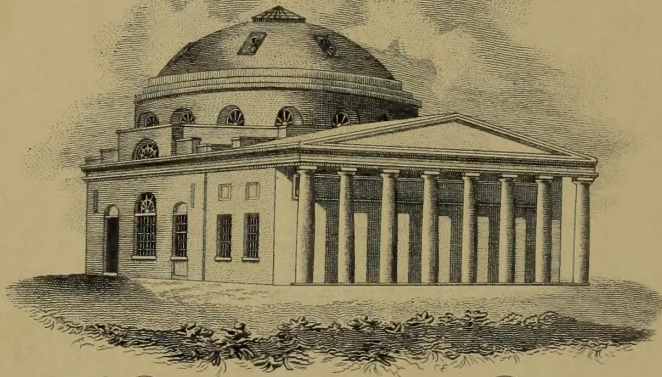




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## University of Maryland Theses

### 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.

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Switch

→ Influence of Alcohol on the physical and vital properties of the blood, tissues and fluids.



AN

Inaugural Dissertation

ON

*Variola et Sarracenia Purpurea*

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 Edward Kirby*

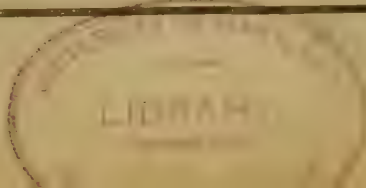
of

*Maryland*

*Session Fifty-Eighth*

*1865-66*

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Variola Et Variacina Purpurea  
An Inaugural Essay

Presented to the  
Provost, Regents, & Faculty of Physic,  
of the University of Maryland.

By  
Thomas Edward Kirby,  
of Maryland.

A D 1866.



## Varicella

Of all diseases which have ever affected the Human Race, none perhaps has been more universally dreaded than "Small Pox"; not more on account of the great mortality; than, of the horrible disfiguration frequently resulting. To give a general definition, Small-Pox is a contagious disease characterized by an initial fever of three or four days duration succeeded by an eruption passing through the different stages of papule, vesicle, and pustule, and maturing in about eight days.

To enter upon an extended history of the origin and progress of the disease, would be quite out of place here; time and space not permitting.



I will merely remark that it is known to have prevailed in China and India from time immemorial. It is said to have first appeared in Arabia, at the Siege of Mecca in the sixth century in the year in which Mahomet was born. No mention of the disease is to be found in either of the Greek or Roman authors of Antiquity. It is believed to have first found entrance into Europe at the time of the overthrow of the Gothic monarchy in Spain by the Moors. Previously to the discovery of America by Columbus A.D. 1492 the disease was unknown. In 1517 it was imported into St Domingo, In 1520 a negro belonging to one of the Spanish expeditions



from Cuba to Mexico, covered with small-pox pustules was landed on the Mexican coast; from him the disease spread with such rapidity and desolation that, according to Robertson, three millions and a half of people were destroyed in that Kingdom alone. It was taken to Iceland in 1707 when more than one fourth part of the population of the island was destroyed. It reached Greenland first in 1733 and spread so fatally as almost to depopulate the country.

Two varieties of the disease have been generally recognised; the distinct or discrete, and the confluent; the former characterized by the sparseness and isolation of the pustules, and the latter by





their coalescence. All cases of Small pox have three stages, First the eruptive fever; Second the progress and maturation of the eruption; and third of the decline. I will now proceed with a description of the symptoms and course of the disease taken in part from Prof. Wood and Watson. Distinct or Discrete Small Pox. The first stage commences usually with rigors of various intensity and duration, which are followed by heat of skin, acceleration of pulse, furred tongue loss of Appetite, epigastric uneasiness, often nausea and vomiting, headache, thirst, pains in the back and limbs, and general muscular weakness. These are the ordinary symptoms of fever and there is nothing in this stage



of Small-pox to distinguish it most certainly, from any other disorder. If there be anything peculiar it is in the violence of the lumbar pains, and, the frequent occurrence of obstinate vomiting not referable to gastric inflammation or cerebral disease.

When these symptoms are violent they usually usher in a severe form of the disease. The same may also be inferred from a continuance of the nausea and vomiting after the appearance of the eruption, which, is very unusual.

According to Heberden, Acute pains in the loins was, almost always followed by severe disorder. Pain higher up was of better augury; and it was in all cases a good sign if there was no pain in the back.



Early delirium, Stupor, and convulsions  
occur, though not always announce  
severity in the subsequent course of the  
disease. Soreness of the throat, Cough,  
sneezing and an excess of tears are not  
uncommon. The fever is often decidedly  
remittent with daily exacerbations;  
it continues generally some 3 or 4 days  
and subsides upon the appearance of  
the eruption. This appears about the  
third day. Minute bright red specks  
show themselves first on the face, then  
upon the neck upper part of the breast,  
fore-arms, upon all parts of the trunk,  
and lastly, upon the lower extremities.  
It is generally the fifth day before  
the eruption ceases to appear -



There are some exceptions to this rule.  
Sometimes, but not often the spots  
appear first upon the extremities, and,  
in some instances straggling papules  
continue to come after the main crop  
is completed; but these seldom arrive  
at the same size with the others.  
The fever has generally disappeared by  
the time the eruption is completed.  
Some times it subsides rapidly, and  
even abruptly. Second Stage  
This may be considered as having  
began when the eruption is fairly out.  
The Alteration through the various stages  
from papule to pustule, pursues the  
same order as the eruption beginning  
with those on the face -





The minute specks soon become decidedly papular, and, upon the top of each papule on the second or third day, a little clear lymph may be seen; thus it has become a vesicle. On the third or fourth day the pocks are distinctly formed, being round and flattened on the top, in the centre of which is a little depression, giving the eruption a characteristic umbilicated appearance. They are now hard to the touch and surrounded by an inflamed areola which renders the skin red between them. From this period, they by degrees, increase in size and change into pustules; their liquid contents becoming more and more opaque until quite purulent. As they approach



their completion, they lose the umbel-like form and become convex and distended at the top. Those upon the face are at their height and begin to turn generally about the eighth day of the eruption, the eleventh or twelfth day of the disease, but it is two or three days later before those on the trunk and extremities have matured. During the progress of the eruption many interesting incidents occur.

Patients - often complain of an itching; the skin is more or less tender; an eruption also occurs upon the mucous membranes of the mouth, eyelids, &c &c; which may be seen two or three days after the first appearance on the skin, in the form of white circular spots, which however contain



neither lymph nor pus. Between these the  
membrane often becomes red and inflamed  
and, on the seventh or eighth day of the  
disease, sore-throat swelling of the fauces  
painful deglutition and salivation are  
apt to come on which are among the most  
disagreeable symptoms. The patient is  
sometimes much annoyed by the necessity  
of constantly clearing his throat and mouth  
from the viscid secretion. With the  
progress of the eruption there is more or less  
swelling of the skin especially upon the  
face where the sensation of burning and  
tension is often painful. The scarp is  
occasionally much swollen. Both the  
external tumefaction and soreness of mouth  
with salivation increase as the pustules



matured and begin to subside as soon as  
they have reached their greatest height.

During the period of maturation a peculiar  
greasy disagreeable odor quite "Sui generis"  
proceeds from the body of the patient, by  
which, one acquainted with the disease  
might readily recognize it. The salivation  
before referred to is of some importance as  
a prognostic symptom. If it cease sudden-  
ly and abruptly and at the same time the  
swelling of the face subside prematurely,  
the peril is great. The blindness of one or  
both eyes so commonly a result of small-  
pox especially in children is caused, not by  
the formation of pectules on the conjunctiva,  
but according to Dr Gregory by an intense  
kind of Ophthalmia which sets in about





the period of the secondary fever, and rapidly involves and spoils the transparent tips of the Organ. The secondary fever is a febrile action developed about the eighth or ninth day of the disease depending exclusively upon the sympathy of the constitution with the local disease. It is most violent "cortex parvus" when the eruption is most copious, and when this is scanty may be quite wanting. Being symptomatic it generally declines with the pustules. The third or declining stage is little more than a period of Convalescence. About the eleventh or twelfth day the pustules become brown and dryish on the top or, some of them break and the liquid, which escapes, coagulates



into a yellowish brown crust and from  
this time the desiccation advances rapid-  
-ly; the swelling of the subsides rapidly,  
and, at last, only dry scabs remain  
which begin to fall off from the face on the  
fourteenth or fifteenth day. But the erup-  
-tion upon the extremities has scarcely yet  
arrived at its height when that upon  
the face is declining, so that the hands  
and feet are now considerably swollen;  
this is looked upon as a favorable sign,  
as it indicates a certain vigor of the  
constitution. It is not until three or  
four days after the scabs have formed  
upon the face, that the same process is  
completed upon the wrists and ankles.  
Many of the pustules instead of forming



regular scabs shrink away in consequence of absorption of their contained fluid, and nothing but a pellicle of cuticle is left, which separates by desquamation. This is especially the case with those upon the arms and legs. The eruption upon the mucous membrane is almost always resolved without the formation of ulcers or anything that can be considered a scab. The scabs fall off entirely between the fourteenth and twenty-first days. A singular fact mentioned by Rayer and others is that, when the skin has been previously inflamed as in Psoriasis, Lichen, Eczema, &c, the progress of maturation is considerably hastened so that the pocks on the inflamed part



commonly run through all their stages within eight days. After the falling of the scabs, blotches of a reddish brown color are left behind, which sometimes continue for several months before they quite disappear. Some of the pustules especially those of the face in consequence of an ulcerative destruction of the true skin, leave scars and pits - which are never effaced. The surfaces from which the scabs have fallen frequently afterwards undergo a furfuraceous desquamation. When the scabs begin to form the fever declines, the tongue clears, the appetite returns, and, by the time the skin has been relieved of its burden, the patient has been fully restored.





Confluent small pox. It is in this variety we may expect to find the greater percentage of mortality. It is a more aggravated form of the disease and, there is every grade between the extremes of the two varieties. As a general rule, the initial fever is more violent than in the discrete form. The pain in the small of the back is more severe. Convulsions, delirium and Stupor are more frequent; nausea and vomiting more distressing and obstinate; and the disease more liable to inflammation.

or malignant complications.

The delirium is occasionally violent, and, though sometimes associated with signs of inflammatory cerebral congestion, is,



in other cases, dependent on nervous  
irritation alone. Cough, dyspnoea, and  
pains in the chest are not uncommon  
and the epigastrium, and other parts of  
the abdomen are often painful and  
extremely sensitive to the touch.

The eruption appears earlier and is  
not attended with so complete a sub-  
-sidence of the fever, which however  
remits to some degree. The eruption  
is occasionally preceded by a rose-  
-lous or erythematous efflorescence upon  
the face and trunk. The papulae  
appear thickly upon the face so  
that in some cases, scarcely any  
portion of healthy skin is visible,  
but, more frequently leaving intervals



of the surface comparatively unaffected. They are generally more distinct upon the body and extremities, but sometimes even here, they are more or less confluent: and it sometimes happens that, while distinct upon the face, they are confluent on some other part of the body. In these cases the symptoms are usually less violent. As the disease advances the pocks are not so regularly developed as in the distinct form. They do not fill so amply, nor do they rise so much above the surface. It frequently happens that, large portions of the face are covered, with apparently a nearly uniform layer of pus beneath the epidermis and



sometimes nearly the whole face is affected. In some cases the pustules appear fused into one mass of suppuration. The inflammation often extends to the subcutaneous cellular tissue and, not only is much of the proper skin destroyed by ulceration, but great havoc is made by the pus burrowing in the subjacent tissues. The eruption in the mouth and fauces is more copious; the consequent pain and swelling greater, and the salivation more distressing. Frequently the eruption and attendant inflammation extends to the larynx and trachea, and to the larger divisions of the bronchi producing cough, hoarseness, painful expectoration





and sometimes expiration of the voice.  
This is one of the most dangerous accom-  
paniments of Small-pox causing death  
by suffocation, in some instances,  
through closure of the rima glottidis,  
in others, by the clogging of the bron-  
chial tubes with their viscid secretion.  
As a consequence of this condition in  
its advanced stages and arising from  
a want of arterIALIZATION of the blood,  
are a dark discoloration of the skin  
a livid or purple hue of the eruption,  
feebleness of the pulse, coolness of the  
surface, and universal prostration.  
The deglutition which is painful from  
the inflamed state of the fauces,  
becomes in some of these cases, still



more difficult on account of the thick-  
-ening of the epiglottis, and the want  
of proper adaptation between it  
and the orifice of the glottis.

The nostrils are often stuffed with  
the tough secretion, or, closed by  
the swelling of the Schneiderian  
membrane, so as to render breath-  
-ing through them almost or quite  
impossible. The surface also swells  
greatly, especially the face and scalp.  
Such is the tumefaction that the  
eyes are often closed, almost every  
feature obliterated and the head  
considerably enlarged. Sometimes  
buboes form in the groin and  
parts of the surface when there



is little eruption are sometimes affected with an erythematous inflammation. The eruption usually begins to turn upon the face about the tenth day of the disease, and in place of the broad maps of suppuration with its cuticular covering, the whole face is often invested with a mask of dark colored scabs, beneath which the matter still exists; giving a soft mash-like feeling to the parts. Frequently the matter exudes from beneath the scabs and sometimes when these are torn or scratched (as they are apt to be in consequence of the intolerable itching attendant



on their formation) a bloody or ichor-  
ous discharge from the raw surface  
occurs. These phenomena along with  
the intolerable fetor which is exhaled  
render a patient with confluent  
small pox an object truly revolting.  
The fever which had remitted upon  
the occurrence of the eruption, but,  
has never entirely left the patient  
increases again on the eighth ninth,  
or tenth day; and the new accep-  
sion is often marked by the occurrence  
of rigors. The secondary fever may  
still have more or less of the sthenic  
character, which in some vigorous  
constitutions it never loses; but  
very often it assumes a low form





consequent partly upon the exhausted strength of the patient and partly, also, in all probability, - upon the deteriorating effects of the absorbed, pus and putrid secretions upon the blood. The pulse is now feeble and frequent; the tongue dark and dry; there is low delirium, tremors, subsultus - tendinum, great muscular weakness, occasionally, involuntary evacuations, or, retention of urine and, if no favorable change occur, the patient dies; either from extreme exhaustion or, the interruption of some one of the vital functions through the severity of the local disease. Should the patient



survive the period of maturation, and pass into that of decline, he has still great dangers to encounter.

It is now that disorganizing inflammations are most apt to occur in various parts of the body. Pseudo-membranous or adematous inflammations of the fauces and larynx, pneumonia pleurisy, diarrhoea or dysentery and occasionally inflammation of the brain, complicate the symptoms and often with fatal effect.

It is also at this period that those destructive attacks of ophthalmia occur which are apt to result in the irreparable loss of one or both eyes: Sometimes the cornea sloughs



and the internal parts of the eye project through the opening. Sometimes the whole eye is converted into an abscess. In milder cases an opacity of the cornea is formed which either remains permanent, or gradually disappears after several months. Erysipelas sometimes appears on the face or elsewhere. In hospitals this is one of the most common accompaniments of the disease; it occurs not only during the declining stage, but also during that of maturation. Abscesses are often developed in the head neck and limbs. Furuncles break out over the surface of the body



various eruptive affections give rise to  
intractable sores, and add to the dis-  
tress of the patient. Gangrene some-  
times attacks the surface, and por-  
tions of the skin slough. If the  
disease do not prove fatal, the  
patient enters upon a slow convalescence.  
The scales fall off leaving evidences of the  
ravages of the disease in numerous  
pits and some-times large scars and  
scams upon the face. Occasionally  
the recovery is attended with the loss  
of one or both eyes. Any tendency to  
Scrophula or Ophthisis is apt to be devel-  
oped. Desquamation is seldom com-  
pleted and health restored under  
three or four weeks; and some-times





complete recovery is further postponed. Some cases of Confluent Small-pox run a more favorable course, and after surmounting the dangers of maturation terminate well. As was before remarked there is every grade of violence between the extremes of the distinct and confluent form, so that sometimes the confluent is attended with but little more danger than the distinct variety.

Another form of the disease is Black or Malignant Small-Pox; so called in consequence of its extreme malignancy. Its peculiarity consists in the association with the specific effects of the variolous poison, of an



asthenic state of the system which causes the patient to sink under the disease at a comparatively early period. This state of the system may be connected with any of the forms of small pox; the distinct, confluent, or even the modified form called varioid; but it is more commonly observed with the confluent. It is evinced first by an utter prostration of the nervous power, inducing inefficient reaction with coma, delirium, excessive restlessness and anxiety, and sometimes imperfect development of the eruption, or a sudden retrocession of it when formed, or secondly, by those symp-



toins which characterize a depraved condition of the blood, such as petechiae or vibices, oozing of dark blood from abraded surfaces, or mucous membranes, a purplish or bloody and badly developed eruption which fills partially, and rises but little above the surface, paleness or lividity of the surrounding skin, a disposition to gangrene, oppressed breathing, anxious countenance, and great feebleness of the circulation. Sometimes the signs of malignancy do not show themselves in the initial fever, unless perhaps by the severity of the lumbar pains; but in other instances, they are striking from the beginning, and, there is reason to believe



that, persons have sunk under them,  
before the appearance of the eruption.  
Death generally occurs from the seventh  
to the ninth day. Variceloid or  
Modified Small Pox. This is the  
term used to designate the disease  
occurring in persons who have been  
previously protected from the effects  
of the genuine disease by vaccination  
but, afterwards exposed to the conta-  
-gion of Small Pox. It is a very mild  
form of the disease, scarcely ever  
attended with danger, and usually  
of very short duration, unless com-  
-plicated. At other times however  
it assumes a very severe form, and  
should it be associated with an





asthenic state of system, may result speedily in death. The constitutional symptoms of this modified disease are in general at the onset, and, for several days much the same with those of the genuine disease. The initial fever is of equal length and intensity. There are frequently much headache, and sickness, and, sometimes even delirium. The eruption begins about the third day; it is often copious and sometimes confluent, and, in the confluent cases the fever does not entirely subside with the appearance of the eruption. It is in its subsequent progress that



the complaint is modified in respect to the appearance presented by the skin, and to the constitutional symptoms. Three distinct kinds of eruption have been observed. First, the eruption sometimes approaches in its character and course, very nearly to that of ordinary Small-pox. The pustules first up have the central depression and ultimately crust over and the face swells, but this course is performed in a shorter time than that of the ordinary disease, and the pustules are usually smaller. This is the severest and least common form of varioloid. Second form. Sometimes the papule show a little



fluid on their tops only, but never  
fairly suppurate - nor break, but the  
vesicles dry up, and hard prominences  
with livid bases and horny sum-  
mits remain. Third form. In these  
cases, a great part of the eruption  
consists of red pimples which soon  
become livid, but contain, from first  
to last, no fluid whatever. In the  
majority of instances of Varioloid,  
all these forms of eruption coexist.  
Some of the papulae go on to suppu-  
-ration, others become covered with a  
horny summit, and others exhibit  
no fluid at all. The most import-  
-ant characteristic of Varioloid, is the  
total absence of secondary fever.



The constitutional disturbance which, for the first weeks, may have been as severe as in the genuine disease, generally subsides entirely when the eruption has reached its height. The patient is convalescent just when in the unchecked and regular form of the malady, his danger is beginning to be the most urgent.

### Anatomical Characters

The only characteristic alterations are those upon the skin, and mucous surfaces. Signs of inflammation are often found in the lungs, pleura, membranes of the brain &c &c; but these are only to be attributed to complications and not necessarily to the disease. In malignant





cases the blood is found to have undergone the same changes as in other malignant diseases. When taken from the arm during life, it sometimes contains a small excess of fibrin and upon coagulation exhibits the buffy or inflammatory coat which however is usually soft and gelatinous. In asthenic or typhoid cases the proportion of fibrin is diminished. Cause. The cause of Small-Pox is now universally admitted to be a specific contagion. There are some persons, (but the proportion is small) who are not liable to be affected on exposure, who are not protected by vaccination. The contagion acts either through the air or,



by contact, in the liquid or solid form with the sound skin or mucous membranes, or by insertion beneath the cuticle. Opinion is not settled as to the period at which it is contagious; some believing it to be so only after the commencement of suppuration, others consider it capable of propagating the disease at any period from the beginning of the initial fever. The body after death retains the power of imparting the disease for a period of from ten to twelve days even without contact. Some times it is true spontaneous cases occur apparently entirely independent of contagious influence but these form an exception to the rule.



Diagnosis. From what has been already said, it would seem almost impossible for any person, well acquainted with the disease, not to distinguish it readily after it has fully formed; yet at the beginning of the initial fever it is not so easily diagnosed from any other fever. The following symptoms closely watched may however enable the practitioner to predict the disease viz; Severe pain in the lumbar region and excessive irritability of the stomach not attributable to any obvious cause; add to this the prevalence of the disease at the time, and should a papular eruption occur upon the third or fourth day and shortly become



vesicular with an umbilicated summit,  
the diagnosis is quite certain. Prognosis  
Genuine Small-pox is a very dangerous  
and, was formerly an exceedingly  
fatal disease. The general average of  
deaths is one in four. The varieties differ  
greatly in the degree of their danger.  
The distinct when uncomplicated is  
seldom fatal. The Confluent is almost  
always dangerous. The malignant  
almost always ends in death.  
The fatal cases of varioloid, are very  
few; and, in the vast majority of cases  
the affection is but trifling excepting  
the consideration, that, it may be a  
source of danger to the unprotected.  
The favorable signs are; the disease





pursuing its regular course without complication; yet some cases appear to progress favorably, when, suddenly without apparent cause, the vesicles or pustules suddenly shrink and the patient sinks. The unfavorable signs are excessive lumbar pain continuation of vomiting violent delirium, or coma, convulsions (except in children) great abundance and confluence of the eruption, the simultaneous appearance of the eruption over the whole surface of the body, livid or purplish color of the pustules, or imperfect development or the sudden subsidence when fully formed &c &c the occurrence of Pneumonia or Pleurisy or other signs of



inflammation, or the occurrence of  
Petechiæ, Vesicles passive hemorrhages  
or other signs of typhoid complication  
&c &c. Plethora and debility are both  
unfavorable and, the intemperate  
are very apt to die. The disease is  
more fatal at the two extremes of  
life, than at the intermediate stages.  
Treatment. The treatment of Small-  
pox has at different times differed  
greatly. The old theory, that the erup-  
tion was an effort of nature to rid her-  
self of the noxious matter which if  
retained must prove fatal, called for  
a heating and stimulating plan of  
treatment so as to favor the eruption  
much as possible. At present it is



known that the greatest danger in Small  
pox arises from the sympathy of the  
constitution with the copiousness of  
the eruption; hence, the cooling or refrigerant  
plan is now pretty generally  
adopted in medical practice. Yet  
doubtless there are cases where stim-  
ulating measures seem to be called  
for and even demanded; as in cases  
accompanied with debility; or occurring  
in the intemperate. In simple  
cases very little if any treatment  
is required. Such cases sometimes  
run a favorable course and get well  
without any medical assistance.  
This statement I saw verified in a  
child some 2 years of age during the

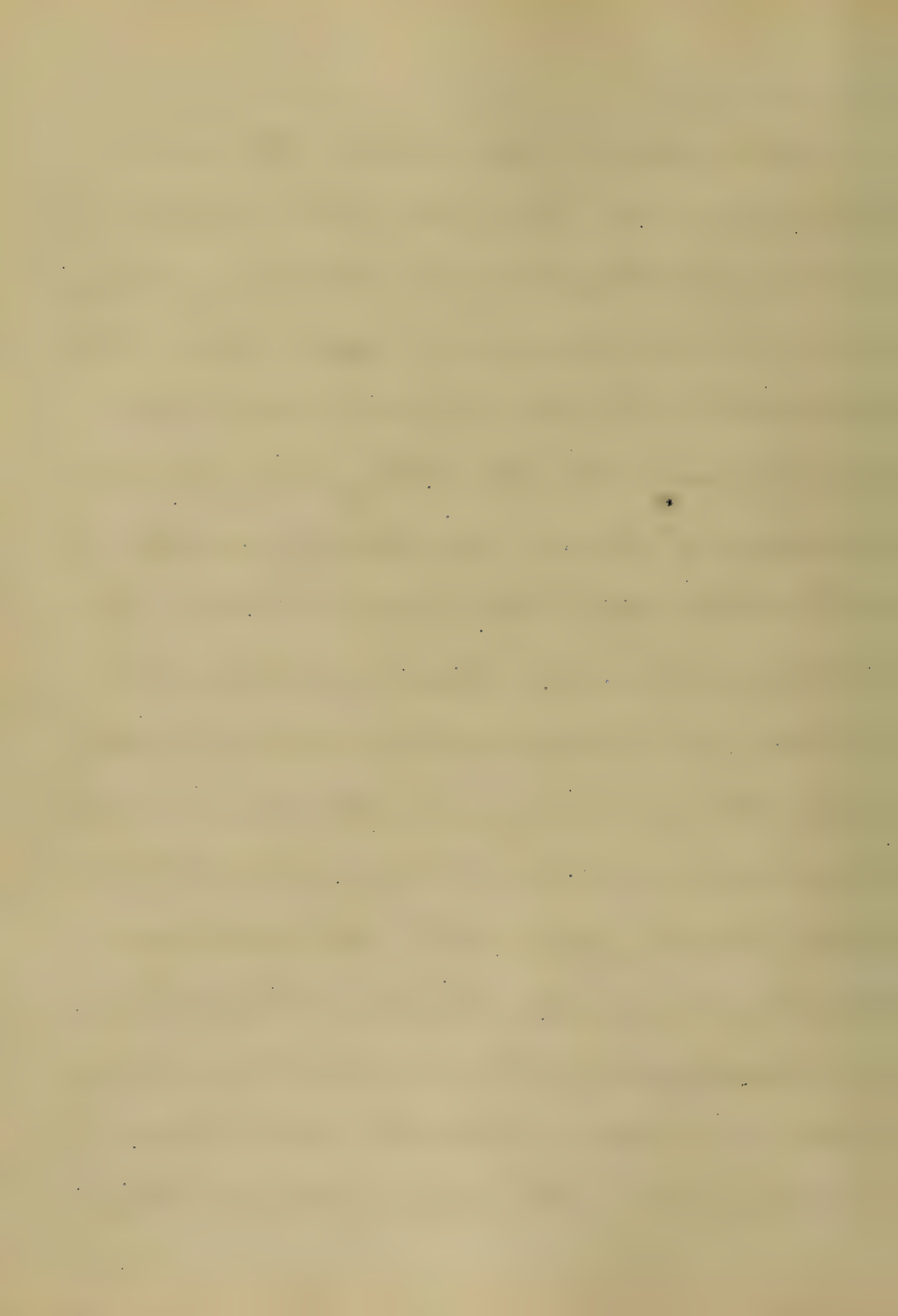


month of January 1864. The disease had progressed as far as the third stage or period of decline before the mother had taken any particular notice of it. On enquiring into the history of the case I learned that some two weeks previously the child had shown some signs of general malaise viz it had been fussy and cross and that it had vomited freely during two days that it had had considerable fever &c &c and that 3 or 4 days afterwards some twenty or thirty pimples had appeared on the face which were succeeded by an eruption of the same kind on the neck and extremities; this had excited no alarm in the mind of the mother.





as she informed me that the child  
had frequently had pimples before so  
that she thought the child's stomach  
was a little disordered and now that  
the child had fever again and was  
quite sick, she had thought of seeking  
medical advice in a day or two if  
the child did not get better. The  
child had never been vaccinated.  
I told her it was a case of Small  
Pox though a very mild one and at  
once advised her to keep her other chil-  
dren away from the one who was  
sick and revealed the fact that I was  
apprehensive they would have Varia-  
loid (as I knew the others had been  
vaccinated) The sequel proved that



my suspicions were correct and well  
grounded as in less than a week I was  
called to attend them with varioloid.  
The child first spoken of received no  
treatment whatever but recovered  
entirely and has since enjoyed better  
health than at any previous time.  
There is really no specific remedy for  
small-pox: nor can the disease be  
abruptly shortened. The treatment must  
be conducted on general principles.  
Symptoms must be combated as they  
arise. The danger in the disease arising  
partly from the reaction of a copious  
eruption on the skin and partly from  
intercurrent inflammations &c &c, and  
partly from the exhaustion consequent-



upon the long continued irritation and discharge, it is obvious that, the indications are, first to moderate the amount of pustulation without impairing the strength, second to obviate in all its stages the effects of inflammation and, Third, to support the system when requisite in the advanced stages.

In mild cases it is sufficient to give refrigerant diaphoretics and cooling drinks, during the fever, and an occasional laxative should the bowels be confined. In severe cases it becomes necessary to interfere more efficiently, at the commencement of the primary fever an efficient cathartic such as



calomel, Crocus & Colocynthis with a  
minute portion of Opereus, or the Pice  
Cath Co (No S P.) or Calomel and Rhu-  
barb or Senna & Salt &c &c should  
be given, and afterwards the bowels  
kept free by saline Cathartics, mag-  
-nesia, Rhubarb or Castor Oil *pro re nata*.  
In cases with irritable Stomach the  
Seidlitz = Powders will be found useful  
after the bowels have been well evac-  
-ated, Saline diaphoretics as Liq Am-  
-Acet, Pot chlor or Pot Cit, (especially  
in the form of Mist Neutralis, it usu-  
ally serving to allay the nausea and  
vomiting). When there is but little  
irritability of the Stomach the Nubion  
powders will be available.





Spt Nit dulc is also valuable when much nervousness exists - with inability to sleep. The skin if hot and dry may be sponged with cool water; but this should be confined to the arms and face, in consequence of the tendency to inflammations.

Sponging with warm water may be employed more freely and often affords relief. Should the pulse be full and strong, and symptoms of inflammatory congestion of any important organ as the lungs, brain, or stomach appear, bloodletting either general or local may be resorted to.

In all doubtful cases, the bleeding should be exclusively local, and, often the Tinct Verat Virid will be found to supersede the use of either general or local bleeding.



This remedy must of course be closely watched.  
We can neither eradicate the fever nor diminish the eruption, but must be satisfied to relieve the most urgent symptoms.  
To allay excessive vomiting, Spt Laro Co with a solution of Sod Bic Carb in dilute Aq Perseone will be found useful or the Effervescing draught, to which, may be added a little morphia or Opii Acet and should the vomiting still continue. Seed Champagne may be given or An Aromatic pul-tice or a Sinapismus may be applied over the Epigastrium and an anodyne enemata given. Should the epigastrium continue very tender, leeches followed by emollient poultices may be applied. In cerebral congestion the hair should be.



shinned or shaved and applications of cold water or ice made, and leeches applied behind the ears, while by revulsives as hot and stimulating pediluvium, mustard &c. the irritation is to be invited to the extremities. Symptoms of laryngeal or pectoral inflammation are to be treated by local depletion, emollient Cataplasms &c. &c. The drinks should be cooling such as water or lemonade which are nearly always acceptable to the patient. The diet should consist exclusively of mucilaginous saccharine or amylaceous liquids. After the appearance of the eruption, little treatment is required for some time. Should the fever continue the diaphoretics may be continued in diminished.



doses and at longer intervals. Gentle laxatives are sometimes required to keep the bowels soluble. Nervous symptoms as before stated to be treated with Spirit Nit dulc, Leg and Hoff and Camphor water. An opiate as pure Doverin may be given at night if necessary, to produce sleep. The regimen should still be cooling; though food somewhat more nutritious may be allowed for example gruels, toasted bread and tea, roasted Apples, sweet whey &c &c Attention of course to be paid to the degree of excitement. The diet in all cases to be strictly Antiphlogistic. On the occurrence of the Secondary fever, the original diaphoretic and refrigerant plan should be





resumed in a degree corresponding to the excitement, and, the apparent strength of the patient. And it is at this period of the disease we must watch the patient closely on account of supervening inflammations. For the relief of these, local measures are those from which we are to expect most. Opacials may generally be advantageously used at this time and throughout the remainder of the disease, unless contraindicated by cerebral congestion. They calm the nervous disturbance, and render the system less susceptible to the excessive annoyance of the local affection. Opium is also an excellent remedy, in the inflammations of this stage when combined with Spécac



and Calomel: Should the inflammation be sufficiently severe to threaten life, the Calomel may very properly be pushed to a moderate salivation. Another great danger in the advanced stages to be guarded against is the prostrating effects of suppuration, and the vast irritation of the pustules. Here it is necessary to support the patient. When therefore any appearance of flagging is presented, when the pulse begins to become weak, and the tongue dry and dark, and the extremities to show a want of due action, recourse must be had to tonics and stimulants, and a nutritious diet proportionate to the wants of the system. The particular remedies to be employed are as follow; Quin Sulph, the mineral Acids,



Infus. Cinchon Co, Opium, the malt liquor,  
and wine, either alone or, in the form of Whisky.  
When the prostration is very great, Ammon  
carb, Ether and Brandy may be added to  
the list. Camphor is also an excellent  
addition to the other remedies in cases of  
nervous disturbance. When the surface is  
cold, external heat must be applied.  
Milk, animal broths Jellies or Esences,  
and Eggs raw or boiled soft may also be  
used. In malignant cases the tonic and  
stimulating remedies must be used early  
in the disease, or, at any period when  
symptoms of malignancy appear though  
little good can be expected.

It is necessary throughout the disease to  
attend to the inflammatory complications



The treatment of these has been already stated: chief reliance being placed upon leeches, emollient applications, and blisters externally, and the judicious use of the opium with opiates internally. Should diarrhoea attend, it must be treated on general principles. Convulsions occurring early in the disease to be treated as cerebral complications, later, they generally depend on purely nervous irritation and are to be so treated. Throughout the disease attention must be paid to the diseased surface. Lotions of cool water, demulcent liquids, milk and water, or weak lead water may be applied to the face when much inflamed: purulent matters are to be removed from the eyes





by frequent washing. Children should be prevented from scratching the pustules. Moisture exuding from the pustules or exco-  
-riated surfaces should be sprinkled with some absorbent powder as Zinc Oxide, Calamine or Rye flour; or, if the parts are much inflamed, they may be anointed with either Coel, or Glycerine Cream &c. In infants - the pustules are to be frequently washed, and slightly astriugent washes used for the mouth and faucies.

Should a pseudo-membranous exudation be observed in the faucies it should be touched with Lunar Caustic, or, washed with a strong solution of that salt.

Dilute solution of Chlorinated Soda ʒijss  
ad ʒj water is recommended as a gargle



and, also as a lotion, Ectiotic treatment  
To obviate the disfiguration of the face  
frequently the result of the disease, various  
measures have from time to time been  
recommended; To produce abortion of the  
pustules the application of Arg Nit in  
the solid form or state of solution to each  
pustule has been recommended by  
Bretoneau & Serres; the former cauter-  
ised each pustule seperately, the latter  
made the application to masses of the  
eruption. A very effectual plan is to  
open each pock as soon as it has become  
vesicular, by means of a darning needle or  
lancet and then to apply a fine point of  
Lunar Caustic. My friend Dr L of this  
city in 1863 treated some thirty cases of



Small-pox are adopted this latter plan  
and with successful results in each case.  
Another method of causing the pustules  
to abort is the mercurial plan first sug-  
-gested by M. Anquet. It is asserted  
that if applied at the beginning of the  
eruption, it will produce a resolution  
of the papule; if at the vesicular stage  
it will cause the vesicles to dry up, or,  
at least prevent suppuration.

No injury results to the constitution  
(but as is asserted benefit from the dimin-  
-ished irritation) from the abortion of  
the eruption. The most effectual mer-  
-curial for this purpose is said to be  
the Emplastrum De Vigo of the French Codex.  
The effect is ascribed to the Specific



action of the mercury. In that case it  
would seem that any preparation of  
mercury would answer equally well:  
As Ung Hyd fort thickened with amylin  
or Rose Root. The Application is made  
by spreading any of these thickly upon  
a piece of linen and applied as a mask  
to the entire face cutting apertures in the  
linen for the Eyes, nostrils, and mouth  
These applications would seem admirably  
adapted in Confluent cases Some Au-  
thors attributing the good effects of the  
masks to the exclusion of the air, and,  
wishing to avoid the risk of salivation  
have recommended other applications D. J.  
Hughes Bennet recommends Carb Zinci Zij  
+ Oxid Zinci Zij to be mixed with Ol Olearia





Sufficient to make a thick ointment  
to be applied as before. Tinct Iodine  
applied to each pustule has been success-  
fully used as an abortive to the eruption.  
Among other applications for this pur-  
-pose may be mentioned as follows;

Collodium, Causticoidal collodium, solution  
of Gutta Percha in Chloroform, and,  
Linniment Calcis

### *Sarracenia Purpurea.*

This drug, (A botanical and chemical des-  
-cription of which, forms a part of this  
essay,) was first brought into notice as  
a remedial agent in Small Pox, by  
Dr<sup>s</sup> Morris & Miles of Wali or N. C.  
who attributed to it extraordinary cu-  
-rative powers in this disease.



It is asserted to exert an attenuative influence, modifying the eruption, and cutting short the disease. It is also claimed for it that, if given early in the disease it will cause the eruption to abort so that, but few, if any scars or pits remain. This however needs confirmation and, although by its Diaphoretic and Diuretic properties it may prove useful it certainly has not justified the representations made of it. The mode of administration by Dr Morris & Miles was Fol Sarraceniae Zi Aquae Oj boil to Ziij Strain and give a wineglass three times a day. Larger doses than this are said to cause vomiting, but such is not the case, as I have seen 4 times the above dose given every 2 or 3 hours



without occasioning the least nausea.  
It may also be used in form of tincture  
and fluid extract. I would regard the  
dose in substance for an adult as  
20 to 30 or 60 grains

I have never had opportunity to treat a  
case of genuine Small Pox, but have  
treated several cases of Varioloid with  
results as follow

I R at 35 by trade a carpenter sent  
for me on Saturday April 18<sup>th</sup> 63. He  
thought he had taken cold, complained  
of headache nausea pains in the back  
and limbs, costiveness &c &c. Not knowing  
of his having been exposed to contagious  
influence, and, as yet there was nothing  
peculiar in his symptoms I agreed with



him that it was cold and gave him as follows.

$\mathcal{R}$  Magnes Sulph ʒij  
Magnes Usta ʒss  
Vin Colchic grʒ XXX  
ʒr Opii grʒ X  
ʒss ft chl; Et ʒij Take at bed time  
mixed in a tumbler of Cold water.

This operated freely some 5 or 6 times on the following day so that he felt much abatement of the pains in his limbs and back the fever was but little left, not much headache remaining. On Monday at 4 o'clock P.M. I visited him: he had no pain complained of slight headache & fever but no nausea I gave him as follows;

$\mathcal{R}$  Sod Bicarb ʒij  
Potap Chlor ʒi  
ʒft mit dule ʒij  
Aqum font ʒvj  
ʒss ft mit ʒssij

2 teaspoonfull every 3 hours.





Tuesday. Saw him again. Complained of  
Sore throat, and at the same time I  
observed an eruption of very small prin-  
ples about the forehead and face. This deter-  
-mined to my mind the existence of Varin-  
-loid and I so advised him. On exami-  
-nation the tonsils were red and swollen I gave  
a gargle Tannic Acid ℥i j Aquae ℥j to be used  
4 or 5 times daily and ordered a continuance  
of the fever mixture every 4 to 6 hours  
Four days later saw him again; the fever  
had ceased entirely; the throat was still  
painful. On examination I found sev-  
-eral large ulcers for which I directed  
Pot Chlor ℥j to be dissolved in a pint  
of water and used as a gargle 4 or 5 times  
daily. The eruption on the face was now



declining on the face and about fifty  
pustules upon the extremities had passed  
from state of papule to that of pustule  
and were then declining. Only 2 or 3 of  
the pustules on the face ulcerated and  
left Scars. The throat having yielded  
in the course of 3 or 4 days I discon-  
-tinued my attentions restricting him to the  
house about a week longer as the weather  
was damp and disagreeable.

Laura S a german woman Aet 31 yrs  
sent for me Feby 12/64. Complained of  
Headache, Nausea, Pains in the back and  
limbs, had been vaccinated some 20 yrs  
previous; Bowels costive no appetite,  
tongue furred, pulse strong and Active.  
Gave her Pill Cath Co No L P vj Sj 4 pills



at bed-time and I in the morning if requi-  
-site. 13<sup>th</sup> Saw her she said she thought she  
had small pox, and, that in the old country  
(Germany) the Doctors always gave hot teas  
to break the fever and felt confident that  
if I would pursue a similar plan she  
would be well much sooner: to this I  
however objected and ordered

N, Sod Pr. Carb Zij  
Potaf Chlor Zij  
Vin Siccane Zij  
Spt Nit dulc Zij

2 fl Et Sy a depertifronfull every 3  
hours 14<sup>th</sup> Visited her again; found  
the fever abating; she was perspiring  
told me that, the night previous at bed-time  
she drank about a pint of boneset tea  
hot. She stated she felt so much better  
that she would like to repeat it at night



to this I at first objected; but thinking this  
an opportunity - to try the *Sarracenia* I directed  
an ounce of that drug to be made into a  
decoction with a pint of boiling water, and  
taken hot in wineglass doses every 3 hours  
the next day, the eruption was appear-  
-ing on the face; the fever was abating;  
the eruption was very copious and bid  
fair to be a severe case. As the fever was  
abating and the pains less severe. I prevailed  
on her to discontinue the hot teas and sub-  
-stitute cooling drinks and resume the  
fever mixture as before. As she appeared to  
have a horror of cold water I permitted the  
use of the Decoct *Sarracenia* Cold instead  
to allay her thirst. Next day the fever  
was considerably less. Complained of sore.





throat, hoarseness and cough. On examina-  
-tion I found the tonsils much swollen and  
numerous white specks in the fauces &c.  
I prescribed a gargle of Acid Sauric  $\mathfrak{z}ij$  Aqua  
destill  $\mathfrak{z}ij$ ; Use 4 times a day. She also

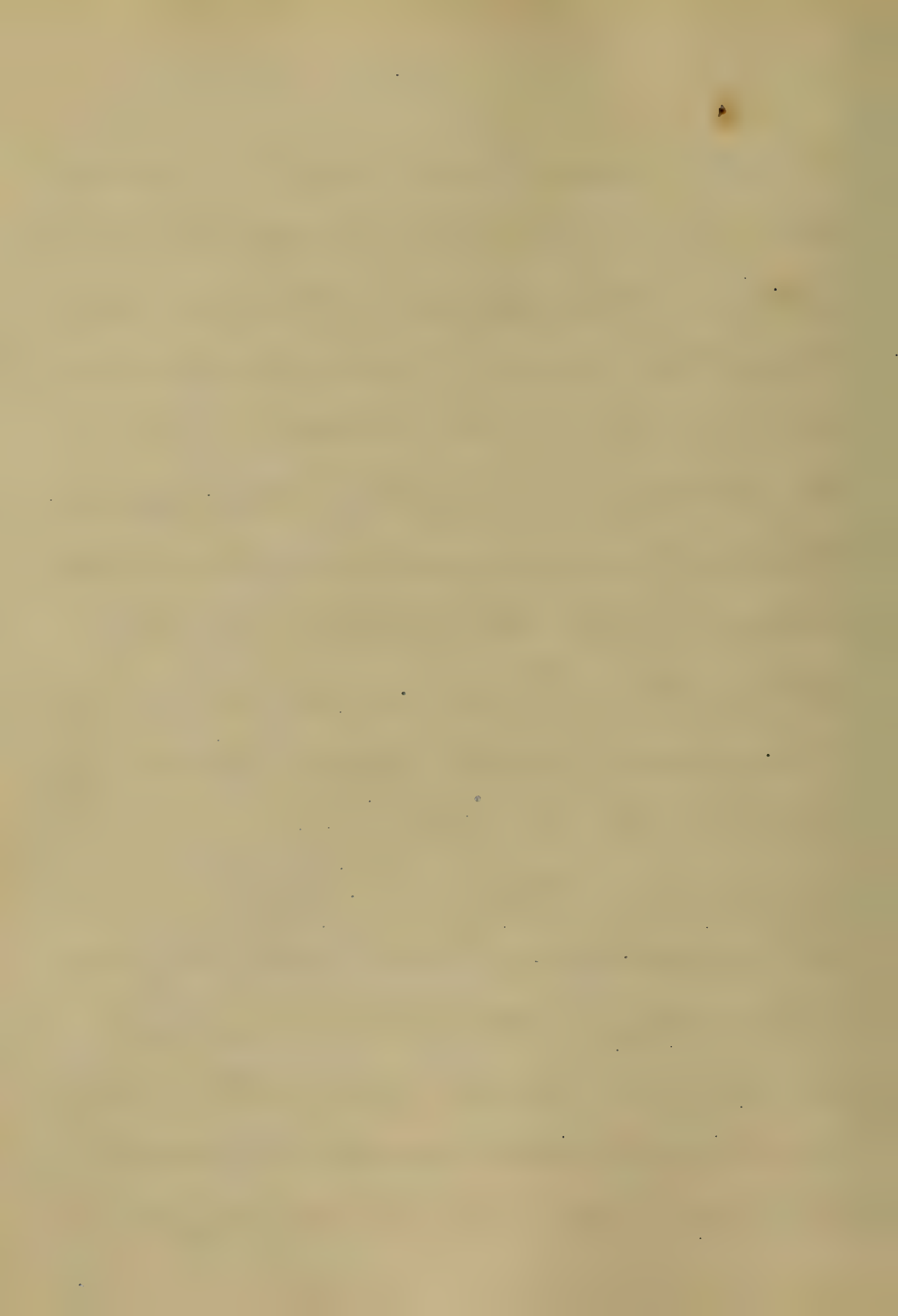
complained of soreness and tightness about  
the chest, rendering it painful to take  
a long breath. Auscultation revealed  
nothing that I could detect as morbid

I prescribed a simple Cough Mixture as  
follows:

$\mathfrak{R}$ , Syr Scillae  $\mathfrak{z}ij$   
Vin Ant  $\mathfrak{z}ij$   
Morph Acet  $\mathfrak{z}ss$

$\mathfrak{℞}$   $\mathfrak{ss}$  Et  $\mathfrak{ss}$  A teaspoonfull every  
4 hours: the breast to be rubbed at night  
with Ol Turbinth to produce redness.

In a few days the soreness of throat had  
subsided; the white specks had resolved  
the eruption upon the face was desquamating



and in a few days more she was entirely well. Leonard a German act 25 yrs by trade a Shoemaker called to see me March 1<sup>st</sup> 64, had been sailing some 3 or 4 days complained of headache, nausea, loss of Appetite, pains in the back and limbs, tongue furred, pulse active and full, bowels costive; gave him

℞ Misp Hyd gr̄ss  
 ℞ Colony Co gr̄ss  
 Pulv Spicac gr̄ss

℞ ft pill 3 in Take at bed-time. also;

℞ Sod Bic Carb ℥ij  
 Potash Chlor ℥i  
 Spt Nit dulc ℥ij  
 Aquae ℥iv  
 ℞ ft Sol ℥ij

A table spoon full every 4 hours: directed him to go to bed. The following day visited him: the pills had operated freely, the fever worse the pains in the limbs more severe, and as in the case of his Sister in-law was anxious to have hot teas &c



I gave the Infus Sarracenia; as in the previous case. In 24 hours his fever was abating and pains entirely gone and the eruption (which however was very sparse) had appeared. In this case the pimples passed into pustules and then speedily dried up, and desquamated. In less than a week from the time the eruption appeared he was entirely well.

March 3<sup>d</sup> / 64 Mrs J. a colored woman called on me for advice in reference to her child aged 2 year. She stated that, the child had been ailing for about a week was cross and fretful, would not eat as usual, was restless at night and that in looking in her mouth, she observed some white specks on the tongue which she thought was thrush.



It being late at night, I gave her a powder.

℞ Mucop Hydr Pulv  
Pulv Rhei an gr i v  
Magnes Usta gr vij  
Pulv Ipecac gr i/8  
Pulv Aromat gr i

℞ ft ℞℥ i; Sig Give it once in Sugar Water

I directed her to bring the child to me the next

day, so I could examine the mouth and

see what really was to be done for her

She brought her accordingly and when I

saw the child the eruption had passed into

the vesicular form: and as there was some

considerable fever I gave ℞ Pot Citrat ʒij  
Spt Nit dul ʒi

℞ ft Et Sig A teaspoonfull every 3 ʒij  
Infus Sarsaceni ʒij

hours. I saw the child 2 days afterwards;

the vesicles had become pustular, and

rapidly drying up. The Cough continuing I

gave ℞ Syr Scilla ʒij  
Syr Ipecac ʒi  
Spt Nit dul ʒi

℞ ft Mist Glycer Co ʒi Sig 20 drops every

3 or 4 hours.





In 3 or 4 days more the Cough yielded and  
the child recovered rapidly. She had been  
vaccinated one year previously.

The same Spring I attended some 20 or  
30 cases with similar results; but as there  
is nothing of particular interest connected  
with their history, and, as my time is  
limited, I must conclude this portion of  
my essay without further statements.



## *Saracenia Purpurea.*

This plant having a few years since been introduced to the medical profession as a curative agent in the treatment of Varicella by Drs Morris & Miles of Halifax, Nova Scotia a botanical and Chemical investigation may not be uninteresting.

The following botanical description of the plant is taken from Prof Alphonse Wood's Clap book of Botany.

"This herb is aquatic growing in bogs or marshes with fibrous roots, perennial and, with the leaves all radical urn-shaped or, trumpet-shaped and large flowers on scapes. Floral envelope 4-10 imbricated, the outer greenish sepaloid Stamens 8 hypogynous



Carpels united into several celled capsules. A curious order chiefly remarkable for the leaves which are of that class called "Acridia". It embraces at present 3 genera and 6 or 8 species; the "Heliamphora of Guiana, the "Darlingtonia" of California; and the *Sarracenia* (named in honor of L<sup>d</sup> Sarragen of Quebec) *Sarracenia*. Calyx of 5 colored sepals with 3 small bracts at base, persistent; Corolla of 5 incurved, deciduous petals; Stigmas 5-united into a large peltate persistent membrane covering the ovary and stamens; Capsules 5-celled; seeds very numerous, albuminous, Leaves holding water, with a wing on the front side and a hood,



(Lamina) at top. Scapes 1 flowered.

Flowers, large, nodding.

*Sarracenia Purpurea*. American Pitcher plant some times called Side Saddle flower. Leaves short decumbent inflated most near the middle; grows in bogs throughout Canada and the United States. This species is the most common, and, on it the Genus was founded. Leaves 6-9 long coriaceous ever-green compressed of a hollow, pitcher form petiole, swelling in the middle, with a wing-like appendage extending the whole length inside, from  $\frac{1}{2}$  to one inch wide, and extended on the outside of the mouth into a lamina covered above with reversed hairs. Their Capacity when of ordinary size





is about a wingtip and, generally like the other species, they contain water with drowned insects. Scapes 14-20 high, terete smooth, supporting a single, large purple, nodding flower almost as erect in structure as the leaves.

Chemical examination of the Leaves  
Tannic Acid; An infusion Ratio 3; 100 of Aque bullient treated with a solution of Sesquichlorid Ferric gave a bluish black precipitate. Solution of Gelatin added to the infusion gave also a precipitate thereby demonstrating the presence of Tannic Acid Gum. The infusion deprived of its Tannic acid by means of solution of Gelatine, and treated with a solution of Subacetate of Lead gave a precipitate of Gum.



Albumen a cold infusion made by per-  
colating the leaves (in state of moderately  
fine powder) with cold water, boiled and  
Corrosive sublimate added gave a curdy  
precipitate of Albumen. Starch  
To a decoction of the leaves (ratio 3i ad ℥j)  
was added Tincture of Iodine which threw  
down a dark blue precipitate: the Iodide  
of Starch. Pectin. A quantity of the  
leaves, deprived of their coloring matter by  
macerating in cold water, was percolated  
with a solution of Carbonate of Soda, on  
the addition of Hydrochloric Acid to the  
alkaline product, a precipitate was  
thrown down, which was collected on a  
filter and dried; this was insoluble in  
water, but swelled considerably when



mixed with the water, but dissolved imme-  
-diately in an alkaline solution, thus  
giving the evidence of the existence of  
Pectin. Resin. A tincture was made  
with Official Alcohol and evaporated to  
about the consistence of Syrup and then  
thrown into water, this caused a precipit-  
-ate of Resinous matter which was thrown  
upon a filter and washed with water, and  
then with ether: this resin is a brownish  
black substance which is odourless hard  
brittle, and fusible: it is insoluble in water,  
in ether, and, the volatile and fixed Oils;  
but dissolves freely in alcohol and is sapon-  
-ified by the solution of Potash. Fatty matter.  
The leaves first exhausted by alcohol and  
treated with ether and evaporated. left



a small quantity of fatty matter, which communicated a greasy stain to white paper and was not dissipated by heat; it was soluble both in the volatile and fixed oils.

Chlorophyll. This was separated by treating the ethereal extract with Hydrochloric Acid and precipitating the Acid solution with water.

The leaves also contain a brownish yellow coloring matter soluble in water and also in Alcohol.

Extractive. A hot infusion evaporated to the consistence of a soft extract, and mixed with water, when filtered left upon the filter a considerable amount of a brownish black substance which was tasteless, insoluble in water.

but soluble in Alkaline solutions and in Alcohol.

Sugar. An alcoholic extract about the consistence of honey was diluted with water and filtered;





to a portion of the filtrate in a test tube was added  
a solution of Sulphate of Copper, and Caustic Potash  
in excess; it was carefully heated to ebullition,  
and allowed to boil for a few minutes, when a  
reddish precipitate (Oxide of Copper), was de-  
-posited. Volatile oil. A quantity of the leaves  
was introduced into a retort (to which was accu-  
-ately adapted a receiver) and water sufficient  
to prevent empyreuma added upon the appli-  
-cation of heat to the retort, a small quantity  
of a light greenish colored oil was found floating  
on the surface of the distillate. Some of the oil  
was placed upon white paper and suffered to  
evaporate "Spontanea" and left no greasy  
stain, Sarracenia. A quantity of the leaves  
was boiled with Dilute Sulphuric Acid and fil-  
-tered to the filter and decantation was added,



a solution of carbonate of Soda; this precipitates a reddish brown granular substance, which was deprived of color by being boiled in alcohol mixed with animal charcoal. It is a white granular substance not unlike Salicin in appearance. It is readily dissolved by the dilute Acids and is capable of forming salts. If desirable the Acid decocotion may be precipitated by either Potassa, Ammonia, or Lime as well as Soda; but, as the Soda salt is more soluble than the others, I prefer it as the precipitant; it being more readily separated. The alkaloid, Sarsacina was also obtained by adding Chloroform to a tincture of the leaves made with dilute alcohol, agitating the mixture well and pouring off the chloroformic solution: upon evaporation, the granular sub-



stance was left similar in appearance to that obtained by the first method.

Ashes. A quantity of the leaves was incinerated and yielded about 2.04 percent of the amount of leaves employed. The ashes were then mixed with distilled water and allowed to stand for some time and filtered the filtrate being tested gave the following results,

Potash. A solution of Bichloride Platinum caused a light yellow precipitate. Soda, Antimoniate of potash gave a white precipitate.

Iron. A solution of Tartaric Acid added to the solution of Ashes (I should have stated that previous to adding any of the tests the solution was acidulated with Acid Hydrochloric which caused a brisk effervescence) produced a bluish black color. Copper a solution of Ferrocyanide



of Potassium added caused a brownish color  
 which was slight showing the presence of  
 Copper in minute proportion. Since a  
 solution of Oxalate of Ammonia caused a  
 copious precipitate of Oxalate of Lime,  
 Magnesia. Sig Ammon was added to the  
 acidulated solution in excess, and then a  
 solution of Soda Phosph added this precipit  
 ated the Magnesia as a double phosphate  
 of Magnesia and Ammonia, entirely soluble  
 in Chloride of Ammonium. The Constituents  
 of *Sarracenia Purpurea* may thus be summed  
 up as follows Organic Matter 97.96

Inorganic .. 2.04  
 100.00

and may be stated as follows Tannic Acid,  
 Gum, Albumen, Pectin, Sugar, Resin, Extractive,  
 Fatty Matter, Chlorophyll, Volatile Oil,



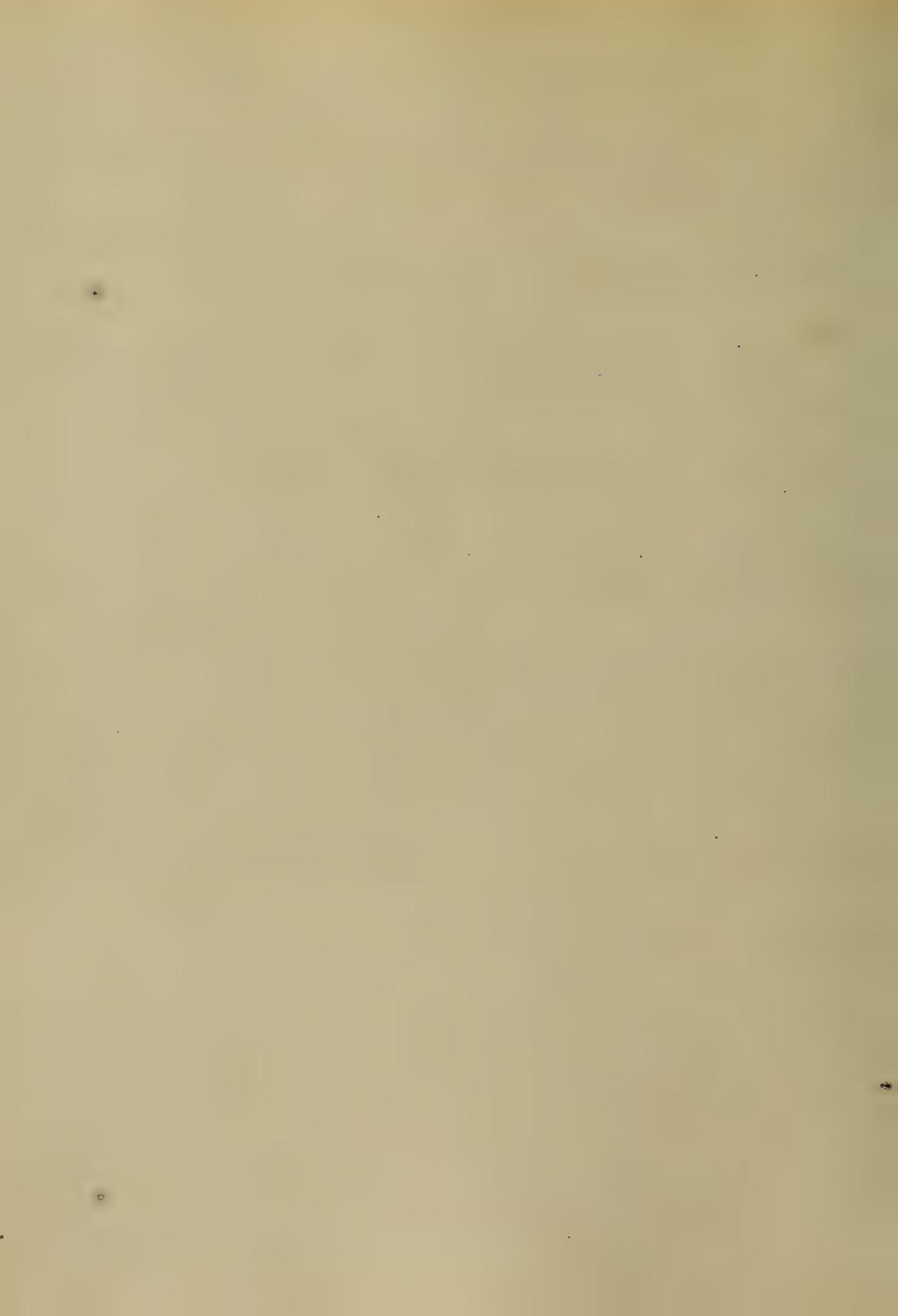


Lignin, and Saracocina, together with the inorganic substances, Potassa, Lime, Iron, Soda, Magnesia, &c &c. The experiments of the Ashes would have been carried still farther but for want of time, and also the very small amount of the drug experimented upon.

As it may be desirable to administer the drug in form of a fluid Extract I subjoin the formula, which after a number of experiments - seems to possess the medical properties in the greatest degree. Take of the leaves in moderately fine powder 16oz Troy, Alcohol diluted viz. Alcohol 3 aqua 1 Moisten the drug thoroughly with this menstruum and pack firmly in a percolator and percolate until



10 fluid ounces have been obtained, which, is to be set aside and the percolation continued with Alcohol 3 pts. Aquae 5 pts. until 22 oz have been obtained, this latter product is to be added to the 10 oz first obtained and the resulting mixture filtered. This is of a dark greenish brown color and contains the Medical and Sensible Properties of the drug in a high degree, and may be given in doses of from 15 drops to one or 2 teaspoonful; 2 drops of the fluid represent one grain of the drug.











































An  
Inaugural Dissertation  
On  
The Cerebrum,  
Submitted to the  
Board of Examiners and Proctors  
Of the  
Faculty of Physic  
of the  
University of Maryland.  
For  
The Degree of Doctor of Medicine  
By  
Gustavus W. Feltham, M.D.  
of  
Maryland.  
1866,





## The Cerebrum,

The Cerebrum or brain proper, strictly so called, is that portion of the Encephalon which occupies the whole of the cavity of the cranium, excepting the inferior occipital fossa. It is seven times greater than the Cerebellum and forms about two thirds of the brain. It is, as it were, the crown of the spinal axis. The Tentorium Cerebelli completes the cavity in which it is enclosed, and forms a separation between it and the Cerebellum.

The size of the Cerebrum is, undoubtedly, one of the most striking characteristics of man. The weight of it has been variously estimated from two to three pounds in the adult subject.

A median fissure, the longitudinal, extends longitudinally from the anterior to the posterior extremity. And in this fissure is lodged the Falx Cerebri, dividing the Cerebrum into two lateral halves or hemispheres.



Each hemisphere presents four condita-  
tions three surfaces, an external, internal  
and interior, There is also another sinus  
traversing the Cerebrum Superior, the  
Tissue of Sylvius which extends trans-  
versely across the Superior surface,  
corresponding with the posterior border  
of the lesser wing of the Sphenoid bone,  
into which it is received,

According to some Anatomists, the  
inferior surface of the Cerebrum is divided  
into two lobes, but later Anatomists de-  
scribe it as having three lobes, the ante-  
rior, middle, and posterior, which is the  
view we shall adopt. The Anterior  
lobe rests upon the orbital plate and  
the Frontal bone, it is often termed the  
orbital lobe, it is divided from the  
middle one by the Tissue of Sylvius,  
The middle lobe is received into the  
middle fossa of the Sphenoid bone,  
at the base of the brain, it is somewhat  
formed by the convex Sphenoidal portion  
of the posterior lobe, and has been called



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the Sphenoidal lobe, The posterior lobe rests upon the Sphenoidal temporal fossa and the Tentorium Cerebelli, the division between this and the middle lobe is only an imaginary one, this lobe has been called the Temporal lobe,

The entire superior surface of the Cerebrum is marked by a great number of deep, winding furrows, which divide it into as many oblong eminences, these eminences have a somewhat the appearance of the convolutions of the small intestines, and on this account have been termed Convulsions, Gyrus, Meandri, and procepsus Enteroides, the separators between these convulsions have been designated the anfractuositie of the brain,

It is impossible to determine the exact number of these convulsions, as they have no appreciable limits, Each convolution presents to our notice two surfaces a base or adherent, and a free border the surfaces of the corresponding convulsions are marked



upon each other, the base or adjoined border of each convolution is continuous with the central portion of the hemisphere. The free border is slightly rounded, so that between any two contiguous convolutions there is, a small groove, the arteries and veins which pass over the free border of the convolution form grooves upon themselves of various depths. The convolutions constantly found upon the anterior lobe are the small, straight, longitudinal ones, which bound the groove of the olfactory nerve, while those found upon the middle and posterior lobes run along the great transverse fissure and are a continuation of the convolutions of the corpus callosum.

The function of these convolutions has been supposed to be those of intelligence, Phrenologists have concluded that there is a plurality of material instruments, or organs by which the intellectual operations





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are performed, and these material instruments have been supposed to be these convolutions

The whole of the ~~substantia~~ Cerebrum is made up of two distinct substances, a Gray, Cerebritious or Cortical, and a white or Medullary matter. And in each convolution we find a central nucleus of the Medullary, surrounded by a portion of the Cerebritious matter. And this Cerebritious or Gray substance constitutes, about five sixths of its composition.

On the Centrum Orate Major, that is, the presenting surface of the brain, after the removal of the upper part of the lateral lobes, is seen a Medullary band at the bottom of the longitudinal fissure extending from one cerebral hemisphere to the other, thereby connecting them together, constituting a commissure between them. This band is the Corpus Callosum, the great Commissure of the Cerebrum.



On the removal of the upper part of the  
hemispheres, it will be seen that they  
encroach upon the Corpus Callosum,  
and in a measure, as it were, overhang  
it without adhering to it, the interspace  
thus caused has been improperly called  
the ventricle of the Corpus Callosum.

This great commissure reaches much  
nearer to the anterior than to the posterior  
boundary of the cerebrum, being  
an inch and some lines distant from  
the former, and about two or three inches  
from the latter, In form the Corpus  
Callosum resembles an arch or vault,  
its length is about three inches and a  
half, and its breadth an inch and a  
half, it is broader behind than before,  
its thickest part is at the posterior  
portion, being here about three lines,

This body has two surfaces, and two  
extremities that claim our attention,  
the superior, and inferior surface, and  
the anterior and the posterior extremity.  
The Superior surface is convex and



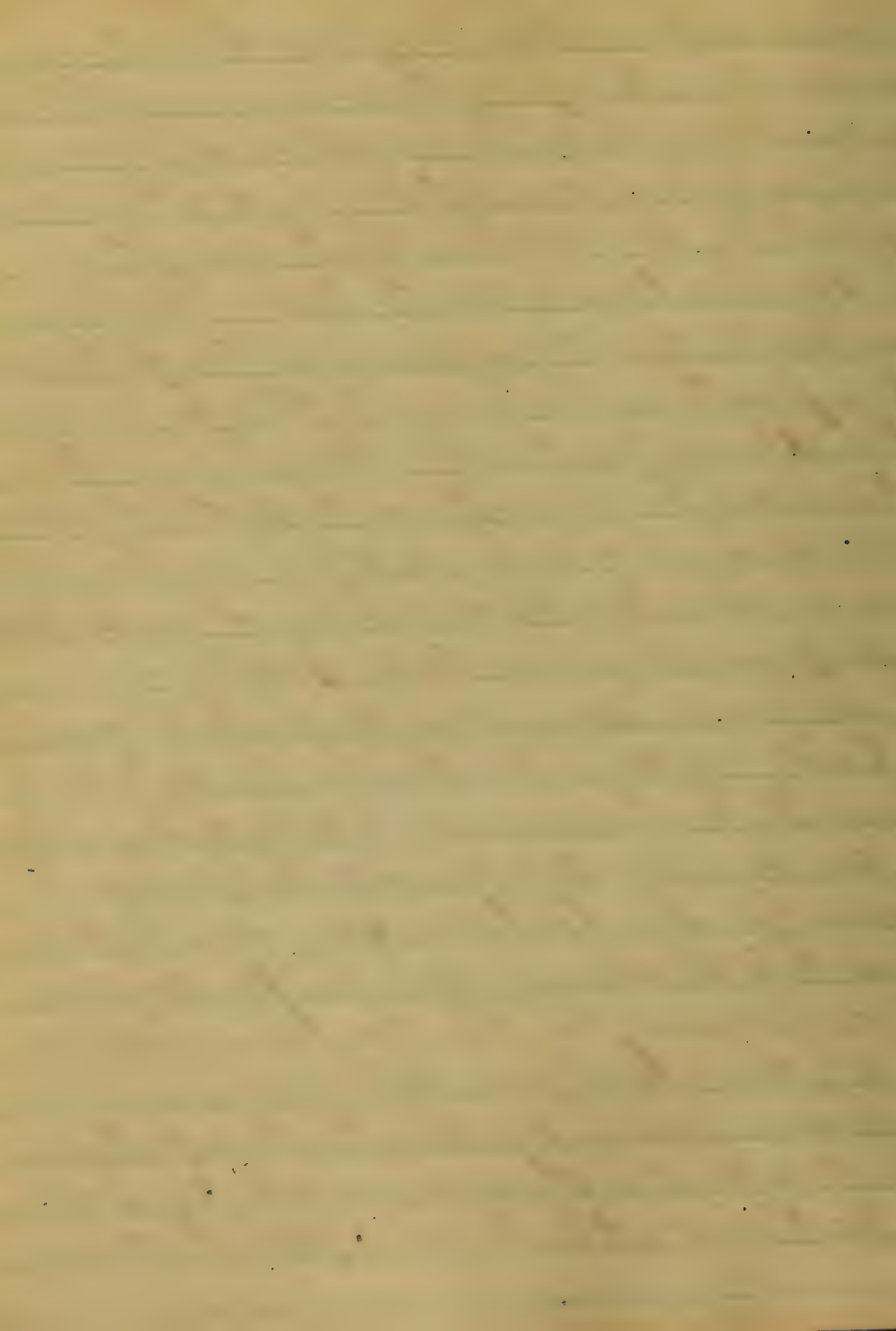
as it were, arched from before backward,  
it corresponds with the hemispheres  
on each side, the inferior surface  
is concave, and free over a greater extent  
than the Superior, this surface is covered  
by the serous membrane of the ventricles  
and like the Superior is fasciulated.

The Anterior extremity is reflected  
and embraces the Corpora Striata  
while the posterior which is the thickest  
part is slightly convex transversely.

Beneath the Corpus Callosum  
in a median line is the Septum  
Lucidum, velum Interpositum,  
and the third Ventricle, and at its  
sides are the lateral ventricles, Beneath  
the posterior border of this Commissure  
is seen a transverse fissure, which ex-  
tends between the hemispheres and the  
Tenua Cerebri, and it is through this  
fissure that the Pia Mater Communicates  
with the velum Interpositum, along  
the centre of the Corpus Callosum Super-  
iorly is a linear depression which is the  
Raphé



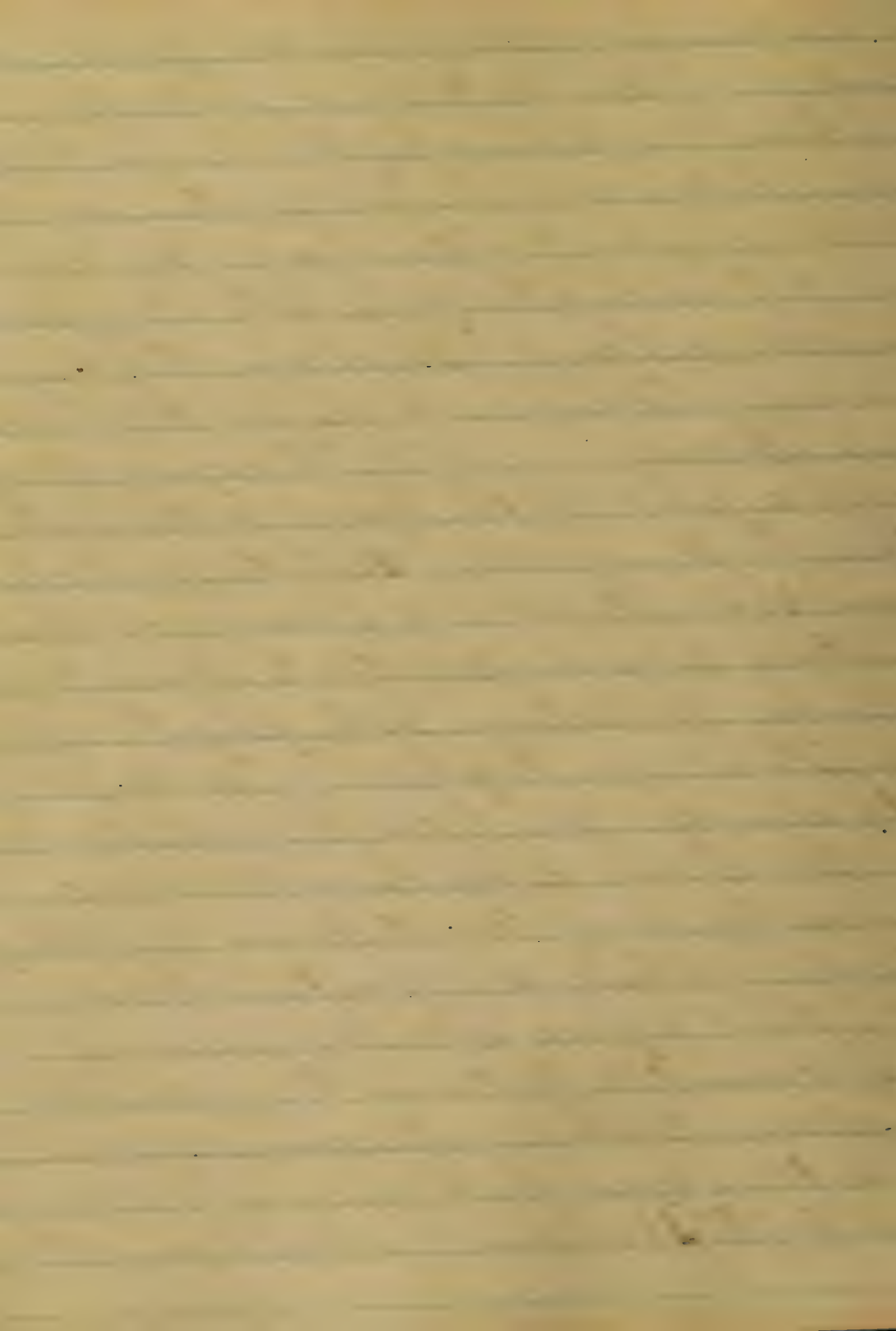
On each side of the Septum Lucidum,  
beneath the Corpus Callosum, will be  
seen an irregular triangular space,  
extending from one extremity of the hem-  
isphere to the other, these cavities  
are the lateral ventricles. Each of  
these ventricles commences in the substance  
of the posterior lobe, a little in front  
of the third ventricle, and behind the  
anterior reflected extremity of the Corpus  
Callosum, by which they are bounded  
above. The ventricles have three surfaces,  
the superior, inferior and posterior.  
The superior surface may be termed  
the body of the ventricle, it is broader  
in front than behind, and has a superior  
and an inferior wall. The superior wall  
is formed by the anterior surface of the  
Corpus Callosum, while the inferior  
wall is formed by the ventricular sur-  
face of the Ventricle Striatum. The  
inferior surface, the reflected portion  
of the ventricle descends into the pos-  
terior portion of the base of the brain.





The posterior surface is the Occipital  
 portion of the Ventricle, The Ventricles  
 are bounded above by the Corpus Callosum,  
 internally by the Septum Lucidum  
 which separates one from the other,  
 and below, by the Corpora Striata, Genua  
 Semicircularia, Thalami Optici  
 Chorda Plexus, Corpus Fimbriatum  
 and Fornix, The Corpora Striata  
 form a part of the floor of the ventricle  
 these bodies receive their appellation  
 from their striated appearance, their  
 posterior ends are separated from each  
 other by the Velum Interpositum of  
 the Thalami Optici, The Corpora  
 Striata are the Ganglia of the Cerebrum

The Genua Semicircularia is a  
 narrow band of medullary matter,  
 extending along the posterior border  
 of the Corpora Striata, serving  
 as a connection between them and the  
 Thalami Optici it receives nerves  
 and arteries from the Corpora Striata  
 and Optici Thalami, which terminate

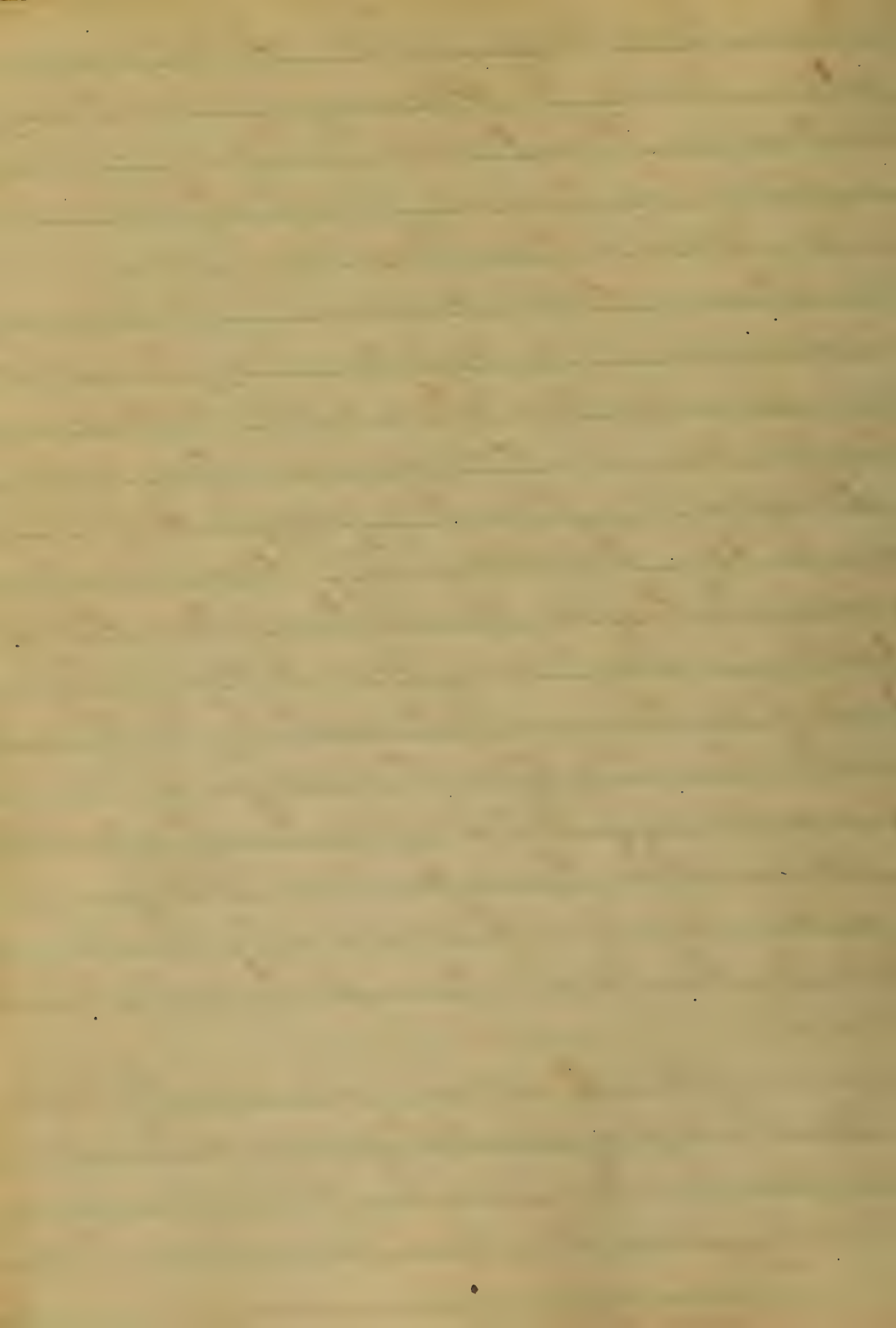


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the Vena Galeni, The Thalamus  
Optici may be known from having  
a ventricle, the third between them,  
and also by giving rise to the second  
pair of 'nerves', the Optic, from which  
they derive their name. The Choroid  
Plexus which is a net work of vessels  
may be seen on the floor of the lateral  
ventricle, and it communicates with  
the Plexus of the opposite side  
through the Foramen of Munro, an  
opening between the lateral and third  
ventricle. The lining membrane of the  
ventricles adheres intimately to the  
inner border of the Choroid Plexus.  
It consists of vascular tufts unlike  
any other structure in the body.

The Corpus Pinnulatum is  
formed by the reflected portion of the  
Fornix.

The Fornix is a whitish  
of medullary substance situated  
beneath the Corpus Callosum  
partially, and the Septum Lucidum



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anteriorly, it resembles a triangle,  
having an anterior angle somewhat  
bifurcated, and is connected posteriorly  
with the Corpus Callosum. In  
front the Fornix terminates in two Crura  
which arch downward to the base of  
the brain. The superior surface of  
the Fornix corresponds in the median  
line to the Septum Lucidum in front  
and to the Corpus Callosum behind.  
The Choroid Plexus is sometimes  
reflected upon the surface of the  
Fornix. The inferior surface of  
this body rests upon the Velum In-  
terpositum which separates it from  
the third ventricle, and the Optic  
Thalami, its edges are thin and  
free and are bordered by the Choroid  
Plexus. The Septum Lucidum  
is the thin lamina which separates  
the lateral ventricles from each other,  
being situated in the median line  
of the anterior, inferior portion of  
the Corpus Callosum from

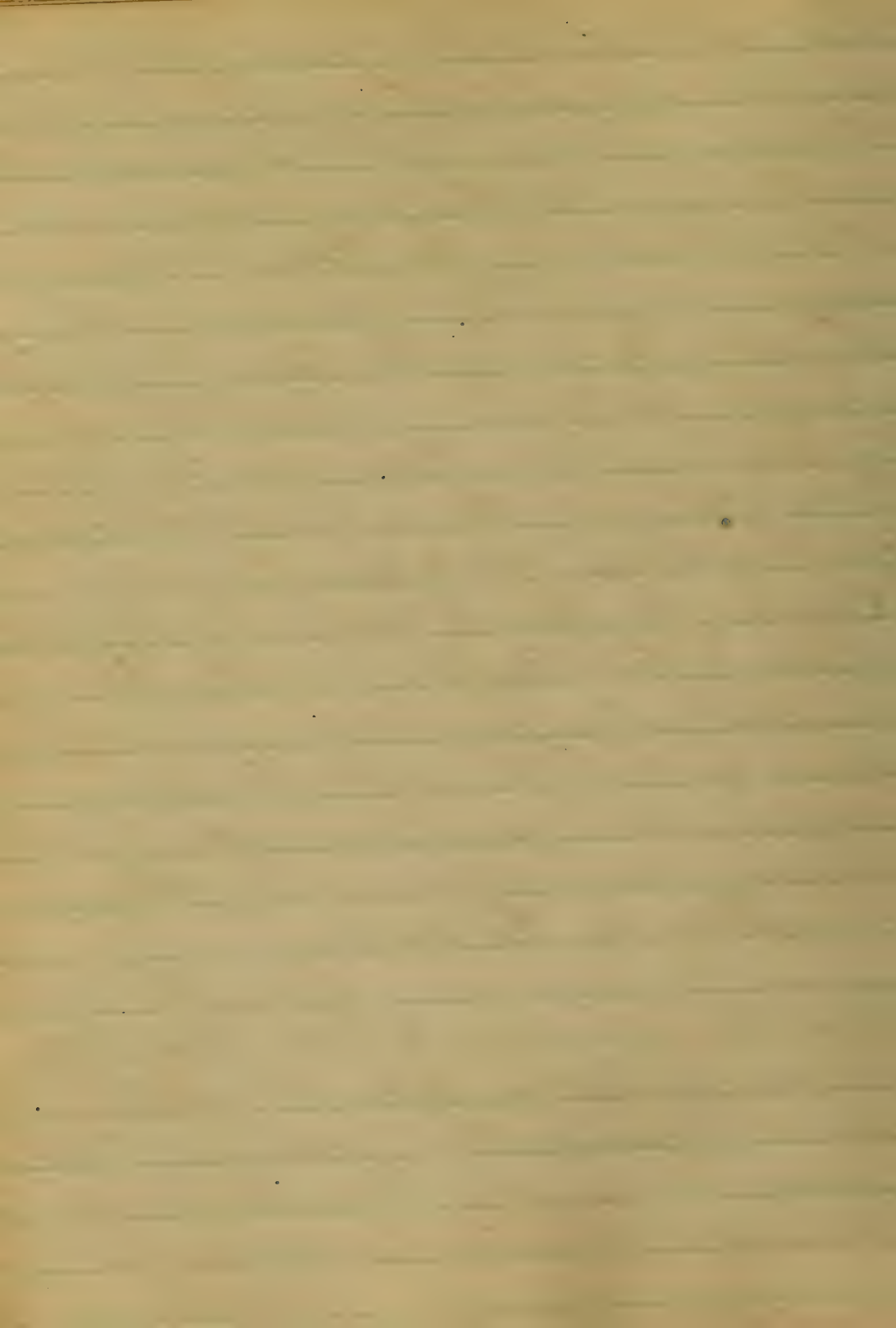


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which it extends, The cavity between these laminae is called the Fifth Ventricle. Each of the <sup>laminae of the</sup> Septum Lucidum consists of a medullary lamina, covered on the outside by the Membrane of the corresponding lateral Ventricle, and on the inner side by the Membrane of the Fifth Ventricle, The Velum

Intersitum is a vascular membrane, a prolongation of the external Pia Mater, the Superior Surface of it is covered by the Fornix, the inner surface forms ~~of~~ the roof of the third Ventricle, and corresponds on each side to the upper and inner part of the inner surface of the Optic Thalami, and adheres very closely to the Pineal Gland,

The Pineal Gland is a small reddish Gray body, of a conical form, situated in the median plane of the posterior Commissure, behind the Third Ventricle and between the two Tracts on which it rests.

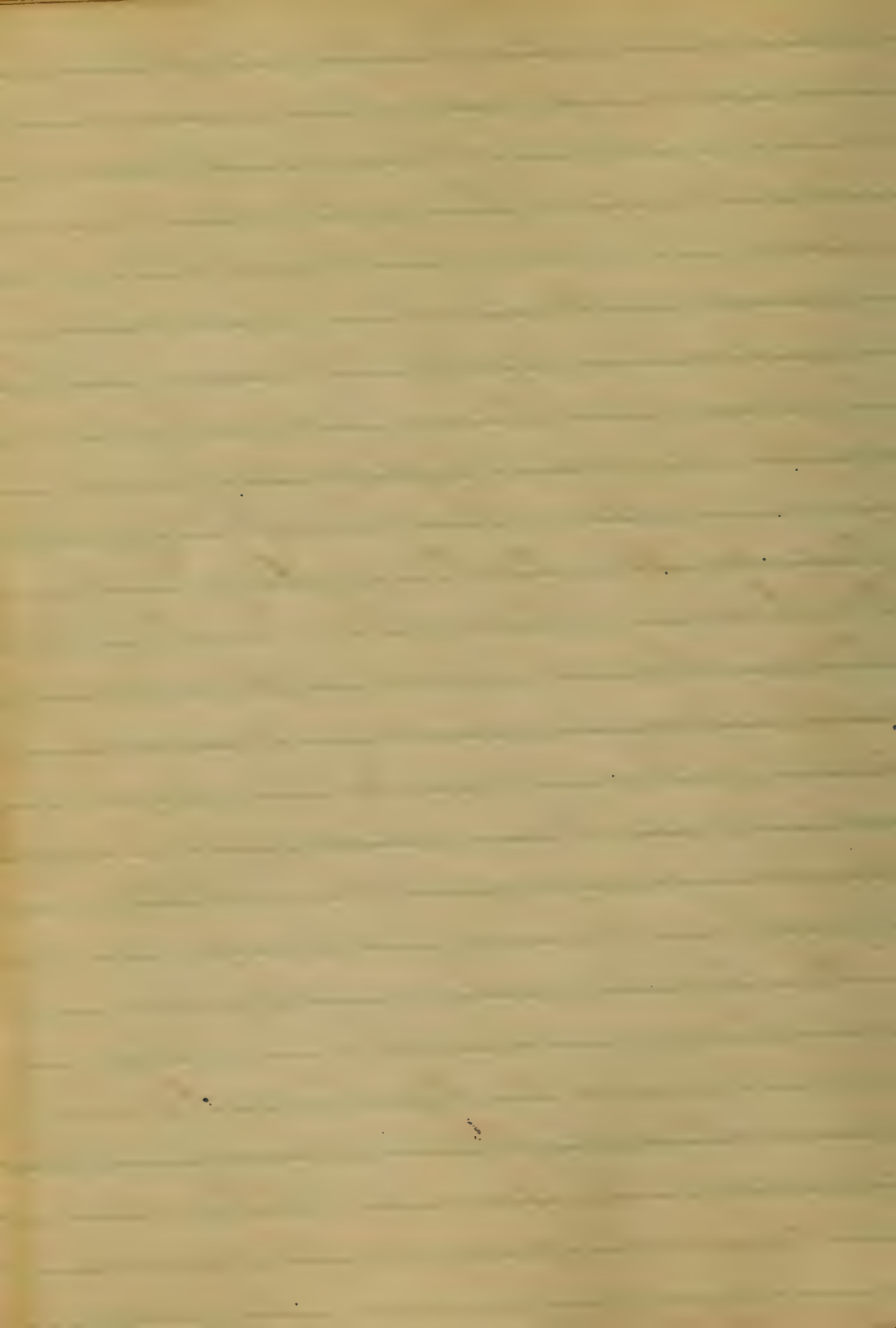




It is retained in its position by the  
 'Vellum Interpositum, below which it is  
 situated, and by which it is insu-  
 lated, it has been considered the Seat of  
 the Soul, and that it directs all the  
 movements of the body by means of  
 the peduncles of the Brain, which  
 have been considered as the Cuba-  
 macula or Reins of the Soul.

The Third Ventricle is  
 situated in the centre of the base  
 of the brain between the two optic  
 Thalami, and in front of the Corpora  
 Quadrigemina, it is a narrow  
 cavity, oblong from before back-  
 ward, It is bounded superiorly by  
 the inferior surface of the 'Vellum  
 Interpositum which is suspended  
 from the Choroid Plexus of the

ventricle. The floor of the  
 Third Ventricle is of greater extent  
 than the walls of that cavity, it is  
 concave on its superior or ventricular  
 surface, and convex on its inferior  
 surface



The Third Ventricle is crossed by  
 three Commissures; the Anterior, Middle  
 and posterior, The Anterior Commissure  
 is a rounded white cord,  
 which enters the Corpora Striata  
 at either side; the Middle or  
 Soft Commissure consists of a  
 grey substance which is continuous  
 with the Grey lining of the Ventricle;  
 it connects the adjacent sides of  
 the Thalami Opticō Anteriori;  
 the posterior Commissure is  
 smaller than the Anterior, it was  
 flattened white cord connecting  
 the Thalami Opticō posteriori,  
 The Ventricle is bounded posteriorly  
 by the Velum Interpositum, laterally  
 by the Thalami Opticō, anteriorly  
 by the Anterior Commissure and the  
 Crura of the Fornix, posteriorly by  
 the posterior Commissure.

The Corpora  
 Quadrigemina, or Optic lobes are  
 two pairs of Medullary bodies situated



behind the Optic Thalami, Posterior  
 Commissure, and beneath the posterior  
 lobe of the Corpus Callosum, The  
 anterior pair of these are gray in colour  
 and are termed The Nates, the posterior  
 pair are much smaller, and are called  
 The Testes. The Corpora Quadri-  
 gemina are perforated longitudinally  
 through their base by the Aqueduct  
 of Sylvius, Their substance is med-  
 ullary externally, and gray & cerebral  
 internally.

The Fourth ventricle is  
 more properly speaking a ventricle  
 of the cerebellum than of the cerebrum.

It is situated between the Pons  
 Varolii, cerebellum and the Trulla  
 oblongata, It is lozenge in shape  
 and form, and is bounded on each  
 side by a thick cord extending between  
 the cerebellum and the Corpora Quadri-  
 gemina, and by the Corpora Testifera.

The floor of the Fourth ventricle is  
 formed by the Calamus Scriptorius, an



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Its roof is the valve of the brain,  
The Fifth Ventricle is that cavity  
situated between the two thin laminae  
of the Septum Saccatum, the opinion  
whether this Ventricle communicates  
with the other ventricles is not un-  
determined, the Corpora Albicantia  
are two small white pisiiform, like  
bodies, having the shape and size  
of peas, they are situated between  
the Tuberculum and the Crus  
Cerebri, they form a part of the  
Crura Cerebri,

The Crus Cerebri  
or peduncles of the Cerebrum are  
two thick white cords which issue  
from the anterior border of the Pons  
Varolii and diverge to enter the  
Corpora Striata.

The Cerebrum also  
gives Origin to four of the twelve pair  
of Cranial Nerves, viz; the first,  
second, third and fourth, they  
arise as follows; the first or Olfactory





have risen by three roots. An inner, from  
the posterior part of the Anterior Lobe,  
a middle one, from the Gray Matter of  
the Middle Lobe, an external or long  
root also from the middle lobe.

The second pair or Optic nerve  
rises from the Corpora Geniculata,  
the Chalamus Opticus, and from  
the Corpora Quadrigemina. The  
third pair or Motorus Oculorum  
rises from the Curva Cerebri near  
the Pons Varolii. The fourth pair  
or the Pathetic rises from the Anter-  
ior portion of the Corpora Quadrigemina.

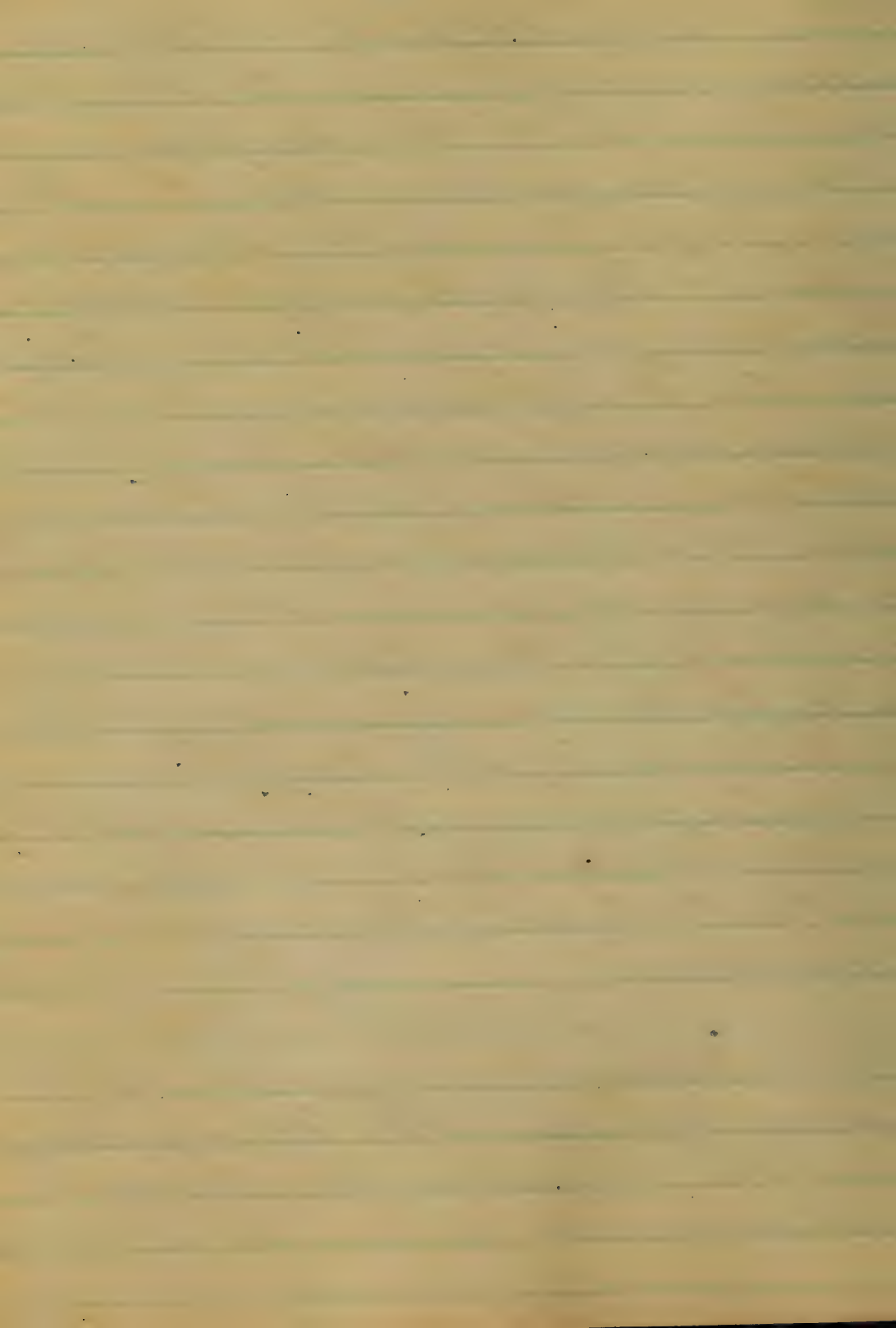
Finally, the Cerebrum  
considered on the whole is that por-  
tion of the nervous Centres which is  
evidently in Man the most predominant  
Characteristic Organ of his whole Corp-  
oreal frame. It is also the instrument  
of all the psychical operations  
and the Originator of all those move-  
ments which could not be assigned  
to the reflex action of the Spinal Cord



It is also the organ of intelligence  
as well as the seat of the mental  
functions, and in the Hemisphere  
resides the power of directing the  
mind to particular sensorial im-  
pressions. The portion of the hemi-  
sphere that possesses these elevated  
powers are the convolutions. The object  
of these convolutions is to afford  
as extensive a surface of brain  
matter in as small a space as possible.  
By this arrangement a more ready  
access is permitted to the blood ves-  
sels on the one hand, and on the other  
with the vast number of fibres by  
which its influence is to be propagated.

The Crura Cerebri are the princi-  
pal conductors of impressions to  
the cerebrum.

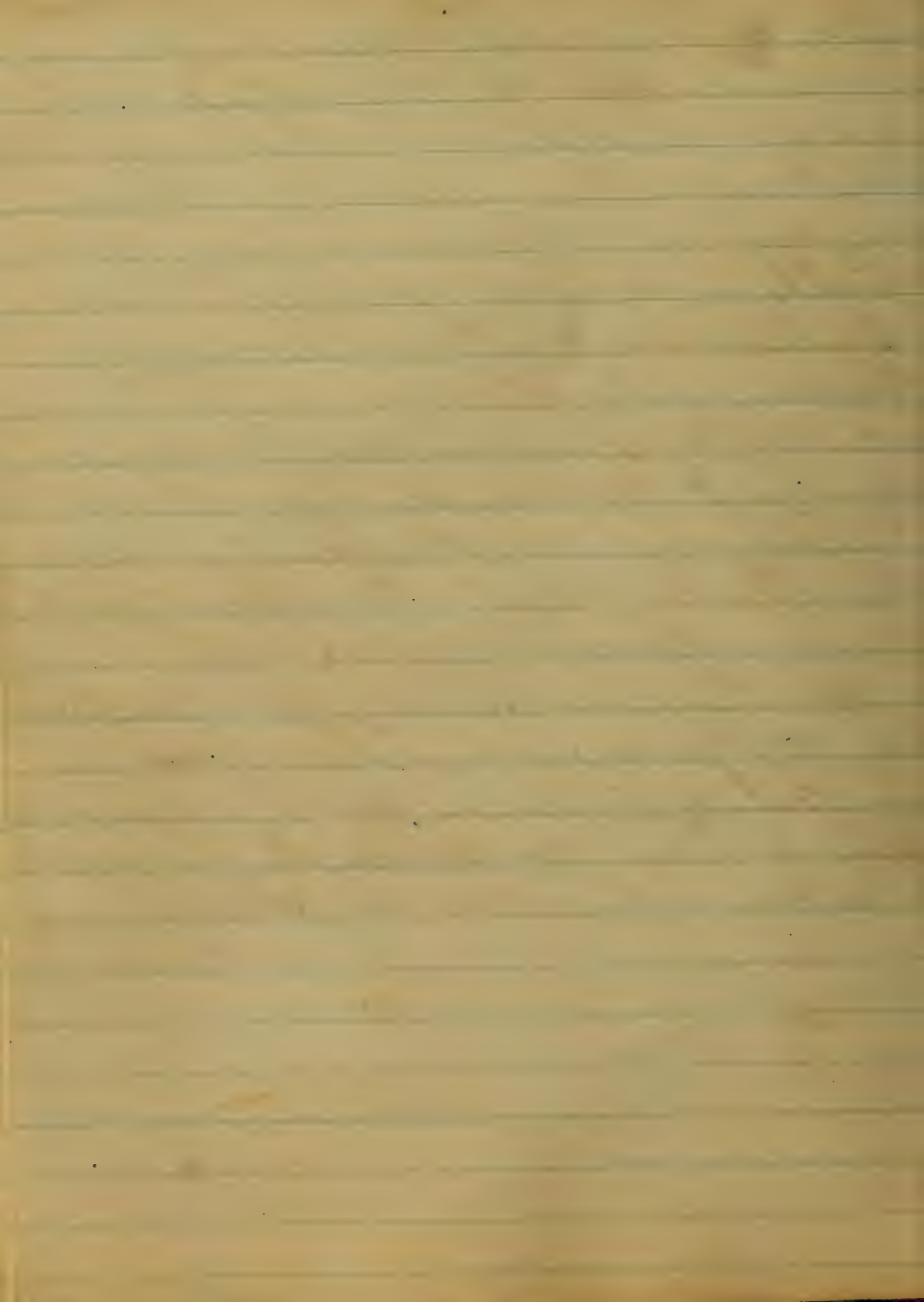
The functions of the  
Cerebral Hemisphere upon the whole  
are those by which the mind first  
receives those clear and more impressive  
sensations which it can retain and



judge accordingly. Secondly, but not  
those acts by will, each of which  
requires a deliberate, human, quick,  
determination. Thirdly, retains  
impressions of sensible things, and  
reproduces them in subjective sen-  
sations and ideas. Fourthly,  
manifests itself in its higher and  
peculiar human emotions, and  
feelings, and in its faculties of  
judgement, understanding, memory,  
reflection, induction, imagination  
and others of like class.

The Cerebral hemispheres are thus  
the organs in, and through which  
the mind acts in all its operations,  
which have an immediate relation  
to external and sensible things,

Finis.



AN

Inaugural Dissertation

ON

*Influenza*

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

**PHYSIC,**

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

*Doctor of Medicine,*

by

*John S. Jackson*

of

*Baltimore, Md.*

Session

18 3 66





The English name has been known  
to the earliest writers to whom we have  
access; yet from a variety of forms the  
most prominent symptom it has received  
a great many different names and has ever  
been considered a new disease. Among the writers  
from Hippocrates to Andrius we  
have been generally known, although under  
different titles. The Greeks gave it the name  
Antheza, the Latins, taking the cause  
for the effect. Cullen, in his *Medicine*, calls  
it *Cataractus Oculi*, *Cataract* from *Catagium*.  
Hippocrates calls it *Sebis lacrimans*, *epidemica*  
*epidemic cataract*. Galen calls it  
Hippocratica *Stasis Epidemica*, *epidemic*  
*Cong.* The French give it the name *Grippe*.  
I would not that this disease  
was mentioned by Cullen, as the records



no such perfect accounts before, and  
as the disease scarcely escaped the most distant  
that the records is not in a very suppl.  
But again other of the most cut we, and  
there are the con equ of the same disease. I do not mean  
the same disease. I do not mean the same disease,  
the season was cont. the same as in  
like summer, till toward the end of October,  
and being suddenly succeeded by cold and moist  
weather; a cough became more frequent than  
I remember to have known it at any other  
time; for it scarce sufficed any one to escape, and  
sized whole families at once. From the  
it is evident that it was an epidemic; for the words  
'scarce sufficed any one to escape' are the best  
evidence of this; and further evidence is  
the epidemic cough; and as we know that



to suppose a new epidemic, it is additional  
 proof that it is the same as that which  
 I have seen. The origin of it is plain & however  
 indubitable from that the Plague Epidemic,  
 and the number of deaths is a criterion of  
 same disease.

Dr. Grant in a letter to Dr. Keating, writes  
 to have care that all the symptoms,  
 progress, and termination of the disease, and  
 finds the comparison to be so near that it is  
 described by the English Physicians as being  
 "in a remarkable manner as to subject &  
 admission." "I fear you & your learned says!

"I fear the disease is the same as that which  
 a contagion which was more epidemic than any  
 had hitherto observed; for it is so, all the  
 symptoms are the same." "I fear you & your learned says!  
 it cough & coryza, and the symptoms are



not considerable, but after it was a trifle eased  
in some measure. In that form, however,  
of the expectoration, the violence of the cough,  
and the duration of the cough, it is  
greater to resemble the common cough of the  
child; or, at least, it is not so severe; but it  
was attended with a fever, and its usual  
concomitants, in which particular it  
resembles the convulsive cough, - for I never knew  
accompanied by these symptoms. These  
coughs are common at the beginning of  
winter, and more frequent in the  
so very frequent and severe.

Occasionally, it is attended with  
it has crossed the air, and from the  
to the lower part, and the patient is  
in the lower part of the chest; and



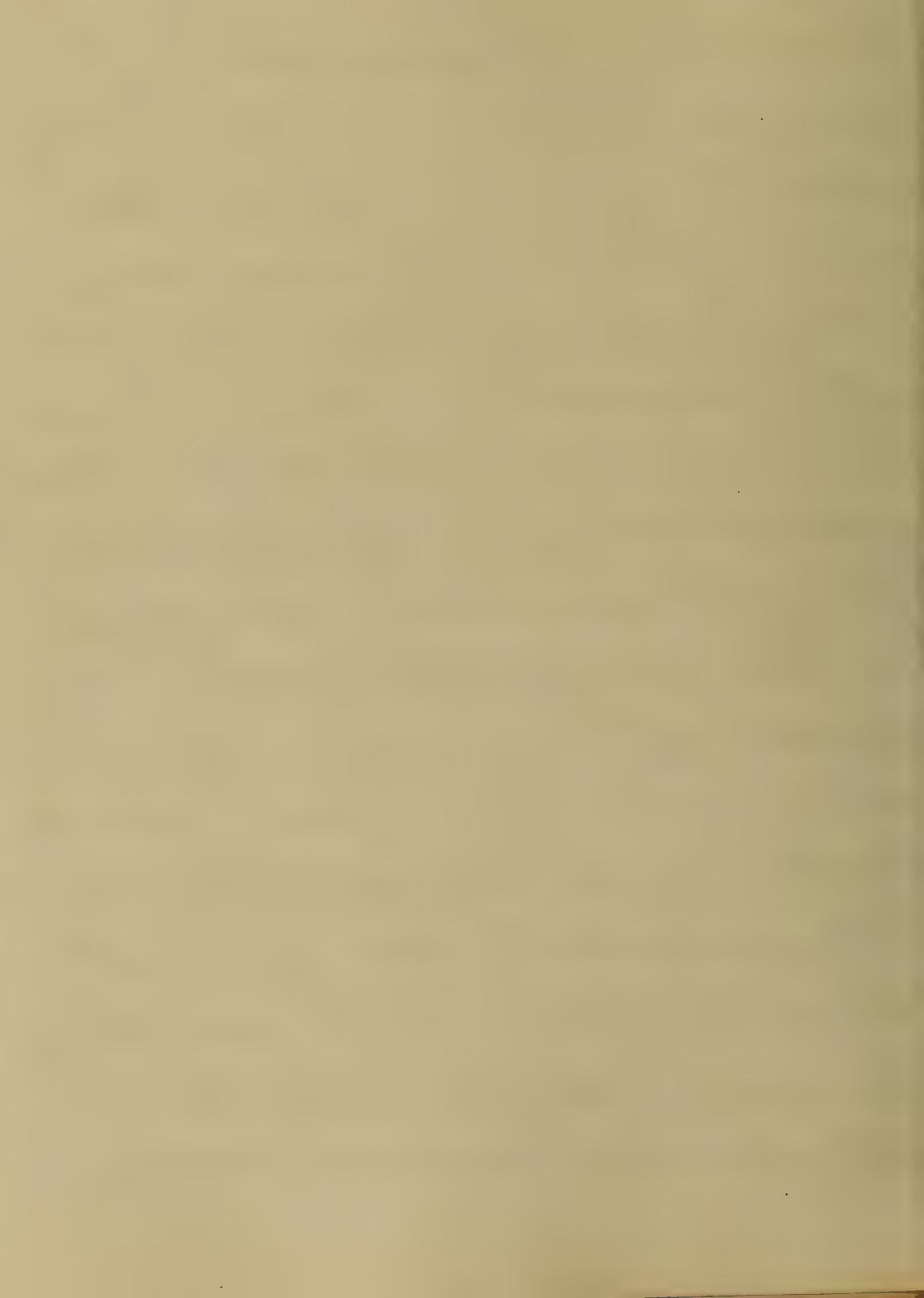


and crews of ships, or birds of an common kind  
 with them have been infected. It  
 has traversed the globe a considerable  
 distance, and has been found upon  
 upon towns and cities, and sometimes almost  
 the whole population have been  
 with it; and sometimes even in distant  
 a have been carried back at it in  
 the respect to be less frequent to be  
 that has been a late result to be  
 the cause of cholera; and the  
 has been regarded as more frequent to be  
 will may be reached in the latter  
 one; while more than one half of the  
 attacked in Chera had it, not more  
 than two percent died in the latter.



# History of the Disease.

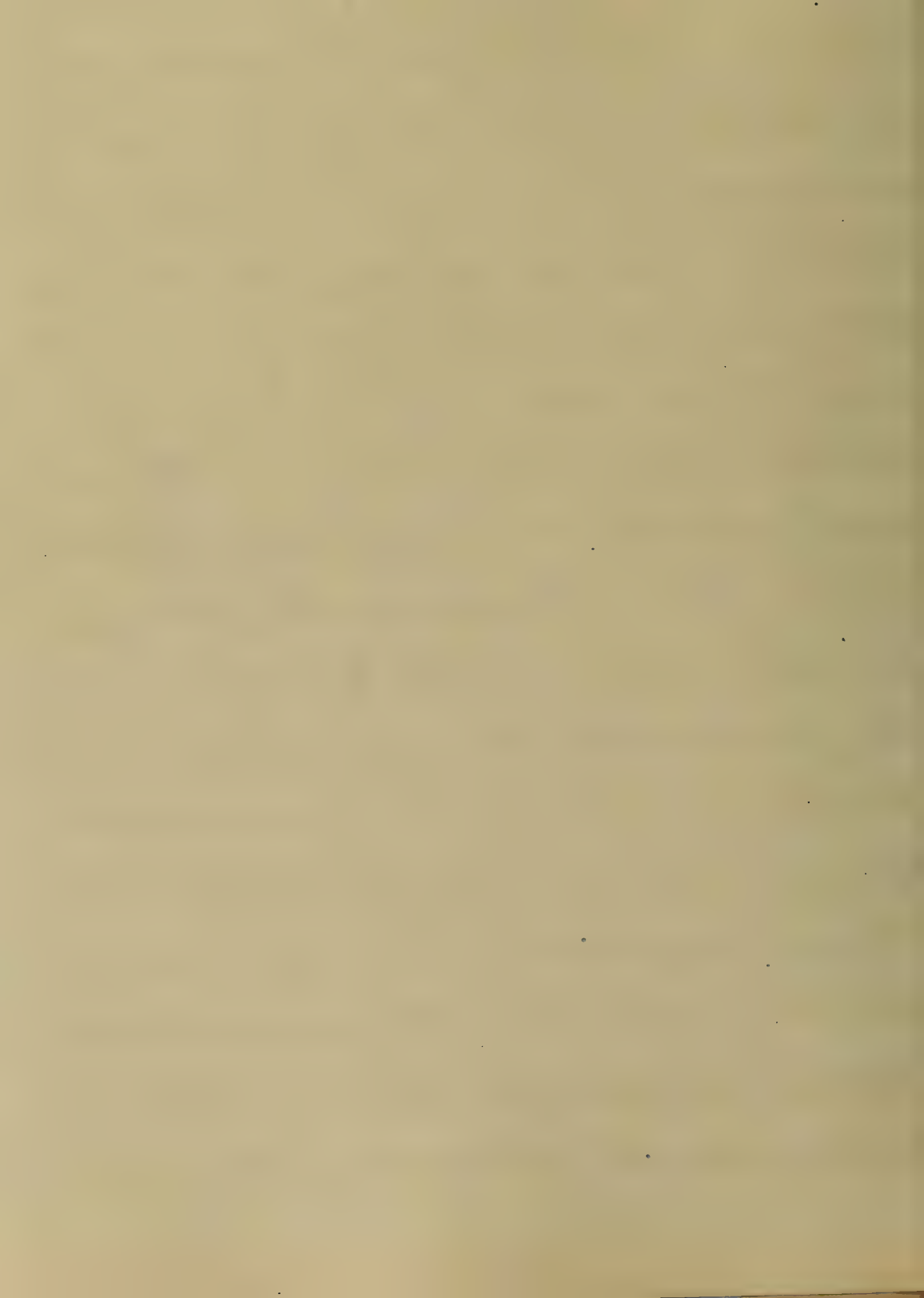
in first epidemic, or which we have any  
reliable medical record was in 1810  
since then there have been recorded fifteen  
epidemics up to 1837. It seems to have  
been very rare in the United States,  
some cases remaining in the country  
after it is diagnosed, and some in  
progress in remote parts, but in ten  
years by the disease it has been five or  
six epidemics since 1837, or in 1838  
one in a spring of 1838, or in 1839,  
in Europe's afflictions were the most  
inhabited, and proved fatal to many.  
A description of this disorder can be  
found by the epidemic that was first  
summer, and beginning of the autumn of the  
year 1789. In the year 1837, the  
first appearance of the disease in



previous to which, and for some weeks after,  
the weather was dry, calm, and clear. The  
common cause of this disease is  
and usually, with a cold in the head;  
an acute pain in the head and eyes;  
and not being attended by a considerable  
on the head; and in some cases  
ing larva. Some are not attended by  
sore throat ushered in the disease in  
some; while in others it commenced with  
the swelling of the membrane of the  
the nose, followed by a discharge;  
sometimes there is a discharge from  
as in a case mentioned by Dr. Keil, in  
which the discharge from the nose  
occurred; - sore throat sometimes accompanied  
the disorder, and also a cold in the chest  
was affected with acute pain, and a

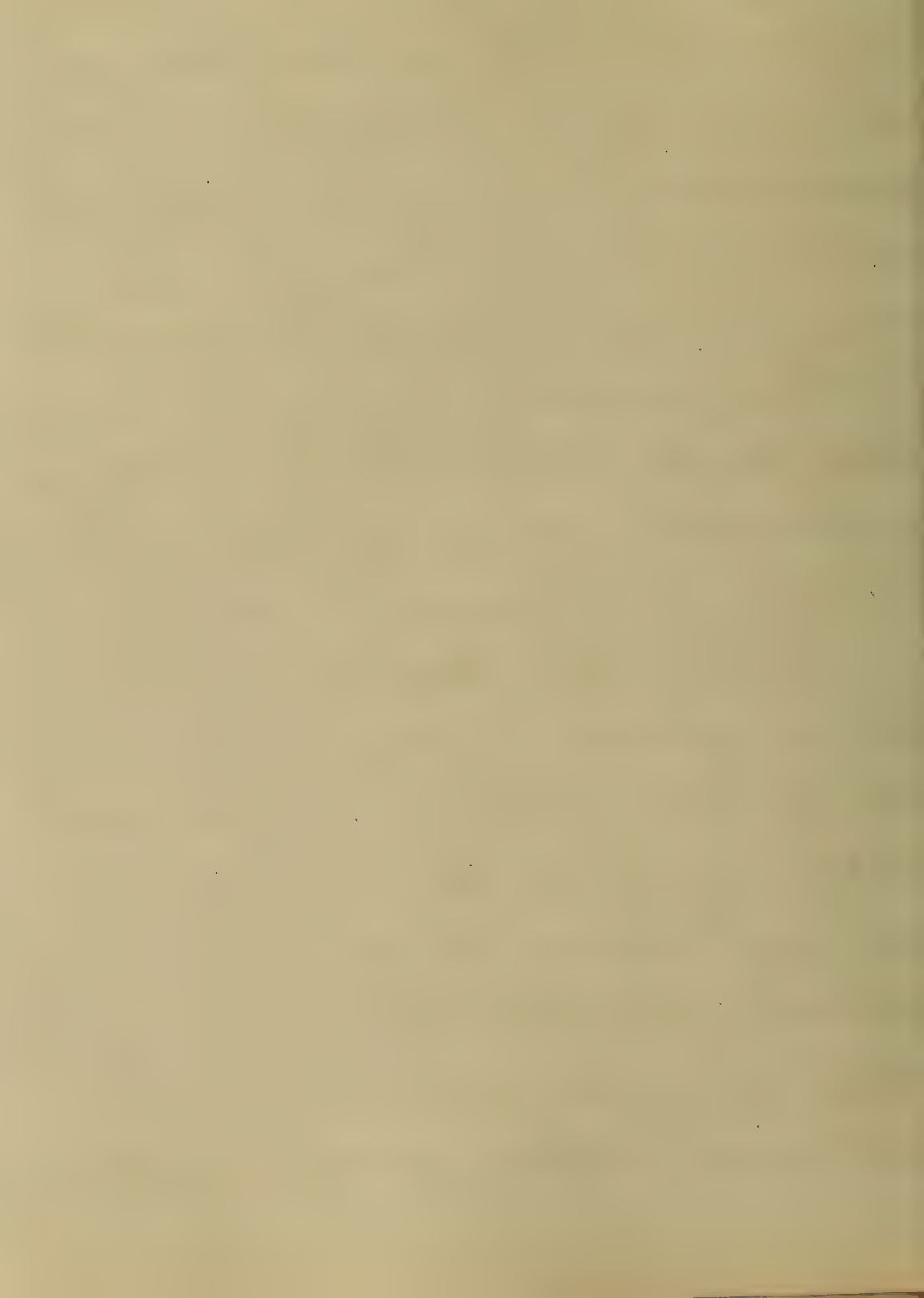


cough invariably attended with a serous  
effusion in the chest; in some cases  
the stoma-  
na and vomiting. Some cases die  
upon the bowels, and find  
although the pulse was  
or regular. The violent pains in the limbs  
remitted from a  
sweat over the whole body, general  
at some point in the disease. The pulse  
sometimes tense, and quick, but seldom full.  
The fever remitted to be  
but the cough continued several weeks  
after every other symptom had disappeared.  
The most remarkable circumstances  
the disease were the millars and small  
eruptions that accompanied  
tendency to the  
disease





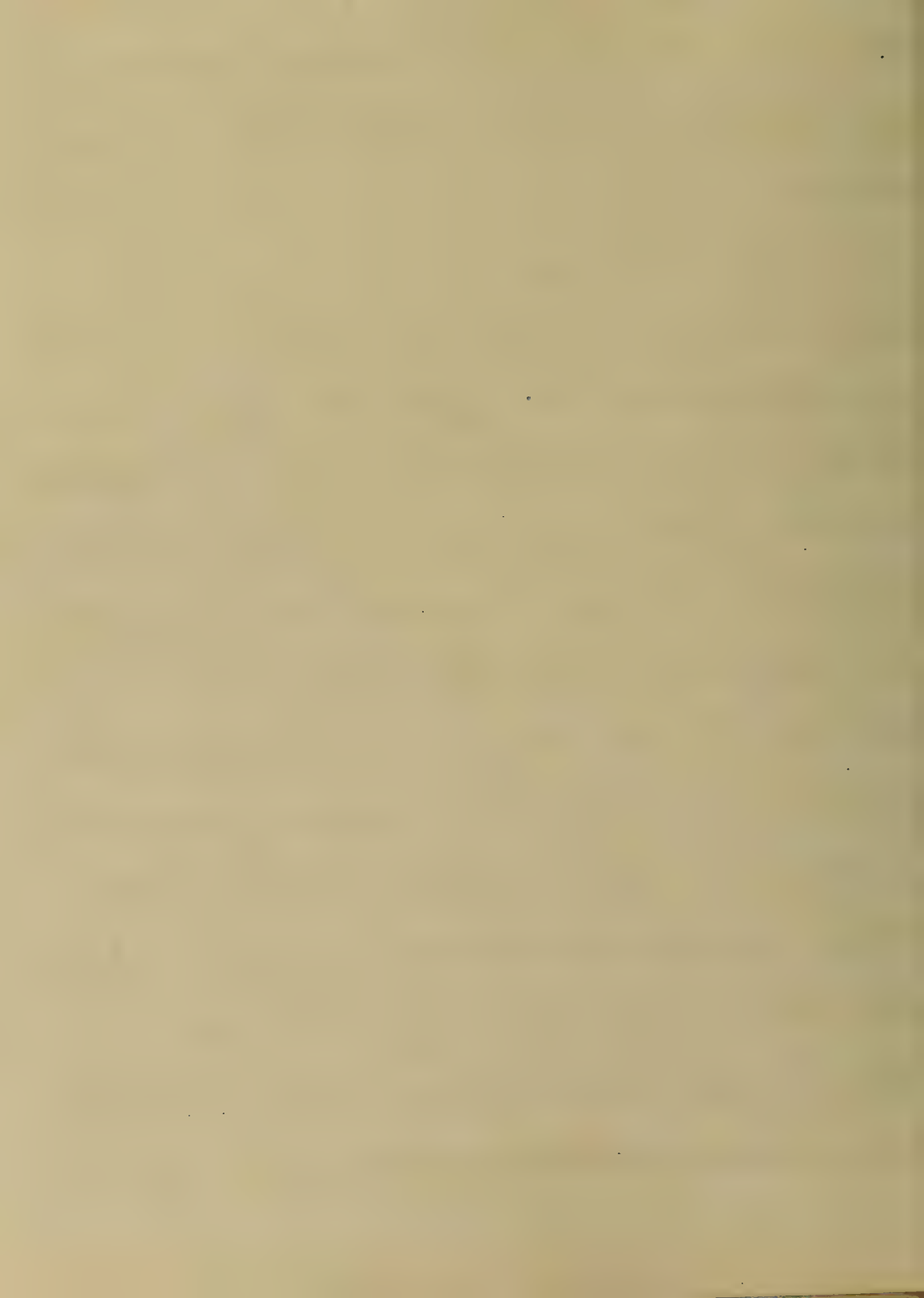
in a Syphus. All these I have collected,  
 as general as to the position they in  
 the middle part of the eye. I have  
 attached them to the outdoor in  
 the case of the air in the  
 door. I have attached the vigorous constitution  
 of the eye and the air in the  
 Persons were known to be that record, and even  
 a short attack of the disease. It occurred  
 in the case in a few, and in the case of  
 in a large number. It could be seen  
 in an open air or in a room, but  
 in the lower air. It was seen in  
 as horses, dogs &c. It has been  
 and have account of the disease in the  
 following observation "That it exists  
 independent of any quantity of air,  
 and in all known weather; and that



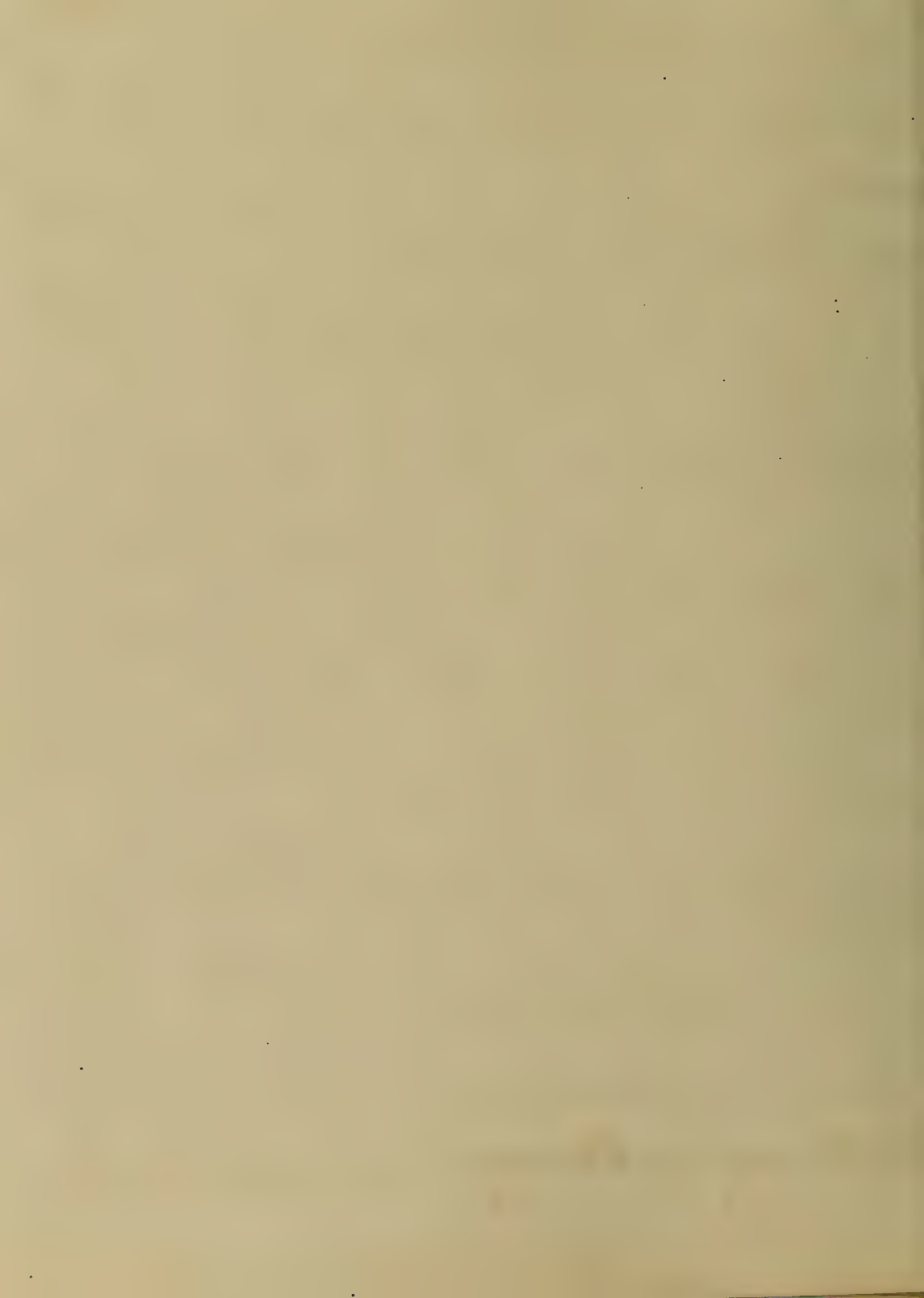
the disease spreads in a contagious  
through a country, and affects the great number  
of people of any district in the world in a single  
time."

### Cause.

Hippocrates, when speaking of epidemics in general,  
says, "When many diseases are seen to prevail  
at the same time, the cause is in general to be  
looked for in the air, which is most common to all, and made  
unwholesome, not only by the quality of the  
air we breathe. Galen is of the same  
opinion "It is not," he says, "in a certain way, and  
at the same time to other causes, nor subject  
to many alterations, for the air  
alone surrounds us, and is taken in by us."  
That the principal cause of Influenza is  
chiefly to be found in some condition of the  
air is rendered doubly probable by the fact

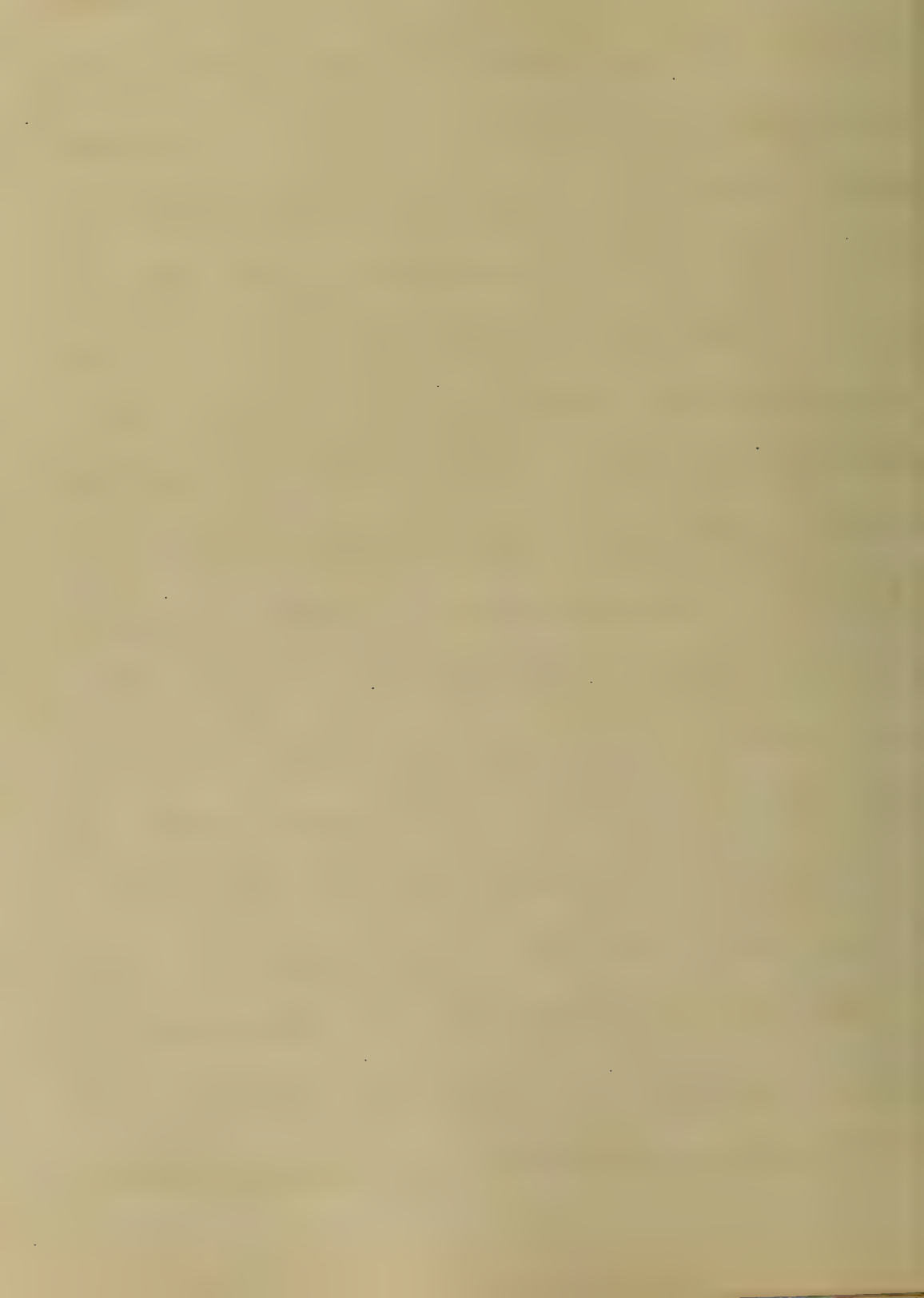






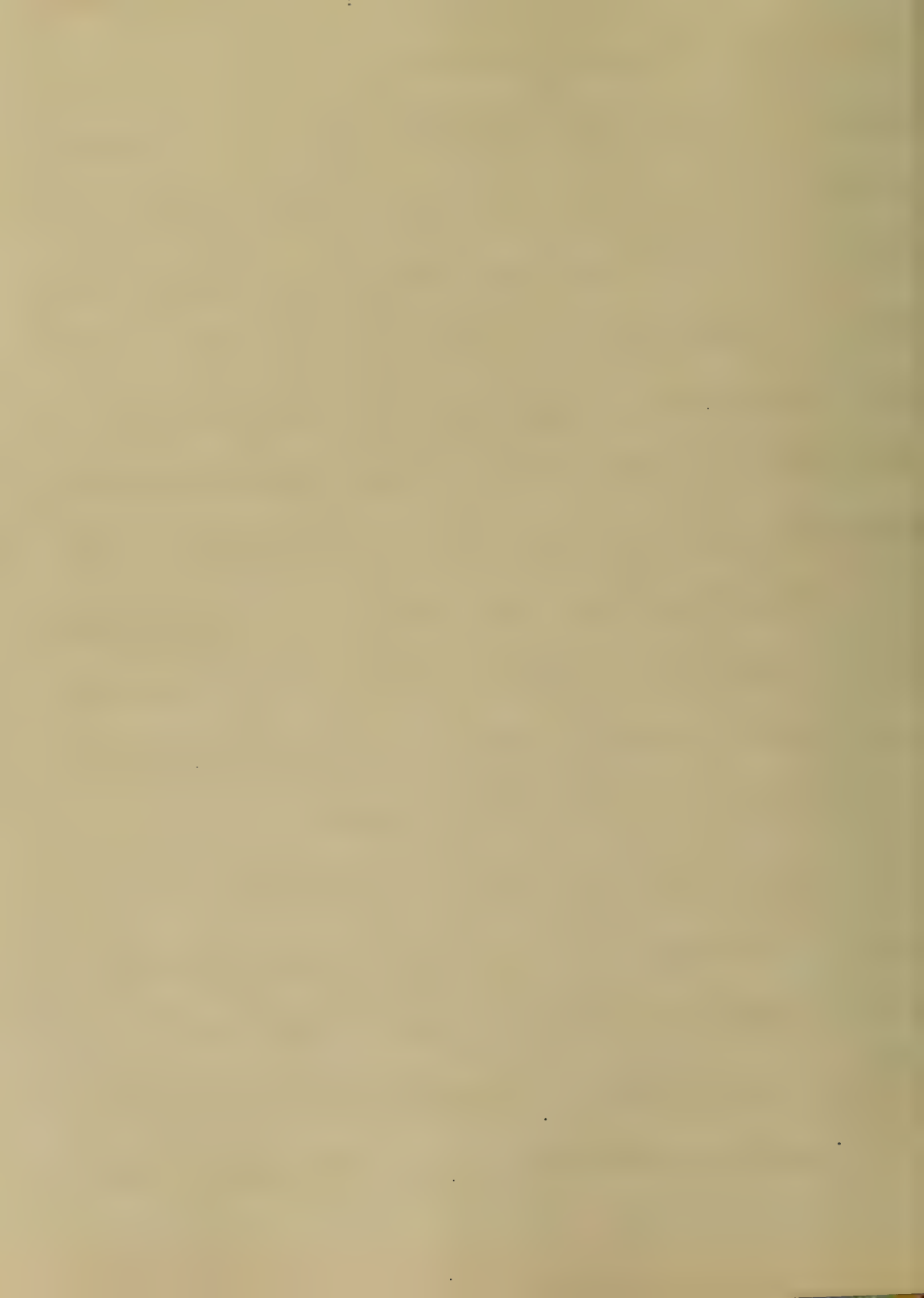
we are told "that a continuous darkness, and  
particular other phenomena appeared in the  
atmosphere of the ...  
sun". Dr. Darwin in his ... in 1784, the  
sun was for ...  
and appeared as ...  
according to him "the material which thus  
rendered the air muddy probably caused the  
epidemic catarrh which prevailed in that year.

Cullen makes this species of catarrh proceed  
from condensation of water ...  
and says, "that it is a great deal too sudden,  
and so widely spread to be capable of ...  
in the ...  
disease may not be ...  
for these reasons he believes that ...  
disorders, having ...  
the influenza, are ...





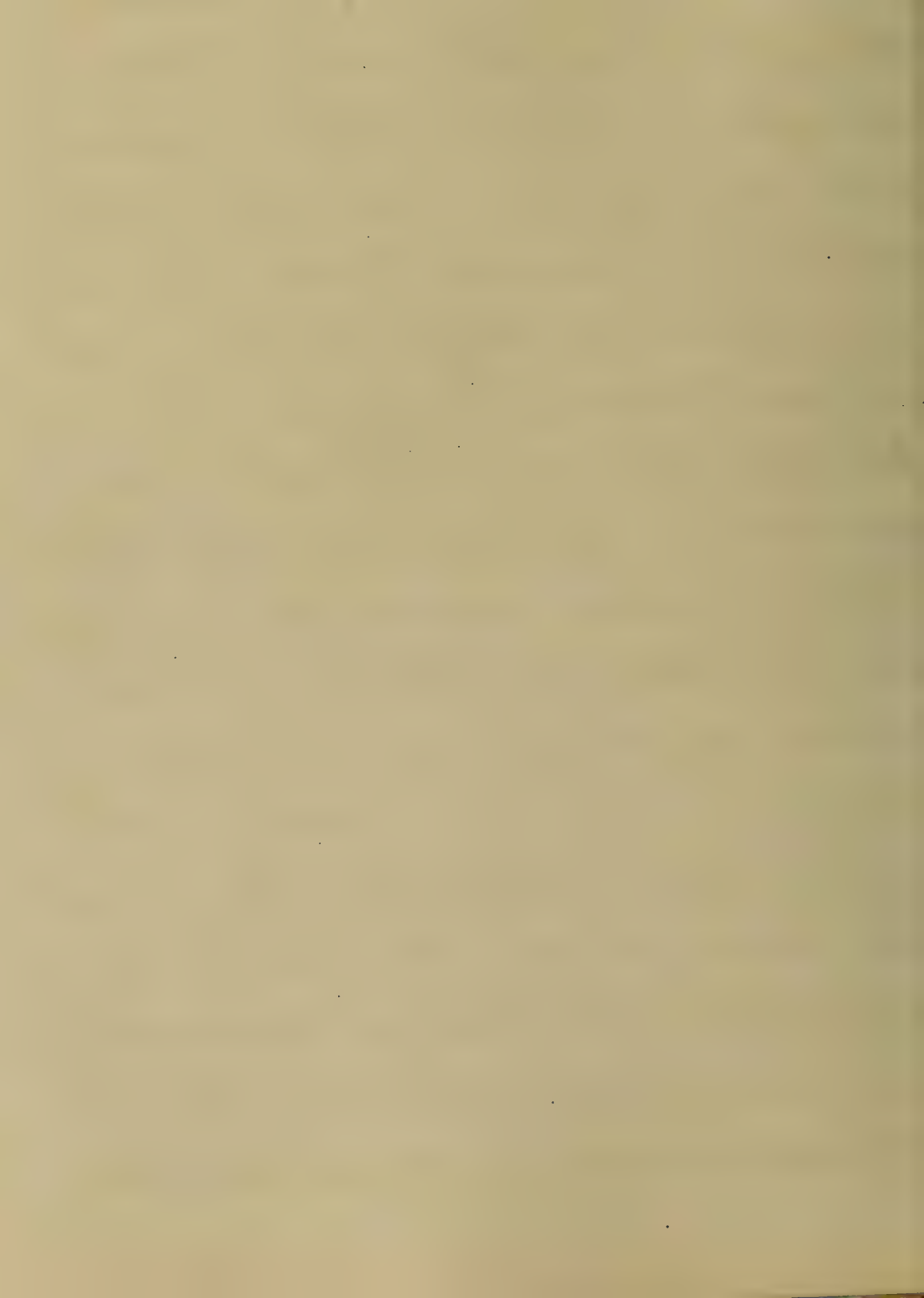
it is a disease which is not  
 as a general rule, it is not  
 received in the "Globe" - and the  
 disease may be proved by the following facts,  
 - we are told that in the year 1817,  
 the "Globe" sailed from India  
 spread a very bad disease,  
 the "Globe" was in India, where were  
 attacked with the disease of  
 the month; the rest were affected with this epidemic  
 at a very early time, and so many were rendered  
 unable by the disorder, that the whole squadron  
 was obliged to return to the coast of  
 India; and it is said that during  
 during this time, and having cruised solely  
 between Brest and the Azores. In the  
 of it in the same year, Lord Howe sailed for  
 the Azores, with a large fleet, and on



... (about the ... ) in summer ...  
... two days after ... the Prince of Meia ...  
... with the land, - therefore it could not be  
conclusion that causes this disease.

... by a change in the electric condition of the air ...  
... large veils, clouds in a state of negative electricity  
... have been observed just before the ...  
... thunder storms, and tumults in  
the air have occurred ...

Sudden thaws are said to have been a cause,  
and sudden reductions, or elevations of the  
temperature are considered as a cause. A coincidence  
of the elevation of the temperature ...  
St. Petersburg 1792, ...



the "Influenza" by this is a cause,  
with the "Influenza". By this is a cause,  
with the "Influenza". By this is a cause,

or rise, or fall of the thermometer;  
or rise, or fall of the thermometer;

"Et tenet per se in se, et flatur  
sam Austro quam Borea, - pulvisco et sereno  
cous, peragravit, hanc omni Europae regionem  
Aomnia loca undam valen." (Climatologia)

is a undue amount of ozone  
i.e. oxygen in an atropic state, in the air;

Dr. Vonbein called attention to this first;  
with the ozone in the air, the

properties, the ozone in the air, the  
of the patient, the ozone in the air, the

or of asthma with a violent cough, -  
wrought the ozone in the air, the

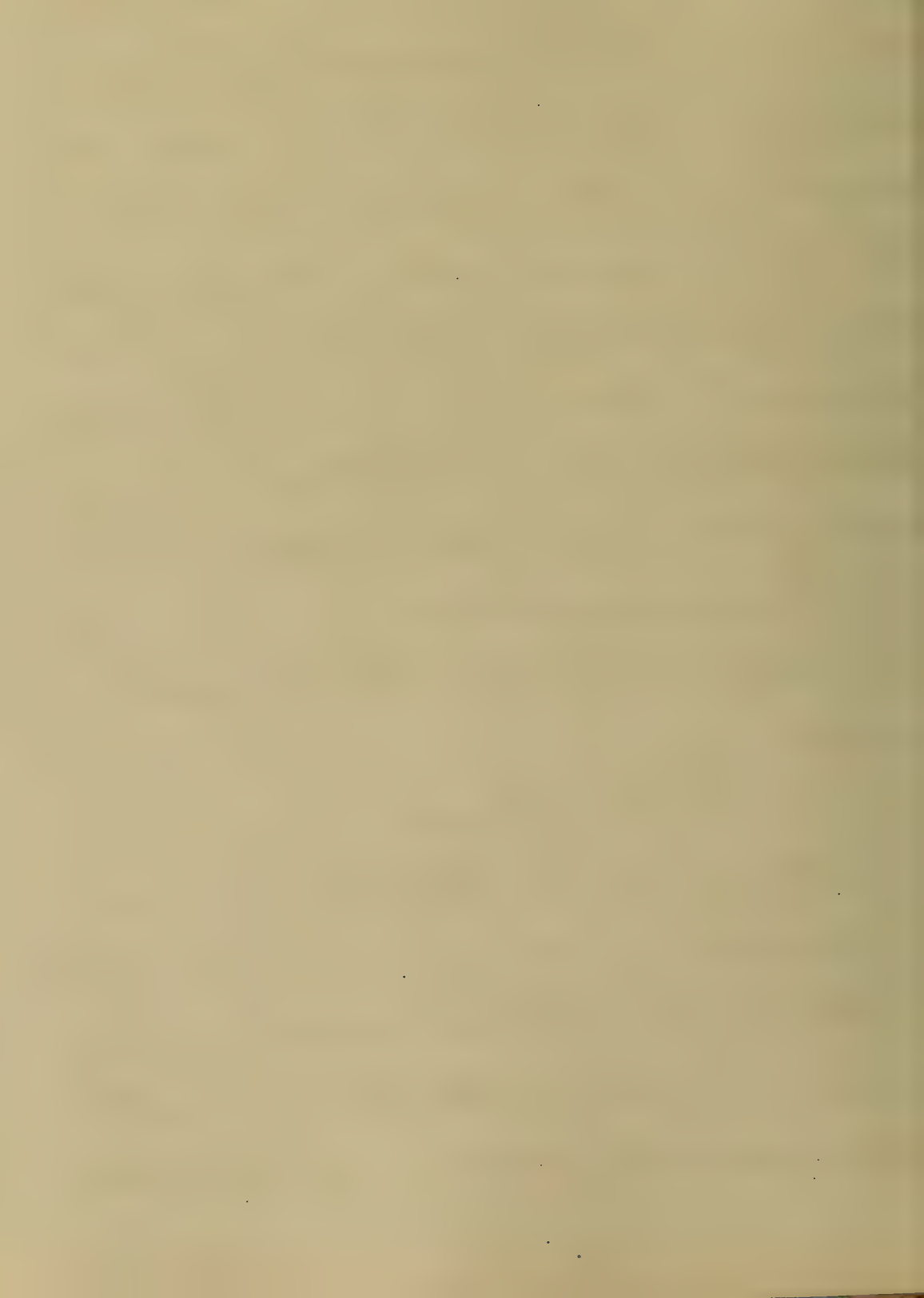


considered the list of catarrhal patients, of  
physicians, and both he and they were  
struck at once by the occurrence of an unusual  
number of catarrhal cases on the day, when  
his list for the day showed a large  
amount of cases. It is also  
thought highly of this hypothesis.

The predisposing cause is some morbid  
tendency, or constitutional disorder.  
The proximate cause is the inflammation  
itself.

### Sinusitis.

Influenza is not likely to be confounded  
with other diseases. It is a common  
is the mark of influenza. It is  
common catarrh. Sometimes it may be  
taken for a long time, or even

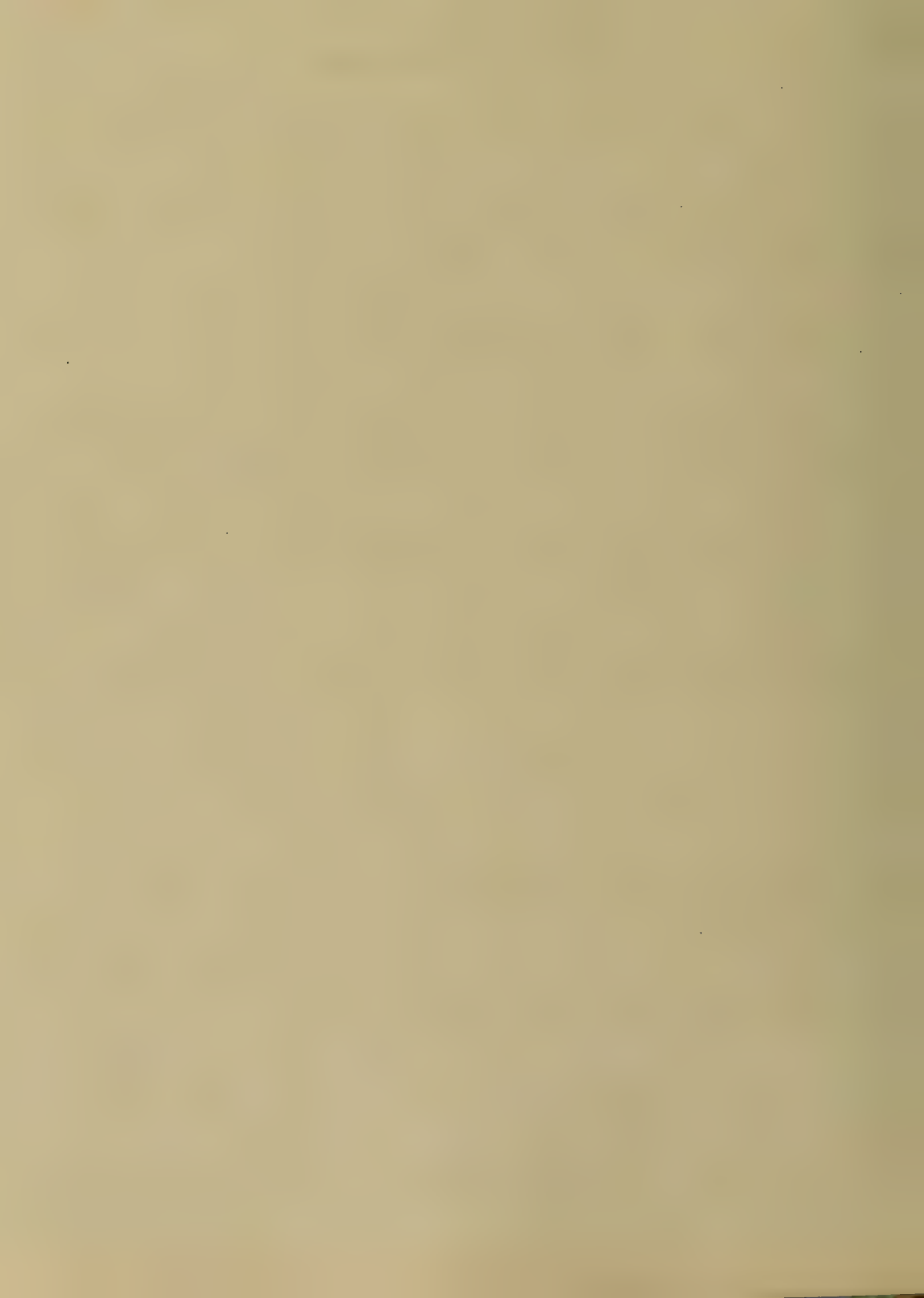




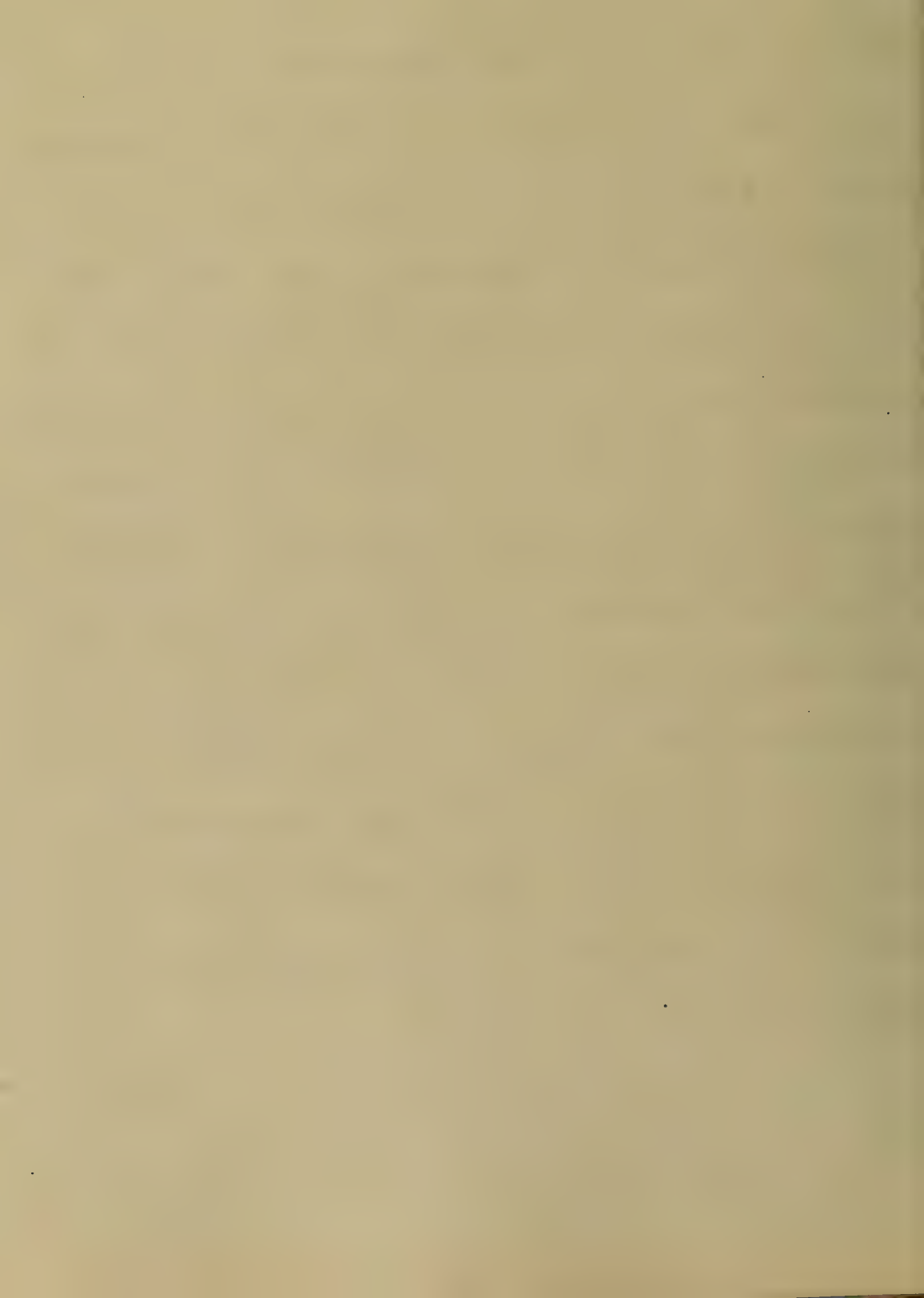
of the debility, which often attends it;  
 but the head symptoms are wanting  
 in some disorders; and general visceral  
 symptoms are wanting in it or  
 Typhus. It is a disease  
 of eruption distinguished from measles,  
 or small pox. Sometimes it appears under  
 the description of scarlatina, and is  
 more difficult to diagnose.

### Symptoms.

This disorder is attended with  
 a general cold, with a watery  
 discharge from the nose, and  
 a sore throat, which is attended with  
 a difficulty, which attends this disease. It  
 usually comes on with a feeling of  
 uneasiness and lassitude, and some have a  
 soreness along the spine.



The ...  
The skin is dry at first and afterward becomes moist. Deduction is performed with ...  
... always ...  
...  
and we have cough, expectoration, and dyspnoea.  
...  
viae, and we have ...  
...  
... diarrhoea. ...  
... or four days, the cough and debility  
...  
out in a week from the commencement of  
...



It is generally favourable except in the very young, and the very old; in whom it is liable to become purulent, or capna. morichites. It is also more fatal to the male sex.

Treatment.

It is treated as that of common catarrh in com. In account of the debility which attends it, bleeding and active purgation are not to be used.

Dr. Short says that bleeding and purgatives prove decidedly beneficial. In 1753, 2000 persons were cured with the use of bleed. In 1785 Devertees says the same was omitted not more



is one in a thousand died, and add

*Experientia enim hoc comprobavit, omnes*

*quosdamque, quibus haec experientia*

*inducitur, non solum a se ipsis*

*sed et a multis aliis, quibus haec*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*

*occurrit, et quibus haec experientia*





when administered "to the  
"occasional use of the  
"occasional use of the"

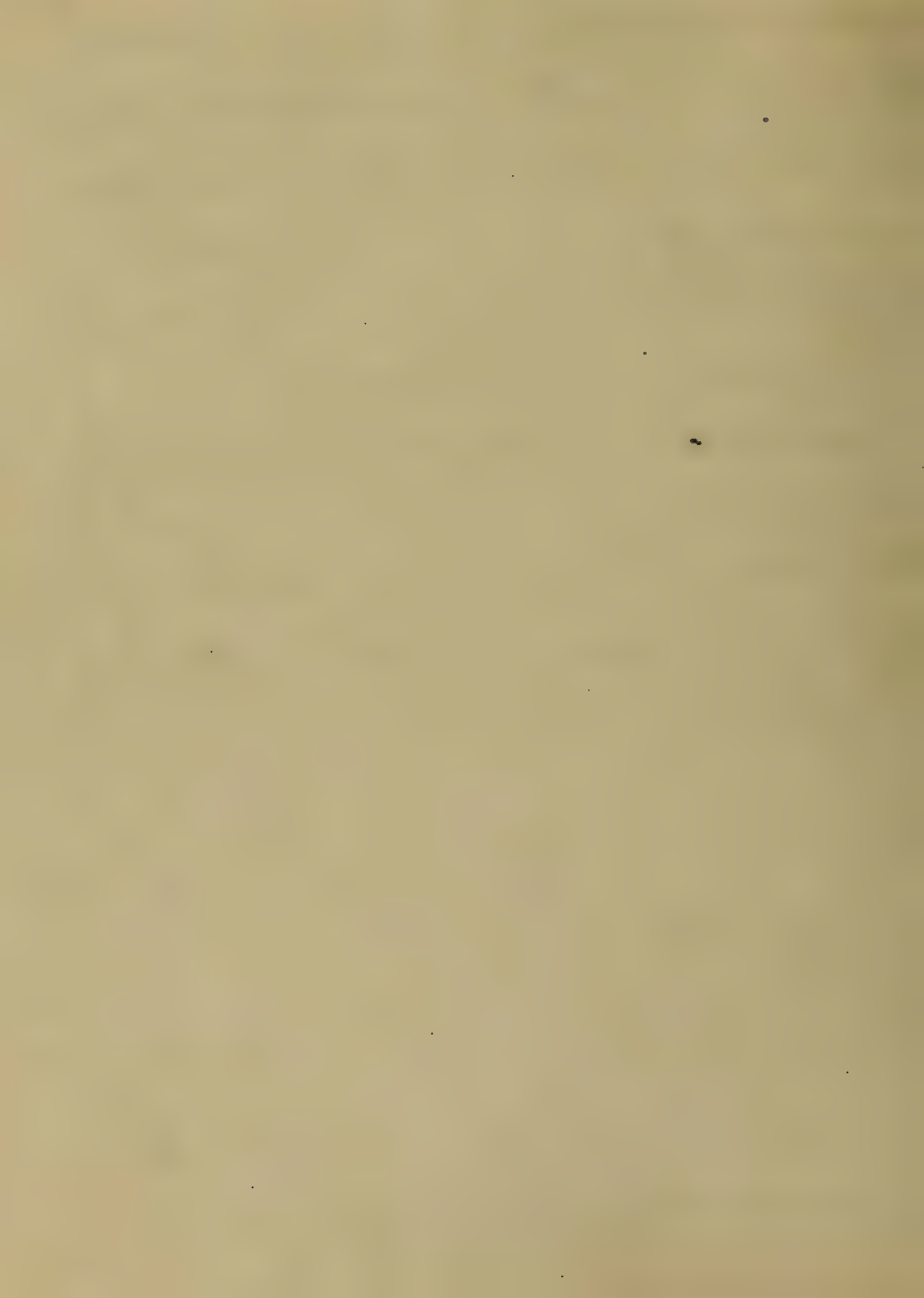
! Thomas Savies commends the use of Venus  
in medicine, he gives it till it makes the  
yms tender, but not enough to saliva;  
and with the use of the  
is more used to be placed  
with the use of the

"The best plan of management, says he, is  
to give the patient  
over his bowels by two or three grains of Calomel,  
followed by a mixture of  
of name. ~~For the use of the~~  
with a saline draught, ~~the~~  
being the diet ~~the~~; and  
it can be treated as  
laborious, and ~~the~~,



subtilis, & astringens. It is a ...  
...  
and diuretic. It is ...  
...  
of a drachm of oreganum of squills, - a drachm  
of sweet spirit of vitæ, - and ...  
another drachm of peregoric, in almond  
emulsion."

It is used ...  
...  
an ...



AN  
Inaugural Dissertation  
ON  
*Cholera.*

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  
*Carter Berkeley,*  
of

*Virginia*

Session of 1865 and 1866.



Asiatic Cholera India Cholera, Asiatic  
Cholera, Malignant Cholera, and Cholera  
Asphyxia, are some of the Synonyms employed  
by authors to express the terrible scourge of which  
I purpose writing. I have Chosen Asiatic Cholera  
(for this is the most commonly accepted title for it,)  
not thinking to advance any original ideas con-  
-cerning the nature of the disease, or with a view  
of making any suggestions to the profession or  
public in regard to the treatment of it, But  
simply to show that I have made it a special  
subject of study, and have tried to acquaint  
myself thoroughly with it. Different shapes  
and forms, in order to be better capable of meeting  
its aggressions should it invade this Continent  
with its desolating effects, and the history of the  
monster, gives us every reason to think that it will  
not overlook us in its present tour, When it once  
starts, it generally makes the rounds, and instead of





growing weaker as it advances, it sometimes seems to  
gather strength on the march. I think it is our  
our duty to buckle on our professional armour, and  
brace ourselves for the anticipated conflict. Already  
has this impregnation of death, united with its lightning  
effects many parts of Europe, and now stands on the  
confines of America, organizing its forces as it were,  
for a desperate assault upon us, probably next summer.  
Let us not be selfish, but throw up our entire interest  
and provide ourselves with every available means of  
defence. Let us be actuated by a desire to alleviate  
the sufferings of our fellow beings, and put aside  
all spirit of dissent, and disagreement. Prompt and  
vigorous action in solid phalanx will insure us the  
victory. This terrible malady was not known in this  
country until the year 1832, but had been in India  
long before 1817. Though never until that time assumed  
such a terrible shape. In that year it seems to have



began its march taking a north westerly course. In  
1819 we find it in Ceylon. In 1820 it had reached  
Canton, we find it steadily progressing, spreading  
devastation in its track, and in 1823 it made its  
appearance in Northern Europe. Here its progress was  
checked somewhat, but as was the fearful anticipation  
in 1831, it travelled entirely across the Continent,  
and made its appearance to the terrorstricken  
inhabitants of England, many even then in our  
country comforted themselves with the delusive  
hope that America would escape, but before many  
months had set in, 1832 with one gigantic stride  
it appeared in Quebec. A few months it was  
in New York, and taking first a northerly route  
it went up the Hudson, then down the Delaware  
and in the 5th of July we find it in Baltimore. It then  
followed the Coast, and in November we hear of it  
off Charleston, and in February 1835 it reached Cuba,



where it found many victims. In the meantime it had  
not left Asia, but still prevailed with varying intensity.  
Neither had Europe been rid of it for it raged there  
particularly in Northern Europe fearfully. Again in  
1854 it prevailed in North America, and a great  
part of Europe. In 1847 we hear of it raging with  
human life in Russia, and in the following year  
London, Edinburgh, and other parts of Great Britain  
were afflicted with its presence. At that time  
we anticipated the coming of the unwelcome guest  
to our own shores, and tried to prepare ourselves for  
its reception. We were not mistaken, and not-  
withstanding our efforts to modify its influence  
it spread with unusual rapidity and violence,  
inviting many of the large Cities, rising death  
and mourning to many thousands. Its pestilential  
breezes were wafted far into the interior, and  
isolated Cases were not unfrequent, even in the



rural districts, seeming then to be satisfied with human life it took its departure, leaving us until 1865 in well nigh forgetfulness of its terrors, when again we are aroused from our fancied security by the news which every Foreign Bulletin brings of its destruction in Europe. The old world has again put on the habiliments of mourning, and let us not be deceived by the false hope that we will not be soon<sup>er</sup> obliged to do the same thing. The wrath of an offended God is lowering upon a wicked nation and is about to mete out retributive justice in the shape of the hideous monster, Epidemic Cholera. It is very irregular in its march, in its direction leaving some towns and cities entirely unmolested, and remaining variable lengths of time at those attacked, & sometimes it





checked by winter (but not always as it prevailed  
throughout the entire winter of '31-'32 at Moscow.)  
It seems to prefer to follow the course of large streams,  
but does not absolutely confine itself to any locality,  
as it is found in large cities, in sparsely settled  
districts, on mountains, in the midst of deserts, and even  
in mid ocean, neither natural barriers, nor the ingenuity  
of man have succeeded yet in arresting its progress—  
Neither age, sex, nor condition are free from its con-  
tamination— Both palace and hovel are liable to  
receive its visits, but it rather seems to prefer  
the abodes of misery and wretchedness— It does  
not seem to be satisfied always with one visit to  
any one locality—, but on its return it is generally  
with symptoms less aggravated— The symptoms as  
well as the course of Cholera are variable— A  
general complaint of Diarrhoea is observed to herald  
the advance of the pestilence— It may come on with



Premontory symptoms, such as moderate derangement of  
stomach and bowels, nausea, slight cramps, heaviness & red-  
dness, but in other cases it commences with violent vomiting  
and purging. The first or the ~~real~~ stage is called by  
French authors, Choleric, in which we have a furrowed tongue,  
anorexia, Thirst, indigestion, heaviness and distention  
about the stomach, and bowels, sickness, nausea, vomiting  
and Diarrhoea. A feeling of languor and weakness, perspi-  
-rations and cramps, and in some instances is attended  
with febrile symptoms. Occasionally the nervous system is  
attacked, and instead of nausea and vomiting, we have the  
patient suffering with convulsions and spasms. At this  
stage the proper remedies should be used, and it will be  
found that they are generally effectual. - Case frequently  
occurs from no obvious cause, we neither have Choleric  
nor any other premontory symptoms, the patient is attacked  
with violent purging and vomiting, with colicky pain  
in stomach and bowels, cramps of the voluntary muscles



and neuralgic pains in various parts of the body. The cramps are most frequently in the limbs, rendering them entirely rigid. Again drawing large knots on the muscles of the abdomen, accompanied by severe pain. The amount of matter ejected from the stomach is often enormous, at first the contents of the stomach, subsequently a whitish fluid very much resembling rice water. Some authors have considered this pathognomonic, but there is considerable discrepancy of opinion in regard to this constancy. Dr Watson says that a freedom from bile is a universal circumstance, but Dr Wood and other dissent. Unless at this stage there is change for the better, symptoms of collapse will supervene, some of which I will enumerate. The pulse becomes feeble, and sometimes scarcely perceptible at the wrist, lips become coated with a dark epithelium, breath cold, and voided by some to lactic carbonic acid gas. The body has a pinched and withered appearance, countenance ghastly and cadaverous,



skin ~~covered with~~ covered with cold sweat, and the urine  
is entirely suppressed. The urine becomes husky and thick  
giving rise to the title of *ur-Cholica*. The patient  
becomes emaciated, and declines rapidly. I have  
enumerated here some of the most prominent  
symptoms, but they are by no means constant; in  
some cases vomiting and purging are absent, Hiccups,  
cramps &c are wanting. Even in this rapid collapse  
strange to say, the intellect remains unclouded,  
the patient converses rationally to the last  
moment; if you can call a man rational who is  
perfectly indifferent to his approaching dissolution,  
and who frequently while his last sun is setting in  
the horizon of eternity, jests and scoffs at the  
dim perspective— When most of the above symptoms  
are present, I need hardly say that the prog-  
-nosis is unfavorable, death occurring in prom-  
-ptus to fifteen hours according to the intensity of





The attack, constitution of the patient, predisposing  
causes &c - his stage of the disease may suit be  
amenable to treatment; but I am confident that the  
perfidious and noxious nostrums of regular  
quacks, and base impostors, ~~disperse~~ <sup>disturb</sup> the  
The last ray of resolution, and send their victims  
to a final account. The disappearance of the  
cadaverous countenance, cramps, purging, and  
vomiting, return of pulse, warmth to the surface,  
back to the stools, and the secretion of urine, may be  
looked upon as a favourable indication. Post Mortem  
have done little towards elucidating the nature of  
this frightful Epidemic, The body after death, is  
fearfully contorted, and heat seems to be increased,  
the blood is thick, the bowels distended, and contain  
a flaky white liquor, as far as the viscera are  
examined very little change is found in them, as  
regards the exciting cause of this disease, much has



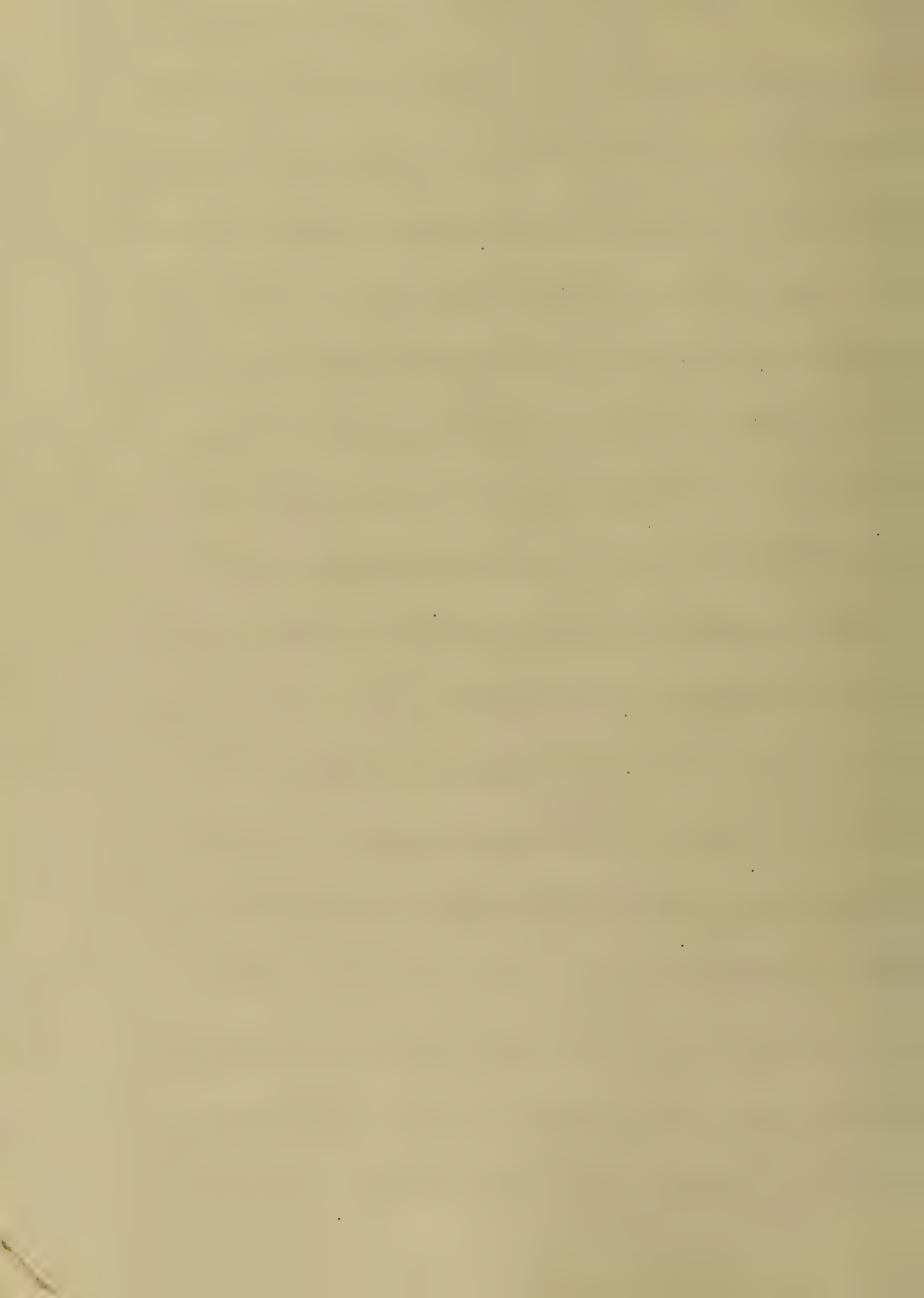
been said by the various writers on the subject - Many years ago, anyone giving utterance to the opinion that it was contagious, was laughed at by the medical profession, but in the last few years, and especially during its late ravages in Europe, that opinion has gained many advocates - The Constantinople Correspondent of the Medical Times and Gazette writes as follows. "If anyone should still entertain any doubt about the contagious nature of Cholera, these have been most finally dispelled by the circumstances attending the last Epidemic here, which I shortly described in a previous letter, and which were almost identical with those observed during the visitation of the same disease at the time of the Crimean war - The French troops who came from Algeria when the disease devastated the country, had scarcely disembarked at Gallipolis, when the Cholera broke out among the people there - From this place the disease



followed the French to Parma where it decimated the  
inhabitants, sparing however the intermediate centres of  
population, and more especially Constantinople. As  
the disease did not had communication. A winter period  
a camp was formed on the heights of Mentac, the outlet  
of which was Yenikeny in the Bosphorus - This had  
scarcely been done, when the Cholera appeared at Yenik-  
keny, but in no other quarter of the metropolis. It was  
only after some time that the disease invaded Pera the  
nearest suburb to Mentac with which the troops lodged  
in the camp had frequent communication. Such ob-  
servations as these are almost as convincing as physical  
experiments. They show the connexion between cause  
and effect as clearly as they can be shown in  
pure science". After reading the above article one is  
almost convinced of its contagious nature. But how  
what I would say, and you are apt to lean to the  
other side, "If propagated by contagion, why should it



the disease at one time march with awful rapidity  
 and at another halt for years upon the confines of coun-  
 tries often to a constant intercourse with the infected  
 territory? Why should it readily seize upon a certain  
 district, rage fiercely for only two months and then  
 leave it altogether? Why should it attack large  
 cities, and often let the surrounding and closely  
 settled rural villages go free? How in fine does it  
 happen that a distinct line is sometimes drawn  
 between the infected and disinfected neighborhoods;  
 that a low damp spot is desolated, and a neighboring  
 height is in safety, that even upper and lower stories  
 of the same house should be in opposite conditions  
 in this respect, while in these cases there is no  
 suspension of intercourse? Again he says, "The  
 sucking infant was found to receive the disease from  
 its mother, and attempts of the most varied kind have  
 been made to impart it by inoculation and by





introducing its different products in any way in the  
system altogether without success. The *Paris Medicines*  
*de Archives* has a long article in favour of the conta-  
gionists, and says that there is no instance on  
record of its appearing in a country unless it was  
imported. It would be absurd for a Surgeon in the  
profession to advance an *opinion* after so many  
eminent men have differed, but I am inclined to  
think that it is certainly contagious to some extent, but  
not as much so as Small Pox, and diseases of that nature,  
Its nature is still wrapped in obscurity. That it is a  
peculiar poison acting directly on the Alimentary canal  
or indirectly by reflex action through the sympathetic  
system causing a rapid excretion of the watery elements  
of the blood, also producing violent cramps of the voluntary  
muscles and sensitive surfaces. At the same time General  
depression of the system is the most plausible and  
probable theory. It is yet for me to speak of the treatment.



The plans for treatment are as multitudinous as the chances of its nature, but before enumerating some of the various remedies for the cure and palliations of this disease, I will occupy a few lines in speaking of the precautionary measures, which should be used against it. Where, viz, intemperance, filthy improper clothing, bad food, all venereal diseases, fear, despondency, &c. and since it studies are undergone, then we find the full violence in its most terrible forms. Whatever discrepancy of opinion there may be as regards other points, this is one, all agree on, and that is, that cleanliness is of primary importance. With as regards person and surroundings (Specially should pits and receptacles of refuse matter of every description be closely supervised, no stagnant water should be allowed in yards and cellars and the latter should be well ventilated, and sprinkled with Chloride of Lime. Clothing should be changed often, and the body should be clothed



with flannel next to the skin - All exposure of person  
should be avoided and sudden changes guarded against,  
but above all temperance in drink and diet is the  
first requisite, as well as temperance in labor, both physical  
and mental - Abstinence from fruit and vegetables  
especially such as are badly cooked - Thinly cooked  
meat, boiled rice, light bread, and well roasted meaty  
potatoes are safe and wholesome articles of diet -  
Mellons, Cucumbers, and Cherries and such like are  
almost sure to produce the disease when it prevails  
epidemicallly - It has been remarked by persons who  
witnessed the disease in Constantinople, that almost every  
case could be traced to some imprudence, and all  
who observed the proper Hygienic rules escaped. A letter  
dated Sept 27<sup>th</sup> from J. Peter Braun Esq. of the U.S.  
Legation at Constantinople says, in a little village of  
800 inhabitants, there were 22 deaths out of 70 attacked,  
The victims being the aged and youngest, the mortality



being unmistakably attributed to negligence. The list  
of remedies employed for Cholera is formidable indeed, the  
disease is nearly always preceded by Dysentery and then  
is the time to nip it in the bud, and cure it as  
prevention of the pestilence, and you will in nearly every  
instance secure your patient from attack. But at other  
times, it comes with violent vomiting and purging; the  
pain in these cases is in the lower bowels, attended with  
considerable flatulency, and a peculiar tenesmus.  
The proper course much pursued is to arrest it in its progress,  
otherwise it will almost invariably emerge into more serious  
complications. The indication then I think is to allay the  
irritation, and stop the flow as soon as possible, and not to  
purge - keep the patient perfectly quiet, and observe the  
most rigid sanitary, as regards diet, remove all infected  
clothing, and keep the room well ventilated, at the  
same time using disinfectants freely. Opium combined  
with acetate of Lead and Camphor should be used freely





at the same time caustic acid water or Cham. eye and  
crushed ice ad libitum. Local applications not  
as fly blisters. Sph. Camphor<sup>and</sup> pultices are frequently  
used with success. Hypodermic injection of Morphine  
1/4 to 1/2 grain is an invaluable remedy - Hot water  
baths also hot air baths are recommended, and some  
practitioners have contended that the use of the neutral  
salts is very efficacious, the idea being that they clarify  
the blood, and restore the functions of the circulation, the  
same thing has been attempted by throwing warm water and  
out into the veins, but my opinion is that there can be no  
efficacy in such treatment. Opium, Brandy and Calomel  
have been considered the great remedies. My humble  
belief is that a combination of Sassafras, Chloroform,  
and Ether, given in time will nearly always at least  
prove a palliative - Cannabis Indica has been used  
with constant success, and in Paris, the early stage of  
Cholera has been controlled with Sul. Pot. Bicarb.



Combined with Opium. In Constantinople a mixture of  
Opium, Camphor and Shuckard, has been used with eminent  
success. But after the disease has fully formed it is doubt-  
ful whether any remedies known are of any avail. Many  
deaths no doubt are owing to neglect of the primary symptoms,  
and it may be from overloading the stomach with water to quench  
the terrible thirst, which is almost invariably an attendant.  
Of importance there should be attended to the disease in its  
incipient stage, before death with his ulcerous camp has  
seized upon his victim. I have attempted here to give a syn-  
opsis of the History, Symptomatology, Etiology and treatment,  
nature &c of Cholera, and I hope I have succeeded in making  
myself intelligible, but if I have not, in Charity attribute it  
to my insufficient data, and limited experience. When I  
selected Cholera as the subject of my thesis I flattered my-  
self that I had chosen a subject easily handled but now  
I willingly acknowledge my inability to do so and  
admit that I have completely lost myself in it. I am, &c.



but I do not feel at all chagrined when I reflect that the  
most profound and searching of our professors have been  
puzzled by its mystery. And now I respectfully submit  
this imperfect disquisition to your consideration, only  
asking for a liberal criticism of its merits. I remain  
your obedient servant.

Cart. S. Berkeley.



AN

Inaugural Dissertation

ON

*Malaria and its effects*

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

*William J. McCreary*

of

*Maryland*

Session

1865-66





I do not presume that any young man  
may be able to write will add to the  
resources already possessed by the faculty,  
and the profession, nor do I suppose that  
it is an exaltation of the faculty, but that  
the desire to know what knowledge the  
student has derived from his studies, as  
well as his limited observation, all show that  
what you write will be but theory and that  
founded upon the observations of others.

Pernass There is no one cause  
operative with deleterious effect upon the  
human constitution, with which the  
man need to contend oftener than with malaria,  
and what is Malaria? It was a question  
with the wise men of old and still remains  
unresolved; various conclusions have been



ceived at, but none have proved satisfactory:

So we know is that it is produced in certain sections of countries, but it is not in a certain manner upon which we can find the soil, heat, air and water are necessary for its production. Further these elements are being sufficient to produce it, but all are required; if it were not so we could find it upon which heat, air and water are upon the deep and are exposed to air, water and the severest heat, yet it is a noted fact that it is not common among them, unless they have passed a portion of time on shore, nor again are air, moisture and earth sufficient from what we see in northern countries that diseases, produced by Malaria are unknown, but we see that a



certain degree of heat is necessary.

It is also a common name of several  
maritime districts giving rise to the theory  
that it is the result of vegetable decomposition,  
this was the theory of the older writers, and  
is still held by many, but that it is  
produced by some mineral substance  
combined with vegetable productions has been  
proved by the observations of others, who have  
found it to exist with most malignance  
upon sandy islands and shores, and  
not a shore, but not being of equal violence  
is seen. The water and vegetable productions  
of many have been submitted to various  
tests and examinations but without a  
satisfactory result. It has been generally  
found that it exists in the same manner.



from the borow earth which has been covered  
with water and is being dried by the heat  
of the sun, the more rapid the drying process  
the more malignant is the disease.

It is not alone in being affected  
in this manner, but the inferior animals are  
also affected, as is proved by the obser-  
vations of St. Hoviden who states that  
in certain seasons of the year all the animals  
in certain portions of India leave  
the more elevated regions of the mountains  
and descend to the lower parts of the hills  
to avoid the disease.

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in certain portions of India leave  
the more elevated regions of the mountains  
and descend to the lower parts of the hills  
to avoid the disease.









be hardened in the uterus, a hard  
mass capable of being broken, and  
remains of small stature, sickly, dis-  
tended, weak in body and mind, with  
a cold and exalted state of mind, and  
as a rule, the only form an exception  
to the rule, it is not known, a woman  
is known to thrive better than in these  
marshy districts where it is almost  
certain that a person can never be well.

Although malaria exists in the air,  
it is not the cause of the disease, but  
the result of the disease, and is not  
the cause of the disease, but the result  
of the disease, and is not the cause  
of the disease, but the result of the  
disease, and is not the cause of the  
disease, but the result of the disease.







is known to sleep upon the ground in the  
day and at night in such places is certain  
to come on an attack of fever. Malaria is  
usually the first and most serious  
disease of the tropics. It is caused  
by a malarial parasite which is  
transmitted by the bite of a mosquito.  
The symptoms are a fever which  
comes on at regular intervals and  
is accompanied by a headache, a  
general malaise, and a  
loss of appetite. The fever  
is usually of a tertian type,  
that is, it comes on every  
third day. The fever is  
usually of a low grade,  
but it may be of a high grade,  
and in such cases it is  
often fatal. The fever is  
usually of a long duration,  
and it may last for weeks  
or months. The fever is  
usually of a recurrent type,  
that is, it comes on again  
after a period of remission.  
The fever is usually of a  
benign type, but it may be  
of a malignant type, and  
in such cases it is often  
fatal. The fever is usually  
of a low grade, but it may  
be of a high grade, and in  
such cases it is often fatal.  
The fever is usually of a  
recurrent type, that is, it  
comes on again after a  
period of remission. The  
fever is usually of a benign  
type, but it may be of a  
malignant type, and in such  
cases it is often fatal.





... let those who go upon land and water ...  
... are attacked by it.

The peculiarity of miasma is its attraction  
to large trees where it seems to  
be most common, and therefore it is the  
most dangerous in places with  
many woods.

It also seems to be destroyed  
by cultivation and draining,  
and is not found in those places which formerly  
abounded with it.

Places which have become comparatively healthy  
and free from malaria and its effects.

... examined, its peculiar properties  
... some of its effects upon the  
... of the ...

... in ...  
... in ...







his teeth chatter and violent shivering comes on his whole body seems to be drawn up into as small a space as possible, his skin becomes rough and turns blue and it seems as though he were suffering from intense cold, the secretions become affected and diminished in quantity; this is called the cold stage.

After this stage has lasted a certain time reaction takes place and the patient is alternately cold and hot until at length his body resumes its accustomed temperature and size, and the skin its proper color; but it does not stop here, the heat increases, the skin becomes hot and dry, the face flushed and the pulse full and frequent, the temples throbbing with a different kind of headache, the urine is still small in



...ion board, after a few hours  
...  
...excitation breaks out, the other  
...state, leaving the patient  
...fortable, but is not properly treated  
...into a condition  
...the disease is named according  
...between the paroxysms, the  
...every day are called quotidian  
...take place every third day are called  
...The earlier symptoms  
...of the nervous system  
...and a time  
...person and





contraction of the skin and its coldness; the  
... is caused by this coldness. The more  
... impeding the respiratory and  
... functions, deranging the whole of the  
... viscera, especially the spleen, which  
is sometimes so much enlarged as to be  
... in the abdominal integument,  
this enlargement is so common as to have  
... name of the Uque-cake.

... in cold countries is  
... in hot countries the  
... into ...

Treatment in the first stage attend to



The patient by applying warm  
and administer dilute stimuli, in the second  
stage cold sponging and cold drinks  
with a good aqueous, with effluvia, stage  
in the third or sweating stage the only thing  
necessary is to watch well that the person  
do not become exposed, but the coverings  
may be gradually removed, during the  
intermission the only reliable remedy is  
China in some of its compounds, the sui-  
perior of China being the one most used and  
it is also one of the most reliable  
remedies in the treatment of  
fevers in the second stage  
in a better sense, China  
is a better remedy than



in large majority of cases, but are not  
used with the desired result; the patients  
should be put under the influence of  
arsenic.

It will not be correct to name the  
intermittent fever, which is essentially the  
same as Intermittent, differing only in  
degree, but to name the same  
and distinguished by their baroxymia and  
anemias, although in Remittent they are  
not so distinct generally, as in the others.  
The name of Intermittent fever  
is not applicable to the same in  
the same manner as in Arue, this however  
is as common as to have given to the  
name the names of *Intermittent* fever as









... nature and art are not invariable  
 ... consider: the state of the system  
 ... different; in the one case it  
 ... atheric with the blood rich and  
 ... or the contrary atheric with the  
 ... were caused by various dis-  
 ... causes, these different conditions  
 ... treatment. The result

...  
 ...  
 ...  
 ...  
 ...



pulse quickened and the complexion sallow.  
The disease usually begins with a chill, the  
face pale and lips purplish, sometimes there  
are nausea and vomiting, heat and pain  
in the loins or extremities, this chill may  
last for a few minutes or for hours. when  
reaction takes place the patient feels uncom-  
fortably hot, the skin flushed, respiration  
hurried, the pulse increases in frequency and  
fullness, and the surface generally somewhat  
reddened and expanded. These symptoms  
continue usually from six to sixteen hours.  
when if the disease be of a mild form or  
has been subject to proper treatment, the  
remission takes place, the surface becoming  
cooler and more moist and all the symptoms  
decrease the patient feeling comparatively



comfortable until the next paroxysm but generally the shew continues dry and the patient uneasy with no inclination to sleep.

The organs principally affected in this disease are the liver and stomach, and as the symptoms of the one or the other predominate so the fever is denominated Gastric or Hepatic, but in general there is a complete blending of the phenomena attending the disorder of both organs. The duration of the disease varies according to its complications, it may continue for a few days or even on for weeks, in general it lasts from nine to fifteen days and when it continues longer than this it is apt to run into a fever resembling typhus and designated as the typhoid stage. The prognosis in this



Handwritten text, likely bleed-through from the reverse side of the page. The text is mostly illegible due to fading and bleed-through.

Handwritten text, likely bleed-through from the reverse side of the page. The text is mostly illegible due to fading and bleed-through.





1870  
The first of these is the  
"W" and the second is the  
"L" and the third is the  
"M" and the fourth is the  
"N" and the fifth is the  
"O" and the sixth is the  
"P" and the seventh is the  
"Q" and the eighth is the  
"R" and the ninth is the  
"S" and the tenth is the  
"T" and the eleventh is the  
"U" and the twelfth is the  
"V" and the thirteenth is the  
"W" and the fourteenth is the  
"X" and the fifteenth is the  
"Y" and the sixteenth is the  
"Z" and the seventeenth is the  
"A" and the eighteenth is the  
"B" and the nineteenth is the  
"C" and the twentieth is the  
"D" and the twenty-first is the  
"E" and the twenty-second is the  
"F" and the twenty-third is the  
"G" and the twenty-fourth is the  
"H" and the twenty-fifth is the  
"I" and the twenty-sixth is the  
"J" and the twenty-seventh is the  
"K" and the twenty-eighth is the  
"L" and the twenty-ninth is the  
"M" and the thirtieth is the  
"N" and the thirty-first is the  
"O" and the thirty-second is the  
"P" and the thirty-third is the  
"Q" and the thirty-fourth is the  
"R" and the thirty-fifth is the  
"S" and the thirty-sixth is the  
"T" and the thirty-seventh is the  
"U" and the thirty-eighth is the  
"V" and the thirty-ninth is the  
"W" and the fortieth is the  
"X" and the forty-first is the  
"Y" and the forty-second is the  
"Z" and the forty-third is the  
"A" and the forty-fourth is the  
"B" and the forty-fifth is the  
"C" and the forty-sixth is the  
"D" and the forty-seventh is the  
"E" and the forty-eighth is the  
"F" and the forty-ninth is the  
"G" and the fiftieth is the  
"H" and the fifty-first is the  
"I" and the fifty-second is the  
"J" and the fifty-third is the  
"K" and the fifty-fourth is the  
"L" and the fifty-fifth is the  
"M" and the fifty-sixth is the  
"N" and the fifty-seventh is the  
"O" and the fifty-eighth is the  
"P" and the fifty-ninth is the  
"Q" and the sixtieth is the  
"R" and the sixty-first is the  
"S" and the sixty-second is the  
"T" and the sixty-third is the  
"U" and the sixty-fourth is the  
"V" and the sixty-fifth is the  
"W" and the sixty-sixth is the  
"X" and the sixty-seventh is the  
"Y" and the sixty-eighth is the  
"Z" and the sixty-ninth is the  
"A" and the seventieth is the  
"B" and the seventy-first is the  
"C" and the seventy-second is the  
"D" and the seventy-third is the  
"E" and the seventy-fourth is the  
"F" and the seventy-fifth is the  
"G" and the seventy-sixth is the  
"H" and the seventy-seventh is the  
"I" and the seventy-eighth is the  
"J" and the seventy-ninth is the  
"K" and the eightieth is the  
"L" and the eighty-first is the  
"M" and the eighty-second is the  
"N" and the eighty-third is the  
"O" and the eighty-fourth is the  
"P" and the eighty-fifth is the  
"Q" and the eighty-sixth is the  
"R" and the eighty-seventh is the  
"S" and the eighty-eighth is the  
"T" and the eighty-ninth is the  
"U" and the ninetieth is the  
"V" and the ninety-first is the  
"W" and the ninety-second is the  
"X" and the ninety-third is the  
"Y" and the ninety-fourth is the  
"Z" and the ninety-fifth is the  
"A" and the ninety-sixth is the  
"B" and the ninety-seventh is the  
"C" and the ninety-eighth is the  
"D" and the ninety-ninth is the  
"E" and the hundredth is the



*[Faint, illegible handwriting on lined paper]*



Atimatici sunt de imperio

... regnum ...

... imperio ...

... imperio ...

... imperio ...

... imperio ...

... imperio ...

... imperio ...









heads will recover the surface, afterwards they should be evacuated once or twice during the day; after the subsiding of the pain the next indication is to promote diaphoresis, as it has a tendency to moderate the febrile exacerbation and makes the remission more complete. The effluvia brought will be found the best remedy for this purpose. In those cases where there is a tendency to inflammation local bleeding may be used to relieve the local pain and congestion. In the bilious form cold sponging will be found grateful to the patient and will also tend to shorten the exacerbation. The vomiting will be relieved by a few cups, leeches or a blister applied to the epigastrium. In the advanced stages Dover's powder will



is found an excellent remedy, acting as  
a deobstruent, anodyne and mild stimulant.  
When there are no indications of inflammation  
of the brain or stomach, Quinine should be  
recorted to as soon as a remission takes  
place. Quinine given just before an expected  
attack will often prevent the paroxysm  
in all cases of Remittent fever. Where there  
exists inflammation, Mercury will be found  
an admirable remedy and exceedingly  
useful when bleeding is contraindicated.  
When the head is hot and painful the ap-  
plication of cloths wet with cold water  
will be very agreeable to the feelings of  
the patient. Restlessness and wakefulness  
may be overcome by Hoffmann's anodyne  
or Sweet Spirits of Nitre.



During convalescence great care should  
be exercised with regard to diet and  
exposure to vicissitudes, in the Period  
from the first object should be to bring a  
reaction bottles of hot water, or heated brick  
placed near the surface, fomentation of  
hot water and mustard and friction to  
the spine will be found efficacious.

Internally opium should be given for its  
stimulant effect and to arrest the dis-  
charges from the bowels. Should these fail,  
arsenic may be had in Carbonate of Am-  
monia and alcoholic stimulants. Sulphate  
of Quinia may be of advantage in this  
disease also and may be given during  
the Paroxysm. These are the remedies useful  
in the different forms of remittent fever.



and the practitioner will be governed in his use of them according to the case in question. I have now related the principal effects of Malaria, but there are several other complaints in which it acts as a powerful agent which demand a passing notice as we leave the subject.

Dysentery often prevails in Miasmatic districts and assumes an intermittent or remittent form, sometimes as a separate disease and again accompanying the miasmatic fever. When fever occurs, preceded by a chill for two or three days previous to the colitis, there can be but little difficulty in the diagnosis; but where the two occur together or where the dysentery precedes the fever it is not so easy to recognize





the true state of the case, but the tendency to paroxysms recurring every day or every other day, and then relaxing, will enable us to make out a correct diagnosis. During these paroxysms there is more flushing in the face, pain in the head and arterial excitement than in pure colitis, it is important to make out a correct diagnosis in this affection in order to treat it properly.

We should first evacuate the bowels thoroughly and then administer bark or Quinine.

Pneumonia is often complicated with miasmatic fever; it prevails in this form generally in the autumn and winter and is brought on by cold and wet in constitutions which have been exposed to miasma during the summer.



It is commonly called bilious pleurisy, but although the pleura is sometimes affected yet the bilious levia is in the lungs as is indicated by the usual percussion and auscultatory sounds of pneumonia. The chills & fever usually come on a few days before the symptoms proper to pneumonia; when the complaint is at its height we have in addition to the symptoms, headache, a jaundiced condition of the skin, nausea and vomiting of bilious matter and deep colored urine. The fever occurs generally in daily paroxysms with an almost entire remission; the proper treatment is a combination of the remedies found useful in the two diseases the most important of which are Mercury and Quinia. Calomel to



operate on the secretions and to check inflammation, and Quinine for its antiperiodic effect.

Neuralgia often assumes such forms as to leave no doubt but that this same poison acts as an exciting cause. The paroxysms are sometimes of short duration and in other cases they are long continued followed by remissions more or less distinct; most commonly these attacks are quotidian, but they may and do assume other types. Neuralgia when not at first intermittent will often assume that form, for which the Physician should be on the watch as then he may be able to control it by antiperiodic remedies. Again



do we find Quinia the remedy most to be  
relied upon, but arsenic has often been  
used successfully and should be employ-  
ed when Quinia fails

There are other complaints which  
assume an intermittent form indicating  
the influence of malaria, but I will  
remain content having related those  
which are of the most importance.





University of Maryland.

Session 1865-6

A Dissertation on Acute  
and chronic Dysentery,  
By William A. Hammond  
of Essex County Virginia,  
Submitted to the Corporation  
of the University and  
of the Board of Regents.



# Dysentery.

is inflammation of

the large intestine, and

is attended with blood and

mucous discharges

from the bowels in the advanced

stage of the disease.

The disease may

be either acute or

chronic being almost

always consequent upon

the acute. Such being the

case of all the

forms of dysentery, referring

to the symptoms and

treatment of the disease.

Dysentery may come on

either suddenly or



notary symptoms, or it may  
seize the patient suddenly;  
Severe intestinal pains  
bloody mucous discharges,  
Fainting at stoops, and  
fibrile excitement, coming  
on simultaneously.

When the disease comes on  
gradually, it is invaria-  
bly preceded by many  
the following phenomena -  
fever, diarrhoea, loss of  
appetite, and a feeling  
of lassitude or weakness,  
and it is a general thing,  
in the beginning of the  
disease that it is (often)



... in the abdomen,  
the discharges are more  
less feculent and mix  
ed with blood, or muc  
ous matter. As the disease  
advances the pains in  
crease. There is a boring  
burning sensation about  
the rectum. The stools  
are more painful and  
frequent, and the tenes-  
mus more severe. The col-  
ic stool is this stage of  
the disease and very fre-  
quent and involuntary some-  
times continues as long  
as the patient lives.





As the disease advances  
still further there is  
sometimes in the  
hardened feces or scyb-  
ala adulterated bile,  
and lumps of fat  
sometimes from the in-  
testine. The disease may  
occupy the whole or only  
a small portion of the  
bowel as the rectum -  
When there is tenderness  
to pressure over the Epi-  
gastrium it may be taken  
as a sure sign that the  
complaint is in the  
residing or transverse



... There is almost  
... in dysentery. The pulse  
being ...  
strong, the skin hot and  
dry ...  
when the disease has  
continued longer than  
...  
the disease may become  
complicated and ag-  
gravated; the patient  
becoming ...  
almost helpless the  
pulse ...  
frequent. The tongue



covered with a white  
The stools are  
The belly is  
The couch,

One of the most  
after leaving a war  
having been heated from  
The fire  
stopping



The essential part of the  
inverted, and falls  
upon the heart, and  
and indigestible  
food, and causes the  
formation of some  
mucosa is sometimes  
the cause of the disease.  
It is then called acute  
without dysentery, and  
inflammation of the  
and being generally  
accompanied by a little  
fever, and a  
some times more or  
less during the  
young. It is





is caused by function  
of the stomach, or liver, it  
is called bilious dys-  
pepsia. In which case  
there may be a dimi-  
nution or a morbid  
excess of hepatic  
secretions.

Dyspepsia is not in a large  
majority of cases fatal, and  
admits of a favorable turn  
in six or seven days, when  
the disease takes such  
a turn it generally runs  
off in about ten days, and  
is becoming more common



and abundant, and the  
the morning less severe with  
the passage entirely. On  
the other hand, when it  
terminates fatally there  
is a purplish hue under  
eyes about the lips, and  
nails, pulse is very  
feeble and quick. The  
patient very frequently  
has delirium and the  
skin. Involuntary stools  
is one of the best dia-  
gnostic signs. Death occurs  
from debility and in  
some cases from pyrexia.  
In death from the disease



The mucous membrane of  
the large intestine is some  
times inflamed, and some  
times ulcerated. The inf  
lamation sometimes has  
spread itself over the  
whole of the intestine.  
It is now well known that  
the inner coat is  
inflamed, but some  
writers assert that  
such is sometimes  
the case, and that  
the blood vessels become  
hyperaemic, and the  
contents may be dis  
charged into the cavity.



Dr. W. Smith is of the  
opinion that this never  
occurs unless the voice  
has been previously dis-  
eased, The return or  
lower position of the  
larynx is never accom-  
panied generally with the  
other conditions mentioned  
from the disease being  
patched or mucous in  
nature is distinguished  
from tubercular or  
malignant or  
specific diseases. The





is found to be more frequently, morbid or ulcerated, than in the more common forms.

The treatment of this as of other diseases, must depend upon the state of the system of the person suffering from the malady, and whether it is in complication with other diseases. Cathartics are recommended when the bowels are constipated, and are valuable indications when there is reason to expect that



The treatment consists in  
affording protection, also  
in the use of the ...  
is suddenly by keeping  
it in a static position  
... the ... of all  
affending matters which  
are likely to ...  
... are ...  
... they  
... already  
...  
Cathartics are more  
beneficial in the first  
stages of the disease,  
Mercury is one of the most  
useful ...







Castor Oil and Linseed  
are very beneficially  
employed in the  
management of the  
producing a soothing effect  
in the bowels. When the  
patient is very weak  
Castor may be readily  
substituted for the  
oil, the effect being not  
so debilitating. In  
constipation is more  
and more likely, unless the  
patient be of a plethoric  
habit or there is great  
inflammation and fibrin  
deposition, Local blood





... by the application  
of water in the case where  
there is tenderness in the  
stomach and the inflammation  
is considered to be acute  
and dangerous. The water  
is best when it is  
applied to the  
of the colon; Opium is  
a very valuable remedy in  
dysentery, and is very  
effective in the treatment of  
relapsing dysentery and  
in the latter it is  
more useful. It is  
indicated where there  
is much fetid excretion.



Another good effect of opium  
is in relieving pain and  
promoting sleep. A very  
good result is frequen-  
tly obtained by the com-  
bination of the opium, the  
and Specachuama, in  
the preparation of. Each  
grain of Opium use of  
Opium and use of  
may to be given every  
one or two hours. The  
Opium in combination  
with the antispasmodic  
hermes has shown to  
be used with some  
effect in a number of



... while the ...  
... of ...  
... the ...  
... with ...  
... of ...  
... at ...  
... of a half to a grain of Opium ...  
... of the ...  
... given ...  
... in the last stages of ...  
... of ...  
... do as not to ...  
... is ...  
... in ...  
... that is ...









remedies, when there is  
some pain in the  
area over the Epistomium  
some relief sometimes,  
at relief sometimes,

Dr. Johnson thinks that  
a blood tonic, such as  
iron, the best remedy  
is relief.

Chronic gastritis is  
frequently accompanied by  
the same disease. The most  
characteristic features of the  
disease are, frequent  
and small stools, and  
in some cases of a  
black, or brown











of zinc and Sarsaparilla in  
small quantities is a good  
medication in the chronic  
form of the disease.  
In an attack of ~~the~~  
head light and regular  
and warm, clothing in  
winter we have had success.  
I have thus fully established  
since my visits in the  
different forms of the fe-  
verish disease, I can be-  
lieve to extract them to the  
Faculty, Hoping, they may  
meet their approbation.

Do. Philadelphia.

Wm. D. Hunter





AN  
Inaugural Dissertation

ON  
Asiatic Cholera.

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

William H. Curry

of

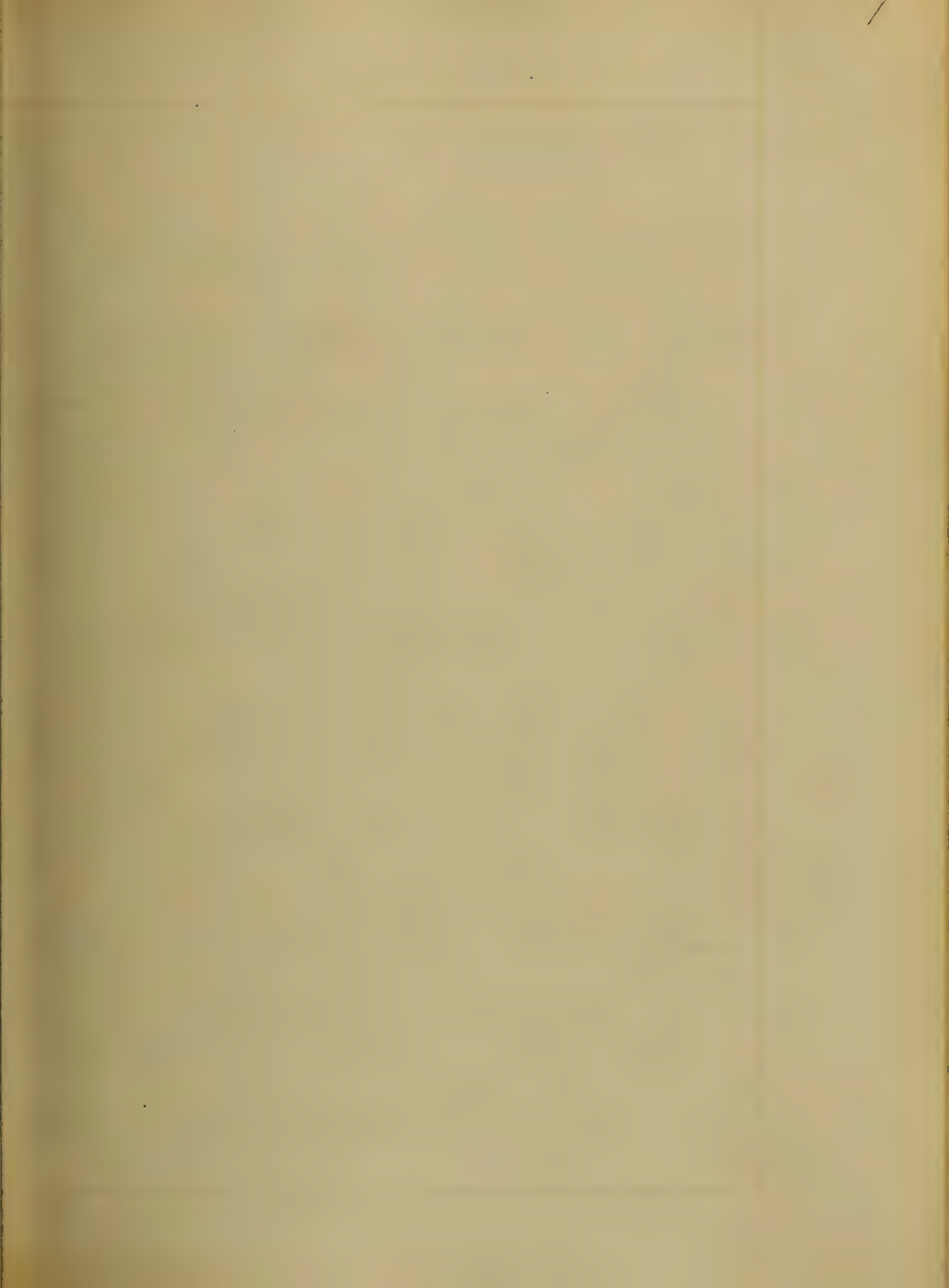
Baltimore Co. Maryland.

Session

Second

1846.







Cholera is by no means a new disease. It has long been endemic in India, but not until it broke out with great violence in Bengal did it begin to attract much attention from the medical profession. From this centre

it commenced its deadly march until it had encircled the entire globe.

In its progress westward it successively attacked the cities of Central India, and crossing the mountainous regions found its way, in one year to the western coast of this peninsula. In 1819 it had reached the Island of Bourbon.

At the same time advancing east and south-east it soon established itself in



Siam, Ceylon and the Philippine Islands.

Subsequently, it reached the northern parts of China & Tartary, and after traversing the whole length of Asia it appeared in 1823 in the Russian city Astrachan. Here it paused

and several years elapsed before it commenced a new career of destructive invasion. It did not fairly

enter Europe until 1830 when it attacked Moscow, and taking a westerly course it successively visited St. Petersburg, Warsaw, Berlin, Hamburg, reaching Paris & London in 1832, and in the same year overleaping the barrier of the Atlantic appeared in Quebec & Montreal in June.





and thence pursued a rapid course to the  
Valley of the Mississippi. On the 24th<sup>th</sup>  
of June it broke out in New York; thence  
advanced rapidly up the Hudson &  
southward to the Delaware and Ches-  
apeake Bay, reaching Albany on the  
3<sup>rd</sup> 14th July & Phila. and Baltimore  
a few days later in the same month.

It is unnecessary for me to point  
out minutely its course as it visi-  
ted almost every inhabitable portion  
of the earth. Suffice to say it  
lingered as an endemic in India,  
and in 1847 it commenced a new mar-  
ch of desolation, pursuing a singular-  
ly corresponding course with its first  
invasion, both as to the succession of the



regions visited, and the period of its ap-  
proach and departure. It reached  
the shores of this country again at the  
close of the year, 47, but not until  
two years after did it assume a very  
violent form, except in the valley of  
the Mississippi where it raged in  
Dec. 1848. In 49 it broke out  
in New York & Philadelphia, and after  
visiting many parts this side of the  
mountains, it took a fresh start  
from N. Orleans, and after spreading  
along the tributaries of the Mississippi, it  
crossed the whole breadth of the conti-  
nent, reaching the Pacific coast in  
1850, attacking in the same year  
San Francisco & Sacramento.



It appeared again in this country in 1854 since which time we have enjoyed a period of exemption. But at this time we are looking forward with fearful apprehensions to another invasion with the approach of Summer.

From the brief account of this disease given above, it will be seen at once, that its march is extremely irregular both as to time and direction.

Sometimes it advances slowly, sometimes with great rapidity; pausing for a longer or shorter period, giving hope to the sanguine that they may ultimately escape its ravages, only to dissipate their fondest anticipations, by suddenly



and unannounced falling upon them probably in the still hour of night, or while engaging in their usual avocations, and leaving their inanimate forms to tell the story of its destructive malignity.

Generally its progress is arrested in winter, tho' not invariably so; for instance at Moscow it prevailed the most part of the winters of 30-31; and in the Miss. valley in 48-49.

It is not absolutely confined, tho' preferably following, the course of streams; affecting low and damp places, and attacking filthy and crowded portions of populous cities; but occasionally appears upon lofty mountains.





in the midst of sandy deserts, and among  
the inhabitants of sparsely settled dis-  
tricts. No barriers seem sufficiently  
strong to check its progress; it leaps  
over mountains, crosses deserts & oceans,  
obeying neither wind or tide. All  
classes of persons, male and female,  
young and old, the robust and  
feeble are exposed to its deadly as-  
saults; yet as a general rule it  
selects as its victims those who are  
already pressed down by the vicis-  
situdes of life, & show some predis-  
position to take on a diseased ac-  
tion of this sort. It is also ex-  
ceedingly capricious and erratic  
in its course, leaving towns and dis-  
tricts



in its line contracted, and seizing upon others, apparently in less favorable circumstances. The period of its duration is from one to three months & when it prevails in the same place more than once, it is usually of a milder character.

Course and Symptoms. In places which it selects to manifest its deadly effects there is usually experienced to a greater or less degree some disorders of the stomach and bowels, which precede its approach amounting to slight attacks of dysentery or diarrhoea. But very frequently the premonitory affection assumes a more decided character, and without amounting to cholera, resembles it



very much. The latter symptoms have  
been termed by French writers Cholera  
ine. This in fact often constitutes  
the first stage of cholera, and when  
if it does not subside spontaneously, yields  
kindly to proper treatment, the apt  
upon exposure of patient to any exciting  
cause to be aggravated into cholera.

It generally attacks when the epi-  
demic influence has attained its ade-  
quate intensity, the lowest orders of  
the community. These are soon  
followed by others, and the numbers  
gradually increase until the disease reach-  
es its acme, when it rapidly subsides  
and finally disappears, leaving be-  
hind it that same tendency to affection



of the bowels which had warned us of its approach. The attack often occurs after some impudence in diet or exposure; occasionally comes on with loss of appetite, pain in the back and abdomen, vertigo, ringing in the ears, feeble, impaired vision, copious sweats &c; and in the midst of these or similar symptoms, generally after a longer or shorter duration of Cholera. but sometimes without any premonition whatever, the patient is seized with violent vomiting and purging, attended with severe pain in the abdomen & cramps of the voluntary muscles, especially those of the lower limbs. The first evacuation when the attack is sudden, consists of





The ordinary contents of the stomach & bowels: the dejections which follow are thin and watery, whitish color, resembling sweet-whey or rice water; and when allowed to stand, separate into a colorless liquid, and a white flocculent insoluble matter which subsides. The matter vomited is usually the same as the stools. The cramps generally begin in the extremities, especially the calves of the legs, subsequently extending to the muscles of the abdomen and trunk. which are exceedingly painful and almost incessant, the muscles gathering into hard knots, one contracting as another relaxes & often distorting the fingers and toes in various directions.



The pulse now sinks rapidly, the extremities become cold; the features shrink, the patient is restless & complains of intense thirst; the surface of the body is bathed in sweat; the urine is scanty, and the skin assumes a bluish leaden or violet color. As the disease advances the evacuations become more copious & watery, and the concomitant symptoms increase in severity. The tongue and breath become cool; the hands and feet shiver and are wrinkled; the conjunctiva dry; the secretion of urine and tears suppressed; respiration short, hurried, & oppressed, and every symptom indicative of extreme prostration. One step further and he



passes into the stage of collapse. The pulse now becomes imperceptible: the movements of the heart are oscillating and feeble; the blood stagnates in the capillaries; the features and whole body are stricken; the voice is feeble or quite extinct; and the whole body has the appearance of death except the eyes, which sometimes retain an expression of intelligence, and seem as if they were looking out of a corpse. The evacuations sometimes continue till the close and are at last involuntary. The patient sometimes retains his intelligence to the last, or in some cases a period of stupor precedes death, which last may take place in four or five hours.



from the commencement of the attack, though more frequently occurs in one, two or three days.

I have thus briefly alluded to the general course and symptoms of this disease as it tends to a fatal issue, but though a terrible complaint, is susceptible of a favorable change either spontaneously or under treatment, at any stage, even in that of collapse.

If it is arrested early the patient sometimes enters into a speedy convalescence without any subsequent embarrassing symptoms ~~sometimes~~ but infrequently some light intestinal disorder continues for a longer or shorter period. But if the collapse has begun before a favorable change occurs, the patient has





great dangers to encounter, and recovery, when it does take place is slow and tedious.

One of the most favorable changes in any stage of cholera is the appearance of bile in the evacuations. The secretions gradually return, and if there is no relapse the patient goes on to gradual ~~the~~ sometimes speedy recovery. Unfortunately, ~~however,~~ a relapse sometimes follows and the patient sinks with all his former symptoms. Much more frequently we may have to deal with one or more of the following sequelae: typhoid, gastric or remittent fevers; eruptive affectings; pneumonia, bronchitis, pleurisy, or perhaps some cerebral disease. The convalescence from these secondary



disorders is often very much protracted. Space will not permit me to allude to the various symptoms of cholera, and I must therefore content myself with the brief consideration of general symptoms given above: from an examination of which it will be perceived that a fully developed case of cholera, running through a regular course, generally exhibits four stages, viz. The first or formative stage, consisting of a simple diarrhoea or choleric. The second is that in which the symptoms of cholera are decided, but the system has not yet sunk into that complete prostration, which state is termed collapse or the third stage. The fourth is that of reaction.



All these stages do not by any means occur in all cases. The disease is often arrested in the first, or second or may prove fatal in the third; and sometimes the second or <sup>even</sup> third stage comes on apparently without any premonition.

Anatomical Characters. After death spasmodic movements of the muscles are sometimes observable, and the temperature of the body not uncommonly rises after all signs of life have ceased. The whole arterial system is emptied of blood with some slight exceptions; while the venous system is gorged with black, viscid imperfectly coagulated blood. Almost all the tissues of the body, with the exception probably of the lungs and spleen

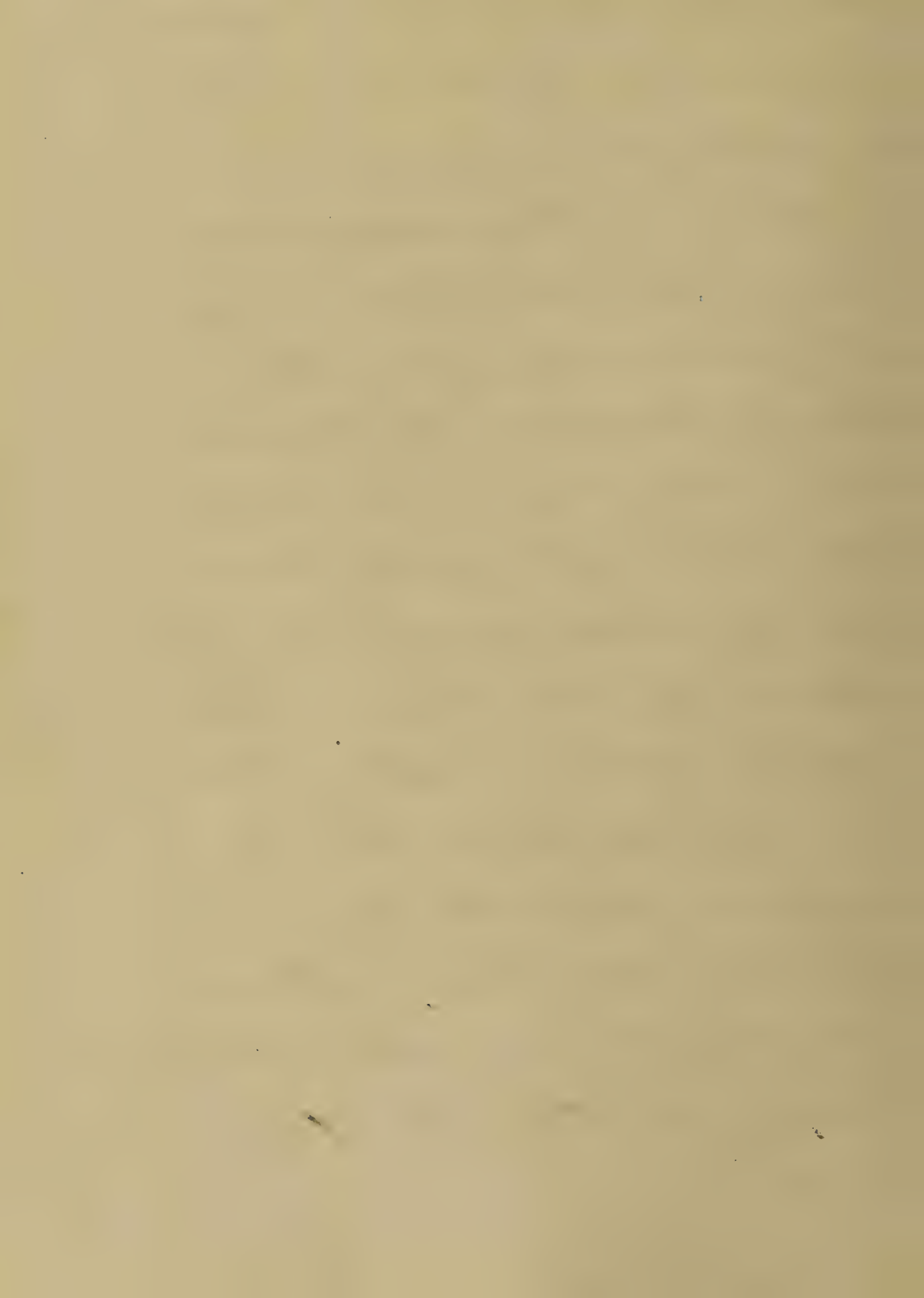


exhibit signs of venous congestion.

The peritoneum is observed to be dry as well as the serous membranes generally; and the small intestines have a rose or violet color. The mucous membrane throughout the intestinal tract, is more or less reddened, and the plicae of the bowels are thickened in consequence of this venous congestion.

The whole alimentary canal is found distended with the same fluid of which <sup>the</sup> evacuations consisted; the different organs exhibit no abnormal characteristics, nor display any striking lesion except the venous engorgement already noticed. The white flocculent deposit in the evacuations





have been ascertained by Dr. Boettger  
of Berlin to consist mainly of the  
disintegrated epithelium of the aliment-  
ary mucous membrane.

Causes. There has been considera-  
ble speculation upon this point and  
the question still continues to excite  
a great deal of controversy. At  
the present time most medical men  
seem agreed that the cause of this  
form of Cholera is a peculiar epi-  
demic influence, the specific charac-  
ter of which, however is unknown as  
yet. — a highly poisonous agent  
the existence, increase and power of  
which, and also transmission from  
place to place is favored by some



particular state of the atmosphere.

Filth of all kinds encourages the action of this poison. From the best recorded evidence we have upon the subject, tho' many distinguished physicians held opinions to the contrary, it is certainly to some extent contagious; that is: that human intercourse has some influence in propagating the disease: at the same time remembering that cholera, like other contagious diseases can only be taken by a person predisposed to disease of some sort. The predisposing causes are numerous and varied.

Old age, intemperance in food



or drink, impure air, grief, fear, anx-  
iety, sudden exposure to cold when the  
body is warm and perspiring, indi-  
gestible food, unripe fruits & crude  
vegetables; an inordinate indul-  
gence of the passions; in fact any-  
thing which is calculated to de-  
press or excite the energies of the sys-  
tem above or below the standard of  
health, is calculated to lighten up  
the disease<sup>in</sup> persons exposed to  
its specific influence. The man-  
ner in which the poison enters the  
system has not yet been satisfac-  
torily solved, some contending that  
it enters the blood through the skin  
through the lungs, - which is prob-



ably correct, - while others, among them  
Dr. Snow believes it enters through  
the alimentary canal. This sub-  
tle agent is supposed to act either  
through the blood primarily, or  
through the nervous system, espe-  
cially on the organic nerves, the  
sympathetic, which supply the con-  
tractile property to the arteries, in-  
testinal canal, & organs of res-  
piration - producing a kind of te-  
tanic contraction thus emptying all  
the capillaries vessels into the great  
central veins. This view may  
account for the great venous en-  
gorgement, defective aeration of  
the blood, and as a natural





consequence its black, thick, bread-  
ly appearance. This state of the  
blood occurs only during the stage  
of collapse, and offers a fair  
explanation of the deadly or blue  
colour of the skin.

Prognosis. In the first stage  
or choleric it yields kindly to  
treatment. Even when completely  
formed if not advanced to state  
of collapse it can be arrested  
if properly treated; but in the  
third stage medicine is of little  
avail, if however, in collapse, the  
pulse begins to rise, the <sup>skin</sup> becomes  
warm and the secretions return,  
there is hope of a favorable termination.



Treatment. Owing to the absence of any definite pathology of the disease, the modes of treatment have been very numerous, and as various as the susceptibility of the combinations of medicines. The whole Materia Medica has been ransacked from beginning to end, and <sup>almost</sup> every agent therein, either alone or in combination, has been tried, in hope of finding something to combat this terrible maldy, but as yet no specific seems to have been found. We are glad however to know by experience that some agents do possess some controlling power over cholera, and



are encouraged to believe that ere  
long this disease so mysterious  
in its nature, and formidable in  
its character, will yield as read-  
ily to medical treatment as any  
other disorder. I shall not  
attempt to enumerate the many  
plans of treatment adopted  
by medical practitioners, nor  
presume upon your time or pa-  
tience by any lengthy detail,  
but will briefly allude to  
a few, which, according to the most  
reliable statistics, have been most  
successful.

The great object  
of all modes of treating this disorder



is of course, the correction or removal  
of obvious disorders of function and  
a restoration of the system to its  
normal condition: and one which  
has borne the test of experience, and  
which seems to meet the indications  
the most promptly is the following:  
In the first and second stages  
the object is to arrest as quickly  
as possible the evacuations from  
the stomach and bowels, to relieve the  
gastro-intestinal irritation, to restore  
the function of the liver, and sup-  
port the general strength.

Among our best remedies for  
these purposes are calomel & opium  
in broken doses frequently repeated.





in combination with some good mineral  
or vegetable astringent when the dis-  
charges are very copious. Acetate  
of lead is probably the best combining  
agent, as it seems to have a two-  
fold effect - that of an astringent  
and also directly sedative to the  
mucous membrane.

The following  
is a good formulae - R. Opii pulv. gr.ij  
hydrarg. Chlorid. nit gr.ij. Plumbi acetat gr. xij.  
Acacia pulv. Syrup a.a. q.s. Fiat pillular  
no xii. - one every hour or half hour.

The degree of severity, condition of  
patient &c. will of course control  
the proportions & dose of the reme-  
dies. A general fact should  
be borne in mind, that in urgent



cases, it is necessary to produce as early as possible, a prompt and decided impression upon the system, which can afterward be maintained by milder measures.

During the administration of the above remedies the patient should have small quantities of carbonic acid water, the effervescing draught, or little cold ice water, or small pieces of ice. Sinapisms should be applied to the epigastrium and anodyne enema administered to assist the action of opiates by the mouth. Action upon the surface of the body should be provided



by moderate frictions, with the hand,  
a coarse towel, or flesh brush.

When the extremities are cold hot  
stimulating pediluvia may be  
used.

In some rare cases  
where the pulse is full and strong  
connected with convulsive symptoms,  
cautious bleeding from the arm  
will be serviceable. Diffusi-  
ble stimulants, such as camphor  
and ammonia will obviate a  
tendency to prostration and col-  
lapse

Cramps may sometimes  
be relieved by steady and firm  
extension of the affected muscles.

Perfect rest upon the part of



the patient, as far as is possible must be strictly enjoined.

In the stage of collapse, two more indications, besides those already mentioned present themselves viz. to check the excessive sweats and supply the loss of water & salts sustained by the blood.

The most effectual means are stimulating applications to the surface of the body, such as Cayenne pepper and brandy, tinc. of Campher, liniment of Ammonia &c. The hot bath rendered stimulating with mustard or capsicum was used by Dr. Bullar with the most happy results.





only restoring capillary circulation  
to the skin, but in relaxing the  
spasms of the organic muscles.

To repair the loss by the blood,  
the patient should drink freely of  
carbonic acid water, solution of bi-  
carbonate of soda, animal froths, bar-  
ley water &c, and enemata of  
salt-water and laudanum should  
be thrown up the bowels. Saline  
baths are also beneficial.

When reac-  
tion is established, the various mor-  
bid disorders should be treated  
upon general principles. Too  
great importance cannot be attached  
to the strict observance of proper



Hygienic rules.

Another mode of treatment is that adopted by Dr. Stevens, who holds to the doctrine that the salts of the blood are ~~essentials~~ agents of <sup>its</sup> arterialization; that in cholera it (the blood) loses a large proportion of these salts by the copious evacuations; and he proposes to cure the disease by restoring to the blood its lost constituents.

This theory has found many favorites; and the success which has crowned his efforts certainly entitles this system of medication a prominent place in the class of remedies for this direful malady.



His plan is simple, and I will give a synopsis of it.

Patients presenting the premonitory symptoms - diarrhoea and vomiting - are removed into a well ventilated apartment, where an even temperature is constantly maintained. A Seidlitz powder is immediately administered; if sinking is felt without purging, three or four tea-spoonfuls of Epsom salts are added to the powder. On these agents acting, plenty of thin Pepp tea, well seasoned with salt, are given; if there is any pain a sinapism is applied to the gastric region, and thirst is relieved with Soda or pure water ad-



lebitum. If cramps, coldness, or sinking of the pulse come on, the patients are considered as cases of Cholera in the second degree. The following is then administered every half hour: Soda Chloridi ℥i, Sodae Carb. ℥ss, Potass Chloratis grvii, dissolved in water.

If there is much irritability of the stomach a sinapism is applied; if much heat or burning pain an additional quantity of Carb. Sodae is added to the mixture. In a case

in the stage of collapse, a strong solution of the same salts dissolved in hot water (100° Fahr.) is thrown into the bowels and repeated every two or three hours. Frictions in the cold





stage, pure air, and well regulated diet. Tepid Sulp bath, cold water poured over head, back & chest.

Other remedies have from time to time been used and with good success: such as the sub-cutaneous injection of Morphia, when it could not be administered by the mouth or rectum: emetics: and a number of cases have been reported, as having been successfully treated with Chloroform.



1866

An Inaugural Dissertation

on

the influence of Alcohol on the physical  
and vital properties of the animal tissues  
and fluids.

Submitted for examination

by

Princel Agent and Faculty of Physic

for

the degree of Doctor in medicine

Charles L. Anderson

Maryland



# Influence of Alcohol on the physical and vital properties of the animal tissues and fluids

The most important physical change which the contact of alcohol effects in softer animal tissue is that of contraction, which change is entirely due to the difference in the capillary attraction of the tissues for alcohol and for water, if animal membrane or a mass of coagulated fibrine be placed in alcohol in a fresh state, there forms at all points where alcohol and water meet a mixture of the two, and, as the animal texture absorbs much less of an alcoholic mixture than of pure water, a larger amount of water is, of course, expelled than of alcohol taken up; and



the first result is a shrinking of the animal substance, for one volume of alcohol retained more than three volumes of water have been expelled. This corrugating effect of alcohol will be usually increased by the coagulating influence which it will exert over whatever soluble albumen the tissue may contain.

Both these results will, of course, be proportioned in their degrees to the state of concentration of the alcohol; but some physical change must always take place in the walls of the stomach whenever alcoholic liquors are introduced into it. And in the soft tissues at large, as soon as alcohol has found its way into the current of circulation, and when animals are poisoned by alcohol introduced into





the stomach the coats of that organ become so thoroughly imbedded with it throughout their whole thickness that no washing or maceration can remove it.

We also find that when alcohol is applied to living tissue, especially to the vascular surface of the skin or mucous membrane it induces heat, redness and pain. These symptoms vary in intensity according to the state of concentration of the liquor and the length of time during which it remains in contact with the surface and they may pass on from this condition to one of actual inflammation. Our best knowledge, however, of the influence of alcohol upon the vital action of the animal



tissues is derived from vasoconstriction. The  
 observations upon the circulation of blood  
 in the web of the frog's foot. If alcohol  
 is applied to this membrane in a very dilute  
 state its first effect is to quicken the move-  
 ments of blood through the vessel, which are  
 at the same time rather contracted than  
 dilated. But this gradually gives place  
 to the opposite, for after a time the circula-  
 tion becomes retarded and the vessels di-  
 lated; if the alcohol had been applied  
 at first in a less dilute form the first  
 stage is not observed but a retardation  
 of the flow of blood is immediately brought  
 about and this retardation may be such  
 as to amount in some parts to a complete stag-  
 nation; around the stagnated parts there



is generally, a border, in which the blood flows with increased rapidity. There are some peculiar effects of alcohol upon the blood besides its influence on the coagulability of the fibrines, for when alcohol is mingled with fresh arterial blood it darkens its color so as to give it a more or less of the venous aspect and when this admixture is made under the microscope it is perceived that the red corpuscles shrink and that a considerable part of their contents becomes mingled with the liquor sanguinis.

Alcoholic intoxication -- The term intoxication is sometimes applied to that series of phenomena which results from the action of all such poisons as first produce stimulation and then excoriation; of these



however, alcohol is the type and the term is applied to alcoholic intoxication alone.

Among the first effects of the ingestion of alcoholic liquors in sufficient amount to produce their influences are in most persons an increase in the force and rapidity of the heart's contraction, producing a full, frequent and strong pulse, with this there seems to be a general exaltation of the organic functions, the appetite and the digestive powers being increased and the secretion augmented, especially those of the skin and kidneys; but it is obvious, however, that the nervous system is acted on by the stimulus, for we observe the manifestations of an excited action in them such as talkativeness, rapidity and variety of thoughts





exhilaration of the spirits and suffusion of the eyes. During slight intoxication the prevailing disposition and pursuits of the patients are often made manifest and hence the saying in vino veritas

The ill-tempered become quarrelsome, the weak and silly are boisterous and the sad and hypocritical readily burst into tears and dwell on mournful topics, it sometimes happens that men habitually melancholy become highly misthful, but this seems rather to be the case when the melancholy results from external depressing influence than when it is constitutional and hence it is that too many persons in circumstances of distress have recourse to the bottle, for their temporary solace from their



cases. If no more liquor be taken than is sufficient to produce this condition it gradually subsides and is followed by a state of the opposite character, the appetite and the organic function in general being lowered in activity, the skin dry, the secretion diminished, the spirits depressed and the sources of mental exercise for a time impaired.

For this condition sleep and abstinence are the most effectual remedies, if the first dose of alcohol be such as to produce more potent effects or if it be renewed after the first effects have been already manifested the second state is induced, in which not merely the intellectual but the sensorial apparatus is disturbed; the voluntary control over the direction of the thoughts is completely lost and the excitement has



are the character of delirium, at the same time vertigo, double vision, tinnitus aurium and various other sensory illusions occur, vomiting frequently occurs but this is a favorable symptom. In the third, and most profound stage of intoxication, there is extreme diminution or entire suspension of cerebral and sensorial powers, a state of coma supervenes upon that last described; the face is sometimes pale, sometimes flushed, the eyes are closed and suffused, the pupil dilated and contracting very imperfectly, the pulse, which was at first excitabile, becomes feeble, small and slow. The unfavorable indications in cases of poisoning<sup>ing</sup> by large doses of alcohol are profoundness of insensibility, insufficiency of respiratory movements, failure of circulation



the pupil, either much dilated or contracted, coldness of the extremities. In fatal cases the appearance usually resembles more or less closely those of asphyxia; the right side of the heart, the pulmonary arteries and the systemic veins being loaded with blood; whilst the left cavities and the arterial system are completely empty; the liver, spleen and kidneys are loaded with venous blood and the passages of the lungs contain more or less of purty mucous, the stomach but usually exhibits but little departure from its normal condition.

Effects of the excessive use of alcohol  
Delirium tremens. Considering that the state of intoxication is itself, strictly speaking, a paroxysm of insanity in which the





head becomes extremely hot, the face flushed, the pulse frequent, full and hard, the temper is violent, the individual sometimes attacking any one who opposes him and all sense of danger being lost, he is not deterred from violence by the fear of personal injury, but rushing madly upon what may prove his destruction, this condition is usually subsided in a day or two, but the habitual drunkard, who has exhausted his nervous powers by continual over exertion is liable to another form of disordered action of his brain which is known by the tremor of the limbs called delirium tremens. This state is in many respects the opposite to the preceding, there is little or no heat of the head or flushing of the face, the skin is cool and humid and even chilly, the pulse though frequent is small



and weak and the temper, though very irascible is not violent, he is interrupted by apprehensions of injury or danger. The following is the vivid picture of this condition given by one who himself has experienced it = "For three days I endured more agony than you can describe. Who can tell the horrors of that horrible manly, hideous faces appeared on the wall and on the floor, foul things crept along the bed-clothing and glaring eyes peered into mine. I was at one time surrounded by millions of mountainous spiders, who crawled slowly over every limb whilst the beaded drops of perspiration would start to my brow and my limbs would shiver until the bed rattled, strange lights would dance before my eyes and suddenly the very blackest of darkness.



would appall me by its dense gloom, all at once, while gazing at a frightful creation of my distempered mind; I seemed struck with sudden blindness, I knew a candle was burning in the room but I could not see it, all was so pitchy dark, I lost the sense of feeling too for I endeavored to grasp my arm but consciousness was gone, I put my hand to my side, to my head but I felt nothing and still I knew my limbs and frame were there, and then the scene would change, I was falling swiftly as in a storm far down some terrible abyss and so like reality was it that as I fell I would see the rocky sides of the horrible shaft were mocking, gibing, fiend-like forms were perched; and I could feel the air rushing past me, making my hair stream out by the



force of the unwholesome blast, then its paroxysm ceased for a few moments and I sunk back on my pallet drenched with perspiration, utterly exhausted and feeling a dreadful certainty of the renewal of my torments.

With this disturbed condition of the brain, a more or less disordered state of the digestive apparatus is commonly associated, the tongue is furrowed, the stomach unable to bear food without vomiting or a sense of oppression; the bowels are usually constipated or if they be relaxed the stool is dark and offensive and the urine is scanty.

The use of Alcohol — There are three classes of cases in which recourse may be had with temporary advantage to the use of alcoholic liquor. First — in which there is a demand





for some extraordinary exertion of the animal powers, Secondly - In which there is a deficiency of the proper sustenance and in which alcohol serves as a heat producing article of food, and Thirdly, in which there is a want of energy or vigour in the part of the system itself to digest and assimilate the elements which it really needs for its support.

I know of a gentleman seventy years of age, who has been from a very early period of his life subject to very frequent attacks of gout, the predisposition to which complaint is inherited from his parents, connected with this he has been a constant sufferer from dyspepsia, his mode of life was regular and moderately active and his diet what might be styled temperate, he had been advised by his Medical



friends to take wine; he had occasionally  
 employed ale, Porter and brandy and water  
 but never to excess, in this way he passed about  
 50 years of his life, almost always subject to  
 a succession of ailments to which rendered it  
 necessary to have recourse to medicines of  
 various kinds. About four years ago, in con-  
 sequence of the accession of several alarming  
 symptoms which were supposed to require the  
 antiphlogistic treatment, he was advised by  
 his Medical Attendant to abstain entirely from  
 fermented liquors, by this the disease was arrested,  
 and he found his state of health and feeling so  
 much improved by the change that the abstinence  
 from all kinds of distilled liquors has been strictly  
 adhered to up to the present period. The result has  
 been that he has lost all dyspeptic symptoms and  
 is now a perfectly healthy man.



Gentlemen of the Faculty of  
Physic of the University of Maryland  
So you and I indebted for nearly  
all that I know of the science of medicine,  
and ever with my memory true to you with  
most grateful feelings for your most useful  
instructions and your kind efforts to thor-  
oughly prepare me to practice the profession  
of medicine. In this my thesis which I  
dedicate to you, I hope you will expect  
but little that is new or great, as my oppor-  
tunities have been limited, but, I trust, that  
no matter what may be the character the  
thesis, that the practice be such as shall  
bring no discredit on either you or myself.



1866

AN

Inaugural Dissertation

ON

Epidemic Cholera

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

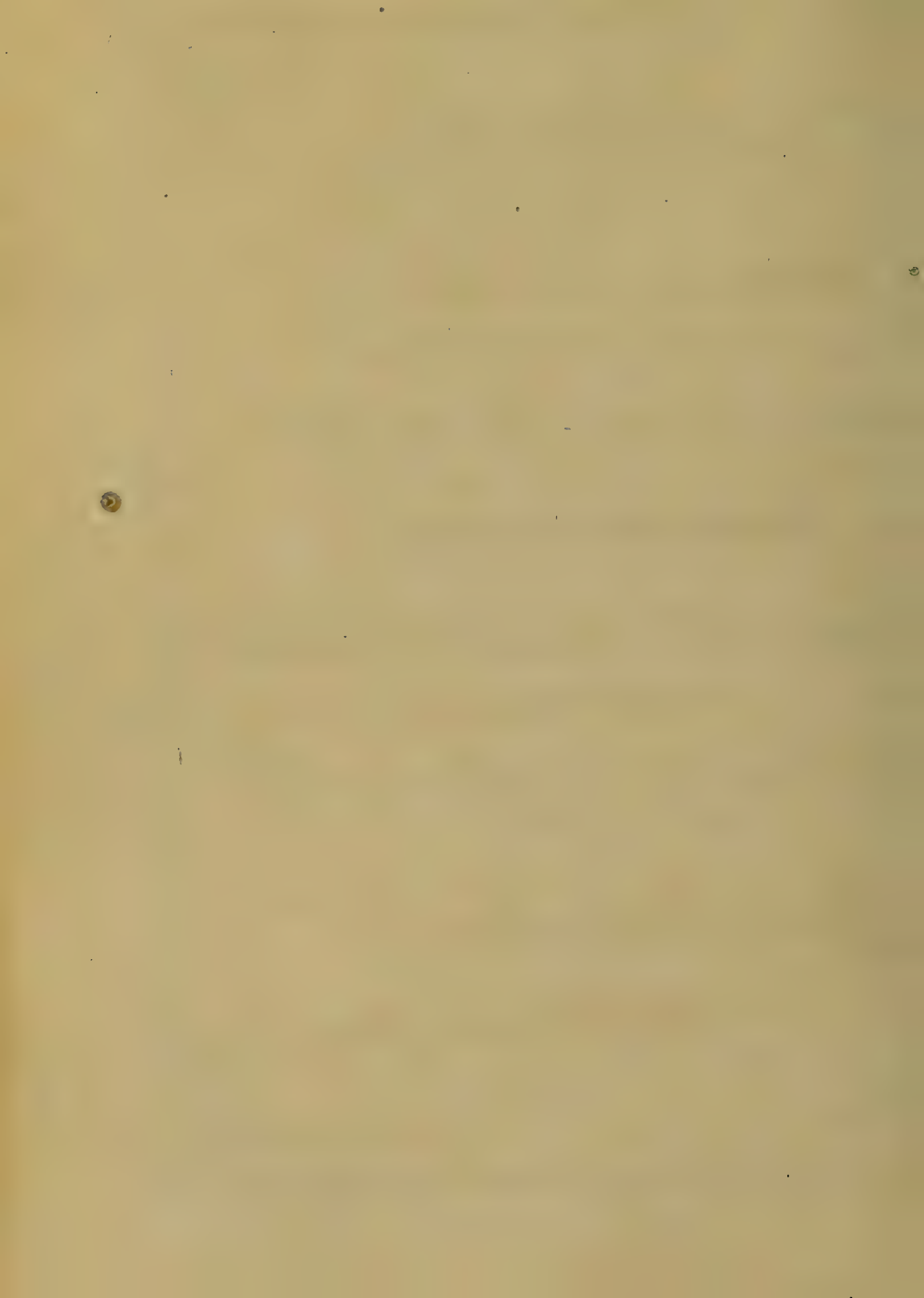
Mary Woodville

of

Baltimore Maryland

Session

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# Epidemic Cholera

## History

Epidemic Cholera is said to have been known in India from the earliest ages, but no accurate accounts have been handed down.

It has prevailed from time to time ever since India has been occupied by the British; but in 1817 it began to occupy the attention of the medical profession.

Most of the Historians of Cholera describe it as first showing itself in Jessore, a town in the Delta of the Ganges about 60 miles N.E of Calcutta, in the middle of August 1817. In September of the same year it reached Calcutta where it raged during the whole of 1818. It is a needless task, to describe minutely the ravages of the cholera in the various towns and districts of Hindostan.



Since 1817 Calcutta has been a regular sufferer from Cholera every season. In 1820 we find the epidemic to have shown itself in China. In July 1821 it appeared at Muscat, and in the same year at Bassorah and Bagdad, In 1822 the disease was raging in Mesopotamia and Syria, having appeared as far west as Tripoli on the shores of the Mediterranean. In 1829 it suddenly broke out, at Orenburg in Russia, with intense violence, and Astrachan, a large and populous town on the mouth of the Volga, became again attacked with much greater severity than in 1823. In September 1830 it was announced as prevailing in Moscow, and in June 1831 in St Petersburg from whence it went to Warsaw, Berlin, Frankfurt on the Oder and Magdeburg, from there it spread rapidly upward along the Elbe to Hamburg which it reached in October of the same



year. On the 4<sup>th</sup> of November 1831 it was seen at Sunderland, a seaport town in England. It showed itself in London in February 1832. In the spring of 1832 it was in Dublin, in April its presence was announced in Paris.

In June 1832 it appeared in Montreal and Quebec - In July in New York, in August Philadelphia this city and Washington, many of the cities of the South were attacked. It visited Havana in 1833, but no other of the West India islands had a visitation, but Mexico did not escape it.

In 1834 the United States were again visited by the epidemic, the disease recurred at intervals for a year or two but gradually disappeared.

In like manner it occurred at



Marseilles and Toulon in 1838  
 at Naples in 1836, at Bona in  
 1837, Marseilles was again attacked  
 for the third time in the same year,  
 and it reappeared in the Autumn  
 in Berlin, Prague and Danzig.  
 The number of persons attacked  
 in the Lombardo-Venetian states,  
 in 1836 was estimated at 100,000,  
 of whom 55,000 died.

In the latter part of 1837  
 the inhabitants of London  
 were alarmed by the report of a  
 genuine case of Asiatic Cholera  
 at Limehouse; the disease, if  
 it existed, never, certainly, became  
 epidemic

Europe, during the past year, has  
 again been overrun by this terrible  
 disease. It certainly originated in  
 India being brought to Mecca by the  
 Mahomettan pilgrims from India, and  
 from Mecca to Egypt by others returning





from their religious festivals.

The present Cholera first appeared in Alexandria during the month of June. The habits of the pilgrims, their bad food and exposed condition warranted its fearful ravages among them. The number of deaths from this disease at Constantinople are incredible. It is useless for me to describe its progress, enough for me to say, that all Europe has suffered. At present it has subsided but who can tell where it will next appear. anyhow we must prepare ourselves for a visitation.

### Diagnosis

The symptoms of Cholera are characteristic therefore the Diagnosis is very easy.

In most all the epidemic visitations of Cholera certain premonitory symptoms have been observed; some of which, on no other occasion, might have



been supposed to exist unheeded; but in consequence of the prevalent alarm, ~~was~~ the source of much anxiety. The alarm indeed is in some cases so great as to constitute a real Cholera mania, the patient being for the time in a state of hypochondriacal monomania; at times believing himself to be afflicted with a disease which had no existence except in his imagination and, at others magnifying symptoms into inordinate importance.

The premonitory symptoms, consisting of more or less derangement of the digestive functions, with diarrhoea to a greater or less amount, have been generally termed Choleric, this appellation may be applied to what may be regarded as the first stage of cholera.

At times great debility is experienced as if the patient had suffered a great loss of blood, vision is impaired



along with giddiness, there is also much thirst with tumefaction of the abdomen and want of appetite, these symptoms may or may not precede the essential phenomena which are vomiting and purging.

The evacuations are extremely frequent and, in the very first instance, may not exhibit unusual, but soon they are copious liquid, almost without smell, and resemble in appearance rice water, hence, commonly termed "rice water evacuations". In mild cases or after the subsidence of the severer symptoms, they are sometimes tinged with bile, and a little blood is occasionally discharged. The matter vomited is generally similar to the stools but is sometimes white and glairy, as if consisting of mucus, and has an acid reaction. The evacuations are forcibly ejected, but without much straining.



As these evacuations continue, the patient becomes very indisposed; violent cramps attack the extremities.

Soon the pulse sinks, the extremities and afterwards the whole body become cold, the patient is very restless, and the pain extreme.

The breath becomes cold, now the patient is in a state of Cholera asphyxia soon the powers of life fail and the patient dies.

In fortunate cases the blueness disappears and the pulse becomes perceptible, heat returns and general reaction comes on.

### Causes

The causes of this disease are mysterious. There are many speculations as to the origin, some assert bad rice to be the primary cause of the disease others describe an animalcula infecting the air; but nothing has been discovered. Miasma cannot be the





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"specific cause" as the cholera  
has appeared in closets on shipboard  
and during the depths of a  
Russian winter.

It is not for me to say whether  
the Cholera is contagious or not  
for so many eminent gentlemen  
of the profession have been  
puzzled by the excentricities, if  
they may be so called, of this terrible  
disease; sometimes it has favored  
the advocates of non-contagion,  
and oftentimes, it has become their  
direct opponents. It is a certain  
fact that this epidemic will  
commit greater ravages where  
the state of the locality could  
authorize its appearance; badly  
ventilated ship holds, ill-clotted  
and ill fed tenants of almshouses  
and prisons, the inhabitants of  
crowded and filthy suburbs, in fact,  
every and any place or persons, the



state of which or whose habits are not of the cleanest and the best.

Pathological Characters.

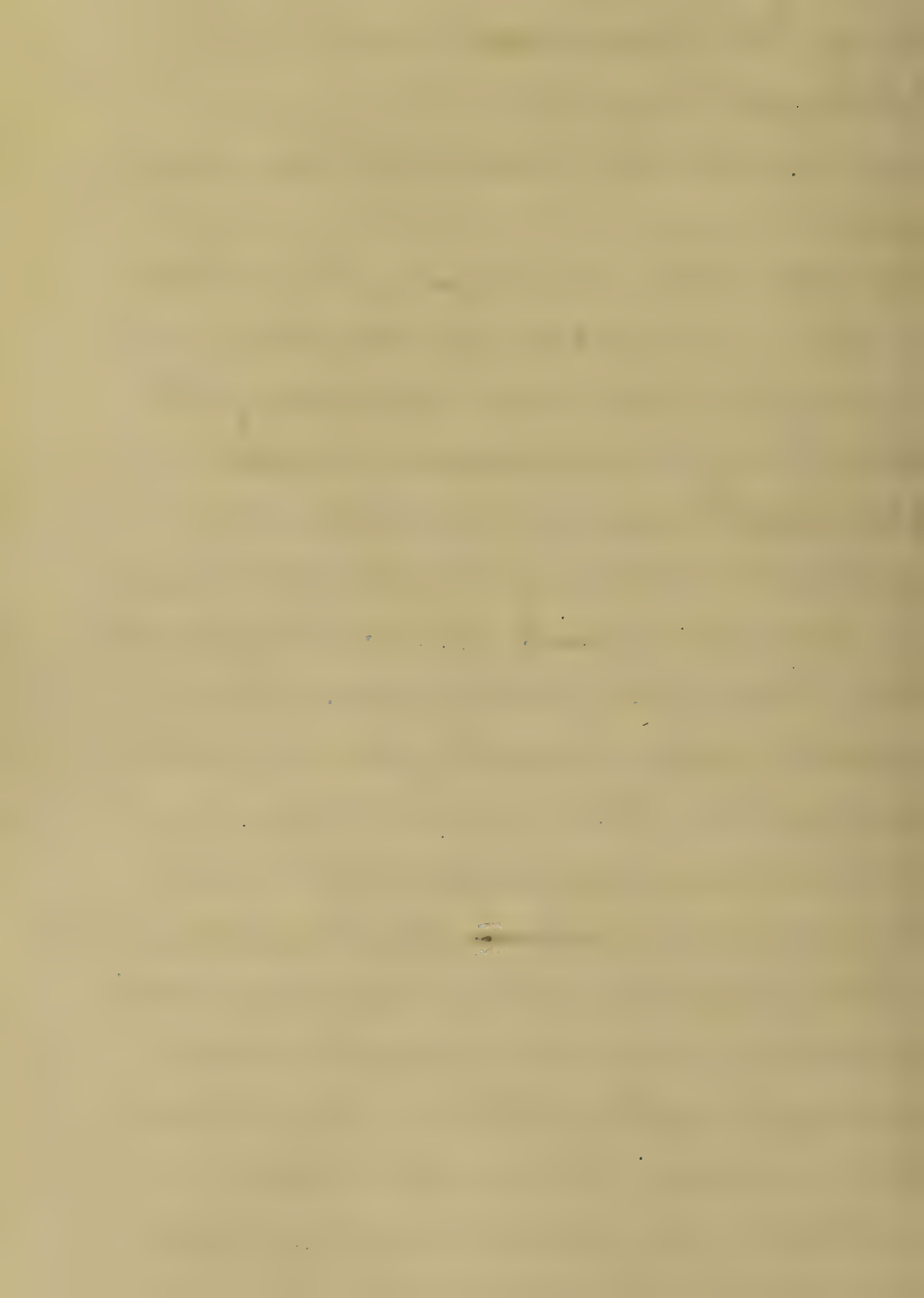
The anatomical characters are insufficient.

"It has been remarked that those who died in a state of collapse, and in which there was coldness of the whole body, some became warmer after death and preserved a manifest degree of heat until the commencement of rigidity" (Andral)

The blue tint diminishes in intensity after death, and is often limited to the extremities.

"It has been affirmed that the body exhales a ~~peculiar~~ odour sui generis" (Arnand)

The intestines when opened, contain the same rice-water secretion as is discharged in the stools. The stomach and intestines are found deeply injected. Sometimes signs of acute inflammation are met with.



Considerable attention has been paid to the eruption of pimples met with on the mucous membrane of the intestinal canal.

"This eruption is said to exist in the majority of cases.

The left cavities of the heart, are almost entirely empty while those of the right side are gorged with dark and viscid blood resembling thick currant jelly." In the aorta there is more or less blood sometimes very little whilst the pulmonary artery and vena cava are gorged" Most of the arteries are commonly empty whilst the whole venous system contains quantities of thick blood of a syrupy consistence.

Various speculations have been entered-into, as to the nature of Cholera. The majority have placed it in the organic nervous



systems. Some have regarded it to be a diseased condition of the blood, others a miasmatic disease, and others again, have considered it an eruptive disease of the mucus membrane of the intestines.

"Notwithstanding the similarity, between cholera morbus and epidemic cholera in these climes, it is evident that they are essentially different

### Treatment

"The treatment of this disease is doubtful". It is of great importance to have recourse to early treatment. On the appearance of the first symptoms of cholera having the patient put in bed the skin of the sufferer should be kept warm and moist, by means of ordinary hot drinks as tea, &c. Sometimes these means, simple as they are may arrest the disease.





Among the best remedies best calculated to relieve the discharges and the irritation of the intestinal mucus membrane are opium and calomel in small and repeated doses, and when the discharges are copious, combined with acetate of lead, with Kino or the ext of Rhatany.

Opium - like every other remedy, indeed used in cholera has met with mixed approbation and reproach.

"Large doses of opium are considered injurious as inducing torpor and even coma and favoring congestion of the brain. "In small doses however it proves highly useful by checking exhalation into the bowels relieving pain and allaying irritation, and sustaining a general diffusive excitement."

Calomel is also a favorite remedy. It was used a great deal by the



practitioners in India, whose example led to its employment.

The intense thirst of cholera must be satisfied by a liberal allowance of cold water. There can be no doubt that ice is the best and most grateful, as it assists in allaying the irritability of the stomach, which is, indeed, a symptom demanding attention from the distress it often occasions. It is also better than water as will not fill the patient up as water would do. Iced soda water is very grateful to the patient.

Whatever liquids are administered when the patient complains of heat and thirst they should be all cold.

Lime water and milk are sometimes useful in allaying the gastric irritation.

It has been affirmed that a twelfth of a grain <sup>of Strychnina</sup> given in pill and repeated a



few times, has been repeatedly known to check a profuse diarrhoea with rice water evacuations, and even when the extremities were blue" (Ryan)

"Dr Elliotson found creosote very efficacious in Cholera it appeared to allay the vomiting".

"The Riga physicians assert that Buchu like almost every similar remedy - had been given in Cholera and frequently with favourable results."

"Of the efficacy of the guaco" (says Doctor Dunglison in his work on New Remedies) 'in the Indian Cholera, M. E. de Chanias Officier de Santé in the French navy, and Dr. Chabert, physician to the military hospital in Mexico, have published the results of their experience. When the brig Adonis, on her voyage from Havana to Mexico some of her crew were attacked with the Cholera, which prevailed at the time in Mexico. Of all the



remedies employed, the guaco was found the most beneficial; its effects, indeed, were so wonderful that it was regarded almost as a specific. Its action is chiefly exerted on the heart and the circulation which it renders more energetic. All to whom it was exhibited in the commencement of the disease, were saved, and even those, in whom the cholera had reached a certain stage, the greater part were saved, as soon as a free and complete reaction was established.

Dr Chabert, who first administered the guaco in cholera as well as in yellow fever, observes on its use in the former disease:— In simple cases, a small teacup full of a decoction of guaco was given every half hour, until a general diaphoresis and proper warmth of surface supervened, which was kept up





for some days when the remedy was gradually discontinued. To allay the thirst the decoction was given, diluted with two-thirds or half water. In dangerous cases of Cholera algida, with coldness loss of pulse, &c., a spoonful of the spiritous tincture was mixed with six or eight spoonfuls of water, and every quarter of an hour a spoonful of this mixture was given alternately with a small cup full of the decoction. When the pulse returned, the warmth became restored, and the perspiration re-established; the tincture was omitted and the decoction continued alone at longer intervals. In the majority of cases after the cessation of the cholera symptoms, pain was experienced in the epigastrium with burning thirst, which yielded when the decoction was diluted



with half or two thirds water. When the decoction could not be retained by the stomach it was given in clyster. Blood letting, general, and local, was employed along with other external means, but nothing was given internally, except the guaco. To make the decoction;—two drams of the stalks and a half dram of the leaves, were boiled in two pints of water, down to one. The tincture was prepared like other tinctures.”

“Dr Francis Girard of Arignow, found the acetate of Morphine so highly useful that he preferred it to all other remedies, Of ninety-nine patients thereby eighty-one were cured. He found, when given early, that it especially checked the vomiting, and moderated the subsequent reaction, after which the other symptoms gradually disappeared.



When however, the resources of ~~the~~ had been long postponed, the effects of the remedy were less marked; the vomiting and the other symptoms persisted longer; the supervening reaction was much more tardy, and frequently ended in a state of collapse, which under the most trifling imprudence, produced an unfortunate result. Gérard administered the acetate at first in the dose of one-fourth of a grain every half hour, until the serious symptoms were removed, and he omitted ~~it~~ as soon as the spasms and the diarrhoea and vomiting had ceased or as soon as reaction ensued.

Should the stomach be loaded with undigested food during the formative stage the treatment may very properly be commenced with a gentle emetic of ~~the~~ Ipecacuanha.



Should costiveness follow the use of the means requisite for checking the disease, it should be corrected by the mildest possible measures; and rhubarb is perhaps the best laxative for the purpose.

In the stage of collapse stimulants in small doses should be employed. Efforts to restrain the evacuations from the stomach and bowels should not be abandoned, and attempts should be made to excite the surface by frictions and rubefacients. "Sinapisms may be applied to the abdomen and extremities, and Cayenne pepper and brandy, oil of turpentine liniment of ammonia &c. over the surface of the body."

To repair as far as possible the loss of water and salts by the blood the patient should be given, soda water with the bicarb. in solution iced brandy and water, barley water &c





To close the cutaneous exhalant orifices astringent solutions may be employed. To relieve the urgent cramps, friction was generally used with the application of tight bandages around the extremities.

In the November number of the Medical Times & Gazette (London) for 1865 a correspondent from Naples writes—  
 "Dr Simi is using quinine in large doses (20 grs), and finds it very useful in Cholera. Calomel and squill from the first. Hypodermic injections of a solution of quinae sulph., with no excess of acid, brings about reaction in a very remarkable manner but must be repeated, and brandy and chloroform given to keep it up"

Great attention must be paid to the diet, the food should be of the most digestible kind. When the disease is established



mucilaginous and farinaceous liquids should only be used. During convalescence all indigestible substances ought to be avoided and only very light food should be alone employed.

### Prophylactic treatment.

"For the prevention of the disease," writes a Parisian Professor on Cholera. "every means must be adopted to ensure the utmost cleanliness. All dirt must be carefully removed which would be likely to cause noxious emanations, and in all cases the most enlightened hygienic regulations should be enforced. Large meetings, such as markets, should be as much as possible avoided, and troops should not be marched through infected districts. Means should be taken to prevent any but wholesome food being eaten. Individuals should choose healthy



residences, possessing a pure water supply. They should carefully avoid cold and damp, overwork, and great fatigue of all kinds. The usual diet should be followed, provided that it be nutritious and wholesome. Excess in alcohol and iced drinks should be avoided. Diarrhoea should be checked at its first appearance.

I will conclude with a sketch of the different plans of treatment adopted by different physicians.

Bleeding in all stages has been the remedy chiefly depended upon by some. Others have placed great reliance upon emetics; and even purgatives have found advocates. Calomel in large doses, with or without opium is a favorite remedy. Some have claimed success for a treatment in which applications of heat over the spinal column



is one of the prominent features others recommend ice bags along the spinal column. Some upon opium and brandy, and stimulants; and others, on the contrary, upon cool and demulcent drinks.

Some of injections into the veins of warm water holding carbonate of soda in solution. Many things have yet to be learnt of this disease

And may I now beg leave to conclude this thesis.

(Woodville)





AN

Inaugural Dissertation

ON

*"Vis Medicabilis Naturae"*

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

*Thos. M. Chaney, M.D.*

of

*Bristol, A. D. Co. Md.*

Session

*Second*

*1866*



1  
"Vis Medicatrix Naturae".

The healing power is Nature's is more comprehensive and expressed perhaps more fully the meaning of the words "vis medicatrix Naturae" than the common translation "the curative power of nature" and is therefore more acceptable.

Every living animal or plant passes a history of successive epochs or phases of existence. The simple exercise of vital powers is necessarily followed by alteration of the parts employed and the functions of life instead of remaining indefinitely the same pass through a series of changes which in their turn bring other



These phenomena following on in a continuous course. This change is in many respects the most interesting characteristic of living organized bodies.

The exhibition of these phenomena peculiar to vital functions depends upon the regular and normal continuance of the nutritive process. When from any cause this process deviates from its original type it presents an abnormal condition called disease applicable to all organized living bodies.

The states of health and disease then belong equally to animal and plant. But the study



of disease, its cause, progress and  
 effect has been confined almost  
 entirely to animal diseases even  
 of this class men, whose mal-  
 adies are preeminently important  
 to himself, the student, has re-  
 ceived by you the greatest share  
 of attention. And although great  
 advances in important points of  
 the history of diseases, their struc-  
 tural pathology and physiolog-  
 ical relations have resulted  
 from this attention we are still  
 in great ignorance of the natural  
 history and terminations of dis-  
 eases, a few men influenced by Art.  
 & great has been the want,





of confidence in the inherent forces  
of the animal economy, that  
deformation of the natural course  
of disease has been to a great  
extent forbidden. Constant in-  
terference necessitated by a nat-  
ural anxiety has either actually  
distorted the natural processes  
of disease or by its supposed  
influence has given rise to er-  
roneous convictions.

In order to arrive at the probable  
relations which disease sustains  
to the human body we should  
understand the causes and na-  
ture of this abnormal state  
superinduced upon the original



normal condition.

The mind naturally resorts to a period previous to the existence of this condition; it reviews its state upon which this has been superinduced and seeks to learn how it came to be so developed and developed in what particular field and in what form.

It will not surprise any one who takes even a superficial view of the living body and especially one who contemplates it in comparison with the most perfect of human inventions that impairment should occasionally



seem in its structure and  
 functions. In an organism so  
 complex as the living animal  
 body consisting of so many parts  
 & extreme delicacy, depending  
 more or less on each <sup>part</sup> and  
 performing such a multitude  
 of functions we reasonably  
 expect some deviation from  
 the regularity of its course.  
 And when we consider further that  
 all this machinery, composed  
 of the frailest material creates  
 sustains and acts upon itself  
 changing every instant in the  
 composition of its parts and  
 subject to varying influences



can without any real unity or  
 similarity it should become dis-  
 ordered. Altho an imperfect  
 knowledge of the real origin of  
 disease it is supposed that  
 it is caused either directly or  
~~directly~~ indirectly by external  
 influences in a great majority  
 of cases. The mechanical  
 and some chemical causes  
 are the only ones whose opera-  
 tions we can understand and  
 trace directly to their effect,  
 all the others operating in an  
 indirect manner through the  
 vital functions in the produc-  
 tion of the phenomena presented





What then we term  
 causes of disease are so compli-  
 cated by animal life the opera-  
 tions of which we be not  
 indubitant, that they may  
 properly be considered only pro-  
 vocations for the morbid phas.

From a consideration then  
 of the manner in which disease  
 is developed it is evident that  
 it is not a foreign existence  
 introduced independently and  
 then introduced into the living  
 body, but that it is a condi-  
 tion of the same vital ac-  
 tions that exist in health.

The changes in parts manifesting



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structural disease do not indicate a different process of nutrition but a modified condition of this function. whatever be the remote exciting cause it acts in accordance with and through the vital laws. A disease may and does have its own special laws governing its manifestations, but these are only modifications of the normal laws of the system or at best different, or closely analogous and more or less subordinated to them. In fevers, however, the process may be introduced,



whether operating directly upon  
 the brain and nervous <sup>system</sup>, or indi-  
 rectly through the blood the  
 effect as observed is simply  
 a derangement of the ordinary  
 functions. What do we see  
 in the ordinary phenomena  
 presented by nervous diseases  
 but variations from the natural  
 actions of the organs affected?

The only difference we can dis-  
 cover between the external mani-  
 festations of these diseases and  
 health is that in the latter con-  
 dition the muscular system  
 is subject to the will in its  
 normal state while in the



former the directing power is influenced by a foreign or morbid force.

Disease, a condition, which in view of the constitution of man is a natural, is not a normal state and not one towards which the vital powers tend. On the contrary the vital powers have an inherent tendency to return to their normal condition when deranged and to remove or repair the cause of the derangement. In this tendency to return to the normal condition do we recognize the healing power of Nature."





This power is most evident in cases in which the steps of the cure of disease and the removal of causes may be best observed.

When an offending substance is taken into the stomach, a natural excitement of this organ is produced and speedily the indigestible and irritating mass is ejected. The mucous membrane of the organ stimulated by the irritation endeavours by secretion to repair the injury done and to give to the part their former healthy surface. In the intestines an excessive



flow of mucus and incessant peristaltic motion may carry an indigestible substance along the canal without permanent injury to the delicate tissues concerned.

The simple presence of a particle of dust in the eye causes a copious supply of tears whose office it is to wash out the irritating substance and enable the already injured parts to move smoothly upon each other. Perhaps there is no stronger evidence of the wonderful power of the vital economy than that furnished



by the most beautiful of curative processes the healing and cicatrizing of a wound and the restoration of the part by a slow process of contraction and assimilation to nearly its original state.

The gradual advance of vessels from cell to cell assuming in each step the character of the original type indicate an immutable and inexplicable power in these minute constituents.

Taking into consideration the operations of the inherent power of the living tissue in lesions open to our observation we



infer that this power controls  
to an equal degree or even  
more, in view of their isolation  
from external influences, lesions  
hid from our observation.

But aside from these which  
render highly probable the  
autocracy of the inherent pow-  
er of the living body - in the  
developments of disease there  
are other considerations.

The analogies furnished by  
the lower animals and even  
man before favored with  
a medical art weigh upon  
this question.

But not only this restoration





power but also Nature's great power of endurance and resistance is best demonstrated by the practice of <sup>the</sup> many systems of Quackery.

The system of Homoeopathy, perhaps the most important, inasmuch as it is the most harmless, proves the supremacy of this power. "It can be demonstrated that the treatment legitimately derived from it of prescribing infinitesimal, in other words imaginary, doses of drugs, is utterly incapable of modifying the animal organism in any way except through



the medium of the patient's mind or by means of dietetic or other regimenal means with which the treatment may be combined. Hence we have a right to assume that all the results exhibited in the practice of Homeopaths are the product of nature's operations alone. The success of this system is due entirely to the power resident in the animal organism.

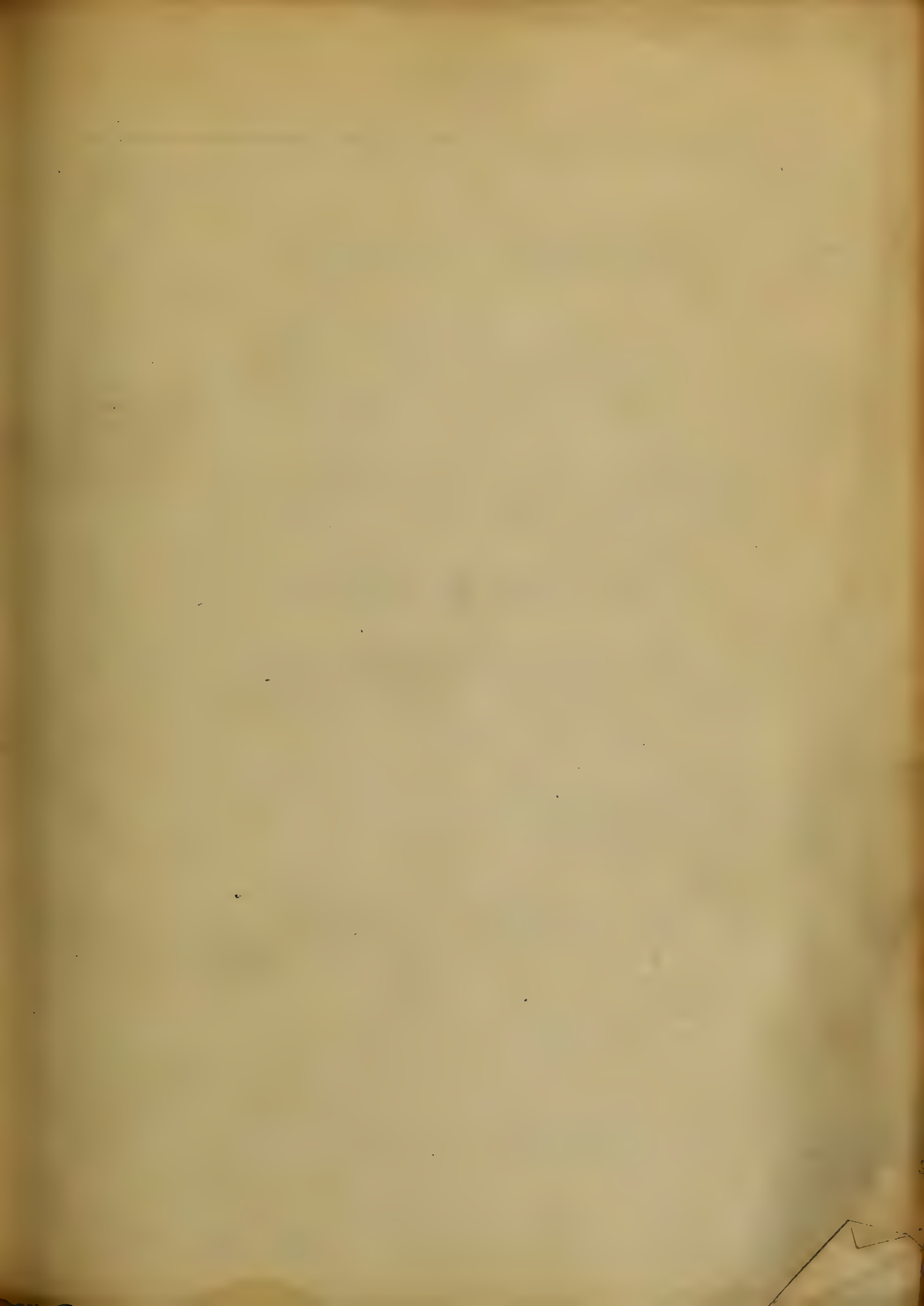
While nature is the great healing power she needs the assistance and direction which art properly employed can afford.



when we consider the alleviation  
of pain which it affords, <sup>and</sup> in  
many cases see the sinking  
powers of life rescued by its  
interference or healthy processes  
substituted for unhealthy  
ones we ascribe to it an im-  
portant part in the develop-  
ments of human diseases although  
the number of these is small  
in which it exercises a direct  
and positive curative power.

While the inherent vital force is  
the power man is the agent for  
controlling this power in the check-  
ing of disease and the restoration  
of health.









AN

Inaugural Dissertation

<sup>ON</sup>  
*Vermes*

SUBMITTED TO THE EXAMINATION

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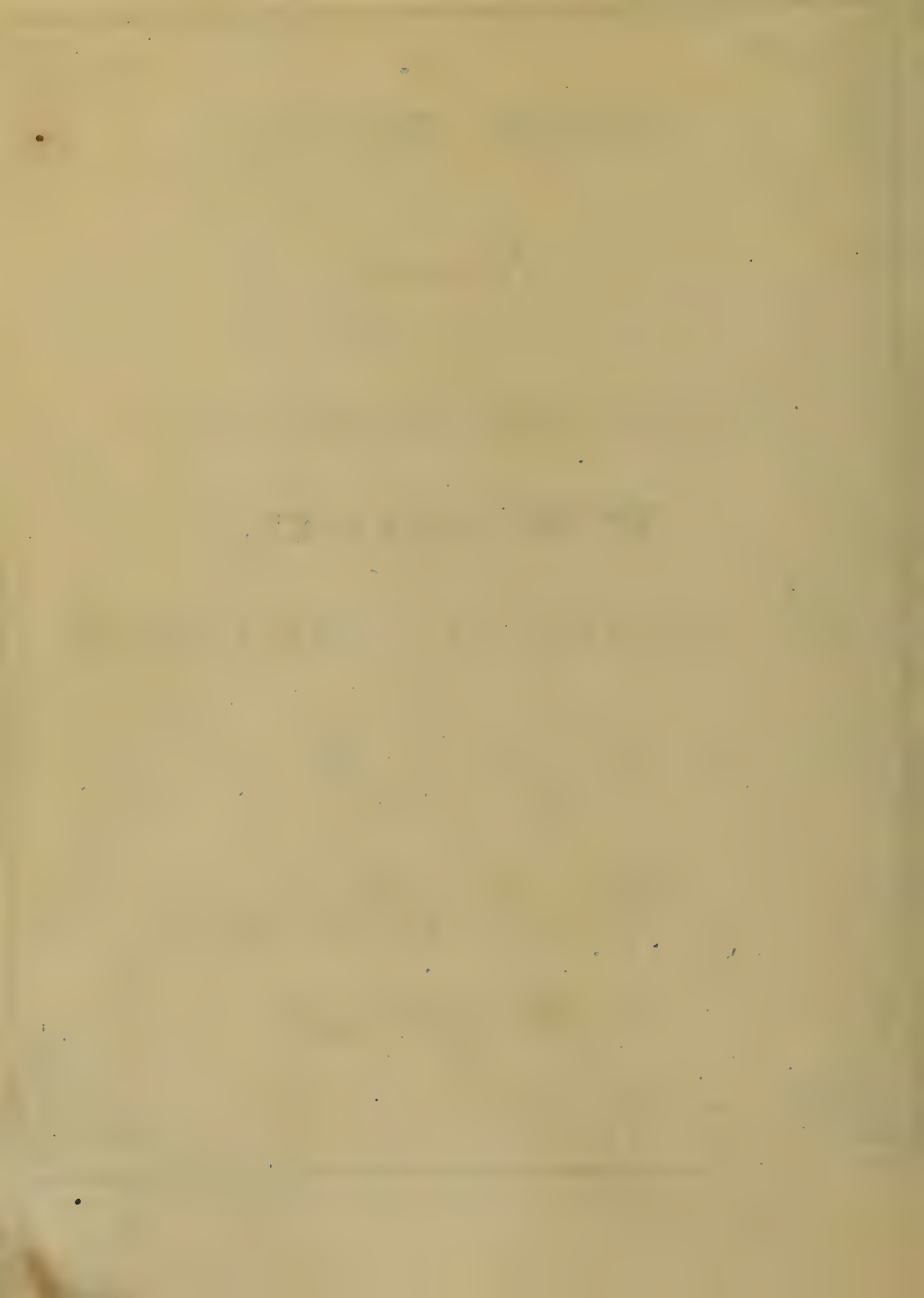
*J. Carroll Monmonier*

of

*Maryland*

*Session Fifty-nine*

1866



In choosing *Tricaria* as a subject for a thesis  
it was not my intention to enter into the  
various details and different opinions  
respecting the natural history of the  
numerous parasitic animals which may  
inhabit and subsist on the human body,  
but simply to give a brief description of  
those most frequently met with, their  
places of abode, symptoms and treatment,  
a knowledge of which is highly important.  
There is scarcely an organ or a tissue on  
the human frame which may not become  
infested with some species of living parasite.  
The heart, the liver, the kidneys and even  
the delicate structure of the eye is not  
free from their invasions, but the intestines  
are their chief abode.

To the various kinds of worms found in  
the interior of the body the term *Entozoa*  
has been applied, to these our attention will  
be directed.

The first that is generally mentioned by



authors and a very common worm is the *Ascaris lumbricus* or *lumbricoides* from its resemblance to the earth worm. It is described as being from five or six inches to a foot in length, but young ones of only an inch and half or two inches are occasionally met with. It is of a reddish brown color slightly tinged with yellow, has digestive organs and a generative apparatus which is very intricate and occupies considerable space in the female. The mouth is at one extremity and may be distinguished by three little tubercles or valves surrounding it. The male is much smaller and rarer than the female, its genital organs and a greater curvature of the tail serve as marks of distinction. These worms might be mistaken for the common earth worm (which is sometimes made use of by impostors) but if carefully examined the difference is easily perceived.

They are found generally in the small intestines, but they do not congregate there.



situated to any particular spot and may ascend into the stomach or pass downwards into the large intestines, in either case they are speedily voided. In the liver, biliary ducts and gall-bladder they have been met with, and cases are reported where they strayed into the oesophagus, larynx, and trachea. They may also pass through fistulous openings into the abdominal cavity, the bladder or vagina and thereby cause great distress. The number of these worms, which may exist at one time in an individual is so exceedingly variable that the passing of one or two is not proof that they are all, or that there are more remaining, though cases are mentioned where from three to four hundred have been voided within a week.

The next noticed in scientific divisions is the threadworm *Acaris vermicularis* or ascarides, which in internal structure closely resembles the lumbricoides, though much smaller, especially the male which





is so minute as to render an examination of it very difficult. The female is about half an inch long, very slender, transparent and its tail extremely attenuated. The male is scarcely two lines in length very thin and of a white color. Their head is represented as being constantly in motion.

The large intestines are their abode and particularly the rectum when they occur in great quantities and sometimes thousands of them are ejected matted up in the shape of a ball. They may make their way into the vagina and urethra in females and then produce excessive itching and irritation. These worms as also the lumbricoides occur generally in childhood, though they are not absolutely confined to any period of life.

There is another species of threadworm, the *Trichocephalus dispar* or long threadworm. Though known long, they were particularly noticed during the last century by two German anatomists who discovered them in the bodies



if these also died of an epidemic fever  
then prevailing, the cause of which they  
usually ascribed to these worms.

The female is from one inch and a half  
to two inches in length and nearly  
straight while the male is much smaller  
and usually rolled up in a spiral form;  
they are white unless colored by the  
food which they happen to contain.

They have been found in the dog, fox,  
monkey and other mammiferous animals  
and they are so very common in the hu-  
man body that it is said they are  
discernible in almost all individuals  
though they do not seem to cause any  
uneasiness or inconvenience.

They may sometimes appear in the  
small intestines, but they belong proper-  
ly to the large bowels and especially  
the caecum.

There are two species of tape-worm  
the *tania solium* and *tania lata*. They  
resemble one another in many respects



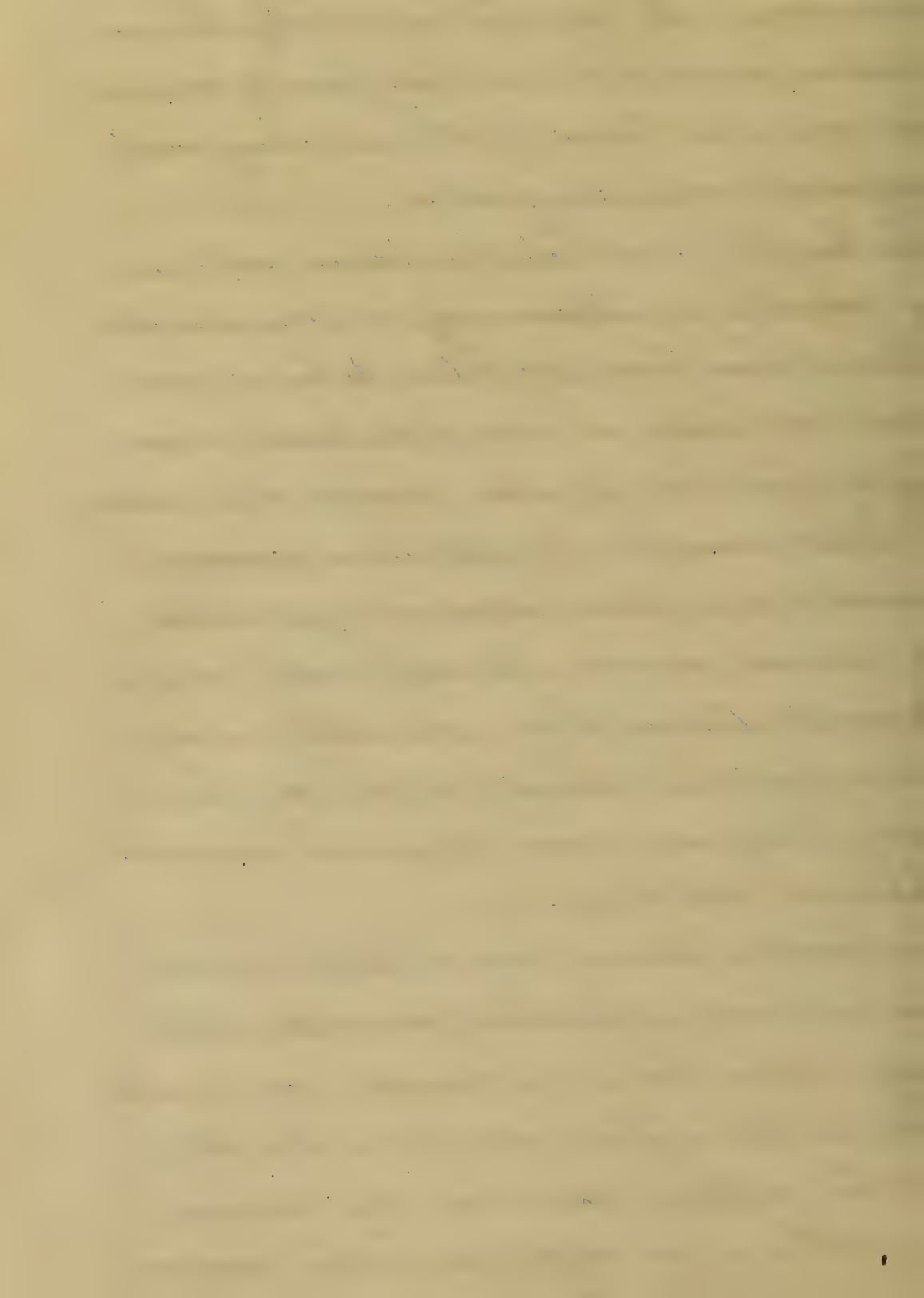
yet have marked distinctions. The tania  
squam or long lape-worm has an elongat-  
ed, flat articular body of a whitish color  
and becoming gradually attenuated to-  
wards its anterior extremity it terminates  
in a threadlike neck and a very mini-  
ute head on which there is a little  
circle of hooks and four small apper-  
tures or suckers whereby it seems to  
adhere to the inner surface of the  
intestine. In the neck the articular  
pieces are small and faintly marked  
but proceeding downwards they become  
larger and square, until at length  
near the tail, they are longitudinally  
oblong. The margins of the joints are  
embraced in one another, and it is  
said within each of these joints  
there is a male and female appar-  
atus capable of producing ova, and  
that impregnation may take place  
either by the contact of two individuals  
or by two joints of the same animal.



As the worm advances in age and approaching its caudal extremity the articular pieces become less firmly connected and portions of them may easily separate and be ejected.

The length to which the *tania solium* is capable of attaining is considerable thus it has been reported to have measured as high as one hundred and fifty feet; but if ever pieces amounting to that number of feet were passed, it must have been separate portions of several worms. As met with at the present time they generally range from fifteen or twenty to thirty feet long. They are more frequent in adults than in children.

The *tania lata* or broad tape-worm has a body somewhat similar to the long worm, but it is much broader and thinner. It differs also from the latter at the anterior extremity by having very little or no distinct neck and an





oblong-shaped head devoid of the suckers and hooks peculiar to the *Tania solium*.

The joints are broader than they are long and near the middle which is the broadest part they are about half an inch in width, becoming smaller as they approach either extremity.

This worm generally measures from twelve to twenty feet. It prevails in Russia and Switzerland while in England, Holland, Germany and most other countries in Europe the *Tania solium* is the most common.

The prevalence of one of these worms in countries where the other is scarcely known has given rise to interesting discussions as to their origin.

The several kinds of worms which have been mentioned are the principal inhabitants of the intestinal canal. There are some which may exist in other parts of the body, thus the *Filaria Medinensis* or Guinea worm



occurs in the subcutaneous areolar tissue. It is of a white color, round and elongated, about the thickness of a violin string and of nearly equal diameter from one end to the other except near the posterior extremity, where it is slightly attenuated and curved.

Its length is exceedingly variable, from five or six inches to four or five feet. It is found in the upper and lower extremities, the scrotum the testicles - on the abdominal parasites and chest - under the conjunctiva of the eye, though very rarely, and nearly all superficial parts of the body.

In Arabia, Upper Egypt, Guinea and along the Persian gulf the filaria appears frequently and at Senegal it is said to be endemic. When it occurs in this country it is almost exclusively amongst the negroes.

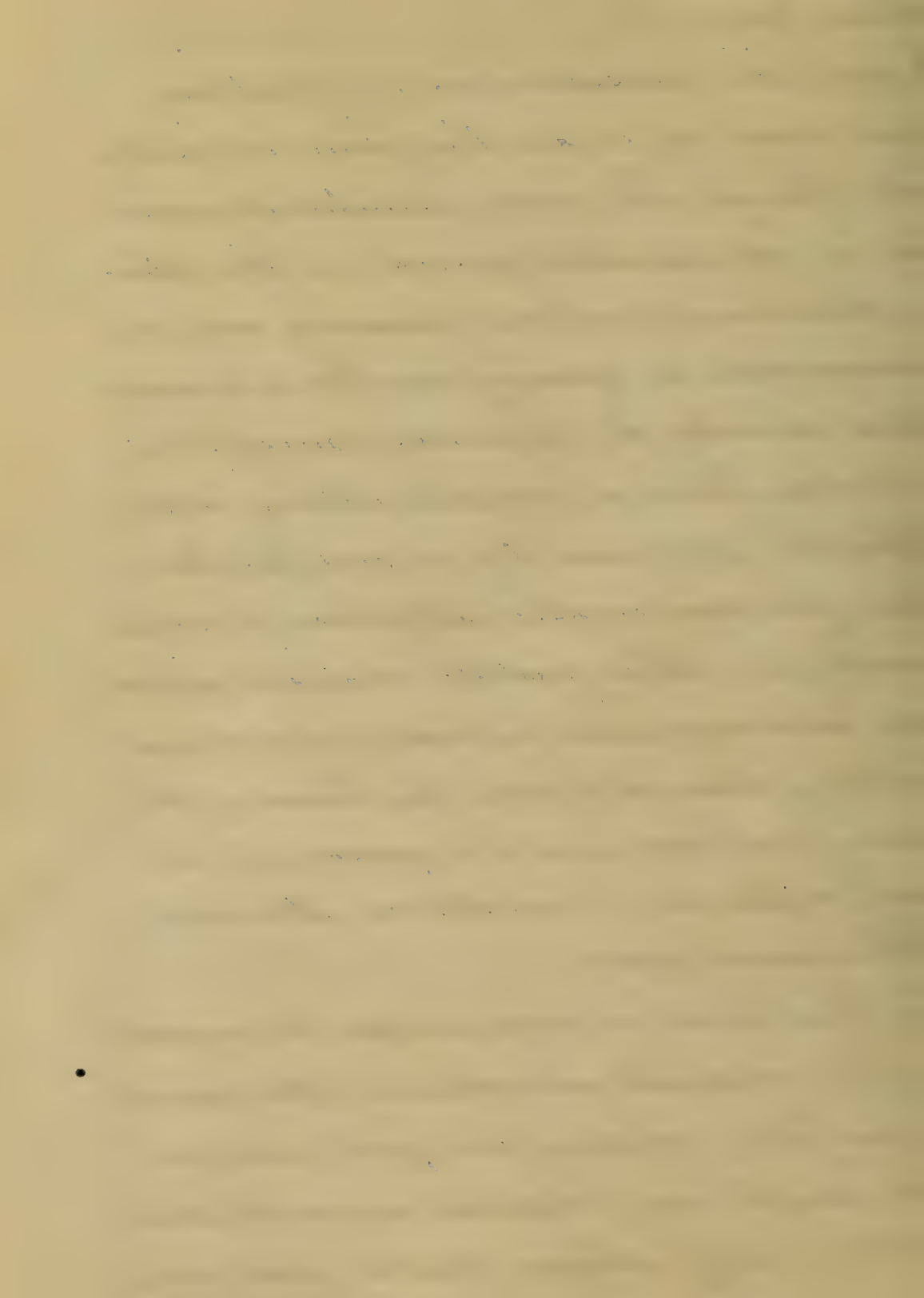
The symptoms and treatment of this parasite being different from that of



The intestinal worms, may as well be described here.

A peculiar sensation as if something were crawling under the skin is usually felt; though the worm sometimes remains for a considerable period in the cellular membrane without causing any inconvenience or giving rise to any symptoms whereby its presence might be detected. There is excessive itching in the affected part and by a cord-like elevation you may occasionally trace its course. Finally a little pustule makes its appearance accompanied by heat, redness, and swelling; when it breaks, the head of the worm protrudes and the passage of its body outwards is sometimes attended with much pain.

The treatment is very simple, it consists in the gradual extraction of the parasite by carefully winding the protruded part from day to day around a small stick or little roll of adhesive plaster, great care



being taken to avoid breaking it, lest inflammation and the formation of sinuous abscesses should ensue. The extraction requires a variable length of time, and in some situations it comes away much easier than other; - thus from the scrotum it has been removed at the first attempt.

When the animal is superficial, some surgeons cut down as near to the middle of it, as possible, and then by pulling on both ends hasten its removal.

There is another species of this worm peculiar to the eye, but its occurrence is so rare, that it is useless to enter into a description of it.

*Trichina spiralis*, is the name given to a class of minute parasites, scarcely visible to the unaided eye, but sometimes dwelling in immense numbers in the muscles of the living body. They may exist alike in both healthy and diseas-





-ed muscle, but causing neither pain or inconvenience, then occur no signs, whereby we might become conscious of their presence. In the foregoing pages, I have endeavored to describe the most common kinds of worms met with in the intestinal canal and other parts of the body. There are numerous other parasites embraced in scientific classifications, and though many of them frequently infect the inferior animals, their appearance in man is so rare, that the study of them is of no practical importance.

Respecting the origin of worms there are numerous and different opinions. In the absence of any positive means of discovering we are at liberty to choose the most plausible. Some advocating their external origin, say that the larva of insects are taken into the body with the food and that in this situation, they are developed or undergo a metamorphosis as the tadpole



becomes a frog or the maggot a butterfly. This theory seems very reasonable in regard to the intestinal worms but how can it be reconciled to the fact that they have been found in the fetus; and if taken into the stomach how do the Guinea worm and *Trichina spiralis* make their way, the one into the subcutaneous areolar tissue, the other into the muscles. Again on the other hand an example is taken from the common mouse and rat both of which are said to be infested with a species of cyst-worm. Rats and mice are the food of the cat, who is subject to tape-worm; now this tape-worm is supposed to be produced from the larva of the cyst-worm of the mouse in the intestines of the cat and having larger apartments it arrives at a greater stage of development. If this be true in regard to the cat could not an analogous proceeding occur in the human body and



a theory of Dr Nelson's quoted by Watson says  
"that the *cysticercus cellulosa* hatched in  
the bodies of mealy pigs is matured in  
the human body into the *taenia solium*  
and if the kind of animal in which  
the ultimate metamorphosis takes place  
determines the specific form of the re-  
sulting *taenia*, that of man may some-  
times be derived from *cysticerci* which  
haunt the bodies of sheep and oxen."

If this be admitted as the origin of the  
tape-worm that of the other intestinal  
parasites can be accounted for in a  
similar manner, but how they can gain  
entrance into the fetus nothing can  
be said. As to the Guinea-worm and  
*Trichina spiralis* it has been suggested  
that when in a very minute state they  
may make their way unperceived into  
the cellular tissue and muscles. In  
their new abode, the one attains consider-  
able size and the other propagates its  
kind. Leaving the controverted question



of the origin, I will mention some of the  
predisposing causes of worms.

A feeble state of health, scrofulous habit,  
food in excess or in too small quantity,  
eating raw or under-done meat, debility  
of the digestive organs, the accumula-  
tion of mucus and chyle in the in-  
testines, and badly ventilated apartments  
have either separately or together been  
regarded as favoring their appearance.  
Climate is also noticed as having some  
influence in their generation, a humid  
atmosphere seeming to promote their  
production.

The symptoms that worms are said to  
produce are numerous and varied, but  
there is no single one, that can be  
called pathognomonic, except their  
appearance in the excrements of the  
body. I will mention first, those com-  
mon to all of them, and afterwards  
some few peculiar to each kind. The  
most frequent are, colicky pains, with





swelling and hardness of the abdomen, tongue white and loaded, a disagreeable taste in the mouth, foul breath, itching and irritation at the nose and fundament, a very capricious appetite sometimes remarkably deficient, at others voracious, the bowels irregular and the stools slimy.

The sleep is disturbed with a grinding of the teeth and frightful dreams, the stomach is in an irritable condition and there is flatulence and sometimes vomiting.

Cases are reported where the presence of worms in the intestinal canal was accompanied by a cough which ceased on their expulsion, and it has been explained on the principle of reflex action of the spinal cord, other nervous disorders may arise from <sup>the</sup> same cause.

Of the symptoms peculiar to the lumbricoides; besides most of those enu-



merated above, there may be, nausea, emaciated extremities, slight fever, tumid abdomen, diarrhoea, and occasionally convulsions.

The ascariides give indications of their presence, generally towards evening or after some warming exercise, by dull pains around and itching of the anus, a very irritable state of the body and mind, frequent inclinations to evacuate the bowels, with slimy stools sometimes tinged with blood. They also give rise to indigestion, faintness, griping pains, giddiness, tremblings, and pains in the head and stomach.

When they make their way into the vagina or urethra of females they cause extreme pruritus and oftentimes leucorrhoeal discharges.

The symptoms, the tania present are variable in different individuals; in some their existence is not known until portions of the worm are voided,



while in others, they may cause great distress. The most common however are, a deranged state of the digestive organs, swelling and pain, in the abdomen, a confused and heavy feeling in the head, lassitude, depression of spirits sour breath, paleness and emaciation.

Persons of a nervous temperament complain of a creeping sensation as though something were crawling or moving about in the intestines. There is very often a weakness in the limbs with pains in the back, vertigo and palpitations.

When these symptoms, alone or in connexion with any of those mentioned as appearing with the smaller worms occur in a person otherwise healthy, we may with a fair chance of being correct, predict the presence of a tape-worm.

In the treatment of worms, two indications are to be fulfilled, first to expel



them from the body and afterwards to prevent their reproduction. The latter can generally be accomplished by proper hygienic measures. To effect the former a variety of medicines have been successfully used, the most efficient of which is the oil of turpentine for its application to both the large and small worms. In cases of tape-worm it may be administered in doses from half an ounce to two ounces to an adult and a proportionate smaller amount to children, in all cases to be taken on an empty stomach and followed in the course of a few hours by a dose of castor oil or other mild purgative.

When given to expel the round worms the quantity must be considerably diminished, thus from five to twenty drops will be sufficient for a child according to its age from one to six years.

The flowers of the Koso, a small tree growing in Abyssinia and the seeds of





our common pumpkin have of late years gained considerable celebrity in the treatment of the Tania. The former is said to be superior to the oil of turpentine, it having killed a *Tenia solium* in half an hour after its administration, but it has no effect on the round worms. The dose of the powdered flowers for an adult is half an ounce to be stirred up in half a pint of warm water, and taken in two or three draughts at short intervals.

Of the pumpkin seeds two ounces deprived of their outer covering and made into an emulsion with sugar and water may be given; the same rules to be observed with both as mentioned with the oil of turpentine.

*Spizelia*, *chenopodium* and the European wormseed *santonici semen* or its active principle *santonin* are efficient vermifuges and are frequently employed. A combination of *spizelia*, *senna*, and *magnesia*



is very effectual in destroying the round worms in children.

Calomel, among its many other applications has also been employed as an anthelmintic. It is supposed to act by increasing the flow of bile, which sickens the worms, and then by its purgative property it expels them from the intestines.

The small threadworms which infest the rectum can be more readily reached by local measures, such as enemata of the infusion of quassia, or of common salt or of the tincture of the muriate of iron in proportion of half an ounce to half a pint of water.

There are many other medicines possessing anthelmintic virtues, but those that I have enumerated, will be found sufficient for all practical purposes.

I now conclude conscious of many imperfections, but if application and attention were alone necessary I might



say that I had succeeded in my in-  
tention expressed in the beginning



AN

Inaugural Dissertation

ON

*Hepatitis*

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

*Med. Cadet Harry C. Harrison U.S.A.*

of

*Maryland*

*Session Ending March 1866*





# Hepatitis.

The Liver is the largest glandular organ in the body, and has besides the secretion of bile, other important functions in the process of blood-making - the most interesting to the Physiologist, being the Portal circulation.

It varies in size in different persons and in the same person at different times - in health and in disease - is generally smaller in the female than in the male; and proportionately to the size of the body, is larger in the foetus and young child than in the adult. Normally its weight is from three to four pounds; and occupies the right Hypochondriac.



the epigastric and a small part of the left hypochondriac regions; being bounded above by the diaphragm and below by the margin of the ribs -

In inflammation it may be greatly enlarged, pushing up the diaphragm even to the third rib, extending into the left hypochondrium and as low down as the crest of the ilium: so that the important organs in the thoracic and abdominal cavities may be greatly compressed, with all the ill effects consequent on such pressure.

The increase in size may be owing to distension by pus or hydatids, or to the growth of tumors &c.



The characteristic symptoms of Hepatitis, are, pain and tenderness over the region of the liver, sometimes extending to the chest and loins, and varying in degree and nature, with the seat and grade of the inflammation.

The pain may be particularly marked in one spot, or diffused over the organ - may be constant or paroxysmal - and occasionally is quite wanting. There is frequently pain in the right shoulder, which may extend down the arm as far as the wrist; indicating according to some authorities inflammation of the right lobe, while a corresponding



pain in the left shoulder and arm is said to be indicative of inflammation of the left lobe.

This is liable to be considered rheumatic, but movement of the arm in Hepatitis is not accompanied with pain, while pressure over the liver generally aggravates it. Tension of the recti muscles was considered an important diagnostic sign by Dr Swining.

Greater tension of the right rectus when the right lobe, and of the left rectus, when the left lobe was the seat of the inflammation.

When the upper surface of the liver is acutely inflamed, a deep inspiration causes pain by the pressure of the





5

diaphragm on the inflamed surface.

The pain is generally increased by pressure applied either over the region of the false ribs or the epigastrium. This however may be confounded with rheumatism of the intercostal muscles, or with pain from pressure of the stomach owing to gastritis. This difficulty may be overcome by placing the patient - divested of his clothing, in the upright position so that the ligaments may be put upon the stretch, and at the same time directing him to take a deep inspiration, in order that the liver may be pushed below the margin of the ribs by the



prepar. of the diaphragm.

In this way it may be easily examined unless the thickness of the abdominal walls, from fat, or the existence of tumors, ascites &c. prove too great an obstacle.

Another mode of examination is to place the patient in the horizontal position, flex the thighs upon the pelvis so as perfectly to relax the abdominal muscles; and then by making prepar. with the ends of the fingers at first backwards and then by flexing the first joints and prep. upwards and outwards.

In this way the substance of the



7

liver may be directly compressed against the lower ribs, so as to avoid all possibility of confounding tenderness of the liver with that of any of the other viscera.

The position of the patient in bed is of importance, as he generally lies on his right side, or on his back with the body flexed on the right side, as it were to avoid any tension of the affected parts, compression of the stomach &c.

This symptom was very well marked in a patient exhibited during the present course in the Sailors ward of the Infirmary.

In cases of great thicknes of



the abdominal walls, the existence of tumors. (Cites V. G.) recourse must be had to percussion.

The dullness should not extend farther than the boundaries lentiform given, and may be easily distinguished, from the clearer sounds elicited from the lungs above, and the stomach and intestines below. In addition to these symptoms there is not unfrequently a short and dry cough, sometimes attended with expectoration, considerable gastric disturbance, and occasionally vomiting. Constipation and jaundice frequently occur, the eyes and upper portion of the body having.





a yellow appearance with furred tongue, bitter taste in the mouth. scanty and yellow urine. and not unfrequently attended with a morose and hypochondriacal state of mind.

There is more or less fever in the acute form, which is generally of the sthenic variety, and ushered in by rigors, accelerated pulse and general vascular disturbance.

It sometimes assumes an asthenic or typhoid type, which happens when there is suppuration and abscess.

Chronic Hepatitis is generally a sequel of the acute, or it may be a primary affection.



Its attacks are generally very insidious; - may run its whole course and terminate in a cure, or in suppuration without any very decidedly marked symptoms.

The symptoms are the same as in the acute forms, but are less acute, and sometimes instead of pain, there is only a feeling of uneasiness, tension, &c.

The causes which produce this affection are various - such as falls, blows, &c. except in the use or abuse of alcoholic stimulants, or a too stimulating diet, the irritation of gallstones &c.

However, the most frequent causes



are, intense and prolonged heat,  
malarious influences, and important  
surgical operations.

The duration of this disease is  
exceedingly various. It may  
last only a few days, or a week;  
or having assumed the chronic  
form may last an indefinite time

It terminates generally in resolution,  
or it may become indurated—  
may suppurate—and in rare  
cases may become gangrenous.

In chronic hepatitis the  
ultimate tendency is to atrophy  
and the pathological changes  
found in cases of cirrhosis,  
fatty degeneration &c.



The occurrence of suppuration is generally marked by chilliness or general rigors, with increased frequency of pulse, but a diminution in its force and volume.

There is relaxation of the surface and a feeling of weight and throbbing in the side with a diminution of the previously acute pain.

When suppuration is established copious and exhausting sweats are apt to occur, most generally during sleep, and sometimes complete hectic fever sets in.

This latter variety generally occurs during very hot weather or in





hot climates where the exciting causes operate unceasingly and the constant liability to new accessions of the disease before the subsidence of the original attack.

When an abscess is formed it may be absorbed, or discharge its contents in one of several directions. Either externally through the intercostal spaces, upwards through the diaphragm, or into the stomach, colon, or the peritoneal cavity.

When it tends to discharge its contents externally there is a circumscribed swelling and a



bulging of the intercostal space, having a flabby and pasty feel, and sometimes distinct fluctuation, can be felt.

If the adjacent peritoneal investments become adherent to each other the pus may find a free vent either spontaneously, or by an incision, affording great relief to the patient and may result in recovery. If it is discharged through the diaphragm, it may act seriously by compressing the lung, unless adhesions have formed between the lung and diaphragm, in which case it may be discharged into the bronchial tubes



and be expectorated.

In rare cases it bursts into the pericardium, causing instant death. If the abscess opens into the stomach, it may be vomited, the ejected, pus having a bitter taste, and tinge, of bile, or, as sometimes happens, pure bile is vomited.

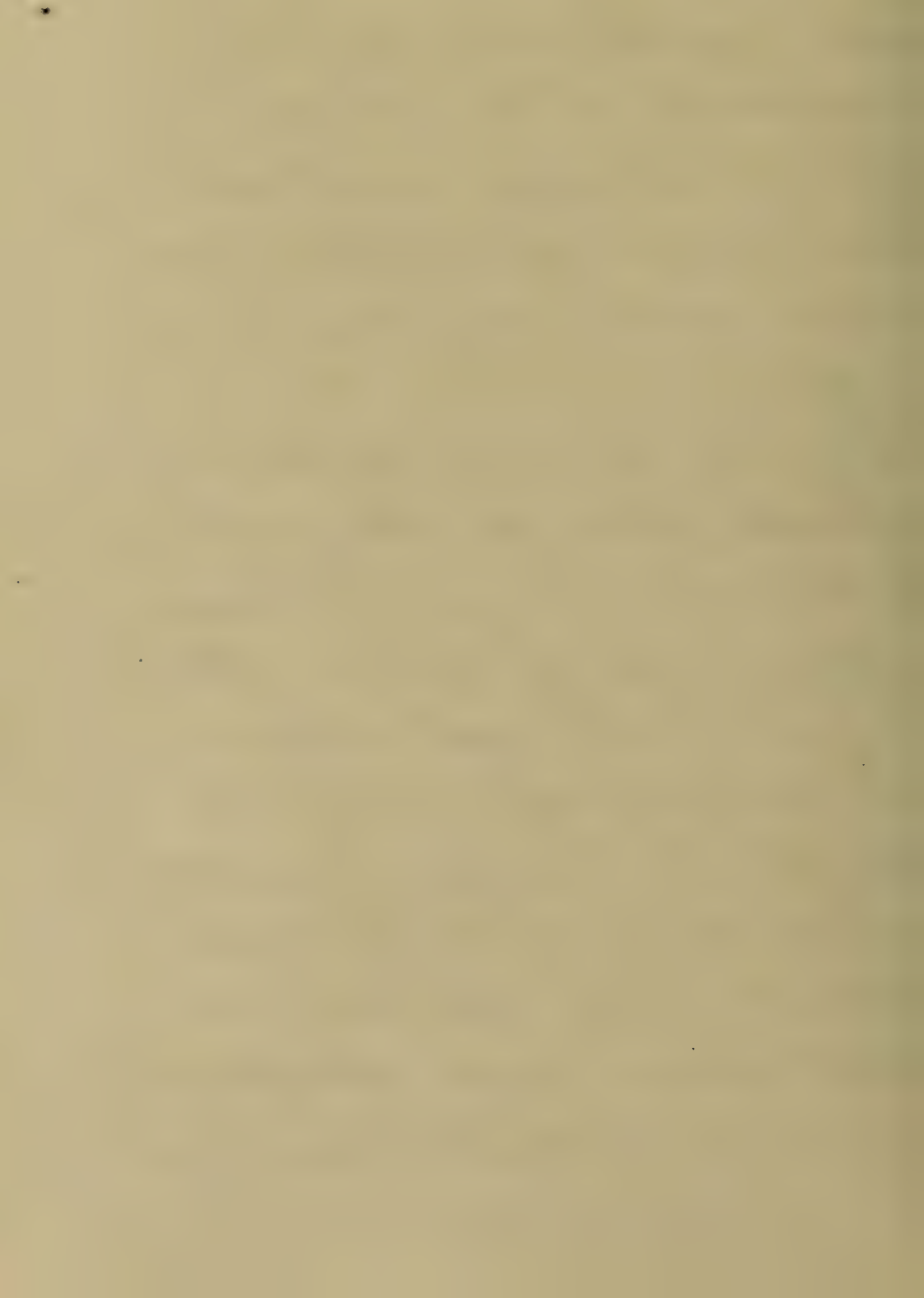
When the abscess discharges itself into the colon, its contents are, passed by stool. If the adjacent peritoneal investments do not become agglutinated, and the abscess is discharged into the peritoneal cavity, fatal peritonitis is the result.

In some cases the abscess may



become encysted and be a very small source of annoyance, or it may be absorbed and the space filled up with granulations so that nothing may remain but a cicatrix.

Frequently however the patient sinks exhausted before the opening of the abscess, or is unable to endure the drain upon the system after this event. The right lobe is most frequently the seat of the abscess. I have seen a case lately in which nearly the whole upper two thirds of the right lobe was converted into one large abscess; and several cases in which a number of





Smaller ones were scattered throughout  
its substance; while the other  
lobes showed no marked lesion  
except a staining of bile, which  
resulted probably from the increase  
of function which they were obliged  
to perform.

Hepatitis is a fruitful source  
of other affections, from sympathy  
or from pressure, of other important  
organs, owing to increase in size &  $\frac{a}{11}$

The prognosis should always be  
guarded. In uncomplicated cases  
the general tendency is to resolution -  
but when there are organic changes -  
and miasmatic influences are present  
the cases are always more grave.



and should be thoroughly investigated and understood before a method of treatment is fully instituted;

The Treatment is divided into local and Constitutional.

Local treatment consists of topical bloodletting by cups and leeches; counterirritation, friction to the side by stimulating ointments &c., when remedies are not well borne internally; and by fomentations, Cataplasms &c.

When suppuration is known to have taken place, any tendency to a discharge, externally should be encouraged, while tonics and supporting treatment generally



should be administered with simple but farinaceous diet, and a strict attention to hygiene.

The constitutional treatment consists in the administration of saline and cholagogue cathartics, attention to diet, and supporting the strength of the patient in every manner possible in all cases.

The most efficient cholagogues, and the one most used is mercury and its preparations.

It should be used cautiously so as to fulfill its office without producing any violent effect, and if ptyalism occurs it should be <sup>so</sup> ~~more~~ more than a slight action on the



gums just sufficient to show that the medicine is acting, and should be suspended upon any indication of a violent action, or the occurrence of suppuration.

Other useful Cholagogue medicines may be advantageously used, such as Podophyllin, Sarsaparilla, the mineral acids, &c. Of the latter, the Nitro-muriatic acid is used preferably on account of its possessing both tonic and Cholagogue virtues, and may be used advantageously when Mercurials are contraindicated.

However Nitro-muriatic acid and Mercurials should not be administered at the same time lest a poisonous





Compound be formed, and cause  
unpleasant or it may be fatal  
complications.

Chronic Hepatitis requires a  
somewhat modified treatment but  
is essentially the same whether a  
sequel of the acute or an original  
affection. This consists in counter-  
irritation over the region of the  
liver, a gentle mercurial course  
and all measures calculated to  
improve the general health.

Hepatitis is a rare affection  
in cold climates, except in a very  
mild form, hence cases which are  
obstinate in hot climates derive  
signal benefit from a removal



to a colder so that the exciting cause  
is removed, and the gentle exercise  
with change of scenes, society, &  
direct the mind, and are attended  
with the most happy results.



AN

Inaugural Dissertation

ON

*Tracheotomy*

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of the

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of

*University of Maryland*

Session

1866



. In

Inaugural Dissertation

ON

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by

Robert M. Marshall

of the

University of Maryland

Baltimore

1841





Man, in the early days  
of nature, lived in a state of  
health, both in body and mind,  
and nature produced its good  
and without culture. There were  
neither irregularities nor inclem-  
encies of the seasons; in a state  
of innocency, and under a mild,  
and clement sky, there was nothing  
to produce disease. Spring was  
perpetual: protected by the imme-  
diate presence of the Almighty,  
and as yet innocent of any  
violation of his laws, he was  
happy in his enjoyment, which  
the spontaneous beneficence of  
nature afforded him. But he



seen the artificer of his own  
inward destinies. He has trans-  
gressed the sacred laws of his  
creator, and incurred the penan-  
ties annexed, by his own trans-  
gressions. His days are now  
shortened, and encumbered with  
disease; notwithstanding that God,  
in the infinitude of his mercy,  
has stored our mountains, fields  
and meadows, with means for  
removing diseases, commonly met  
with in the countries and climate  
of which man is an inhabitant.

But still death is inevitably stamp-  
ed upon all creatures, into which  
the Creator breathed the breath



... we often see the beauty of life  
fade, and all its freshness wither,  
and often our best friends close  
their eyes in the cold and tran-  
quil chambers of death, and I have  
said, "Where are the boasted powers  
of medicine, the pride and skill,  
the vain boast of science"; how  
humiliating to the pride of man?

But thanks to that ever watch-  
ful guardian, under whose benevo-  
lent direction, mankind has been  
allowed to make such rapid progress  
in the healing art, since it appears  
upon a superficial glance to be in  
direct conflict with the primal curse,  
condemning man to change, disease



death. But when we reflect,  
that we have been instructed in  
him, to be mindful one of another;  
it seems to present quite a different  
bearing for God has shown us, by  
example, how mindful we should  
be of suffering humanity. He was  
informed by His Holy Spirit, and  
when He was about to remove the  
rib from our first parent; out of  
which he formed woman, when  
he caused a deep sleep to fall upon  
Adam, and took from his side a  
rib out of which he formed woman.  
With such an example before us, it  
becomes our pleasant duty, whenever  
in our power, to alleviate pain and





...in her curative efforts.

With these examples and numerous others, we feel grateful that we possess, a means so potent in its bearing, in the alleviation of so many diseases as the one of which we are about to treat; for in the operation of Tracheotomy we are often enabled, to avert death, and save our patients from an untimely grave.

By consent the term Bronchotomy has been employed to designate a class of operations appertaining to the air passages, whether the operation be performed directly upon the Larynx or Trachea or involving both Larynx



and Trachea constituting Laryngos-  
tracheotomy or the sub-Hyoid operation.

Swing to the peculiar locality of  
these operations the public is inclin-  
ed to look upon them as something  
novel beyond conception and even  
practised should the case prove fatal  
although not from the operations but  
from the cause demanding their  
performance the poor surgeon is  
doomed to disgrace. It is attributable  
to these facts that the operations of  
tracheotomy be are often delayed till  
the powers of life prove inadequate  
to the repair of injury caused by  
the delay and then the operation is  
a desperate resort is tried upon the



often lead too often death occurs  
and of this kind of practice the  
various operations constituting  
Bronchotomy have been placed by  
the Profession in bad repute,  
and particularly Tracheotomy which  
is much oftener resorted to than  
any other appertaining to the air  
passages.

We employ the various  
operations constituting Bronchotomy  
for the relief of many diseases to  
which mankind is subject and  
to some which are only curable in  
their nature for instance we resort  
to this mode of relief in pseudo-mem-  
branous croup a disease which has



highlighted the existence of many un-  
interesting child. The peculiarities of  
which consist in the organization of  
the mucous membrane endangering sig-  
nificantly by assenting to a wide open  
air passages. It shows us in this  
place to consider the surgical Anatomy  
of the parts involved in Tracheotomy.  
The first tissue with which we have  
to contend is the skin covering the  
throat - beneath which is found the  
superficial fascia, termed by Anatom-  
ists the superficial fascia of the neck  
The next come in contact with two  
pairs of muscles recognised by the  
terms Sternohyoideus and Sternohyoid-  
-eus. We then find the isthmus of the





1  
thyroid gland which is usually found  
covering the three or four upper rings  
of the Trachea but occasionally as far  
down as the fifth, and beneath the  
thyroid gland or rather in contact  
with it we find the Thyroid plexus  
of veins, some of which are not very  
diminutive. Descending with this  
we sometimes find the middle thyroid  
artery and finally we come down upon  
the fascia covering the Trachea which  
is found in the middle region of the  
throat. Having thus as briefly as pos-  
sible given a description of the parts  
involved we come next to speak more  
directly of the manner in which the  
operation is usually performed. Having



provided ourselves with a scalpel, lancet-  
 knife, pair of forceps and some cotton-  
 wool for keeping the opening from closing  
 after the operation, also a pair of  
 web-pointed scissors, and curved forceps  
 armed with a small piece of sponge or  
 canula, if necessary for the patient to  
 wear after the operation. Proust's can-  
 ula is by far the best as the main or  
 larger tube is provided with a smaller  
 one which can be removed and cleansed  
 of any thing causing obstruction to the  
 entrance of air without removing the  
 main canula which is retained in  
 position by means of two pieces of tape  
 which are attached to the canula and  
 made fast by being tied around the



men. Having thus made all necessary  
arrangements we proceed to place the  
subject in a recumbent position, his  
head placed in a such a posture that  
his sufferings shall not in the slightest  
degree be augmented by the same.  
The front of his neck should be freed  
of all covering in order that the Sur-  
geon shall have free access to the parts  
the division of the skin has been a  
matter giving rise to some difference  
of opinion among surgeons as to the  
best manner of performing it. Some in  
describing the operation will tell us to  
grasp the Larynx with the left hand and  
make tense the skin and then make  
a longitudinal incision. As it regards



his mode of division of the skin, it is  
because we may go beyond the skin in  
depth and probably wound some vessel  
which may give us considerable trouble  
by hemorrhage which may be avoided  
if we proceed in the manner directed  
by other surgeons, namely to clasp the  
skin with a pair of forceps separating  
it from the fascia or make a small  
incision with the scalpel by passing it  
transversely through the skin being  
opening thus made as an entrance  
for the director which we insert  
between the skin and the superficial  
fascia in the direction in which  
we wish to make the incision, and then  
divide the skin with a bistoury following





a groove of the directory. Having thus  
 divided the skin we lay bare the super-  
 ficial fascia, &c. when considering the  
 most important point to be observed  
 throughout the operation, it is, to avoid  
 hemorrhage. In order to do this, we  
 proceed to divide the fascia with a  
 pair of forceps, tearing apart or separ-  
 ating the fibres with the handle of the  
 scalpel, by which means we lacerate the  
 minute blood vessels, and <sup>thus</sup> avoid hemor-  
 rhage. We next divide the Stern-Hy-  
 oid muscles partly with the point  
 and partly with the handle of the  
 scalpel. The isthmus of the Thyroid  
 gland may be divided with the scalpel,  
 & hemorrhage since we must avoid



to arrest it in any way we think best; a ligature is the last resort. If after the isthmus of the Thyroid gland is divided we find it impossible to proceed without wounding the artery, it is best to ligate and then divide treating the plexus of veins in a similar manner, with this done we have completed the operation except the division of the fascia covering the trachea which we may divide in the same way in which we severed the superficial fascia of the neck. Before we proceed to open the trachea we observe whether or not the hemorrhage has entirely ceased, if not, we will find it best to press firmly with the sponge until



It now remains to be seen  
of the division of the Trachea as  
recommended by surgeons. Some will  
tell us at this point of the operation  
to require our patient to swallow  
and while the Trachea is thus made  
unse. to thrust the scalpel or bistoury  
into the Trachea. As it regards this,  
it is necessary to notice it briefly.  
In almost all cases requiring the  
operation it is a last resort and  
often life is too nearly exhausted to  
be obedient to our instructions. Often  
we are operating upon children too  
young to be obedient to our command  
therefore we must discard that mode



of opening the Trachea, and proceed  
in another way which we will do by  
seizing the Trachea with the tenaculum  
and trusting it to an assistant, we  
instruct him to make fast the Trachea  
while we firmly fix it between our  
thumb and finger we make an open-  
ing sufficiently large to accomplish  
the end desired.

Having described the operation  
of Tracheotomy let us now speak of  
it as a means of relief in some of  
the most important diseases with  
which we as physicians have to contend  
It is not my intention to speak of all  
the diseases requiring the operation  
of Tracheotomy for they are by far too





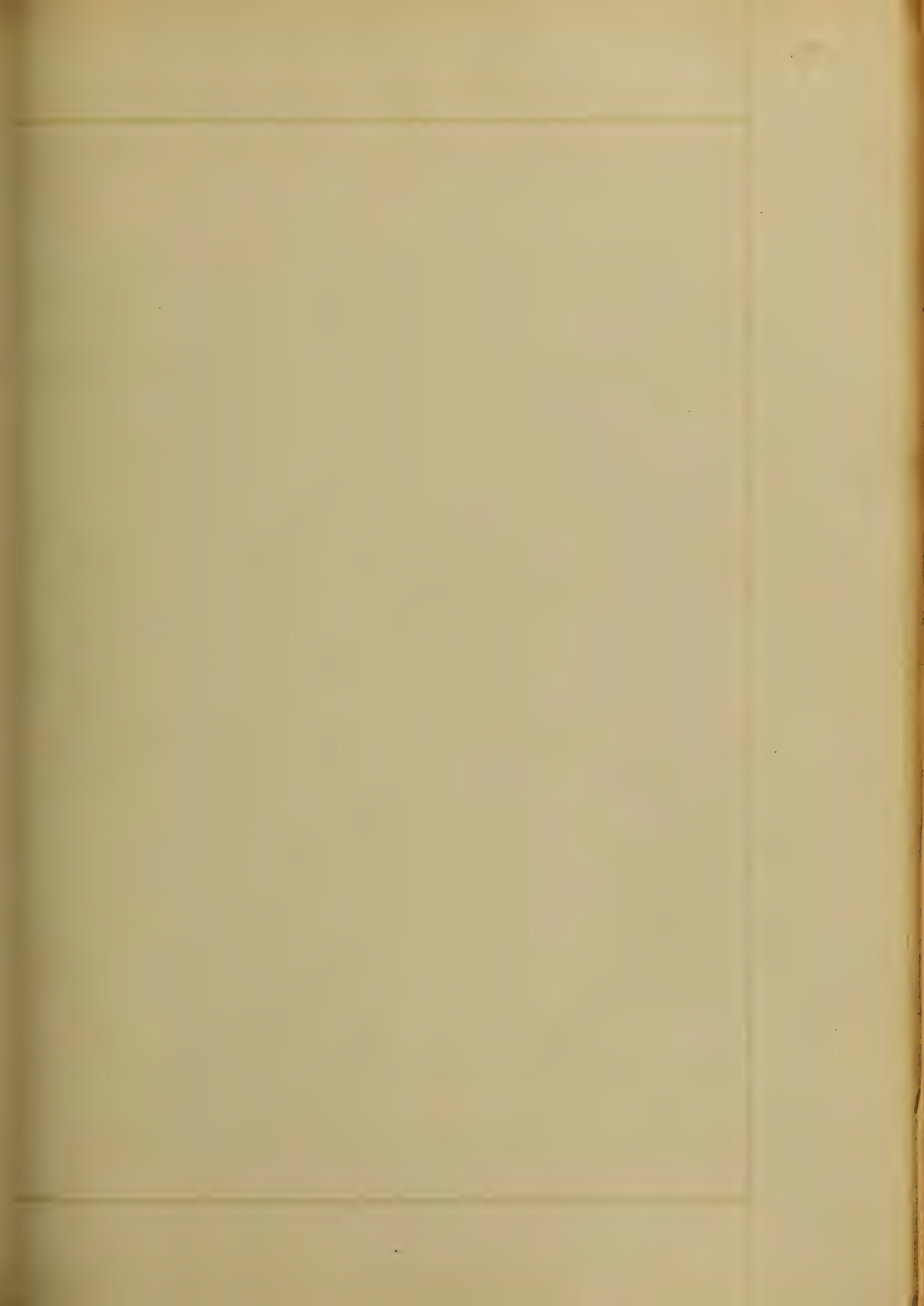
numerous. suffice it to say we confine  
 a question to those diseases which  
 in their action tend either directly or  
 indirectly to produce an obstruction  
 to the passage of air into the lungs.  
 In order to understand and fully appre-  
 ciate the object of Tracheotomy in  
 disease it is necessary that we should  
 first enquire into the effects produc-  
 ed by whatever cause obstructs respi-  
 ration. One of the first effects upon  
 respiration is the immediate obstruc-  
 tion of the passage of air into the  
 lungs which is followed by congestion of  
 the respiratory apparatus, hence the  
 blood that should be sent from the  
 right ventricle is retained so a



certain extent and but a small  
supply finds its way through the  
veins to be transmitted to the left-  
or systemic heart, hence we find  
after death the right auricle and  
ventricle filled with blood & the lungs  
much congested, while the left auricle  
and ventricle are for the most  
part entirely empty of blood.

This stagnation in the heart, prevents  
the circulation and motion of the  
same, and death inevitably follows,  
caused by a deficiency of oxygen  
so requisite to carry on the various  
phenomena of the nervous system  
which in reality is life itself.



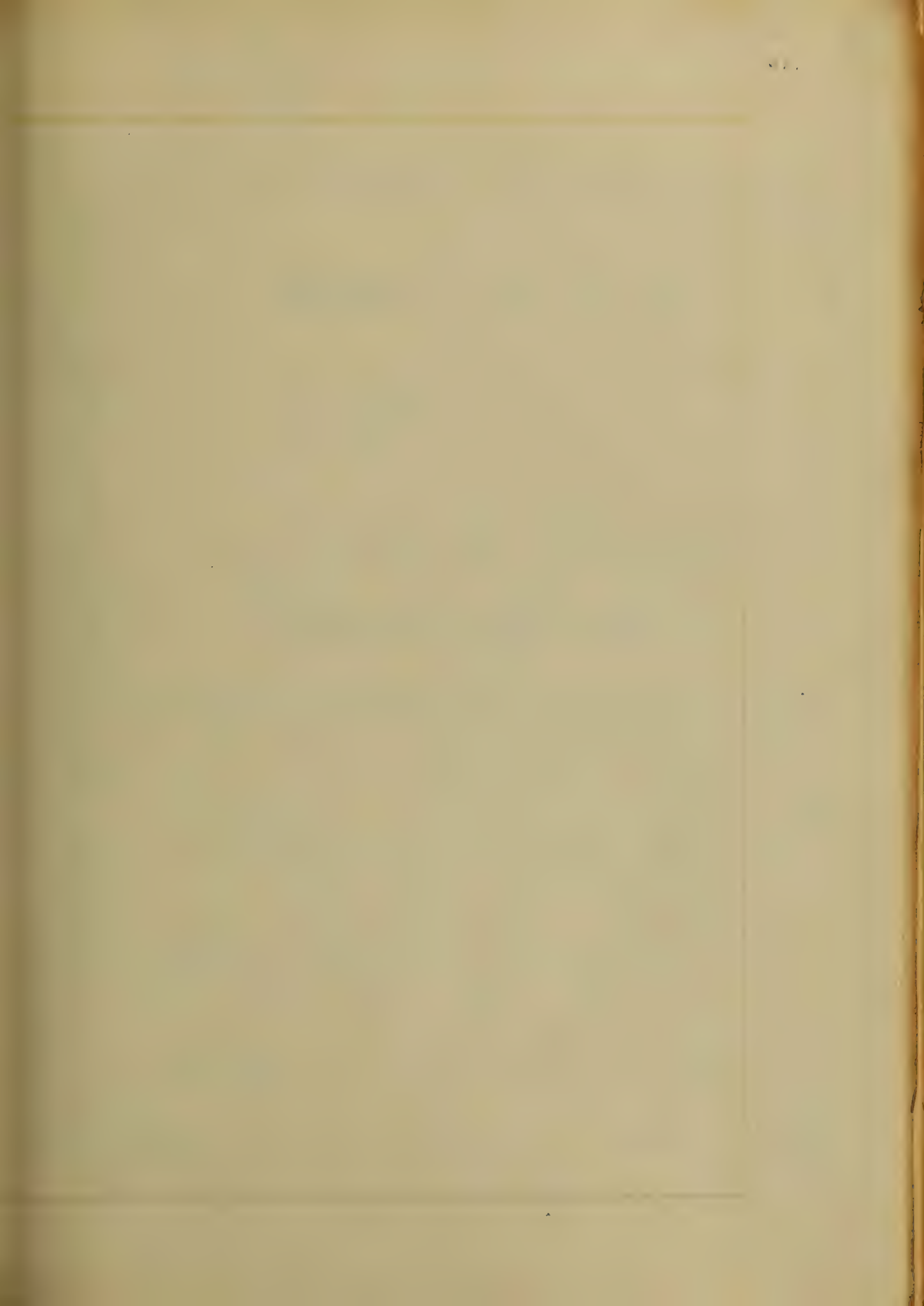














AN  
Inaugural Dissertation

ON  
*Stolera*

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

*Charles F. Wilson*

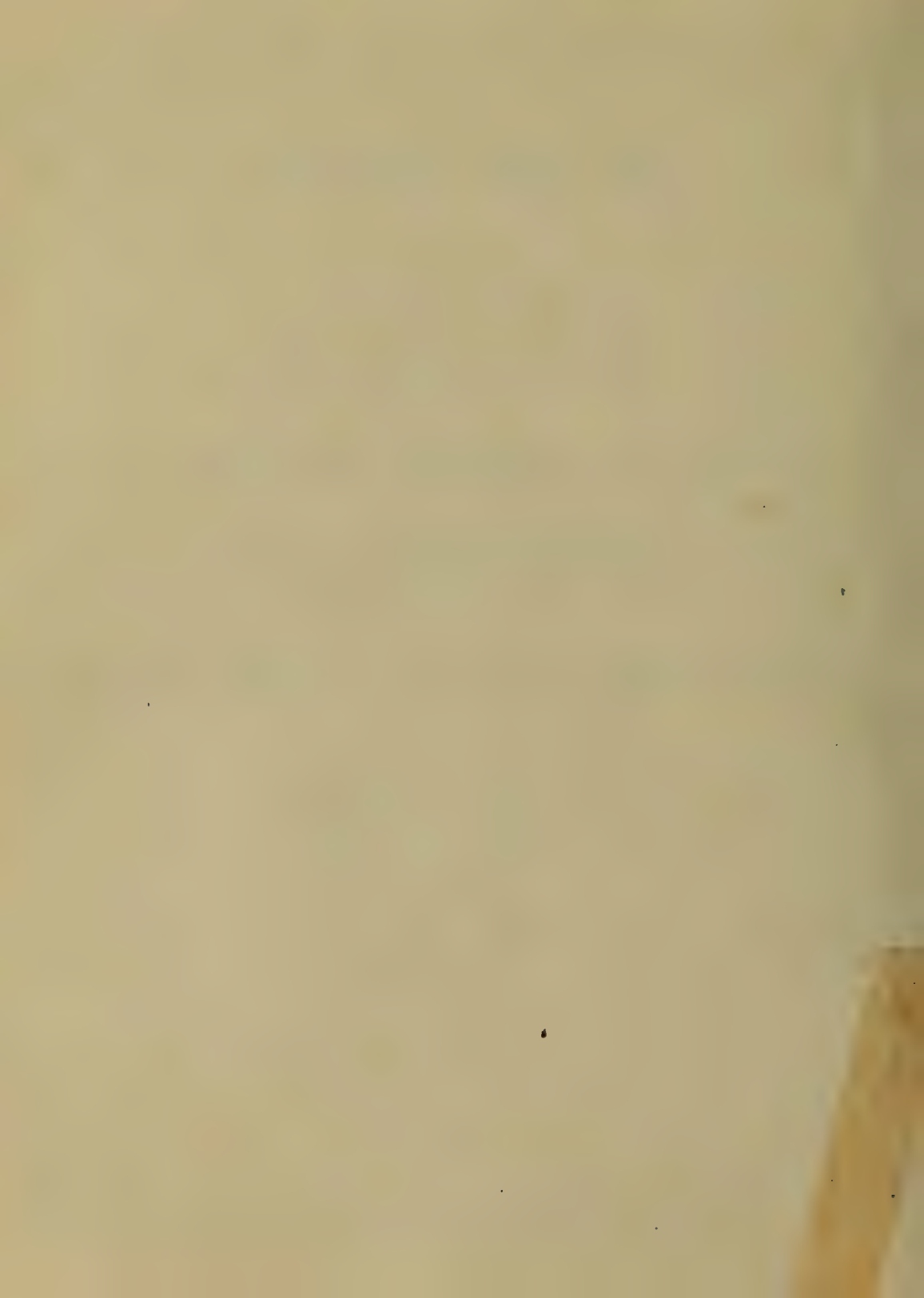
of

*Maryland*

Session

1865

1866



## Orator.

Having the honor of being a student of  
the well known and highly respected  
Academy, it becomes my duty to present  
most respectfully to Your honorable Body, a  
Thesis on some disease that shall constitute  
in Your judgment, a sufficient evidence of  
my attention to Your admirable instruc-  
tions, and excellent admonitions, during  
the past and present Sessions.

As a Thesis, I desire to present the follow-  
ing, brief account of a disease, which, has  
for ages been the study and anxiety of Medi-  
cal Men of all parts of the civilized world  
The disease is that of Asiatic or Epidemic  
Cholera which has long been the dread  
and terror of all Nations, and which it is  
more than likely will soon make its



appearance in our midst. All brief history of  
this scourge I deem it is one of a later  
time. It appears from all accounts  
of Medical Men of that day that this  
disease first made its appearance in  
India in the year 1817 in Jessore, a town  
situated northeast of Calcutta, and was  
many miles thence from thence its birth-  
place, it rapidly spread throughout  
the whole of India, coming to take the banks  
of the river Ganges as its guide whereby  
most of the important towns of that coun-  
try were more or less depopulated by its  
ravages. Taking India then as its birth-  
place, its ravages, we find rapidly spread-  
ing to other and more distant regions.

In 1820, China was visited and its Capital





Perse, presented a most favorable opportunity for  
the work which was soon to spread due to, terror  
and despair within its eastern borders from the  
its line of march was again resumed when two  
of its wings its way through the mountainous  
Caucasus, Persia Arabia & Turkey. From the  
itmes of the Persian Gulf it rapidly ascends to  
the banks of the river Euphrates, emptying  
itself onward through Turkey, Syria  
regardless of mountains and deserts, and when  
next heard from appeared on the shore of the  
Caspian sea, where it halted, as if to gather  
its full strength, on resuming its march for  
Europe. Finding a convenient water course  
in the river Volga it ascended that stream  
into the interior of Russia, attacked Moscow  
its ancient Capital, in the Year 1836 and



W. Prussia in 1831. From this last source  
country it spread into Poland, and  
attacked the Army of that Country the  
the first, after the battle of Angora.  
The conquest of the same year it appeared  
in Austria, attacking its Capital, Vienna  
in September 1831, and from thence through  
the various German States, crossing the  
North Sea into England, it appeared in the  
town of Sunderland in the North of that  
kingdom, but did not engage general  
attention, or excite alarm until the latter  
part of the Year, when it spread through  
the various towns in the North of that  
Country, and in 1832 reached London, where  
its ravage was manifest throughout that  
densely populated City.







and Baltimore and about the same time  
in Smyrna. As Smyrna the Epidemic would  
have found a favourable opportunity to  
make its progress; from all I can learn  
it was in this City that the greatest fatality  
was known on this Continent though it  
was of long duration. Our extreme Southern  
Seaboard towns were soon after visited.  
New Orleans was the seat of the plague for  
some time and from that City it passed  
northward up the Valley of the Mississippi  
with extreme violence, for here the Geography  
of that section of Country presents a most  
favourable locality for its merciless rav-  
ages. Caliating itself here we need hear of  
the Malady in Cuba: from thence it hurried  
thence it spread terror in the Capital of the





Ancient Montezuma. Heretofore it is  
and does not exert no influence in im-  
peding its progress; its march is chiefly  
anward.

### Symptoms.

The prominent symptoms of  
cholera are, repeated discharge from the  
stomach and bowels of a vitiated fluid,  
various in appearance. In violent cases these  
discharges, are accompanied with spasmodic  
cramps in the bowels and limbs, faintness and  
contraction of the countenance, coldness of  
the extremities, and rapid exhaustion of  
the energies of the system. The term  
employed by which the disease is designated  
is a complete Misnomer, so far from  
consisting in a morbid discharge of bile,



as its name implies, in almost every case of Cholera the secretion of this element is at first deficient. In violent attacks of Cholera there is a total absence of bile in the evacuations, which are at first thin and watery, subsequently resembling the washings of fresh meat. Frequently they are whitish and of a mucilaginous appearance like rice-water, or thin Starch, at others dark colored, these stools from their character have thus received the name of rice-water stools, and are peculiarly characteristic of the disease. These rice-water stools are said to result from the stripping of epithelium from the mucous membrane of the intestines, which is easy of perception under the influence of the microscope.



Pains of a severe character are felt in the  
back, and bowels, attended with excruciating  
cramps and vomiting. When the action of  
the stool is often seized with an inter-  
mittent which if quenched produces again  
violent vomiting with a return of cramps,  
from these the patient rapidly sinks;

Extreme coldness of the body is felt and the  
skin is of a darkish color, pulse frequent,  
very small and weak, and sometimes in-  
feriorly retinct. The lips are of a purplish  
hue, tongue stained with matter resemb-  
ling lead in color, and to the touch, and  
the breath often felt to be cold. With the cold-  
ness and blindness of the body there is obser-  
ved a great wasting away; the eyes are  
sunken deep in their sockets, with a bright



sparkling glare. The mind during this  
time is generally clear. The patient continues  
us to think rationally and expresses total  
indifference as to his fate.

Causes producing cholera. The cause by  
the operation of which, the common and  
appreciable cause of disease, give rise to  
cholera is comparatively unknown to us.  
That it is a morbid miasmatic influence,  
which produces its unaccountable effects is  
thought by many, it will not be the ration-  
al stimulus to its birth, growth, and rapid  
progress. What the peculiar morbid prin-  
ciple is, we as yet have not been able to  
discover. Various opinions, as by the most  
intelligent & able of the profession have  
been advanced, but it seems, none as yet





has arisen at its complete extinction. It is  
never, or scarcely ever, found to be  
independently, all that has been known in the  
history of the disease, that the essential  
agent or chief cause is completely  
harmonized with effect is given to it by  
an objection to evident modifying agen-  
ces. Preceding and accompanying the appear-  
ance of Cholera in a country or city, there have  
been deviations, from the usual state of the  
weather and season, unwonted vicissitudes,  
with changes in the electrical state of the  
atmosphere. Perhaps these would be inade-  
quate to the production of Cholera, but for the  
unconditional predisposing cause of unfavor-  
able localities. The proximate cause of this dis-  
ease, is, a quantity of bile in circulation



Situations, on the banks of rivers or near wells  
and ponds of water; impregnated with decayed  
vegetable remains and fermentation of all kinds.  
Some think the production of this miasm is  
due to aerial appearances, such as the advent  
of Comets and the peculiar electrical state of  
the atmosphere. But that such phenomena  
should exert an influence on this disease  
is not to my mind at all admissible. The  
trains such as above described, occupying  
an altitude almost beyond reaching, can  
have any salutary effect on a dis-  
ease which seems entirely wedded to the  
surface of vegetable and animal life  
is, I think, totally out of reason. There may  
be a peculiar state of the atmosphere,  
which is acted on by electrical bodies capable



of producing such change as may be  
connected with certain veins of air produce  
this peculiar degeneracy of our by matters,  
and thereby be transported to different  
regions. To demonstrate the epidemic action  
of the disease, is due to aerial influence, she  
now could it be accounted for as travel-  
ling vast mountains, deserts and seas.  
A vessel for instance, sails from a port  
perfectly free from the malady, she per-  
haps goes smoothly on her course, all on  
board in perfect health, when suddenly  
without warning they are attacked by a  
true malignant cholera, which perhaps  
sweeps off a majority of her crew and  
passengers. Now this I think, is easily accounted for.  
The vessel on her course, falls in with a



over a cloud of wind impregnated with the  
Epidemic poison, which being inhaled by  
those on board soon manifests itself in  
all its most malignant forms. This state  
of things was strikingly made man-  
ifest not many months since. A ship  
sailed from Havre, a French port for  
New York, with it believed a hundred or  
more passengers on board - at the time of  
sailing it is maintained no cases of Cholera  
were known to be in that port; but when  
nearly to the end of her voyage so of her pas-  
sengers were attacked and on reaching the  
port of New York 78 of this number were  
reported as having perished from the  
disease. Now the only possible way in which  
this can be explained, if we accept of the





reports of the same nature of the disease in the  
vessel in her passage was put by a  
current or current of this disease in the  
air, which perhaps found a ready  
locality in some good spot, or indeed in the  
entire or portions of the vessel, and of this could  
it readily form a system which perhaps were at  
the time, precariously filled for its continuation.  
Another very plausible cause of this mysterious  
disease on vessels at sea, may be attributed to the  
bad water, and sometimes decaying vegetable  
matter which may be found on boards of the  
vessel, passing in and out of the crew. On arri-  
ving at New York this vessel was put in  
Quarantine, where strict Hygienic measures  
were enforced, proper treatment resorted to  
and disinfectants were created about the



ness as soon to have the effect of a very im-  
duced of the further ad. of the Paque. The  
inde of animal and vegetable decomposition  
of alcoholic drinks - food consisting of veg-  
table matter not of a severe or urgent nature  
finds to introduce the disease. Thus appeared in  
some of our papers not long since, an article  
which went to show, that ere long we may be  
startled by the sudden appearance of cholera  
in one of our western Cities. It is in fact, that  
on many immense granaries for the storage  
of wheat, these granaries are now filled and  
have been for sometime to their utmost capac-  
ity with wheat, which is now in a decaying  
condition. The grain is sold by speculators  
for higher prices, in the mean time they  
go on, and with it must necessarily



drive fast and force air, when of course  
easily to be perceived in the sur-  
rounding atmosphere, when of course this  
will be treated by the physician, and then  
also as a matter of course the disease  
will become violent by this morbid influence.  
Sordid Anatomy. The appearance of  
the body after death closely resembles that  
which was exhibited whilst labouring  
with the disease. The surface is cold,  
the sides shrivel, and the skin of the feet  
and hands wrinkled and shrunken. There  
exists no uncommon tendency in the  
body to perspiration nor is there any  
marked fever in the abdominal cavity.  
It has been said by those fully acquain-  
ted with the peculiar signs of this disease,



It is often after death, subjects in this disease display curious muscular actions, the limbs are jerked, the arms are drawn up and bodies have been known to assume a different position from that in which they were placed when put in the coffin.

Great another change of feature, often is seen after death, for on applying the hand the body is found to be sensibly warmer in all parts. A more or less redness is noticed, causing a blue appearance of the body, and this kind of examination is found to prevent a thick fatty appearance.

Diagnosis. This disease can only be confounded with Cholera Morbus, which it very much resembles. We are able to distinguish it from Cholera Morbus, by the





no circulation of bile, where as in the east  
named disease there is always present an  
immense quantity of bile fluid. In  
amic & nova we see no vomiting of bile, but it  
is retained in the stomach in some. There  
is often great and sometimes fatal prostration  
in the former affection, but the thick skin, the  
irregular excretion, the universal sinking  
away of the flesh and the peculiar mental  
affairs are generally if not always wanting.

Prognosis of the disease while in the state  
of Scurvy is properly treated it can generally  
be arrested; and often when completely formed  
if, it in the stage of cure. With the flat-  
ting or absent nose, cold rigid surface  
and suspended circulation, sunk and  
increasing features and complete want



and if there is little left, the patient is already  
in the jaws of death and medicine can give  
very little if any relief.

Next 1. There has been a number of different  
modes and manners of treating this disease, that  
to choose one particular plan of treatment would  
be to throw aside others of more or equal value,  
and in this dilemma an analysis of the  
whole, whereby we can abstract from the vari-  
ous respective remedies, a sufficient number  
of valuable medical agents, which shall  
form in this malady, a quick energetic and  
certain mode of cure. When a rotta is known  
to be in a locality and there is a probability  
of its being transmitted, the patient should  
be put in a situation of absolute rest indeed it should be imme-  
diately enjoined; the exercise of any



He must be allowed to ease the patient's  
mind. He must as far as possible be free of  
all irritating causes, and his hopes built  
up, and fears dissipated as far as lay  
in our power. In the Course of the  
forming stage, after the patient has been  
well-to-bed, our first object should be to  
arrest, as soon as possible, the evacuations  
from the stomach and bowels, and the  
irritation of the Gastro-intestinal mucous  
membrane and to restore the secretions,  
particularly that of the Liver, and to  
equalize the circulation, calm nervous dis-  
turbance, and when necessary, support the  
patient's strength. The evacuations must  
first be checked, for they generally are the  
production of the above named disorders.



The remedies said to be best to meet the case.  
In a live discharges, are Opium and  
Calomel in small and frequently repeated  
doses, combined, when the discharges are  
copious, with Decoin. of Sulf. Carb. Acid  
or Nitro. These are best given in the form of  
 pills. Opium and Calomel are  $\text{gr. i}$ . Decoin.  
of Carb.  $\text{gr. ss}$  - Nitro  $\text{gr. i}$  and the ex-  
tent-complain of great thirst, pounded ice  
may be given, which will be found grateful  
and refreshing. If the patient is restless,  
subcutaneous injections of Morphiac.  $\text{gr. i}$   
to water  $\text{Zi}$  may be used. This often brings  
the patient a vast deal of relief and  
should never be neglected. Lime water  
and milk, may be given to relieve gastric  
irritation, and when stimulents are called for





The aromatic spirits of Camomile will be  
found valuable. Sinapiens of mustard  
may be applied to the Epigastrium,  
Crates given by the Mouth should be  
aided by an emmatta of starch with  
syrup & the oil of Sweet Almonds, to revive  
the circulation and promote secretion, dry heat  
and moist heat, by means of warm bath, or  
vapour bath, has been recommended. Has ped.  
in via, Stimulated with mustard, Cayenne  
tuffor, or common salt, may be used, when  
the symptoms are cold. Friction on the sur-  
face by the hand or with flannel or flesh  
brush, affords relief in cramps; and pro-  
tration must be avoided by stimulants, of these  
the best are tincture of Camphor, Aromatic  
spirits of Camomile, and the ethereal, essential.



Good. Brandey or Port Wine diluted with cold  
water, and flavoured with Mint, or other  
Aromatic may be used, but caution should  
be observed. In the early stage, the Compton  
and Emulsion of Opium is an admirable  
remedy. The following treatment of  
Cholera, said to be invaluable by an  
English writer, is as follows. "As soon as the  
vomiting and Diarrhoea commences, place  
the patient up to the knee in water not too  
wet to the touch; throw in six or seven hand-  
fuls of coarse salt, cause the legs to be rub-  
bed vigorously by two persons with both  
hands; open the large vein in both feet;  
and allow the blood to flow in the warm  
water for 12 or 20 minutes, according to the  
sex or age of the patient, or to the stage of the



disease. During the time keep the patient of  
the same temperature, or when the limbs  
were first relaxed in it by adding some  
warm water. The natural animal heat  
of the body will return, and the patient will  
commence asking for nourishment.

<sup>use</sup> The following prescription from the  
London Lancet, recommended by the  
Medical Association of Washington for the  
treatment of Cholera may not prove  
amiss.

R. Acid. Sulph. Dilut.

<sup>℞</sup> Vin. Camphor. Comp. a ℥ij

Aqua Puras — ℥vss

M. Take two table-spoonfuls directly and  
repeat after every loose stool and  
vomiting, and every three or four hours.



I now take leave of my subject:  
hoping it may meet with Your  
approbation. I have the honor  
to sign myself most Respectfully

Thomas B. <sup>will</sup> Milson.





Clinical Report.  
Six Cases.

SUBMITTED TO THE EXAMINATION  
of the

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of

**PHYSIC,**

of the

UNIVERSITY OF MARYLAND,

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Doctor of Medicine,

by

Fred. A. Schley

of

Hagerstown, Wash. Co Maryland.

Session

78 66



Clinical Report,  
Six Cases,

- 1<sup>st</sup>/<sub>n</sub>. Strangulated Hernia
  - 2<sup>nd</sup>/<sub>n</sub>. Double Amputation, Arm & Leg.
  - 3<sup>rd</sup>/<sub>n</sub>. Syphilis, Hunterian Chancres,
  - 4<sup>th</sup>/<sub>n</sub>. Chancroids,
  - 5<sup>th</sup>/<sub>n</sub>. Typhoid Fever.
  - 6<sup>th</sup>/<sub>n</sub>. Phlegmonoid Erysipelas.
-



Case I, Strangulated Hernia,

John Lattetter, Miner, Art 35. Resides  
in Maryland, Admitted August 22<sup>nd</sup>  
Sick 1 day.

The patient states, that he has had  
a lump in his groin, since Nov, 1864,  
which was pronounced to be a hernia  
by his physician, but that he never  
experienced any inconvenience from it.  
He was engaged in a copper mine at  
the time of the injury, and on the eve-  
ning of the 21<sup>st</sup> August, whilst lifting  
a stone, which was heavier than he  
anticipated, into a bucket, which was  
to carry it out of the mine, felt to  
use his expression, "something give way  
and a burning sensation." He was then



drawn out of the mine, walked to the house which was about sixty yards and took some whiskey, after which he vomited and had frequent passages from his bowels. During the vomiting the gut came down very much into the scrotum. Physician came at 10 o'clock the next day and used taxis, without chloroform, for two hours, with no success. He came to the Infirmary about six o'clock in the evening, was examined by Dr. Beckenbaugh and the hernia pronounced, irreducible. Ice was applied in a bladder to stimulate the involuntary contraction of the Dartos muscle and an enema ordered which moved his bowels but probably from only the portion below





the constriction, gave Chloroform at 11 o'clock and attempted taxis again without success. Dr Butler was then sent for and as the symptoms were not urgent, no vomiting, singultus or pain and tenderness over abdomen, he determined to delay the operation until the morning. He was accordingly applied all night. The whole appearance of the scrotum, very much congested and discolored, August 23<sup>rd</sup> Next morning there was pain tympanitic distention and singultus, so the operation was determined upon and commenced, The coverings were recognized, divided and the constriction arrived at. The severing of the constriction could be heard plainly by those present, the



intestines were about to be returned when a rupture of the serous coat, about one inch long, transversely across the gut and gaping about half an inch, was discovered. Then in attempting to get the remaining portion of the gut back two other rents were made. The question now arose, whether it was better to return the intestines in this apparently disorganised state, to the cavity of the abdomen or to form an artificial anus. It was determined to reduce it if possible, which with some trouble and dexterity on the part of Dr Butler, was accomplished with no other injury, and the patient removed to bed. Fr opii gr̄ss xx was ordered at



once and Opium grj every hour, to keep his bowels quiet. From the amount of injury to the bowels and their unfavorable appearance when returned, death was predicted for him, in all probability from peritonitis.

August 24<sup>th</sup> Patient rested well, is quiet and suffering no pain this morning. Pulse regular, some slight tympanitic distention and tenderness, over the abdomen, but not sufficient to make peritonitis certain.

Evening. Still better, expresses himself "just as well as before the operation" and he is quite hungry. Let him have some tea and soaked crackers. Continued opium.

August 25<sup>th</sup> His general condition is better, he has a good appetite. An enema



was ordered and in three hours, there was a good passage, with some streaks of blood, which made us suspect that there was also a rupture of the mucous coat, but of course there could be no certainty on this point. Tympanitic distention and tenderness, have disappeared. The stitches were taken out of the external wound, and adhesive strips ordered. Wound looks well, healthy pus flowed from it and granulations are springing up.

August 26<sup>th</sup> Still improving, some slight swelling of the testicle which made us suspect that the gut was again down, but upon placing the fingers on the external abdominal ring, and di-





recting the patient to cough, it was found to be all right.

August 27<sup>th</sup> The bandage was reapplied and the patient is having healthy operations every day. No pain or tenderness over the abdomen.

August 28<sup>th</sup> Still better and pronounced out of danger from peritonitis. The wound edges are approaching each other and healing beautifully.

August 29<sup>th</sup> Doing very well, having healthy operations daily, and as there was no indication for its continuance the opium was stopped. Patient eats anything he fancies.

August 30<sup>th</sup> Still improving. External wound almost healed. The bandage



was applied tightly and he was allowed  
to sit up. He improved rapidly up to  
4<sup>th</sup> Sept, when the wound being healed,  
a truss was procured, applied and  
the patient was discharged, apparently  
relieved.

Since writing the above, the patient  
has been seen, about two months  
after the operation. He is enjoying  
perfect health and still working  
in the mine.



Case II Double Amputation, Arm and Leg

George George, P. R. R. Hand, Act 31. Admitted Sept 16<sup>th</sup>. The patient was injured and operated on, the same day. Was going out to work on the road, attempted to get on the train, as it was moving from the depot, on the left side of the car, when his hand slipping, he fell underneath the car, was run over and crushed. The accident happened about 6 o'clock. He was brought to the Infirmary about 8 $\frac{1}{2}$  o'clock. Dr Butler examined his injuries which presented the following appearance. The left leg was as far as external appearance went, uninjured, the integument being almost entire, with the exception of one or two small openings about the



size of a three cent piece, but upon closer examination, it was found that the muscles were pulped, and the tibia comminuted, from about the middle third to the tubercle. The integument, on the outer side of the left arm, was stripped off to the insertion of the Deltoid muscle, on the inner side not quite so high. The muscles were pulped from the middle of the forearm to a short distance above the elbow joint, fracture and comminution of the radius and ulna in the middle third and fracture through the elbow joint. In addition he had the eight and ninth ribs fractured on the left side, and the right foot very much contused, with two toes broken. The patient





must have lost very much blood, in the two hours which elapsed between the accident and the operation. Dr Butler, as the man had rallied considerably, determined to amputate, as the only means of saving his life, so after giving him some brandy he was taken to the table, chloroform administered and the operation for the arm was commenced. The flap was almost made by the nature of the injury, so that it was only necessary to dissect back the muscles, saw off the bone, and ligate the arteries, which was accordingly done, using as much celerity as possible. Now the patient's pulse sank so much, that it was deemed dangerous to continue the chloroform for fear of reducing it to such an extent



that he might die on the table, Accordingly stimulants were resorted to freely and amputation of the leg had to go on without the further administration of the anaesthetics, The circular operation was performed upon the thigh, Both operations were done as quickly as possible and had scarcely been finished when the patient vomited profusely, which was considered a good symptom, He was then taken to bed and stimulants were resorted to freely to revive him, a sinapism to the abdomen and warm blankets wrapped about him, He seemed much depressed by the operation

Evening, Patient evidently recovering from the shock, but complaining of the broken ribs more than the other injuries, Pulse



was increasing in force and frequency, but still stimulants were administered during the night. The contused foot was now, particularly examined and the integument was found to be cut in two places, the incisions each being about two inches in length, one across the dorsals, the other at the lateral portion of the foot. Adhesive strips were ordered and applied, with cold water dressings.

Sept 17<sup>th</sup>, Patient expresses himself better but the contused foot and ribs hurt considerably. Pulse very much increased in frequency being 132. The fear now was that the broken ribs had injured the pleurae, and the chest was examined for friction sound, but none was discovered. Still



to lessen the heart's action and lighten  
the duty of the lungs, Pr Hyoscyami grt xxx  
Every 4 hours was ordered, and all  
stimulants stopped. Gave him some milk  
and beef tea. Thumps were dressed and looked  
very well. Evening. Complaining of considerable  
pain from the ribs, foot and Senefison  
which had blistered the abdomen very much.  
His pulse was very much increased in fre-  
quency being 140. Pr Hyoscyami grt XL every  
2 hours, watching the pulse carefully was  
now ordered. As there was considerable  
tympanitic distention Ol. Serebrath Zij  
in  $\text{Oj}$  of mucilage water, was ordered  
as an enema, which acting as desired gave  
great relief.

Sept 18<sup>th</sup>. Patient better, pulse 100.





reduced weak beats during the night but his foot gave him more trouble than any other part. It looked very much bruised and darkened, sloughing was predicted. Dr Hyoscyamus was changed to gr<sup>ss</sup> XXX every 4<sup>th</sup> hour again,

Sept 19<sup>th</sup>. Doing very well with the reception of the foot, which still looks very much discolored, and becoming more so upon every examination. Some tympanites for which an enema was given affording great relief.

Sept 21<sup>st</sup> Stumps dressed, and a light poultice ordered to right foot to bring away the slough. As he is not complaining of the pleura, and the pulse is now regular the Dr Hyoscyami was stopped.



Sept 22<sup>nd</sup> The slough was removed from the foot, and in addition two toes, which were completely dead, and the foot was dressed with Acid Nit etc & to Aquae Zi and cloth spread with Cerate, Betacea.

Sept 23<sup>rd</sup> The stumps look as if they would heal, the arm more so than the leg. Some of the ligatures were removed and it was then dressed with cerate cloth and dry dressings. An enema was given from time to time and Zi Fr Cinchonae ter die.

Sept 26<sup>th</sup> Doing well for last few days but getting very weak. All the ligatures were removed from the arm. Wine Zi ter die and such diet as he might fancy was ordered. Did well.



getting slowly better up to.

Oct 18<sup>th</sup>/<sub>7</sub> Patient complaining that his leg is very much swollen and painful, that he perspires very freely at night and is very weak. An abscess has formed at the end of the stump, which is discharging freely and looks swollen and inflamed. Whiskey and water equal parts. Oi with Zi Tr<sup>opii</sup> being applied on clothes kept wet. The patient recovered from this slight attack and improved gradually up to Nov 6<sup>th</sup>/<sub>7</sub> when he was discharged almost well.



Case III. Syphilis, Hunterian Chancres.

March Roberts, (negro) Sailor Aet 18.

Admitted Sept 7<sup>th</sup> Sick two months.

The patient came to the Infirmary from a Merchant ship which was then lying in the harbor. He says that when he first observed the sore on his penis, it looked like a small pimple, felt hard and swollen and continued to increase in size to the present time when it seemed to be at a stand still. His venereal desire was so great that he was constantly having coition with women until it was so painful that it was impossible, so that he could not tell at what coitus he had contracted the disease, or how long since its first





appearance. The sore was situated on the prepuce immediately in front of the fraenum, about one inch square, hard at the base, and with raised edges. The prepuce was also oedematous, but very hard in the neighborhood of the sore. He had had small bubos in the groin but they were never painful, and showed no disposition to suppurate. Now, the patient has two glands enlarged in the right groin, and one in the left, but they give him no pain. The case was examined and the diagnosis was, Hunterian chancre, the reasons for such a conclusion were, that the chancre first appeared in the form of a pimple with a hard base and raised edges, whereas



Chancroid would have made its beginning as an excoriation, then the absence of suppurating bubos or rather the presence of indolent ones, almost made the diagnosis certain. He was on board ship at the time of the commencement of the disease, so that he had no treatment at all, until he came to the Infirmary. The following treatment was ordered. The chancre was touched with Argenti Nit and a wash  $\text{BiChlo Hydri grj to aq. Zi}$ . In addition  $\text{grss Blue map. lxx die}$ . Here the practice of some differ, they holding that the use of mercury before secondary symptoms make their appearance, is of no consequence, as it does not prevent or even modify secondary symptoms, and holding such to be so, they



think it is only weakening the patient, and putting him in a less favourable condition to bear the secondary symptoms when they do come, as they certainly will after true chancre. Of course this is a question which has been open to discussion for years, and requires close observation, and practical experience, to arrive at a satisfactory conclusion. In this case the mercury was to be carried to the extent of moderate phylaxis, in order to prevent, or modify the occurrence of secondary symptoms.

Sept 8<sup>th</sup>/<sub>77</sub> Patient says he is better and the sores have a more healthy look. Same treatment was continued.

Sept 11<sup>th</sup>/<sub>77</sub> Case still doing well, oedema



much less. Sore looks better, healthy granulations are springing up, and edges evidently contracting.

Sept 14<sup>th</sup>/<sub>4</sub> Sore look much better and is contracting very much, being now only half as large, as it was at the commencement of the treatment. Oedema is fast disappearing, and he is complaining of his gums and mouth being very sore. This is the outward evidence, that the mercury is acting, his whole system evidently being under the influence of the agent. The Blue Mass was stopped, and the patient put upon the use of the Iodide Potassium gr. v ter die. When we next see the patient, in all probability, his gums will be more sore for the Iodine in the Iod. Pot





will attack the mercury in the system,  
and form Iodide of mercury, and make  
the pyralism more apparent for a few days.

Sept 15<sup>th</sup>/<sub>71</sub> Still getting better, sores now  
almost healed, but the gums still  
pretty sore.

Sept 18<sup>th</sup>/<sub>71</sub> Sore entirely healed and by  
the use of the Chlorate potassium  
as a wash, the gums are doing well.

Sept 23<sup>rd</sup>/<sub>71</sub> A thorough examination  
was made for secondary symptoms,  
but none could be discovered and as  
the patient was very anxious to leave and nothing  
to prevent except the sore gums, he was according  
ly discharged. The length of time at which  
the secondary symptoms will appear, varies from  
two weeks to four months but there can be no certainty.



### Case III Chancroids

Elias Rutledge (negro) Sailor Aet 38  
Admitted Sept 7<sup>th</sup> sick one month.  
Patient states that he first noticed  
the sores, about two days after a suspi-  
cious congress, and that the sores looked  
as if the skin was rubbed off, but there  
was no hardness about them at any time.  
He, now, has five chancroids proper,  
which by continuity of surface, have  
spread somewhat to adjoining parts.  
He has not now, nor never had, any  
swelling in the groin, and this is rather  
singular, as suppurating bubos generally  
attend upon chancroids. The case was  
carefully examined, and notwithstanding  
the absence of the suppurating bubos



was diagnosed chancreoids, and treatment ordered, the sores were directed to be touched with Arg't Nit, and then keep lint upon them, wet with Labor-raque's solution of Chl. Sodae. Also Ferri et Potassae Tart grs x ter die, as a Tonic.

Sept 8<sup>th</sup> Sores look much better, have a more healthy appearance, and the patient expresses himself much improved.

Sept 11<sup>th</sup> There is an indolent look about the sores, as if they had no tendency to heal, and healthy granulations are not springing up as they should do. so the sores were again touched with Arg't Nit, and the same treatment continued.

Sept 12<sup>th</sup> Sores look decidedly better, bleed a little when the lint was taken



off and have a red and healthy appearance  
but still it was deemed advisable to  
retouch them every other day with the  
Argt Nit. There seems to be some discharge  
from the urethra, which might be one  
of three things, Either Gonorrhoea, chancres  
in the urethra, or irritation from the  
contact of the discharge from the chancres,  
with the anterior portion of the urethra.  
As the patient was not very cleanly, and  
upon close examination no chancreoid  
could be discovered in the urethra, and  
the discharge almost too thin for Gon-  
orrhoea, it was accredited to the contact  
of the discharge, with the anterior portion  
of the urethra,

Sept 14<sup>th</sup> Sores look well and are healing





up fast, but the discharge still continues for which Zinc Sulph gr 10 to Aquae ℥i as an injection ter die, was ordered.

Sept 16<sup>th</sup> Still improving, excretion almost entirely disappeared, and the discharge also doing well. As yet there is no sign of a bubo, which is very extraordinary as they generally show themselves soon after the appearance of the chaneroid, suppurate and take longer to heal than any other sort.

Sept 18<sup>th</sup> There is a marked difference in the sores today, they are almost healed indeed, some of them are covered by a crust and the rest are improving. The discharge has not as yet ceased so the injection was continued but



there being no necessity for the further use of the Argent Nit, it was discontinued.

Sept 21<sup>th</sup>/<sub>7</sub> All the chancreoids but two have healed, and they are fast improving, the discharge almost stopped and the patient anxious to leave.

Sept 24<sup>th</sup>/<sub>7</sub> Patient was thoroughly examined and as the sores have entirely healed and the discharge dried up, his case was pronounced cured and he was discharged. As to secondary symptoms, I believe that no one doubts, indeed it has been proved conclusively by practical observation, that they will never follow a pure chancreoid.



Case V    Typhoid Fever

John Barnes, Sailor, Resides in New Brunswick, Admitted Aug<sup>st</sup> 28<sup>th</sup> sick 19 days.

When the patient was admitted, his companions could give no account of him except that he had been a sailor on board of a Merchantman, then lying in the harbor, that he had been sick for nineteen days, and they believed that the only remedy he had taken was some Castor oil, given him by the Captain. He had to be carried into the house was in a semi-comatose condition and in a few minutes had a profuse epistaxis which lasted with intermissions for some hours. The symptoms were, subsultus tendinum, floccitation, tongue dry, with



sordes upon it and his teeth, pulse 108  
abdomen tympanitic, some few rose spots,  
Iliocaecal gurgling and tenderness, paralysis  
of the bladder, but as yet no diarrhoea.  
The patient was also delirious and from  
these symptoms the case was diagnosed  
Typhoid fever, and a mixture of Ferri  
and Gum Acacia was ordered as also  
Brandy ℥ss with beef tea every hour.  
It was so arranged that he got either  
beef tea or brandy every half hour.

April 29<sup>th</sup> Patient passed a sleepless  
night and was delirious, as he indeed  
is this morning. His pulse may be slightly  
improved in volume. He had one thin  
copious discharge from his bowels this  
morning, which will be treated if it again





recur. Same treatment was continued with the addition of Fr. Cucumber Eggs every 4<sup>th</sup> hour, with the brandy beat up with an egg. Evening No improvement, at least decided. He has been sweating profusely, respiration is very hurried, pulse 120 and very feeble.

April 30<sup>th</sup> There is no improvement in his condition, he is still delirious. Passed a restless night with great trouble on the part of the attendants to keep him covered. The diarrhoea returned during the night he having had three passages, but it was stopped by the use of Tannic acid & opium. He is very weak and prostrated and evidently becoming more so. Evening Not so well, in fact getting worse fast.



His pulse was 120, he was more comatose  
and there was great difficulty to arouse  
him, to make him take his medicine, also  
trouble in deglutition. The Dr. Crochons  
was given every two instead of every  
four hours.

May 1<sup>st</sup> 1.00 P.M. A.P.M. About 1.15 P.M.  
the patient ~~feels~~ very much, his pulse  
about 140 and respiration 45 per min.  
extremities very cold and deglutition ex-  
tremely difficult. A large blister was  
applied to the abdomen, and brandy  
was given ad libitum, under which he  
improved very much.

May 1<sup>st</sup> 8 o'clock, rather better this  
morning, more rational, pulse 120 deglu-  
tition greatly improved, so that now he



swallow without much difficulty,  
He has breathed more easily and is more calm,  
June 1st About the same as in the morn-  
ing, but has answered questions quite  
intelligently although he is sometimes very  
restless. He slept some little during the  
day which seems to refresh him very  
much. His urine has still to be drawn  
three or four times during the day.

May 2<sup>nd</sup> Still improving, speech more  
clear and improved in volume, is quite con-  
sistent and answers questions very intelligently.  
Not so much subsultus tendinum as before  
and deglutition almost entirely recovered.

May 3<sup>rd</sup> Rested well during the night  
and seems to be better this morning. His  
tongue is more moist. pulse 108, takes



... and swallows without  
...  
... for its use this soft, Kullith  
...  
...

May 4<sup>th</sup> ...  
...  
... Tongue clearing and be passed under  
... the assistance of the catheter  
... restless towards evening.

May 5<sup>th</sup> ...  
...  
... from 10 o'clock until noon, pulse 100  
... even fell to 92 in the evening. Same  
... treatment as yesterday.

May 6<sup>th</sup> Rested well during the night and  
...  
...  
...  
...

May 7<sup>th</sup> Tongue clearing at the tips and





11, pulse 90 and general condition better.

May 10<sup>th</sup> Patient morning sickness has  
is coming up nicely and is moist. Skin  
pleasant and some heat to face  
as yesterday. The Bark and Brandy were  
ordered every four hours.

May 11<sup>th</sup> Still continues to improve, has  
a good appetite, ate some broiled beef  
and toast with apparent relief. An enem-  
ma ordered, to move his bowels which have  
not been open for seven days, which acting  
rather gave great relief. Was able to sit up  
a little today.

May 12<sup>th</sup> Patient sat up today for some  
time, is eating nourishing diet and gaining  
strength daily. The Brandy was stopped  
and Fr Cinchona Co, as a tonic given to die.



May 14<sup>th</sup> Continues to improve rapidly  
appetite very good, and he is gaining  
strength very fast.

May 15<sup>th</sup> Patient is doing so well, that  
he has taken a drive today for the first  
time. He in fact is recovering so fast that  
he does not require medical aid now at  
all.

He continued to improve rapidly up  
to the 17<sup>th</sup> when he was taken away  
by some of his family. It has just been  
14 days since his admission.



Case I. Erysipelas of the leg.

Joseph Hudson, Sailor, from Maryland  
Admitted April 20<sup>th</sup>.

The left leg of the patient, was very much  
swollen and inflamed, from the foot  
up to the upper third of the thigh,  
the integument has a red or purplish  
red tint which is deeper in some places  
than in others, is very tense and upon  
pressure does not disappear as the blush  
of simple erysipelas does. There is also  
a slight blush on the gluteal region,  
A fluctuation could be discovered after  
the most careful examination. He states  
that when the attack first came on  
he did not have any decided chill, but  
sometimes felt chilly and was flushed & heat.



and pained him very much. The pain was  
of an intense burning and throbbing nature,  
and was relieved by the use of the following  
and the following treatment ordered. The whole  
limb was enveloped in a large flaxseed poultice  
and internally R. Ferri Chlo. gr. xx, and  
R. Cinchonae Co. ℥ss. Ter die,

April 21<sup>st</sup>, Prof. Johnston took charge of  
the case today. The present appearance of the  
patient is rather good. There is not much  
swelling, pulse was 88 full regular. The  
inflammation does not appear to have extended  
up and if any change, the color not so  
intensely red as yesterday. Slight fluctuation  
was thought to be present but the presence  
of pus was not ascertained as it was not





Since, the same treatment was continued,  
the application with Fr. Iodine was omit-  
ted in this case; so that the result might  
be compared with others then in the house,  
beside with it. His vessels are somewhat  
contracted, and a Sicilite Powder was  
ordered to open them.

April 24<sup>th</sup> The general health of the patient  
seems to be improving, but the encephalitic  
attack seems rather to be extending. His pulse  
is 82. The count is still multiplied. The  
Sicilite powder not doing, some other  
will be used. There is some difficulty in passing the  
urine. The poultices are still continued to the  
leg and the gluteal region covered with  
Syringole of Stork, then the last pills were  
administered to solicit a passage from



bowels and the catheter was to be in-  
troduced if necessary. Fluctuation, if any,  
is so slight that no incision was made,

April 23<sup>rd</sup> The condition of the eye is  
much the same as yesterday but the inflam-  
mation on the Gluteal region is still on the  
increase, the Glycerole of starch is being  
applied and the patient experiences it a  
very soothing and pleasant application.

He can pass urine now without any diffi-  
culty. Same treatment was continued.

April 24<sup>th</sup> Emphysematous inflammation is  
evidently improving being much better  
today than it has been since his ad-  
mittance. His pulse is 100 and the coughing  
of pain in the lungs which probably comes  
from consumption. There has not as yet



no any decided fluctuations, so the  
opinion is that the inflammation will  
subside by resolution. There is more or less  
illness about the patient at times for  
which Sulph. Muriat. gr. ʒi is admin-  
istered, Spts. ellucideri ℥iv and Fort. gr  
ʒi of this every 4 hours, was also given.

Apr. 25<sup>th</sup> The inflammation is gradually  
subsiding and the natural color is again  
returning to some portions of the limb, the  
swelling and tenderness are disappearing  
Appetite returning, pulse 88 and his gen-  
eral appearance indicates a decided  
improvement.

April 26<sup>th</sup> Still improving and the  
inflammation so much better, that instead  
of a diffused purplish red it is now



was discontinued and it was decided  
not to resume either of the Urtica or the  
herb was also stopped, there being  
no further indication for its use.

April 27th Condition of patient much  
improved. Appetite good, pulse 66. Tongue  
moist with foam. Examination has indicated  
that the inflammation, having only a  
slight vesicular eruption on the leg.

April 30th Getting well fast. The  
status inflammation has left him,  
he is walking about the ward and will  
no doubt require no further treatment.

May 1st Patient is up about the ward  
and is apparently well of his eyes bilate.  
He is complaining of an eruption on his hands.





body which resembles scabies, for  
his he was ordered Petroleum oil as  
an external application. This was  
May 27 Patient is no longer troubled  
the eruption but the eruptions being  
treated with the Petroleum oil, and I may  
as well state the peculiar effect which  
it had upon the patient. The next day  
after its application, the skin was for  
both raw and just as red as a piece  
of meat. The pain was intense and the  
patient really in a great deal of suf-  
fering from its application. Of course  
it was immediately stopped and  
cooling lotions as Almond emulsion  
were applied. I presume that  
the unusual action of the oil was



owing to the unusually intimate  
state of the skin, after so severe  
an attack of erysipelas.







AN

Inaugural Dissertation

ON

*Frigus-cold*

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

*Wm. M. Munceaster*

of

*Maryland*

Session

*Fifty-eight*

1865-66





# Triglus Cold.

Medical History. Cold has been mentioned as a most valuable remedial agent, by our earliest authors; and its use as such, has age after age, been alternately lauded in the highest terms, and as severely condemned.

Both physicians and quacks used cold very extensively as a therapeutical agent, and its injudicious use by the latter, gave rise, I think, in a great measure, to its frequent loss of popularity. In the brief history which I have endeavored to sketch below, it will be seen that although its value as a remedial agent diminished very frequently, and remained so for such long intervals, it finally became



very popular, and was freely made  
use of. The refreshing influence of  
cold drinks, is spoken of by Solomon  
(Prov. XXV. 13). and its use among the Egyptians  
in their religious rites, is spoken of, in  
the books of Moses; showing that it was  
a very early and established custom.  
It was also used extensively by the Greeks,  
and the various diseases for which  
it was employed and modes of its ad-  
ministration were carefully described  
by many of their authors; and in-  
deed Hippocrates seems to have had  
nearly as great knowledge of its  
effects for good when used judiciously,  
and for evil when used with-  
out sufficient thought and care,  
as some of the ablest therapeutists of



the present age; for he advised the employment of cold in actual or threatened hemorrhage, and considered the cold effusion a most admirable remedy, in gouty and rheumatic inflammations of the joints, as it subdues the inflammation and blunts the pain. He also dwelt upon the importance of cold drinks in fevers and directed how they are to be prepared. Paul of Aegina, and subsequently Rhazes condemned the use of cold drinks in large quantities after meals. Celsus who was an advocate of the medicinal employment of cold, mentioned in his writings a certain Petrus, who cured his fever patients with very



many clothes, to excite heat and thirst,  
and gave cold water to drink until  
it produced sweat; a process very  
similar to our present mode of packing  
(Sillwood's page 181). This shows how very care-  
ful the younger men in the profes-  
sion should be, in discarding the opin-  
ions of their preceptors, and in adopt-  
ing new ones, for the former are  
generally those of many, having  
had considerable experience, while  
the latter have to be confirmed by  
trial: for the precepts of Hippocra-  
tes, the father of medicine, and  
of Petrus, Celsus and other ancient writ-  
ters, which we value very highly,  
were almost entirely disregarded





from the seventeenth to the eighteenth century, during which period the poor patients suffering intensely from thirst and fever, were confined in warm rooms, and were not allowed one breath of cold air, and as for cold water, they were not permitted to think of such a thing, but were compelled to endure their sufferings for the want of it, with what patience they could, while warm draughts were freely administered to them.

Cold was very much used by the Arabians in fevers, constipation and other disorders of the bowels, and cold effusions, was a favorite



remedy among oriental physicians,  
and travellers report that it is still  
employed by them. (Selle vol II Page 152)

At the beginning of the eighteenth  
century cold bathing was introduced  
into England as a remedy by Floyer and  
Barand, who were well acquainted  
with the diaphoretic powers of cold  
water. (Selle vol II Page 153). In 1738 S. Hahn and  
in 1745 J. S. Hahn, father and son,  
wrote on the powers and properties  
of cold water, which caused quite a  
revival of that treatment through-  
out Germany. Selle mentions  
one case in particular, which shows  
the beneficial results of Hahn's treat-  
ment. It was that of a lady



affected in almost all of her joints with  
gout, which had resisted every mode  
of treatment, but was at last treated  
in the following manner. Cold affu-  
sions and lotions to the head  
and body; wrapping in sheets soaked  
in cold water, ~~and~~ which were kept  
constantly wet for the space of two  
nights and two days. She sweated  
and recovered. About the eighteenth  
century the remedial employment  
of cold water in the cure of fever  
was again brought into notice by  
R. Jackson & Currie. They had both  
made use of it before. Jackson was  
led to value it very highly from  
learning that a number of pa-



lunatics on board a hospital ship  
delirious from fever had thrown  
themselves into the sea, and  
that all who were saved were <sup>restored</sup>  
to their senses. Currie was lead  
to its use by the perusal of a paper  
published in 1785 by Dr Wright,  
stating that he had successfully  
employed cold affusions of cold  
sea water while he was ill with  
fever on ship board, some years  
before. The greatest and about the  
last advocate of the employment  
of cold water as a remedial agent,  
was August Proussnitz, the keeper of a  
wretched roadside inn at Grae-  
fenberg, in Austrian Silesia. Still <sup>restored by it.</sup>





He was a very shrewd and energetic man, and knowing that the people of his time like many of the present age, were very fond of humbuggers, quackery &c, made good use of his powers in that line, and established for a long time his own reputation, and that of the medicine.

Surgical History. Cold water was very little employed by the ancients as an external agent in surgical affections; but they had some knowledge of its value, for Celsus used it in hemorrhages, and employed a sponge squeezed out of cold water as a dressing to slight wounds.



During the fourteenth century how-  
ever it was used considerably. It  
was employed very extensively dur-  
ing the sixteenth century subsequent  
to the war of Francis I with Italy  
for injuries and wounds. Martel  
in 1601 speaks of its use in the follow-  
ing words. I consider that keep-  
ing wounds clean, is one of the  
chief means of promoting their cure  
now it is certain that water cleans  
es and purifies them thoroughly.

It had a great reputation during  
the time of Percy and Lombard,  
who made use of it so successfully  
that they caused the practice of it  
to be nearly everywhere accepted.



Their advantages were pre-eminent in the treatment of lacerated wounds involving fibrous structure. (Stillard vol II Page 167)

It is also spoken of very highly by Larrey, who says that cold sea-water was used very successfully to dress wounds during the march of the French across the desert, lying between Syria and Egypt.

It was also used very extensively after the battle of Baylen, in Spain, and out of five-hundred patients treated thus, not more than seven or eight were attacked with gangrene, and only two with tetanus. (Stillard II Page 167). In 1834 Josse Amiens, employed, with



great success, continuous irrigation  
in various inflammatory affections,  
and injuries. Malgaigne, Velaton,  
and many other distinguished  
surgeons used cold water externally,  
chiefly in continued lacerated wounds  
of the head and extremities. I have  
also seen it used very successfully, du-  
ring the summer of 1855 in the Balt-  
ic Infirmary, by our distinguished  
Professor C. Johnston.

Action. The primary action of cold  
on the human body, when it is at  
the medium temperature of  $98^{\circ}$ , is  
to lower the pulse, give a sensation  
of cold or tingling to the extremities,  
and to impart a general glow to





the whole body; which is followed  
by a feeling of drowsiness, giving  
rise to the most refreshing slum-  
bers. During health the temperature  
of the human body is equalled, but  
kept so by the food and mutual in-  
terchange of caloric with surround-  
ing bodies; but when these surround-  
ing bodies especially the cold air  
during Winter, abstract so much  
heat from the body as to become  
uncomfortable, we are obliged  
to resort to warm clothing, as  
furs, feathers, silk, wool, and in  
fine any kind of clothing that is a  
poor conductor of heat, or that will  
hold the air in its meshes, and



thus prevent the radiation of heat  
from the body. Draughts of cold air  
act very powerfully to chill the body,  
and affect chiefly the Schneiderian  
membrane and respiratory organs.

The temperature of the animal  
body is lowered chiefly by the aqueous  
vapor which is exhaled from the  
lungs and skin, and therefore  
in Summer warm and moist  
air, which prevents this aqueous  
vapor passing off freely, greatly  
increases the suffering from heat,  
while cold damp air, lowers the  
temperature so much so that  
in Winter as to make it unpleas-  
antly cold. Dry air should not



be inspired directly after having  
breathed that which is filled  
with moisture, for the former  
abstracts heat from the lungs,  
by absorbing the aqueous <sup>vapor</sup> much  
more rapidly than the latter, and  
especially when cold irritates the  
relaxed mucous membrane, checks  
its secretion and causes it to in-  
flame. If however the body is  
subjected to a more internal de-  
gree of cold, the extremities first  
become numb, then they have a  
dull aching pain and finally  
become perfectly insensible.

It is wonderful, how long men  
and animals can sometimes re-



man in this state, without its  
proving fatal. There is a case re-  
lated by Samuel Cooper, of a  
French peasant named Bou-  
tilot, who was lost in a snow storm  
on the Black Mountains, between  
France and Spain, where he re-  
mained for four days in a  
state of lethargy, but awoke on  
the morning of the fifth. (Surgery <sup>Page 35</sup>)  
Sheep have been buried in the  
snow for eighty two days, (without  
food) and recovered. (Meat for Ca-  
lorie vol II Page 100). Generally however  
such long subjection to cold, if  
not at the time fatal, gives rise  
to low fever followed soon by





death. Yet from the many cases of complete recovery which have been recorded, we should be encouraged to make every effort to save all cases, even the most exploratory ones. They should be kept in an apartment, the air of which is of an uniform temperature, somewhat below the freezing point, and and gradually heated.

The part chilled is not the only one which is affected, for it seems to have a sympathetic bearing on the corresponding parts.

This is not caused by the blood flowing from the affected part and thus cooling that in the



one which has not received the cooling application; for it does not have any influence on the rest of the body. The internal mucous surfaces may perhaps be affected in the same way, as cold acts refrigeratively, in arresting hemorrhage from these surfaces. The blood and nervous force diminished in the skin, and mucous membrane, must be concentrated in the great trunks and parenchyma of the organs. Cold applied to the interior of the stomach for example, has the same effect, showing also the sympathy between the outer and inner surfaces, by



causing the skin to become cold, pale and shrunken, when the impression upon the stomach is strong and the tendency to reaction is surmounted. (Wood's Materia Medica vol II Page 117).

Cold water will extract much more caloric from the human body than than cold air, for according to Metcalf (on Caloric vol 2 Page 178)

The human body is more chilled in five minutes when immersed in water at  $32^{\circ}$ , than when surrounded with a dry and still atmosphere at  $40^{\circ}$  or  $50^{\circ}$  below  $0^{\circ}$ , for an hour. Cold water when taken internally in large quantities, especially when the



system is very much heated, will frequently cause the most violent cramps, a feeling of constriction about the scrobiculus cordis, and sometimes the agony is intense, even to producing delirium. The face grows very red, and the eyes glare. The pulse becomes very hard, and then the patient gradually becomes lethargic and comatose, breathes hard, grows pale and clammy to the touch, while a profuse perspiration breaks out all over him. If he recovers from these symptoms there is great danger of congestion of the brain. The effects of severe cold were beautifully

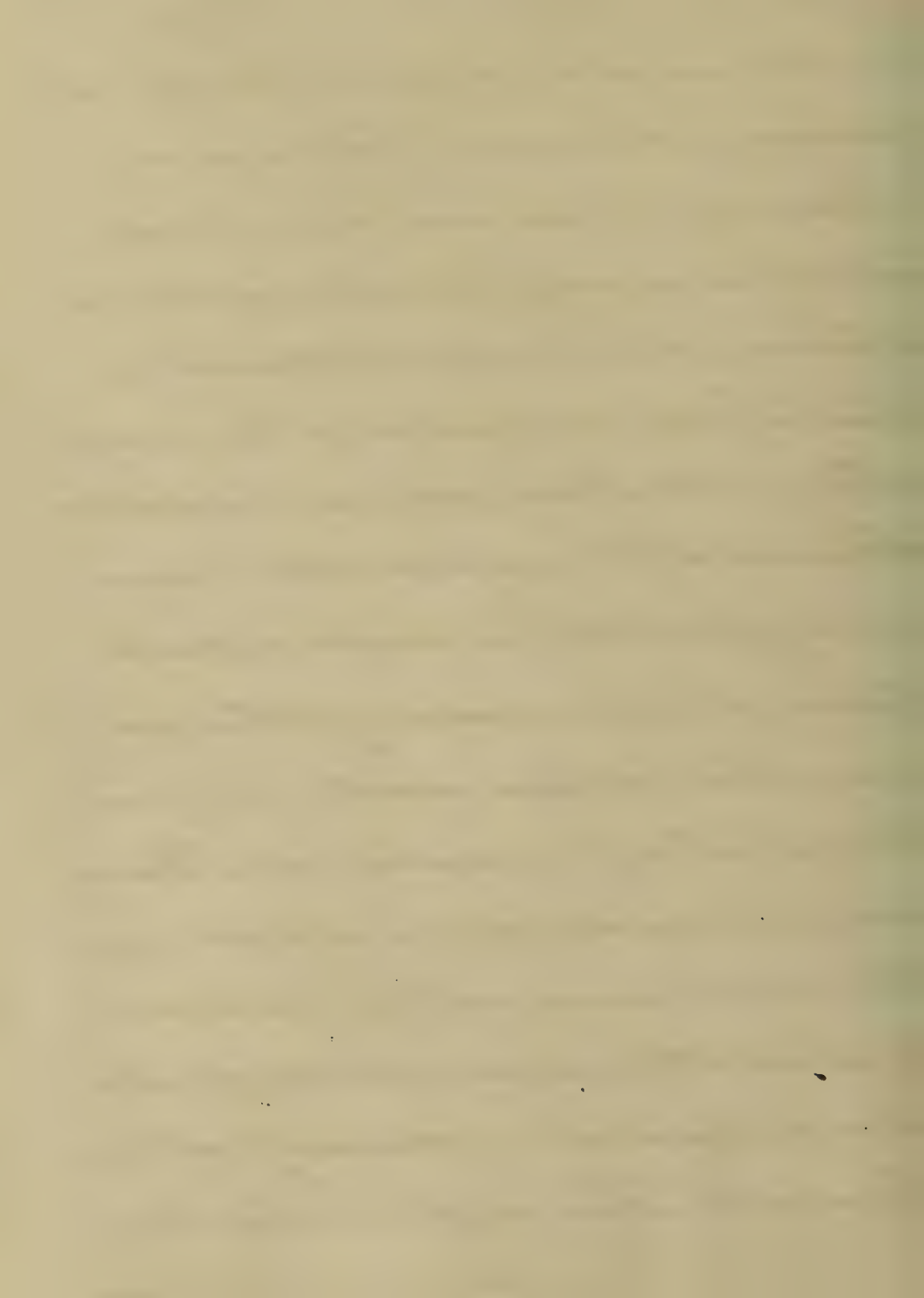




described by Capt. Parry, when speaking of the condition of some of the crew on their return to the ship after long exposure to cold, during his expedition to the North pole. He said, "When I sent for them into my cabin, they looked wild, spoke thick and indistinctly and it was impossible to draw from them a rational answer to any of our questions. After being on board for a short time, the mental faculties appeared gradually to return with the returning circulation, and it was not till then that a looker on could easily persuade himself that they had



not been drinking too freely," and  
moreover he said "I have more  
than once seen our men in a  
state so exactly resembling that of  
the most stupid intoxication,  
that I should certainly have charged  
them with that offence, had I not  
known that no possible means  
were offered them in Melville Is-  
land, to procure anything stron-  
ger than snow water." Very in-  
tense cold produces, as I have  
mentioned before a torpor of  
the nervous system and an  
irresistible desire to sleep, which  
if indulged in is speedily followed  
by death. This stupor should



be combated with all the resolution of man, while he should exercise continually both body and mind. If any intense cold is continued until the temperature of the blood falls more than  $5^{\circ}$  or  $6^{\circ}$  below its natural standard, death speedily follows. (Dutton Page 354). The sudden application of cold, when the body is highly excited, is not in itself likely to produce disease, provided the application be general, is proved by the effects of the Russian vapor bath, for the bathers after having been subjected to a temperature of from



133 to 144° of Fahrenheit, and the  
Finnish baths 158°-167° Fahrenheit,  
require a powerful affusion of cold  
water upon their naked bodies,  
from a shower-bath, which is said  
to be remarkably grateful. A sud-  
den change of temperature from  
cold to heat however cannot be  
made so safely, for the body  
or limb being in a state of sus-  
pended animation. Heat if  
applied, will excite the action  
of the vessels continuous with  
the obstructed capillaries, inflam-  
mation results at the living  
extremities, and congelation be-  
comes converted into irremovable





mortification. (Dunghison on Human  
Health Page 47). Age has a great influ-  
ence on the action of cold, for it af-  
fects much more readily the in-  
fant of a few months and those  
who have reached their three or  
four years, than any age between said  
numbers. This is shown by the  
number of deaths which occur  
among the aged and very <sup>young</sup> during  
unusually severe Winters. Cold  
moist air abstracts vital heat  
from the body, thus impeding  
the circulation, unless the pa-  
tient is taking considerable exer-  
cise, or makes use of stimulents.  
It is in this way that getting the



the feet wet, having to remain  
in wet clothes, and travelling du-  
ring damp nights, prove so  
dangerous. Cold baths are very  
invigorating for when taken  
in moderation, <sup>they</sup> augment the  
process of respiration, <sup>on which the regulation</sup> depends,  
as proved by the pleasant glow  
of warmth that pervades the  
system shortly after leaving  
the bath. The consequence of  
which is that a given amount of  
caloric passes through the body  
in a given time, and all the  
functions of life are proportionally  
invigorated; for the same reason  
they are more active during winter



than Summer and more so  
in temperate than in hot climates.\*  
Remedial Operation. From  
what I have stated with regard  
to the properties of cold, it may  
be readily seen that its action  
differs greatly according to the  
mode of its application, and  
is influenced very much by other  
circumstances. Being a Stim-  
ulant, tonic, refrigerant, sed-  
ative, and astringent. Cold is  
a stimulant, when applied, for a very  
short period, on account of the  
reaction which takes place in the  
body directly after. It is astring-  
ent by acting mechanically, &c



causes a contraction of the capillaries, (Stillé vol 2 Page 170), thus emptying the inflamed part of its fluid constituents. Its sedative power is owing to the continued force which it exerts over the whole body lessening the heat and pain by diminishing the pressure of the blood in the inflamed part, and in the same way subduing the nervous excitability. It acts as a tonic by lowering the temperature, diminishing the excitement of the body, thus giving firmness to the tissues and strength to its functional organs. It cannot be used however as a





tonic when the system is very weak and debilitated, for there will not be a sufficient reaction after its use.

Remedial Employment. Continued Fever. Cold baths or affusion have been used very successfully in the first stages of continued fever, which, practiced according to American Vesputius, was in vogue among the aborigines of this country, for when attacked with fever they would bathe in the coldest water they could procure, and immediately running as far as possible, they would use violent exercise before a hot <sup>fire</sup>, then going to



sleep they would awake without  
fever. (Stille vol 2 Page 175T.)

In Typhoid Fever, especially  
during delirium, or great heat of  
the head, a cold application, or a  
badder filled with pounded ice,  
is exceedingly pleasant, and <sup>is</sup> <sup>re-</sup>frige-  
ral. Cold lotions applied to the rest  
of the body do not act so well, and  
are often positively injurious. Cold  
effusions however are useful in  
the early stages of Typhoid fever  
and are frequently combined with  
cold to the head. Cold applied  
to the head, and ice allowed gra-  
dually to melt in the mouth are  
indispensable remedies through



out the disease. Eruptive Fevers  
Cold water has been used fre-  
quently in the treatment of Meas-  
les, and has been highly recom-  
mended by many eminent Physi-  
cians, but is not used by the major-  
ity of the leading men of the pro-  
fession. Cool air and cold drinks  
however are very necessary in all  
eruptive fevers, when there is no pul-  
monary disorder connected with  
them. In Scarlatina, cold air,  
sponging, and the douche, cold  
applications to the head and even  
to the neck opposite the affected  
tonsil is considered by many of  
our most able authors, the best



mode we have of treating that disease. Cold affusions in Intermittent fever have also been used successfully, to moderate the paroxysms of fever, and according to Sillie is more important in the treatment of the algid form of malignant periodical fever, and in that case must be applied during the cold stage." He adds moreover, "that of all the remedies, which can be resorted to for securing reaction in this dangerous malady, none are so efficient as cold affusions. When the hot stage is in its height, cold water may be given.





abundantly, being both exceedingly  
agreeable and beneficial to the  
patient.

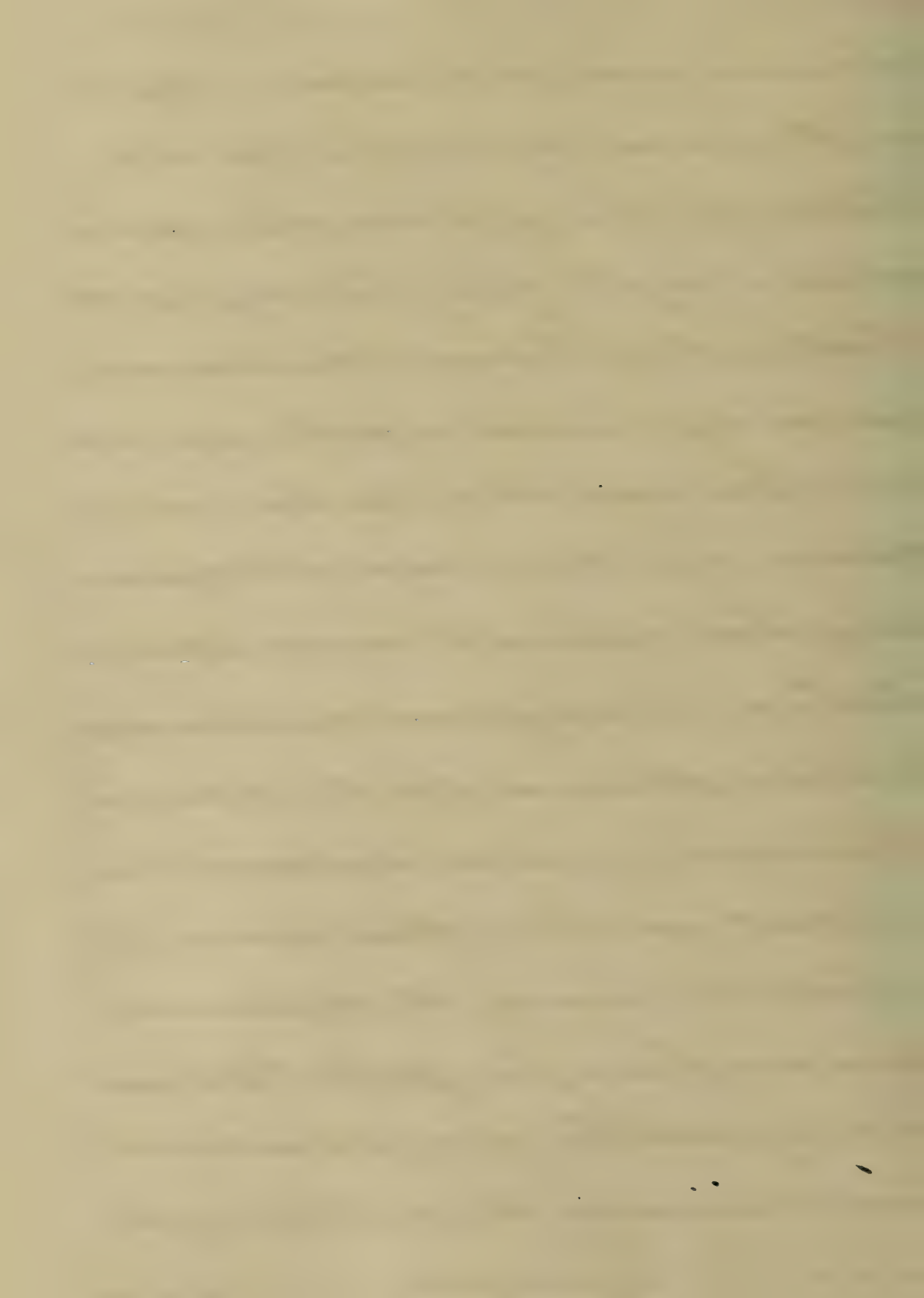
Congestion & Inflammation. In  
gastric inflammation ice may  
be given with the very best effects,  
the patient being allowed to suck  
as much of it as he desires. It will  
also often stop the vomiting in the  
dysentery. In all headaches accom-  
panying fever, and those pro-  
duced by the combined action of  
heat and excitement, cold appli-  
cations are very pleasant and ef-  
fectual remedies. The applica-  
tion must be uninterrupted, or  
it will be injurious instead of acting



as desired. Cold drinks and cold  
enemas are of the greatest service  
in sthenic inflammation of the  
stomach or bowels (Sill's). In  
inflammation of the brain, pounded  
ice, or ice water, should always  
be resorted to. There are two indi-  
cations, for its employment,  
the one a state of delirium; the  
other of oppression caused by effusion  
on the brain. In the latter case  
the water must be of a low tem-  
perature, (about  $36^{\circ}$  F) and allowed  
to fall from a height of two or more  
feet, being renewed every three or  
four hours. Sill's vol 2, no page 183. The  
inflammation arising from, burns,



bruises, wounds & eczema may be  
inflamed very much for the  
better by the application of cold,  
according to the feelings of the  
patient. It may also be employ-  
ed in inflammation of the conjuncti-  
va. Ice water has also been used  
as an injection in acute dysen-  
tery, but owing to our inability  
to keep it applied continually  
to the inflamed part, it cannot  
be recommended as a useful re-  
medial agent in that disease. It  
is however one of the best reme-  
dies we have for piles. Cold water  
is a very soothing application to  
sores caused by the friction of the



clothes in walking, and to the  
bite of insects; and allays the ir-  
ritation of nettles and the prur-  
oit.

Rheumatic Gout. For this dis-  
ease, when used locally it acts  
better to allay the inflammation  
and soothe the pain, than any  
other remedy we possess. It has  
been used successfully in orchitis  
meningitis and peritonitis.

Purperal Peritonitis. To allay  
the violent thirst, and quiet  
the distressing nausea, in  
purperal peritonitis, ice may be  
allowed to melt in the mouth,  
and bladder filled with pain-





ded ice may be applied to the stomach. "In purpural convulsions with evident signs of cerebral congestion, ice to the head and nape of the neck, and the cold douche upon the head, should not be neglected." - The latter, he adds "constitutes one of the most powerful means of alleviating and ultimately arresting this dangerous accident of the purpural state." (Stelliv. II Page 187).

Hemorrhage. Cold is an efficient remedy in hæmorrhæmia and hæmatæmia. It can be administered in the form of weak lemonade, mixed with powdered ice



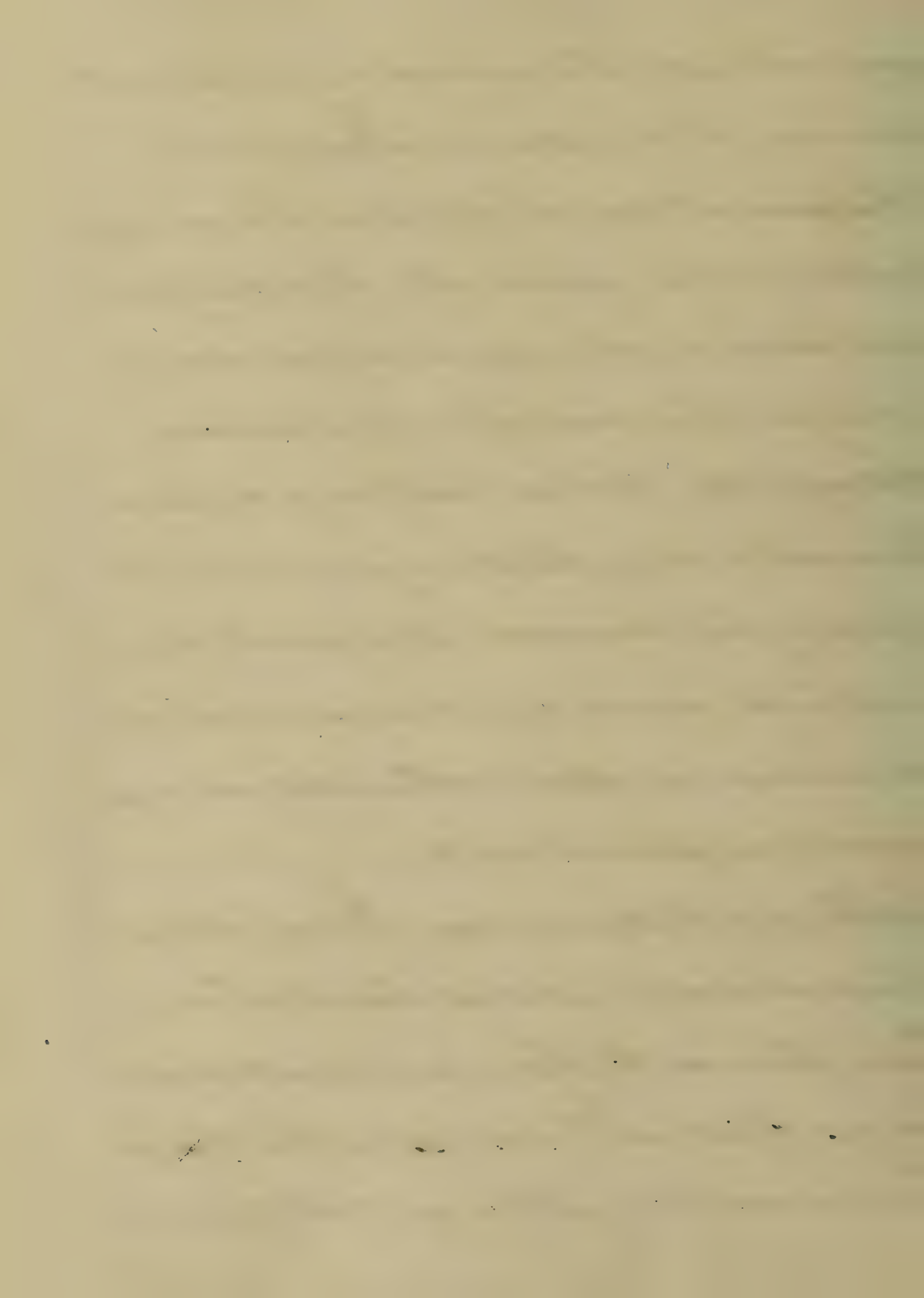
sipped continually, while bags containing ice should be moved slowly over the chest in haemoptyses, and applied to the pit of the stomach in haemetemesis. (Sill's vol II Page 185). Cold is very effectual in arresting hemorrhages after parturition. Cold compresses should be applied to the vulva, upper part of the thighs, hypogastric region, and cold water or ice introduced into the vagina or rectum. When from uterine inertia the placenta fails to be discharged cold water may be thrown into the umbilical arteries, injected into the uterus, or even a lump of ice about the size of a figuons



egg should be introduced into the uterus, (Stillers & Pag. 115) In menorrhagia it can be applied beneficially to the vulva, while the hip bath and cold douche should be used daily between the menstrual periods.

Scrofula. Cold bathing and especially sea-bathing is a most powerful remedial agent in scrofula, and combined with good exercise and diet, should always receive a fair trial.

Chlorosis & Anemia. In both of these diseases, cold baths have been found to have a most salutary effect. It invigorates the system increasing the appetite, and



and strength, and gives renewed energy to the excretory organs.

Chorea. For many years cold water and the shower bath have been used in chorea with very marked benefit.

Frequently cold affusions to the head assist very much. It should not be used for weak and excitable children, for it often alarms them, nor is it advisable to employ it during the winter.

Hysteria, Cold baths combined with pleasant exercise, tonics and nutritious food, in fact often entirely cure this disease by strengthening the nerves, and giving tone to the whole system.





It is also the most effectual remedy for nymphomania; a disease closely allied to hysteria.

Insanity. The cold douche has been found to exert the most decidedly beneficial influence over the paroxysms of furious delirium, in insanity. M. Bouvre de Boismont employed it very successfully in the following manner. The patient were placed in covered baths at from  $82^{\circ}$  to  $86^{\circ}$  F. for eight or fifteen hours, while a current of cool air was made to flow continually over his head. The temperature of the affusion was from  $40^{\circ}$  to  $60^{\circ}$  at first, but at its conclusion  $84^{\circ}$  to  $88^{\circ}$  F. (Silliman II Page 187).



In poisoning by narotics, the cold affusion is the most important remedy which we possess. The affusion should be applied very frequently to the head, but not so often to the rest of the body, lest it should lower the temperature too much.

Tetanus. Cold affusions have been highly recommended in the idiopathic form of this disease, and Dr B. J. Carpenter states that he cured fifteen out of sixteen cases of tetanus, by means of ice contained in bladders and kept steadily applied to the spine. Still's Ord<sup>r</sup> Page 1572  
Constipation. Cold has been used



constantly as a remedy in this disease from the earliest recorded period of the science. Hippocrates speaks of having cured a stout healthy woman (who had taken some emmenagogue medicine), was seized with a violent pain in the abdomen, which grew much distended: she vomited blood, became to all appearances lifeless. About thirty vessels of water were dashed over her, which produced free alvine evacuations, and the patient recovered. (Stillé). An instance is reported by Cady in Stillé's vol 2, page 120 where a patient who had suffered for twenty days from obstinate constipation, and who



had taken repeated doses of purgative medicine without relief, and who also had a tumor as large as a mans head in the hypogastric region, was made to walk bare foot upon wet flagstones, while compresses wet with acid water were applied to the abdomen. Evacuation took place of liquid and solid faeces, and the tumor disappeared. Many other instances of continued and of obstinate cases of constipation upon which other remedial agents had no effect, being cured by cold in its various forms of application, have been recorded. Constipation connected with a long effusion in





irregularity or disorder of the stomach,  
may be cured by bathing, frictions,  
stimulating compresses to the ab-  
domen, cold enemata, Copious  
draughts of cold water together  
with a simple diet of which milk  
and brown bread form a con-  
spicuous part, when all the drugs  
of the Materia Medica would fail  
to effect a cure. (Sill, Vol. 1, page 171). Habit-  
ual vomiting after eating, with  
constipation and progressive  
emaciation, have been cured by  
the hydropathic method, after  
the failure of the best domestic med-  
ical treatment. (Sill).

Ophthalmia. Until a comparative



late, Phtisical patients were nearly always sent to warm climates, as it was thought that they and there only they had the best chance of recovery. But it is now proved by actual experiment that cold climates, such as Mississipi, Litch and others, which have a dry atmosphere, and even temperature, are generally far preferable.

In Surgery. Contusions, injuries and bruises, cold water is the best application of which we can make use. The first application should be suspended, but afterwards cold water, followed by friction to the skin



and then wet compresses should be  
applied to the bruised part. Hot  
compresses should also be applied  
to the joints after the reduction of dis-  
locations, to prevent reaction, effusion  
and consequent stiffness. Cold affusions  
& cold affusions ~~and~~ applications are  
very serviceable, in sprains, and other  
injuries near joints to prevent in-  
flammation. The application of  
water dressings to Wounds, has  
been almost universal, and I  
see it used almost daily in the  
Baltimore Infirmary, with the  
greatest success. I remember one  
case in particular, where it was  
employed and with the most mark-



success. It was that of a fore leg, am-  
putated by Prof. Christophorus John-  
ston, and in which operation he used  
acupuncture, and dressed the  
stump with compresses wet with  
cold water. The needles were  
moved in three days, and the  
stump healed in fifteen days.  
I do not pretend to say that this  
success was owing to the cold  
water dressing, first described,  
to the skillful manner in which  
the amputation was performed,  
but I do think that the cold dress-  
ing assisted very much. The  
water should not be used too fre-  
quently, nor after all inflammation





tion has left the part; for in such  
cases it is apt to produce slough-  
ing, and even the rest of the leg  
may be injuriously affected. Prof  
A. R. Smith mentioned a case in  
his lectures, during the winter of 1863,  
in which the injurious effect of water  
upon animal tissue was very well  
demonstrated. The plantation of  
a gentleman in Mississippi was  
overflowed, and his cattle stand-  
ing on the more elevated por-  
tions of land, where the water had  
not reached their knees, were obliged to re-  
main <sup>there</sup> over one week, feeding on the  
cane-brake. All the flesh on that  
portion of their legs which was



in the water sloughed off, and  
the flesh of one, underwent al-  
most instantaneous decom-  
position when killed.

Local Inflammation. For ulcers,  
carbuncles, whitlows and ulcers,  
cold water is a most excellent re-  
medy; and according to Stille, Whit-  
lows may be most summarily ar-  
rested, by holding the fore-finger  
for several hours in ice-water.

Ulcers and those ill conditioned  
sores which spread by gangrene  
or in consequence of the contami-  
nated part, they affect, nothing  
will cause so great a change for  
the better in a short time as water



applied at a temperature not equal  
to the sensibility to the excitability of  
the patient and of the part af-  
fected.

Strangulated Hernia. Cold  
water, or ether, by its evaporation,  
extract heat from the body, and  
thus produces cold, and when  
applied to hernial tumors assist  
very much in their reduction.

There are two forms of strangulated  
hernia, each requiring a differ-  
ent degree of cold. One, Strangu-  
lated by distention, is relieved by  
the brief action of a low degree of cold;  
while the other, which is produced  
by inflammation, should be treated



with a dressing of more moderate temperature, continued for a longer time, as the tissues are denser less mobile and therefore do not contract so readily. There are cases however, in which although inflammatory symptoms had subsided, the free and prolonged application of ice gave great relief. (Skillern (1850))

Anchylolosis. Stiffness of the joints following inflammation caused either by some external injury or constitutional derangement, may be treated by cold affusions more successfully than by any other means. The part should be well rubbed after each application.





Cold as an Anæsthetic. Cold has  
been used as an anæsthetic agent  
by a great number of surgeons,  
and has been highly recommended  
by them in many minor and  
superficial operations. It has been  
used, in the form of ice, for some  
neuralgic pains; headache, and  
toothache. It has been used  
chiefly, though, as a surgical anæ-  
sthetic. Dr. Arnott, who advocated  
its employment, most strongly,  
confined its application chiefly to  
superficial parts: but was of the  
opinion that the sensibility of the  
body could be destroyed to a depth  
sufficient for most operations, by



substituting in his freezing mixture, a  
brat or mineral gallicum for com-  
mon salt. Dr. Arnott claims for it  
the advantage, of healing more rapidly  
than under ordinary circumstances,  
and that it tends to prevent traumatic  
inflammation, while it restrains  
hemorrhage, and disposes the wound  
to heal by the first intention.

*H. frigoris mixtum* is described by  
Wood (vol 2 Page 384) as being composed  
of two parts of ice and one of the salt.

For ordinary purposes four ounce  
gals or a piece about as large as an  
orange, will be sufficient. This should  
be thoroughly comminuted by stir-  
ring with a plane, or pounding with



in a bag of coarse cloth; and  
then placed on a sheet of paper and  
mixed quickly and intimately with  
the salt, by means of a paper fold  
or by stirring the two in a galle per  
cha vessel. The mixture thus prepared  
is to be introduced into a net gauze  
which may be conveniently suspen-  
ded for the purpose from the mouth  
of a jar; and as soon as the dripping  
from the brain begins to appear it  
is ready for use. The net containing  
it is now to be applied to the  
part horizontally placed, and  
if not large enough to cover the  
the surface which is to be affected  
by it, the operator should pass the



swiftly, quickly, from one part to the  
other so as to affect the whole case  
by, or he might use a brace call which  
has been mentioned in the medicine.  
The summary of its advantages  
is according to Wood, are nearly the  
same as those claimed by Smith,  
namely, Safety, absence of hemorrhage  
want of subsequent inflammation  
or suppuration the healing by the  
first intention, and the non occur-  
rence of inflammation in the sur-  
rounding parts.

Contraindications. In the preced-  
ing page we have spoken of the  
evil effects of drinking cold water  
when the body is highly heated.





By any great exertion or exercise  
Heat. It is also dangerous in acute  
pulmonary affections and in  
the cold stage of fever. In great de-  
bility or the state of gastric stony when  
occasional cold tubular before  
cold water should not be used.

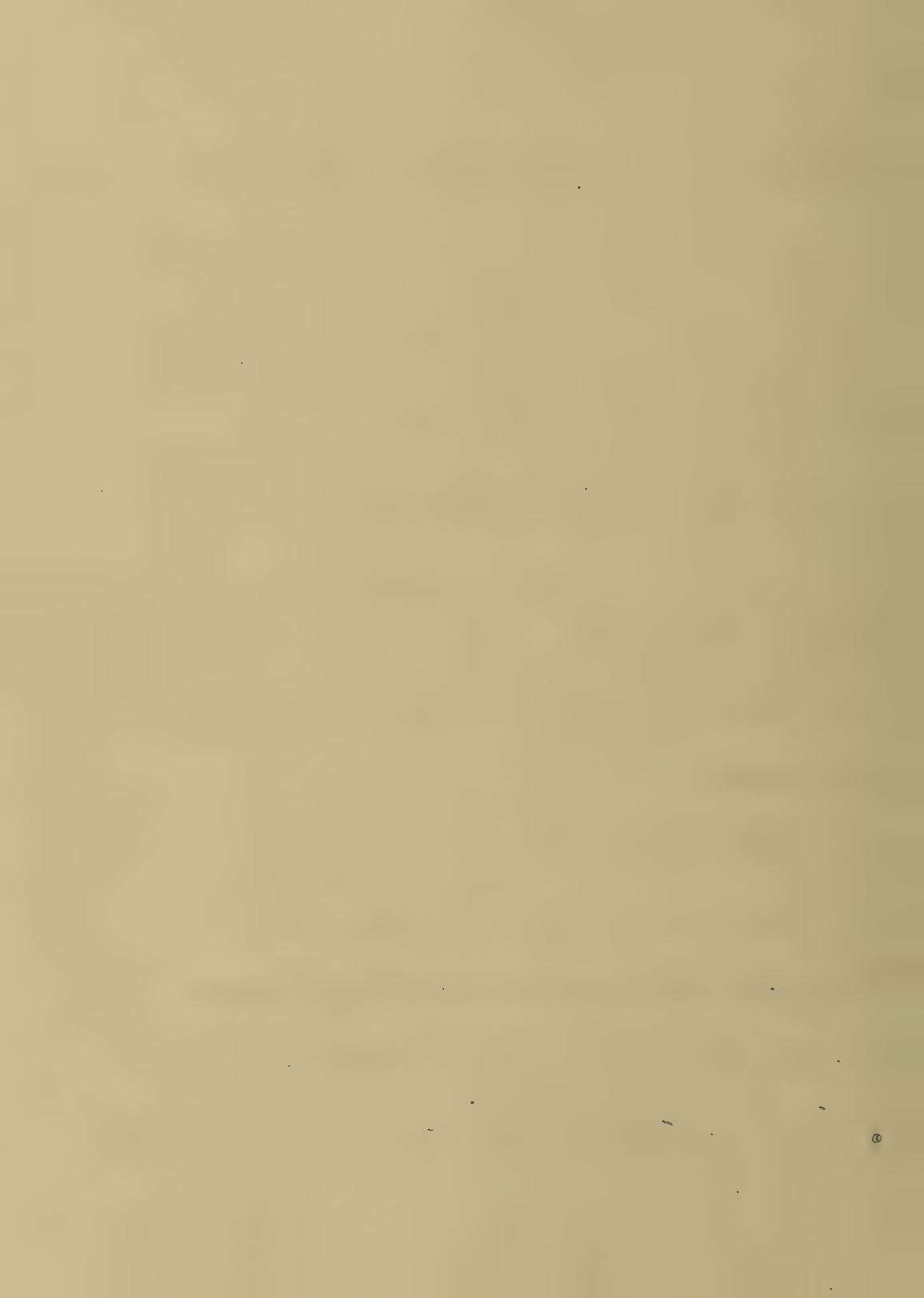
Bathing in cold spring water in  
the summer, or in any water be-  
low 50°F, is attended with risk, es-  
pecially to old persons and to  
infants. In chronic diseases, at-  
tended with wasting discharges,  
or in which a sudden shock would  
be dangerous, are unfit for treat-  
ment by cold bathing" (Willd). Cold appli-  
cations should not be employed after



all signs of inflammation has left  
the part.

Administration. Cold is ad-  
ministered as a remedial agent in  
many different ways; the most  
important of which are Cold Baths,  
Abduction, Shower Baths, Irrigation  
the Douche, Cold Effluvia and  
Packing in the wet sheet. &c. &c.

Cold Baths are generally used of a  
temperature varying from  $33^{\circ}$  to  $69^{\circ}$  F.  
while between  $60^{\circ}$  and  $70^{\circ}$  is considered  
cool. Natural baths may be used  
of a much lower temperature than  
those prepared at home. (Little). The  
skin should be moderately warm and  
the mind cheerful. Hence (says Little



a bath taken after a moderate de-  
gree of exercise is more pleasant  
to the bather and the reaction more  
complete. It is in this way that  
he accounts for the baths which  
are taken ~~at~~ noon in the sum-  
mer being more grateful.

Bathing in the morning is  
next preferred. The bather  
should immerse his whole body  
at once, and on leaving the  
bath should rub himself brisk-  
ly with a towel, until a chafed  
glow is produced on the sur-  
face. The hip bath which is so  
frequently used in affections  
of the abdominal organs is usu-



all of the temperature of  $140^{\circ}$  F. and  
only employed for a few moments at a  
time when we desire its tonic effect,  
while its derivative influence is ob-  
tained by a temperature of from  
 $50^{\circ}$  to  $60^{\circ}$ .

Abution. In abution the  
body should be washed well, by  
means of a coarse towel or any  
substance causing friction, and  
kept up from five to ten minutes.  
The direct impression of the cold  
fluid is prolonged by its evapora-  
tion.

Shower Bath. The shower bath  
is not so powerful as the douche,  
but is very useful when a slight





stimulating affect is required.

Irrigation. is the keeping up of a constant stream of cold water over an affected part and the adjacent surfaces. It is kept up by a vessel with a small tube issuing from it, or by a flexible syphon, both of which should be regulated by a stop cock, so as to cause the stream to be very gradual and continuous.

The Douche. Cold water when applied in the form of a douche, has a more powerful effect than that of any other form of application. It stimulates and fortifies the skin. It should not exceed an



inch in diameter, nor fall from  
greater height than from five to  
fifteen feet (Stille). When first used,  
the stream must be small and  
the fall of a slight height. After  
the bath, the body should be rubbed  
with a coarse towel, and slight  
exercise may be taken.

Effusions. When the patient  
is seized a cold effusion, his body  
should be cleaned thoroughly  
by means of soap and water, so  
that the water may come more  
immediately in contact with the  
body, and then cold water is  
poured upon the head shoulders  
and other parts of the body. It



must be applied suddenly, and with force so as to give a slight shock to the nervous system, and to lower the temperature of the body rapidly.

Packing in the Wet Sheet is recommended by Stillwell (Page 204) The most useful and efficient of the processes employed. A large cover sheet is wrung out of cold water, and spread over a blanket previously spread on the bed. Upon this the patient is laid, and enveloped by them. A feather bed is then laid over all. To weak or feeble persons it is at first uncomfortable, cool, but soon becomes warm & pleasant



The skin gradually becomes hot, the face  
flushed, general perspiration breaks out,  
which can be prolonged by small draughts  
of cold water. After complete action occurs  
the rappings may be removed and  
the patient washed with cold water  
or plunged into a cold bath. This  
method should be used in chronic  
cases, but in those of an acute form the  
rappings should be reapplied repeat-  
edly until the pulse is permanently  
lowered. The cold Epsom, or castor oil  
local application of cold water by means of  
compresses, sponges, and so generally, used when  
a continuous application of cold to any part is  
required. The compresses should be kept  
wet continually.





AN

Inaugural Dissertation

ON

*Injuries of the Head*

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

*August J. Pugini*  
of

*Carroll Co. Maryland*

Session

180--0



To

Professor William L. Smith.

The

Sir Astley Cooper of America.

The dissection is respectfully submitted.



1  
Inquiries of the Rev.  
in a number of the dissertation.

I have been thinking of  
writing you some time  
but have been so busy  
that I could not find  
time. I have been  
and the lower order of the

ability to adorn any new ideas of  
the subject. But I had for a time practical  
knowledge, but I think I have been  
of the expressed views of the

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writing you some time  
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that I could not find  
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the subject. But I had for a time practical  
knowledge, but I think I have been  
of the expressed views of the









Monday, 18th July

in the right eye, the pupil is small,

and the eye is much inflamed. Corneal abrasion is  
most likely to occur as a

result of the injury. The eye should be kept  
closed, and the patient should be kept in a dark room.

within the cranium. Treatment: The

eye should be kept closed with a bandage  
and water should be applied to the eye as often as

needed as short as possible and the eye

should be kept closed by means of adhesive strips and all

exposure avoided so as to keep down inflammation <sup>if possible</sup>

Patients should never be used if there

is any possibility of a serious injury.

It is essential that the patient should be kept in a dark room

and that the eye should be kept closed at all times.



Simple fractures without depression.  
 The fracture is complete, the bone is displaced, and the soft parts are not injured.

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Structure of the nervous system

of the nervous system  
and their functions









of low energy

The

consideration in forming a correct view  
of the nature of the matter

is not to be understood as a  
statement of fact, but as a

length

the







available, but it is not clear that a  
evaluation of treated effects can be made by  
the degree of depression. From this we  
may learn what is possible to judge a person  
of depression.

much depends upon the nature of  
symptoms, - that is, if symptoms of  
depression are present, the treatment  
be with a view to remove these symptoms.  
In the first place let us consider a case of  
depression, and depression without  
symptoms. It will be found that in  
cases of depression the common  
symptoms are, a loss of energy, a  
loss of interest in the world, a  
loss of the ability to enjoy life, a  
loss of the ability to concentrate  
the mind, a loss of the ability to  
remember, a loss of the ability to  
write, a loss of the ability to  
speak, a loss of the ability to  
act.













of a flat surface, and the instrument  
 to remain. Hence, the necessity for prompt  
 removal. The mode of operating here is the  
 same as in the previous case, by making  
 a concial incision, free so as not to endanger  
 the operation, and then use the forceps  
 by means of the elevator and forceps,  
 after which, it will be necessary to give  
 appropriate treatment to the  
 wound, as before. The time of the  
 most of the heating process, is the time  
 between the time of the operation and the  
 union is better than a pound of cure,  
 and appropriate than in case of loss  
 of it.

(C. 2) found in a few cases of  
 Kermesite: These differ very little from simple zinc  
 and are useful in the case of a wound where the metal



Sir Wesley Cooper, "The important question  
 is, will you, or your generation, by any  
 means, and it will be so, as to be  
 performed, when inflammation is once formed.  
 It is not to be thought of, as a  
 this operation; but this is not the case;  
 it is not to be done, unless you put in  
 with due, whether you trephine or not, and  
 you will be far from arresting its fatal pro-  
 gress by trephining; that the operation  
 adds to the strength of the inflammation."

"When inflammation of the dura mater, or  
 its membranes has been excited by depression  
 of the skull, you cannot do more, with  
 trephining, than to bleed."

Sir Henry Doan's duty concurs with Sir Astley  
 Cooper's opinion, and is, that the operation













cautionary measure to guard against  
inflammation, when found in a vessel in  
any part of the system.

The form of the Ductus arteriosus differs in  
appearance; but the most important  
is to be distinguished from the pulmonary artery  
and its branches of diagnosis. It is called  
the arteria pulmonalis in some authors  
in consequence of the error of the first  
and patient has been seen in the right  
upper lobe of the lung - ~~It is~~ the ~~arteria~~  
is its structure perhaps less than in  
lungs but is more than in others. It  
should externally resemble the pulmonary  
artery in important questions. It has a  
the of the internal table pressing against  
into the heart. It may be distinguished  
can be brought about by the internal  
of the internal table of the pulmonary artery







The surgeon is not to be blamed for  
 not exploring the wound more  
 extensively, nor for not making  
 a flap to cover it, nor for not  
 making the wound more extensive  
 nor for not studying the wound to see  
 the most important part of it.  
 Here is a quote from the celebrated  
 "Feytaud's System" "When a fracture is  
 covered yet if there is a wound in the  
 injury having fallen on that part of the  
 process in which the wound is made  
 entry is admitted the wound is not  
 may be covered in a moment, and the  
 the patient should be left in bed  
 without an attempt being made for his  
 evacuation" Here again let me say that  
 in a humble opinion, the surgeon is not  
 to be blamed for not exploring the













... for a time suspended; the second is  
 one of reaction, in which there is, to a cer-  
 tain extent, some return to normal  
 ... of bodily forces; and the  
 third, it is the inflammation of the brain,  
 ... by various ...  
 of the organ and increased ...  
 ... this stage is most ...  
 the least important of the series of ...  
 sequences, which result from concussion.

Symptoms characteristic of  
 the first stage: In this stage, ...  
 in a great many instances the functions  
 of the mind are completely ...  
 ... far that it is impossible  
 to ... reaction ...  
 when we are ... for the time.  
 ...



patient may be put in a position  
 with closed eyes, and the patient may  
 not voice, no sensation of  
 fullness, the effect on the pulse is  
 when, does not seem to affect the  
 conductivity, but the patient is  
 brought into action, and  
 entirely gone. These symptoms are gene-  
 rally combined, symptoms are re-  
 sult, where the loss of consciousness is  
 complete, and that of voluntary motion  
 little if any affected. The countenance is  
 pale, and shrunken; the extremities, and  
 the respiration is very feeble, and  
 shallow; however, in slighter  
 cases, it is almost natural. The pulse is  
 slow, weak, and thready, and very often  
 intermittent and scarcely perceptible in the  
 wrist, it is more or less variable.























by different causes - but of these we never  
 know the reason to speak; as we do not  
 know the cause of the disease, we cannot  
 find a remedy - and we must therefore  
 use such remedies as we can find, and  
 alleviate them.

There are two different opinions:

Some advise us to use prompt  
 and phlogistic means; such as copious bleed-  
 ing and purgation. I am of the opinion  
 that these are the best means to be used  
 in the first stage of the disease, and  
 to be continued as long as the  
 patient can bear them.



The blood is condensed in the patient still living  
 but the power of the brain is gone. I  
 have found it necessary to employ the  
 stimulate the vital forces, at an early  
 permanent in this effect, and to  
 stimulate the brain as little as possible  
 The patient should be kept warm and once we  
 a sufficient amount of covering, with the rest  
 of the body, to be kept warm, and  
 probably warm, and restore the circulation  
 as, after the power of respiration has  
 been restored, we may venture to em-  
 ploy Ammonia as a stimulant, as its  
 effects are not so permanent as those  
 of the other agents, but great care must



may be stored in the use of instruments,  
for fear of emitting sulphureous  
gas.

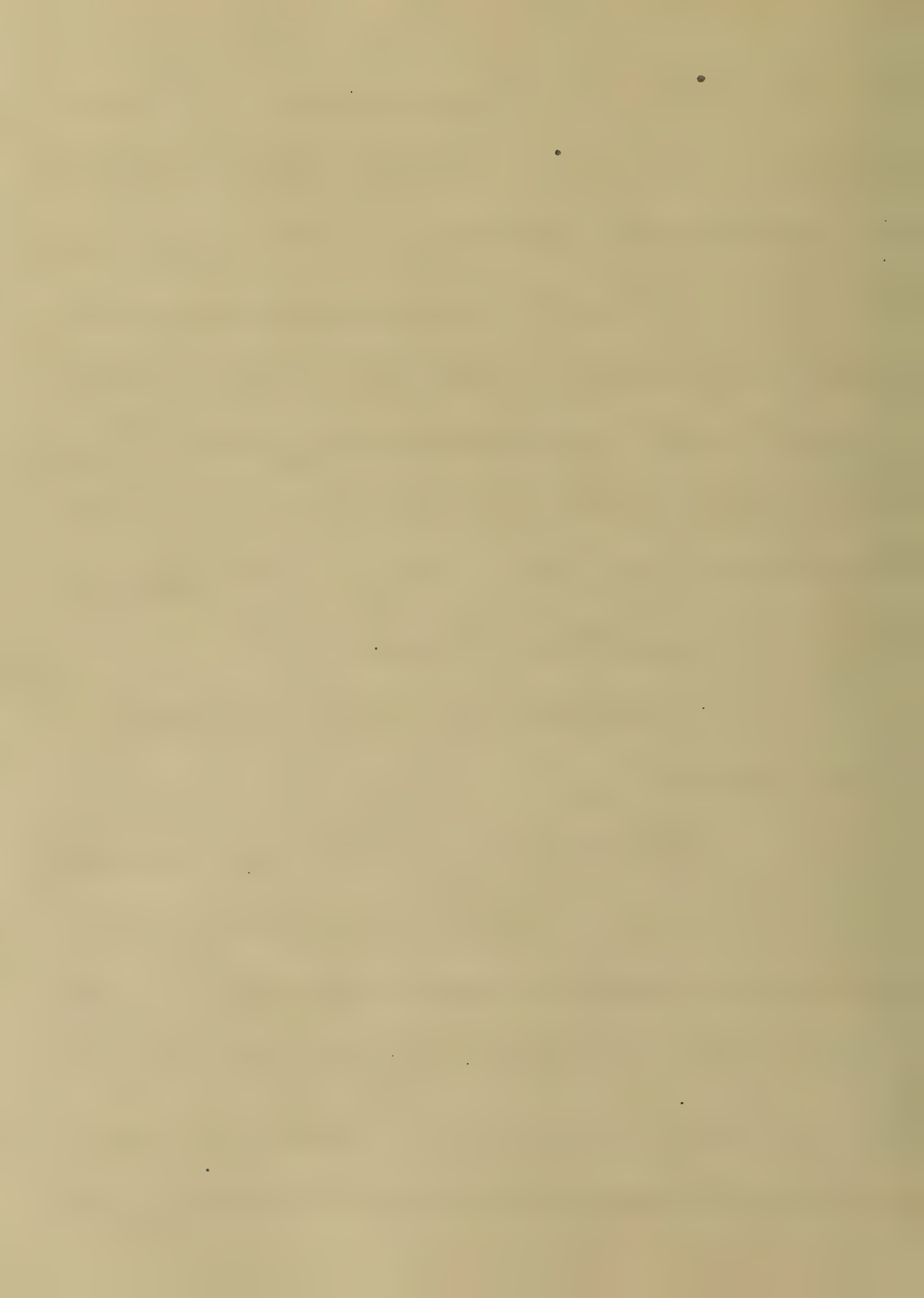
Dr. J. B. ...

The most ...

... possible ...  
... the stage of reaction, ...  
... the subject ...  
... removed to a dark room, ...  
... should be elevated - the head ...  
... the seat, ...  
... the ...  
... it ...  
... the ...  
... the ...  
... the ...













being made, his appearance was good for  
 four days after the beginning of the  
 fever, but about the 7th day he became  
 restless at these various periods. He  
 was delirious. On the 10th, the patient complained  
 of severe pain in the head; great tenderness  
 over the frontal sinuses; loss of appetite;  
 quick pulse; restlessness; nausea, and some-  
 times vomiting. The 11th stage is the  
 onset of the "rigors" or "chills";  
 "rigors" more or less severe followed by  
 a stage of "reaction" the pulse is  
 full and bounding, the cardiac heat is  
 increased, the patient is very thirsty. The pupils are  
 contracted, the tongue furred and dry, the  
 great part of the day, several eructations  
 frequent vomiting. The patient is  
 restless, the patient should be  
 placed in a cool room, the  
 chance to see whether the  
 fever is not  
 the patient should be  
 placed in a cool room, the  
 chance to see whether the  
 fever is not







1. The first consideration is the presence  
 and of this operation, First When we  
 have a fracture of the skull, and  
 has resisted all other means of allevia-  
 tion, compression of the brain, and  
 the symptoms of compression. ~~When~~  
 a fracture of the skull, and  
 should not be waited for long. When ex-  
 tra-ventricular blood is found  
 between the cranium and dura mater.

When a fracture of the skull is  
 the subject and some injury, no mat-  
 ter how trivial, was certain to be followed  
 by operation. But I think the cases  
 here mentioned are the only ones that  
 justify the operation. — — —





AN

Inaugural Dissertation

ON

*Digestion*

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

*Albert Vickers*

of

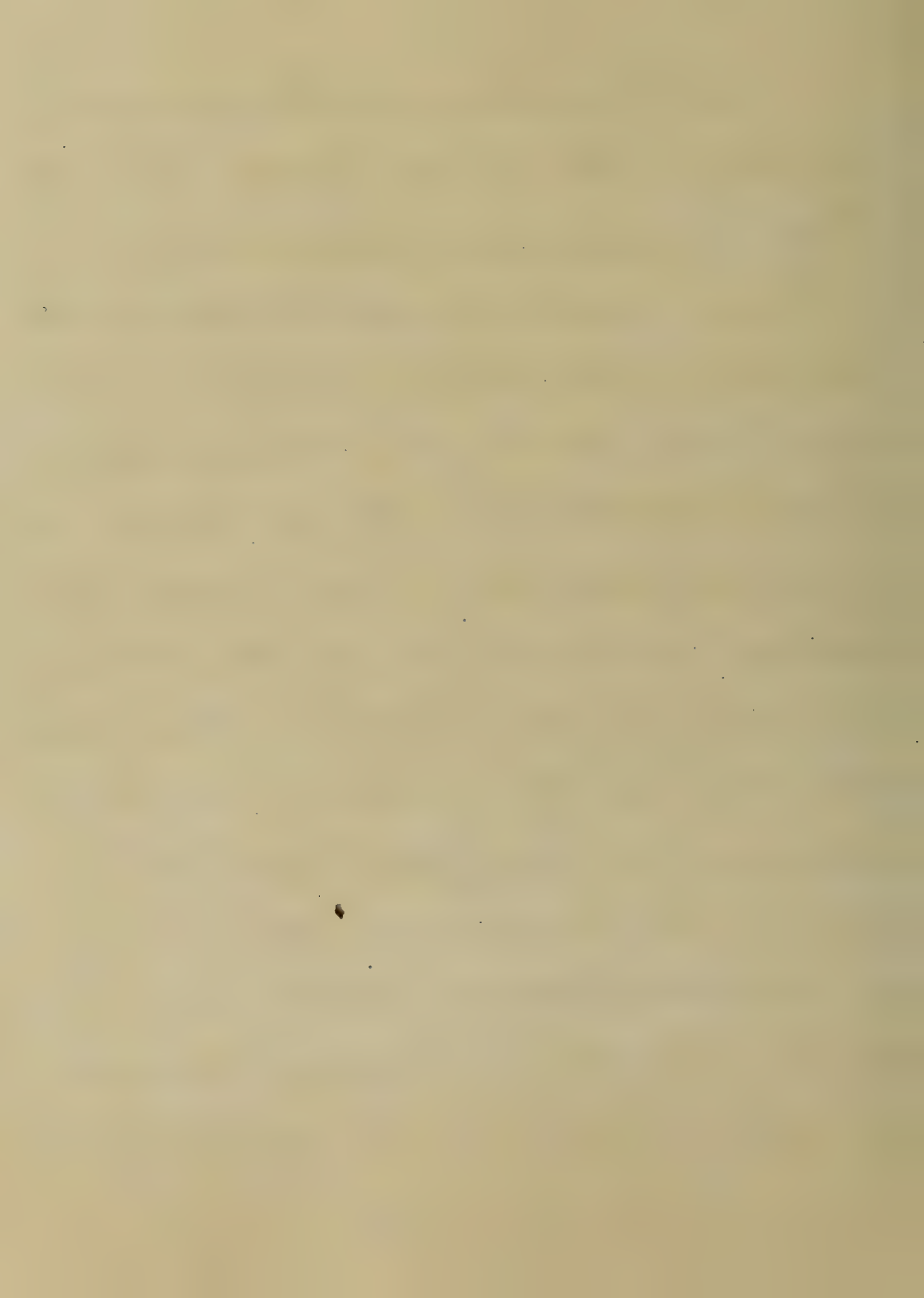
*Maryland.*

*Session Fifty-eighth,*

1866.

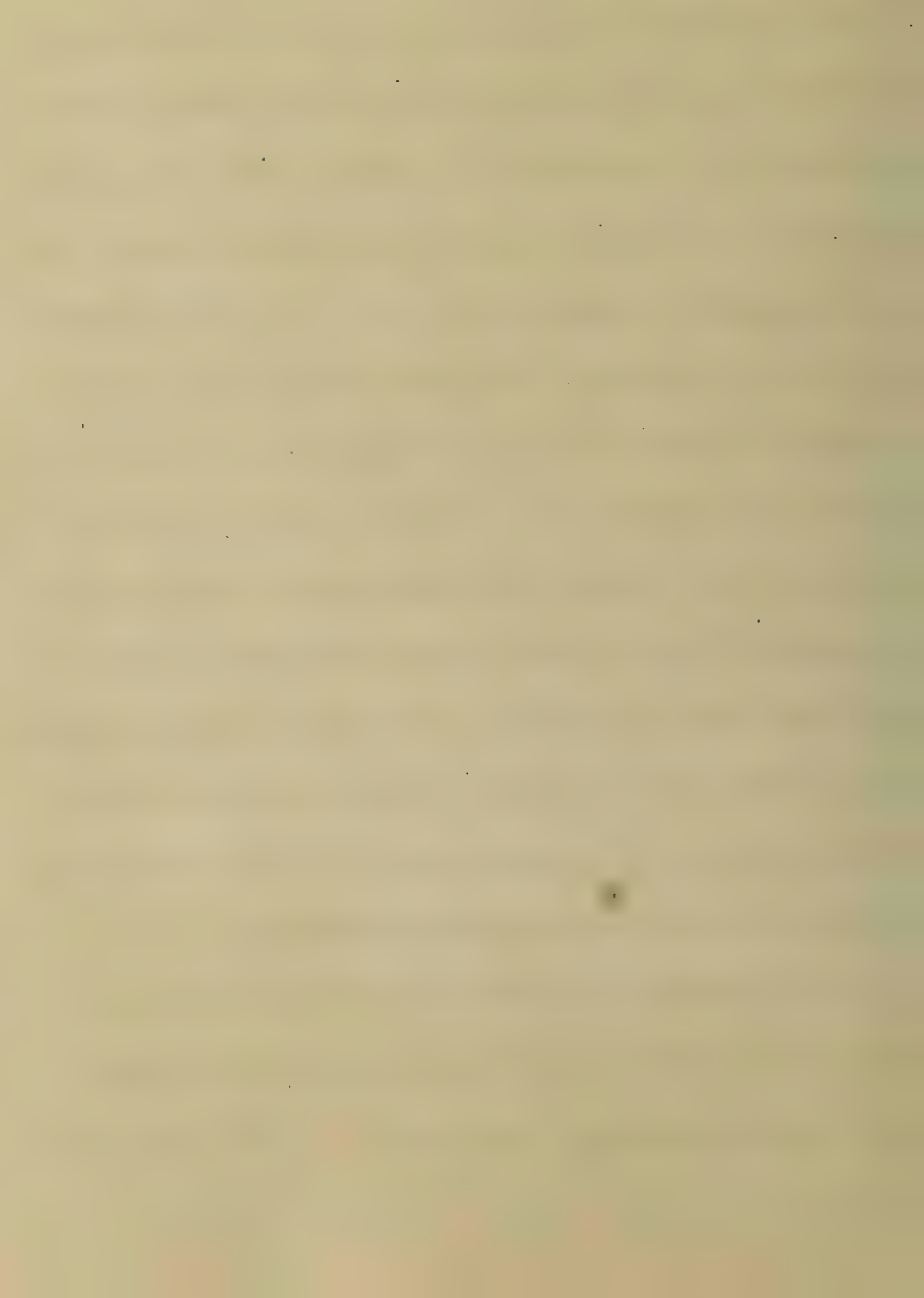


Digestion is that process by which the food taken into the body is prepared and put into a form in which it can be absorbed into the circulation - it has for its object and final result the production of arterial blood. Of all the processes of Nutrition, this is the most important - as the tissues of the body depend upon the blood for their nourishment, and the quality of the blood depending in great part upon the perfect performance of this function, its great importance is at once evident. It is also necessary, for the maintenance of health that the individual



should be supplied with nourishing food, - food containing all the elements of nutrition, - that the waste which is constantly going on, may be promptly repaired. The food of man being composed of various substances having different chemical properties, it is necessary for its reduction that it should come into contact with various secretions, each of which exerts a peculiar action upon a particular class of substances contained in the food; - so that the digestive function is a complicated one.

Digestion of the food is accomplished during its passage through the alimentary canal. This canal



consists of the mouth and fauces; the pharynx, oesophagus, the stomach, the small intestine, under the names of duodenum, jejunum and ileum, and lastly the large intestine which finally terminates at the anus. The whole extent of this canal is lined with mucous membrane, presenting different characters in different portions.

In the mouth and oesophagus it is smooth and is covered with tessellated epithelium; - in the stomach and small intestine it is glandular and covered with columnar epithelium; - in the latter situation it is thrown into transverse folds or rugae, the "valvulae conniventes"; in the large intestine it is smooth. The





mouth, the first portion of the alimentary canal, is a cavity formed by the hard palate above, the cheeks on each side and by the lips; the tongue and teeth are contained in this cavity; the latter are the principal agents in effecting the mastication of the food; the muscles of the cheeks and tongue are essential to the performance of this process, as they serve to bring every portion of the food into contact with the teeth. Mastication is the comminution, or subdivision of the food into small particles, and while this is taking place, another process is going on within the mouth, viz.:-  
Insalivation; - This is the intermingling



of the saliva with the food, thereby rendering it into a pulpy mass.-

The Saliva, the first of the secretions of the alimentary canal, is a slightly viscid fluid having an alkaline reaction, and is made up of the secretions of several glands,- 1<sup>st</sup> that of the parotid, 2<sup>d</sup> that of the submaxillary, 3<sup>d</sup> that of the sublingual, and lastly that of the mucous follicles of the mouth. It is composed of a large proportion of water,- a small amount of organic matter, and some earthy salts. The function of the saliva has been the subject of numerous experiments.- It was found by Leuchs that it had the power of converting



Starch into sugar when mixed with it and exposed to a heat of about  $100^{\circ}\text{F}$ . This was then supposed to be its function, but as the food does not remain in the mouth long enough to be acted upon by the saliva in this way, and the presence of the gastric juice in the stomach prevents the transformation, this could not be its office:— moreover, in another portion of the alimentary canal, provision is made for the digestion of starchy substances. The function of the saliva is now considered, merely to render moist the food in the mouth, and thus facilitate deglutition.

It is secreted at all times, but under



the stimulus of food, it is poured out in much larger quantities. The food after having undergone these processes in the mouth, is forced backwards by the tongue into the pharynx; this portion of the canal is provided with constrictor muscles, which seize the bolus of food, after which, it is no longer under control of the will, but is forced downwards by the contractions of these muscles into the oesophagus. - This is a tube extending from the pharynx to the stomach, provided with a muscular coat having two layers, the outer one having longitudinal fibres, and the inner, circular





ones. The passage of the food through this part - as has been said - is entirely involuntary and is effected by the successive contractions of the muscular fibres from above downwards.

The stomach is a somewhat flask shaped expansion of the Alimentary Canal having two openings, - the cardiac orifice the termination of the oesophagus, and the pyloric orifice leading into the small intestine; - it is provided with a muscular coat having two layers, like the oesophagus, and receives an investment of peritoneum.

The mucous membrane of the stomach differs from that already gone over;

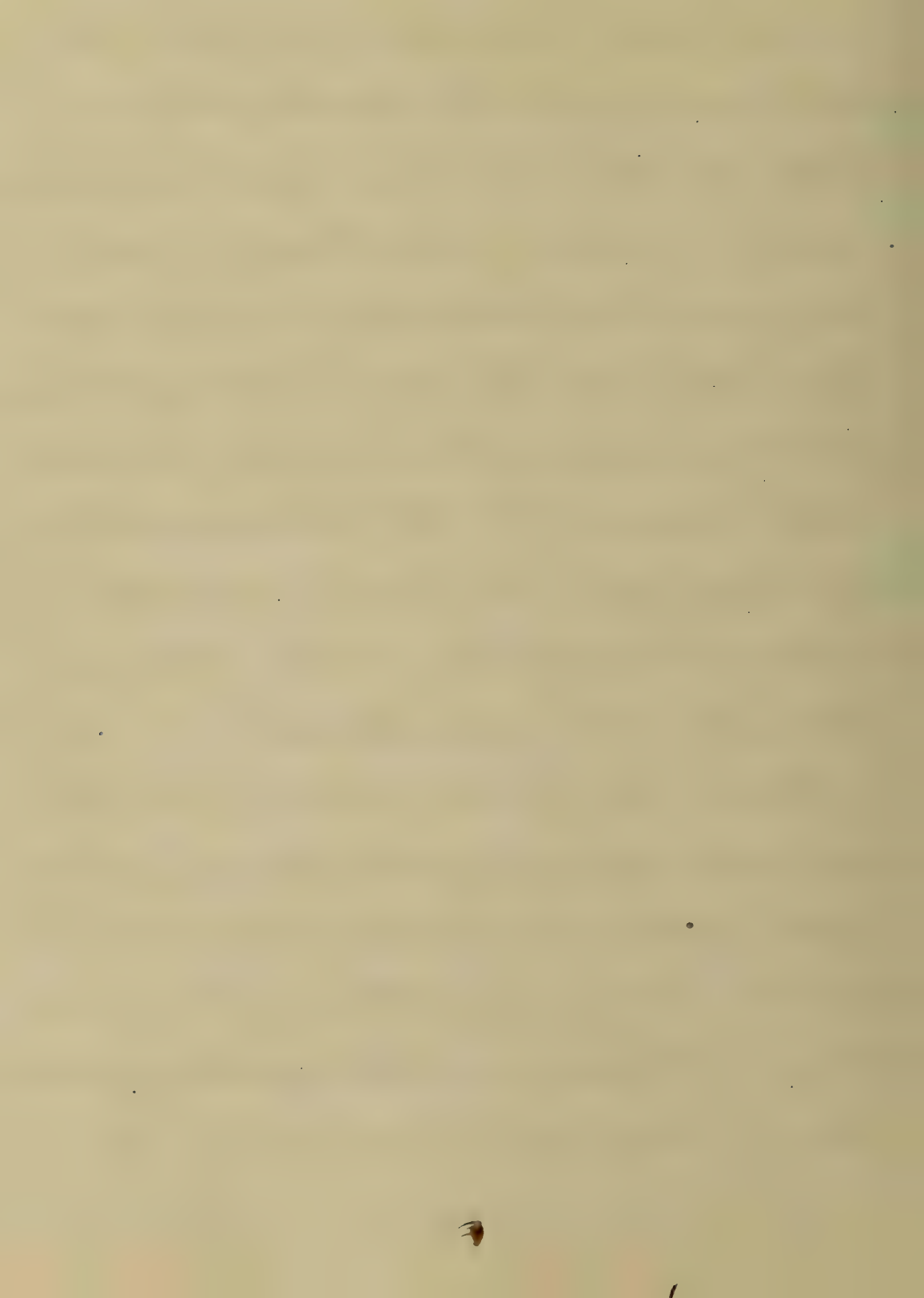


it is thick and when the stomach is not distended, lies in folds; it is connected with, or separated from, the muscular coat by loose areolar tissue, and is thicker at the pyloric end than at the cardiac; throughout its whole extent it is largely provided with glandular bodies known as gastric tubules; these differ in different parts of the stomach; near the pyloric end, they are straight, about  $\frac{1}{400}$  of an inch in diameter, and are lined with glandular epithelium; - at the cardiac end, these tubules are larger, and lined with columnar epithelium; they open upon the surface of the mucous



membrane, and terminate in blind extremities at the areolar tissue between the mucous and muscular coats. This areolar tissue, gives support to bloodvessels, nerves &c. From the vessels are sent capillaries which inosculate, and form a network around all the tubules, thereby supplying the whole of the internal surface of the stomach abundantly with blood.

When the food reaches the stomach, the stimulant impression it exerts, causes a fluid to be poured out in large quantities; this secretion is known as the gastric juice; it is a clear fluid, acid in its



reaction and is composed of water in large proportion, an organic matter known as pepsine; lactic acid, and a small proportion of earthy salts; the acid exists in a free state, and is one of the most important constituents of the gastric juice, as its presence is necessary to the solvent properties of the secretion; what is the precise action of the organic matter is not definitely known; it is precipitated by alcohol, and by heat, after which the gastric juice loses its solvent powers;— this, together with the fact that it is always present in the secretion, shows that it also, is one of the most im-





-portant of its constituents. The gastric juice exerts its digestive action only upon albuminoid substances; other proximate principles of the food, as starch + oil not being affected by it except as they would be if exposed to a like amount of heat and moisture in any other situation.

This action has been found to take place outside the body, if albumen and gastric juice be mixed together + exposed to a heat of about  $100^{\circ}\text{F}$ .

The change which takes place in the albuminoid substances of the food is a catalytic transformation, by which the food is liquefied, and in this form it is ready for absorption. - This



product of stomach digestion is called albuminose. This part of the process is greatly assisted by the contractions of the muscular fibres of the stomach, giving to it a peristaltic movement by which the contents are moved from one part to another, so that every particle can readily come into contact with the digestive fluid.

These contractions, not only facilitate digestion in the stomach but also serve to force the remainder of the food through the pyloric orifice into the small intestine.

The action of the gastric juice and stomach digestion was first studied satisfactorily by Dr. Beaumont. His well known experiments upon the person of Alexis St. Martin, who had a permanent gastric fistula, the



result of a gunshot wound, were ~~con-~~  
-structed for several years; he was able at pleas-  
-ure to withdraw the contents of the stomach,  
and thus to examine them.

The albuminoid portion of the food having  
been digested in the stomach, the remaining  
portions pass into the small intestine. This  
part of the canal is about 25 or 30 feet in  
length, arranged in numerous convolutions.

The first part is called the duodenum - next  
is the jejunum and lastly the ileum; it is  
composed of a serous coat, a muscular coat,  
and mucous membrane; these coats are  
connected to each other by areolar tissue.

The mucous membrane is somewhat thin-  
-ner than that of the stomach and is thrown  
into transverse folds which are small in the



upper portion of the duodenum but become much larger in the other portions of the small intestine. These folds are called the valvulae conniventes; in the jejunum these are most prominent. The mucous membrane is provided with innumerable tubules, opening upon its surface, and terminating in blind extremities; these are known as Lieberkühn's follicles; they are found throughout the whole extent of the small intestine. In addition to these follicles, are the glands of Brunner; these are peculiar to the duodenum and are more numerous near its upper extremity.

They consist of clusters of vesicles, opening into a single excretory duct. There are also found in the intestinal canal other glandular bodies, the solitary glands, and Peyer's patches. The





former are simple closed follicles, and are found in all parts of the intestine - The latter are several - from 20 to 60 - of these solitary glands found together. They are found in the ileum. The epithelium of the small intestine is of the columnar variety. There are minute projections from the mucous membrane called villi - they are about  $\frac{1}{16}$  of an inch in length; each one of these villi has a bloodvessel which divides into a capillary network. The centre of each villus contains a lacteal, but the way in which these vessels are arranged is not definitely known. The function of these villi is to absorb the digested matters.

The glands of the small intestine secrete a viscid fluid which is called the intestinal juice; it is alkaline in its reaction.



Numerous experiments have shown that it converts starch into sugar, or glucose, and that, rapidly. In this state it is absorbed. That this part of the digestive process takes place in the small intestine, and that the intestinal juice is the active agent in accomplishing it, there can be no doubt.

There remains yet for consideration, the digestion of another class of substances - viz. the fatty. This is effected by the pancreatic fluid. The pancreas is a gland situated behind the stomach, composed of lobes and lobules united by areolar tissue; from each of the lobules arises a radicle of its excretory duct, which opens into the duodenum about its middle, the ductus communis cholodochus having a common



orifice with it.) The secretion of the pancreas is a clear, viscid fluid, and somewhat resembles in appearance the saliva; it is composed of a large proportion of water, an organic matter, known as pancreaticin, to which the secretion owes its peculiar properties, and a small quantity of earthy salts.

The oleaginous matters of the food when they come into contact with this fluid are reduced to a very fine emulsion, and in this condition, absorbed. This is the only action exerted by the pancreatic secretion upon the oily matters, no chemical change taking place. There is another action of this fluid however, which is to convert starch into sugar, but this is secondary.

The contents of the intestinal <sup>canal</sup>, are forced



downward by the contractions of the muscular fibres of the intestine, giving a motion called vermicular or peristaltic.

There is another fluid poured into the intestinal canal, & that is the bile, the secretion of the liver. This, although taking no direct part in the digestive process is of great importance, since experiments upon the lower animals have shown, that if the supply of bile be cut off from the intestine by ligating the duct, and establishing an external fistula, the animal dies of inanition in from 4 to 5 weeks. The digestive fluids act upon the bile within the intestine, producing certain transformations after which it is reabsorbed into the circulation; what these changes are





which take place, is not at present clear.

The last part of the digestive process takes place in the large intestine. This is divided into the ascending, transverse, and descending colon and lastly the rectum, terminating externally at the anus.

The mucous membrane is not provided with villi as in the small intestine.

The follicles of Lieberkühn and Solitary glands are found in it, however.

At the ileo caecal orifice there is a valve formed by two folds of mucous membrane, one above and the other below; the free margins of these folds meet, and prevent the contents of the caecum from passing backwards into the ileum. The

contents of the large intestine are called



feces; they consist of undigested and excrementitious matters, and are remarkable for their peculiar odor. They are finally expelled through the anus, partly by the involuntary contractions of the circular muscular fibres of the rectum, and partly by the action of the abdominal muscles, which are under control of the will; to prevent the involuntary discharge of the feces, two sphincter muscles are provided at the anus. This last act is called defecation.







1866

AN

Inaugural Dissertation

ON

*Inflammation*

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. Ward Scott Jr*

of

*Urbana*

Session

78

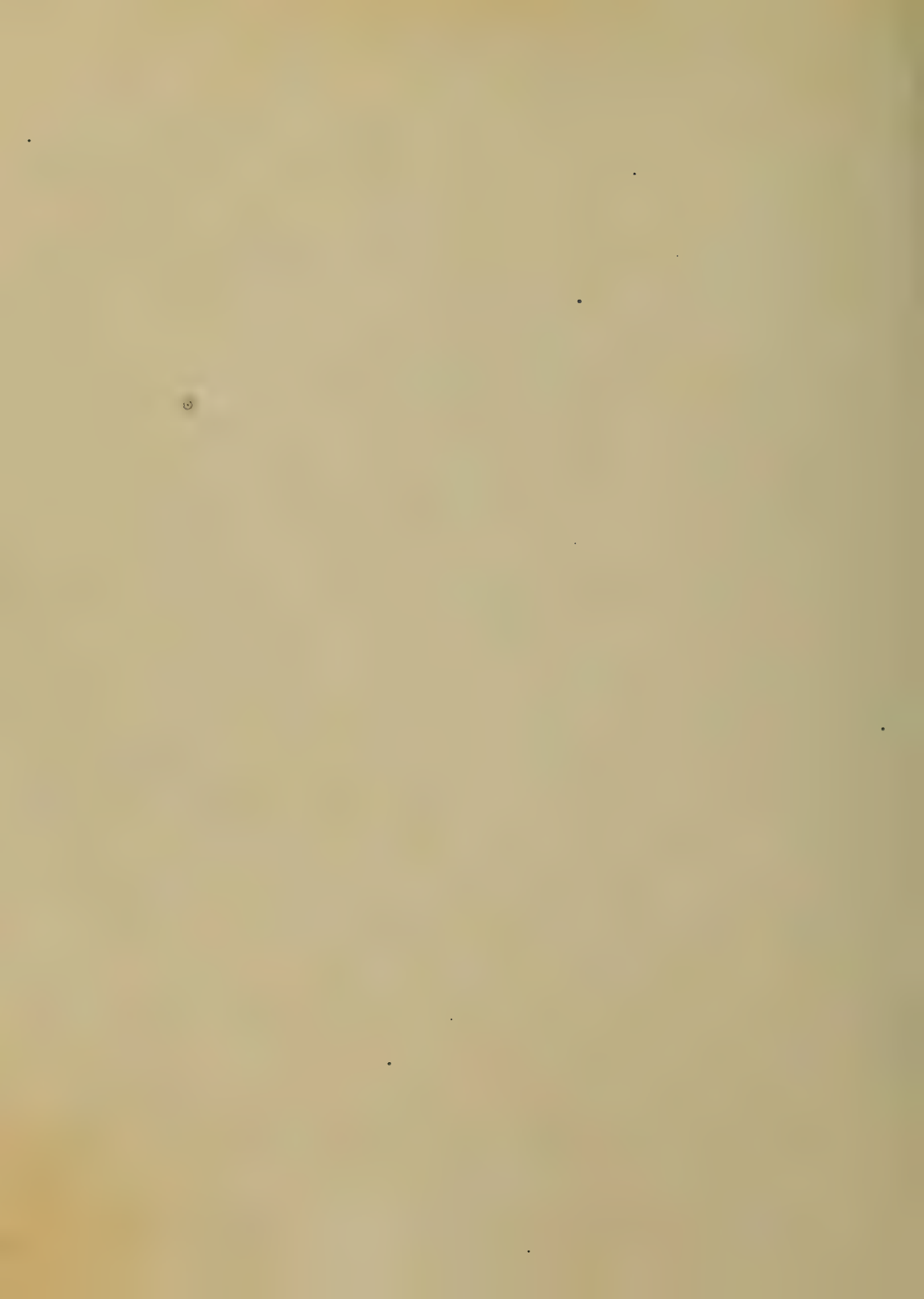




# Inflammation & Cellulosa

The meaning of this word has been seen & its probably not fully explained by the numerous learned Physicians and Surgeons who have written and lectured upon the subject. Inflammation is beyond a doubt the most to be feared of diseased conditions, as it constitutes the greatest source of danger, such being the case, it must necessarily occupy the closest attention both of the Student and Physician.

Probably as good if not the best



Suppurations which have not so long  
are.

1<sup>st</sup> An unusual condition of the part  
characterized by Heat, Pain - Swel-  
-ling and Swelling.

2<sup>d</sup> Idiopathic Inflammation, is the  
formation of a temporary mass of  
accumulation where by the blood reple-  
-rates some morbid matter from  
itself.

3<sup>rd</sup> One effect may be to irritate - It  
is in certain instances a  
means of cure

Resolution, which is the most  
favorable result of Inflammation  
consists in restoring the part, with-  
-out a loss of function and strict-



are to it original state.

This result is produced by fusion.

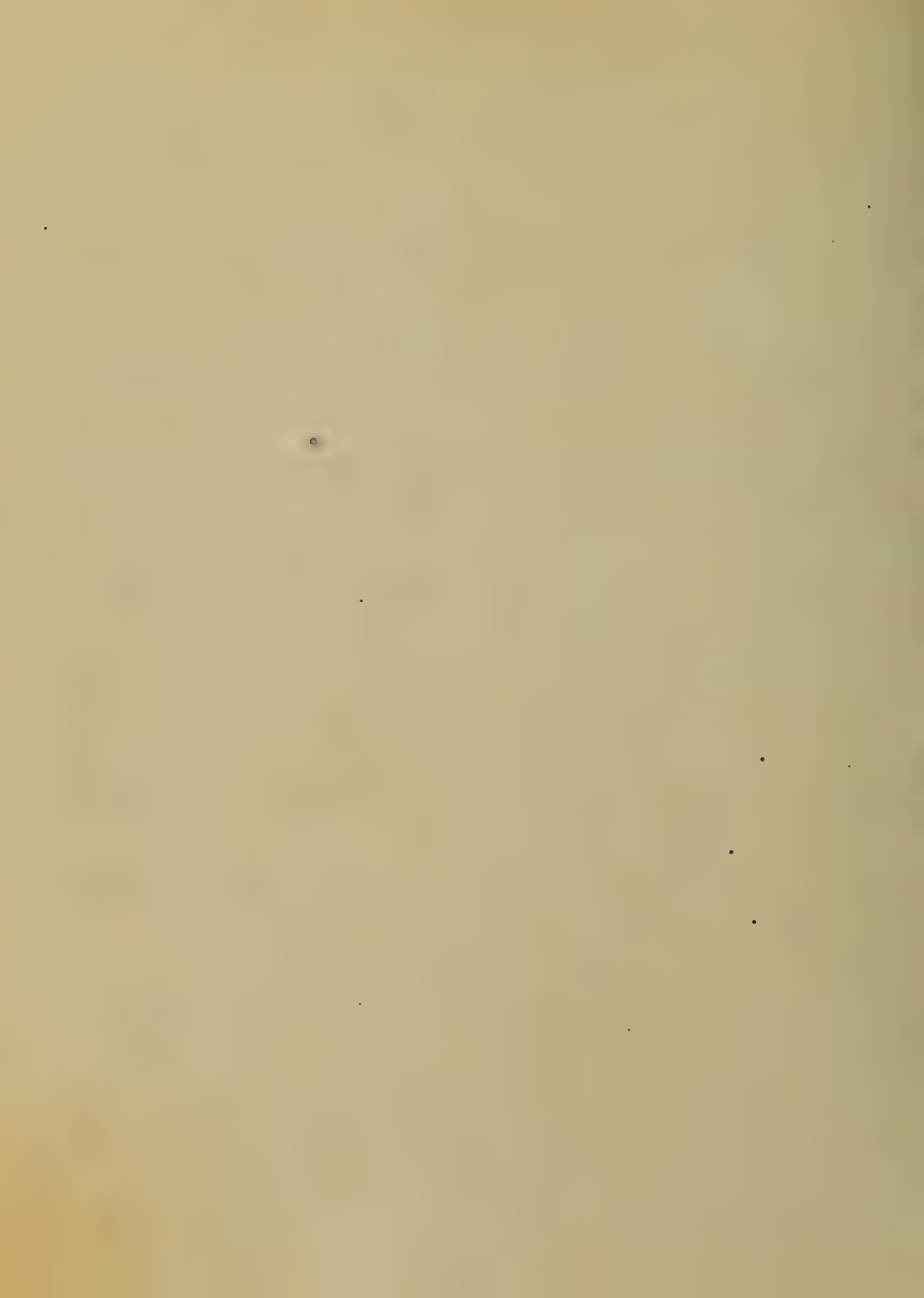
The symptoms subside if not entirely cease.

Suppuration is a rather uncommon occurrence.

This skin is an exuberant tissue, which sends out a process to the tender granulations, until covered by cuticle.

Authors have separated it into two species: "Lenticular" and "Herpetiform".

When suppuration is not continued, and the process of fusion is not repeated, it gives rise to a large number of



force called "Heat"

Another effect of Anglomania is Ulceration - this is owing to a softening of the part - the result of an <sup>in</sup>ordinate and excessive absorption - Heat is due to a <sup>dis</sup>charge of texture, prevented by Anglomania and Suppression the more violent the Anglomania - the more rapid is the destruction

The most liable to Ulceration are those who have led a dissipated life and have indulged too greatly in sensual enjoyment, and the parts most liable to become affected





are those in which the blood flows  
more and longer (The prodis-  
-passing, cause of leucemia is  
pneumonia - leucemia occurs,  
however - being the result of stages  
of inflammation, such are those  
which are in pneumonia, pleu-  
-ra and cerebral)

Inflammation may signify the  
Acute, and therefore the  
closing of a part. The same  
thing is the following -

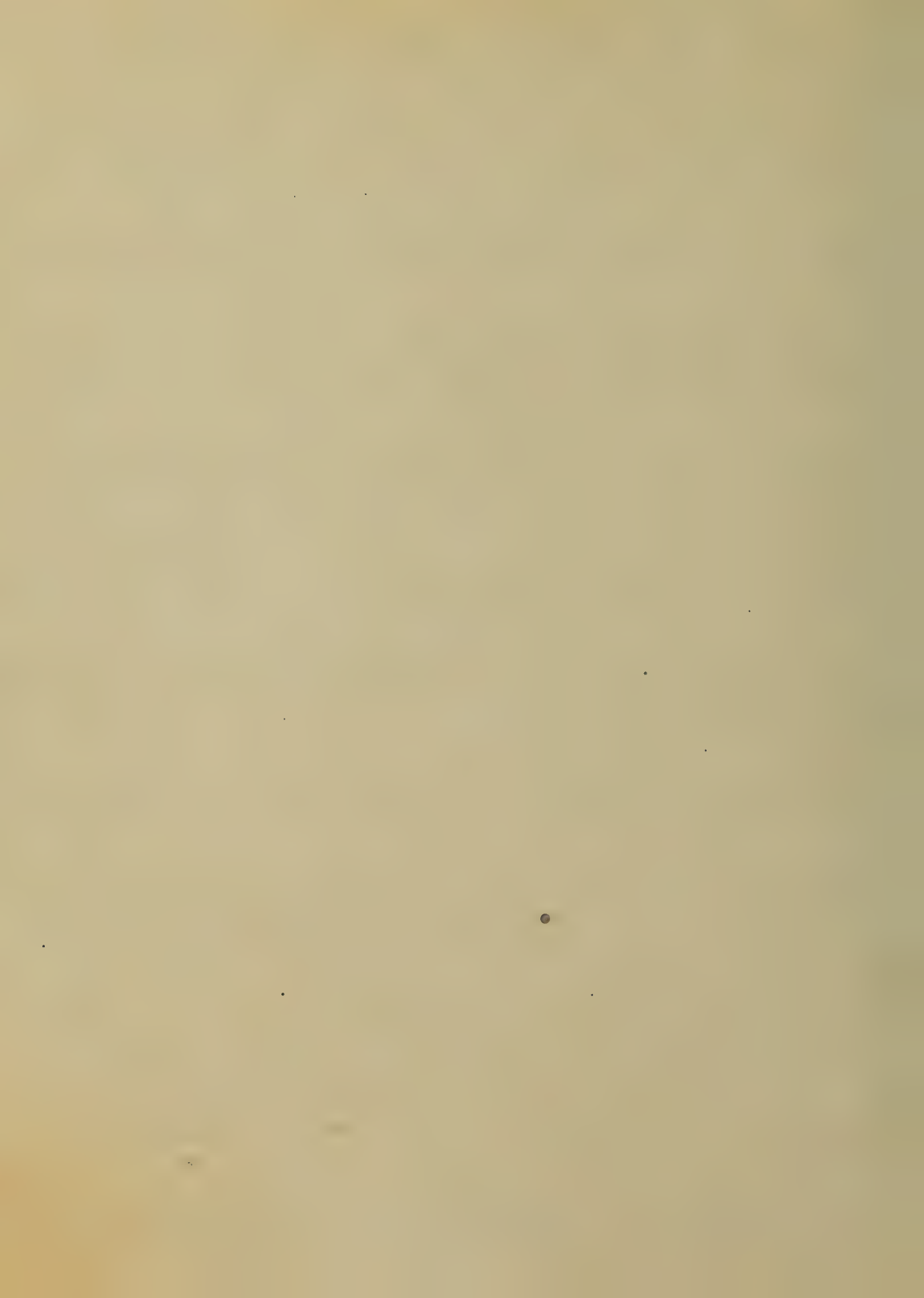
Acute - acute Pneumonia, acute  
leucemia is changed to a local  
1112 - Effusion and leucemia  
before to go on - white vesicles,  
filled with a purulent matter



make this appearance - The part  
comes out a most brittle structure  
and the stone does not return to  
its natural position on the removal  
- of pressure -

The Uterus does not die in all  
cases with the part - but may  
soon become aneurysmal the part  
crosses - but finally breaks and  
is patient is hurried into eternity  
by hemorrhage -

Inflammation, even and does  
exist without all its phenomena  
At times only two are to be found  
Pain and tenderness - any  
characteristic is not to be relied  
upon -



Phenomena of the disease is  
often treated where no phenom-  
entia exist - Excitation is the  
cause - a sort of cure should there-  
fore be taken by every physician  
in the symptoms - At the times  
fever more or less committes and  
a life long misery the result

Heat - one of the  
phenomena of inflammation  
is caused by a rapid flowing  
of the tissues - Hence are sup-  
plied with a greater quantity  
of blood - Yet never is the heat  
raised more than of the  
force of circulation - The  
more so that, is a very much



the augmentation of the frictional  
heat beyond a certain amount an in-  
crease of heat does exist -  
which can be sensibly perceived,  
as the thermometer on the wrist,  
the pulse from the heart the  
arteries the blood, &c. &c. - & that  
more of the irritating substance  
finds its way into the part -  
producing inflammation -  
blood is sent faster, and in  
greater quantities - in order  
to throw off the irritating cause  
(Heat must be permanent as  
well as the symptoms, to establish  
fully the existence of inflam-  
mation)





Pain in the Anus is  
sometimes, almost, if not imme-  
diately upon the removal of the  
Hæmorrhoid. A very great in-  
crease of pain does succeed  
in other symptoms - but without  
them - as I said before - Inflan-  
-mation cannot exist -

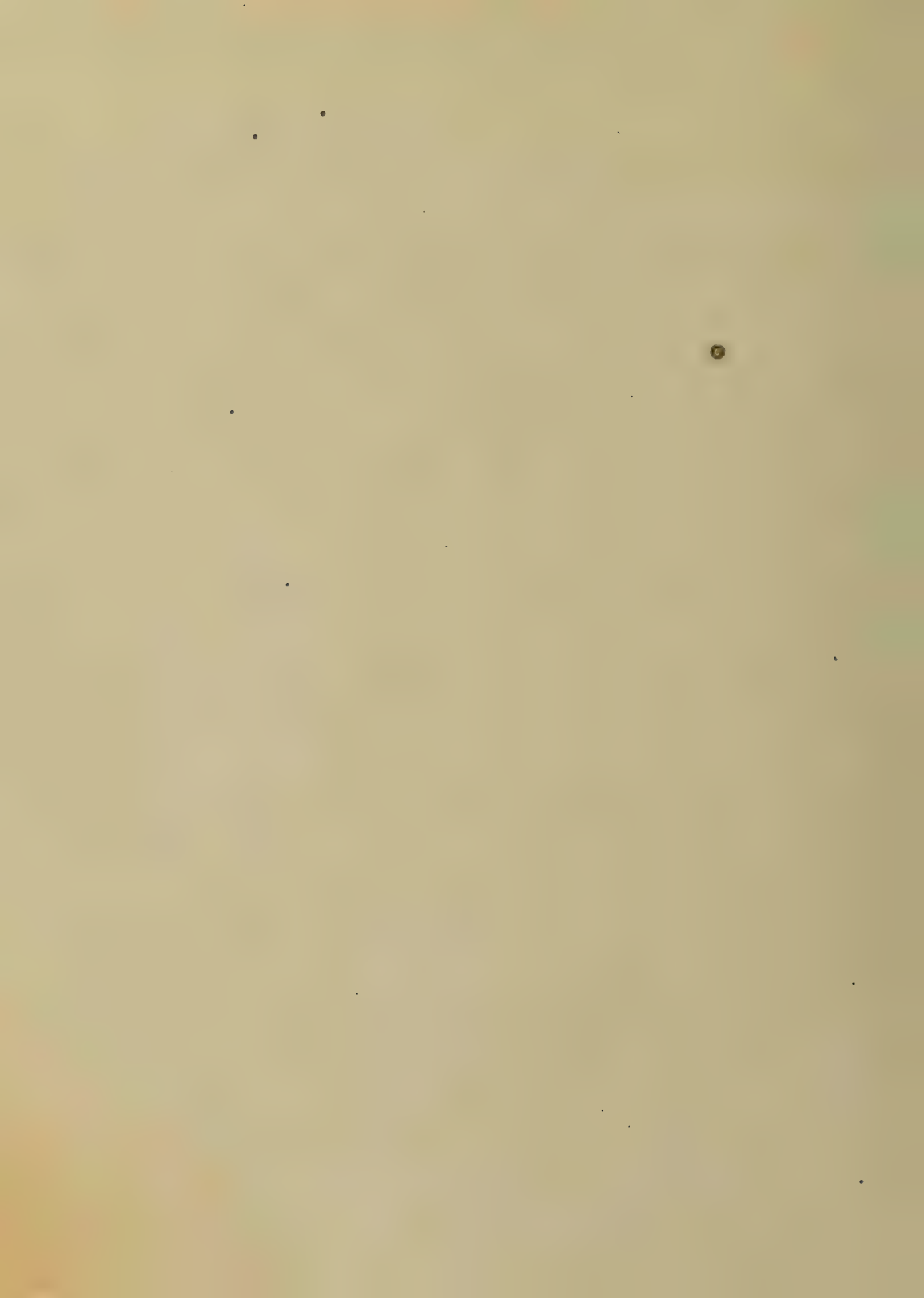
Pain is not always *uniform* it  
varies in intensity - Being in  
some instances so slight as to  
be almost imperceptible, at others  
causing the most intense suffering.  
It may be the only symp-  
-tom of the disease at first - but  
if we examine closely, some  
swelling or Redness will be



disturbed in thought or feeling by slight

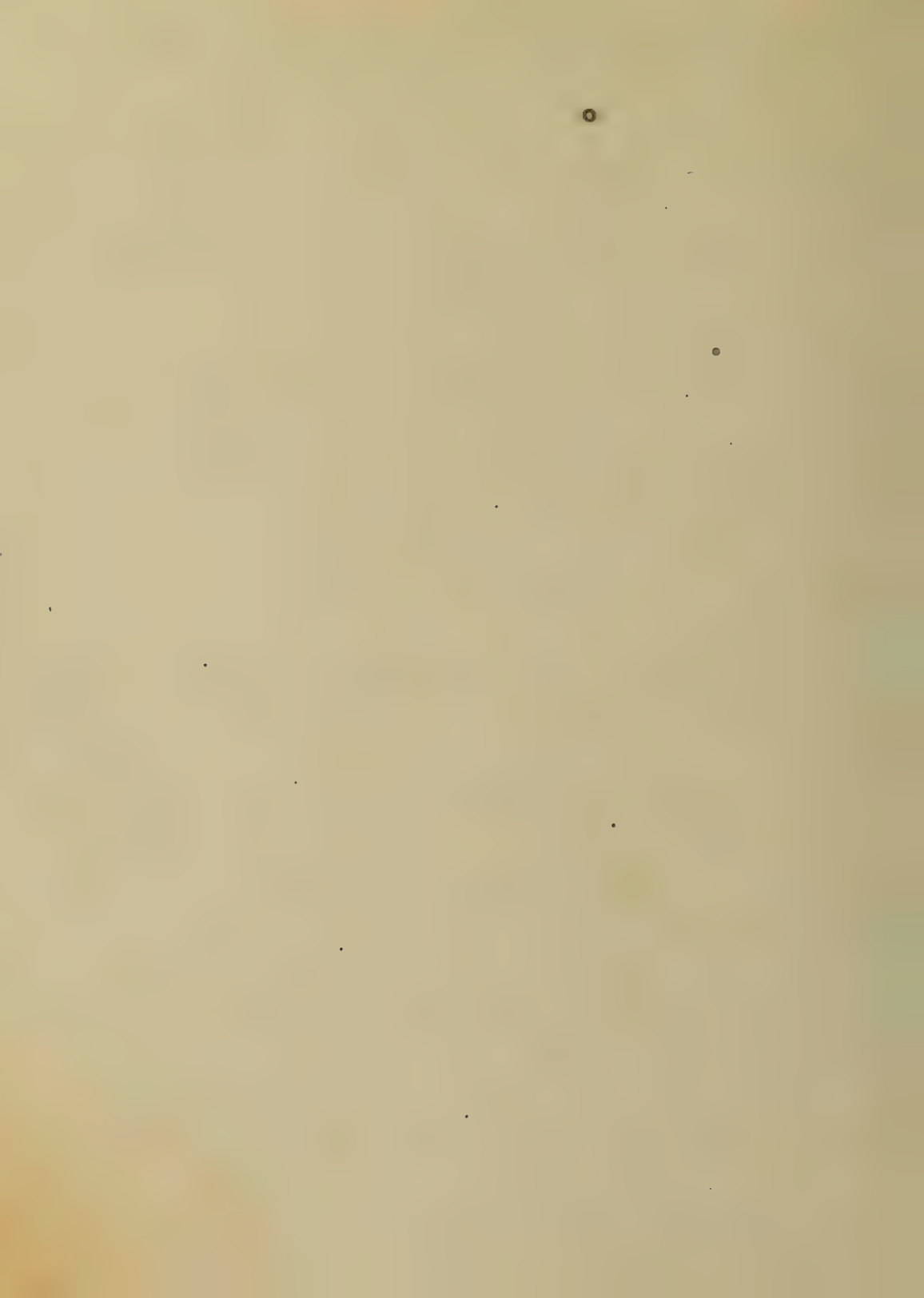
Pain may be dull  
or sharp - or sharp & dull  
intermittent, distressing the patient  
in proportion with the intensity  
of his agony -

The patient's mind often finds  
resources being thus are preserved  
against the nerves thereby giving  
rise to most extraordinary  
fortitude - In some cases the intelli-  
-gence of pain is so slight  
that were it not for the in-  
-creased sensibility of the part  
the patient would be insens-  
-ible to its existence - But  
just so soon as pain is



applied - either by the hand  
or change of posture - It  
has immediate indication  
that pain is there - It ap-  
pears worse by commencing  
suddenly and unexpectedly  
In quietude in almost all  
instances being the most pain-  
ful.

Redness is principally caused  
by the capillaries holding more  
red globules than usual - The ves-  
sels become distended - The de-  
gree of redness varies, in differ-  
ent portions of the body. It may  
be either a light scarlet or a  
deep red - even a livid hue



It is generally accepted at the  
center, gradually diminishing  
until it is totally lost in the  
surrounding bounding, etc.

Again - It may be of equal  
degree throughout - If possible  
local - fears may be entertained  
In all probability - it is about to  
change its character - from that  
of inflammation - to Empyema

Swelling is increased,  
"the air increased quantity of  
fluid in the cavity" Other sym-  
ptoms must be observed, with  
swelling - There are many  
cases - the same as with pain  
where there is swelling, and





yet Inflammation, does not  
exist - because it comes sud-  
denly - we may have sharp  
pains & doubt its being gon-  
orrhoea - The swelling must be  
gradual - increasing slightly  
every day, until it is es-  
tablished -

The other symptoms are  
ever the same - In presence of the dis-  
ease of Inflammation may  
be established

Swelling is productive of both  
pain and injury - On account  
of its location & its situation  
it is in fracture - where it  
is desired - Swelling is necessary

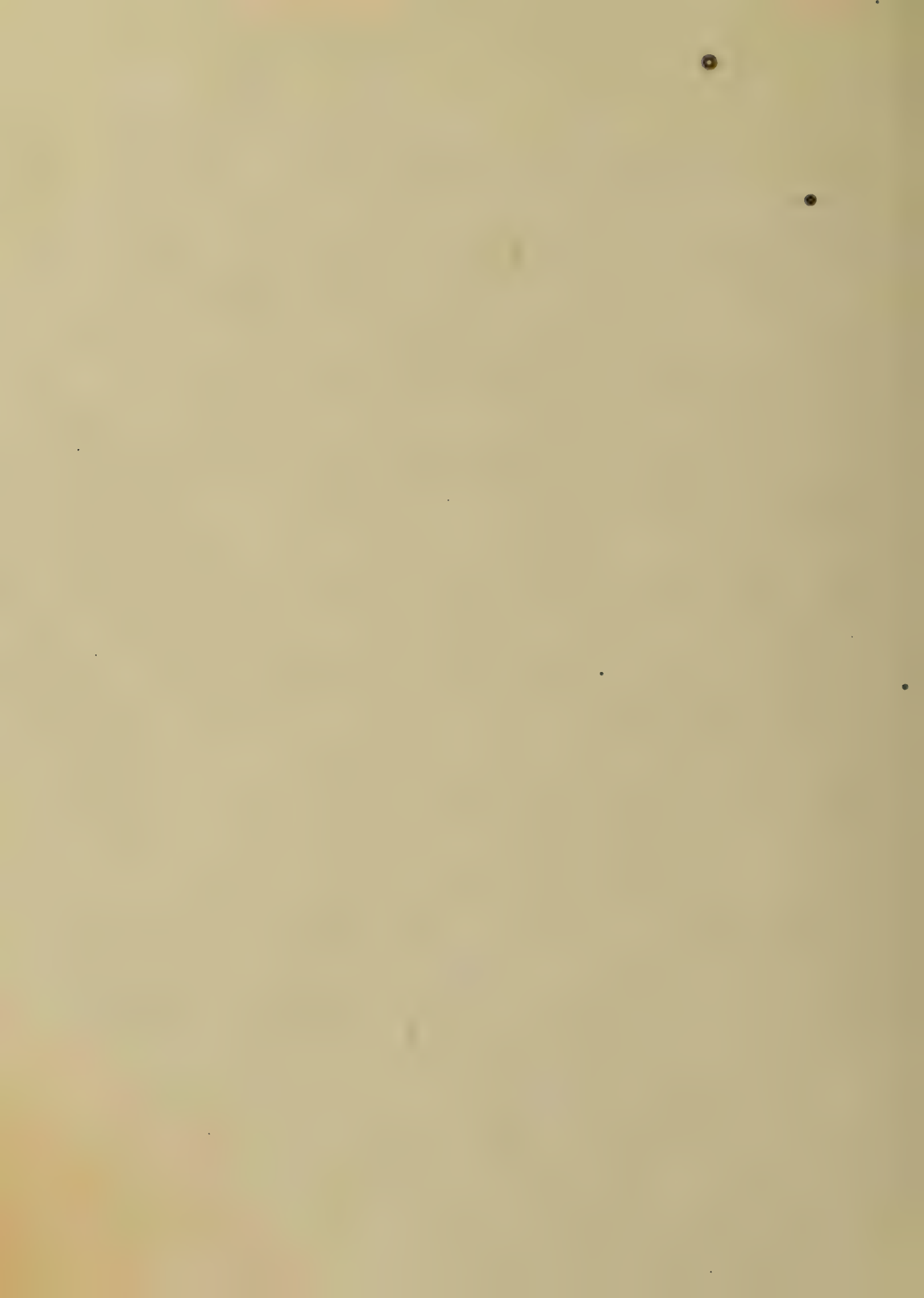


Wound - but when more an  
wound occurs - in the eye  
and - very soon - results may  
follow - loss of sight and  
other injury, less distressing  
may be the consequence  
But in Fracture - where the  
skull is driven highly - around  
the part - great difficulty would  
exist, as to its reduction - did  
not nature employ, this means  
of medicine heretofore.

Treatment -

Treatment of inflammation  
consists in tightly sealed  
wound - such as

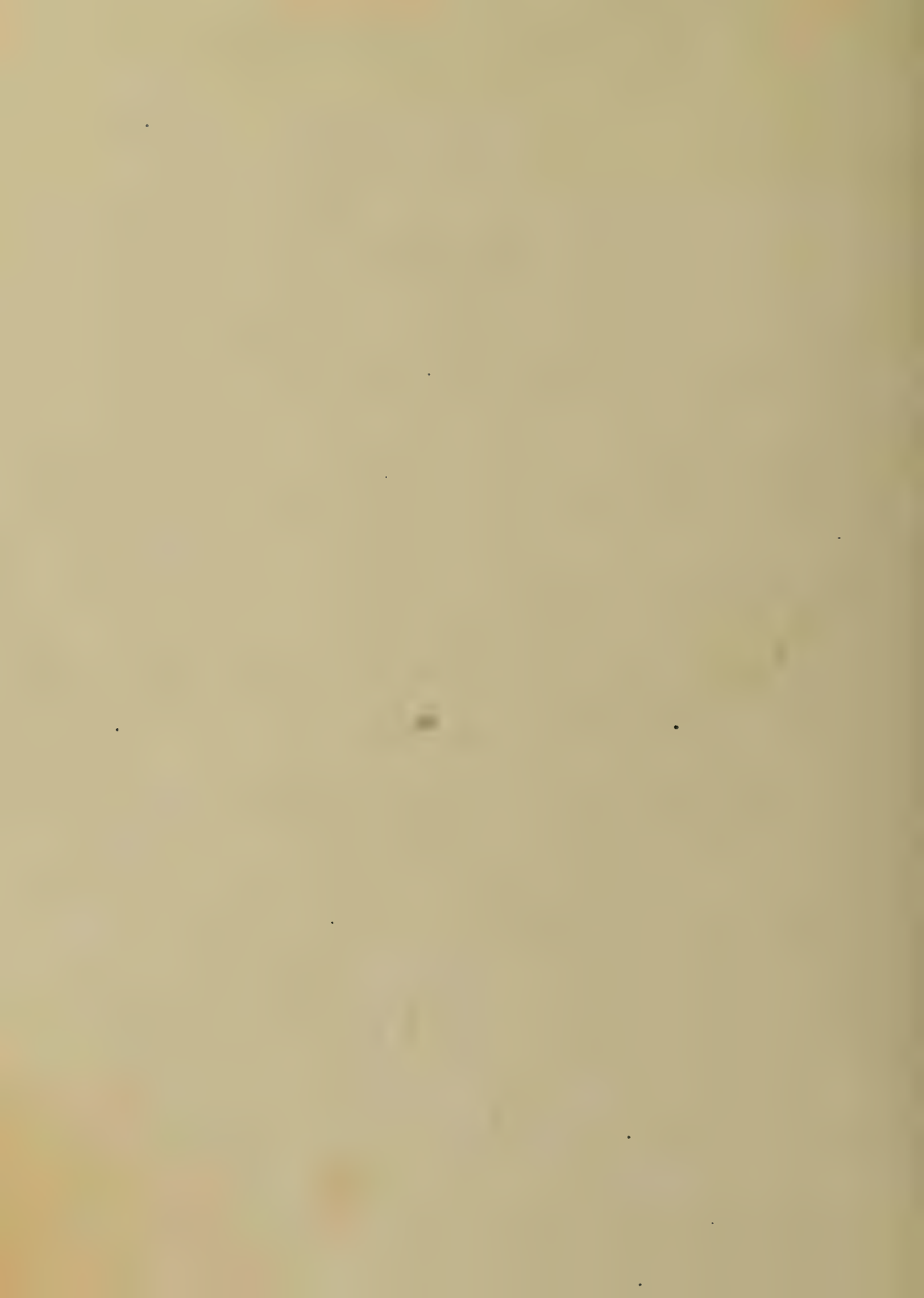
Treatment of disease



Local Bleeding  
Leeching  
Cupping  
Purgatives  
Emetics  
Diuretics

And also usual prescriptions  
in the Eastern and former use  
of Stimulents

When inflammation occurs and  
fracture is caused - Our first  
attention must be directed to  
the removal of the irritations of  
cause - The most efficacious  
of me have penetrated the  
muscular parts - We must en-  
deavour to remove them, or



By the treatment more still. Con-  
-tinue -

Should be done as before in  
circle of mercury - that an  
equal acts as the irritant - the  
first effort must be to the resolution

(Mercury is found use-  
ful - both by its purgative and  
seducing wide influence - Plumb  
is also beneficial - after bleeding,  
by soothing the nervous system  
and by preventing resolution  
and pain - it requires that  
is absolutely commanded -

But think me very unex-  
-treme - Complete rest is re-  
-quired - A good supply





of fresh air is necessary

All exciting influ-  
ences, both mental and phy-  
sical must be removed -

Quack? Poor lecturing  
is disapproved of by many  
learned gentlemen of the  
profession - Yet in some ca-  
ses - it cannot be dispen-  
sed with -

Shores of Newfoundland  
be some most very impor-  
tant signs is affected - the  
vessel should be removed  
to immediately -

When I came - When ex-  
posed Newfoundland is used

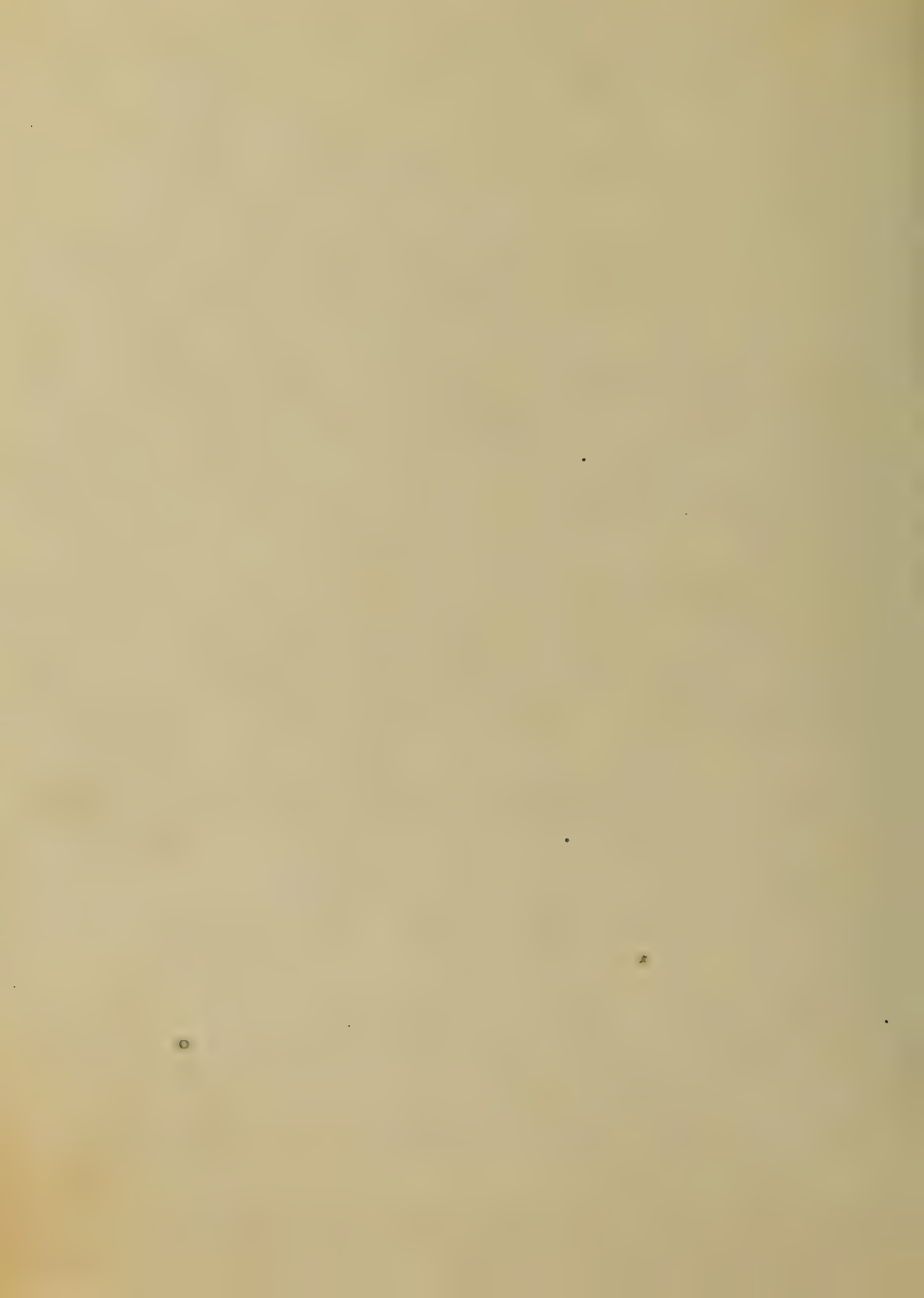


I should most certainly be  
bleed. The safety of my pa-  
-tient should rule me.

I would not follow the dogmas  
of either party - but trust my  
own judgement. - Believing  
as I do - that Nature would  
be assisted - must I permit  
my mission -

If however the patient is plac-  
-ed in a low condition  
and Inflammation not very  
high - Small Bleeding is prefer-  
-able - the same is applica-  
-ble in old age -

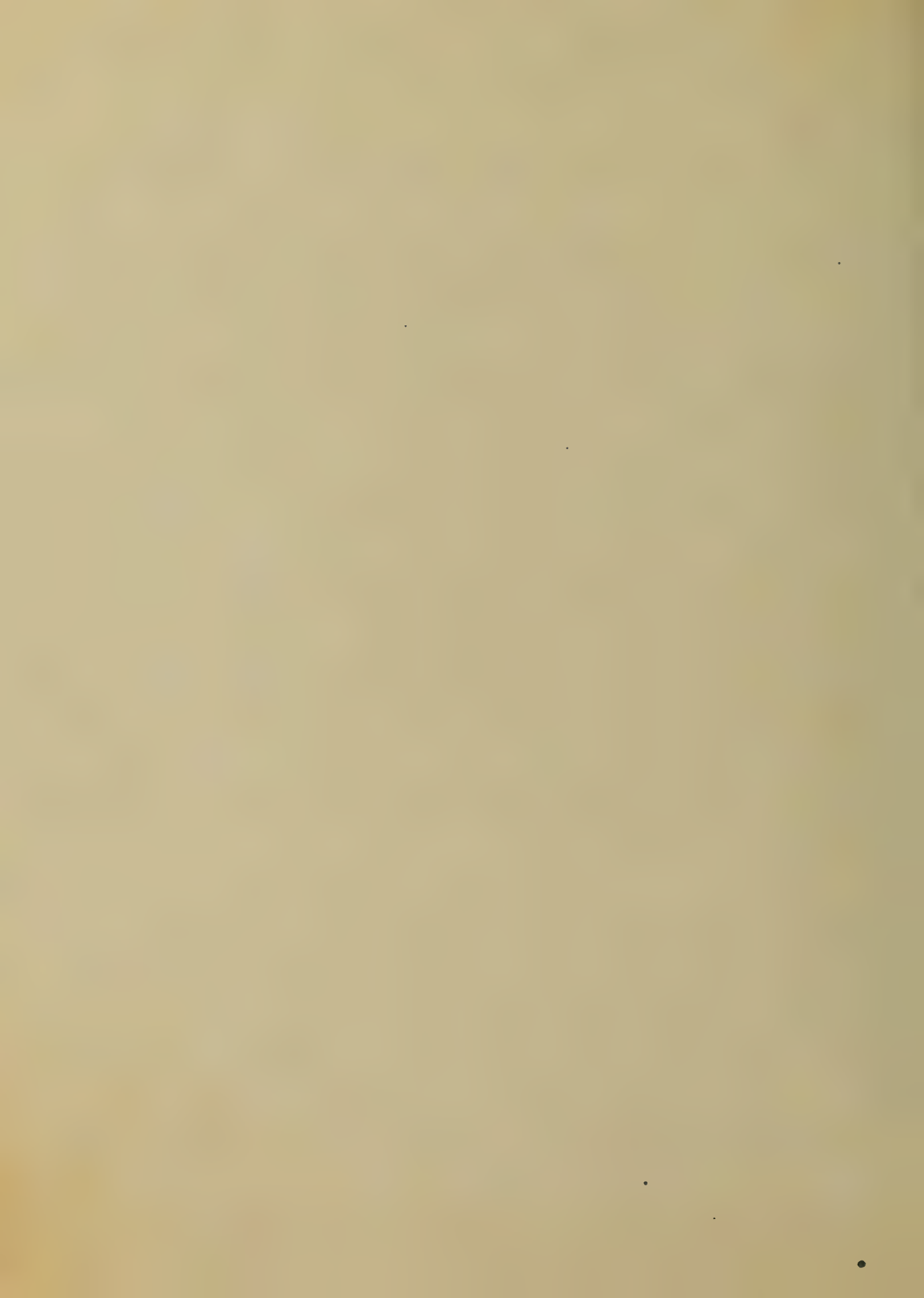
Cupping. In many instances  
Cupping is preferable to



Leeching - We are enabled  
to obtain more blood -

In fact Leeches are only  
used - When we find it  
impossible to reach the affec-  
ted part with Cups - Another  
great objection to Leeches is  
the great liability to Hemor-  
-rhage resulting from their  
bites - But ~~this~~ is easily re-  
-minded - by the application  
of Nit. Silver - or Gun. Sul-  
-fur -

Purgatives - cause an in-  
-crease flow of mucus from  
the bowels - and promote  
absorption - This class of

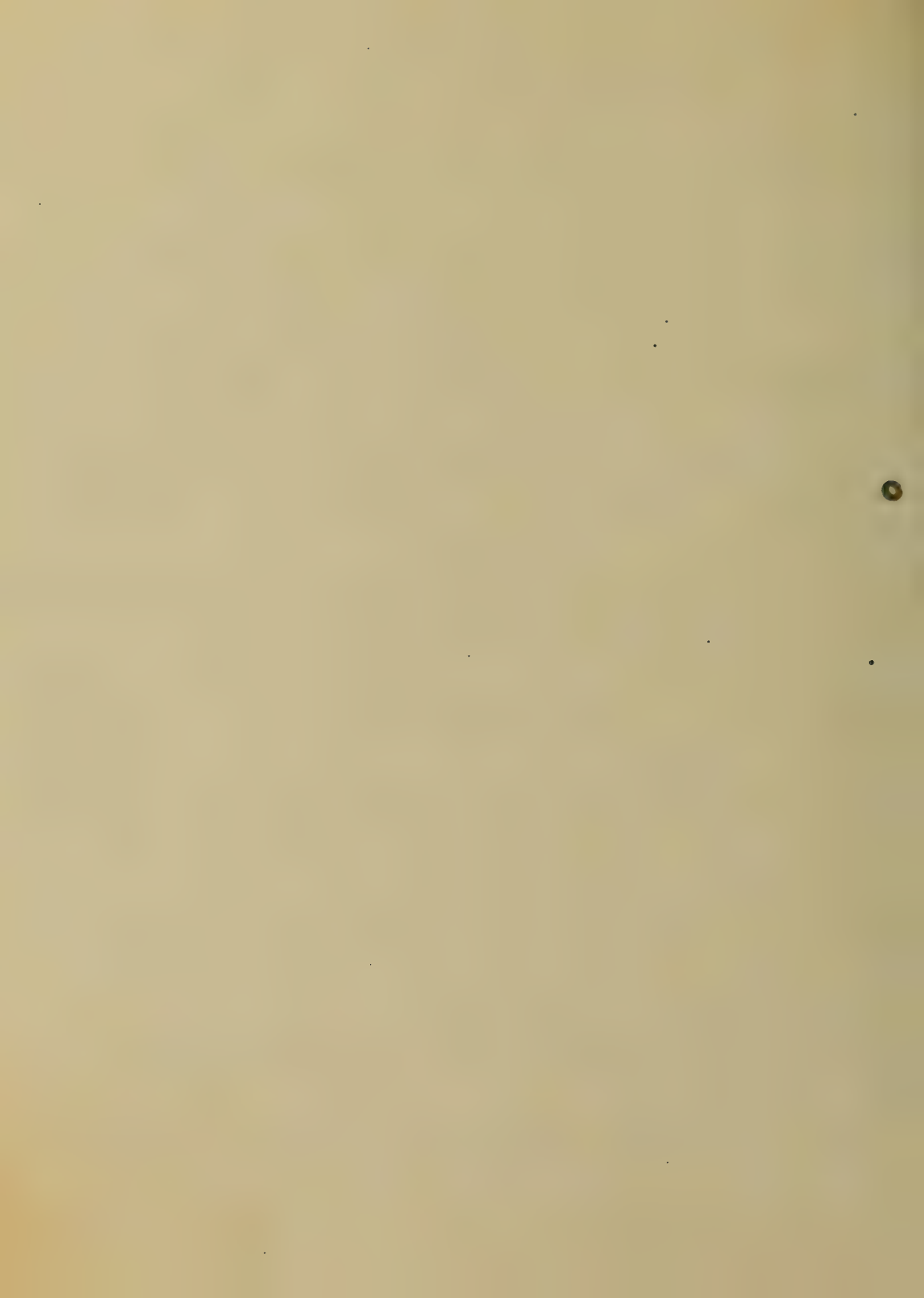


Medicines should not be al-  
ways resorted to - It would  
be extremely dangerous -

In Fracture for instance - When  
the system is extremely debil-  
-itated - if long and con-  
-tinual suppuration - or when  
there are any decays - for  
suppressing the bowels are per-  
-frated - In one case we  
must stimulate - and in  
the other, we must keep the  
bowels quiet - by the use of  
Opium - unless the brain  
is affected -

Gold - This is much useful -

It is wonderful - What is





Reductive influence, it has over  
Inflammation - When the pa-  
-tient is tossing from side <sup>to side</sup> his  
head, almost splitting with pain.  
Delirium at its height - Cold  
is indeed a relief - It should  
be used cautiously - as it is  
a most powerful agent -  
We should continue to use  
Cold - so long as it is accep-  
-table and pleasant to our  
patient - But when he com-  
-plains of its being oppressive  
the use of it - had better be  
discontinued -

In submitting this - for your per-  
-usal - I am truly Dear Sir,



Conscious of its many defects -  
I have not ventured into any  
lengthy description of Inflamma-  
tion or of its treatment -

Work after work has been written  
upon it - and still the subject  
is open - If you deem my  
feeble attempt worthy of your  
notice - I should be extremely  
happy - that it has met - if  
it does - your approval -





















