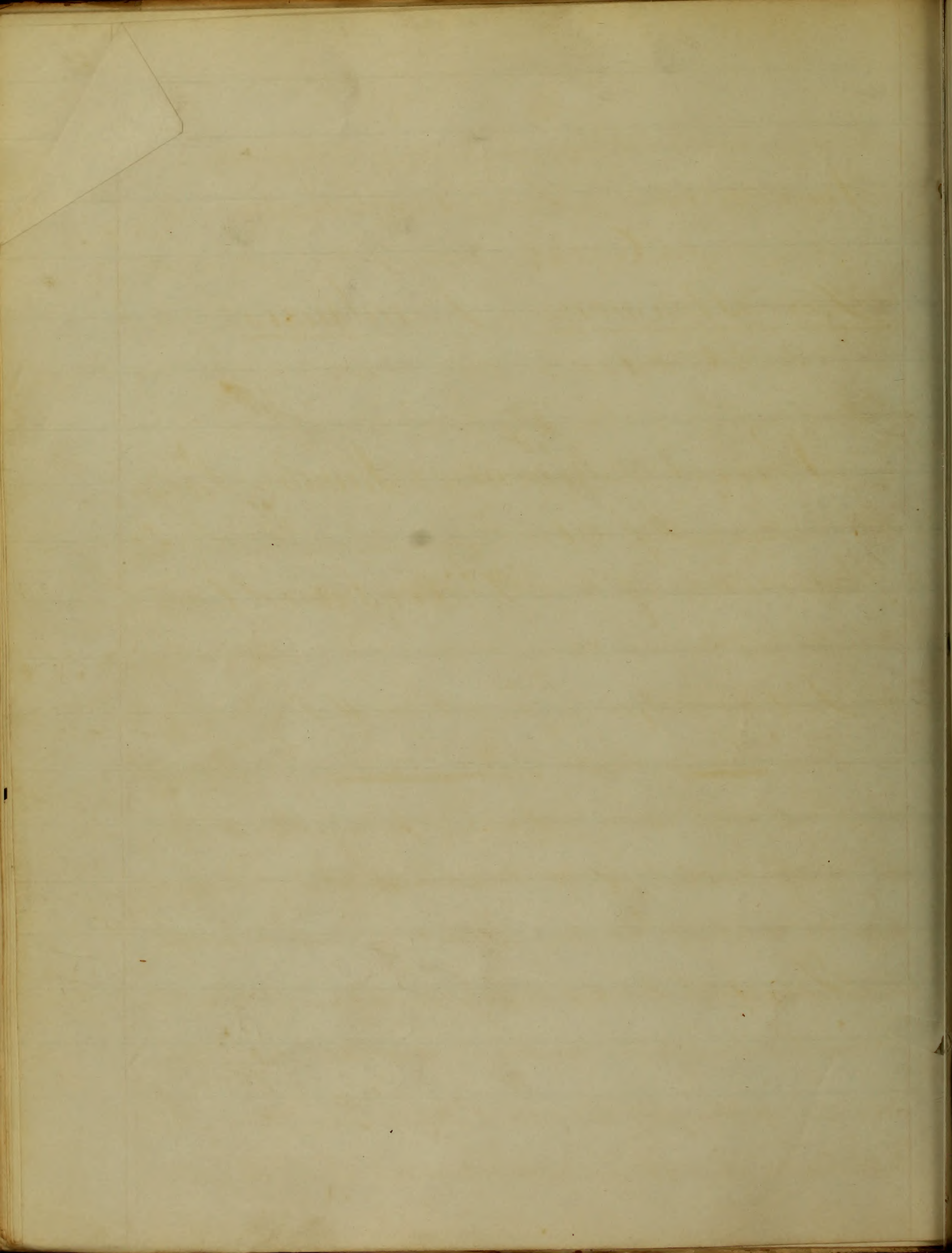


Inaugural Dissertation  
The Strangers of Antiquity

Presented to the Faculty of Arts  
University of Maryland

By the Author  
John P. ...

1842





Inaugural <sup>An</sup> Dissertation  
On  
The Strumous Diathesis

submitted to the Examination of the

Provost Regents and Faculty of Physic  
\_\_\_\_\_ of the \_\_\_\_\_  
University of Maryland

For the Degree of Doctor of Medicine

By \_\_\_\_\_

Thomas W. Patteague  
of Maryland.

July 1<sup>st</sup> 1847

August 2nd 1841

The Honorable J. Adams

Secretary of the Navy

Board of Admiralty, Admiralty House

Whitehall, London

Dear Sir

I have the honor to acknowledge

the receipt of your letter of the 27th

inst.

# The Strumous Diathesis

The subject which the writer has chosen for his Thesis he fears has long since been exhausted of all the interest which the charm of novelty would naturally throw around it.

But in compliance with the time honoured custom of our Medical School the Writer of this has put together in as good order as his time and attainments would admit, his own thoughts as well as the information for which he is indebted to Authors on the subject that he has chosen.

If in writing this brief essay a single idea has been suggested to the Author which will add a particle to the aggregate of human happiness, or tend in the slightest degree to mitigate human suffering, he will feel himself amply repaid for the time he has bestowed on its composition.

From a new Tyro in Medicine nothing is expected the Author is aware but a statement of his own views substantiated by such Authorities as may be accessible to him on the subject. But as a child may find a diamond in the dust, which the more lofty being with his head above the

Mrs. Thomas P. Williams

The report of the ...  
has long been ...  
claim of ...  
that in ...  
which ...  
as in ...  
right ...  
rather ...  
of ...  
with ...  
of ...  
human ...  
The ...  
of ...  
which ...  
that ...

clouds may now see, so it may happen that the diligent, and humble student may stumble on a truth which would now occur to the more lofty devotee at the shrine of science. Had the writer the privilege of the Poet, the Orator, or the Divine, Volumes might be written upon the subject that he has chosen and it would still remain unexhausted, but as a mere student of medicine he is aware that it must be viewed in another and a more practical light, and without any further preface he will proceed to its consideration.

The terms Scrofula and Thuma being used as convertible terms the writer will so use them as he has occasion during the course of this essay. The term Scrofula is derived from the Latin word "Scrofa" and was originally used by Vegetius to denote a peculiar disease in Cattle which strongly resembled the scrofulous glandular swellings which occur in the human subject. The Latin Author first adopted it in their Nosological Tables, using it to indicate the swellings which are known to be Scrofulous. Cullen defines Scrofula to be "Tumors of the glands, chiefly

words may seem to be, so it may happen that the  
 and hence the student may think in a book which  
 and occur to the mind. It is clear that the  
 of the mind to the principles of the art, the  
 of the mind, which may be written upon the surface of  
 the mind and it may be with various meanings, but  
 as a new method of teaching in a new school, and  
 around in another and a new language, but  
 any further paper in this regard to the  
 of the two papers and the same thing out as  
 the form of the text with a new one in the  
 the form of the text. The two papers  
 from the Latin and "Greek" and an  
 paper to show a practical thing in the  
 mind of the student of the subject  
 the human subject. The Latin paper  
 in the historical part, and it is  
 building which is known to be  
 of the paper to the "human" part

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in the Neck, upper lip and soft part of the nose tumid, face  
florid, skin soft, and abdomen large" It is now however generally  
thought that Scrofula consists in a peculiar morbid deposit  
called "Tubercle" and that Scrofulous swellings of the Neck,  
Pleuris, Tabes Menterica, Enlargements of the joints,  
Eruptions &c owe their appearance to this peculiar deposit of  
Tuberculous matter - The Physical signs of this Dia-  
-thesis are numerous and some of them are spoken of as  
being Pathognomic. They are stated to be "an extreme  
whiteness, fairness and softness of the skin, light hair, blue  
eyes, a soft and rounded form of the body, and a generally  
mild and pleasant expression of the face". The countenance  
is for the most part full and rounded, the cheeks tinted of a  
bright rosy hue, the teeth of a pearly whiteness but subject to  
early and rapid decay, The skin is very easily wounded and  
difficult to heal. The Limbs are disproportioned to the  
size of the Trunk and are generally slight and well  
formed, sometimes those who are of this Diathesis are above  
and they are often below the Medium stature -





The powers of the body are feeble and there is but little endurance of fatigue. The circulation is generally weak and but feebly carried on in the extremities, we have generally torpor of the bowels and indigestion connected with this Diathesis. There is a great disinclination for exertion or any kind of active labour among its possessors and this feeling early in life often influences them in choosing some sedentary and light occupation which tends to develop the latent disease that exists within them, and accelerate the formation of Tubercle, instead of choosing such an active and exposed life as might retard or permanently prevent its appearance. But though these individuals are thus deficient in physical power they appear to be peculiarly gifted in mind or the "God part" of man. They are generally of keen perceptions, a great deal of Fancy and imagination, warm feelings, and of a sanguine turn in their undulations. In early life they are generally distinguished for the brilliancy of their minds but this appears to be at the expense of their future greatness. They are generally nervous and impulsive in their movements - but want



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In the application, firmness and steadiness of purpose which is necessary to insure success. In fact this Diathesis resembles in some degree the Sanguine Temperament of the older writers. We have another species of constitution belonging to this Diathesis. Those who possess it are of a dark bilious complexion. We have in them round limbs and generally full bellies, muscular weakness, coarse skin, large feet, and hands &c with great apathy or indifference of manner, absence of mind, often intractability of manner, and great obstinacy of character. In fact we have here several of the attributes of what has been called the Lues phlegmatica temperament. That intellectual Colic the late Dr Samuel Johnson of England, is the best illustration of this class that at present occurs to the writer. Scrofula sometimes appears in persons who possess none of the signs of the Strumous Diathesis that I have named but this is the exception. The rule is, that it should occur to such persons as those I have described. Conjectivitas, Cervical Swellings, and various Tumors and enlargements



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of the Glands occur among them who do not apparently  
possess this Diathesis, but when any disease of this kind shows  
itself in any one notwithstanding his apparent health we may  
safely infer from it that he is of the Strumous Diathesis and  
that if not cut off by accident or some acute disease that  
he will one day die of Tubercular Affairs. Our treatment  
in these cases should be prophylactic and of such a chara-  
-cter as to prevent the development of Tubercles or such  
other disease as we may be led to fear the accession of from  
this. Scrofulous disease appears to pervade all the  
tissues of the body. It is found in the subcutaneous and  
cellular system, and is frequently found eating its way  
through the integuments and leaving ghastly wounds exposed  
on the surface. This is a form difficult to heal or  
treat and on its recovery it leaves Scars or Cicatrices of a  
very ugly character. The mucous membranes are often  
the seat of its ravages, the Mucous membrane of the  
Nose is destroyed, and the Bones become spongy and carious.  
The Mucous membranes of the Eye are also attacked



and then we have Conjunctivitis and the several forms of Ophthalmia  
 Also the mucous lining of the Bowels and then we have perforation.  
 The serous membranes also suffer from this disease. The  
 Pleura, the Peritoneum, the Arachnoid are each at times, the  
 seat of Tuberculous deposit. It sometimes invades the serous  
 Membranes of the brain and causes all the symptoms of Acute  
 Hydrocephalus. The Synovial Membranes and lastly  
 the osseous system are liable to this disease. When it  
 attacks the Bones we have a slight increase of vascularity in  
 them, which is followed by absorption of the earthy matter in conse-  
 -quence of which they become so much softened that we can  
 cut them with a knife. After a time this state of softening  
 is followed by exfoliations of the Bone which comes away in  
 large flakes. The spinal column is more apt to suffer  
 from this disease than any other part of the osseous system.  
 When we have softening and caries of the Bones from sitting  
 of the Spine angular curvature is produced. The  
 Pinnum when attacked by it falls off and without the  
 Bone suffering but it (the Bone) becomes covered with large

and the same day the first of the month of the year  
 The 1st of the month of the year of the year  
 The 2nd of the month of the year of the year  
 The 3rd of the month of the year of the year  
 The 4th of the month of the year of the year  
 The 5th of the month of the year of the year  
 The 6th of the month of the year of the year  
 The 7th of the month of the year of the year  
 The 8th of the month of the year of the year  
 The 9th of the month of the year of the year  
 The 10th of the month of the year of the year  
 The 11th of the month of the year of the year  
 The 12th of the month of the year of the year  
 The 13th of the month of the year of the year  
 The 14th of the month of the year of the year  
 The 15th of the month of the year of the year  
 The 16th of the month of the year of the year  
 The 17th of the month of the year of the year  
 The 18th of the month of the year of the year  
 The 19th of the month of the year of the year  
 The 20th of the month of the year of the year  
 The 21st of the month of the year of the year  
 The 22nd of the month of the year of the year  
 The 23rd of the month of the year of the year  
 The 24th of the month of the year of the year  
 The 25th of the month of the year of the year  
 The 26th of the month of the year of the year  
 The 27th of the month of the year of the year  
 The 28th of the month of the year of the year  
 The 29th of the month of the year of the year  
 The 30th of the month of the year of the year  
 The 31st of the month of the year of the year



masses of Adipose tissue, which lay around and enclose it. The  
 Mesenteric, the Mesocolica, the Mesocolic and Lumbar  
 Glands, the Prostate, Uterine and Glands of the groin are  
 all liable to and at times attacked by this disease. The  
 Pancreas is often found scrofulous, the Spleen often in children  
 but seldom in adults. The Liver though so often function-  
 ally deranged is seldom the seat of this Disease. The Organs  
 of generation in both Male and Female, the Bladder and  
 Prostate gland in the Male, and the lining membrane of  
 the Uterus and Vagina in the female, are often attacked by it.  
 And lastly but the most important of all the seats of this  
 disease is the Lungs in *Pthisis Pulmonalis* or "Scrofula  
 of the Lungs" as Louis calls it. This disease which appears  
 to be common to our race in all parts of the world but most  
 common perhaps in our own happy country than any other  
 possesses such startling magnitude as to make it worthy of  
 the most serious and earnest consideration of the Physician.  
 The writer cannot let this occasion pass without taking a  
 brief glance at this awfully interesting disease.



The Causes which predispose to it are in the writer's opinion  
 nearly always hereditary. In some cases however the disease may be  
 owing to more immediate exciting causes, acting either in infancy or  
 in adult age, these causes acting on the hereditary predisposition pro-  
 duce the disease - Again it is the writer's opinion that the disease  
can be produced without this hereditary predisposition but then cases  
 are rare, while on the other hand when this predisposition exists the  
 odds are vastly in favour of the individual, having Tubercular  
 disease produced by some one of the thousand Causes which are always  
 at work to the detriment of human health - And - Again - an  
 individual may have the predisposition to it by birth and yet by  
 taking proper precautions may pass through life without ever  
 having the disease - There is no other disease that is so generally  
 prevalent among us as this and none other that so often ranks  
 among its victims the "loves ones of Earth," the young, the beauti-  
 ful as this - Thousands who now crowd the Court, the Camp,  
 the Grove and the busy marts of trade, carry within them  
 the incipient seed of this disease which is one day to  
 check their career. Nothing that Science can do will

The Committee have had the honor to receive from the Secretary of the Treasury a copy of the report of the Board of Commissioners on the subject of the proposed amendments to the Constitution of the United States. The report is a valuable and interesting document, and it is the duty of the Committee to report thereon to the House of Representatives. The report is divided into two parts, the first of which contains a general statement of the facts and circumstances which have led to the proposed amendments, and the second part contains the proposed amendments themselves. The Committee are of opinion that the proposed amendments are well calculated to improve the Constitution, and they recommend that they should be adopted.

avail to avert the doom of them - The faintness of Beauty  
 and the morbidly active mind and sensitive feelings which accom-  
 -pany worth and Talent too often mark their possessors as belong-  
 -ing to this peculiar Diathesis - In this disease we are often com-  
 -pelled to stand idle but not indifferent spectators of a doom  
 we cannot avert - Now the language of Truth and Candour  
 often compels us to blast the fond but fallacious hopes that  
 appear to characterize this disease to its latest stages - Here  
 every word said by us relative to the disease if we are properly  
 informed regarding it can be relied up as oracular and is  
 dwelt upon by the sufferer as the "Vox dei" - For so  
 plain is the Thoracic Cavity now made to us by Auscult-  
 -ation that its contents can almost be read like an open  
 Book - The Causes which give rise to this Disease  
 or to this Diathesis are numerous and scarcely well defined,  
 Langstaff, Musson, Oehl, Louis, and Andral, have  
 all detected Tubercles in the lungs of the Foetus. Though  
 there can be little doubt but that both the predisposition and  
 the disease itself can be derived from the parents, there is

would be most the same of him. The friends of liberty  
 and the world's order and constitution of the world are  
 very much interested in the success of the American  
 war to the point of Britain. As the American war has  
 been to them not only a political question but a  
 moral one. The language of the British  
 often compels us to think that the few but powerful  
 efforts to characterize the American war. The  
 very words used in a letter to the friends of the  
 American cause can be used as a  
 result of the efforts of the British. The  
 plan is the American cause and more than  
 other that it is our duty to use it in  
 Part. The American war is a  
 as the British are now and we are  
 J. Jay, Madison, Hamilton, Jefferson  
 all detected in the cause of the  
 they can be little doubt but that the  
 the American cause can be done for the

also reason to believe that it is not exclusively so derived but that  
 certain causes, to which we are subjected through life can produce  
 the same effects. That it is not communicated by direct  
 contact or by any intercourse, every days observation must  
 teach us. The writer about a year since slept for some  
 weeks in the same bed with a friend, a young man who was  
 then and is now suffering from confirmed Pthisis. This gentle  
 man is now in the W. Indies in the last stage. Yet the  
 writer cannot believe he is infected with this disease. But  
 it is due to the very respectable authorities who are in doubt,  
 as to the contagiousness of this disease to state, that had the  
 writer known at that time that there was any doubt on  
 this subject, he should certainly have allowed himself  
 the benefit of said doubt. Baudelocque quotes the fact  
 that in the Hospital des Enfants 150 Beds are occupied by  
 children many of whom are scrofulous yet the disease  
 was never known to be communicated from one to another,  
 Also at the Hospital of St. Louis observations  
 confirms the same fact. Bad air, bad diet,

The same to believe that the one volume of common law  
contains to exhibit in an explicit form the common  
the same effect. That is a not a comprehensive of kind  
contact of any interest, may stop them from being  
technique. The same also a year and half for some  
work in the same way with a foreign group even when  
there is no suffering from common. This is the  
man is one in the U. States in the last step. The  
with cannot be done in a separate with the same. The  
it is due to the way of separate and separate. It is  
as to the continuation of the same to state, that the  
Water known as that the same that the same, that on  
the subject, the school, the school, the school, the  
the subject of the school. The school, the school, the  
The in the school, the school, the school, the school,  
children many of whom are in the school, the  
was never known to be common, the school, the  
Also at the school, the school, the school, the  
conform the same form. The school, the school,



and exposure in fact, bad Hygiene generally no doubt tends to produce it. - Altho' we find it unfortunately very common among those who are subject to none of these influences. - We find that this Diathesis prevails, to as great an extent among the children of the wealthy as among the poor. - Among those who are reared in affluence and luxury as among those who are reared in Poverty and Want, - In fact we often find those who are well fed and clothed extremely liable to these diseases while the hardy sons of Poverty enjoy a comparative immunity from their effects. - Still there is no doubt but that as a rule the poor who are condemned to a life of not only toil but exposure in many cases to pernicious exciting influences, are more liable to its visitations than those in the higher ranks whose wealth will allow them to select that pursuit in life which they find most congenial to health. - As regards location, we find that this Diathesis is as prevalent about in one location as in another. - And we often find that if there is any difference

and upon in fact has appeared generally in that kind  
 however. Little in fact is factually very common  
 among them and our object is not of this nature  
 the fact that the British power is a great one  
 extent among the children of the earth among the  
 fact. One of them was our voice in appearance and  
 among as among them was our voice in fact and  
 In fact we often find that we are not the only  
 attempt made to the British with the help of  
 Part of a comparative community from their  
 fact. Little then is our object but that of a  
 who are confined to a life of out of the fact  
 many cases to be noticed excepting by law, and  
 held to be violation than that in the fact  
 when we shall with other things to be the fact  
 in life which they find most compared to health.  
 The object of the fact is the fact in a  
 however about in the fact in another. The  
 we often find that of this is our appearance.

It appears as though those parts of the country which should be considered the most healthy are often most liable to it.

"In mountainous districts where from the scarcity of population there necessarily follows a great deal of intermarrying this Diathesis prevails to a great extent." This fact which is

confirmed by the writer's personal observation goes a great way to prove its being hereditary. Luyol whose work on Scrofula

the writer has read with a great deal of interest appears to lay great, perhaps too great stress on the fact of its always being hereditary. Most persons of this Diathesis

if it develops itself in early life die young. Those who reach the period of puberty are much infatuated in health and

if they marry and have families they always beget scrofulous children, or children in whom in a few years this

Diathesis develops itself, they have occasional remissions but they never possess the fine constitutions that belongs to

those who were originally well made. Although such persons appear temporarily to be cured they never possess

the power of procreating vigorous children as do those who

The first of these is the fact that the  
 number of cases of the disease has  
 increased in the last few years.  
 This is due to the fact that the  
 disease is now being spread by  
 the air-borne route. It is also  
 due to the fact that the disease  
 is now being spread by the water-  
 borne route. This is due to the  
 fact that the disease is now being  
 spread by the water-borne route.  
 It is also due to the fact that the  
 disease is now being spread by the  
 air-borne route. This is due to the  
 fact that the disease is now being  
 spread by the air-borne route.

are of a more vigorous frame. We find Scrofulous individuals  
 who appear to be relieved from "Tubercles" and yet die from their effects  
 a longer or a shorter time after their apparent cure. This  
 Pulmonalis often appears at the age of Puberty and is  
 apparently relieved at this period to again recur for a  
 number of years when by some error in dress or improper  
 exposure a relapse is brought on which in a short time proves  
 fatal. The same thing occurs with the scrofulous di-  
 -eases generally. Among the most prominent causes of  
 this Diathesis are ranked the syphilitic Virus in the parents,  
 the abuse of Venereal pleasures and precocious marriages in  
 all claps of Society. Onanism has been named as a cause  
 but Lugeol thinks that it is rather an effect of this  
 Diathesis. Weakness, or imbecility on the part of the  
 parents either the father or the mother, who are epileptic,  
 paralytic or deranged. Sometimes the cause are with  
 one of the parents, sometimes with the other and sometimes  
 it owes its origin to both. In fact its being hereditary is  
 almost indisputed and such being the case our



Lawgivers should frame and pass such laws as would put  
 a stop to the marriages by which this evil is perpetuated.  
 It belongs to Science to prepare the way for legislation on  
 this subject. Apart from the horror of perpetuating disease  
 there can be no doubt but that marriage is almost always  
 fatal to those persons who are predisposed to Tubercular disease.  
 In Italy, and the south of Europe it is still believed that  
 these diseases are contagious but experiments made by  
 Lugol both by inoculation and in various other ways  
 prove that it cannot be conveyed by contagion and that it  
 is always transmitted or is a sporadic disease. A  
 meagre and scanty diet, bad water, sleeping in badly venti-  
 -lated apartments have each been named as among  
 the causes of this Diathesis, but the writer cannot lay  
 too much weight on them, inasmuch as it must be evident  
 to all that the disease is as rare among those who possess  
 all the Comforts and even the Luxuries of life as among  
 other classes. There is no doubt in the writers mind  
 but that the active, exposed life which Poverty inflicts

I have had from my friends and acquaintances  
 a great deal of curiosity, and I have been  
 obliged to explain to them the nature of the  
 disease, and the manner in which it is  
 contracted. I have also been asked  
 many questions concerning the treatment  
 of it, and I have endeavored to answer  
 them as far as I was able. I have  
 also written several papers on this  
 subject, which I have had the pleasure  
 of seeing printed. I have also  
 been consulted by many of my  
 friends, and I have been successful  
 in curing many of them. I have  
 also been consulted by several  
 of the most distinguished physicians  
 of the country, and I have been  
 successful in curing many of them.  
 I have also been consulted by  
 several of the most distinguished  
 physicians of the world, and I  
 have been successful in curing  
 many of them. I have also  
 been consulted by several of the  
 most distinguished physicians of  
 the world, and I have been  
 successful in curing many of them.



upon her sons often acts rather as a Prophalactic than otherwise,  
 as we seldom find it prevalent among Sailors, Drivers, Butchers,  
 Farmers, Townsmen &c &c which an inactive or sedentary life  
 often leads to the development of this class of Diseases -  
 where the predisposition to them exists. As to the influence  
 of Climate on them we cannot say much. In all parts  
 of the World, from the Snow clad mountains of Siberia to  
 the sunny plains of Italy this deathly appears to prevail  
 "The northern Pich and fiery Nunn" appear alike  
 subject to its influence. The Temperate Zones are  
 perhaps now subject to its visitations than any other.  
 The moist Climate of Great Britain appears to be  
 much subject to it. And our own Country suffers  
 more from its ravages than any other class of diseases.  
 It is the writer's opinion that two thirds of our national  
 mortality leaving out of the calculation those deaths  
 which are the result of infancy, of Old age or of  
 accident, is caused by diseases belonging to this Class  
 or more strictly speaking to this Diathesis.



Now does Tubercular disease appear to be confined to the Human  
 species. Almost all animals when subject to its fondisposing  
 influences appear to be subject to its ravages. This has been  
 particularly observed in those denizens of the Forest who  
 transplanted from their native wilds are condemned to  
 perpetual imprisonment in our menageries. Among these  
 nearly every death which occurs has been found to be attri-  
 -butable to Tuberculous deposits. In Monkeys particul-  
 -arly this Diathesis prevails to a great extent. It must be  
 apparent then that this Diathesis is confined to no locality  
 or to no race, but that from "Greenland to the bound Coast  
 to Africa Terra deserti" from the regions of almost perpet-  
 -ual night to where the Dog star always rages all  
 Nations and People are subject to its influences.  
 Having then spoken of its Physical and Diagnostic  
 signs, of its cause and of its locality we must now  
 devote a short space to its treatment. Of this unfa-  
 -tunately for humanity not much can be said.  
 Our main means must be prophylactic or Hygienic.

The first thing I should mention is that  
 I have been thinking about you a lot  
 lately. I hope you are well and  
 happy. I have been busy with work  
 but I always find time to think  
 about my friends. I would love to  
 hear from you soon. Please write  
 back when you have a chance. I  
 am always here for you. Love,  
 [Name]

Children who are born of scrofulous parents should be  
 always warmly clad, and every means as regards Diet, Air  
 and avoiding exposure should be put in requisition to counter-  
 = act the hereditary tendency. - And through life, the strictest  
 attention should be paid to such hygienic rules as will  
 improve the general health and increase the physical  
 stamina. - Its development cannot be retarded by  
 the mere exhibition of Medicines. - Here we must rely  
 entirely on the "vis medicatrix naturalis" and the use  
 of such Hygienic means as has been hinted at above. -  
 The Treatment, if any, should be mild and of the  
 expectant character. - Blood letting occasionally when  
 there is any febrile accession. - Strong Purgatives as a  
 general rule should be avoided and aperients given. -  
 Quinine and Conium, and the preparations of Iron  
 have all been highly spoken of, and are doubtless of  
 great service. - The Liqueur Potassae, the employ-  
 = ment of Acids and Alkalies, the Carbonate of Soda,  
 and Rhubarb have all been recommended and in

The first of these is the fact that the  
 country was not only a large one, but  
 also a very fertile one. The soil was  
 all the better for it. The first of these  
 is the fact that the country was not  
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many cases are doubtless of some value - of all the Agents however that have been used in these Diseases, now appear to have been more successful than the preparations of Iodine and its compounds. The most common form appears to be Iodine in combination with Hydriodate of Potassae. This taken internally or Iodine in Baths appears to be Legol's grand remedy, and from the number of cases which he reports of Strumous Tubercular diseases that he has cured with it, together with the testimony of other respectable writers leaves us but little room to doubt its efficacy. Legol with all the enthusiasm of a Frenchman speaks of it as almost a Panacea for all the diseases of this Diathesis. The class of diseases embraced under this head however are so numerous that no one remedy can be expected to cure them all. His treatment must be general and varied of course to suit the different cases. Our Hygienic treatment must commence towards the inheritors of this Diathesis during infancy - For early education

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above mentioned matter. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,  
 Yours obedient servant,  
 J. M. [Name]



should be prevented, and every appearance of precocity in  
 intellect should be frowned down, raving, thought, solitude  
 displays of feeling and pensiveness of disposition should be  
 discouraged, while cheerfulness, gaiety, exercise in sun light and  
 in the open air, and whatever tends to procure a healthy state  
 of mind and body should be attended to. The wearing of  
 comfortable clothing and avoiding all improper exposure as well  
 as all exciting moral emotions, particularly those of a depressing  
 character, together with the selection of such a pursuit in life  
 as will embrace a proper portion of out of door labour in fine  
 weather, say the life of a Farmer, are among the means which  
 we must use towards those individuals in whom this Diathesis  
 prevails to prevent its development. In short our course  
 must be entirely Hygienic or more of that than any other  
 character. By such a course the direct access of the  
 disease of this Class may be averted we may even hope pre-  
 -vent it, while by their neglect the seeds of Disease may be  
 more speedily developed. No class of disease deserve the  
 Physicians most serious attention more than this and

The first part of the manuscript is a list of names  
 and titles, including several names that appear to be  
 of noble or official rank. The handwriting is in a  
 cursive script, and the ink is somewhat faded, making  
 some words difficult to decipher. The list seems to be  
 organized in a specific order, possibly by rank or  
 family. The names are written in a consistent style,  
 with some variations in the way certain letters are  
 formed. The overall appearance is that of a formal  
 document or a record of a specific group of individuals.

in none can his advice be of more value. By a proper  
 exercise of his skill and influence he can here prevent a great  
 deal of suffering and it is his imperative duty to do so. By  
 preventing if possible the intermarriage of scrofulous people  
 he can prevent the entailing of these diseases on a progeny who  
 from the very nature of things must be short lived and feeble.  
 His duty to Society should induce him to do so. And altho'  
 we do not expect his opinions in these matters to have the weight,  
 to which they are entitled, still as a conscientious man he can  
 do no less than express them. Altho' these diseases are looked  
 upon in the most cases as incurable still it does not become the  
 Man of Science and the well read Physician, to stand  
 idly by with folded arms without making an effort to put  
 off for a time the evil day, or to assuage and alleviate  
 the pangs that accompany them. It is our duty as well as  
 is our privilege to do on such occasions all that our art  
 will suggest to lighten the pangs which suffering flesh is heir  
 to and adopting a firm but moderate course between the  
 rash boldness of empiricism on the one hand and ill

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above mentioned matter. I am sorry to hear that you are not satisfied with the result of the investigation. I have been instructed to look into the matter and to report to you as soon as possible. I will endeavor to do so as quickly as I can. I am, Sir, very respectfully,  
 Your obedient servant,  
 J. M. [Name]

timid scepticism and timidity on the other, armed with the shield and Buckler of humanity and Science stand boldly in the breach and by a skilful and judicious course prevent his Patients hopes or fears yielding a golden harvest to those Vampires, the Students of quack Medicines - who are always willing to take him in on their charge and "Coim his blood to Zechins". There is no obligation assumed in the duties of a Physician either expressed, or implied the weight of which the Writer feels more deeply, or responds to more cordially than this, our duty to frown down and expose such nostrums - When all human means fail and we can "no longer hope against hope" then and not till then we can pronounce the doom of our patient. But how careful we should be that the circumstances of the Case are such as to justify our prognosis - How cautious we should be in pronouncing it - And when we are satisfied that our patients doom is irrevocably registered in the Book of Fate still we are to be the friend and Physician. Many are the symptoms to be watched, the pains to



be alleviated and the consolations to be given as our patient  
 approaches the "dark valley of the shadow of death"  
 Now we have the noble privilege of acting after the day  
 for the interference of our medical art has gone by as the  
 friend of our patient - Like the good Samaritan we can  
 pour the Balm of consolation into his spiritual wounds and  
 now when "life's fever'd dream is o'er", we can by the tendering  
 of our sympathy and advice to surviving friends secure to  
 ourselves that happiness which arises from a consciousness  
 of duty well performed. And on the other hand - When  
 our Prognosis is to be a favourable one - When we can  
 administer our medical Agents in addition to the travel  
 or the voyage that forms a part of our Hygiene and  
 when time with healing on his wings rolls around and our  
 patient returns with the flush of health upon his cheek -  
 and we feel the warm pressure of his hand and see perhaps  
 the tear drop of gratitude glistening on his eye who  
 is there who would not envy the Physician his feelings  
 of satisfaction at such a moment. Then we can





indeed realize - that -

"Love linked with Knowledge crowns our noble art"

"Gold buys the Science but Heaven rewards the Heart"

It is a matter of satisfaction to the Writer that he has chosen a calling which owned our Saviour himself as a practitioner, and which has received the sanction of the great and good men of all ages from the remotest antiquity - No other profession embraces among its followers a greater number of brilliant names than the goodly array that graces our profession from the days of Hippocrates and Celsus down to the present - Nor is it without its rewards and pleasures which as the "green Oasis in the desert to the parched and weary traveller" serves to cheer and lighten our pilgrimage through the barren wastes of life - The Writer is aware that it has been abused by the Satirist, derided by Wits and Lampooned "whenever folly shakes her rattles" but in defiance of this and the more serious injury done to it by the unworthy course of too many of its own followers, still it ranks as one of the most honourable among men -



Progressive as all other Sciences are it is a matter of congratulation to the Philanthropist that our art has kept pace with them - The day has gone by for consulting the Horoscope, or trusting to the supposed efficacy of charms or Amulets or incantations in the treatment of disease -

Our science is now a positive one and a long train of brilliant discoveries which have shot across our literary horizon with the dazzling splendour of the Aurora Borealis across a northern sky prove that its march is onward - The discovery of vaccination by which Smallpox is nearly disarmed of its terrors, and by the observation of a German Chemist that wonderful Agent Iodine which removes the horrors of Bronchocela and cutaneous, & still later Laennec's great discovery of the Stethoscope by means of which we can explore the contents of the great cavities of the body, decide upon the existence of disease, make our prognosis as to its final result and use those means which our skill suggests to us to avert it - All these prove that a new era is about

The first of these is the fact that the  
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 television system since the war.  
 The fiftieth is the fact that  
 the government has been unable to  
 maintain a stable radio system  
 since the war.

opening on our profession - That much remains yet to  
 be discovered as regards the best method of treatment in many  
 diseases cannot be denied - But enough has been done to  
 prove to the satisfaction of the writer, that the full burst  
 of that perfect day of which we are now catching the  
 first glimmering is not far off - And although Panacea  
 and Catholicons exist only in the brains of the quacks of  
 this, as did the Philosopher Stone in the brain of the Alchy-  
 mists of the middle ages, still the day is not far off  
 when without being thought Utopian in our ideas we may  
 reasonably hope to find in the hands of our practitioners  
 such an increase of our specific Medical Agents  
 as will tend to disarm that Hydra headed Monster Disease  
 and Death will only be occasioned by accidents or that  
 natural decay of the Body which always accompanies  
 old age - That such a consummation is devoutly  
 to be wished for none can deny and to bring it about  
 requires the united exertions of all the Members of our  
 profession each adding his mite to the common

opening our eyes to the  
 in science as regards the  
 human cannot be done. The  
 from the satisfaction of the  
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 first opening is not far off. But  
 and conditions exist only in  
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 old age. But what a  
 to be said for man can  
 regarding the nature of  
 Professor each other

stock of knowledge and observation. By this if we doubt accomplish as much as the enthusiasm of the Writer would lead him to hope, we will accomplish something, much more than if without effort we sat supinely waiting for such improvements as chance or accident might reveal to us.

And in concluding this long digression from the Subject now immediately under consideration the Writer must express his feelings of Gratitude and respect for his Preceptors in this Institution to whose tuition he feels indebted for the largest portion of his limited medical knowledge. This may not perhaps be the most fitting occasion to make such acknowledgements yet the writer cannot let the only opportunity that he will have of expressing himself escape unimproved. That the future of his Alma Mater may be as useful, as brilliant, and as prosperous as it has hitherto been is his most sincere wish and that his own career





in life shall not render him unworthy to be ranked  
among her Sons shall be his earnest endeavour -

F. J. M. P. S.

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*Faint, illegible handwriting in the center of the page, possibly bleed-through from the reverse side.*

Inaugural Dissertation

on

Neurotic

Submitted to the Examining

Board

of the University of Pennsylvania

in

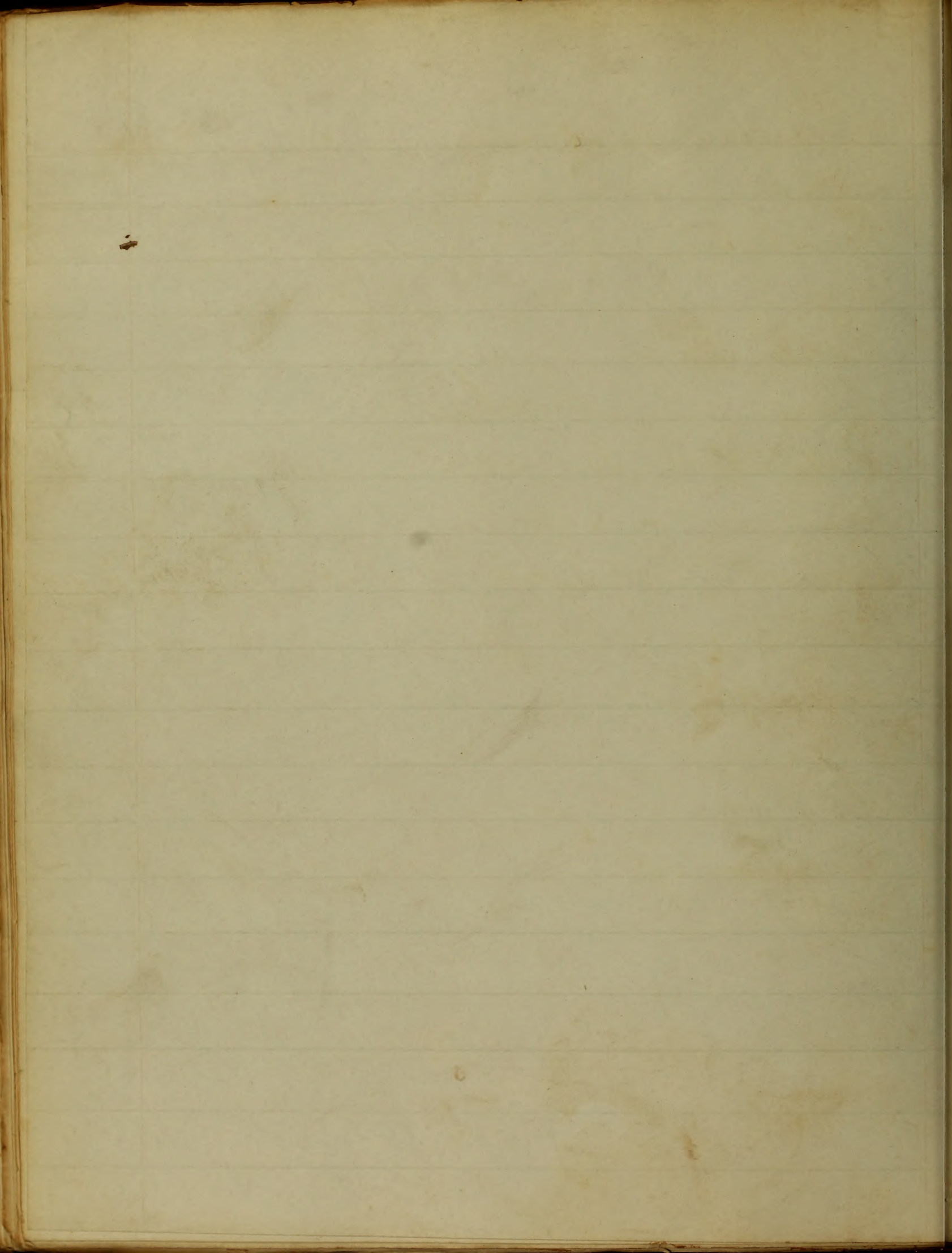
fulfillment of the requirements

for the

Degree of Doctor of Medicine

by

Wm. H. ...



AN

Inaugural Dissertation  
ON

Malaria  
Submitted to the Examination  
of the  
Provost, Regents, & Faculty of Physic  
of the  
University of Maryland  
for the

Degree of Doctor of Medicine

by

W. H. Bran

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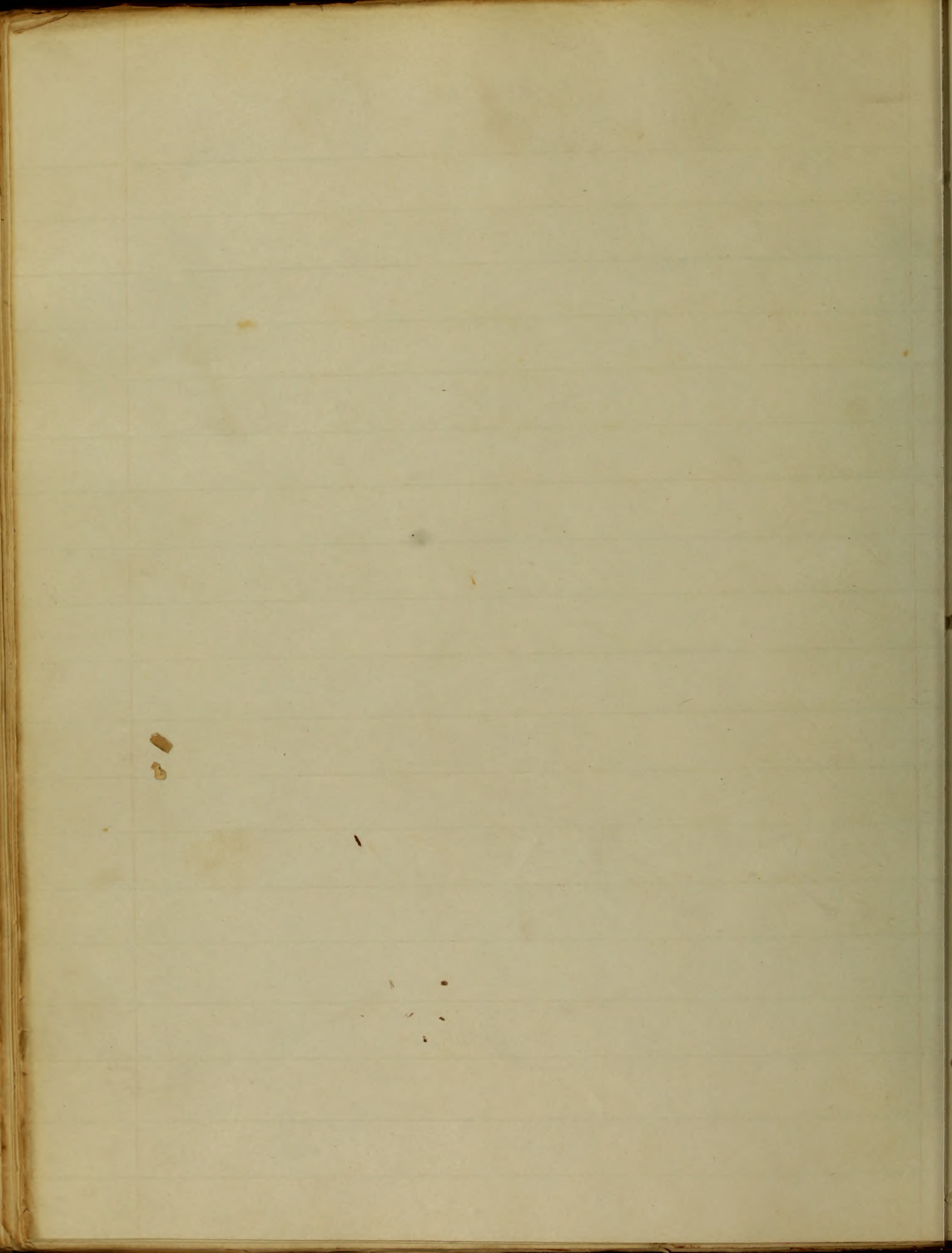
By James and Joseph

Samuel Edward A. to the  
Professors of the several colleges and  
universities of Maryland

In  
Feeling that it was your  
duty of gratitude for your  
kindness during the time  
of your study with a  
view to the present  
study of your

Respectfully

Edward





To

My friend and Preceptor

Samuel Chew A. M. M. D.

Professor of Therapeutics, Materia Med. & Hygiene

In the  
University of Maryland.

Sir,

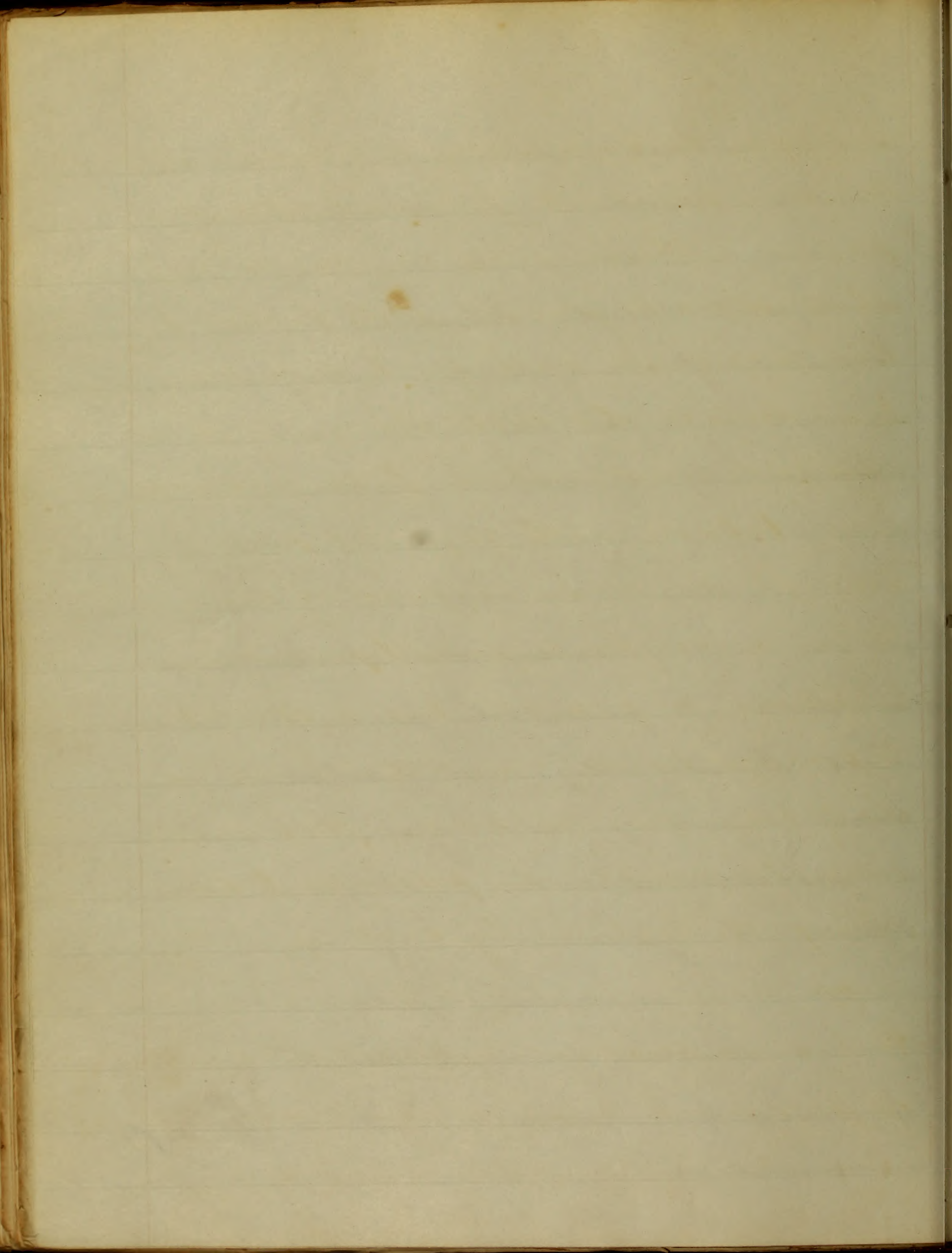
Feeling that I owe you  
a debt of gratitude for your kind  
ness to me during the time I have  
been reading with you, Permit me  
to inscribe this the first fruit of my  
study to you

Respectfully

H. H. Bean



Being in the possession of the Institution  
that each candidate for graduation shall  
prepare a thesis of his own composition  
which shall be presented to the faculty for  
their approval, with great diffidence  
I understand this fall. The many great  
advantages under which a student would  
study laborer with regard to such an  
attempt, would be sufficiently obvious.  
It is of course a more liberal  
knowledge, as has been but a short time  
to prepare himself, and that has never  
fully been done, among the various  
subjects which are presented to him  
during the lectures by each of the  
faculty. He has no personal or practical knowledge  
of the subject he undertakes to do, and  
must derive his information solely from



Seeing in the Circular of this Institution that each Candidate for graduation shall prepare a thesis of his own composition which shall be presented to the faculty for their approval, with great diffidence I undertake this task. The many disadvantages under which a student necessarily labors with regard to such an attempt must be sufficiently obvious.

He is of course a mere tyro in medical knowledge, he has had but a short time to prepare himself, and that has necessarily been divided among the various subjects which are presented to him during the lectures by each of the different Chairs.

He has no personal or practical knowledge of the subject he undertakes to discuss & must derive his information solely from



The observation & experience of others.

Under such circumstances I think it must be evident to all that he can scarcely be expected to do justice to himself or to render any material contribution to the illustration of the subject which he has selected for examination.

The subject which I have chosen is at once both Copious and difficult.

Very numerous indeed are the authors who have written on it and the men of science who have investigated its origin and source and the peculiar characteristics of it, and still it is a hidden and occluded subject to the mind of finite man.

This subject is Malaria an agent we only know by its effects.





The proofs of its existence are altogether negative, and sadly may it be said that we derive those proofs from the devastating ravages which are made on the human family who are exposed to its pernicious influence.

It is related by Bishop Heber that the lower animals have an instinctive knowledge of its destructibility in certain parts of India, and leave their native homes, and seek for shelter in higher climes during its prevalence.

Macculloch when speaking of this agent remarks if the Sword had slain its thousands, Malaria had slain its tens of thousands.

It is disease, not the field of action which digs the grave of armies, it is Malaria by which the burning spirit-

The proofs of its existence are  
evident, and the only way of  
that we know these proofs from  
the observation of things which are  
made on the human body which  
appear to be permanent injuries.  
It is related by Bishop Huet that the  
same number have been witnessed  
knowledge of its determination is a  
true part of the body, and has been  
acted upon, and has been  
higher classes during its formation.  
Maccoll's when speaking of the  
remains of the lower part of the  
the human body, Huet has been a  
of the human  
It is clear, and the full of action  
which they the power of things, it is  
Maccoll's of which the human body

= feller for better things is quenched, and  
in the coward's bed of death this is the  
destroying angel, the real pestilence  
which walks at noonday, and to which  
all the other causes of mortality are  
but as feeble auxiliaries in the work  
of destruction.

And I may remark  
here that our own Army has suffered  
far more in Mexico during the past  
Summer by this agent, than they have  
by the Mexican Sword:)

"They did not fall in eager strife

"Upon a well-fought field,

"Not from the red wound poured their life

"When covering foemen yield

"The Archangel's shade was slowly cast

"Upon each palled brow

"But Calm and fearless to the last"

"They sleep securely now!"



Dr. Watson remarks in this country i.e. in England  
Thank God we witness its milder evils only,  
and those not very often, but it is the base  
and scourge of large portions of the World.  
Whether you practise here or abroad it is very  
fit that you should know the habitats,  
habits and qualities of this wide-spread  
poison.

If I recollect aright, our professor  
in Surgery in his introductory address  
in reference to this subject remarked  
'tis not when we have an Enemy to deal  
with who fronts us face to face (though  
he may be strong & formidable) that we  
dread the attack; but 'tis when we have  
an Enemy who is dark & secret in his  
attack & conceals himself so that he may  
the more effectually strike his blow when  
we are least suspecting.

Dr. Johnson remarks in his answer to Swift  
that he is not at all in the habit of  
and that he is not at all of the  
and a number of large papers of the  
which you find here on about 100  
for that you have done the best  
and the quality of the work  
is very good.

Of a number of other papers  
is being in the library  
is referred to this subject  
the fact that we have a group of  
with who have in fact a group  
to be very different from the  
about the attack, but the  
we have not a good deal of  
about a number of papers  
the more especially that the  
we are not at all

Such is Malaria! it habitates the air we breathe, and still we cannot detect it there.

The atmosphere which is supposed to contain it has not been proved to be anything more or less than common healthy air; Chemical Analyses having failed to detect by the most delicate reagents anything which may be properly called Malaria.

In the Cyclopaedia of practical medicine Vol. 3<sup>rd</sup> page 174 in an article by Dr. Jos.

Brown I find the following. The chemical & physical properties of Malaria are unknown to us, the experiments which have been hitherto performed to illustrate its nature or even to discover its presence having furnished very unsatisfactory results. The air collected above the marshes of Fort Fuentes, (in Spain), was found by Goltzoni as pure as that at the Summit





- of Mt. Siquone if not more so; and M.D  
obtained in the most confined marshes as  
on the most exposed hills 78 part of azote  
.21 of oxygen and 1 of carbonic acid gas  
from an analysis of the air.

It is true that M. Chevallier and Dupuytren  
found that the Carburetted Hydrogen dis-  
engaged from marshes left in the water  
through which it was passed a peculiar  
& very putrescible matter; and M. Julia  
discovered that dew gathered in the neigh-  
bourhood of marshes contained likewise  
a matter capable of fermentation; but  
there is no evidence that these substan-  
ces are malaria nor were they proved  
to be so do we know anything of their  
chemical properties but their capacity for  
undergoing the putrefactive process.

Again Library of Medicine Vol. 1 page 233



- Many attempts have been made to arrive at a knowledge of the physical qualities of this agent. Moschoti and Brosci<sup>24</sup> examined the atmosphere, the former of some very insalubrious Rice-fields, the latter of an unhealthy spot in the Papal State, from what examination it appeared that the vitiated air contained albuminous flosculi somewhat viscid in appearance, but the nature of which was not understood; and that it possessed a certain weight as it did not appear to rise in the atmosphere unless mingled with it by currents of air.

All that is valuable on the Constitution of the Atmosphere of those places where ague is prevalent may be summed up from the results of the extensive investigation made by M. Julia; first the air of these several situations contained the same

Many attempts have been made to  
at a knowledge of the principles  
of the system. The result is  
various in character, the former  
very indistinctly defined, the latter  
and still that in the paper itself, however  
enumerated it appears that the system  
the system is a system of  
what is not in appearance, but in  
of what was not understood, and that  
perhaps a certain degree of  
appear to be in the system  
might be said to be a  
The fact is that in the  
the character of the system  
a general way to be  
the result of the system  
written by Mr. Jones, first the  
second edition of the system

- principle and in the same proportion as  
the purest air of the most healthy situation,  
Second, Marsh air contains a principle which  
eludes the test of the most delicate Reagents.  
Third, Though the nature of this noxious a-  
gent is unknown, there is reason to believe  
that its pernicious effects depend on a fow  
of vegetable and animal substance in a  
state of decay or on a solution of those  
substances in air or the gases resulting  
from their decay; Fourth Experiment has  
not yet demonstrated in Marsh air the  
existence of Azotic gas, Carburetted hydrogen  
Ammoniacal gas or any of the gases resulting  
from decomposition; and if they be present  
in this vapour their quantity is too small  
to be appreciated.

This brings us to the next branch of our  
subject viz its origin and source —



- Here in my opinion a difficulty presents itself; the Author of our text-book Dr. Watson having collected certain facts from observations made by Dr Ferguson (during a Campaign on the Continent of Europe), which to him are conclusions but nevertheless in opposition to the generally received opinion on this subject.

From the time of Larcisei an Italian, who was born at Rome 1654, & who was the first to investigate this subject it had been the prevailing belief that Malaria was consequent on the putrefaction of vegetable matter or arose from marshes: from which Circumstance it received the name of March Miasmata.

Having read carefully the facts given by Dr Watson and from which he states that neither marshes nor vegetation are





- necessary to produce malaria; that the peculiar poisons may abound where there is no decaying vegetable matter and none to decay.

As the prevailing belief is in my opinion an erroneous one & as it is really of great importance that correct views should be taken and disseminated by Medical men on this subject, I will mention a few of the most striking facts detailed by Dr. Ferguson.

Now since these facts, after having carefully examined them, are not conclusive to my mind, since they are opposed to such high authority, I will mention two of the most striking of them and then give my reasons for differing from the inference which has been drawn from them.

In the year 1809 several Regiments of our



- Army in Spain took up an Encampment in a hilly Ravine which had lately been a water course, pools of water still remained here & there among the rocks so pure that the soldiers were anxious to bivouac near them for the sake of using the water: Several of the men were seized with violent remittent fever before they could remove from the bivouac the next morning. Till then says Dr Ferguson it had always been believed amongst us that vegetable putrefaction (the sumiv decay of vegetables) was essential to the production of pestiferous miasmata; but in the instance of the half-dried Ravine before us from the strong bed of which (as soil never could be for the torrents), the very existence even of vegetables was ~~an~~ impossible proved as pestiferous as the bed of a fen.

... in Spain took up an ...  
... hills ...  
... parts of ...  
... there & there among the ...  
... the ...  
... them for the sake of ...  
... of the ...  
... top ...  
... the ...  
... says the ...  
... their ...  
... position, the ...  
... attention to the ...  
... mountains, but in the ...  
... become before us from the ...  
... which, as ...  
... present, the ...  
... there will be ...  
... appears as the ...

The second case mentioned is as follows:

After the battle of Solvencia the Army retreated along the course of the Guadiana river, into the plain of Estremadura; the country was so arid and dry for want of rain that the Guadiana itself and all the smaller streams, had in fact ceased to be streams, and were no more than lines of detached pools in the course of that had formerly been rivers.

The troops then suffered from remittent fever of such destructive malignity, that the Enemy and all Europe thought the British host extirpated.

In both the cases mentioned it seems to me that there are strong reasons for supposing a priori that malaria would have been produced, and that from vegetable putrefaction.

Indeed I can't see wherein those cases differ from any other in which we find-



- malaria acting; and until we know the ultimate composition of this poison, I think it will be impossible to say with absolute certainty from what it does originate.

Here are water-courses which have been dried by the Sun & Air with only a line of detached pools and their beds exposed to the action of heat, air and moisture, three of the agents which are generally supposed to be necessary in the production of this poison, and indeed it is obvious to my mind that there was vegetable matter also: since there were three of the agents present which are supposed to aid in the production of this poison, let us consider the reasons which induce us to believe the fourth, or vegetable matter was also present. —





- We know that all considerable water courses are formed by a number of tributary streams, and that these receive the drainings from the hills around during rain and we also know that generally these washings from the hills contain a considerable quantity of vegetable matter, such as muds, leaves &c; And may we not ask, what becomes of this refuse-matter? is it not deposited either in the bottom of the large stream or on the adjoining lands? Now let us examine for a moment the reported case; the first is a hilly ravine, the second the Guadiana River, now that there should have been vegetation, or at least vegetable matter collected in and around those streams is to my mind obvious: Usually there is at certain seasons of the year an abundance -

The first part of the paper is devoted to a  
description of the general character of the  
vegetation of the country, and the manner  
in which it varies from the hills and  
valleys. The author then proceeds to  
describe the different species of plants  
which are found in the various parts of  
the country, and the manner in which they  
are distributed. The paper concludes with  
a list of the principal plants which are  
found in the country, and the manner in  
which they are distributed.

- of undergrowth around the river bottom  
and here I should think we would be  
likely to find it in a very suitable state  
for giving rise to malaria after having  
lain rotting in water for months during  
the winter & spring, and then at the drought  
came on being gradually dried and at the  
same time being exposed to the heat & air  
it underwent decomposition and thus pro-  
duced gases which were so destructive to the  
British army; I cannot see wherein  
these cases differ from others where we  
are accustomed to see the effect of this  
agent: Take any malarious country (I  
mean marshy country), and we will per-  
ceive the same cause at work to produce  
the same results in a less degree; circum-  
stances in these cases render results more  
striking. During the winter & spring months

of under-graduate students to be admitted  
and the of students there are now  
that I find it in a very limited  
for giving out to students after they  
and looking in notes for answers  
to their reports. But the of the  
came on being generally done and  
some time being expected to be  
I understand the committee  
then felt that the  
But the committee, I cannot see  
then they differ from what  
an account of the  
of it. But any  
mean nearly  
even the same  
the same results in a few  
themselves in this case, for the  
History. During the

marshes are generally covered with water  
and at the hot season come on they  
gradually dry and the soil becomes ex-  
posed to the action of the sun & air:

Their soil contained a very large quantity  
of vegetable matter which being acted on  
by heat air, and moisture becomes rotted  
and gives rise to gases which are some-  
times even offensive to the smell & which  
taints the atmosphere of the surrounding  
country with that peculiar poison which  
acts as both a predisposing & exciting  
cause of intermittent & remittent fever.

In reading Dr Watson on this subject I  
was struck with the peculiarity in his man-  
ner of accounting for things; in his argument  
against the necessity of vegetable matter  
being present when this poison is produced  
he cites as an instance the rotting Cabbage



- leave around Covent Garden and those  
which taint the air of the streets from  
the neglected dust holes of London during  
the hot weather of summer which give rise  
to no ague; and afterward de Saz, Coctet  
parish, agues are much less common in  
large towns than in country villages, this  
had been oddly enough accounted for by  
saying that populous cities are so full  
that there is no room for the malarial;  
a much more rational & probable expla-  
nation is that which ascribes the freedom  
of crowded towns and thickly inhabited  
districts to the number of fires burned  
in them.

Now that marshes are not the only source  
of malaria I am perfectly satisfied, but  
that they are a very frequent source I  
think, from fact observed, need no argument





I might cite cases innumerable to prove that they are so, but I think it unnecessary. No observation is more general than that Ague is endemic among the inhabitants of places where marshes abound, and in season as the Spring and autumn when the effluvia arising from them are more active and the body perhaps more liable to be affected by their peculiar poison.

There are few marshy countries in temperate and tropical climates in which intermittent fever is not known. The connection therefore between them does not depend on limited but a comprehensive induction of facts; the truth is abundantly confirmed.

Ague indeed sometimes appears where the influence of marsh effluvia cannot be traced; and the term Malaria has been brought into modern use to denote a

I might also have mentioned to you that  
they are so full of them & consequently  
the situation is more general than that of  
a certain number of the population of place  
where generally observed and in fact  
the thing is not common when the  
subject is more than an hour or so  
the body is not so much affected  
by the presence of them.  
There are few really beautiful in  
any respect, and in fact  
from a not known. The  
five letters from that not  
might be a good thing  
first; the first is a  
After which the  
the influence of  
in fact, but the  
brought into

- malarial atmosphere arising from the soil  
capable of producing intermittent fever  
in which marsh miasmata, properly so called  
are supposed not to constitute an essential  
part.

That there should be moisture and a cer-  
tain degree of heat present in the produc-  
tion of this poison, I think highly probable  
from the fact that we never see its effect  
even in their mildest form except when  
the temperature is sufficiently high for it not  
to be termed cold; and we know there is  
always more or less dampness existing  
in the atmosphere.

It has been said by an eminent writer  
that heat is the extrinsic agent most in-  
fluential in favouring the production of  
malaria in soils & situations capable  
of engendering it, and we judge also from

*[Faint, illegible handwriting on lined paper]*

- the fact that in those places which are capable of engendering it we perceive its effect most strikingly when these two conditions are present.

"When marshy land is brought to a very dry state in summer after long continued drought Ague is often but little known in the vicinity; but the first heavy shower after the drought will sometimes give rise to it. And on the contrary in a wet season while much water is lying on the marshes the disease is rare; but in proportion as they become dried to a certain point miasmata are found to be active according to the degree of heat, the season of the year, and the state of the population.

A certain quantity of moisture therefore seems to be necessary upon the marsh in order that the miasmata may be -

The fact that in the general course of  
the of improvement of our country  
most strictly when the  
an account.  
When we have a doubt to a  
that in the course of the day  
After a few days the  
It is not the fact that  
thought with  
that in the course of  
most water is  
there is a  
because there is a  
an amount to be  
figures of the  
and the  
A certain  
to be  
in order that

disengaged, and of vapour in the atmosphere to convey them to a distance; while a superabundance either prevents their evolution or entirely absorbs them.

I have seen reported cases of remittent which were caused by the impure air on ship, where there was some rotting vegetable matter on board now if these cases were correctly reported it proved more clearly than any other that vegetable decomposition will give rise to an agent capable of producing that form of fever, and as malaria is the only agent which I suppose to be capable of producing this fever, then it must follow that malaria may be produced from putrefying vegetable matter.

Since this has been questioned, I will conclude this branch of my subject by an extract from an article on this subject





- by Dr Joseph Brown "then certainly exists many facts which prove that vegetable matter is in the highest degree favourable to the production of Malaria if not essential to it.

There are the universal presence of such matter where the poison is generated, the case adduced by Dr Ferguson & similar ones accepted, if they are to be regarded as exceptions; the pernicious effects of the steeping of hemp and flax, for we presume that it will not be argued in this case, the mere evaporation of the water independantly of the vegetable matter would produce the poison; a similar result from the leakage of sugar and the decomposition of coffee, potato, pepper, &c. and the fever which committed such ravage on board the *Princess* frigate from the action of the bilgewater on the chips & shavings -

by the light of the sun the country is  
many feet below the level of the  
on the other side the highest peaks  
to the formation of the mountains of the  
to the  
There are the numerous mountains of the  
to which the position is given by the  
altitude of the mountains is  
of the mountains is to be regarded as  
the general aspect of the country of the  
and part, for the position that it holds  
is agreed in that case, the more important  
of the water which is the result of the  
on the other side of the mountains, a  
the result from the lack of the  
the decomposition of the rocks, the  
and the fact which is the result of  
to show the formation of the  
of the high water in the case of the

-left in the hole.

A similar argument may be deduced from the wholesomeness of peat-bogs which seem so well calculated at any marsh to produce malaria, excepting that the vegetable matter they contain ~~being~~ in a subterraneous state, is not susceptible of decomposition.

Since there is no reason to think that the evaporation of mere water will produce the poison, we are compelled to conclude in the case mentioned by Dr Ferguson some influence from mere terrestrial soil gave rise to the effluvia which are usually owing to the presence of such matter.

The next thing to be considered in reference to this subject is the propagation of the poison.

There have been many very interesting-

Left in the hall.

The number of persons who  
the observations of the day  
to which I allude, I have  
some recollections, excepting that the  
number of persons who  
I have not forgotten.

petition.

Since then, I have  
a number of persons  
the persons, and  
in the City, and  
I have from  
to the persons  
to the persons of that  
the most thing to be  
to the persons of that  
of the persons.

There has been  
of the persons.

facts discovered concerning the nature and habits of this poison.

It is specific in its nature; like specific put capable of producing the venereal disease or the small pox may not differ in its sensible qualities from the healthiest but must include some matter in a peculiar state of decomposition which state is capable of being imparted to other living matter", so had it been found that the atmosphere which contained malarial differed no-wise in its sensible qualities from healthy air; yet does it contain a most virulent poison, which poison is capable of producing on the human system specific effects, the nature of which had so far remained undiscovered and intermittent fever with its diurnal paroxysms common as it is had a



yet proved a stumbling-block to the most learned reasoners the world had produced.

As might be supposed the effect of the poison is in general more intense in proportion to the proximity to its source.

This is probably owing to the more condensed state in which malaria exists near to the spot where it had generated;

and it is remarked that circumstances which favour its condensation add to the intensity of its effects.

Still however there are many instances where the effect of malaria are much worse at a distance from its origin, for instance, the heights on a south or south-western exposure above a marsh are generally far more unhealthy than are the low-land immediately around the marsh: above on the heights there is

The power of thinking that is the  
highest measure of the mind's  
ability to support the effort of the  
power in general, more than in  
particular to the power of the  
mind is probably owing to the  
reason that in which nature is  
seen to be that when it is  
not a power, but a power  
which forms the foundation of  
the mind of its effort.  
This power then is a power  
when the effort of nature is  
seen at a distance from the  
for instance, the light in a  
dark matter, is seen above a  
and generally for more than  
on the low level of nature  
the mind: there is the light



the combined action of malaria and the east wind, which is supposed on exposure thereto to give more power to this poison. It had been observed that persons who have been exposed to malaria have escaped its influence for weeks until they were exposed to an east wind, when they were attacked immediately by an ague. The distance to which malaria may be carried by currents of air is different in different latitudes: "The distance to which marshy emanations may extend by gradual diffusion, had been calculated by Monfalcone to be 1400 or 1500 feet of elevation, and from 600 to 1000 in a horizontal direction".

But malaria may be wafted by currents of air much farther than this, sometimes even to the distance of miles.

The conditions of nature are  
the conditions, which is typical in the  
the things of the world from the  
point. It has been shown that  
the things have been shown to maintain the  
except the influence of the world and  
they were exposed to an evil and  
they were shown to be a part of the  
the conditions which maintain the  
condition of the world of an effort  
in the world. The conditions  
which maintain the world  
the of the world. The conditions  
conditions of the world to be those  
the part of the world, and from the  
into in a general way.  
But nature may be a part of the  
of the world for the things of the world  
then to the conditions of the world.

There are many other very interesting facts concerning this poison, interesting both in a medical and an hygienic point of view. It has been clearly ascertained that this poison exerts far more pernicious influence upon the body when in the state of sleep, than when awake; and also that exposure to it in the night even when awake is much more apt to produce fever than the same amount of exposure during the day.

It has also been observed that as a general rule good diet affords some protection against the influence of this poison: whereas the contrary is often very manifest, low-living, fatigued, debauch and imprudenced always predispose to attack of this fever.

Persons removing from healthy climates.

There are many other very interesting  
concerning the history of the  
a number of our different parts  
now. It has been very interesting  
that the ground was for many  
years of the same of the top of the  
in the state of things, but when  
and also that the top of the  
was when there was a great  
to produce from the top of the  
of the top of the top of the top  
It has also been observed that  
ground was very low and  
position against the top of the  
position: when the top of the  
very much for the top of the  
best and very much for the  
to the top of the top of the  
ground was very low and

- of Northern latitude into marshy low-land countries are much more apt to be attacked by fever than those who by long residence or by birth have become acclimated.

It is from this fact, I suppose, that seamen after returning from long voyages are when landing on shore subject to this poison, so susceptible to its influence; and not only to this poison or the fever resulting from it, but to all other forms of fever.

From the tendency which malaria has to settle on the leaves of trees they have proved sometimes a safeguard to houses in their vicinity, and it would be well for those who live in malarious climates to have a grove of trees encircling their houses.

*[The page contains approximately 20 lines of extremely faint, illegible handwriting, likely bleed-through from the reverse side of the paper. The text is mirrored and difficult to decipher.]*

Being heavier than atmospheric air it is said to brood over the surface of the earth and consequently the ground-apartment of houses are more unwholesome at dormitories than the upper-story.

It is also stated that water has the power of absorbing it; and that fire will rob it of its virulence:

Alcoholic stimulants taken in the morning before going out are said to brace the system against its action. There is a case illustrating of this in Watson's *Practical of medicine*.

Flannel I think from what I have witnessed is of all other hygienic means we have the best safe-guard in protecting the system against the action of this poison. We have already seen that the body is much more susceptible





- to its influence, after fatigue, when the power of the system are prostrated by over-exertion the nervous energy is exhausted, it is less capable of resisting atmospheric changes! - there is much a cessation of perspiration - the capillaries of the whole system are relaxed - the body becomes chilled.

If such a state of things happen after exposure to the poison, which had predisposed the body to ague it is almost certain to be followed by a remittent fever, the fatigue and consequent chilliness acting as an exciting cause,

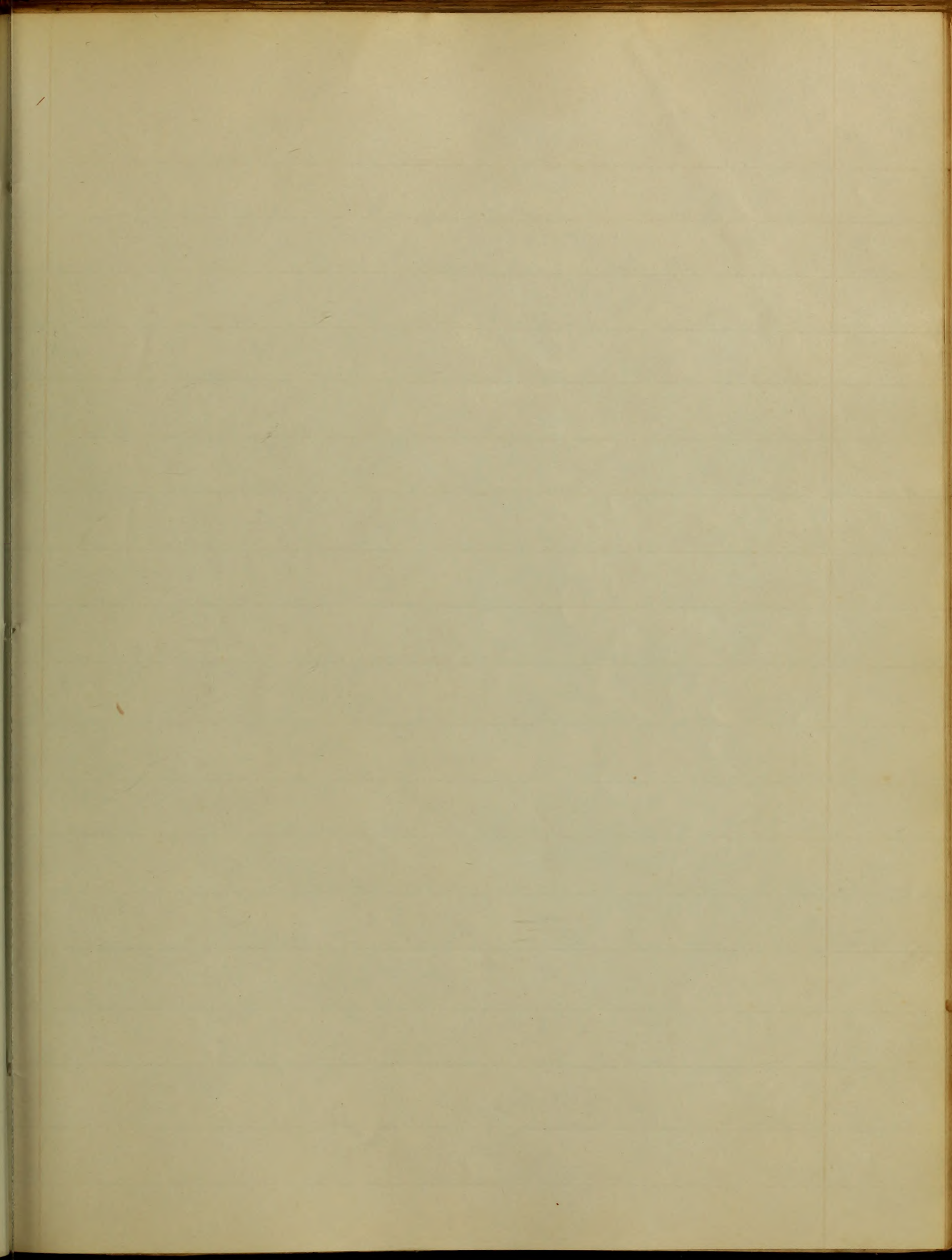
Now if the system be sufficiently protected by flannel the body cool more gradually the heat of the body is not so rapidly carried off by the air, nature as it were has time to rally against the poison.

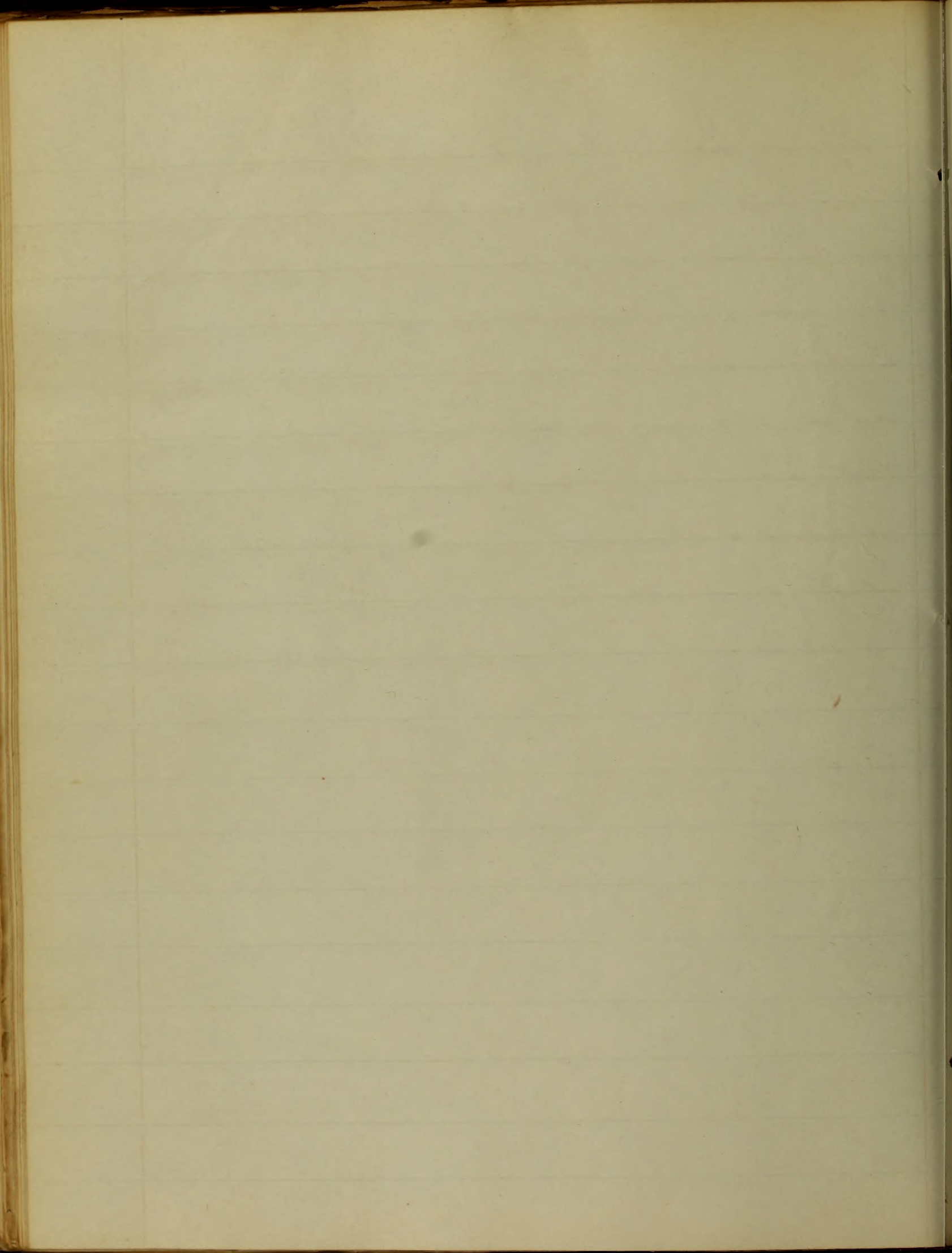


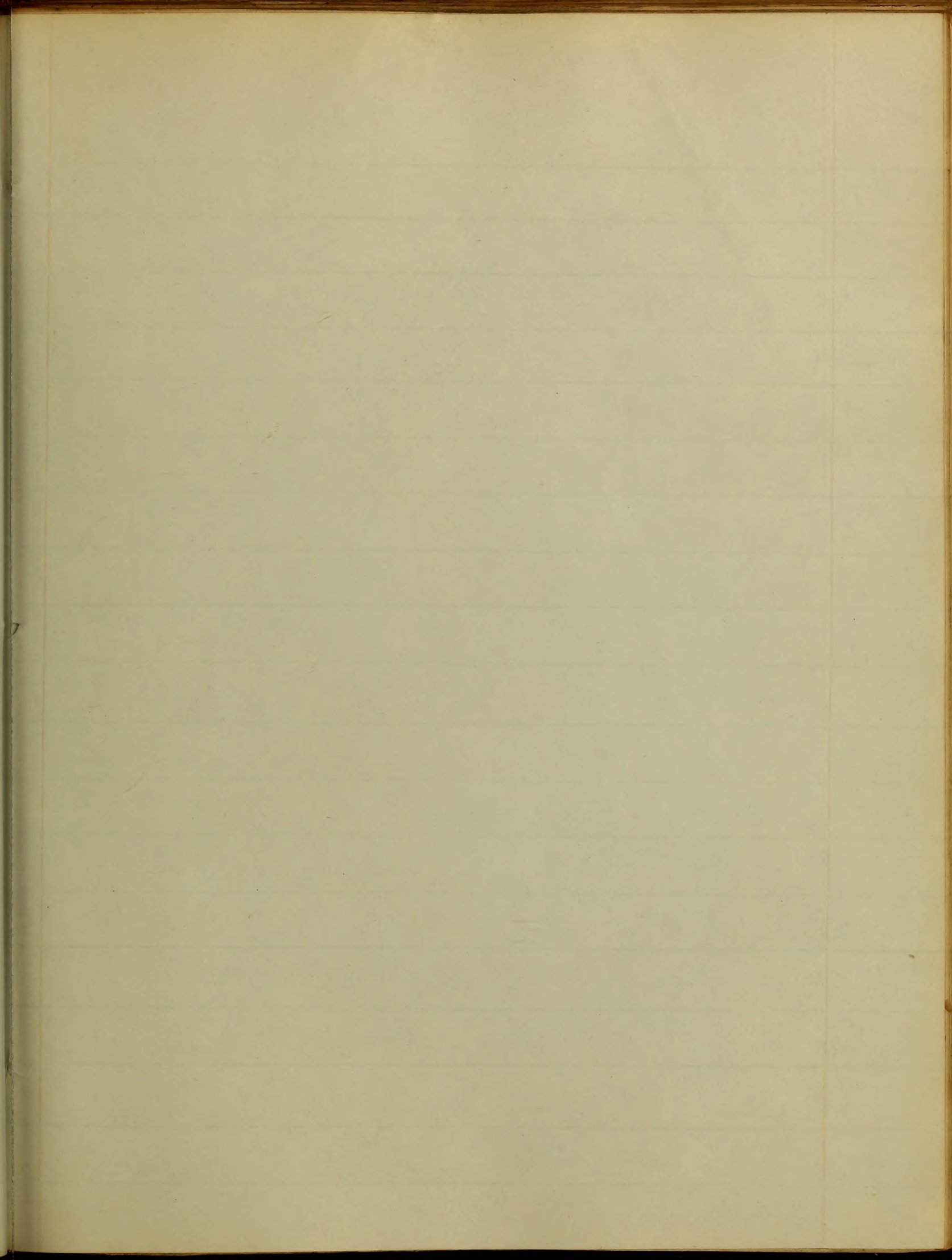
before she is prostrated. Such being the case it becomes of the highest importance to protect the system well with flannel in all malarious countries.

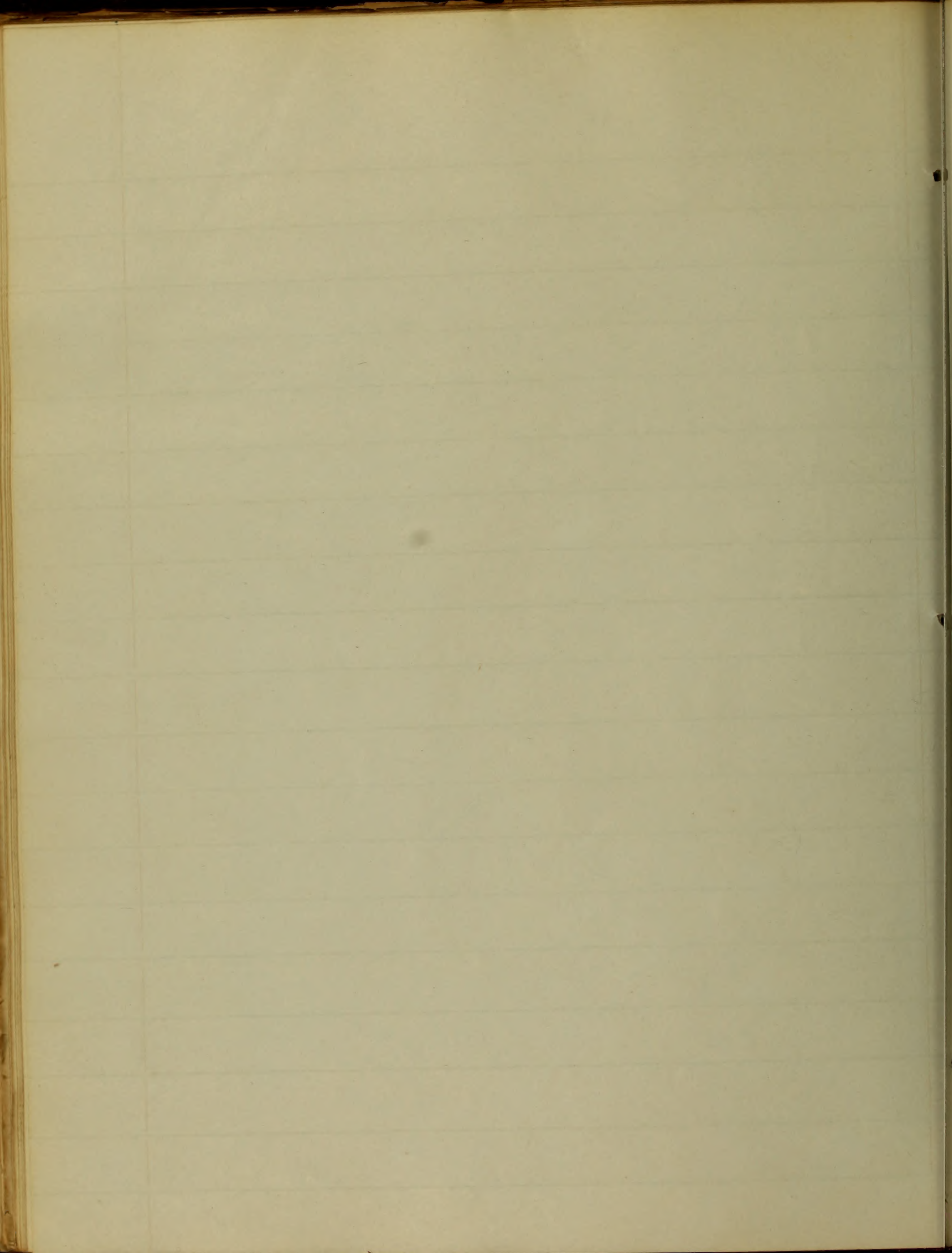
I have thus enumerated most of the facts as to the generation, and propagation of this poison; and had intended writing of its medical Operands and effects but since these cannot be embraced in a thesis of ordinary length, I will conclude.

Before the a further but long  
and a number of the light  
a great the light was a  
in all the  
I have the  
as to the  
the first  
to the  
the  
of

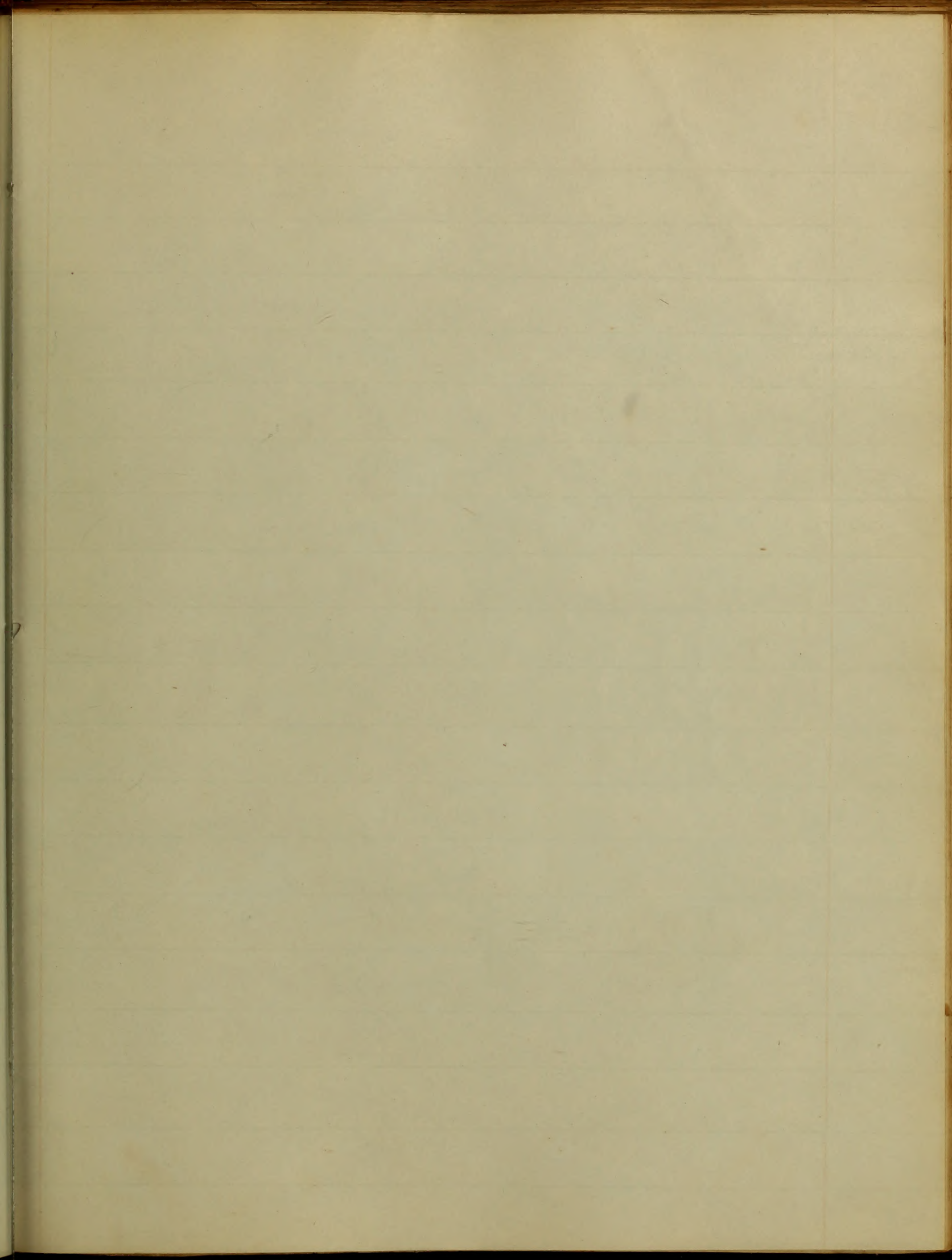


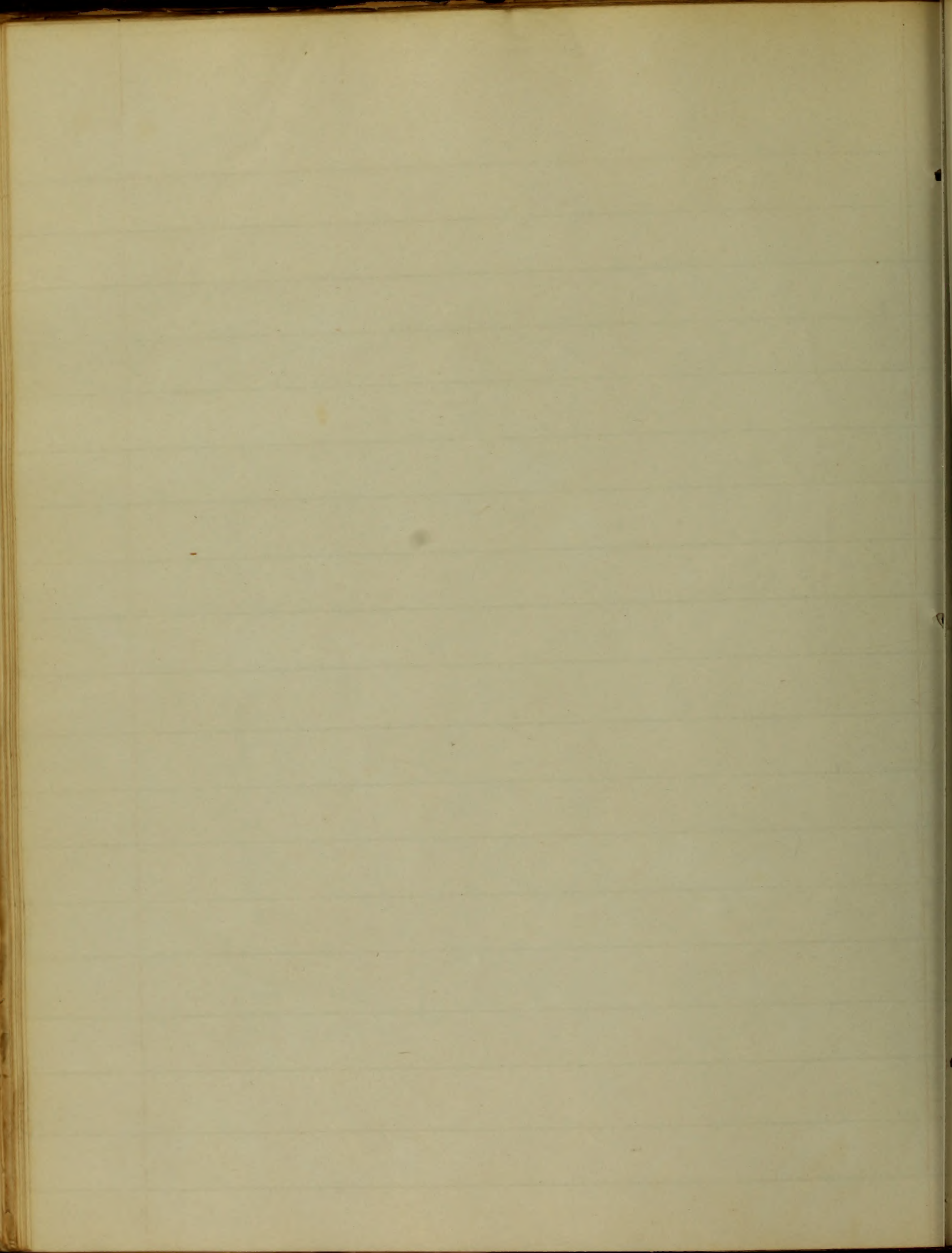






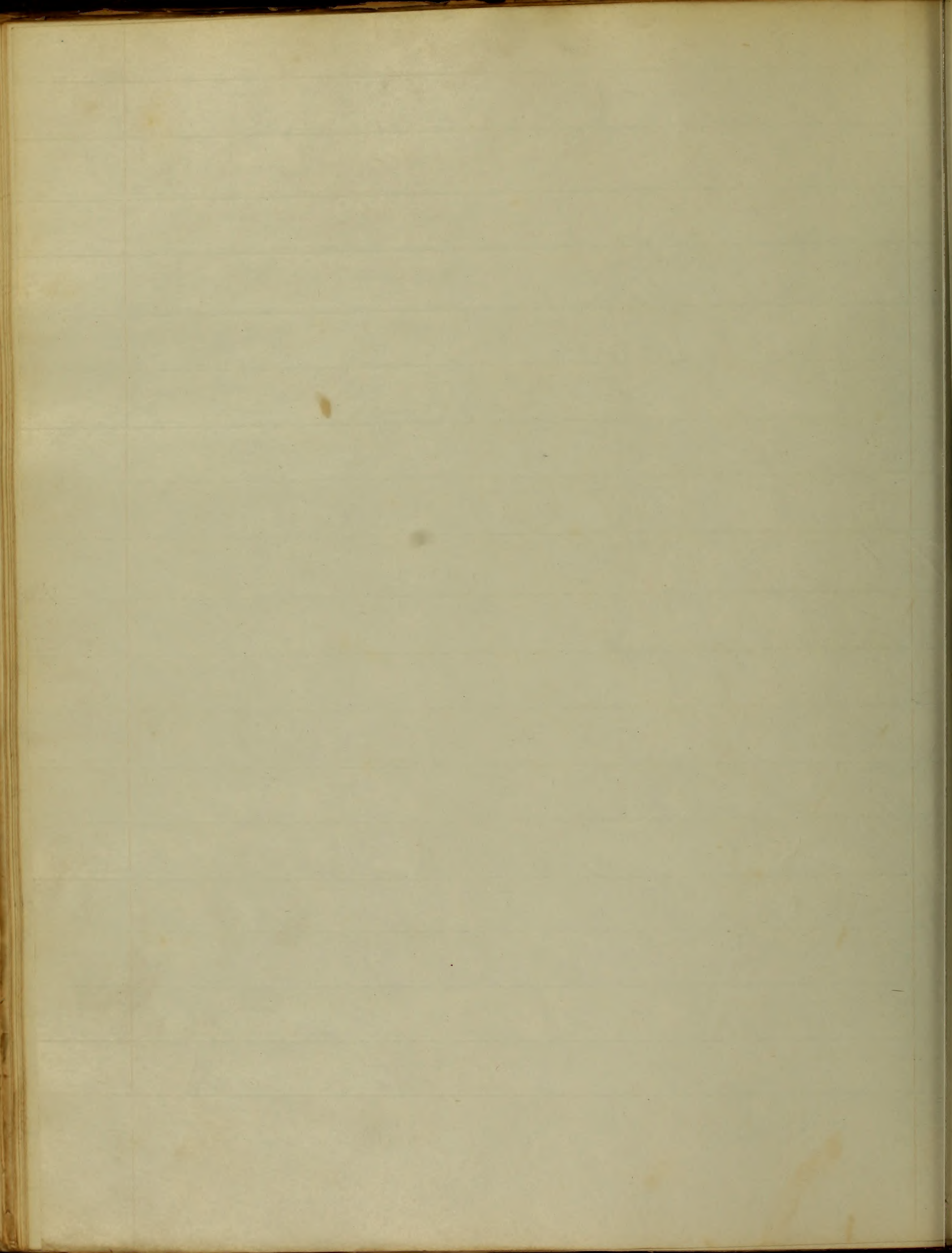






73

*[Faint, illegible handwriting]*



A Thesis  
on  
Inflammation  
Submitted to the examination  
of the  
Provoosts Regents and Faculty of Physic  
of the  
University of Maryland  
Medical Department  
for the  
Degree of Doctor of Medicine  
by  
Charles F. B. Swan

1861

to

Department of

the Interior

of the

General Land Office

Washington

Dear Sir

I have the honor

to acknowledge

the receipt of your

of

the enclosed

As a candidate for graduation in the Medical  
Department of the University of Maryland  
I humbly in conformity to its requirements  
Submit to the Proctors, Regents, and faculty  
of Physic This Thesis on Inflammation  
A Subject I have chosen from its great im-  
portance alike to the Physician and the Surgeon  
A knowledge of its causes; of its laws; of  
its morbid and salutary effects; of its  
course; of its symptoms, and of its  
treatment cannot be too accurately studied  
nor too well understood. How indispensable  
necessary a thorough acquaintance with this subject  
may better be appreciated if we reflect that  
more than three fourths of the cases to  
which we as Physicians are called we  
have to deal with inflammation, and to  
the Surgeon it is one of the greatest means  
of cure which he should have in his power





to excite at pleasure and when excited,  
should be able to controll

As a consequence of inflammation death  
may be the result either by anemia or  
sthenia apnoea or coma. By anemia which  
signifies bloodless and is the consequence of  
an insufficient quantity of the natural stim-  
ulus of the heart (the blood) being sent to the  
heart to cause it to contract, which is the  
mode of death in those diseases which produce  
wasting emaciation as in pthisis, dysentery  
and in all chronic inflammations.

By asthenia which is caused by the exercise of  
any injurious influence upon the brain  
and nervous system as to paralyze the action  
of the heart from insufficiency of or inter-  
ruption to the nervous influence which should  
be conducted to the heart this is the mode of  
death in some forms of apoplexy in peritonitis

1840  
The first of the year  
was a very successful one  
and we have had a  
very good crop of  
wheat and corn  
and the weather has  
been very good  
and we are all well  
and hope to have  
a very good year  
and we are all well  
and hope to have  
a very good year

also in certain forms of fever  
 By Apnoea which signifies want of air  
 This is the mode of death when from some  
 mechanical ~~obstruction~~ to the entrance of  
 air to the lungs the blood is prevented  
 from being duly oxygenized the chemical  
 action of the lungs is prevented this is  
 the most common mode of dying this is the  
 form of death in croup that inflammation  
 of the trachea so common and so fatal to  
 children also happens in laryngitis, in  
 pneumonia in bronchitis and in double  
 pleurisy — Death by Coma resembles  
 death by Apnoea in its pathological ana-  
 tomy, but in coma the muscular efforts of  
 respiration are primarily interfered with  
 from injury to the brain, the chemical  
 changes in the blood being the result of  
 failure in the respiratory muscles and

Faint, illegible handwriting, likely bleed-through from the reverse side of the page. The text is mirrored and difficult to decipher.

not from any impediment to the entrance  
of air to the lungs this is the mode of death  
in Hydrocephalus in some forms of Apoplexy  
and in inflammation of the membranes of  
the brain All these modes of death are  
met with in fevers and after a compli-  
cation Sometimes there is a tendency to  
death in one way sometimes another all  
these symptoms we have to combat as  
one or another seems to get the ascendancy.  
Since we have seen such fatal results  
do follow in such a variety of modes  
as a consequence of inflammation should  
this not stimulate us to endeavour to  
become more intimately acquainted with  
a subject in the knowledge of which  
the lives of so many of our fellow crea-  
tures and our own reputation as Physi-  
cians depend



I propose here briefly to consider the causes which produce inflammation; some of its morbid and salutary effects; of the symptoms attend it; of its events and terminations and lastly of the treatment which it requires. I shall proceed then to treat of the causes which produce inflammation and these may be either predisposing or exciting. By predisposing I mean that particular state of the system which predisposes to disease, as when one has had an attack of rheumatism, or slight exposure again to cold and moisture would very probably bring on an other attack. The exposure to cold would be called the exciting cause, and that particular state of the system rendered more liable or susceptible to take the disease from a previous attack would be called predisposing.

The first part of the book is devoted to a description of the  
various species of plants which are found in the  
country of the author. He then proceeds to describe the  
manner in which they are cultivated, and the uses to  
which they are put. The second part of the book is  
devoted to a description of the various animals which  
are found in the country. He then proceeds to describe  
the manner in which they are bred, and the uses to  
which they are put. The third part of the book is  
devoted to a description of the various minerals which  
are found in the country. He then proceeds to describe  
the manner in which they are mined, and the uses to  
which they are put. The fourth part of the book is  
devoted to a description of the various manufactures  
which are carried on in the country. He then proceeds  
to describe the manner in which they are carried on,  
and the uses to which they are put. The fifth part of  
the book is devoted to a description of the various  
arts and sciences which are taught in the country.  
He then proceeds to describe the manner in which they  
are taught, and the uses to which they are put.



One may expose himself to day with perfect  
 impugnty, which if repeated again would  
 put his life in jeopardy evidently showing  
 that there must be a predisposing cause  
 Many a person has been known to pass through  
 childhood to adult life with frequent exposure  
 to measles and scarlatina, (diseases more common  
 to children than to adults) without contracting  
 and when he thinks he is quite proof  
 against it he is taken with the disease when  
 he least expects it on the slightest exposure to  
 its effluvia or indeed without knowing he  
 had been in any way exposed to it what it is  
 or will produce that state of the system which  
 will predispose to disease is very difficult  
 to determine some of the causes however  
 we are able to point out excessive fatigue  
 or any over exertion either corporeal or men-  
 tal which by exhausting the strength and impairing the



Animal functions predisposes the system  
 in such a manner that it yields more  
 readily to the injurious effects of any exci-  
 ting cause; or in other words by the im-  
 pairment of the animal function and the  
 exhaustion of the nervous system the re-  
 generative energies of the system are insuffi-  
 cient to ward off the effects of the exciting  
 cause - It has been said to know the cause  
 of disease is sometimes to be able to avoid it  
 to prevent this is particularly the case in  
 reference to the predisposing causes for we  
 find in some families a strong predisposition  
 on the part of each individual to gastritis, or  
 gastroenteritis by being aware of this pre-  
 disposition we are often able to prevent  
 its occurrence by giving tone and vigor to the  
 system and preventing the ingestion of such  
 food as would be most likely to act as an exciting cause



So much then for the predisposing causes I will next consider the more direct the immediate, or exciting cause of inflammation, which we are able with more accuracy to determine and these are sudden variations in temperature from heat to cold cold is the most common cause of inflammation, cold when judiciously applied is one of the most invigorating remedies we possess it is also one of the best prophylactics, it is also of great importance in the treatment of inflammation, cold under certain circumstances is followed by the most dangerous results if applied to the body while heated and the cause of heat still operating no ill effects will ensue but applied to the body while cooling after being overheated the most injurious consequences will be the result, if death does not soon follow the most serious inflammation of internal organs will be the consequence -



Cold produces its injurious effects in proportion to the length of time it has been applied, and not in proportion to its intensity. However the force of habit will enable a person to endure intense cold for a considerable length of time without suffering any injurious consequences; cold applied to one asleep or to the body by a current of air when the body is heated or cold damp or wet clothes in contact with the body for a length of time are the most injurious modes of its application. The most common diseases of cold damp weather are rheumatism and inflammation of some portion of the respiratory apparatus - Cutaneous and hepatic disorders together with affections of the stomach and bowels are the most common diseases of warm climates. Another and very common exciting cause of inflammation is the result of excess in eating and drinking, eating

Get Justice to improve of the  
time to the length of the  
and not in perfection to the  
the face of labor will result in  
some extent to the fact that  
of these matters the  
consequence of the  
the help of a great  
a well known  
help for a great  
side of the  
of the  
franchise of  
facilities  
also together  
and  
of  
more  
more  
most of



certain indigestible substances for food which act as an irritant and produce violent gastritis. There are also various chemical and mechanical irritants which are the source of inflammation whether wilfully employed by the hand of the surgeon, or as the result of accident. I will next consider some of the morbid and salutary effects produced by inflammation. Most of the organic changes in the human body recognize inflammation as their origin. What would be the particular organic change will depend entirely upon what particular organ or tissue of the body is the seat of inflammation. For instance if inflammation of the mucous membrane there is thickening as in inflammation of the mucous membrane of the air passages a thickening is produced and consequently an impairment and sometimes a total loss of voice, in inflammation



of the mucous membrane of the urethra which  
 either from being badly treated or suffered to run  
 on without any treatment a thickening is produced  
 and consequently a diminution of the caliber of  
 the tube and so mechanically preventing the  
 flow of urine giving rise to that very common  
 and troublesome disorder constriction of the urethra  
 in all inflammation of areolar tissue or of the  
 parenchyma of organs they are rendered thicker  
 and harder, the consolidation caused by effusion  
 of serum which has not been absorbed, in infla-  
 mation of serous surfaces there is an effusion  
 of lymph which soon becomes organized produ-  
 cing agglutination of its opposite surfaces  
 as in inflammation of the investing membranes  
 of the lungs so in inflammation of the lining  
 membrane <sup>of the valves</sup> of the heart <sup>of the valves</sup> which is a serous or  
 fibrous membrane, the effect of inflammation  
 there is to pucker, thicken, and harden them



The salutary effects of inflammation are witnessed  
 in the reparation of broken bones which is ac-  
 complished by effusion of lymph around the  
 bone which soon becomes organized then is changed  
 into a cartilaginous substance which is called  
 provisional callus which firmly adheres around  
 the bone giving it support until by the deposit of  
 specific matter the bone is united, the provisional  
 tumour is then absorbed. by exciting inflammation  
 in the tunica vaginalis when the serum of the sac  
 is discharged the opposite surfaces of the tunica  
 vaginalis becomes agglutinated together by adhesive  
 inflammation the cavity of the sack is entirely ob-  
 literated and the accumulation of serum entirely pre-  
 vented, it is by this beautiful process that wounds  
 are closed, ulcers healed and the fibres of the cleft  
~~separat~~ united and the many dangerous and fatal  
 consequences averted by the intervention of  
 adhesive inflammation



The symptoms of inflammation are pain  
 redness, heat and swelling. Pain is no  
 doubt produced from the implication of  
 the nerves of the part in the diseased process  
 pain varies with the seat of inflammation  
 or in other words the character of the pain  
 whether it is sharp stitching lancinating  
 throbbing or a dull aching pain depends  
 altogether upon what structure of the  
 body is the seat of inflammation. parts  
 of the body which possess very little sensibility  
 in a healthy condition, when in a ~~state~~  
 state of inflammation cause most excruciating  
 pain and these are bone tendon ligament  
 and cartilage why this is so we must  
 explain in the same way that we account for  
 the greater pain in inflammation of serous  
 investing membranes than in mucous lining  
 membranes. The mucous membranes are





soft yielding and susceptible of great  
 distension<sup>and therefore</sup> are less painful than serous  
 membranes which are more tightly applied  
 and are less elastic and consequently are less  
 able to bear much tension. The tension which  
 is caused by the swelling in inflammation is no  
 doubt the reason why there is more pain in serous  
 investing membranes than in mucous membranes  
 & why we should have greater pain in bones  
 cartilage ligament & tendons is their almost  
 total inelasticity. The less pain in inflamma-  
 tion of the parenchyma of an organ is ac-  
 counted for in the same way they are soft and  
 yielding and would allow a great degree of  
 swelling without much tension from  
 what we have seen much may be learned  
 concerning the seat of inflammation  
 from the character of the pain or  
 from its intensity or the degree of pain.

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In inflammation the redness is occasioned by the greater circulation of red blood in the vessels of the part inflamed, there is no doubt new vessels formed which circulate red blood which if they had existed before certainly did not circulate red blood we see this in inflammation of the eye the vessels too are greatly enlarged consequently carry a greater quantity of red blood, The degree of redness depends upon the character of the inflammation in acute form of frank inflammation the redness is a bright vivid color but in chronic forms of inflammation or when there is a disposition to gangrene the color is dark purplish redness is most invariably present during all inflammation & during one or another stage of it, Heat is always produced by the union of oxygen with carbon so the heat of the body depends upon the union



of the oxygen of the air with one of the elements  
of the body its carbon so in inflammation of  
any part, the super-natural heat of the part  
is caused by the increased quantity of oxygen  
in the part which is dependent upon the great-  
er quantity of arterial blood circulating in the  
part. Increased heat is always attendant  
upon inflammation during some stage or  
other of its course but the heat of in-  
flammation never exceeds that of the blood  
in the central parts of the body. The surface  
of the body is always cooler than the internal  
parts and the surface of the extremities  
always cooler than the surface of the body.  
So in inflammation you would have to  
make a comparative estimate of the degree  
of heat. The Swelling in inflammation is  
in some measure dependent upon the greater  
influx of blood into the part, but it is more



dependant upon what is poured out from the  
 blood vessels which is in the serum, pus,  
 blood or lymph. The serum or watery part of  
 the blood is effused as an effect of inflama-  
 tion which may mechanically prevent the due  
 return of blood through the veins & the heart  
 this is the true theory of acute dropsy,  
 acute dropsy is always the product of in-  
 flammation. Sometimes there is so great an  
 effusion of serum into the cavity of the pleura  
 in double pleuritis that the breathing is  
 very much interfered with and the life of the  
 patient threatened by apnoea. Also in  
 meningitis which is an inflammation of the membranes  
 of the brain there is an effusion of serum which  
 causes death either by coma or by asthenia -

The effusion of blood is caused by the giving  
 way of some blood vessel - Coagulable lymph  
 is the fibrin of the blood separated from its

is the form of the blood vessels  
way of our blood vessels - Capillary  
the appearance of blood is caused by the  
cases both with either of one or of other  
of the form there is an appearance of  
conspicuous which is an indication of  
latent heat of fusion also in  
any small intestine with the help of  
in small intestine that is to say  
appearance of snow with the help of  
flourination. Sometimes there is a great  
center of the body in the form of  
this is the true thing of our body  
nature of blood through the body & the  
time which may be observed in  
the blood is apparent as an effect of  
heat in the body - the same way



other constituents which soon becomes organ-  
 ized it is one of the beautiful efforts of  
 nature in the reparation of tissue as we have  
 seen in considering the salutary effects of  
 inflammation, how soon the fibrin is effu-  
 sed and organized depends altogether upon the  
 nature of the inflammation and the condition  
 of the constitution at the time some times  
 it is effused and becomes organized in  
 a few hours and then again not for  
 some days. Pus is altered blood  
 The product of inflammation or a better  
 definition perhaps is that it is the fibrin  
 assuming a low degree of organization  
 pus is some times poured out in a few hours  
 as in gonorrhoea. The formation of pus  
 which is diffused under the cellular tissue  
 or incysted as in an abscess either acute  
 or chronic is very often productive of fatal

The contents of this book are  
of a nature which is not  
to be considered as a  
contribution to the  
science of the  
mind, but as a  
collection of  
facts and  
opinions  
which are  
of interest  
to the  
public.

consequences by the adynamic state to which  
 the patient is brought great emaciation is  
 the product and if death results it is by summa  
 I have now considered inflammation as it dis-  
 plays itself locally - I will next consider  
 the effects which it produces upon the  
 whole system or its constitutional effects  
 As one would suppose no process such as  
 we have been considering would be  
 going on in any part of the body  
 without producing a great deal of con-  
 stitutional disturbance - When inflama-  
 tion first sets in it is soon followed by  
 other symptoms which affect the whole system  
 and these are first a sense of chilliness or a  
 rigor which <sup>is intensely</sup> is altogether dependent upon  
 what part is the seat of inflammation  
 after the chill there is heat and dryness of skin  
 loss of appetite thirst headache pain in the back

Handwritten text, likely bleed-through from the reverse side of the page. The text is extremely faint and illegible due to the quality of the scan and the nature of the bleed-through.

general soreness of the muscles, lassitude, languor,  
 inability, or indisposition to make any muscular  
 effort, deficiency in all the secretions if  
 there is a hypersecretion it is vitiated, ~~and~~  
 scanty high colored urine, increase in the  
 frequency and force of the pulse which is  
 also full and hard incompressible all  
 the constitutional symptoms varies very  
 much with the seat of inflammation and the  
 peculiar constitutional habit of the patient  
 for in some persons the slightest inflammation  
 will give rise to the severest constitutional  
 symptoms the cerebral symptoms varies very much  
~~with~~ for in some there is violent delirium as  
 soon as there is the slightest increase in the  
 frequency and force of the pulse. of the state  
 of the pulse much is to be learned. for in  
 inflammation of the viscera of the Thorax there  
 is quite a different pulse from the pulse

I have the honor to acknowledge the receipt of your letter of the 14th inst. in relation to the above mentioned matter. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,  
 Yours obedient servant,  
 J. M. [Name]

of inflammation of any of the viscera of the abdomen. The one is characterized by frequent full hard incompressible pulse. The other by frequent quick & steady pulse -

An increase in the fibrin of the blood circulating through the whole system gives rise to that general constitution disturbance which we call fever. The duration of the inflammation depends upon the part inflamed, and the treatment which has been applied to arrest it. The character of the fever depends upon the habit of the patient if one of sanguine temperament young and vigorous the fever will be inflammatory but if the inflammation occur in one who has lived intemperately or has been subject to long continued excitement of the nerves, <sup>system</sup> or who is old and infirm and whose life may much exhausted the fever will of a Typhoid type

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when inflammation subsides it is either  
 by resolution which is its most favourable  
 termination or by suppuration. Mortifica-  
 tion and ulceration I consider as the effects  
 of inflammation when an inflammation  
 has been improperly treated the pain will  
 cease; the redness fade; the swelling will  
 be reduced to the natural size of the part  
 the preternatural heat of the part will be gone  
 and the part assume its natural temperature  
 and all the constitutional symptoms will  
 disappear the patient recovers; but if  
 proper treatment has not been employ-  
 ed or has been used but not successfully  
 pus is formed which soon makes its es-  
 cape if not assisted by the Scalpel of  
 the surgeon it burrows its way to the  
 cuticle which bursts and the pus is dis-  
 charged or a channel is formed <sup>by</sup> the

The first part of the paper is devoted to a general  
 consideration of the subject, and to a statement of the  
 objects to be attained. It is then divided into three  
 parts, the first of which is devoted to a description of  
 the nature and extent of the disease, and to a  
 statement of the symptoms which attend it. The second  
 part is devoted to a description of the various  
 methods which have been employed for its cure, and  
 to a statement of the success which has attended  
 them. The third part is devoted to a description of  
 the various methods which have been employed for  
 its prevention, and to a statement of the success  
 which has attended them.

effusion of coagulable lymph which is organized and the pus is discharged into one of the natural outlets of the body. From the surface of this abscess pus may still continue to be secreted for a length of time in such quantities that the system is entirely worn out, or by degrees the abscess fills up by granulation until the whole cavity is obliterated and the parts resume their normal healthy aspect,

Lastly we come to the treatment of inflammation as we have seen that the blood is the cause of this inflammation heat redness and swelling our first object would be to attempt to lessen the quantity of blood circulating through the part. This may be accomplished either by general bloodletting or by local bloodletting the first object may be attained either by venesection or arteriotomy the last by cupping or leeching

Faint, illegible handwriting, likely bleed-through from the reverse side of the page. The text is mirrored and difficult to decipher.

The quantity of blood to be taken depends entirely  
 upon the part inflamed and the habit of the patient  
 by cupping or leeching we abstract blood locally and  
 thereby unload the engorged capillaries and by  
 general bloodletting we lessen the quantity of  
 the blood circulating in the part & we thereby  
 reduce the force and frequency of the pulse by  
 taking from the heart its natural stimulus the  
 blood and as a consequence being left to stimulate  
 it contracts less frequently, another adjuvant  
 remedy is purging which in addition to the removal  
 of feces and ~~the~~ <sup>the</sup> irritating secretions it produces  
 copious serous discharges from the whole of the  
 mucous membrane and inflammation of the brain or  
 any part of the head purging acts as a vomitive - Mercury  
 is another very powerful remedy in the treatment of inflammation  
 especially of serous surfaces where from agglutination of  
 their opposite surfaces harm would likely to result, it is  
 a great stimulus to the secretory organs it is what we  
 mainly rely upon in the treatment of Pleurisy & Pericarditis

the quantity of water in the soil  
 when the soil is saturated and the water  
 is being held in the soil by the  
 capillary forces of the soil particles  
 and the water molecules. The water  
 is held in the soil by the capillary  
 forces of the soil particles and the  
 water molecules. The water is held  
 in the soil by the capillary forces  
 of the soil particles and the water  
 molecules. The water is held in the  
 soil by the capillary forces of the  
 soil particles and the water molecules.

The great effect of Mercury is render the blood  
 antiplastic and mercury should always be given  
 with that intention it also is an absorbent of co-  
 agulable lymph, it is one <sup>of the</sup> best and most powerful  
 mercury stimulants we possess - Antimony  
 which is a counterstimulant is also much used  
 in the treatment of inflammation it exerts a peculiar  
 sedative influence over the heart and arteries reduces  
 the force & frequency of the pulse. Digitalis is an  
 other remedy which also acts as a sedative upon the  
 heart. narcotics and sedatives are important  
 classes of medicine in the treatment of inflammation  
 which by their soothing influence which they exert  
 and by allaying irritation are great adjuvants  
 in the treatment of inflammation. counter  
 irritants which by the detracting from an  
 inflamed surface <sup>or part</sup> assist greatly in the treatment  
 of inflammation for this purpose Issues, blisters,  
 stimulating liniments, Sinapisms, & cups are used

The great object of business is to  
accumulate money. Money is  
not the end but the means  
to the end. It is a tool  
to be used in the most  
efficient manner. It is  
not to be hoarded but  
to be put to work. It  
is to be used to create  
wealth and to improve  
the lives of the people.  
It is to be used to  
expand the business and  
to increase the profits.  
It is to be used to  
invest in the future and  
to secure the well-being  
of the family and the  
community. It is to be  
used to create a better  
world for all of us.



application of cold as I have said before is  
 if judiciously applied of great service in the  
 treatment of inflammation. The rules for its appli-  
 cation I will not mention. The Antiphlogistic  
 regimen should in all cases be most rigidly en-  
 forced, rest, in the recumbent posture all stimu-  
 lants must be avoided and must be kept upon rigid diet  
~~and~~ in other words must be ~~starved~~ refrain from  
 eating and drinking altogether. The function of  
 the inflamed organ should not be used at all  
 if it can be avoided one of the most important of  
 the antiphlogistic regimen is to attend to the natural  
 evacuation which <sup>should</sup> be at least once a day  
 Another important class of remedies in the treat-  
 ment of inflammation is diaphoretics this is how-  
 ever very well accomplished by antiseptics.  
 In the therapeutic application of these remedies  
 in the treatment of inflammation in nothing is  
 so much judgment required as in the use of the  
 lancet, it is indeed the great remedy in inflammation



Inaugural Dissertation

on

Dysphoid Fever.

Submitted to the examination of the

Honorable Regents of Faculty of Medicine

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Esargrove Simbley.

Baltimore, January 1847.

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An  
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Submitted to the examination of the  
Provost, Regents and Faculty of Physic  
(of the)

University of Maryland

For the  
Degree of Doctor of Medicine

By  
Sargore Sunkler.

Baltimore February 1847.

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Respectfully Inscribed

to my esteemed

Friend

and kind

Preceptor -

Dr. Alex<sup>r</sup>. Robinson.

*[Faint, mirrored handwriting, likely bleed-through from the reverse side of the page. The text is illegible due to fading and mirroring.]*



"The Youth who strives th' Olympic prize to gain,  
All arts must use, and every toil sustain."

Page 1.

Gentlemen of the Faculty,

I have in accordance with the rule of the University of Maryland, in the Medical Department of which, I have the honor to be a student, written a Thesis, which is herewith presented for your inspection.

— It is not to be expected that an inexperienced Medical student shall write anything new and valuable in medicine. He can but give a compilation of facts gathered from the knowledge of others, a reflection, as it were from a brighter source. Nothing new or untold can be received as truths in medicine, unless sanctioned by experience and use. It is only after years of practice and careful observation that the physician can venture to advance any new doctrine in respect to disease, its form, or treatment, with the hope that his fellow practitioners, will examine his theory, and at the most pronounce it plausible. How then is it to be presumed, that a young man devoid of medical experience, and but



partially acquainted with the laws which govern the human system, can produce a medical composition, that will be admired for the fresh truths it contains, or a new code of treatment that has been successful?

Such then, gentlemen, you do not, cannot expect to find; but the various diseases that have been chosen as the subjects of a dissertation, you look to see discussed and treated according to the best known theories and the principles you teach. — If I have in this attempt to portray the symptoms, duration and treatment, of one of the many maladies that infect mankind, fallen short of the mark, I pray you consider, that, although we may judge of a tree by its fruits, yet the tree bringeth not forth perfect fruit until it hath matured.

~~~~~ .. ~~~~~ Hargrove Hinkley. ~~~~~

partially acquainted with the same subject, and the  
system, can produce a similar result, that will  
be deemed for the first time it contains the essence  
of treatment that has been successful?  
These three questions, of our doubt, and not expect to find  
but the answer is, that there has been a great deal  
of subjects of a dissertation, of our text to be discussed  
and treated, according to the best known principles  
the principles of our text. If I have in this attempt  
to present the symptoms, that have been treated  
of one of the several varieties that is not mentioned  
fallen short of the mark, I have no excuse, that  
although we may judge of a tree by its fruit, yet  
the tree brings out the perfect fruit, while it  
is in the ground.

Thomas Smith

The disease which I have selected as the subject of my thesis is one fraught with interest to the American physician inasmuch as it does at times prevail, very extensively throughout the United States, and is, in fact, the most generally diffused essential fever, that we have.

Upon this account therefore, it has received considerable attention and investigation, as well by our physicians as those of Europe.

In the description herein given of the symptoms, morbid changes and treatment of Typhoid Fever I have classified my remarks in a manner somewhat similar to that pursued by Doctor Bartlett in his works on Typhoid and Typhus fevers.



## Symptoms.

Modes of Attack.— The modes of attack of this disease are various, both in regard to the symptoms and the length of time. Generally it is slow and gradual in its approach, and the patient is unable, accurately, to say when he was first taken ill. He may have a general feeling of "malaise", a slight headache, pains in the back and legs, and a sense of chilliness followed by that of heat. Sometimes his sleep is broken, and he is not refreshed as much as usual; he feels unable to exert the powers of the body and mind, which are always depressed; generally, according to the degree of fever. These feelings may remain for some time or gradually increase and give place to others more severe and characteristic of the disease. One peculiar symptom or set of symptoms may predominate in one case and a different set in another.

Debrile Symptoms. Chill. There is generally, though not always present, in the attack a chill, sometimes amount-  
-ing

Diagnosis

The history of the case is as follows: The patient is a young man, aged 25, who has been suffering from a chronic cough for several months. The cough is worse in the morning and at night, and is accompanied by a small amount of white sputum. There is no blood in the sputum, and the patient does not feel any chest pain or shortness of breath. The patient has been treated with various remedies, including cod liver oil, but with no improvement. The patient is otherwise healthy, and has no other symptoms.

The physical examination is as follows: The patient is well developed, and has no signs of acute illness. The lungs are clear to auscultation, and there is no crackles or wheezing. The heart is normal in size and rhythm, and there is no murmurs. The abdomen is soft, and there is no tenderness or masses. The patient's temperature is normal, and his pulse is regular.

The diagnosis is chronic bronchitis. This is a common condition, and is usually caused by long-term exposure to irritants such as cigarette smoke or dust. The symptoms are a persistent cough, usually with sputum, and may be accompanied by wheezing or shortness of breath. The condition is usually treated with a combination of cough suppressants and expectorants, and may also respond to inhaled corticosteroids.

The prognosis is good, and the patient should respond well to treatment. It is important to avoid further exposure to irritants, and to continue with the prescribed treatment.



to a rigour. Sometimes the chill is repeated more or less frequently throughout the disease.

State of the Skin. Subsequent to the chill, the skin is dry and the heat thereof much increased. The state of the skin may differ; the whole surface of the body being hot and pungent, or only particular parts. This morbid heat sometimes shifting about from place to place, and subject to changes of intensity. The greatest exacerbation or increase of the febrile and unpleasant symptoms, or rather feelings, is generally in the evening. In relation to this evening exacerbation in fevers, Fordyce says, "that all men, even in the most perfect health, have a feverish attack in the evening, which goes off in the morning. There is a depression of strength, both of body and mind sufficiently evident; there is not the same alacrity of mind in the evening, nor power of memory, imagination, and judgement as there is in the morning. If in perfect health this natural evening paroxysm <sup>of fever</sup> is visible, it is infinitely more so in diseases of most kinds."



The condition of the skin in regard to moisture, differs in different patients; in some there is hardly any moisture, in others the sweating is profuse, sometimes coming on after the evening paroxysm, sometimes occurring in the night. During convalescence there is often a considerable sweating, which necessarily tends to keep up the enfeebled condition and retard the recovery. There is a peculiar odor arising from a person infected with Typhoid Fever, which is noticed by Drs. Smith and Bartlett, and which I have, myself observed.

Pulse. - The pulse is always increased and, according to Bartlett, ranges, from seventy to one hundred and forty, in a minute. It is sometimes full and strong, sometimes small and soft.

Thoracic Symptoms. These consist of increased respiration in some cases accompanied by a hissing sound, and a slight cough, and viscid expectoration, which last is not however always present. In a physical examination

The condition of the skin in regard to moisture, differs  
in different parts; in some there is hardly any  
moisture, as there is in the palms of the hands, so that  
it is often after the washing of the hands, sometimes so  
dry that it cracks, and it is in the palms of the hands  
that the most perfect condition of the skin is found  
to be preserved. There are however other parts of the  
body where the skin is not so dry, and it is in these  
parts that the most perfect condition of the skin is found  
to be preserved.

It is also to be observed that the skin is not  
equally dry in all parts of the body. It is in the  
palms of the hands, and in the soles of the feet, that  
the skin is the most dry, and it is in these parts  
that the most perfect condition of the skin is found  
to be preserved.

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equally dry in all parts of the body. It is in the  
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the skin is the most dry, and it is in these parts  
that the most perfect condition of the skin is found  
to be preserved.

of the chest we most always find some sibilant rhoncus. The Nervous symptoms declare themselves by headache, pains in the back and limbs, disordered state of the mind, expression of countenance, and deranged state of the senses. The headache which is rarely absent in this disease, is sometimes of a dull throbbing kind, at others severe and lancinating; in one case felt more particularly in the forehead and temples, in another all over the head. The pain in the back and limbs is greater or less in different cases, generally consisting in a feeling of soreness. The state of the mind is always remarkably depressed, the patient in some instances replying in a very indolent manner to questions put, in others being remarkably irritable. There is a degree of listlessness and stupidity in the countenance, a want of perfect recollection and of full possession of the powers of the mind. Delirium is frequently present, and when it is so, seems to increase towards evening or at the approach of the febrile paroxysm.

of the class we must always find some brilliant specimens  
The specimens of the class are the most beautiful in the  
in the back and lower part of the trunk  
expression of countenance and tendency of the  
tense. The tendency which is ready to set in this  
disease is a weakness of a kind that is not  
often seen and is not usually in our case. It is  
characterized by the fact that the patient is  
all over the body. The pain in the back and limbs is  
greater or less in different cases depending on  
a feeling of weakness. The state of the mind is also  
markedly affected. The patient is prone to  
suffering in a way which is not usually  
in other cases. The patient is usually  
of lessness and ability in the countenance,  
most of perfect recollection and of full possession  
of the power of the mind. The disease is frequently  
present and when it is so, several in various forms  
emerge or at the approach of the fatal period.

Sometimes it is very violent, but more frequently of the mild description. There is in some cases mostly those of a severe character, a state of drowsiness or lethargy, and in these it is noticed, that the patient declares he never gets any sleep and appears unconscious of having dozed. In regard to the state of the senses, the hearing is most always affected in a greater or less degree, the loss of hearing being accompanied by a ringing in the ears, and dizziness. The sight is rarely affected unless we mention an increased sensibility to the light.

#### Sense of Taste and Condition of the Tongue.

The tongue is generally coated and this condition of course impairs the taste, and in some cases articles disagreeable to the taste in health are taken without evidencing any repugnance. A certain value is justly attached to the state of the tongue. "It sometimes becomes clammy or dry, sometimes it is clean and smooth, more often furred; its edges and tip, will perhaps, be red, then a white fur will

Investment of a very small part of the  
total description. There is some  
of a series character in the  
and in this it is evident that the  
the main part of the  
bearing these in regard to the  
bearing is most strongly affected in a  
degree, the loss of bearing being  
bearing in the east and west. The  
is affected under the variation in  
to the light.  
loss of taste and condition of the  
the tongue is generally coated and this  
bearing the taste and in some cases  
the taste is not so strong as in  
bearing. A certain value is given  
of the tongue. A certain value is  
bearing in a certain value is given  
the tongue will produce heat, then a



begin, which either covers the central part of the tongue, or is divided by a straight brown streak which occupies its middle portion. This brown streak is often the first step to dryness and blackness of the tongue."

For the tongue to be dry and furred is a bad omen, but when in addition to this it becomes brown or black, the disease in the majority of instances proves fatal. When, on the contrary, the tongue is but little altered, or remains moist; or if, having become dry, it again becomes moist —, it is either a sign of amendment, or indicates a mild form of fever. It is necessary in estimating the state of the tongue to notice whether or not the patient sleeps with the mouth open.

**State of the Muscles.** There is a great depression of muscular strength in this fever, which commences from the first attack; sometimes, *subcillus tendinum* occurs; the body feels sore all over, and the muscular system is completely relaxed. In extreme prostration the patient lies constantly on the back. Occasionally the muscles of the diaphragm are affected



causing triceps. The debility lasts until the close of the disease, a disposition to turn on the side or sit up in a chair should be regarded as a favorable return of strength.

### Digestive and Abdominal Symptoms.

The symptoms of derangement in the digestive organs are characterised by the state of the tongue and appetite; by nausea and vomiting, state of the bowels, pain in the abdomen and tympanites. The appetite is lost to a greater or less degree, according to the violence of the disease; often totally. The thirst is always increased, and is in proportion to the height of the fever, cold drinks being generally desired. Patients in Typhoid Fever, frequently suffer from nausea and vomiting, the matter ejected, being, according to Dr. Nathan Smith, "vitiated bile, mixed with mucus of an unhealthy color and consistence." ~ In regard to the state of the bowels, the most frequent condition is that of diarrhoea, which is sometimes continuous throughout the whole attack, and in some instances not making its



appearance until late in the disease. Dr. Nathan Smith says, "the latter stages of all severe cases are attended with diarrhoea". The discharge is in appearance watery and of a dark brown color, sometimes tinged with blood.

A peculiarity exists, with respect to the discharges from the bowels in this fever, which I do not recollect having been mentioned by authors on the disease. The evacuations are ejected suddenly and generally with much flatus. Pain in the abdomen is a very constant accompaniment of Typhoid Fever, sometimes sharp and severe and at others only elicited by pressure. It is mostly seated in the iliac fossa, and the patient feels pain on being pressed over the region of the caput coli; and here we may detect a gurgling sound on pressure, a peculiar characteristic of this fever.

There is considerable tympanitis, varying in degree, but for the most part proportioned to the severity of the attack. Miscellaneous symptoms. Emaciation exists in nearly all cases of Typhoid Fever, varying in extent. ~



State of the Urine. In the commencement of the fever the urine is high colored and voided often; as the disease advances the bladder is seldom evacuated, and there is retention of the urine. Epistaxis is not unfrequent, especially in the commencement of this fever, it is, however, generally slight.

cutaneous Eruptions. During the course of the second week, there takes place an eruption, which is so characteristic of this fever, that it has been called Typhoid eruption. It occurs principally about the neck and breast, although sometimes appearing on the rest of the body. This eruption consists of small red spots, resembling flea bites, which disappear upon pressure of the finger, but return again when the finger is removed. They are slightly elevated above the surface of the skin, not always perceptible to the touch, and according to Dr Power "usually appear in several separate eruptions, each lasting about two days, never appearing before the fifth or after the thirty fifth day." There is also another eruption,





called *pidamina*, which appears upon the neck, shoulders and breast. It consists of small transparent vesicles, containing a clear fluid, elevating the cuticle. These vesicles dry up in two three days and the cuticle exfoliates. We sometimes have *petechia* appearing, which is looked upon as a grave symptom. There is a great tendency to the formation of ulcers on the skin, especially on the nates and edges of blistered surfaces.

The foregoing symptoms which I have enumerated vary considerably in proportion to the attack. Some of them are more important than others, some more peculiar to this disease. It is very rare if ever that they are all found combined in any one case of Typhoid Fever.

**Anatomical Lesions.** I will now proceed to speak of the anatomical lesions which are present, either constant or occasional in this disease; and first of the Circulatory System. The most frequent change found in the condition of the heart is that of softening, which according to Dr Power, is found in one half the cases met with of Typhoid Fever.



In seventeen of forty six cases, Louis found this softening well marked, accompanied by a paleness and flaccidity of the liver of that organ. The state of the blood in Typhoid fever is materially altered from its normal condition, and blood drawn from patients in this disease seldom or never presents any buffy coat. There is a want of a due proportion of fibrine, which all writers on this disease have noticed. Messieurs Andral and Savarret, in their elaborate memoir on the blood, assert, the fibrin never rises perceptibly above the normal standard in true Typhoid fever, and that it decreases in proportion to the advancement of the disease. Seherer has made a partial analysis of the blood in cases of Typhoid fever of a very low putrid type. The blood was black and tar-like, and instead of forming a firm clot, became a soft mass, from which the serum did not separate. The little fibrin it contained was soft and gelatinous. The blood-corpuscles were jagged, and more or less injured; they were smaller than usual and their nuclei were very distinct. The albumen and corpuscles are also diminished.

The first part of the paper is devoted to a general  
 consideration of the subject, and to a statement of the  
 objects to be attained. It is then divided into three  
 parts, the first of which is devoted to a description of  
 the nature and extent of the disease, the second to a  
 description of the symptoms, and the third to a  
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 nature and extent of the disease, the second to a  
 description of the symptoms, and the third to a  
 description of the treatment.

In regard to the Respiratory System, we find some lesions of the lungs in two thirds of cases. They are more or less congested; but the most common alteration found, is splenization or carnification; the former term used by Doct<sup>r</sup> Power in his lectures, is objected to in Dr Bartlett's work, who prefers the word carnification, as being more appropriate. In some few cases we find ulceration of the glottis and epiglottis; in many cases there is inflammation of the mucous membrane of the bronchi.

The condition of the Brain, is seldom changed, as would from the frequency of delirium in this disease, be reasoned. In examinations of the brain, made of those who have died in the delirium of fever, by Fordyce, Stokes, Schromel and others, there has been found no appreciable alteration in a majority of cases.

Lesions of the Digestive and Abdominal Organs. Changes in these organs are constant. We find in the digestive tube in one sixth of cases little ulcers in the pharynx and oesophagus; we also find pus in the mucous membrane of the pharynx.



The alterations found in the stomach are various, from simple inflammation to ulceration; softening of the mucous tissues seems to be the most common change.

The most common and peculiar lesion in Typhoid fever, is found in the small intestines; this is, in fact, characteristic of the disease. The mucous membrane is more or less in a state of inflammation, and also changed in consistence.

The traces are more marked in the last portion of the ileum, than as we approach the jejunum. The attendant characteristic lesion spoken of in this disease, is the alteration in Peyer's <sup>so called, they being solitary glands,</sup> and Brunner's glands, varying in different cases. There are soft and hard patches met with in this lesion, in those who die early. After the tenth or twelfth day these become ulcerated, various in appearance; those in Peyer's glands oval, those in Brunner's round, looking as if the membrane were punched. The more numerous the glands affected, the more superficial is the ulceration. The deepest ulcerations are found near the ileo-caecal valve, and diminishing in severity as we leave the valve. The mucous membrane between these diseased

The first thing I noticed when I stepped  
 out of the car was the smell of  
 fresh air. It was a relief after  
 being stuck in traffic for so long.  
 The sun was shining brightly, and  
 the birds were chirping happily.  
 I took a deep breath and felt  
 a sense of peace. The world  
 seemed so much better when  
 I was finally free. I walked  
 slowly, enjoying every moment.  
 The breeze was cool, and the  
 light was just what I needed.  
 I felt like I had been reborn.  
 The world was so beautiful, and  
 I was so lucky to be here.  
 I took a moment to just be.  
 The world was so full of life,  
 and I was so grateful to be  
 a part of it. I felt like I  
 had found something special.  
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 I was so lucky to be here.  
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 and I was so grateful to be  
 a part of it. I felt like I  
 had found something special.



follicles is sometimes found entirely healthy. Cicatrization takes place sometimes in this disease, after ulceration, leaving a peculiar looking serous membrane.

We also find alterations in the mesenteric glands, constantly. If the patient die from the tenth to the fifteenth day, we find these glands increased in size and of a pink hue; after the fifteenth and before the thirtieth day, they are found filled with pus, and assuming a brown hue; after this time they decrease in size and assume a slaty hue.

In the large intestines, we find softening of the mucous membrane in three fourths of the cases and not unfrequently ulceration. Another, though not constant, lesion is alteration of the spleen; it becomes enlarged and assumes the same appearance as in malignant, remittent and intermittent fevers. Morbid alteration of the liver is not frequent. When it does exist, it is found to consist of a slight softening and change in color. ~ ~ ~ ~ ~

Some of the foregoing lesions are only occasional, others are constant, identifying the disease. "The real and relative



importance", says Dr Bartlett, "of the several lesions, accidental, and essential, is a question, in the actual state of our knowledge, not susceptible of absolute and positive settlement. It is a very natural and philosophical conclusion, perhaps, that the essential and constant lesions, are more important than those of an opposite character. This is true, of course, so far as diagnosis is concerned; so far as the fixing and identification of the specific disease is concerned, but it is very questionable, whether these lesions exercise a more powerful influence upon the rapidity, and danger of the disease, than some of the others. It seems, indeed, very probable, that in many cases life is destroyed or the disease is rendered dangerous and severe, by the successive development of these secondary alterations, rather than by the extent, and gravity, of the essential lesions alone". I am strongly inclined to think that this last conclusion is correct, especially when among the secondary lesions, we find the lungs affected. The most common of the sequelae of Typhoid fever, is consumption, following



soon upon the fever. In two thirds of the fatal cases, we find congestion of the posterior and inferior parts of the lung, in itself sufficient to produce death. However, this is chiefly observed in cases of great debility, or those in which the patients have been a long while upon their backs.

Causes. - I now proceed to mention the causes, which to us seem most to affect this disease; the true essential cause being as yet unknown to medical science. Age seems to exert great influence, this fever apparently being more fatal during puberty and manhood, than after thirty years old. Neither sex or occupation seem to have any action on this disease. Residence may exert a slight influence, as we find it more common in large cities than in the country, and among strangers, and students going into a hospital, (to reside). Climate seems to have but little effect, tho' this disease may perhaps be more common in the Eastern, Middle and Western states, than in the Southern. Debilitating circumstances exercise some influence. The action of putrid substances does not seem to affect it, for

have taken the form. In the points of the future course in  
 first consideration of the patient and importance of the  
 in itself sufficient to produce death. Others in this respect  
 lay down in cases of great debility, as those in which the  
 patient has been a long time in bed, or in which the  
 disease is now far advanced, the disease is more likely to be  
 severe than to affect this disease; the first consideration  
 being to give sufficient support to the system. The same  
 to great effect in many cases. The first appearance of  
 more fatal disease, particularly in cases of long  
 illness, is a great deal of debility, and a great deal of  
 and action on the disease. The disease is now far  
 advanced, as in fact it is now far advanced in  
 those in the country, and many strong and healthy  
 going into a hospital, which is a great deal of  
 little effect. In this disease, the first effect is to  
 in the patient, but the first effect is to  
 debility. The first effect is to  
 the action of the patient is now far advanced in

we do not find it more prevalent among scavengers, and those occupied in the cleansing of sewers and drains, than in other occupations. The question of its contagion has been handled by many eminent physicians and it is not yet settled. But to be on the safe side we had better treat it as contagious, it being in this respect, no doubt modified by many causes and attendant circumstances. In my father's family last year, during the existence of a case of Typhoid fever, which terminated fatally, there were four members of the family, including myself, almost constantly in the room. Neither of us were attacked by the disease, but another member of the family, who seldom entered the room, was after the decease of the patient, seized with this fever, but he ultimately recovered. The state of health, <sup>in the last case</sup> previous to the attack of fever, was much debilitated by close confinement in a counting-house. This might have had some influence in the matter, and yet in regard to myself, my own state of health was worse than his; having just returned from the West,

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suffering from a violent Intermittent fever, contracted in the "American Bottom" of Illinois, consequently much enfeebled, and yet I escaped the Typhoid, although much more exposed to its influence. Query, was it the existence of Intermittent fever in the system, that overpowered any influence, which might have been produced by the contagious principle of the Typhoid. — — — Typhoid Fever has been divided into several varieties by different authors.

Louis divides his cases into three classes, mild severe and fatal. Whomel has several forms, the inflammatory, the bilious, the mucous, the ataxic and the adynamic. — Duration — Typhoid Fever rarely or never occurs in the same person. The convalescence is proportioned to the attack. In severe cases the average duration is twenty five to thirty five days; the limits are fourteen for mild and thirty five for severe. From the insidious mode of attack, and its almost imperceptible approach, it is extremely difficult to date the commencement of an attack of Typhoid fever. — — —

The first of these is the fact that the  
 mind is not a passive recipient of  
 impressions, but an active agent  
 which selects and organizes the  
 material of its environment. The  
 second is the fact that the mind  
 is not a mere collection of  
 sensations, but a unity which  
 is aware of itself and its  
 contents. The third is the fact  
 that the mind is not a mere  
 faculty, but a power which  
 can be exercised in a variety  
 of ways. The fourth is the fact  
 that the mind is not a mere  
 organ, but a principle which  
 can be applied to a variety  
 of objects. The fifth is the fact  
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 organ, but a principle which  
 can be applied to a variety  
 of objects. The eighth is the fact  
 that the mind is not a mere  
 instrument, but a power which  
 can be used in a variety of  
 ways.

complications. — The complications of this fever are not very frequent. We may have true enteritis as a complication, especially in children. Pneumonia, a common complication, is found in about one in six cases; this we can discover by physical examination. We sometimes have Erysipelas as a complication, about once in eighteen cases. This is generally fatal. Inflammation of the ear is a complication, most common, when met with, in children. In inflammation of the parotid glands, suppuration is inevitable and death probable. Peritonitis. This most suddenly fatal accident is marked by a quick acute pain, and vomiting of fecal matter. We cannot foresee this accident. It may occur in the mild as well as in the severe forms. It is not however so apt to occur in children as in adults. We may sometimes have intestinal hemorrhage, with concomitant symptoms. This is a bad symptom, found according to Dr Power, in about one in eight cases.

Relapses. — There sometimes occur relapses in this fever, which may be brought on by inattention to diet during convalescence.

Patients who are recovering from an attack of Typhoid fever



have a very sudden return of appetite, which must be guarded against. There is a falling off of the hair after an attack of this disease; and sometimes we have insanity following the fever for a short time. Dr. Nathan Smith mentions, that in some instances the morals appear to be affected by an attack of Typhoid Fever; and he cites a particular case in which the propensity to steal, was developed after an attack of this fever.

**Diagnosis.** The diagnosis of Typhoid Fever, is now, owing to the pathological researches of Louis, Chomel, Jackson and others, comparatively not difficult. Although in many cases, in the earlier stages, it is obscure, and we need all the grave symptoms grouped together, to make us certain. The examination of the blood may assist the diagnosis, as also the age, as we seldom meet with the disease in persons over fifty, unless in epidemic form. Apart from complications the diagnosis is generally easy; the great muscular debility, headache, pains in the back, feeling of soreness, loss of appetite, state of the skin, increase of pulse, hurried respiration,

from a very sensitive detector of optical activity, which would be  
 as accurate as a polarimeter. It is a fact that the optical activity  
 of the solution; and sometimes we have seen a very faint  
 the power for a short time. The ordinary double-slit method  
 in some instances the optical activity is so small that it is  
 almost impossible to detect. It is also a fact that the optical  
 activity of the solution is not constant, but varies with the  
 of the time. The optical activity of a solution is also  
 dependent on the concentration of the solution. The optical  
 activity of a solution is also dependent on the temperature.  
 The optical activity of a solution is also dependent on the  
 wavelength of the light. The optical activity of a solution  
 is also dependent on the nature of the solvent. The optical  
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 is also dependent on the nature of the detector. The optical  
 activity of a solution is also dependent on the nature of the  
 observer. The optical activity of a solution is also dependent  
 on the nature of the instrument. The optical activity of a  
 solution is also dependent on the nature of the method of  
 measurement. The optical activity of a solution is also  
 dependent on the nature of the conditions of measurement.

physiognomy, epistaxis, loss or dullness of hearing, the gurgling sound elicited on pressure over the ileo-cecal valve, and the peculiar flea bite eruptions, point out conclusively the disease. We must however be searching in our diagnosis, and discover any complications that may exist, and against which we will have to combat. Dr Marshall Hall says, "If it be true that few diseases of an individual organ exist uncomplicated, it is especially so in regard to fevers. In fact our task of diagnosis is only half performed, when we have ascertained the case to be fever—a special form of fever. The complications may immediately or immediately be the cause of death. If these be undetected, or undistinguished, the first part of the diagnosis will be unavailing. In the course of fevers, the early detection of a complication is therefore of the utmost moment. It is also of the greatest importance to cultivate a habit of watching, and of renewed examinations, for such complications."

**Prognosis.** The prognosis of Typhoid Fever is almost always grave. An attack of the malady leaves the patient in a condition to be





assailed by tubercular disease. Those attacks which come on tardily are worse than those which come on acutely. In cases with difficulty of swallowing, the prognosis is grave. Slowness of the pulse, and weakness, and coldness of the system are grave symptoms. A relapse after or during convalescence is generally fatal. Diarrhea, especially in the latter stage of the disease, is a bad symptom. Dr Nathan Smith says, "The danger of the disease is in proportion to the violence of the diarrhea. I have never lost a patient whose bowels continued constipated through the whole course of the disease, and have never known a fatal case of Typhoid unattended by diarrhea." Involuntary discharges from the bowels and retention of urine, are generally found in fatal cases. The prognosis of course varies much in different cases, governed by circumstances.

Dr Stokes says, "It is hardly necessary for me to state, that persons differ exceedingly in their power of bearing up against an attack of fever. It is a fact, almost universally known, that one man may be favorably circumstanced for resisting



the disease, while another may be a bad and unfavorable subject. Anything that has a tendency to weaken and depress, as excessive apprehension, exhausting labor of body or mind, the debility brought on by mercury, bad food, and foul air, grief, care, and other depressing moral causes, all these are circumstances, which generally speaking, render fever exceedingly dangerous.

To theorise on the subject of Typhoid fever, would require abler minds than are possessed by the generality of modern medical students. I will therefore only mention a few remarks made by others on this subject. This disease is always characterised by lesion of the intestinal follicles. Is this lesion the cause or effect? Bartlett, and other writers, and many eminent medical men are of the opinion, "that the local lesions are peculiar in their nature; secondary and dependent in their relations; constituting not the primary and essential cause, but only one of the pathological constituents."

One theory declares the lesion to be the cause, the symptoms, the effects; while another, perhaps with more reason, places the



cause in a disordered state of the blood. — — — —

Before speaking of the treatment of this fever, I will say a few words in respect to the mortality of the disease, which should have been mentioned before. The mortality is, as has been found from careful observation, affected by age, season, and climate. During youth, or up to the age of puberty the mortality is smaller, than it is at any time thereafter. Dr Roby cites a Typhoid epidemic in Lowell, which carried off all or nearly all attacked, above fifty. Bonnet has noticed that the mortality is greater in cold than in warm weather; and other writers mention the same facts in regard to the influence of weather, or season upon the mortality. It has been observed, that the mortality is greatest in the unacclimated, than in residents, and this may be owing very probably, to the change which the system is undergoing, in being acclimated, and which change is favorable to the disease. Complications increase the mortality.

**Treatment.** This is yet very unsettled; every one who has written on this fever, having advanced some particular,

cause in a diminished state of the blood  
 before speaking of the treatment of this form of disease  
 four words are added to the nomenclature of the disease which  
 should have been mentioned before: they are, that it is  
 has been found from several observations, affected by  
 some, but almost always, the same kind of  
 of patients the mortality is smaller than it is of  
 the other. The first is a different kind of  
 cause of all or a part of the affected  
 state that the mortality is greater in the  
 matter, and other things mentioned the same first  
 to the influence of the form or degree of the  
 of has been observed that the mortality is greater in the  
 mortality. It is in the matter, and it is  
 very probable, to the change which the  
 is being examined on a subject change is favorable to the  
 disease. A complete cure is the mortality.  
 of the disease. It is in the matter, and it is  
 matter on the form of the disease.

favorite treatment, and each one of which has in a manner, been successful. The circumstances which modify the treatment in one particular case, do not exist in another, and therefore we must adapt our treatment to attendant circumstances. The negative treatment, seems to be the most judicious in this disease, which can be guided, but not checked. The question of bleeding in the early stages, has been long canvassed, and is now questioned, and favored. The result of strong bleeding in the first stages, has given us the fact that it does not increase the mortality, but adds to the tediousness of the convalescence. Bleeding then is useful, the sooner employed the best; it is especially useful in inflammatory attacks. We may bleed more than once as circumstances may warrant. This remedy must be cautiously used especially in children, as it is in them apt to promote secondary complications. We must be extremely careful to confine our patients to a strict diet - give them plenty of cold iced drinks - apply warm fomentations to the abdomen - give flaxseed enema. If the diarrhea is profuse give starch and laudanum injections.

I have the pleasure to acknowledge the receipt of your letter of the 10th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,  
 Your obedient servant,  
 J. M. [Name]



If this does not answer give black drop; this also checks the insombrancy and gives quiet. In irritability of stomach we give prussic acid and soda. To give ease and comfort to our patient, we sponge him all over; but this does not do when the skin becomes cool and the pulse low. We also make use of the Neutral salts. In the later stages when he is sinking, we give tonics - quinine - brandy - and carbonate of ammonia. The use of tonics from the commencement is injurious; they are useful in this disease, but we must not use them, when the symptoms contra-indicate them. Purgatives have lately come into use again, especially in France. Louis advises their use throughout the disease as very beneficial. The most appropriate are saline and laxative purgatives. They are contra-indicated in diarrhea, intestinal hemorrhage, and great weakness. We must keep the apartment in which our patient is, well ventilated and clean, and have his person kept cool, and his clothes changed frequently. The mouth should be kept clean and washed out. In case where the tongue is much furred and mouth in a bad condition, give an emeto-cathartic, or a



saline purgative. Dr Power says, "In cases of intense meteorism a solution of common salt, given in tablespoonfull doses, acts well. The diarrhoea should not be too much checked. In case of perforation keep the patient entirely quiet—give no food and but little drink. Drs Graves and Stokes advise opium in large doses, in cases of perforation, and Louis gives it in this accident, though in smaller doses. Orangeade is very grateful, and may be given in small quantities, iced. The application of two or three leeches to the temples or nostrils is often useful in cerebral congestion, and when there is intense headache, the forerunner of delirium. Blisters are likewise advantageous in such cases. When there is a tendency to local congestion, we must change the position, and give a little calomel or hydragrym cum creta combined with the purgatives; or calomel and opium may be given every six or eight hours. To check the approach of bed sores, in addition to altering the position, we must cover the places getting red with Diachylon salve. We may, in bronchial difficulty, give an emetic to take away the excess of serous



secretion. The bladder sometimes needs attending to, which we must be careful of. When the disease is complicated with local affection in the head, chest, or abdomen, these should be treated on the same principles as the idiopathic disease, with this important modification, that evacua-  
-tives of all kinds must be used more sparingly, and that even in these cases, if there be much prostration of strength, wine must be exhibited, though more moderately than in the simple disease. The Convalescence of Typhoid Fever is slow and tedious, and we must be care-  
-ful to prevent a relapse. The appetite, as before mentioned returns strongly, but we must guard against giving way too much to it. Tonics will be found of service during convalescence. We sometimes have edema of the legs, tender-  
-ness of the feet, or gastric irritation, a little trip to the country and proper treatment overcome these. To adopt the language of Dr Bartlett, "we may hope, that our treatment of this disease, will yet become more successful, and more uni-  
-form; more exact in its application, and more positive

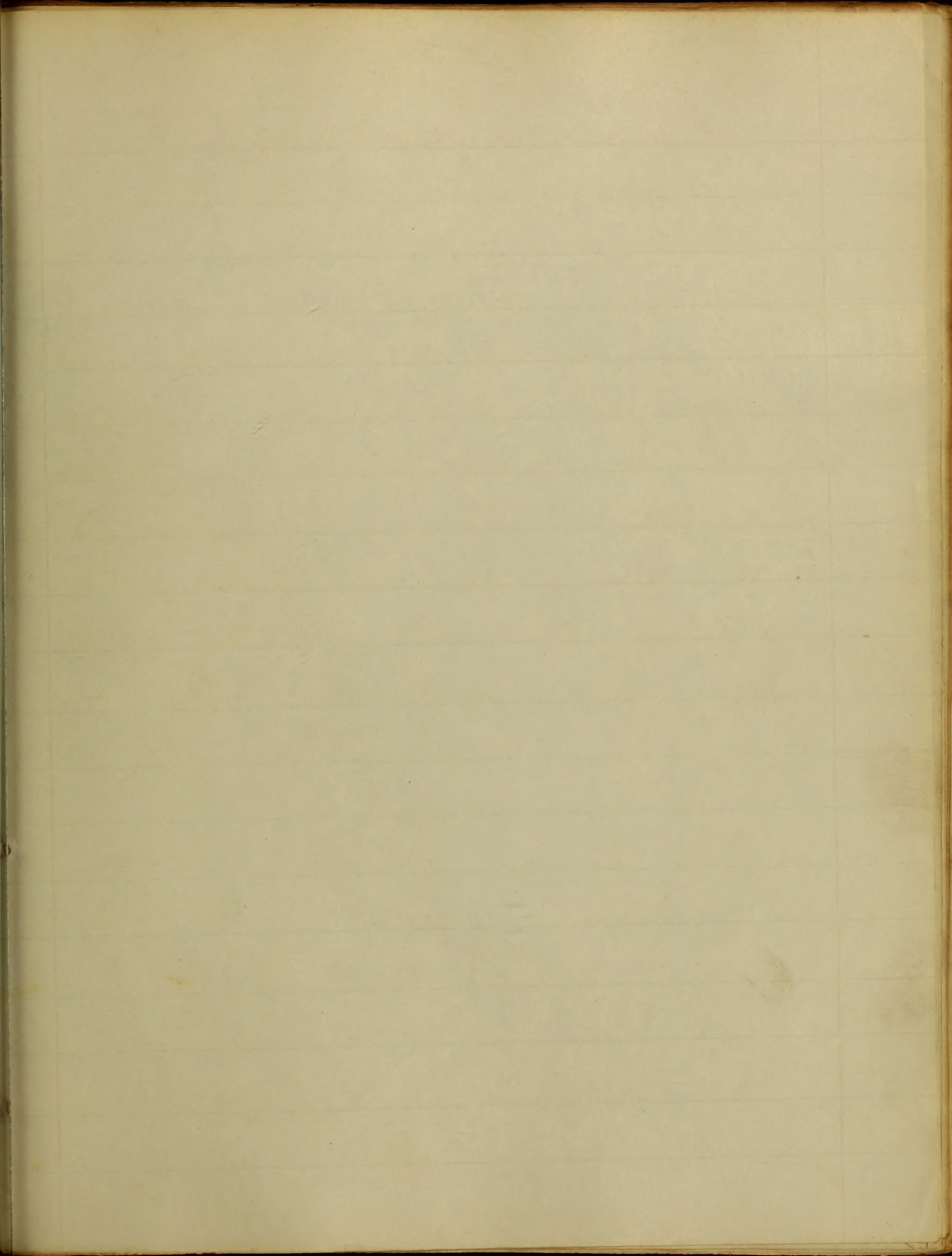


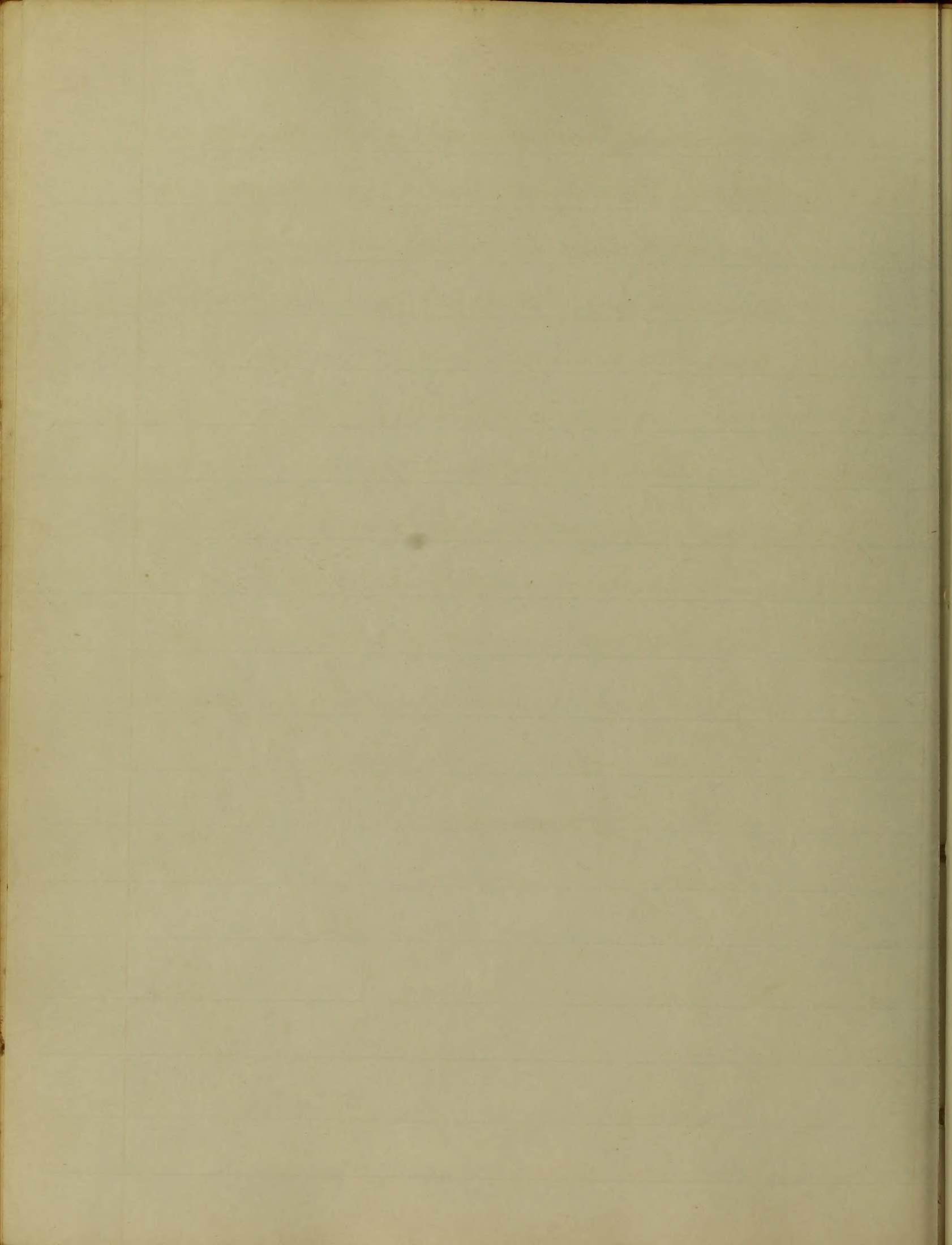
in its results. Many "ministers and interpreters of Nature", faithful to their high vocation, and competent to its duties, are zealously and patiently occupied in endeavouring to accomplish this end. Guided by a sound philosophy; relying upon the one great means of ascertaining the properties and relations of all forms of matter, inorganic and organic, that of observation, they or their successors may yet find, by persevering experiment or fortunate discovery, methods of modifying the living organisation, and of correcting its disordered actions, which shall give us a much greater control over the disease, than we are now able to exert."

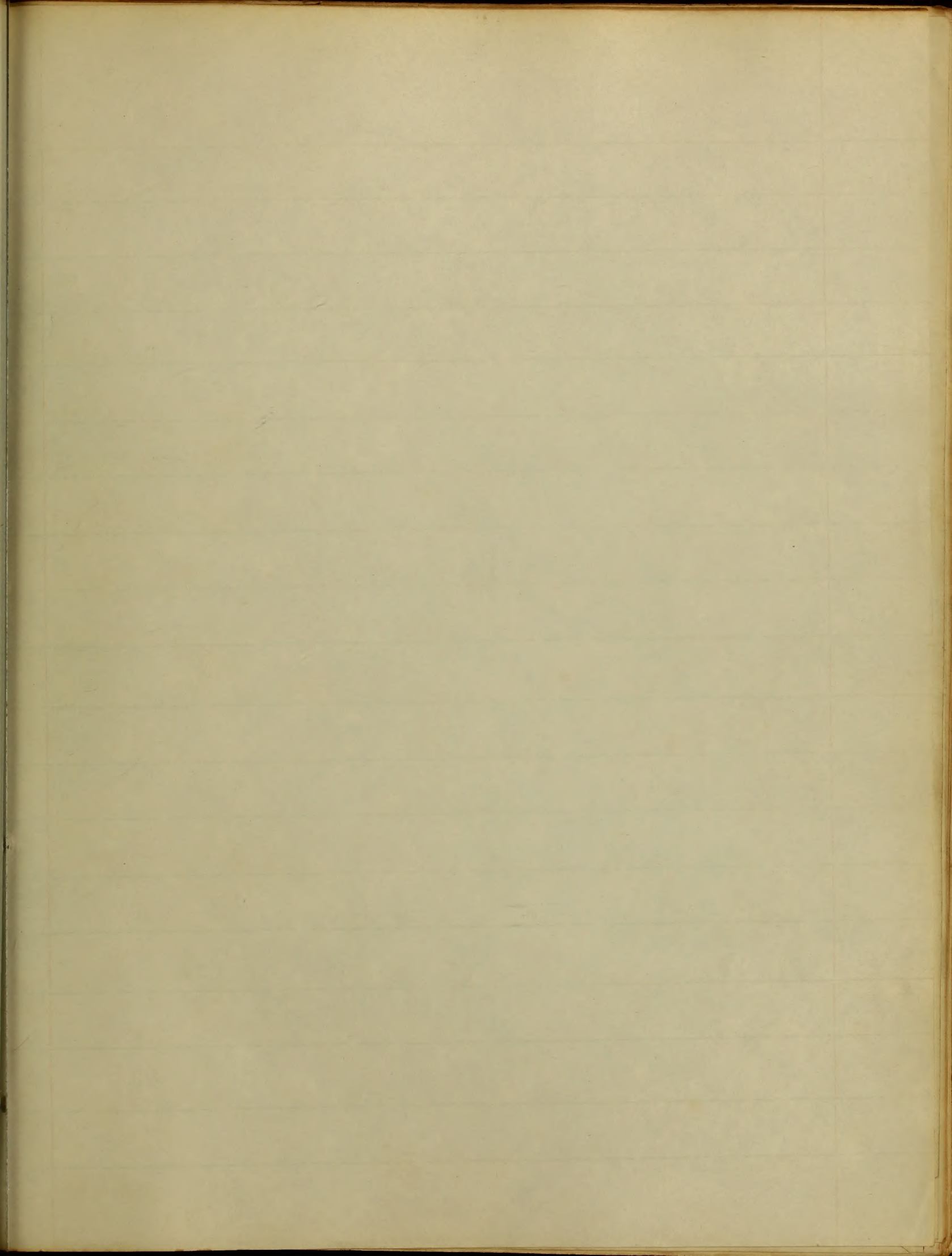
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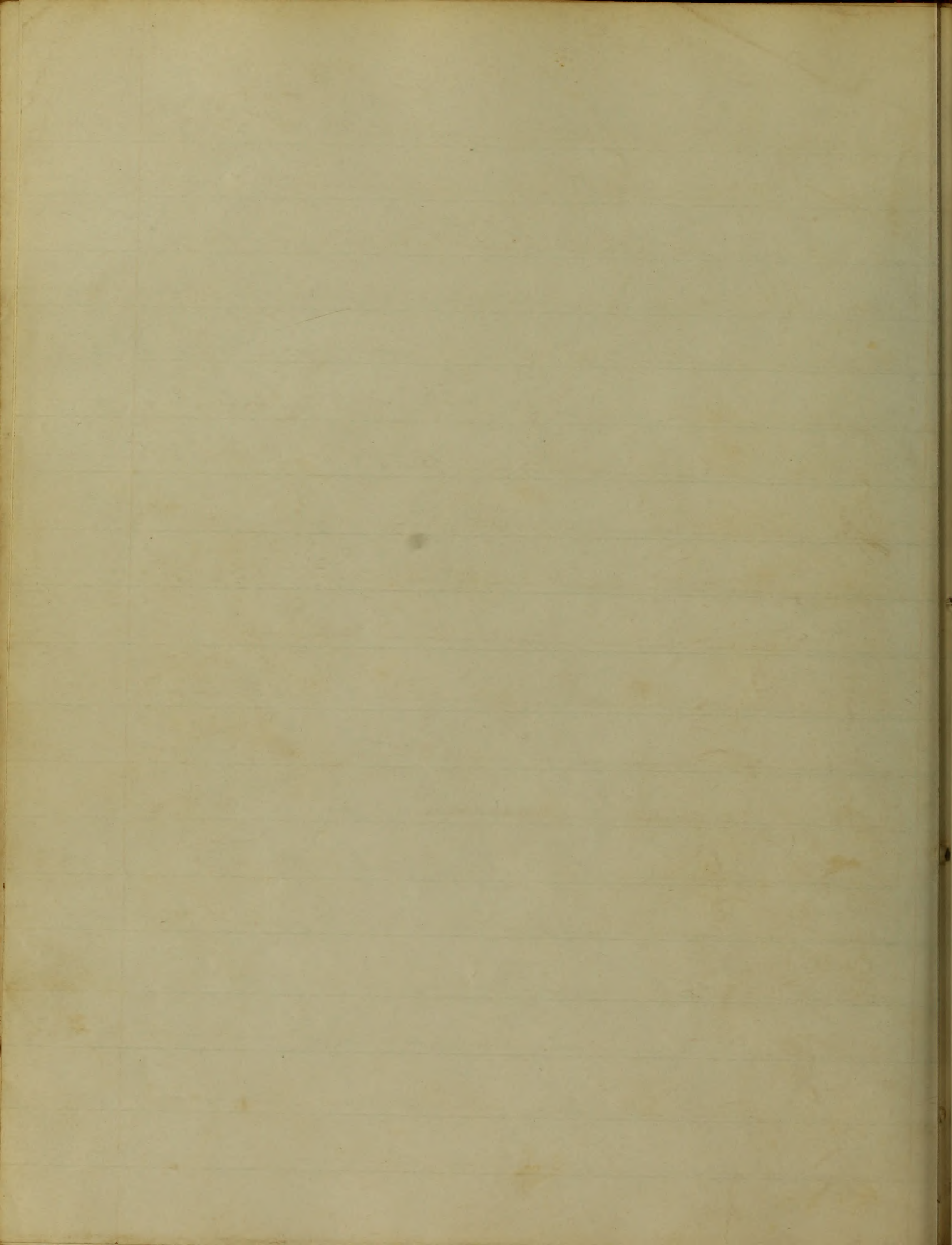


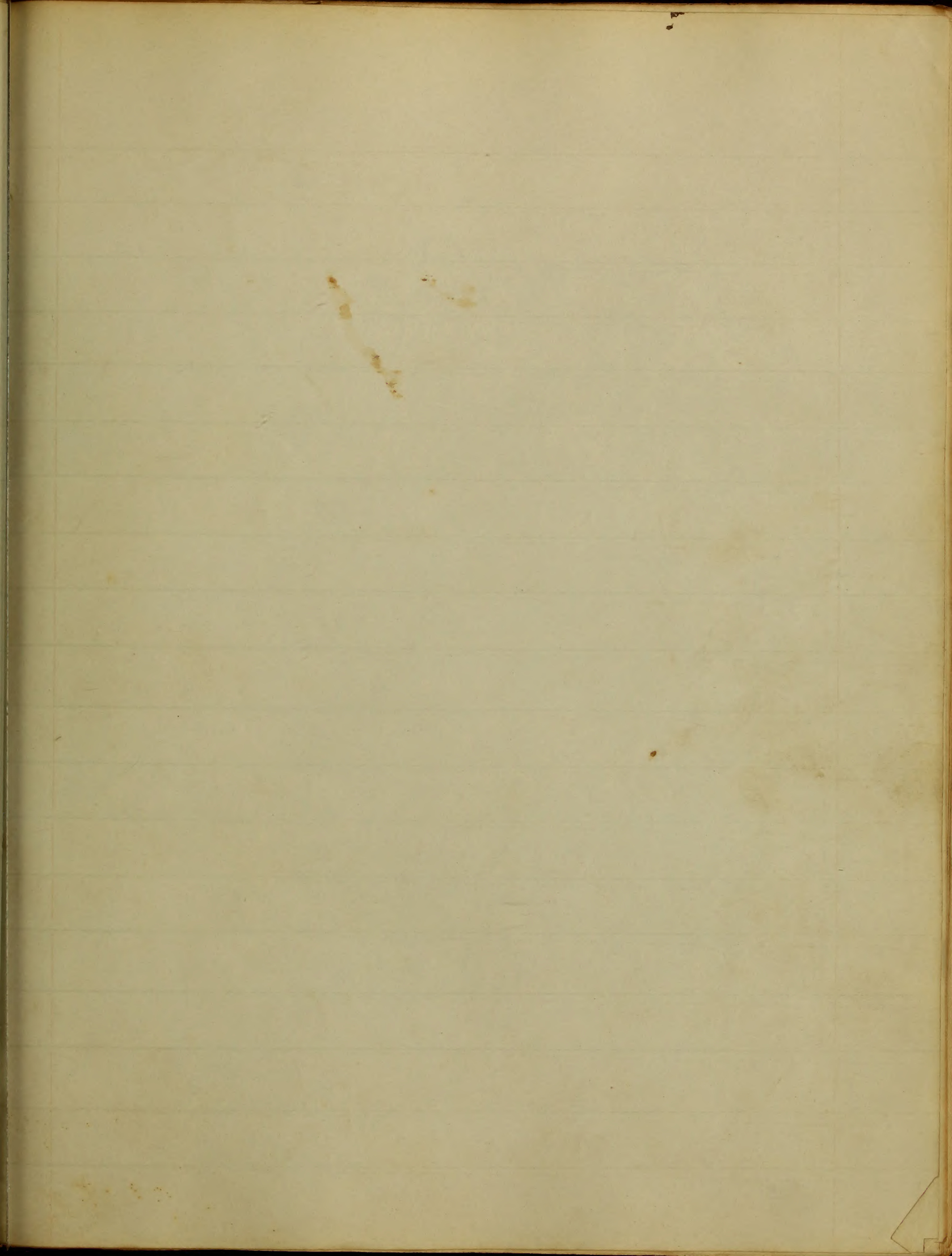


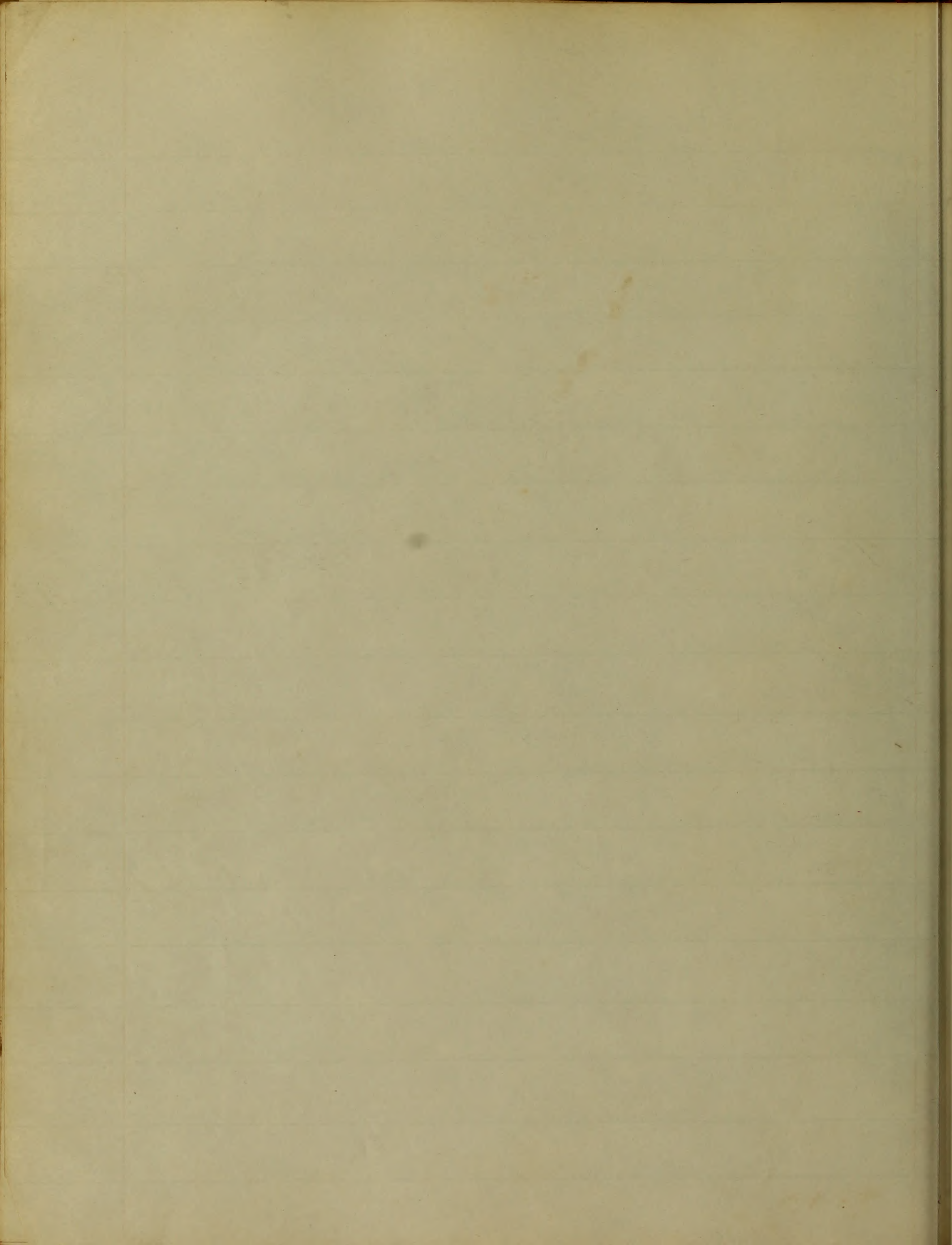


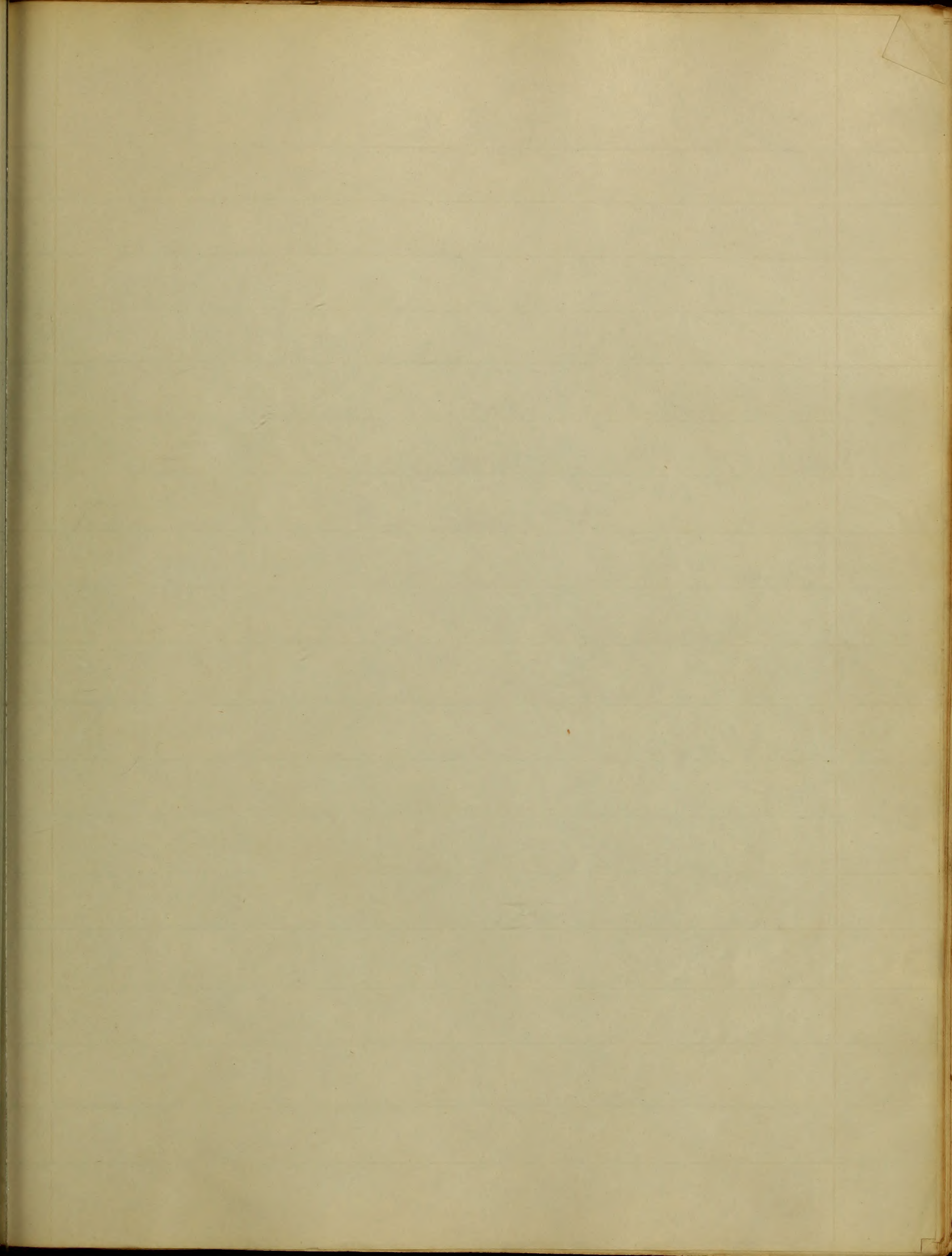


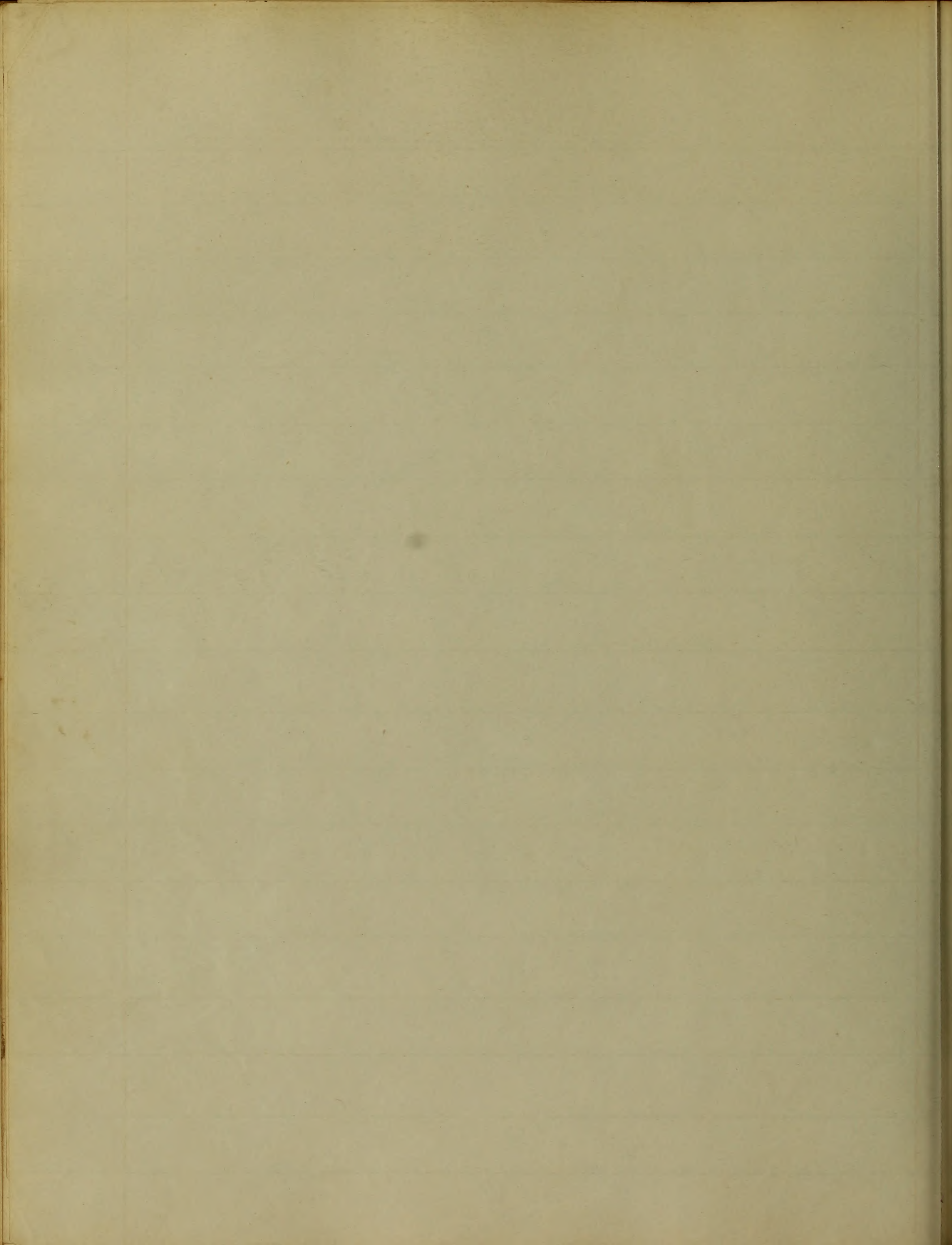














The  
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College of Medicine

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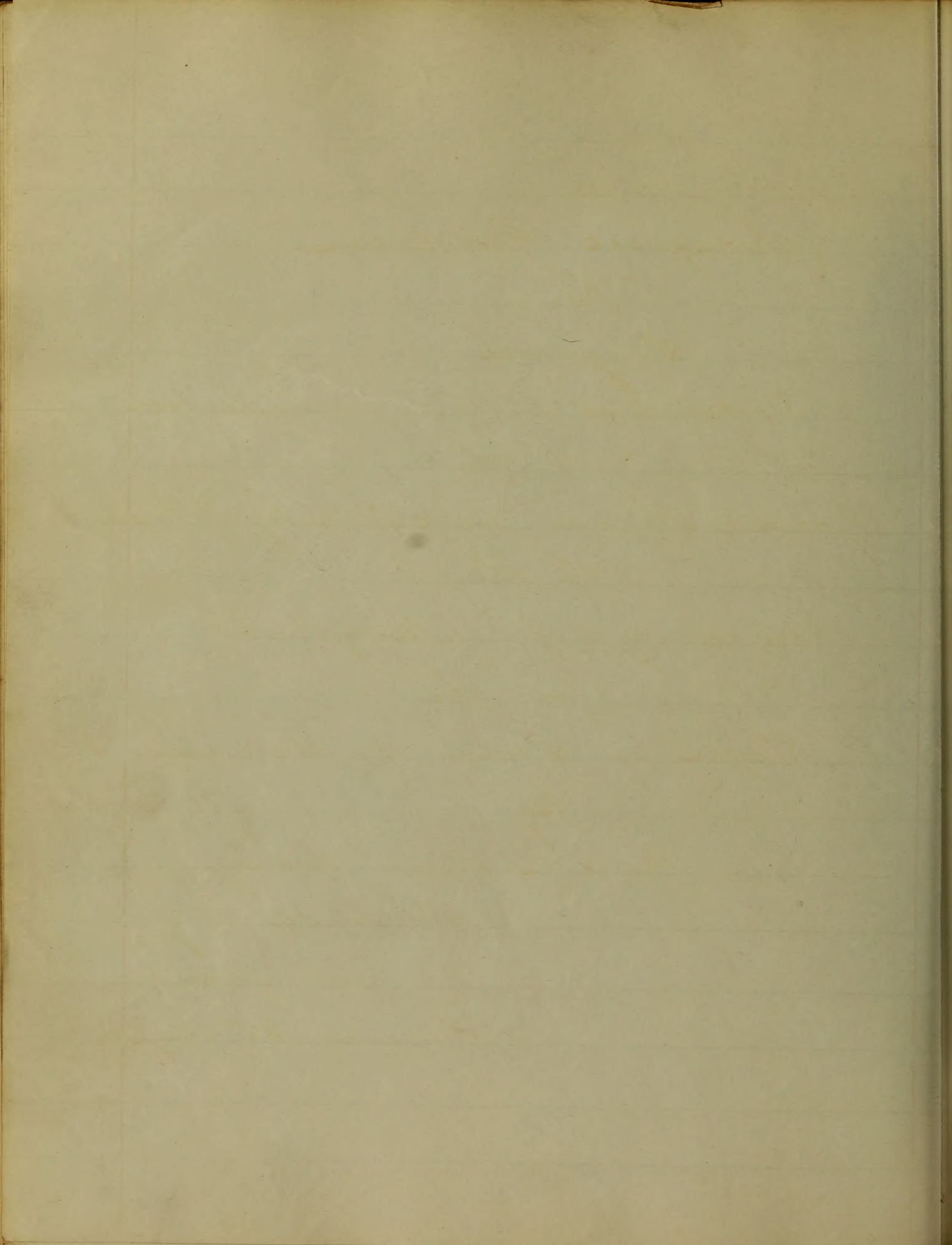
for the  
Degree of Doctor of Medicine

By  
Richard Lewis Stoney

Frederick City

Maryland

December 15, 1842



An  
Inaugural Dissertation  
On  
Diagnosis.  
Submitted to the examination  
of the  
Provost, Regents, and Faculty of Physic  
of the  
University of Maryland  
for the  
Degree of Doctor of Medicine

By  
Nicholas James Doney  
Frederick City  
Maryland  
January 1<sup>st</sup> 1847.

1  
The  
Department  
of  
the  
Interior  
Washington  
D.C.  
June 10th 1874  
Dear Sir  
I have the honor  
to acknowledge  
the receipt of  
your letter of  
the 7th inst.  
and in reply  
to inform you  
that the same  
has been  
forwarded  
to the  
proper  
authorities  
for their  
consideration  
I am, Sir,  
Very  
Respectfully,  
Your  
Obedient  
Servant,  
John  
S. [Name]

## On Diagnosis

In examining the subject before us, we are Compelled to divide it under several heads, each of which, is desired to be studied, with its relation to the whole subject. That we may be the better able to understand the object desired, let us in the first place endeavour to point out the correct meaning of the term Diagnosis; secondly, the manner of Diagnosis, next the great importance of a correct Diagnosis based upon Pathology and lastly some of the great Diagnostics and differences between Diseases.— Diagnosis is that science by which we are enabled to know and distinguish Disease, one from the other, as well as the difference of the type of Disease; which knowledge is obtained by the Classification and arrangement of the different signs and symptoms, presented by the patient—



each Case, to be studied, and examined as an isolated Case; then the similarity compared to others. Diagnosis is susceptible of a Division into general and special Diagnosis, we understand general Diagnosis to teach us the power of arranging and dividing Diseases, into families or groups of Disease, each group controlled and known by separate and distinct signs, and symptoms; without any relation, to the others - each group also capable of a division, of types or forms; each type modified by the circumstances, under which it may occur; for instance the difference between inflammatory and nervous Diseases. Exanthematous and Profluvial - Sympathetic and Idiopathic.

Special Diagnosis again teaches the means of pointing out the particular, form or type of the Disease, with its location, and nature,





Governed by the mode of the attack; nature of the state of the patient, previous to the attack; for example, whether the disease be an inflammatory attack of the body, of the Lungs; or simply of the Membrane covering the Lungs, called the Pleura; or again if it may be a tubercular deposit in the Lungs, or possibly an inflammation of the Bronchial tubes; also the possibility of the patient suffering under variola or may it not be simply scarlatina - be it Measles, or Variocella, and so on we enabled by our knowledge of special diagnosis, to pass through the entire Catalogue of the "ills to which man is heir".

We shall now direct our attention, to the means, of diagnosing disease, with the necessity of a careful and rigid examination, of the patient - endeavouring to show the necessity of this strict study, of the symptoms, by the



Simple fact of all persons, being so desirous to  
 dwell freely on their ills, and sufferings; nearly  
 all patients, are ready to tell not only the nature,  
 of their suffering; but also the Cause, and the  
 seat of the Disease: by which means they would  
 not infrequently lead the Practitioner from  
 the correct path; provided he suffered himself  
 to be content with their statement; It therefore  
 behooves him, to make his own investigations;  
 And it then becomes a matter, of importance  
 in what manner he interrogates his patient;  
 And as the plan laid down in Audral's  
Clinic appears the most advisable; we beg  
 permission, to use it. Audral says, the first  
 thing to be done, is to examine the exterior, by  
 which means we form some idea, of the patients  
 Age, strength, and state of mind; Also the form  
 of the body, its size, Colour, and eruption, if  
 there may be any; He then says the first



Question, to be addressed to a patient, should be "Where have you any pain?", rather than the question "What ails you?" for by the last question he may be sure to be left as much in the dark with respect to the nature, of the patient's Disease as he was before he put the question.

Whereas by asking where his ailment, lies, the patient seldom fails to point out the function, and organ, diseased. Even with this precision in conducting our examinations, it is sometimes difficult to prevent patients from wandering into pignarole accounts, concerning their Complaints; frequently too they take one organ for another: they, for instance, complain of a pain in the Stomach, when the seat of the Disease is in the Chest.

It is useful, in order to avoid all misunderstanding to bid them lay their hand on the part where they feel pain. The next question, should be "How long are you ailing in this way?"

The first part of the paper is devoted to a general  
 consideration of the subject, and to a statement of the  
 objects to be attained. It is then divided into three  
 parts, the first of which is devoted to a description of  
 the nature and extent of the disease, the second to a  
 description of the symptoms, and the third to a  
 description of the treatment. The first part is  
 devoted to a description of the nature and extent of  
 the disease, and is divided into three sections, the  
 first of which is devoted to a description of the  
 nature of the disease, the second to a description of  
 the extent of the disease, and the third to a  
 description of the symptoms. The second part is  
 devoted to a description of the symptoms, and is  
 divided into three sections, the first of which is  
 devoted to a description of the nature of the  
 symptoms, the second to a description of the  
 extent of the symptoms, and the third to a  
 description of the treatment. The third part is  
 devoted to a description of the treatment, and is  
 divided into three sections, the first of which is  
 devoted to a description of the nature of the  
 treatment, the second to a description of the  
 extent of the treatment, and the third to a  
 description of the symptoms.

by this, you ascertain wheather the Disease be Acute  
 or Chronic. If you discover that the Disease is of  
 recent occurrence, we then confine our attention  
 solely to the Consideration, of Acute Diseases, excluding  
 Altogether Chronic Diseases, of the same organ.  
 After examining the patient in this way; it next  
 remains for us to go back to the previous Circum-  
 stances, which might have acted as Causes, or which  
 might furnish some usefull data for the treat-  
 ment. We should inquire to what Causes, the  
 patient attributes his Disease: wheather the Disease  
 be hereditary or acquired: wheather the present  
 is the first attack of it, or wheather it appeared  
 on a former occasion. Lastly, we should direct our  
 attention to the Age, Sex, Constitution, Idiosyncrasy,  
 habits, and profession, of the patient." Following  
 out the general principles here laid down.  
 We come next in order, to the State of the pulse,  
 the Condition of the tongue, and Mouth, the





State of the Skin, then the respiration; and turning our examination a little deeper, we come to the expectoration, the Cough and to the secretions, in general. Lastly to the aid of Auscultation and Percussion, by which aid, great light has been thrown over disease; which light bids fair to disperse the Clouds, of Doubt, that at one time rendered the Diagnosis of disease comparatively difficult; affording a sanguine hope that the Day is not far distant when there will no longer remain any doubt or difficulty in this most important study--

Hence arises the great necessity, and importance of properly studying and understanding, Diagnosis in its correct meaning- based upon a knowledge of Pathology. By a proper use & knowledge of Diagnosis, we are enabled to know the distinction between the studied and scientific practitioner, and the bold, and presumptuous Quack;



Who after (to all appearances) a careful examination  
 of his patient. Says with a great degree of self  
 importance. And assured of the ignorance, of the  
 Family. "There is something wrong in the Chest - the chest  
 is not all right - the abdomen is diseased, or the  
 brain is injured" - without saying or even know-  
 ing what it is - while on the other hand, the  
 Practitioner from principle, tells emphatically  
 the seat, and nature of the attack, whether  
 it be acute or chronic; he says he knows it to  
 be this or that, from the nature, and form of the  
 symptoms; presented by the Case, knowing each  
 Case to be governed by fixed and immutable  
 general principles, he gains his knowledge  
 from a knowledge of Pathology, and a stan-  
 dard of health; he sees that each organ or vis-  
 cus is not pursuing its wonted natural -  
 functions, he examines every part, every sec-  
 tion, he knows each to present certain



Appearances when in health, and sees the difference in the then existing Condition; But how different from the other, who sees, to be sure "that something is wrong", but why? or how, he knows not. Because he does not know, the means of Diagnosis; fixed upon scientific basis =

Alas for the Country and our Profession, we have still another kind of Quacks, or as they call themselves Cruppyrics. Men who have gained the title M.D. and permission to practice Medicine, but Men entirely ignorant, of the benefits resulting from a knowledge of Diagnosis. Simply from the fact of their having never studied it, or if at all, but imperfectly, Men who know nothing about the Appearances, presented by Morbid Anatomy. - Consequently it is not at all surprising to hear these Men say they never rely on Pathognomonic Signs. that they can nothing, at all about

I have been thinking much lately, and  
 wondering how it is that we are  
 so much interested in the  
 things of this world, and  
 how little we care for the  
 things of the other world.  
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 and wondering how it is that we  
 are so much interested in the  
 things of this world, and how  
 little we care for the things  
 of the other world. I have  
 been thinking much lately,  
 and wondering how it is that  
 we are so much interested in  
 the things of this world, and  
 how little we care for the  
 things of the other world.

the symptoms, of the Case; all they care for, is; he  
 has Billious Fever, or some other fever, which they  
 undertake to Cure, reasoning thus; Mr. A. had  
 Billious fever, and was relieved by such a Cou-  
 rse - now for consequence this Case must yield  
 to the same Curative means. for both Cases are  
 Billious fever - he sees, or thinks he sees, a simi-  
 larity, in ~~the~~ Cases, and by noticing the stages  
 of the attack, he feels prepared to say at once  
 the result of the attack - Pity! thrice pity! that  
 such Medical Philosophers, ever not Compell-  
 ed to enjoy the practice of such Hypothetical  
 Philosophy, upon their own more than human  
 an Carcasses, that they might be led to feel,  
 (When they will not see) the absurdities, of such  
 abortive attempts at reason; such men are  
 often heard to say that Science will answer  
to talk about; but when you enter the Sick  
 Chamber, you must divest yourself of all





such superfluous nonsense. Alas! poor deluded beings - deluded by self conceit - grovelling in the most helpless darkness of ignorance. The vast importance of correct Diagnosis may be so variously shown, and so readily understood, with so palpable benefit to the meditating student, that it is hardly necessary to mention a single more instance: yet we will point out the necessity, in a case, when the Practitioner is called to see a patient, who he finds in a comatose state utterly unconscious of any thing surrounding him, and his friends also unable to give any satisfactory account, of his condition; what a quandary the M.D. is placed in; yet comparatively how easy the practitioner who is prepared to examine every portion of the body, and then contrasting the existing condition, with his standard of health, based upon a proper Anatomical Knowledge



He is at once able to say if any injury has occurred  
 externally or internally, or wheather it may not  
 be Apoplexy, and to treat the Case accordingly,  
 while even yet Life may be restored, while it is  
 a matter of Life or Death. Again he may  
 be called on, when it is essentially requisite  
 to relieve the patient in a short time, before all  
 hope of recovery shall have fled. Suppose a  
 Case in which the patient, is unconscious of his  
 Condition, with all the indication of injury  
 of the brain; how important that a Carefull  
 examination should be made; Yet how im-  
 possible for a man to make necessary examination  
 who looks upon all Diseases as but a Modific-  
 ation of one Disease: he who in his self security  
 (which security is his own ignorance) cannot  
 say wheather the Case be an injury of the brain  
 or if such a Condition could not be brought  
 about by a disordered Stomach.

The first part of the paper is devoted to a general  
 description of the country, and a notice of the  
 principal towns and cities. The second part  
 contains a list of the principal rivers and  
 lakes, and a description of the principal  
 mountains and hills. The third part  
 contains a list of the principal minerals  
 and a description of the principal  
 manufactures. The fourth part  
 contains a list of the principal  
 exports and imports. The fifth part  
 contains a list of the principal  
 public buildings. The sixth part  
 contains a list of the principal  
 public institutions. The seventh part  
 contains a list of the principal  
 public offices. The eighth part  
 contains a list of the principal  
 public works. The ninth part  
 contains a list of the principal  
 public monuments. The tenth part  
 contains a list of the principal  
 public statues. The eleventh part  
 contains a list of the principal  
 public paintings. The twelfth part  
 contains a list of the principal  
 public sculptures. The thirteenth part  
 contains a list of the principal  
 public gardens. The fourteenth part  
 contains a list of the principal  
 public parks. The fifteenth part  
 contains a list of the principal  
 public squares. The sixteenth part  
 contains a list of the principal  
 public streets. The seventeenth part  
 contains a list of the principal  
 public squares. The eighteenth part  
 contains a list of the principal  
 public squares. The nineteenth part  
 contains a list of the principal  
 public squares. The twentieth part  
 contains a list of the principal  
 public squares.

It is generally known that several Classes of Diseases so nearly resemble others in the presentation of their symptoms, as to make it a matter of Careful Study to point out the Distinction; owing to Diseases often occurring with what is called negative symptoms. Yet each Class, when discovered, is fundamentally different. Again we see the absolute necessity of correct Diagnosis, between Apoplexy and Epilepsy - the emergency of the Case requiring prompt and energetic treatment; there is no time to wait, and watch the Disease - it must be met at once, or else the vast fabric of Nature totters and falls: how absurd it would be to treat either of those Cases for any thing but the real Cause of the attack. How many - lives have been - and are still sacrificed by the foolish notion of purity of Disease; the necessity might be carried out in every single Case of the entire list of Diseases - and each Case -

The present time has been a very busy one  
 for me, and I have not had time to  
 write you as often as I would like.  
 I am well, and hope these few lines  
 will find you the same. I have not  
 much news to write at present, but  
 I thought I would write a few lines  
 to let you hear from me. I am  
 still in the same place, and  
 everything is going on as usual.  
 I have not much news to write  
 at present, but I thought I would  
 write a few lines to let you hear  
 from me. I am still in the same  
 place, and everything is going on  
 as usual. I have not much news  
 to write at present, but I thought  
 I would write a few lines to let  
 you hear from me. I am still in  
 the same place, and everything is  
 going on as usual.

within itself will show the advantages to be derived, not only in building the Practitioners reputation but also in the great saving of human life.

Its necessity is pointed out by taking two Cases of Any one Disease - grant that Mr. A and B - are both suffering with an attack of Billious = Fever - Does it follow as a matter of Course, that they should both be alike? is it any proof that the Circumstances Controlling the Cases - both in their Causes as well as the Condition of the patients are the same? Certainly not; by no means, for as Professor Bartlett says in his Med. Philos = ophy - "It is a well known fact, that the obvious and appreciable elements, which are united to constitute the disease, differ in many respects in different Cases; and those elements are also constantly changing, in themselves, and their relations to each other - The state of the System, at the Commencement of the disease, must also

The first thing that I should mention  
 is that the weather was quite good  
 today. We went for a walk in the  
 park and saw many beautiful flowers.  
 The children were very happy and  
 played for hours. We also had a picnic  
 under a big tree. The food was  
 delicious and we all enjoyed it very  
 much. It was a very pleasant  
 surprise. We had a great time  
 and will definitely go back soon.  
 The children were very happy and  
 played for hours. We also had a picnic  
 under a big tree. The food was  
 delicious and we all enjoyed it very  
 much. It was a very pleasant  
 surprise. We had a great time  
 and will definitely go back soon.



be widely different in different Cases. Then in  
 addition to all this, there are peculiarities in  
 different individuals, less obvious in their Charac=  
 ter, of a more subtle and recondite nature;  
 and known only by their effects, which would  
 more or less powerfully, modify the disease itself;  
 Apart from the differences already enumerated  
 Consequently we see the necessity sufficiently  
 forcible to induce all persons desirous of making  
 any progress in the profession, absolutely una=  
 voidable for their advancement. We shall  
 before leaving this portion of our subject,  
 once more seek a Quotation from Dr. Bartlett's  
 Medical Philosophy. viz. "The Philosophical  
 reason of the practical importance of Diagnosis, is  
 simply and manifestly this. It is the expression  
 of one of the terms in every problem of Cure; -  
 it constitutes what may be called one of the  
 elements in every therapeutical operation,

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the matter of the ...  
 and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.  
 I am, Sir, very respectfully,  
 Your obedient servant,  
 J. M. ...

or Analysis - It is the only term, the value of which it is difficult to ascertain; it is the great element, upon a full knowledge of which, the certainty of every therapeutical operation depends -

Just in proportion to the perfection and absolute-ness of our Diagnosis; just in proportion to the Completeness of our Pathological knowledge, will be the certainty of our therapeutics. And nearly all the Difficulties, the Obscurities, the uncertainties, the imperfections of Practical Medicine, grow out of the Difficulties, the Obscurities, the uncertainties, the imperfections of our Pathological knowledge, or, in other words, of our Diagnosis." We also beg the opinion of Professor Davidge, in his Nosological arrangement - "That the Pathognomonic symptoms in disease, are as unequivocal and fixed as the distinctive characters in Animals or plants; and further, that no Generic disease, in any of its

The first part of the paper is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The second part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The third part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The fourth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The fifth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The sixth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The seventh part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The eighth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The ninth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.  
 The tenth part is devoted to a description of the  
 various species of the genus *...* which have been  
 discovered in the mountains of the State of New York.

Distinctive Diagnostic properties, however, by time, by Climate, or any other accidental Circumstances, been changed.

In pursuance of the Course adopted in the Commencement of our investigation of the subject before us we come now to the last and grand object of our study; the importance of Care in this part appears so palpable, that we hope for excuse in taking a recapitulation of the Course of our investigation. In the first place, it has been our effort to explain the meaning of the term Diagnosis; next, the great importance of a correct Diagnosis, based upon Pathology with the means of Diagnosis. And lastly it is our desire to point out some of the great Diagnostic indications and Differences. not that we mean to say that each and every sign and symptom, is peculiar only to a certain Disease, or even a certain Class of Diseases.

The first of these is the  
 fact that the  
 government has  
 been successful in  
 its efforts to  
 reduce the  
 deficit and  
 improve the  
 economy. This  
 has been achieved  
 through a combination  
 of fiscal and  
 monetary policy.  
 The government has  
 also been successful  
 in its efforts to  
 improve the  
 quality of education  
 and healthcare.  
 These achievements  
 have been the result  
 of the government's  
 commitment to  
 public service and  
 its leadership in  
 the face of adversity.  
 The government has  
 also been successful  
 in its efforts to  
 improve the  
 environment and  
 protect natural  
 resources. This has  
 been achieved through  
 a combination of  
 regulatory and  
 financial incentives.  
 The government has  
 also been successful  
 in its efforts to  
 improve the  
 quality of life for  
 its citizens. This  
 has been achieved  
 through a combination  
 of social and  
 economic policy.  
 The government has  
 also been successful  
 in its efforts to  
 improve the  
 quality of its  
 public services.  
 This has been  
 achieved through  
 a combination of  
 regulatory and  
 financial incentives.  
 The government has  
 also been successful  
 in its efforts to  
 improve the  
 quality of its  
 public services.  
 This has been  
 achieved through  
 a combination of  
 regulatory and  
 financial incentives.

For well we know, there are many symptoms, that are common to disease in nearly all circumstances. Yet the absence of which have but little, if any weight in making out our Diagnosis. Our object shall be to endeavour to show, that all signs, and symptoms, only indicative of certain pathological conditions, and that the laws of this part of the profession, under the general principles, are immutable and fixed.

We deem it proper, and perhaps better, that the Diseases of the three Cavities should be considered in their relative positions, in order. Consequently we commence with those of the brain.

Yet when we remember the great difficulty attending the Diagnosis of Diseases of the brain, from the want of Physical signs - which are rendered impossible, from the circumstances under which the brain is placed - as well as from the want of the light shed by -





Auscultation and Percussion - We are therefore  
 Compelled to rest satisfied with Physiological  
 and Pathological induction, and if inductive  
 signs vary much in more simple organs, in  
 consequence of mere variations of Circumstances,  
 they must be infinitely more variable and Com-  
 plex in reference to the brain; an organ within  
 itself of so great structural Complexity.

Believing therefore, the difficulty attending the  
 Diagnosing - also that there is no difference  
 appreciable during life, between inflammation  
 of the Membranes of the Brain (it being the opin-  
 ion of Abercrombie, Guessant, Cochin, and Cop-  
 land) Nor do we think there is any apprecia-  
 ble difference <sup>in</sup> inflammation of the Medullary  
 substance, and Meningitis - Abercrombie says  
 "Our knowledge, is not sufficiently matured to  
 enable us to say with Confidence, what symptoms  
 indicate inflammation of the substance of the brain,

The first of these is the fact that the  
 government has been successful in  
 securing the cooperation of the  
 various departments of the  
 government in the execution of  
 the various projects of the  
 government. This is a very  
 important fact, and it is one  
 of the reasons why the  
 government has been able to  
 carry out its various projects  
 so successfully. It is also  
 one of the reasons why the  
 government has been able to  
 maintain its various projects  
 for so long a period of time.  
 The second of these is the fact  
 that the government has been  
 successful in securing the  
 cooperation of the various  
 departments of the government  
 in the execution of the various  
 projects of the government. This  
 is a very important fact, and  
 it is one of the reasons why  
 the government has been able  
 to carry out its various projects  
 so successfully. It is also one  
 of the reasons why the  
 government has been able to  
 maintain its various projects  
 for so long a period of time.

As distinguished from that of its Membranes—  
 In fact we think that one cannot exist with-  
 out the other, thereby rendering it, impossible to  
 distinguish them. Consequently shall pass over  
 Diseases of the brain by attempting to show the diff-  
 erence between Acute and Chronic Meningitis,  
 An Acute attack makes its appearance  
 first by a Cold stage, or rigor, with great pain  
 in the head, of an acute and throbbing nature,  
 heat, and intumescence of the head, intolerance  
 of light, and sound, blood shot eyes—staring  
 prominence of the eye balls, contraction, with  
 oscillation of the pupils—more or less violent  
 Delirium: pulse quick, full and hard— with  
 twitching and jerking of the muscles often—  
 more or less paralysis—this state lasts for a longer  
 or shorter length of time, according to the result of  
 the attack—whereas in the other, or Chronic  
 form, it steals insidiously over the victim,



Leaving him often unconscious of the approach - until it has so fastened its death like talloons that death itself is only able to sever its hold.

Chronic Meningitis may be either a sequel of the acute form, or it may be primarily Chronic. In either Case, it is obscure, from the deficiency of fever, and from the absence in many instances, of any considerable intellectual disturbance the only symptoms then being, more or less constant headache, mostly with somnolency, compressive movements, which may in many instances last for a considerable time, generally increasing, until delirium and paralysis ensue. This delirium is at first a mere monomania, with intellectual imbecility, and often with sullenness, irascibility, taciturnity, and lofty hallucinations, but sooner or later, it passes into confirmed mania, and this into Idiocy. - The paralysis is at first



Incomplete, but gradually, increases, until it pervades the whole Muscular System, renders the gait tottering - and finally annihilates the power of Motion -

Although Diseases of the brain are comparatively wrapped in Obscurity - we hope, and think the day will come, when all may be explained; with equal force, with any other organ, which belief, the great and general fundamental principles of the Science justify -

Let us commence Diseases of the Chest with Pleuritis and Pneumonia - and first state the symptoms of Pleuritis - then those of Pneumonia - showing what symptoms belong to one, without the other. In Pleurisy we generally have sharp cutting pain in the side, a short dry cough, general inflammatory fever; with hard quick pulse, heat of the skin flushed cheeks, and scanty high coloured urine

...and particularly in the ...  
...to the ...  
...and finally ...  
...of the ...

Although the ...  
...in the ...  
...that the ...  
...with ...  
...the ...

Let us know ...  
...the ...  
...of the ...  
...the ...  
...the ...

...the ...  
...the ...  
...the ...  
...the ...  
...the ...



Difficulty of breathing, dullness on percussion.  
 Pneumonia usually appears, with cough, diffi-  
 culty of breathing, a dull heavy deep seated pain,  
 blood shot eyes, head ache, and pain in the limbs.  
 As. intense fever, thirst, furred tongue, loss of ap-  
 petite, scanty high coloured urine; after two or  
 three days the cough, is accompanied with an  
 expectoration, of a rusty coloured sputum of  
 various shades. Semitransparent, tenacious, and  
 coherent, dullness on percussion, and the various  
 rales, which are attendant to Pneumonia, and  
 never found in Pleurisy. Now although we  
 have many symptoms that are common to  
 both, yet there are several very important dis-  
 tinctions, such as the absence of the Sputa, the  
 crepitant, and mucus rhonchi, as well as the  
 various sounds produced by respiration; which  
 are never present in Pleuritis. Also we have in  
 Pneumonia, the red and grey hepatisation as-

The first of these is the  
 the second is the  
 the third is the  
 the fourth is the  
 the fifth is the  
 the sixth is the  
 the seventh is the  
 the eighth is the  
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 the ninety-seventh is the  
 the ninety-eighth is the  
 the ninety-ninth is the  
 the hundredth is the

terminations, whilst Pleuritis terminates in effu-  
sion, adhesion, and resolution—

Next in order we shall compare the difference bet-  
ween Peri-Carditis, and Hypertrophy of the heart—

Amongst the most common symptoms in Peri-  
Carditis, are high fever, generally preceded by  
rigors, pain in the region of the heart; irregular-  
ity of pulse, and palpitations, dyspnea, anxiety,  
restlessness, and incapacity of lying on the left  
side, with cough, vomiting, and difficulty  
of swallowing— as the disease advances, there is  
extreme debility, suffocative paroxysms—  
tendency to syncope; with infiltration of the  
face and extremities— In Hypertrophy of the  
heart we find increased size of the heart, du-  
llness on percussion, dyspnea, and slight pal-  
pitations, with a strong full, yet regular  
pulse— more highly arterialized blood, a  
bright eye, and false show of health, with

The first of these is the fact that the  
 human mind is not a tabula rasa, but  
 is filled with ideas and impressions  
 from the moment of birth. These  
 impressions are not all equally  
 strong, but they are all present,  
 and they form the basis of all  
 our knowledge and action. The  
 second of these is the fact that  
 the human mind is not a passive  
 receiver of impressions, but an  
 active interpreter of them. We  
 do not simply receive impressions  
 as they come, but we select, we  
 organize, and we give meaning  
 to them. This is the process of  
 thought, and it is the process  
 by which we learn and grow.  
 The third of these is the fact  
 that the human mind is not  
 confined to the present, but is  
 able to think of the past and  
 the future. This is the power  
 of memory and imagination, and  
 it is the power that makes  
 us human.

brilliant complexion; Haemoptysis, and Dropsy.  
 Yet never, or very rarely any febrile excitement.

Now although we again find many symptoms in common. Yet what are the differences? the pulse in Peri-Carditis is irregular, some times full and strong, at others, feeble and small, in the one, we find high fever; in the other rarely any - in Peri-Carditis we have in the region of the heart, that sharp lancinating pain; whilst in Hypertrophy we find a dull heavy pain under the sternum - and of necessity a considerable degree of enlargement and displacement of the heart; which is never to be seen in the other - Nor do we detect in Hypertrophy that great restlessness, jactitation, anxiety, faintness, and sense of suffocation, with coldness, and incapacity to assume the recumbent posture; which is so frequently the case in advanced Peri-Carditis.

I have the honor to acknowledge the receipt of your letter of the 14th inst. in relation to the matter of the ...  
 and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.  
 I am, Sir, very respectfully,  
 Your obedient servant,  
 J. M. ...

When we seek the aid of the stethoscope, how different are the signs presented by it. In one we find a number of dry, cracking, rubbing, and whiffing sounds; in the other only a dulness on percussion; now how vastly important is it, that we should study each case, separately, and unconnectedly, and with so great care not to confound signs and symptoms.

We now come in order to Gastritis and Hepatitis. One of the earliest symptoms, in Gastritis is intense pain in the epigastrium, and a sense of burning along the oesophagus. The slightest pressure aggravates the pain, as will also swallowing, and vomiting, which is very frequent and is alternated with the most deadly nausea, and retching - an unquenchable thirst, with a longing for cool drinks, which the stomach is seldom able to retain; a sunken, pale countenance, cold, clammy extremities -

When we first saw the old clock tower  
 and saw the sign pointing up it. In the  
 face a number of the building. Building  
 building tower in the other side of the  
 as mentioned in the book. Building  
 that we should study each day  
 by our measurements, one with a  
 can not to perform in one operation  
 the tower can be used to determine  
 height. One of the earliest operations  
 height is to determine height in the operation  
 one a series of leveling along the height  
 the height of the tower appears to be  
 old building up one side. The old  
 present and a structure built in the  
 by means of a leveling in operation  
 that with a leveling for the old building  
 showed a relation all to a building  
 the building, old building



great prostration; skin dry, hot, and harsh; the pulse frequent, and small, bowels constipated; the urine scanty and high coloured; the tongue red, rugged, and covered with a thick fleshy fur. The local signs are fullness and distention of the Epigastrium, with great heat.

Whilst the symptoms of Hepatitis, are hot dry skin, the pulse full, and often hard the tongue covered with a yellow fur, thirst and a bitter taste, in the mouth, bowing constipation, though often relaxed bowels, urine scanty and of a deep orange colour, and deposits on cooling a red sediment, also some pain, tumefaction, and sometimes jaundice. Now we find in Hepatitis jaundice, a deep orange coloured urine, throwing down a red sediment, a bitter taste in the mouth, with a yellow furred tongue, and a full, hard pulse, which are



never present in Gastritis. Vice versa, we have a frequent and small pulse - great prostration, and increase of pain on pressure; cold clammy extremities - unquenchable thirst - tongue red, rugged - with other symptoms - that are never seen in Hepatitis -

Again, let us point out the difference between Enteritis and Peritonitis; in Enteritis the most usual symptoms are pain of a dull or griping character about the hypogastrium and right iliac region, tenderness on pressure and diarrhoea; the stools being of a thin, feculent character, and often mixed with mucus - generally fever, the skin however being often moist, and the pulse soft - the urine scanty and high coloured, the tongue often red at the tip, and edges - and furred at the centre, the cheeks have a fixed red flush; and the eyes are dull.



Occasionally there is delirium, which is succeeded by stupor; the fever mostly of a low typhoid nature.

Those of Peritonitis are acute pain, in the abdomen; which pain is aggravated by every movement of the body; whilst pressure is extremely distressing. The patient lies supine on his back, with his knees drawn up. The belly is hot, tense, and mostly tympanitic. Constipated bowels with nausea, and vomiting. The skin is dry and hot, the pulse rapid, small, and hard, the tongue has a white fur - the lips are dry. The cheeks pale and collapsed, the eyes sunk, while the countenance indicates great physical distress.

Now we will usually know Enteritis from Peritonitis, by its tendency to diarrhoea, the slighter degree of pain and tenderness, the softer pulse, the absence of vomiting.



And the redness of the tips and margins of the tongue. Whilst peritonitis is characterised by that intense pain and tenderness, with the hot, tense and tympanitic belly. The dry lips, pale, and sunken eyes; collapsed cheeks with that rapid pulse.

In order that we may continue, after having finished diseases of the Cavities, by giving an example of each. We design to give a case or two of the eruptive diseases. And shall first show the difference between Scarlatina and measles, as they are most likely to be confounded, for each other. Yet when we study them carefully, we are able to see a very palpable distinction, for Scarlatina may be known from Measles, by the time intervening between the first accession of fever, and the appearance of the rash; by the character of the eruption; and by the sequelae.

The first part of the paper is devoted to a  
 general statement of the facts and circumstances  
 which have led to the present state of the  
 country. It is then shown that the  
 present state of the country is the result  
 of the policy pursued by the Government  
 since the year 1800.

The second part of the paper is devoted to  
 a detailed account of the various measures  
 which have been adopted by the Government  
 since the year 1800. It is shown that  
 the measures which have been adopted  
 have been the result of the policy  
 pursued by the Government since the year  
 1800.

The third part of the paper is devoted to  
 a detailed account of the various measures  
 which have been adopted by the Government  
 since the year 1800. It is shown that  
 the measures which have been adopted  
 have been the result of the policy  
 pursued by the Government since the year  
 1800.



Measles commences with Coryza, sneezing, suffusion of the eyes, cough, slight dyspnea, and other Catarrhal symptoms; while in Scarlatina the first sensation of uneasiness is referred to the throat. The eruption in Measles shows itself, on the fourth day of the fever, but in Scarlatina; it may usually be distinguished on the second. In Measles; the rash is disposed in irregular portions of a crescentic form; and is slightly elevated, so as to be sensible to the touch; in Scarlatina the eruption assumes the appearance, of broad patches of an indeterminate shape. The rash has a different tinct in the two Diseases; it is of a vivid red in Scarlatina, but of a darker hue in Measles. In Scarlatina, the fever does not abate upon the appearance of the eruption to the same extent as in Measles: the former is frequently succeeded by Anasarca, inflammation of serous—

The first of these is the fact that the  
 number of the population of the  
 United States has increased from  
 about 2,000,000 in 1790 to  
 about 60,000,000 in 1900. This  
 increase has been the result of  
 a number of causes, the most  
 important of which are the  
 immigration of large numbers  
 of foreign born people, the  
 increase of the birth rate,  
 and the decrease of the death  
 rate. The immigration of  
 foreign born people has been  
 the result of the fact that  
 the United States has been  
 a country of refuge for  
 many of the oppressed  
 peoples of the world. The  
 increase of the birth rate  
 has been the result of the  
 fact that the United States  
 has been a country of  
 high birth rate. The  
 decrease of the death rate  
 has been the result of the  
 fact that the United States  
 has been a country of  
 high life expectancy.

Membranes, deposits in the joints &c. The sequelae of Measles, are principally affections of the respiratory organs, such as Bronchitis, Pneumonia, and Croup.

We shall now content ourselves by one more example, which shall be Small-pox, and its many modifications and varieties. Although much has been said and written on the subject, and many think there is no difference between the true Variola and many of its varieties, when modified. Also an equal number say there are fixed, and determinate laws, and diagnostics, which opinion we think most plausible. And there are no varieties. Nor any other eruptive diseases, that may not be known from Small-pox by a careful study - first of the Condition of the patient at the time, of the attack, his previous health, the nature and character of the



percussory symptoms, followed by the progressive symptoms. the length of time intervening between the first accession of fever, and the eruption the Character of the eruption. Although many of the Modified forms of the disease, may assimilate, in other respects, the true Disease. Yet none present the depressed and corrugated look nor is the Duration so great. And when all other means may fail. there is one infallible Symptom, which is one never present in any of the Varieties or Modifications, that one Criterion is the presence of the Secondary fever only in the genuine Disease; or true Variola which when once it has been inhaled, it is never to be forgotten —

The great Doubt and Difficulty of properly Diagnosing eruptive Diseases, appears with so much force, that we may be forgiven, the attempt to say it is —

necessary operations, however, to be  
 performed. The right of the  
 the first occasion, I was to  
 the objects of the institution, I  
 of the necessary means of the  
 must be in the right of the  
 have found the objects of the  
 in the least as regards the  
 the same way as this is an  
 system, which is the same  
 of the objects of the institution, but  
 relation is the same of the  
 help in the general business  
 which when we are not  
 is more to be forgotten -  
 the first part  
 the difficulty of finding the  
 means, which will be the  
 may be forgotten, but it is

necessarily equally impressive, in the necessity of proper study and inquiry. - That as in proportion to the difficulty of studying and understanding any subject; ought to be our exertions, and efforts, ~~with~~ with a positive determination to master it, if in the power of man. We think the very fact of any science, or part of science, being difficult to acquire, ought to act as a powerful incentive to Ambition, not only that we should determine to Conquer, for our own selfish purposes or merely to have it said, We did Conquer.

But for the purpose of throwing if possible the slightest, and a most faint ray of light, and information, on the great, and general principles of Medical Philosophy; remembering that Medicine is the great preserver of the human race - and in proportion to the benefit our Humanity - will be our reward, and advancement - that one of our greatest pleasures

necessary, equally important in the country  
 paper they are required, that as a paper  
 to the difficulty of obtaining any amount of  
 any paper, right to be considered and  
 with a further extension to the  
 in the house of lords, the fact that they  
 any business, a part of business being  
 paper is right to be considered as a  
 to be considered, but not that it is  
 house of lords, for an even paper  
 to be considered, but not that it is  
 that for the purpose of the  
 the right to be considered as a  
 information as the great and  
 of the house of lords, the  
 the house of lords is the great  
 case, there is no doubt that  
 business, but as our business  
 business, that one of our



should be to "Let our light so shine" that others may see - rejoice at, and be benefited by it -

For the purpose of so studying and knowing the great principles of Practical Medicine we deem it essentially necessary, and requisite, that we should first fully know, and understand thoroughly - General Pathology - - -

We now beg the pleasure and privilege (before finishing our subject,) to make a Dissertation from Dr. Williams - on the need of the study of General Pathology; as the foundation of Practical Medicine -

He says - "It is the fashion to decry our Profession; to call it a poor profession; a degraded profession; If it be poor and degraded, is that the fault of the Calling, or of those who practice it? or rather of those who should have governed and protected it? Is the art of healing in itself less -

The first part of the paper is devoted to a  
 description of the general principles of  
 the theory of the subject. It is shown  
 that the theory is based on the  
 principles of the theory of the  
 subject. The second part of the  
 paper is devoted to a description  
 of the theory of the subject. It is  
 shown that the theory is based on  
 the principles of the theory of the  
 subject. The third part of the  
 paper is devoted to a description  
 of the theory of the subject. It is  
 shown that the theory is based on  
 the principles of the theory of the  
 subject.

The paper is divided into three parts.

The first part of the paper is devoted to a  
 description of the general principles of  
 the theory of the subject. It is shown  
 that the theory is based on the  
 principles of the theory of the  
 subject. The second part of the  
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 paper is devoted to a description  
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 shown that the theory is based on  
 the principles of the theory of the  
 subject.

Noble, because its Practitioners, unsupported by the arm of civil power, and too often unsustained by a Consciousness of their own Dignity, have not raised it to the place in Society which it ought to hold? -

Poor it may be, but degraded it cannot, shall not be, so long as its foundation is Science, and its end the good of Mankind



18

Memorandum

Submitted to the Commission

of the

University of Maryland

for the

purpose of



Ex -

An  
Inaugural Dissertation,  
On  
Animal Intelligence.  
Submitted to the Examination  
Of the  
Provost, Regents, and Faculty,  
Of the  
University of Maryland,  
for the  
Degree of Doctor of Medicine,  
By  
Loyd W. Brown.

Mr

George Washington

To

General

Presented to the

of the

Presented to the

of the

Presented to the

of the

Presented to the

of the

Presented to the



To

Professor of R. N. Y.,

As a testimony of high admiration  
for him,

As a Teacher, & as a Man,

The writer of the following pages,

Respectfully begs leave,  
to inscribe them.

To  
Professor of [illegible]  
is a testimony of high [illegible]  
for [illegible]  
in a [illegible] [illegible]  
the [illegible] of the following [illegible]  
Respectfully [illegible]  
to [illegible]

## Animal Intellect

Perhaps, no problem, has more vex'd the brain of Sage, and philosopher, than that of the future existence of man - the actuality of an immaterial essence, a soul in him. Wisdom seems now to have decided this question in the affirmative, and it is at rest. But there is another problem, closely allied to this, and suggested by it, to which, the same wisdom, has given a negative decision - We allude to the existence of an intelligence in animals, - a thinking, feeling principle, separate and distinct from their physical organisation. Bared, as the decision of this problem is, upon no positive proof, it may not be uninteresting to inquire, whether the evidences, and arguments, which tend to an affirmation, are not at least as strong & plausible, as those which have led to an absolute negation -

To some, it may seem a strange fancy, the selection



of such a theme for a medical thesis: To such we would remark, that all sciences within the scope of man's intellect, whether those sciences be physical, Moral, or Metaphysical, offer aids to the great study of Medicine - indeed, they may be well compared to so many streams, all pouring their tributaries of Knowledge, into this profound sea of wisdom. Surely then, any inquiry into the question of being, whether it regards matter, or mind, in man, or those orders of his fellow animals beneath him, cannot be other than interesting, if not the source of useful knowledge.

The chief reasons, which have led to the universal belief in the absence of minds in animals, seem to be these: the immense superiority of man's intellect over the manifestations of their intelligence; and a want of profusion in their acquisitions. To the arguments drawn from these sources, we will advert, in the course of our reflections.

The strongest proof of the existence of a one deity,

The chief reason which has led to the  
numerous ships in the absence of any  
seem to be that the common language of  
is that the manufacturing of these  
has a great proportion of the  
to the experiment shown from the  
is not in the course of an  
The chief part of the

infinitely Supreme in his attributes, is the entity of  
 design in all nature, & for the perfection of this design,  
 the few simple, & inalienable laws, by which it is  
 govern'd. One of these universal laws, is the sequence  
 of cause & effect - a like effect, always flowing from  
 a like cause. Destroy this, and you destroy the base  
 upon which is erected the graceful superstructure  
 of science. Nay more, you hurl back to chaos, the  
 beautiful system of universal order, which, Deity,  
 at the beginning of Creation, call'd into being. No one,  
 will then affirm, that the same result can ever be  
 the effect of dissimilar causes, or that dissimilar ob-  
 jects, can possibly possess like qualities. You cannot  
 impart to water, the qualities & properties of fire, nor  
 to the hard & brittle stone, the ductility & malleability  
 of lead; a'fortiori, you fail to find in inorganic  
 matter, the properties of organic bodies, & by a more  
 potent reason still, you discover not in any matter  
 whatever, the qualities & phenomena of mind - of im-





- immaterial essence.

This law holding universally good, (and no one will deny that it does) it then inevitably follows, that if in the lower animals, we find those qualities, or rather those phenomena or manifestations, which, in Man, we attribute to an immaterial essence, distinct from his physical being, there must exist - in them, as in Man, an immaterial essence, altho' it may be, & doubtless is, of an almost infinitely lower grade, than the human mind.

The question then presents itself: Do animals in general, or any of them, evince the possession of an intelligence - do they show powers of memory, reason, for thought, faculties of courage, fear, anger, joy, pride, love, hate, fidelity; or any of those qualities, which, in Man, we look upon as the legitimate offspring of mind?

Every day, affords numerous instances, of the exhibition of such powers. Even the very lowest animals, show cunning in the capture of their food, & thereby,

Medical History

The following account of the case is given  
 by the patient at the request of the  
 doctor. The patient is a female, aged 45,  
 married, and has three children. She  
 states that she has been suffering from  
 the disease for several years, and that  
 the symptoms are as follows: - She  
 is unable to see, and has been blind  
 for several years. She has also been  
 deaf, and has been so for several  
 years. She has also been suffering from  
 a general debility, and has been  
 unable to perform her usual duties.

The patient has been treated with  
 various remedies, but has not  
 obtained any permanent relief. She  
 has also been treated with  
 electricity, but has not obtained  
 any permanent relief. She has also  
 been treated with the galvanic  
 current, but has not obtained any  
 permanent relief. She has also  
 been treated with the magnetic  
 fluid, but has not obtained any  
 permanent relief. She has also  
 been treated with the electric  
 fluid, but has not obtained any  
 permanent relief. She has also  
 been treated with the galvanic  
 current, but has not obtained any  
 permanent relief.

Examination of the patient

On examination of the patient, the  
 following facts were ascertained: -  
 The patient is a female, aged 45,  
 married, and has three children. She  
 states that she has been suffering from  
 the disease for several years, and that  
 the symptoms are as follows: - She  
 is unable to see, and has been blind  
 for several years. She has also been  
 deaf, and has been so for several  
 years. She has also been suffering from  
 a general debility, and has been  
 unable to perform her usual duties.

Evidence the possession of some of the faculties of intelligence, altho' they may be ever so slight, and feeble. But in the Cat, the dog, the horse, the elephant, in the various tribes of Simia, & in other animals of a higher grade, we have intellectual manifestations, strong & frequent, & of a character not to be mistaken. You can hardly look over a miscellaneous publication, without finding some account of animal intelligence, and book after book, is published of anecdotes concerning them. Now, granting that many, nay most of these accounts & anecdotes, are false, (& this is not probable) yet those which are true, give incontrovertible proof, of the existence of a brute mind of some sort at least, so far as its manifestations extend, similar to the human intellect.

Indeed, the indirect-acknowledgement of this, is universal. Talk to any man, who has had much to do with animals, & he will be certain to tell you something of their self will, their cunning, & intelligence,



6

their fear, anger, hate, kindness, & so forth, speaking  
of them, exactly, as he would speak of reasonable beings.  
Now, if they possess not an order of mind, why this  
incongruity, this strange antithesis of fact, & ex-  
pression, this giving to animals, in conversation,  
faculties which they do not possess? The answer  
given is, "because their words & terms, are necessary  
to an intelligible account of their history & actions."  
And when for necessary? Plainly because, we have a  
certain set of words & terms to express the operations  
of the human mind, and when speaking of the  
lower animals, very naturally, & perforce must, to  
express like operations in them, use the selfsame  
words & terms.

Listen to the Oriental traveler, who has slept  
beneath the tent of the Arab, and wandered with  
him across the deserts, among wastes, and he will tell  
you, incident after incident, of the intelligence of  
the patient Camel, and of the noble horse of the



desert, who, curbing his proud wild spirit, comes  
 tamely at his Master's command, & listens to, & un-  
 derstands, while he receives the fond caress, every  
 word spoken to him, or lays himself quietly before  
 the tent door, to afford a temporary pillow, for the  
 sport, & leaps, of his Master's children. The showman,  
 to various animals, teaches tricks that excite the  
 wonder of the gaping crowd - tricks, the acquirement  
 of which, brings into requisition, not only memory, but  
 reason & will, the highest faculties of mind. The  
 Sportsman, learns his dog to hunt with care, & point the  
 game, & has many a tale to tell, of his acuteness, cunning,  
 bravery, & fidelity - fidelity, which does not grow weaker  
 at the reception of wrong & injury, & yet is strengthened  
 by every act of kindness. Sit in the hospice of the  
 Monks of the Great St Bernard, as the fire burns  
 bright within, & without, in the gathering gloom of  
 approaching night, the storm howls, & the fast snow  
 falls: - and, whilst they busy themselves in fastening





about the needs of their noble dogs, the little store of mine, to revive the dying traveler, who may have sunk beneath the cold by the way, or been whelmed beneath the avalanche, ask them, if animals can feel, can reason, can love, - have intelligence. And, as at the bidding of their masters, they, with a seeming pride resulting from the consciousness of virtuous action, bound fearlessly forth into the freezing night, to search thro' the gloom along the trackless mountainside, for the way-lost traveler, & listen mid the intervals of the storm, for the faint-moan & cry of the perishing, tell me, if there be nothing in them but dull matter, tell me, if that noble conduct, which in man, would be look'd upon as the offspring of a soul of the highest & noblest generosity, is in them, the effect of nothing, or rather of that which is tantamount, a portion of dull matter, soon to be mingled with the common, insensible dust, - on which we tread upon.

The appreciation & enjoyment of music, one of the chiefest



Sources of refinement, calls into requisition, all the finer feelings of the soul, yet no one will deny that many animals are affected by it; - have all the ferocity of their nature soothed into gentleness by its strains. Even some of them possess the power of singing a series of musical tones: & how often does the fair lady teach the sweet voice of her bird, to warble the notes of a favorite song. Think of the noble warhorse, as at the sound of the trumpet's inspiring hallet, his eye flashes fire, his nostril dilates, & he spurns the ground with impatient, more eager than his daring rider to rush upon & bear down the foe, & tell me if there be not something in him beside mere matter, an immaterial something, that thus strongly moves him? That even some animals can, to a limited extent acquire the language of man is a notable fact. The learned Leibnitz, gives account of a dog, taught by a Hungarian peasant, to speak distinctly a number of words. We might, if more were necessary, multiply instances of mental manifestations in animals, but the mind of every one is stored with numerous recollections of such. — From the examples just-cited, none will deny, that animals can, at least to a certain extent, be taught.



Yet the very idea of being taught, includes that of something  
 capable of learning; & that something, cannot be matter,  
 either organic, or inorganic. For whatever learns, must,  
 just to that extent which it does acquire knowledge, be  
 capable of receiving intellectual impressions. But no  
 matter can receive an intellectual impression. If this  
 be not true, the whole system of mental philosophy is a  
 fallacy; & man's body thinks, & the proudest monuments  
 of thought & reason, have been the result of organic matter,  
 not, of an exalted, & noble immaterial essence  
 Whence too, the doctrine of transmigration? Why did  
 Pythagoras, & so many wise men of ancient times, believe  
 that the souls of their dead friends and acquaintances, dwelt  
 in the bodies of animals around them? Why did they spend  
 their life-long talents, in adducing proofs to confirm their  
 belief? Because, they saw evidences of, & were forced to  
 admit, in animals, the existence of mind. And not  
 knowing whence its origin, & at the same time being con-  
 scious of the existence of a soul in themselves, & ignorant-



of its dwelling place after death, they, by a very natural chain of reflection came to the conclusion, that that animal mind, was the transmigrated soul, manifesting itself under a new state of being.

But, it is remark'd, all this is only instinct. What then it-be, it-is something in animals, aside, and distinct, from men matter. What-is instinct? The answer given is, "it-is instinct, something, given to animals to supply the want of reason, having the qualities of mind." In other words, something which is mind, & at the same time is not-mind. Here then, one of the great & deemed immutable laws of the universe, that has held good thro' all creation, up to this final, mightiest effort-of the hand of deity - the formation of intelligences - is at last turn'd aside, and God, his omnipotence exhausted, unable to create an intelligence lower than man, has, in the inferior animals, bestow'd upon matter, the faculties of mind. No, instinct is only another name for mind, of which man, in his pride, would fain deprive his fellow animals





But-those who talk of animal instinct, speak also of human instinct, betwixt which two, there is a perfect sameness. Thus, we see in the life of the young child, actions so distinct & determinate, so used as a means to compass a given end, that we cannot attribute them to mere chance; and of all such, they say, they are the result of an instinct. But-why of instinct? Why not of intellect. Is the mind then inactive? Yet-granting, for a moment, that these first-acts of life are the result of instinct-which not being mind, must of necessity be a property of organised matter-then must-there exist, a mark'd difference betwixt its actions, & the actions of mind, and some period must exist-in the life of the child, at which, it ceases to act, and intellect becomes active. Wherin consists that difference of action-who shall define it: and when shall be placed the period at which, instinct ceases, and intellect becomes active-who shall draw the line of demarkation? Does not the full grown man,

But there are little of human in that part of  
 human in that part of that there is a higher  
 something. There are in the life of the young child  
 action to that of the child, to see and know  
 to know of a spirit, that the same is that the  
 to see chance; but of all that, they say, they see the  
 result of an action. But that of the child, that of a  
 of intellect, as the mind then, is that of the  
 for a moment, that there is a part of life, as the  
 of intellect, which is not just a part of the  
 in a part of experience, that is, that the  
 spirit, a part of the intellect, is that of the  
 action of mind, and that is a part of the  
 the life of the child, as that of the child, as that  
 intellect, as that of the child, as that of the  
 power of action, as that of the child, as that  
 shall be placed, the mind of the child, as that  
 and intellect, as that of the child, as that  
 line of intellect, as that of the child, as that

the very impersonation of intellect, shrink instantly,  
 without, so far as we can see, the shadow of a ratiocin-  
 ation, from a mill amid blow? And as instantly  
 make an effort to recover his lost balance? But  
 these too, are attributed to instinct, which, not being  
 immaterial essence, must, as before said, be a property  
 of organized matter. But, physiologists tell us, and  
 all admit, - that organized matter has but two properties,  
 sensibility, & contractility; - and these, to be excited to  
 action, require always, a mental, or a material stim-  
 ulus. Yet, no one will say, that in either of the cited  
 cases there is the application of a material stimulus;  
 therefore, it must have been mental. As well might  
 we expect, the sturdy oak to shrink from the stroke of  
 the woodman's axe, as to support the human body, un-  
 aided by intellect, - by its animal life, - able to avoid  
 danger. "Animal life"; for what is animal life, if it be  
 not a modification of organic life, produced by the  
 influence of a mental force? What is it, - that distinguishes



the life of Man, from that of the tree, except-it-be the  
 possession of a mind, & a peculiar arrangement of organs  
 for the action of that mind, whereby his body is adapted  
 for its residence? Altho' man is the habit of looking  
 upon man as physically infinitely removed from plants,  
 and altho', when compared with them, the beautiful  
 complexity of his organisation gives to him such  
 a different appearance, yet their ultimate structure  
 is the same: and altho' he requires prehensions,  
 and a certain preparation his food, before it is fit  
 for nutrition, yet their nutrition, growth, and re-  
 production, are carried on in just-the same way:  
 and it is not unreasonable to suppose, that if proper  
 aliment could be immediately presented to the lacteals  
 of the alimentary canal, and the nutrient fluid be  
 aerated without the intervention of voluntary res-  
 piration, a man might-live on even without  
 a mind - a soul - (and indeed we have, at-  
 least almost, such an example, afforded us by foetal life)

the life of man from that of the tree, except in the  
 possession of a mind, or peculiar arrangement of organs  
 for the action of that mind, which his body is adapted  
 for its exercise. But this we are in the habit of saying  
 upon man as physically organized, we must not think  
 but that the human organization is not the same as that  
 of the brute. His organization gives to him such  
 a different appearance, yet the same at the bottom  
 is the same: and with the same organization  
 and a certain proportion of his body to his mind  
 for sustenance, yet their nature, growth, and  
 production, are carried on in just the same way.  
 But it is not unreasonable to suppose that if proper  
 aliment could be administered, provided to the latter  
 of the elementary parts, and the nature of the  
 united matter, the vegetable production of  
 production, a man might live on some vegetable  
 a man - a tree - (and indeed we have  
 last seen, but in simple efforts of life)

Let his would be a vegetable, a passive, an organic life. But so soon as you give to him a mind, & a nervous system, by which that mind, (as the engineer by means of ropes & bands, puts in motion & guides a machine), may influence, and control the powers of his body, he becomes an active being, has, & gives evidence of, animal life. Now, the instinct of man, & the lower animals, being the same, & their animal life, being the same; And man's instinct being mind acting by intuition, & his animal life being organic life modified by mental force, we have here another argument, for the existence of mind in inferior animals.

"But, it is asked "if this instinct in animals, is in very fact mind - a distinct immaterial essence - why is it - incapable of progression? Why is it, that whilst man is yearly adding fresh stores, to his already vast amount of knowledge, his brother animals, know no more than they did centuries ago?"





For this, there is very good reason. And in assum-  
ing it; it may be ask'd, are there not numbers of  
the human race capable of almost no acquirement-  
whatever, altho' dotting parents, & faithful teachers,  
may strive hard & long, to beat into their thickest  
skulls a few grains of knowledge? And, are there  
not others, who, more unfortunate still, manifest  
no intelligence at all? Yet who says, there is nothing  
in them, but matter? Who denies to them, the boon  
of an immortal mind? Now suppose the whole  
human race composed of such beings, how high  
would have been man above the low animals-  
how far his residence removed, from the woods &  
caves, the homes of the bear & wolf? how high would  
have been rais'd the beautiful superstructures of  
science - And how full would have been the gar-  
ners of knowledge? Containing hardly enough, we  
may well suppose, to afford seed from one genera-  
tion to another.



One cause, of a want of progression in animals,  
 in some sort similar to, tho' infinitely less than,  
 that in Man, (a sufficient, & it may be, the only  
 cause too, is the low order of their intellect - their  
 weak reasoning powers; powers in Man so Exalted,  
 as to give him complete dominion, not only over  
 every beast of the field, & fowl of the air, but over the  
 whole Earth, & even the mighty Elements of Space.  
 How often, do we see a force incapable of acting,  
 because control'd by an inert, or a contrary power.  
 Yet that force is not thereby annihilated, - does not the  
 life continue to exist. The all-pervading, & universal  
 controlling force of Gravitation, is for a time over-  
 come by the power of the puny arm of the mechanic, who  
 in sport, hurls the stone in air; and how many a  
 fountain is there, for long centuries, hid beneath the  
 earth, which, if the Superincumbent mass were re-  
 moved, would burst forth, irrigating the parch'd hills,  
 with its pure refreshing streams. - May it not be,

The cause of a want of propriety in our  
 in some but consider to the necessity of them  
 that in some, to suffer with us - may be the  
 cause that is the low state of their intellects  
 made necessary for us; however we mean to do  
 as to give them complete dominion, but not  
 any kind of the field of the air, but not  
 while that is over the night - the  
 How often do we see a face in a state of  
 because contented with an error or a  
 As the face is a - the intellect  
 life continues to exist. The all-pervading  
 contributing to a generation in for a  
 one of the forms of the human  
 in that world the state in air, as a  
 fountain is the, for any certain  
 earth, which of the surface  
 more, would be the ingesting the  
 with it - the of feeding them. May it be

May is it not reasonable, that the animal mind,  
 naturally so weak, with its reasoning powers so much  
 controlled, as they are, by its passions, & appetites, &  
 desires, is thereby prevented from a progressive improv-  
 ement? And if, God like as the intellect of man is,  
 there are many beings of the human race, capable of  
 but the slightest improvement, & not a few of no im-  
 provement at all, is it strange, that in the chimeric  
 creation of Deity, there should be races of intelligent  
 beings, having faculties but for a limited degree of  
 advancement - linking vegetable life with man, as  
 man himself, stands midway, between earth & heaven?

Anatomy, so dear to the phy-  
 sician, as affording the very foundation & corner stone  
 of the Medical science, does not leave us without  
 a reason, to aid in the investigation of our subject.  
 It demonstrates, from the simplest & lowest orders of  
 animal existence, having a structure but little removed  
 from that of plants, a gradual & beautiful progression,



wanting not one link, up to the complex organisation  
 of the human frame. Now, does not the truest Analogy  
 suggest, that as to Man is given the most beautiful  
 & delicately organised physical frame, as he stands on  
 the summit of creation in body, so should he stand in  
 mind? That he occupies this mental eminence, no  
 one will deny:—yet the selfsame correct Analogy, that  
 suggested & tended to confirm this truth, suggests, and  
 tends to confirm the position, that all animals, have  
 minds, & that these minds, are in degree proportionate to  
 the complexities of their material organisation—That as  
 Man, who stands at the head of creation, possesses the  
 Master Mind, so those animals below him, have intel-  
 lects suited to the grade they hold in the Scale of being.  
 Candid observation too, confirms the truth of this Anal-  
 ogy: for we find that the various tribes of Simia, approach-  
 ing nearest to man in their bodily appearance & structure,  
 & having the brain proper, thro' whom functions are performed  
 the phenomena of mind, strictly so call'd, most largely develop'd





& of all the inferior animals, the only ones, like him, Capable of standing erect; have also an intelligence, in its Capacity for improvement, - nearest allied to the human mind.

Again, Anatomy has demonstrated, the perfect identity of the nervous mass, in man, & the lower animals; & has further shown the functions of the brain to be, perception, thought, sentiment, & volition or will, or, to speak more correctly, it is the medium thro' which, are made evident & effective, these phenomena of mind. Now, that general law, with which we set out, & upon which is founded much of our argument, being true, - that like essences have like phenomena, & require the same conditions & substances, thro' which, to make evident - those phenomena or manifestations, - it necessarily follows, that the brain of man and other animals, being precisely the same substance, is the medium, in both, of making evident the qualities of the same essence - the medium of the action of mind

Again, supposing, for a moment, that animals never gave evidence of reason, <sup>yet</sup> the substance the medium of intellect



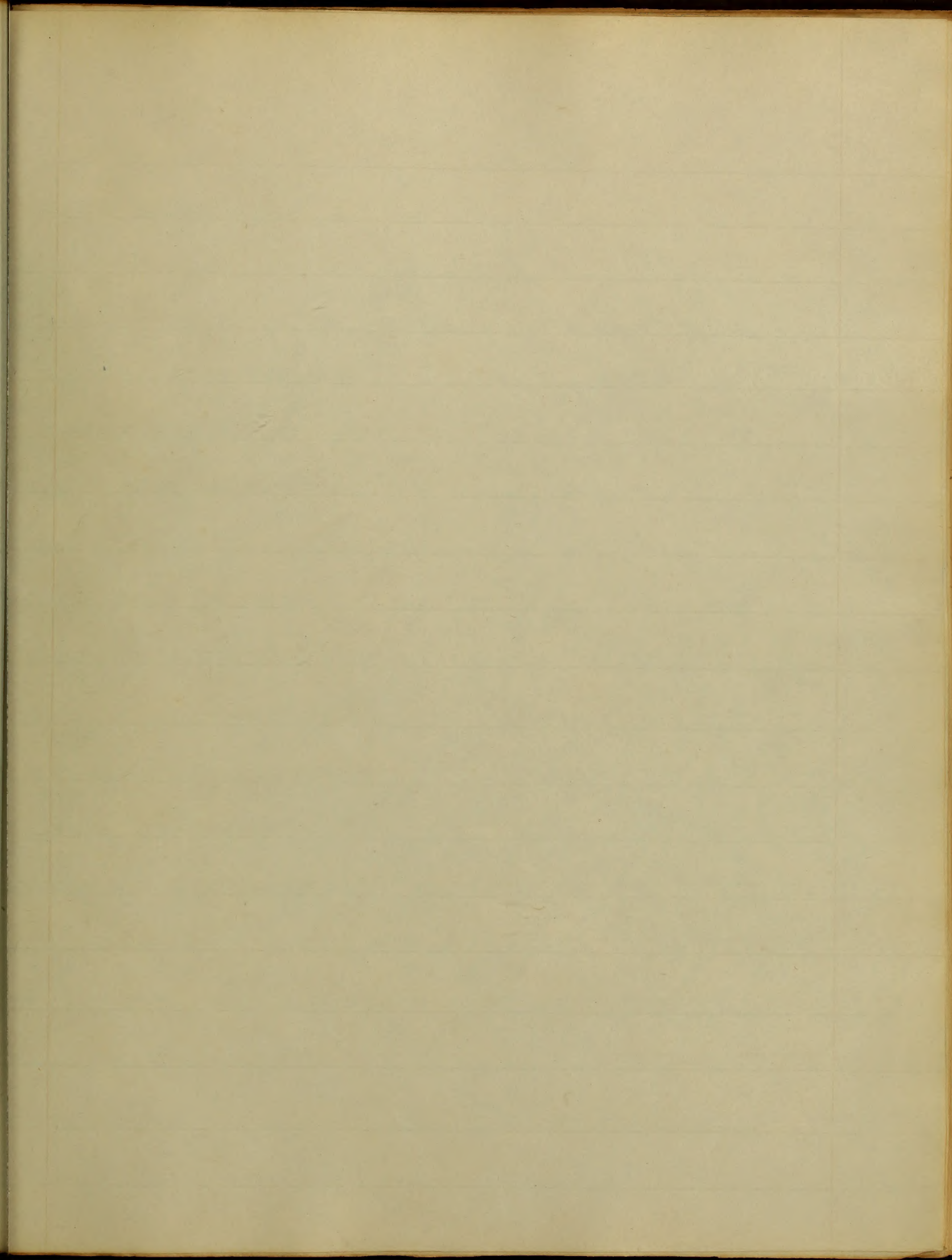
Manifestation, being in both identical, & animals possessing those faculties of mind, included under the terms perception, sentiment, & volition (which even the most sceptical have never denied them) does not reason say, they have thought also: - in other words, that having the same medium for the manifestation of their intelligence, thro' which are made known the phenomena of the human intellect, & possessing those powers of mind, they have the fourth also.

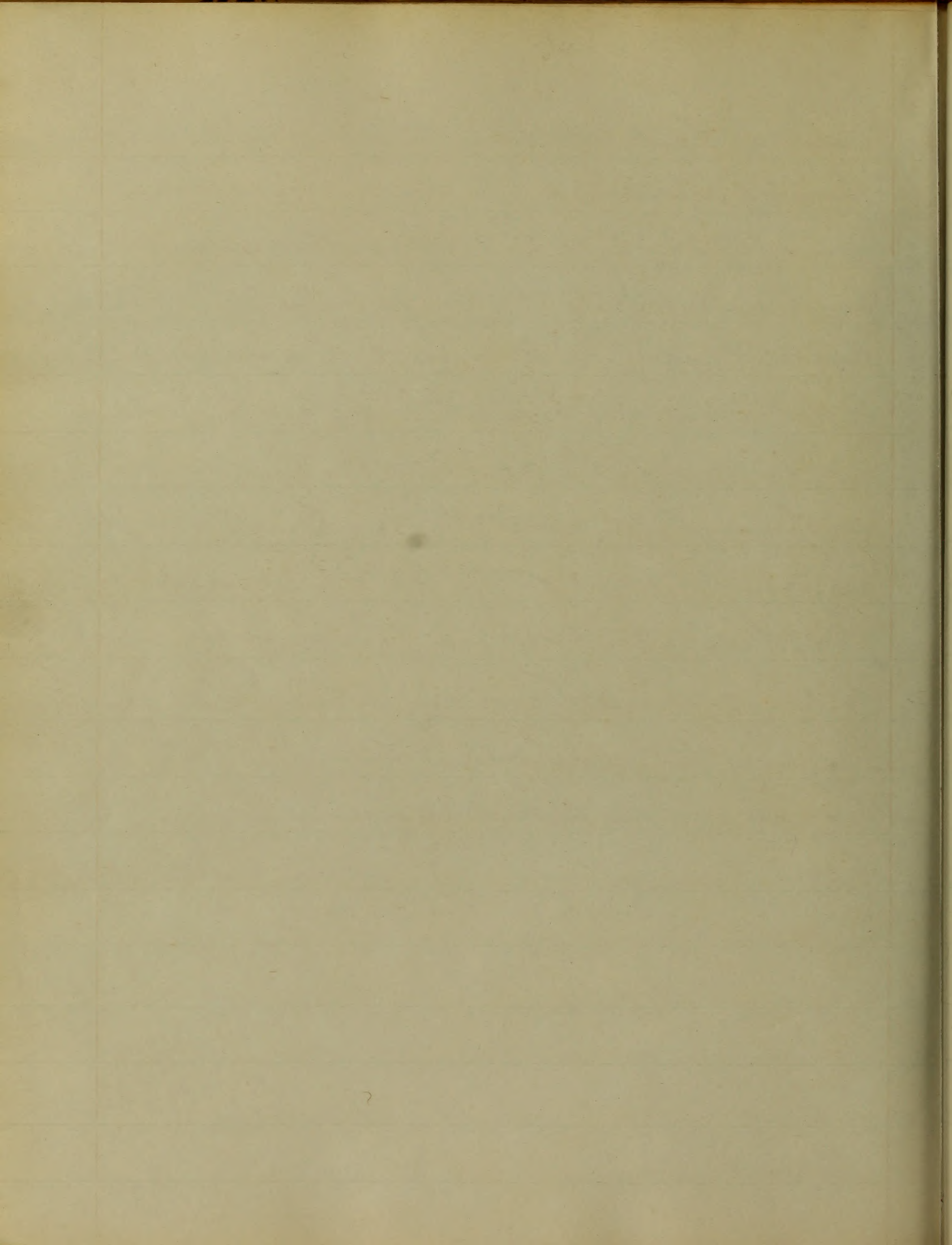
From all that has gone before, the conclusion clearly follows, that there exists in animals, something - call it instinct if you please - similar to, & differing only in degree from that which in man is called intellect. This being true, we are then inevitably forced into one of the three following beliefs: We must believe, either that all manifestations of mind, in man, as well as in inferior animals, are but the result of material organisation, & as a necessary consequence, that with the breaking down, & mouldering of the body back to dust, a gloomy, chill annihilation,

The first of these is the fact that the  
 human mind is not a blank slate at birth  
 but is filled with a vast amount of  
 information that is acquired from the  
 environment. This information is stored  
 in the brain and is available for use  
 at any time. The second is the fact  
 that the human mind is capable of  
 learning and adapting to new  
 situations. This is done through the  
 process of neural plasticity, which  
 allows the brain to reorganize itself  
 and form new neural connections  
 in response to new experiences.  
 The third is the fact that the human  
 mind is capable of abstract thought  
 and reasoning. This is done through  
 the use of language and symbols, which  
 allow us to represent and manipulate  
 ideas in our minds. The fourth is the  
 fact that the human mind is capable  
 of self-reflection and introspection.  
 This is done through the process of  
 metacognition, which allows us to  
 think about our own thinking and  
 to regulate our cognitive processes.  
 The fifth is the fact that the human  
 mind is capable of emotional experience  
 and expression. This is done through  
 the use of facial expressions, body  
 language, and vocalizations, which  
 allow us to communicate our feelings  
 to others. The sixth is the fact that  
 the human mind is capable of social  
 interaction and cooperation. This is  
 done through the use of language and  
 shared norms and values, which allow  
 us to work together and achieve  
 common goals. The seventh is the  
 fact that the human mind is capable  
 of moral reasoning and decision-making.  
 This is done through the use of moral  
 principles and values, which allow us  
 to distinguish between right and  
 wrong and to act accordingly. The  
 eighth is the fact that the human  
 mind is capable of creative thought  
 and imagination. This is done through  
 the use of mental images and concepts,  
 which allow us to create new ideas  
 and to solve problems in novel ways.  
 The ninth is the fact that the human  
 mind is capable of long-term memory  
 and recall. This is done through the  
 process of encoding and storage, which  
 allows us to remember information  
 for extended periods of time. The  
 tenth is the fact that the human  
 mind is capable of attention and focus.  
 This is done through the process of  
 selective attention, which allows us to  
 concentrate on a specific task or  
 stimulus while ignoring other  
 distractions. The eleventh is the  
 fact that the human mind is capable  
 of problem-solving and decision-making.  
 This is done through the use of logical  
 reasoning and critical thinking, which  
 allow us to analyze a problem and  
 to identify the best solution. The  
 twelfth is the fact that the human  
 mind is capable of self-regulation and  
 control. This is done through the  
 use of self-talk and goal-setting, which  
 allow us to manage our emotions and  
 to stay motivated and focused on our  
 goals. The thirteenth is the fact that  
 the human mind is capable of empathy  
 and compassion. This is done through  
 the use of perspective-taking and  
 emotional resonance, which allow us  
 to understand and share the feelings  
 of others. The fourteenth is the fact  
 that the human mind is capable of  
 resilience and recovery. This is done  
 through the use of coping strategies  
 and social support, which allow us to  
 bounce back from adversity and to  
 continue to grow and learn from our  
 experiences. The fifteenth is the fact  
 that the human mind is capable of  
 growth and development. This is done  
 through the process of neuroplasticity,  
 which allows the brain to continue to  
 form new neural connections and to  
 improve its performance over time.  
 The sixteenth is the fact that the  
 human mind is capable of love and  
 affection. This is done through the  
 use of hormones and neurotransmitters,  
 which allow us to experience and  
 express our feelings for others. The  
 seventeenth is the fact that the human  
 mind is capable of awe and wonder.  
 This is done through the use of  
 sensory input and cognitive processing,  
 which allow us to experience the  
 beauty and grandeur of the natural  
 world. The eighteenth is the fact  
 that the human mind is capable of  
 hope and optimism. This is done  
 through the use of positive thinking  
 and goal-setting, which allow us to  
 see the possibilities and to work  
 towards a better future. The  
 nineteenth is the fact that the human  
 mind is capable of courage and  
 bravery. This is done through the use  
 of self-belief and determination, which  
 allow us to face our fears and to  
 stand up for our beliefs. The  
 twentieth is the fact that the human  
 mind is capable of forgiveness and  
 reconciliation. This is done through  
 the use of empathy and understanding,  
 which allow us to let go of our  
 grudges and to move forward with  
 a clean conscience.

awaits us, thereby quenching the dearest and most-cherish'd aspirations of the soul - : or, if we revolt from materialism, we must believe, that all intelligences are but emanations from Deity, the great Central Mind of the Universe, and as such, will be absorbed into him at the death of the body - : or, if we reject too the doctrine of Pantheism, we are thrown back upon this last conclusion, wherefore we must settle, that all animals have given them, by the Great God of the universe, immaterial essences according to their grade of being, and that upon man, his "Master work" he has bestowed an immortal soul -

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the application of the law - as you have  
 from the instructions in your letter that all the  
 cases are not to be considered for the purpose  
 of the Board of the University, but as a rule, all  
 the cases are to be considered as a rule of the law.  
 as of the right to the Board of the University, in  
 an answer to your letter of the 10th inst. in  
 the fact that the Board of the University, in  
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An  
Original Report

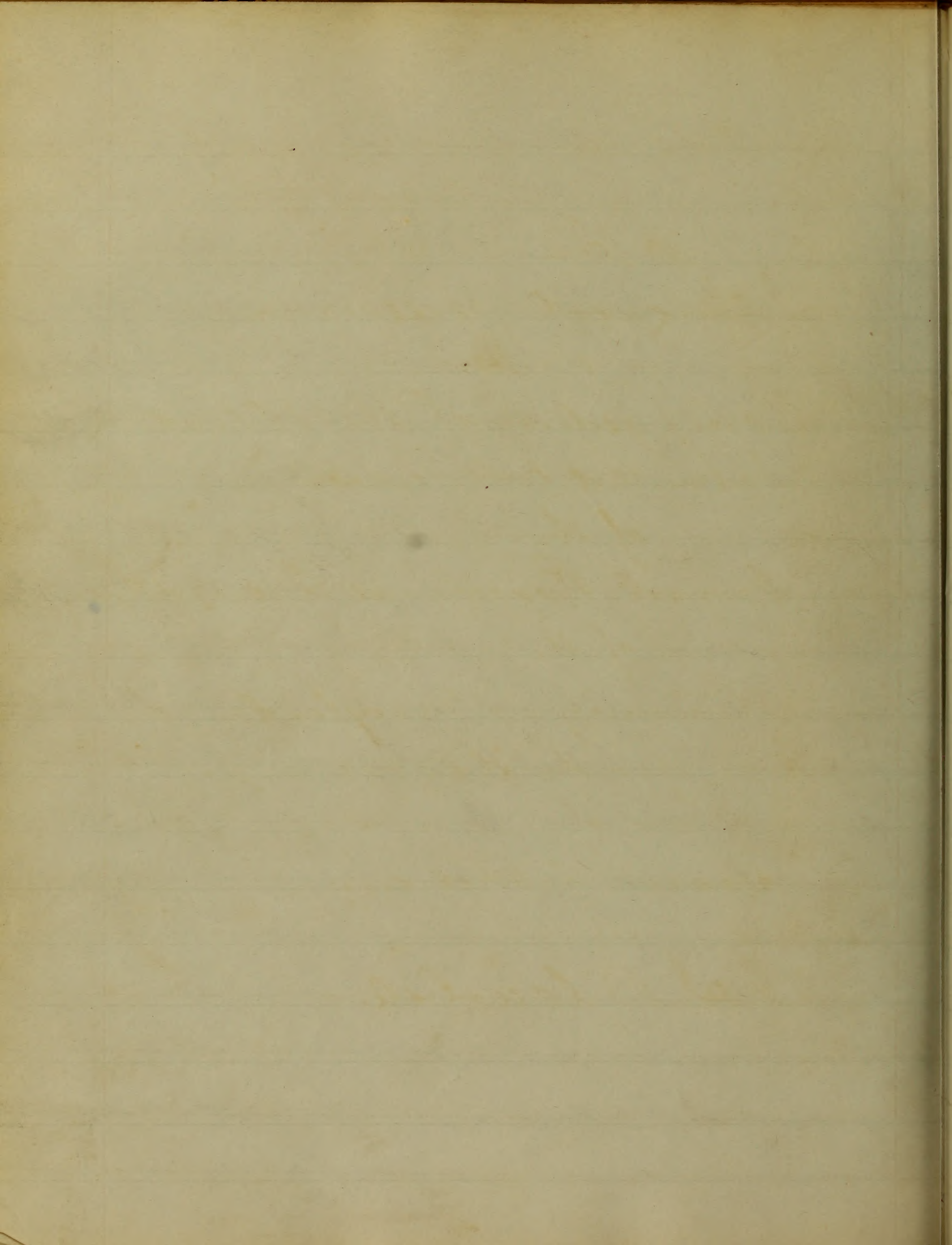
on the  
Composition of the Soil

of the  
Pond, Revere and Cambridge

of the  
University of Maryland

for the year

1851



54

The blood the animal principle  
of the human body springs from  
the great Au, in which unceasingly  
Inaugural dissertation,  
on the  
Composition of the Blood  
Submitted to the examination  
of the  
Provost, Regents, and Faculty of Physic,  
of the  
University of Maryland  
for the degree  
of  
Doctor of Medicine,

by  
J. P. Carlisle.

of the  
General Register and Land Office  
of the  
Department of the Interior  
Washington

of the  
General Register and Land Office

Department of the Interior  
for the Register

of the  
Department of the Interior

J. B. Leavelle

The blood the animate principle  
of the human body springs from  
the great fountain which unceasingly  
undergoing changes both by respiration  
and nutrition is prepared for the performance  
of the duties of its office and then and  
there to be governed by many changes taking  
place in other organs

The composition of which will form the  
basis of this feeble effort.

The subject is one that has puzzled the greatest  
reasoning and research of the gigantic mind of  
an Aesculap. or Linn and much less is than  
to be expected from the puny intellect of a  
second course student, who has learned  
that but few ~~new~~ theories can be advanced  
which have never heretofore occupied the  
entire and investigating mind of the skillful

The blood the animal possess  
of the human body being from  
the great fountain which incessantly  
renewing every change or state of organization  
and maintenance is prepared for the performance  
of the duties of its office and the end  
there to be pursued is every change taking  
place in the organs  
The composition of which will form the  
basis of this future effort.  
The subject is one that has puzzled the greatest  
reasoning and wisest of the 19th century mind of  
an Abolitionist. A few and I am sure it is  
to be expected from the young intellect of a  
learned course student who has learned  
that but few more theories can be advanced  
which have never hitherto occupied the  
imagination and industry of mankind.

The materials from which the blood is formed are the Lymph and Chyle.

The Lymph yields the nutritive matter taken up from the intimal structure of the organism.

The Chyle those matters absorbed from the alimentary canal. In the vertebrate

animals the colour of the blood is red and also in some of the invertebrate

Though it is generally colourless in the invertebrate, the blood which is brought

from the extremities to the heart by the venous circulation is of a dark red colour

that which is brought from the Lungs to the heart by the pulmonary veins from thence

to be sent through the aorta to be distributed by the arteries throughout the gen-

eral system is of a bright red colour.

This change in colour takes place on the one hand in the Lungs and on the other

The most striking difference which the blood is  
 formed, and the organs and parts of  
 the body, the most important of the organs  
 the lungs, the stomach, the intestines, the  
 amount of the blood of the blood is not  
 and also in some of the vessels  
 it is generally found in the  
 vessels, the blood is not  
 from the arteries to the heart of  
 from the arteries is of a dark red color  
 that which is brought from the lungs to  
 heart by the pulmonary vein from the  
 the heart through the arteries is  
 colored by the arteries through the  
 and system is of a light red color  
 this change in color takes place on the  
 and in the lungs and in the



in the capillary system. The change of  
arterial to venous in the Capillaries and  
venous to arterial in the Lungs

To account for these changes there have  
been a great many theories advanced  
some of which bears absurdly to the utmost  
extent. In trying to account for these changes  
it is necessary to call fourth some of the  
phenomena of respiration which is one of the  
chief agents in producing it. If respiration  
be interrupted in any way the blood returns  
from the lungs with its dark venous  
colour unchanged, while even after death  
of an animal if respiration be kept up  
artificially the change in colour takes  
place as natural as before. It is also  
known that if we expose venous blood to  
the action of the atmosphere it absorbs  
a portion of the atmospheric oxygen and

in the capital... the change of  
 order to know in the capital...  
 known to order in the city  
 I account for these things...  
 been agreed in my...  
 down of which...  
 extent... to account for...  
 it is necessary to...  
 the name of...  
 chief agents in...  
 in...  
 from the...  
 other...  
 of an...  
 satisfied...  
 there as...  
 known that...  
 the...  
 a...

becomes of a bright red colour resembling that of arterial blood. We see that there is a change in the blood brought about by the respired air. Now does any change take place in the respired air.

Dr. Black first observed that Carb. Acid gas was given out during expiration which is easily proven by the simple experiment of breathing into lime water through a tube the water will become turbid

from the precipitation of Carb. Lime

Is there any portion of the respired lost

There have been many answers given

and they all implied that there was

some lost. The average quantity of air

taken in is about 40 cubic inches and in

an ordinary sized man the lungs are

capable of holding 280 cubic inches and

by expiring freely he is able to throw out 70.80.

the room of a night, and when necessary  
 that of artificial heat, the air that  
 is exchanged in the night about  
 by the window, and the door open  
 take place in the night and  
 the door of the apartment that  
 need for your own safety and  
 which is easily done by the  
 means of a lock, and the  
 a table the water will be  
 from the perspective of the  
 all these are portions of the  
 which have been made of  
 and they are all in the  
 about the average quantity  
 taken in is about the  
 an ordinary sized man  
 of about 100 lbs. and  
 by referring to the table

but by an ordinary expiration he throws  
 out 40 cubic inches. In a minute he takes  
 in 800. inches in an hour 4800 in a day  
 152,000. by weight amounting to 52 pounds  
 a great portion of which he again throws  
 out; but in a very different state from  
 that when taken in. It loses a great  
 portion of its oxygen and mixes with  
 the carb acid gas. But again to trace  
 the changes in the blood. In the lungs  
 the blood comes in contact with a  
 delicate membrane not more than  
 the  $\frac{1}{1000}$  part of an inch in thickness  
 on the one side of this membrane we have  
 the blood and on the opposite we have  
 air. It is a well established fact  
 that the animal membranes are easily  
 penetrated by the gases. The air then has  
 access to the blood and several important

but by an ordinary experiment the  
 cost the same as in a normal state  
 in 800. water in an hour 1100 in a day  
 15.2 111. of weight amounting to 3.5 pounds  
 a great fraction of which is again thrown  
 out, but in a very different state from  
 that when taken in. It has a great  
 portion of its oxygen and hydrogen  
 the cost being far less than in the  
 the changes in the blood. In the lungs  
 the blood comes in contact with a  
 delicate membrane not more than  
 the 1/100 part of an inch in thickness.  
 On the one side of this membrane water  
 the blood and on the opposite surface  
 air. It is a well established fact  
 that the oxygen of water is easily  
 separated from the water. The air in the  
 vessel to the blood and blood is

Changes takes place in it. The colour is changed. the chyle disappears, and we have the appearance of Carb Acid and water. Now can these changes take place out of the body. We mentioned before that change in colour also the disappearance of oxygen and the formation of Carb. acid gas could take place out of the system. But the disappearance of chyle cannot be produced. What is the source of the carbon entering into the composition of the Carb. acid?

From some papers which were found after the death of Lavoisier it was ascertained that he had come to the conclusion that the venous blood arrived at the lungs charged with a large portion of Carbon & Hydrogen and then by means of the oxygen of the inspired air it forms two new compounds. Carb Acid, and water and is again reanimated.

It has been shown in the volume  
 changed. The object of this paper was to show  
 the effect of the presence of carbon dioxide  
 upon the rate of the reaction between  
 the metal and the acid. It is shown  
 in the volume also the effect of the presence  
 and the formation of carbon dioxide gas  
 takes place out of the liquid. It is shown  
 appearance of the gas bubbles. It is shown  
 that in the course of the reaction  
 into the gaseous state of the carbon dioxide  
 Brown shows papers which were found after  
 the result of the reaction. It was ascertained that  
 he had come to the conclusion that the  
 reaction takes place at the time of the  
 with a large portion of carbon dioxide gas  
 than of oxygen of the oxygen of the  
 it forms two or three molecules of carbon dioxide  
 and water and is again decomposed.



After wards it was supposed by Lazzarini  
 that the blood in the Lungs possessed the  
 power of separating the oxygen and nitrogen  
 of the inspired air and combining with the  
 oxygen carried it along throughout the  
 whole system and at the extremities of the  
 arteries where the process of assimilation is going  
 on Hydrogen and Carbon are generated and  
 unite with the oxygen of the arterial blood and  
 enter the venous blood in the form of Carb. Acid and  
 water which are taken to the lungs and then  
 thrown out. Dr. Mead supposes the great  
 difference between arterial and venous blood  
 to be in the latter having so much more Carbon  
 The theory advanced by Dr. Keil does  
 appear the most rational: he thinks the carbon  
 is not only mixed in the blood but bound by  
 chemical affinities which are not to be broken  
 up simply by the weak attraction of oxygen at

After some it was supposed by Lagnage  
 that the blood in the lungs furnished the  
 source of suppuration the oxygen and nitrogen  
 of the mixed air and coming with the  
 oxygen enters it along through the  
 vessel system and at the entrance of  
 arteries where the supply of albumen is  
 so the oxygen and carbon are generated and  
 unite with the oxygen of the arterial blood and  
 enter the venous blood in the form of acid and  
 water which are taken to the lungs in the  
 thoracic vein. Dr. Whistler supposes the great  
 difference between arterial and venous blood  
 to be in the latter having so much more acid  
 The theory advanced by the author is  
 often the most rational. He thinks the cause  
 is not very much in the blood but mostly  
 chemical affections which are not to be  
 of itself in the most ordinary cases

this temperature. (There are many results which cannot be obtained by the operation of one or two principles but may by the action of more, some results cannot be had by simple electric attraction but may be double as for example in formation of Pyrolicignous acid and various fermentation)

The result we get here is not from the action of one or two but all the principles engaged remove any one and it is impossible to obtain a correct result. When I consider the character of the chyle says Le Lee Butts and find it contains every principle necessary to every part of the system, we should take into consideration the power exerted by each principle,

The chyle disappearing when it arrives at the lungs shows that it here enters into other combinations. The venous blood arriving at

This time has been spent in a way  
 which cannot be obtained by the  
 of our to the time of the day of the  
 of more, some would say can not be had,  
 single objects, others that they are  
 as far as we are concerned of the  
 the end of the year (some say) the  
 the matter we get the most from the  
 of our time but all the time is  
 the more we are used to it is the more  
 a constant amount of it is needed. It  
 a part of the day, the day is  
 find it certain every day of the  
 to every part of the system, we shall  
 into a system, the more we are used  
 find after the more we are used  
 the day, the more we are used  
 the more we are used to it, the more  
 and the more we are used to it, the

the lungs with a super abundant amount of  
 carbon which must be separated. But this  
 cannot be done merely by the agency of the  
 oxygen. Dr Lee Butts thinks that the carbon  
 of the venous blood is in a state of combination  
 with a portion of Iron and that this Carburet  
 of Iron is loosely combined with the other con-  
 -stituents 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 time the Phosphoric Acid  
 its affinity for the Iron, in this manner the  
 Carburet is decomposed and Carb Acid  
 formed and thrown out and a sub Phosphate  
 of Iron which gives to the arterial blood its  
 florid colour. This salt is only found in the  
 arterial blood. The blood now goes on  
 through the arteries to their extremities the  
 point of assimilation and there deposits fibrin

the lungs with a rapid return to amount of  
 carbon which must be supplied. But the  
 amount is done mostly by the agency of the  
 oxygen. The blood is in a state of tension  
 with a portion of blood and the portion  
 of blood is being converted with the other  
 elements of the blood. This is followed by  
 the lungs by the blood. The blood of the  
 the oxygen is converted into for the carbon  
 and at the same time the blood is  
 its oxygen for the blood in this manner the  
 carbon is being taken out and  
 formed and thrown out and a part of  
 of the water goes to the arterial blood  
 and carbon is also being formed in the  
 arterial blood. The blood is  
 through the arteries to the various  
 parts of the body and then returns

bone and every other part that the waste of the system calls for The sub Phosphate of Iron is here decomposed the acid unites with the lime to form bone at the same moment there is an evolution of Carbon which again combines with the Iron forming carburet of Iron which gives the venous blood its dark colour and carried by it again to the Lungs

General Properties

The grand division of the blood is into Red Particles or Globules and Liquor Sanguinis The red particles are heavier than the Liquor Sanguinis. The temperature seldom varies from 98° Fah. The specific gravity of the blood varies from 1.053. to 1.059. In its ordinary state has a stinky feel Salty taste and an alkaline reaction also a very faint and peculiar odor. Urea Sanguis

were and every other part of the  
 mass of the great cells for the  
 absorption of blood to be composed  
 the acid units with the thin film  
 been able to have occurred that in an  
 portion of the cells and a gas containing  
 with the oxygen forming a compound of blood  
 which is not the same as that of the  
 above and is said to be of an alkaline  
 nature. The general character of the  
 absorption of blood in the lungs is not the  
 same as that of the other parts of the  
 body. The red particles are known to be  
 the liquor sanguinis. The temperature of the  
 blood from the lungs is the specific gravity  
 of the blood varies from 1.055 to 1.065.  
 The osmometry of the blood is a thing of  
 little importance and an alkaline reaction is  
 a very faint one in the blood.



11

Blood drawn from the arm and suffered to stand for a few minutes soon becomes a gelatinous mass; but this slowly contracts and we have appearing a dull yellow fluid (The Serum) this fluid has a specific gravity of from 1.029 to 1.030 a saltish taste and in some animals a weak alkaline reaction. The Serum holds in solution several animal matters among which we find albumen. This substance is coagulated by heat and some of the chemical agents. If we wash the red gelatinous mass we obtain a substance which has a white colour and fibrous texture called Fibrin. The clot is formed by the spontaneous solidification of this substance. The buffy coat of inflammation is also produced by this substance the formation of which will be considered when we speak of it in detail.

Red Globules. These globules which contain the coloring principle are merely suspended in

11  
The coloring principle is  
Red Globin. This globin which is  
with the iron when we speak of it  
is derived by the substance the  
substance. The buff coat of erythrocytes  
formed by the spleen, but a portion of this  
substance called hematin. The red  
obtain a substance which has a white color and  
a great effect upon the red globin upon the  
is regarded as first and then of the blood  
forming and it is first albumen. This  
water of solution of globin is called hematin  
from 1829 to 1838 a white coat and in  
(the same) this fluid has a specific gravity of  
and we have appearing a buff yellow line  
of globin upon the red but this buff coat  
to stand for a few minutes. It becomes  
black brown from the iron and sulphur

the blood and according to the opinion of the distinguished Müller they are distinct from the fibrine which is considered in a state of solution which can be demonstrated by beating the blood with a bundle of rods when we find all the globules intact in the colouring liquid and films of fibrin hanging to the rods. Nothing certain can be said about the origin of the red globules, however it has been asserted that the Lymph globules are the cells which afterwards become the red particles of the blood in an early stage of formation. something similar to the roundish cells of the Rete mucosum which becomes the Epidermic scales. The diameter of the globules in man which are among the smallest is estimated between  $\frac{1}{700}$  and  $\frac{1}{500}$  of a line in diameter according to M. M. Bumes the large diameter is about  $\frac{1}{25}$  of a line according M. M. and  $\frac{1}{50}$

the blood and according to the opinion of the  
 distinguished British they are distinct from  
 the fluid which is contained in a state of  
 solution even the elements of  
 the blood with a bundle of  
 when we find all the globules united in the  
 colouring liquid and form of fibrin  
 and to the red matter certain quantities  
 the origin of the red globules however has  
 been observed that the height of globules  
 the one which appears to be the red  
 particles of the blood in an early stage of  
 their development similar to the structure  
 of the red matter which is seen in the  
 case of the red matter of the globules in  
 the white and covering the surface is  
 between the end of a line in diameter  
 according to M. M. the large diameter  
 is about 1/2 of a line according to M. M.

and it is highly probable that the opinion of the latter is the more correct, he having made the most recent experiments. The form of these bodies is very different in different animals in some animals they are circular in others elliptical and I don't regard them as always being flattened whether elliptical or circular although there is a great deal of discrepancy on this point but there is no doubt of their being circular and flattened in the human subject. The flattening is said to be very great in both reptiles, birds, and fishes. There is in central portion of each particle a spot which maintains the form of the globule in which it happens to be placed, it is circular in the circular and elliptical in the elliptical. Is this spot a central nucleus? Some authors positively deny it - as Blumenthal, de Baimville, Meber, Wagner, Manal, and Clowse.

and it is highly probable that the opinion  
 of the latter is the more correct, he having  
 made the most exact experiments. The form  
 of the bodies is very different in different  
 species, as we have seen above. They are  
 in other respects and I do not regard them  
 as always being flattened, rather elliptical  
 or circular, although there is a great deal  
 of discrepancy in this point, but this is a  
 result of their being enclosed in flattened  
 in the human subject. The following is  
 said to be very great in both the human and  
 fishes. There is in certain kinds of fish  
 but a slight oval, and the form of the  
 globe in which it happens to be placed. This  
 occurs in the circular and elliptical in  
 the elliptical. Also this spot is not  
 some on their posteriorly deep it is  
 in some with other organs, nerves and blood.

Others assert that it is a central nucleus among whom are Müller, Ev. Home, Prevost and Leumas. Those who deny the existence of a nucleus claim that the spot which is seen in the globule is merely coagulated fibrine. On the contrary Müller contends that the existence of a nucleus has been amply proven with chemical characters essentially different from the outer envelope in each of the red globules of the Frog and Salamander and as it has the same appearance in the globules of Birds and Fishes as in those of the Mammalia and it is stated by some that they have seen by the aid of a microscope the nucleus in the blood particles of the Mammalia and say further that they can even be seen in the particles of human blood. The analysis of this supposed nucleus has never been made out on account of there never having been sufficient quantity obtained.





There is also but little known about the analysis of their envelope. The colouring matter of the red globules are Haematin and Erythrin.

The colouring matter can be obtained in solution by washing the crassamentum but cannot get it pure on account of the nuclei being suspended in the solution which necessarily must form a portion of the analysis.

Liquor Sanguinis This is the fluid which holds in suspension the red particles during life and when coagulation has taken place it separates into two substances Fibrine and Serum

which were previously in solution in Liq. Sanguinis  
Serum The serum is a lymphatic fluid almost inodorous saltish to the taste pellucid of a yellowish colour and plastic consistence It contains a large portion of water and in the higher animals has an alkaline reaction a specific gravity of from 1.027. 1.030.

There is also but little known about the anatomy  
of this animal. The following is a description of the  
globular case. The animal is a small  
the coloring matter can be obtained in white  
by washing the globular case in water  
it has a red tint of the globular case  
but is not in the globular case  
which form a portion of the case of this  
Ligula sanguinea this is the first  
in appearance the red portion during life and  
when dry white. The color of the  
the red tint is due to the presence of  
which case is commonly in the form of a  
globular the form is a globular form  
abundant in the case of the red portion  
of a yellowish color and has a  
it has a large portion of the  
the globular case has a white  
white portion of from 1007. 1854.

Besides those already mentioned there is one other highly worthy of our consideration. The facility with which the air surrounding a vessel filled with blood passes through this liquid and spends its effects upon the coagulum. Whereas the same action of the air would be very much impeded if not entirely prevented, if instead of the serum, the crassamentum was covered with any foreign liquid: as water, Oil, &c. or even any other fluid belonging to the body, as: Milk, Saliva, Urine - Prevost and Lemas gives a table from which it may be seen that in the serum from human blood about one tenth part by weight consists of solid ingredients in solution. The proportion of the solid parts of the crassamentum to those of the serum is about 3 to 2. The animal matters of serum according to Lemas are, Saliva, Casein, Albumen.

Besides these already mentioned there is  
 one other highly worthy of our consideration  
 the facility with which the air becomes  
 a vessel filled with blood, rather than  
 liquid and spreads its effects upon the  
 system. When the same action of the air  
 be very much impeded if not entirely  
 cut off, instead of the system becoming  
 more covered with any foreign liquid, or  
 water, it is to be seen any other fluid  
 to the body, as the air, &c. &c. &c.  
 The root and source give a full  
 which it may be seen that in the  
 from human blood about one  
 part by weight consists of solid ingredients  
 in relation. The proportion of the solid part  
 of the blood varies with those of the  
 in about 3 to 2, the animal matter of blood  
 according to Linnæus and Boerhaave.

Of Masome and Lactic Acid Fibrin. The fibrin  
 the other constituent of the *Liquor Sanguinis* is  
 so styled because it coheres in fibers and is  
 found to be the most animalized portion of the  
 vital fluid in which it is contained. The  
 fibrin is found in the *Coagulum* and can  
 be obtained by beating or agitating it with  
 the fingers or a bundle of rods when first taken  
 from the arm. This substance resembles  
 muscular fibre in every respect with the excep-  
 -tion of colour and we have in this respect  
 a very singular circumstance, this difference  
 between a fluid and a solid between an organized  
 substance and matter in its natural state or form.  
 The basis of the *Crassamentum* which is the  
 fibrin appears to be a white elastic substance  
 more heavy than serum insoluble in water  
 and alcohol and contains a large pro-  
 -portion of azote.

The other constituent of the liquid is found to be the most abundant portion of the  
 total fluid in which it is contained. The  
 portion is found in the large amount of  
 be obtained by heating or a quantity of water  
 the finger or a bundle of wool which has been  
 from the error. This is done by  
 Mr. Wheeler's fibre in every respect with the excep-  
 tion of color and the fact in that respect  
 a very singular circumstance, this difference  
 between a fibre and a solid between an organic  
 substance and a mineral substance.  
 The basis of the cotton is the chief of the  
 fibres appear to be a white elastic substance  
 more heavy than common wool in water  
 and alcohol and contains a large por-  
 tion of water.

Fresh fibrin wet with acetic acid soon forms a transparent mass which is dissolved by water. It is owing to the spontaneous solidification of the fibrin that coagulation is brought about and this spontaneous solidification always takes place unless under the influence of living surfaces. In all cases where the blood coagulates more tardily than usual the red particles sink and there is left at the top or surface a fluid which after coagulation forms the white crust which takes the appellation of "Buffy Coat." and the remainder of the blood maintains its natural red colour. The cause of the buffy coat has long been dwelt upon. There is a well established fact that we generally find it upon inflammatory blood and it is highly probable that inflammatory blood owing to some peculiarity of some of its constituents coagulates more tardily than

Great pains were taken to...  
 former a...  
 matter it is owing to the...  
 of the...  
 and that...  
 better...  
 business...  
 later...  
 built...  
 a...  
 value...  
 "Buff Coat"...  
 maintain...  
 of...  
 there...  
 generally...  
 and...  
 that...  
 the...



healthy blood, Now if such be the case it explains in some measure the cause of the buffy coat For we well know that if coagulation is taking place slowly the more time have red particles to subside before coagulation of the fibrin.

So that we might suppose the principle cause of the buffy coat in inflammatory blood is its slow coagulation and and the increased amount of fibrin it contains. Lymph Corpuscles

The existence of these Corpuscles have long been known in the lower vertebrata. They being so much smaller than the red corpuscles were easily recognised and through the researches of the distinguished Gulliver and Addison they have been recognised in human blood. We mentioned whilst speaking of the red corpuscles the great variation in size in the different vertebrata but on the contrary with the columnar corpuscles we find them maintaining a pretty constant



size throughout the whole series of vessels their diameter seldom being much greater or much less than 1-3000 of an inch. The circulation of these globules is rather peculiar when ever one of them circulating with the general current of the blood comes in contact with the wall of the vessel it either retards its progress or sticks fast and remains so until the current removes it again also the greater number appear to move along the side whilst the red particles pass rapidly along the centre of the vessel; and frequently the lymph globules appear to stop up the passage of a capillary vessel and as a consequence prevent the red particles from entering but finally they all re enter the general current of the blood again

These phenomena were first noticed by M. Poiseuille.

size the weight of the whole body  
 then discuss the relation being  
 much of the same of the  
 relation of the globe to the  
 when ever one of them  
 general current of the blood  
 with the work of the  
 its progress or still  
 in to the current  
 the great number  
 the side which  
 along the center  
 the lymphatic  
 passage of a  
 a corresponding  
 from entering  
 general current  
 these phenomena



95.

