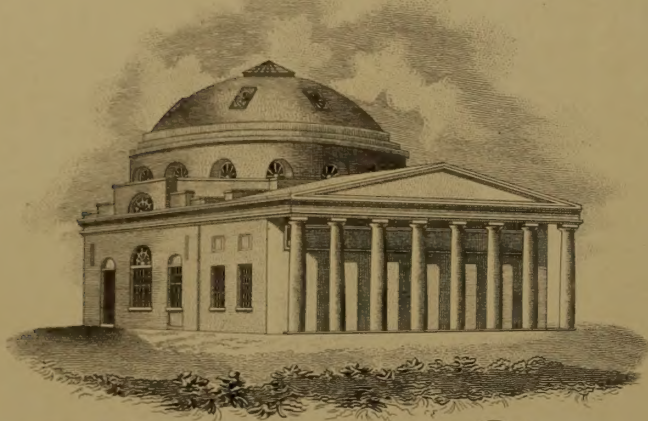


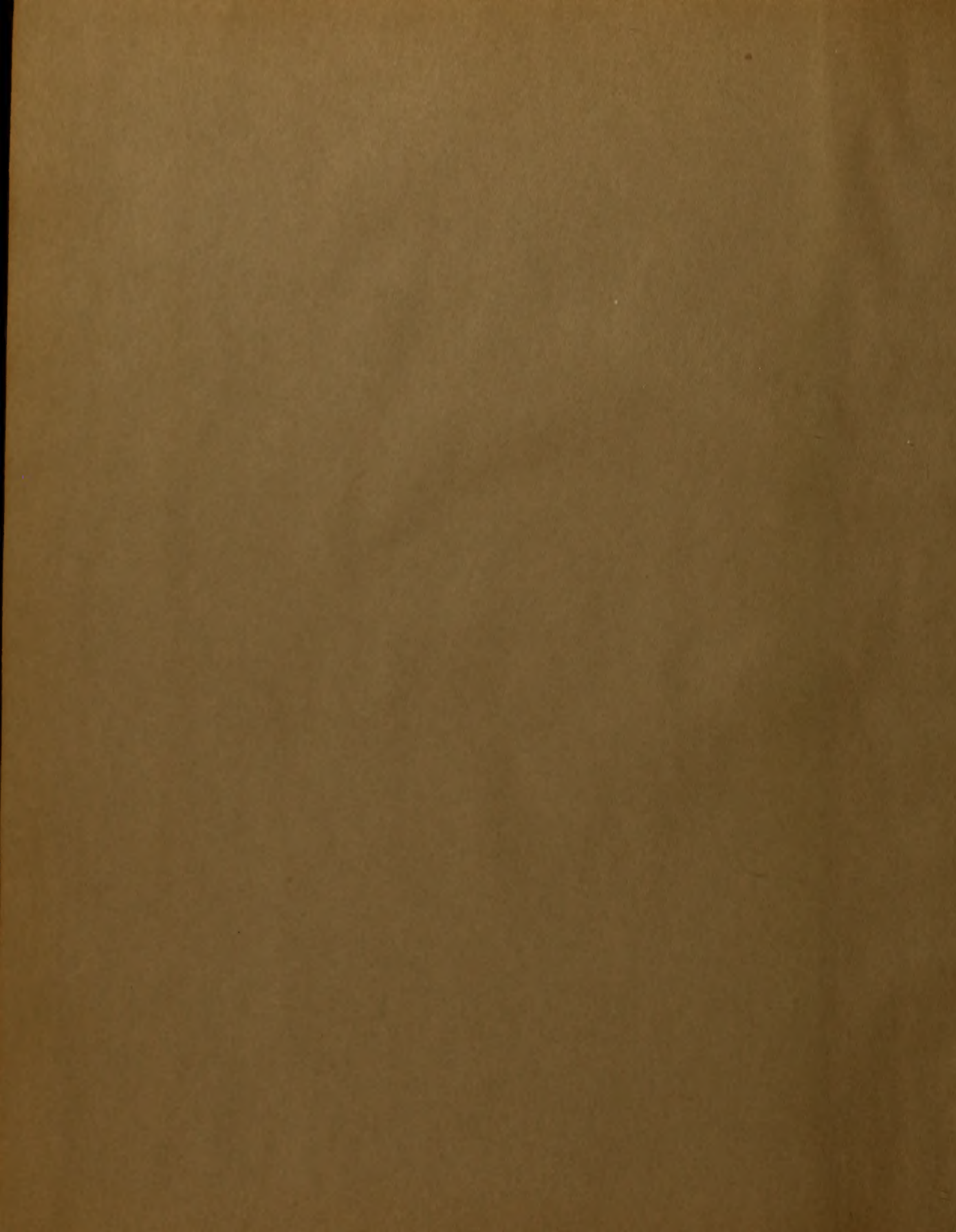
WE BIND
BOOKS
OF ALL
DESCRIPTIONS

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University of Maryland



University of Toronto

Faculty of Graduate Studies
Department of History

Thesis submitted in partial fulfillment of the requirements for the degree of
Master of Arts in History
by
[Name]
[Date]

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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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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1886 (c)

Author	Title	Notes
Robinson, L.B.	Pneumonia	(no title page)
Lucas, Charles C.	Aqua (Water) ¹	(gutter-binding)
Scott, J. Sloane	Digestion	
Corbell, E.F.	Masturbation	
Scott, Edward A.	Carcinoma (Cancer)	
Burchinal, Lowery N.	Rheumatism	
Capelhart, B. Ashbourne	Inflammation	
Glassell, Robert T.	Pneumonia	(no title page)
Hays, T. Heyward	Disinfectants and Disinfection	
McLaughlin, John M.	Arsenic	
Anderson, Robert John	Intermittent Fever	
Downs, Edward L.	Puerperal Fever	
West, Levin	Why?	
Sease, John M.	Arsenic	(no title page)
Suter, W. Norwood	Asiatic Cholera	(no title page)

¹ Text lost in inner margin during binding process.

HSLSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Triana, Adolpho M.	Gonorrhoea	(noteworthy calligraphy on title page)
Kibler, James M.	Development of the Embryo	(no title page)
Houseal, W. Gustave	Typhoid Fever	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1886

Robinson, L. B.	Pneumonia	26p.
Lucas, ^{Charles} C. C.	Agua (water)	14p.
Scott, J. S. ^{Sloane}	Digestion	26p.
Corbell, E. F.	Masturbation	29p.
Scott, E. A. ^{Edward}	Carcinoma (Cancer)	26p.
Burchinal, ^{Lowery} L. N.	Rheumatism	27p.
Capehart, B. ^{Ashbourne}	Inflammation	8p.
Glassell, ^{Frank} R. T.	Pneumonia	30p.
Hays, T. H. ^{Heyward}	Disinfectants and Disinfection	17p.
McLaughlin, ^{John} J. M.	Arsenic	18p.
Anderson, R. J.	Intermittent Fever	18p.
Downs, ^{Edward} W. L.	Puerperal Fever	30p.
West, Levin	Why?	17p.
Sease, ^{John} J. M.	Arsenic	18p.
^{Suter} ^{Norwood} Lutes, W. N.	Asiatic Cholera <i>no title page</i>	15p.
Triana, ^{Adolpho} A. M.	Gonorrhoea <i>Legal pages, folded</i>	16p.
Kibler, ^{James} J. M.	Development of the Embryo <i>no title page</i>	23p.
Houseal, ^{Gustave} W. B.	Typhoid Fever	40p.

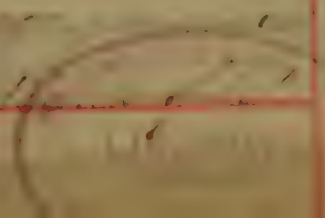
Conscience is not

a mere feeling but
a principle that
governs the actions of
the soul. It is the
light that guides us
through the darkness
of the world.

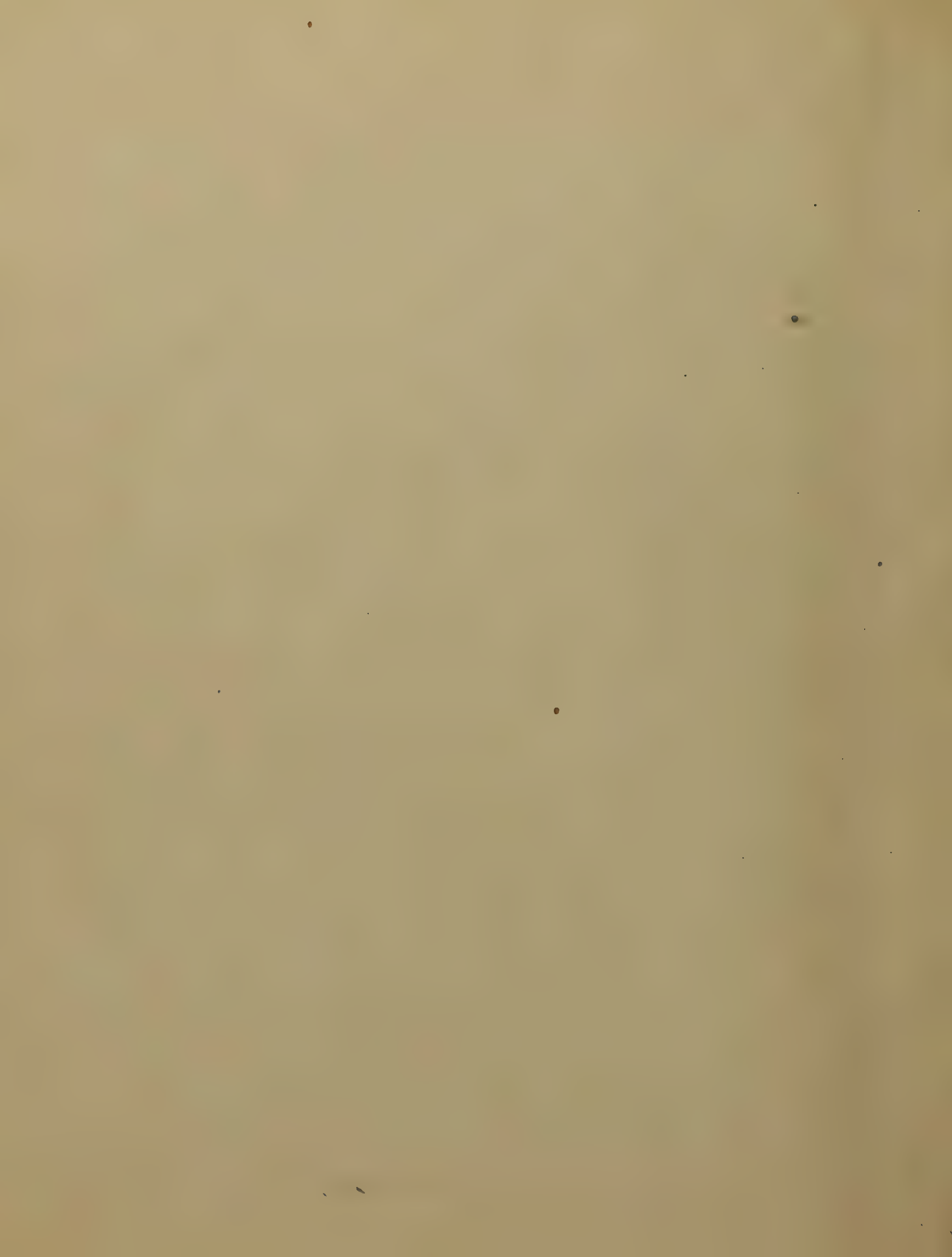
It is the voice that
speaks to us when
we are in doubt
and the power that
moves us when
we are in need.

Conscience is the
God within us
and it is our duty
to obey its voice.

It is the foundation
of all morality
and the source
of all wisdom.



The first part of the
 paper is devoted to
 a general survey of the
 subject. It is not until
 the second part that the
 author enters into the
 details of the case. The
 third part is a summary
 of the findings. The
 fourth part is a
 discussion of the
 results. The fifth part
 is a conclusion. The
 sixth part is a
 list of references. The
 seventh part is an
 appendix. The eighth
 part is an index. The
 ninth part is a
 glossary. The tenth
 part is a list of
 figures. The eleventh
 part is a list of
 tables. The twelfth
 part is a list of
 abbreviations. The
 thirteenth part is a
 list of symbols. The
 fourteenth part is a
 list of units. The
 fifteenth part is a
 list of constants. The
 sixteenth part is a
 list of definitions. The
 seventeenth part is a
 list of terms. The
 eighteenth part is a
 list of phrases. The
 nineteenth part is a
 list of sentences. The
 twentieth part is a
 list of paragraphs.



I. all the... of...
 of great... we did not
 the... that...
 the... of... and
 had... of...
 and... of...
 from... The...
 also... to...
 and... of...
 and its...
 but... of...
 of these... the...
 fluid... them...
 the...
 The... of...
 may...
 regulate...
 and... to...
 by...

while are filled out in a steady
 a fluid and by this the circulation
 in the capillaries is established and
 gradually stops. The capillaries
 is surrounded, and the air in the
 air, and falls immediately to the
 bottom when fluid is added; the
 surface of the water is perfectly
 and a common appearance and
 a sudden color. The general color of
 appearance is due to the color of the
 if any other thing, the color. The
 flame along, in case may be
 the direction toward circulation;
 toward further transformation.
 The fluid in the capillaries
 is that the circulation is entirely
 and the color is solidly at the

on degrees of perfection and the
 various parts of the system
 according to the hand the solids
 undergo a gradual degeneration and
 are transformed into a material
 matter, but in the solid
 is included, the the by nature
 takes place in a manner which the
 enters the object and the
 below is further stated I suppose
 from the material the
 finally takes up the
 and density of the
 which is actually a
 of a long time.

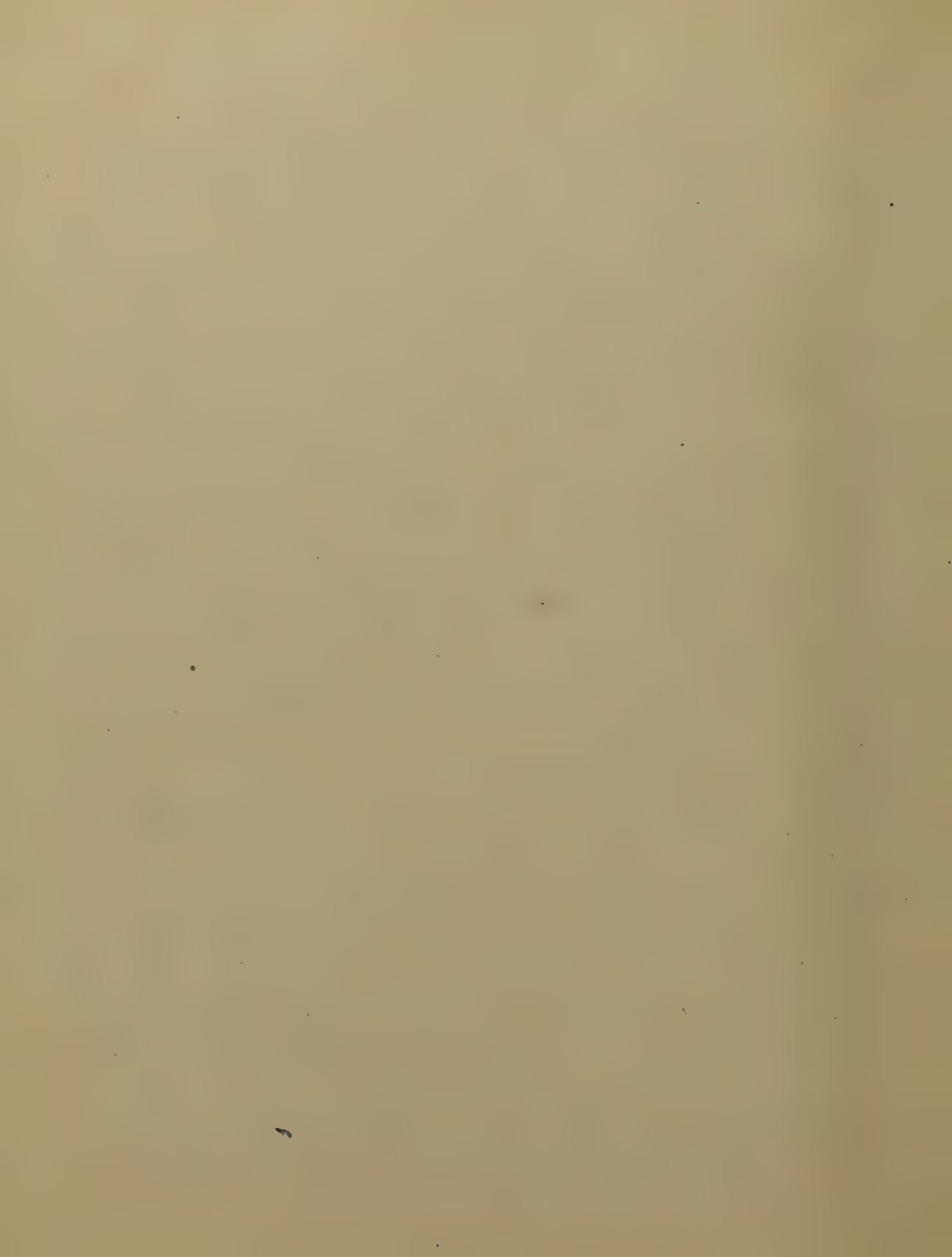
I am best to myself
 from the nature of the
 I am best to myself

4

and in accordance with the policy
of the Government of the
United States in dealing with
the various nations of the
Western Hemisphere, it is
the policy of the United States
Government to maintain
friendly relations with all
nations of the Hemisphere
and to oppose any attempt
to interfere with the
freedom of the Hemisphere
and the well-being of the
people of the Hemisphere.
It is the policy of the United States
Government to oppose any
attempt to interfere with
the freedom of the Hemisphere
and the well-being of the
people of the Hemisphere.

and the right side of the skull
the same communication between the
venter and the parietal and only being
the right side and the left side the
same stage. In some cases the
communication is complete but later
the middle part of the right
is transformed into the middle
The right lung is situated in about
38° of cases, and the left is in about
45°. The upper part of the right
lung is the part of the lung which
of the case.

In the right side of the skull
of the case the disease is in the
middle part of the skull
the same way the disease is in the
middle part of the skull



The disease is characterized by
 tongue is coated with a white
 thickened and drier
 according to the
 not before the
 it is dull and
 as much as
 due to
 the disease is
 not before
 the surface
 is about
 anything
 a
 of
 to
 irregular
 to

was above 40. Length of front
 about 1 1/2. Short and thick, strong
 to about middle of nose. The spine
 is short and thick, at first it is
 pretty thin at base of neck, and
 becomes more distinct for a distance,
 and by the end of the throat. Length
 of its characteristic is about 1/2
 containing 10 black spots and
 being pretty like an appearance
 some cases the spots are thin and
 look preceding an appearance
 like brown spots, and is brown at
 the former side of the throat. The
 is a bad remedy when the long
 tends to end of the throat
 and is short and thin
 and is short. The spots are

toration, at all events, in children
 it may be swallowed, or absorbed.
 Sometimes in the old it suddenly
 ceases, this is a bad sign as the
 bronchial tubes may be filled up
 and death may result from suffo-
 cation. Under the microscope the
 corpuscles, fully developed, are
 and in some cases tube casts, and
 casts of the fine capillaries in the sputa.

The rise of temperature may be con-
 incident with the chill, but a few hours
 may elapse before it rises to 100° . There may be
 a slight or a moderate of temperature 1°
 above the normal. It reaches its highest
 point sometimes by the third day, and
 in some cases not until just before the crisis.
 In some cases just before death the rising

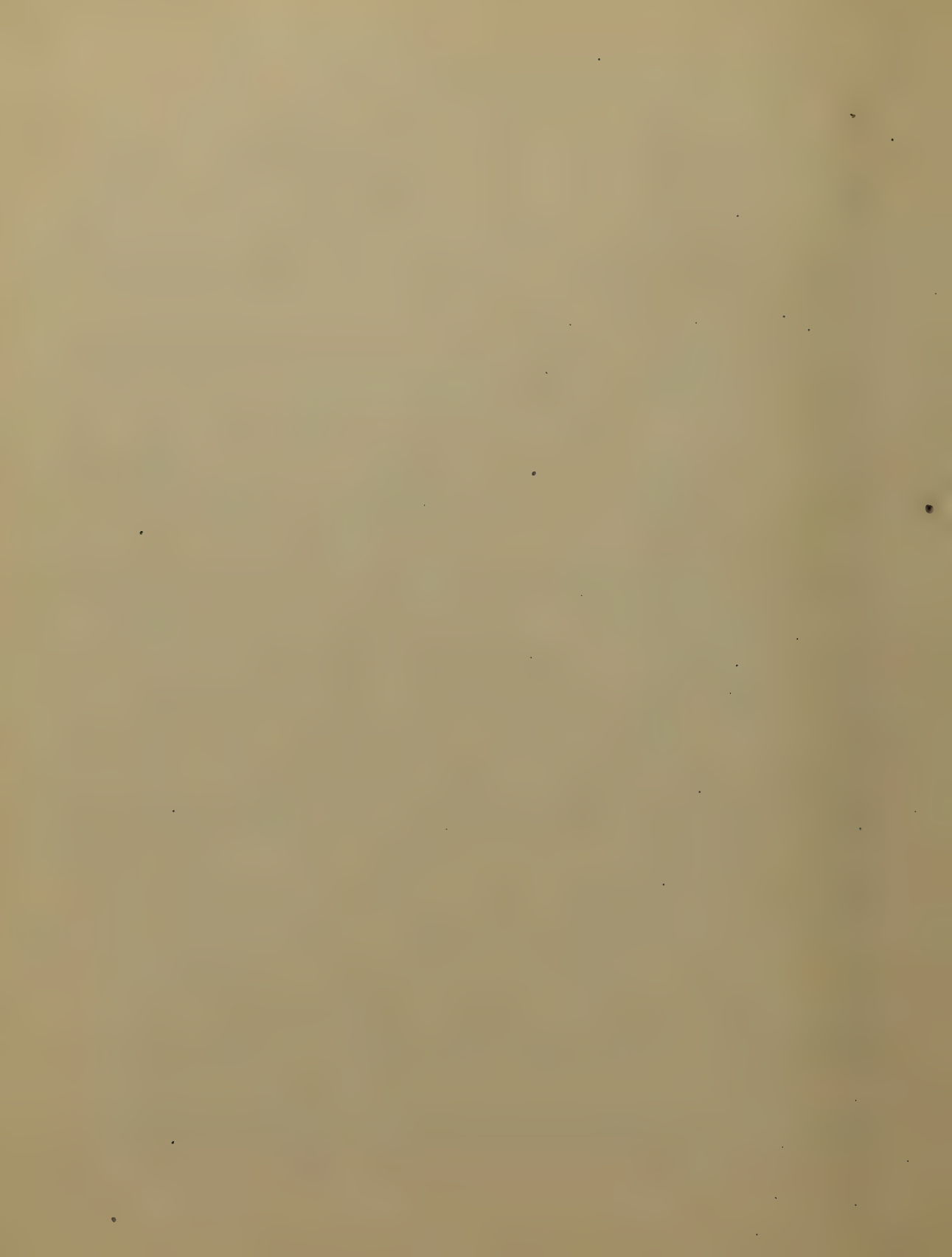
be, a sudden rise to 101 or 102, the
an unfavorable prognosis. The
the change after which the patient
recovers. It occurs usually in the
sometimes in the 4th. The temperature
go down one or two degrees and
cases recovery takes place. In
the temperature falls gradually from day
to day, this causes the disease to run a
longer course. A very long course
a debilitated state of the system, and
a very high temperature lasting for
2 or 3 days indicates imminent
termination. Pulse runs with the strength
of the case, and about 100; if above
120 it is a grave case. Intermittent
fever is a very grave symptom, and
shows that the case is critical.

There is a peculiar appearance on
the countenance, and a marked change
in the color. There may be a dark reddish
circumscribed spot over the malarian,
and the greater the amount of blood of
jected the larger the spot. It may be brown
one cheeks if on both more deeply flushed
on the affected side. Herpetic eruptions
on the lips, and edges of the mouth
are common. Delirium and convulsions
do not occur in adults except in extreme
subjects, and when it extends from the base
towards the apex. The eruptions on the
skin are less common altogether, and
and more or less in amount, and
and the eruption generally is greater.

Signs derive from accumulation
and pressure.

1st or Congestive Stage

If the Pleurisy is disseminated there will be no desquamation of the cuticle after the 28th day, but instead during the first day, or, in fact, in some instances, to the motion of the chest may be observed. It is, however, a ^{transient} phenomenon, and is not to be mistaken for the desquamation of the cuticle which is observed in the 28th day, and is a slight departure from the normal respiratory mucous membrane. Later the respiratory rate is heard, at the end of the inspiration caused by the sides of the alveoli striking together, and when the air is expired they separate with a crackling sound. Continued for from 2 to 3 hours, and in some cases for three days. But in some cases the transition to the 28th stage is so sudden that it is not heard, but between the lungs,



go on to consolidation without the ordinary
fever. When bronchitis and a strong
heart consolidation is just about to take
place. 2^d Stage, of Consolidation;

Improvement of chest much improved on the
diseased side, and augmented on the healthy
side. Great increase of mucus produced

But less much increased here rather is
no entrance of air, in a great measure on
the other side. Respiration is total breathing
Bronchitis deep, when the patient speaks,
this is not usually heard with frequency

3^d Stage. Great quantity of mucus
produced. Bronchitis is not deep
Bronchitis decrease. The expiration is
or sub-expirant almost total but
during expiration not so much
In part consolidation is present

rapidly that the order in which are written.

In the most rapid cases continued high temperature, great prostration and violent
tosses of sleep. The duration of attack
continues, decreases in frequency, and
and course bubbling rate will be of
an abscess occurs there will be a
healing, and death follows.

Difficultia deglutitio

Ordinary cases are not difficult to
difficultly & may be mistaken for
in rigor with the surrounding
temperature not so high & no
The pain is severe, and
sternum sharp and lancinating
common is there is a
the 3rd and 4th ribs, and
and

respiratory movements, which fill the
the ear. In Pneumonia the inspiration
is succeeded by a coughing, which is
expulsive, when the inflammation is
the lung there is a modified coughing,
but when the lung collapses all breath
will cease. In a tracheitis between
lobes and lobules, the coughing is
will be limited, to periods of
the affected lobule, while other parts will
be resumed. From amongst the
absence of the secondary signs. The
conclive. Great particular research in
the manner and duration of pneumonia -
in pneumonia and pneumonia in
the pneumonia is unaffected. In pneumonia
in pneumonia, there are several signs
may be the result of pneumonia and pneumonia

vomiting - intractable, the patient is
 not-expected, followed by a profuse
 sweats, and they are often
 the case. *Trigonitis*

The signs of a jaundice terminalis
 are - fall of temperature, critical
 motion, loss of pulse rate, and
 the cessation of the respiratory and the
 reappearance of the chlorides in the urine.

The period of duration vary according
 to the nature, and the time when the
 treatment was commenced, and the
 age. The period of duration in
 children for a time of years, and
 in adults, and in some cases
 it may extend to a year, and
 may last for several years. Between the
 ages of 10 and 15 is a kind of

but, alcoholic habits and nearly all the
 cases of the disease, the tendency is to
 tendancy is toward death. It often
 comes on suddenly, and the patient
 and the duration is short. The disease
 is also called when complicated with
 exanthema aton dis-cu is, "the inflammation
 of the heart", and when there is enlargement
 of the heart, "hypertrophy", and
 hypertrophy, if it is not a child the
 prognosis is better. Bad symptoms:
 if the temperature ranges at from 100
 to 102 for two days, if the pulse is
 at 120 beats in a minute, also when the
 pulse becomes irregular, and when
 and when there is great tenderness over
 the heart is usually due to cardiac
 failure.

Treatise

There is no specific treatment, and
 we must be governed by the symptoms.
 There is a tendency to recover in
 cases, when the patient is left alone, and
 it is better not to interfere with the nat-
 ural course of the disease, unless
 by judicious bandages, especially
 the cranium. If seen at the beginning,
 during the stage of congestion, and
 after important rules are followed, the disease
 may be aborted, by giving ʒij of grimal-
 dul, ʒij of myrror by the mouth, the appli-
 cation of a large wet band to the
 head, and, removal from the disease, and
 to attend it stimulating diet, and the
 use of the system, and the first
 should be removed in a hot moist
 situation, at the same time it is necessary

and therefore have been the chief cause
 in action, together to diminish the
 observed heat, motion. This is the
 suspension, and is necessary in the
 give by the same motions of the
 the solution of the same. It is
 not great suspension may be made by the
 in one depth of the same suspension.
 When the suspension is made by
 the same motion, the suspension
 is not great, and is not the same
 as the suspension of the same
 kind movements of the same
 the suspension. It is the same
 by suspension, and the same
 the same of the same suspension
 the same of the same suspension
 the same of the same suspension

When used before the last stage of
 the disease, it is of no use, and should
 be discontinued. There are
 two primary symptoms to watch in the
 2^d stage; temperature, and the action
 of the heart. If the temperature is up to
 103° 4 grs quinine in 19 gr doses
 is reduced. If 104° 10 grs in 19 gr doses.
 If the temperature is 105° 19 grs
 quinine in 2-3 gr doses as at once.

To maintain the action of the heart,
 "strich," used with alcohol is
 this becomes an absolute necessity.

If the pulse becomes weak and irregular
 then give strich 1/2 3 times a day
 watching its effects. If there is any
 return the strich is of no use.
 The symptoms are to be kept at bay.

Especially at the onset of an acute case
 rest is then to be taken, then a course
 of ammonia should be continued until
 the patient is able to get up, and gradually
 resumed. If there is much delirium
 in the third stage, give one grain of chloral
 hydrate frequently, by the hypodermic
 way, by every 3 hours, and in the
 4th, ten drops every 2 hours. If the
 success of resolution is not going on quickly,
 a blister may be applied to the side of
 the arm, & I would not be affected, unless
 of long, leave on for 3 or 4 hours. Then
 put on a flannel and put the
 running machine on the trunk, as
 soon, morning, and sleep in
 the steamer subjects are
 not to be.

Fossil, written by L. B. Peck

Patterson

Sumatra

Peck

18

"Theris": Subject - "Agræa"

March. 1886.

Chas. C. Lucas.

Shepherdstown.

Jeff. Co.: W. Va.

Aqua.

The use of water in the preservation of health and in treatment of disease, is a subject well worthy of a continuous attention. The value of pure drinking water is a matter which should never be disregarded in public or in private. To obtain it in a state of absolute purity is of course impossible, but to obtain it in a state of sufficient purity to be fit for use is a matter which is receiving almost universal attention through our Sanitary Associations. Water when impure is very injurious as it frequently contains soluble and insoluble organic matters, and in many cases serves to convey the germs of different diseases. Water is the most essential element to life.

It regulates the bodily heat and carries off effluvia matters, and it is necessary that every part of the animal economy should have a certain amount of it. Men have been known to live for a considerable time without food, but can hardly live for more than a few days when wholly deprived of water. As I have already said, impure water may serve

convey the germs of some of our greatest diseases, and
 educated medical man has only to examine the
 records of some epidemics of Typhoid Fever to become thoroughly
 convinced of this. If we consider how often wells and privies
 are placed adjacent to each other and how difficult it
 is to prevent the contents of the privies from contaminating
 the water in the wells, we can readily see how the
 specific germs of Typhoid Fever may get into the
 drinking water and thus it serve to transmit
 this grave disease to numbers of those who come to
 the well for their daily supply. Hence the necessity of
 burying the excreta of Typhoid Fever patients in a
 separate place and as far as possible removed from
 any well or cistern from which water is used.

That by means of water is the most common way
 in which Typhoid Fever is transmitted has been proved
 conclusively, for when pure drinking water is used
 instead of that which is contaminated by germs of the
 disease, its progress is stopped or lessened to a great
 degree. In some cases creeks or rivers have been reported
 as receiving the washings from fields which have been

3
mixed with the contents of pines into which the
creta from Typhoid ^{patients} have been thrown. Thus there
have been extensive epidemics caused. In some of them
near persons although living in the same neighbor-
hood, but using a different water supply, have escaped
the disease, thus proving conclusively that it was the
water which had served to convey its germs.

Cholera, Scourlatina &c. are also sometimes caused by these
respective germs getting into drinking water. Thus shows
how important it is for us all to have in mind the
importance, and I may say, the necessity of using
only water from a source of healthful purity.

When a physician has a case of Typhoid there to treat
he should try to improve his patient's condition and to
ward the other members of the family, by trying to
impress them with the importance of using pure
water and of properly disposing of the excreta.

The "medicated waters" as found in nature have proven
valuable in many cases. By this wonderful manner of
nature their medicinal qualities are applicable to many
diseases. They seem to constitute nature's medical laboratory.

among the most valuable "mineral" waters I may mention
 Chalybeate and the Sulphurous waters. Among the
 chalybeate springs I will only mention one - that is
 Rockbridge Alum Springs. These Chalybeate waters are
 useful as medicinal preparations of Iron. They are
 beneficial in Anemia and numerous other
 diseases which depend on Anemia.

Among the Sulphurous mineral waters I may mention
 White Sulphur Springs. These waters are very useful
 the treatment of hepatic disorders &c, but they are
 particularly useful in "skin affections". Besides the
 mineral waters I have mentioned there are alkaline
 waters which are useful in the treatment of diseases
 which call for an "alkaline" treatment, as Rheumatism
 and Gout. The progression generally has undergone
 great change in the last twenty five years, as
 the use of water internally in fevers.

For example - the old practitioners would not allow a
 new patient to take water without warming it, or at
 least, depriving it of its freshness. A certain amount
 water is essential to health and it would seem

in febrile conditions a greater amount would be
 lled for. At the present time instead of withhold
 it from his patient the physician allows him
 have it in such quantities as he may deem
 proper. It has been asserted by some that the thirst
 the patient is the best guide as to the quantity
 ought to have, but it seems to me this would
 do in all cases, as a few patients will
 sometimes drink to such excess as to interfere with
 the powers of digestion and assimilation.

This would give rise to stomach and intestinal disorders
 which would, it seems to me, have a great tendency
 to make the patient's condition worse. Therefore I should
 consider it proper to give him what I thought proper,
 and not allow his feelings to influence me to give
 in a greater amount. Water is also very efficacious
 when applied externally. It may be used in
 various ways, as - affusions, Douche, bath, wet packs,
 & bags &c. The cold affusion is often used to reduce
 the heat. It consists in bathing cold water on the body
 which has been previously stripped and laid on a green

1
th. When the patient complains of cold he should be
fed dry, placed in bed, covered with wool and given some
stimulant to aid reaction, and consequent desphoresis.
is however is a very harsh method of procedure and
private practice would seldom be admissible.

The "cold bath" is greatly preferable. The best way to give
is to place the patient in the bath when the tempera-
ture of the body, and then gradually cool it by adding
small lumps of ice, or some cold water, until a
temperature of 65° or 70° Fahr. is reached. We should
watch the temperature of the patient at the same time
which should be taken by a thermometer placed in the
mouth or rectum. After the bath treat the patient the
same as after the "effusion". The cold bath has the effect
of moistening the skin and lowering the temperature,
and the pulse becomes slower. The greater number of
cases who die from Typhoid Fever, die directly or indirectly
from the effects of excessive heat. The tissues of the
body waste away, and die, as it were, commencing
with the fever. It becomes therefore a matter of great
importance to lower the body temperature as soon

possible when it exceeds a temp. of 104° Fahr.
 is can best be done by the cold water treatment.
 private practice the cold bath, ^{and} ~~and~~ ^{and} application, is
 very inconvenient and it would be almost ^{impossible} to get
 patients to consent to their employment. In these
 cases I think the "wet pack" would be preferable.
 It is to put beneath the patient a green cloth, and
 a strip linen and envelope him in a wet sheet. As soon
 the sheet gains warmth pour the body on should
 rub it with cold water. After the patient has been in ^{the}
 the sheet for fifteen minutes or it may be a little longer
 should be wiped dry and placed back in bed. This may be
 used as often as excess of temperature may require.
 A great benefit has followed the use of cold water in this
 way to relieve that where it is necessary to use cold water
 here they should be used freely. Another way which is a very
 good one, in which water may be used in the treatment of
 use, is to have a rubber "water seal" or something that it
 fully surrounds the patient, and by passing hot or cold water
 right at me being changed one patient temperature without
 subjecting him to the trouble of being removed from bed.

apparatus, however, would be very expensive, and one that
out would be beyond the reach of many poor patients.
The treatment of Typhoid fever with cold water, however, applied
to the fœtus, is a contra-indication for its employment,
the internal congestion as a result of the cooling to
surface might increase the liability to hemorrhage.
In all events the treatment during its application would
very undesirable. It should not be used during
inflammation. In patients whose heart action is very weak
would also be unwise to use extensively as the shock
it be very injurious if not dangerous.
In the face of the circulation is so relaxed that the
face of the body is cool while the interior is hot, there
is no hope that the further cooling of the surface by
the would have any beneficial effect.
In isolation we have nothing better than cold water applied
to the body. Ice may also be applied to the head. It has been
recommended in these cases the wrap the patient in
it and pour water over him with a continuous
circulating pot. This is applied over the whole body at intervals
of five minutes. The proper length of time to use this

determined by watching the patient's temperature and
pale. If the pulse be very good we may give stimulants
more or less freely. In this affection, the humors of
the blood is very good when the temperature is not too high.
Below this, sponging of the body has been considered
efficient. The cold "douche" also is very good to read into
medical consultation. For the irritation of the skin in the
case of Scurlatina, sponging with cool or tepid water is
highly recommended. In this case the "oppression" would be the
chief and would also be very troublesome. A tepid or warm
bath is said also to lessen the liability of renal disease
complicating this disease. If the skin is kept in as healthy
a condition as possible by the use of the bath, it is very
probable that there is far less danger of these complications.
The wet sheet is also very useful in causing diaphoresis.
It may be used thus; the patient stripped of all clothing, is
wrapped in a sheet wet with water, and covered with blankets.
He remains thus until profuse perspiration is induced.
As soon as this occurs, he should be taken out, wiped dry
and placed in bed, where refreshing sleep is likely to follow.
This may be repeated if necessary. The above procedure is

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hydropathic one, but the regular practitioner should not
discard it on that account. "Dyscrasia" may very often be
relieved by a bath just before going to bed. The bath may
be warm, but if the head is hot and the circulation active
it may apply cold to the head at the same time with
heat applied to the body. In "Chronic" as well as in "Acute"
"Dyscrasia", the vapor bath or hot wet pack is useful
in exciting the free action of the skin. The vapor bath
or "wet pack" is especially good in "Dyscrasia" when the
elimination of "Urea" is interrupted with and there is
danger of "Manic Coma". After the "wet pack" is used the
patient should be well covered to favor perspiration.
After an attack of "Acute Articular Rheumatism" the
"Turkish" bath is excellent to restore suppleness to the
joints and muscles. In numerous other diseases these
baths, while not bringing about a cure in themselves,
do all greatly aid the action of other remedies by keeping the
skin and muscular system in a healthy condition.
"Cold water locally" applied is also very useful in many
joint diseases, and in different ways.
It has been used by injecting it into the system and by

...ing wet cloths on different parts to reduce temperature
 "Simple Acute Pyrexia" we may use compresses wet
 with cold water, or what is perhaps better, we may use
 crushed ice in oil silk bags, laid over the part.
 This has been highly recommended, Prof. Cherr speaking
 of it in his lecture upon that disease.

"Gastrosthaia" may in many cases be greatly relieved by
 drinking ice water or by swallowing small lumps of ice.
 In very violent cases as a means of relieving the hemorrhage
 ice may also be placed in bags and laid over the
 epigastrium. "Pulmonary" hemorrhage is also sometimes
 relieved by placing ice bags around the chest.

In the local application of cold, water may be very well used
 by coiling a rubber tube around the part and passing
 cold water through it. Of course this may be used for
 the application of heat by using hot water. These may
 be used when dry cold or heat is desirable.

One of the most useful applications of ice is the ice cap
 in "Brain fever". This is often of great benefit. The ice is
 crushed and placed in a bag or cap made of oiled
 silk, which is large enough to cover the entire anterior

which is sometimes seen to be immediate when this is applied. Ice has real "latent" heat than water and is therefore a far better cooling agent. It is not best to use recklessly, as it may produce "shock" and thus act as astringent by contracting the capillaries.

Using water - 70° Fahr: is usually as low as is good. Cold "effusions" have been found beneficial in "Chorea" when applied to the head or spine.

Hot water is very beneficial in a number of cases when applied locally. Inhalations of steam are recommended in bronchitis - acute and chronic. It may be used in different ways - the patient may be kept in a hot room and a vessel of water kept constantly steaming on a stove, the steam thus filling the whole apartment, or he may wear an "inhaler". This is an exceedingly efficacious remedy.

Dr. Howard recommends hot water injections in "Chronic Gonorrhoea". In this case a good and plentiful injection should be given and should be thrown into the vagina with a strong syringe. Hot water dressings are used for wounds, contusions etc. The use of acute inflammation is said to be very limited when hot water is used in these cases.

in the use of "Esmarch's" bandage in amputations, there is
 to be a good deal of "Capillary oozing."

This, both hot and cold water have been used, but the hot
 water is best as its effects in stopping the oozing, are more
 permanent. The "poultice" is useful chiefly on account of its
distinct and warmth. In many cases there is no especial
 virtue in the meal &c. of which the poultice is made, and
 these cases hot "compresses" may be equally as good if used
 in. The effect of the cold bath in health is also well worthy
 the attention of every one. When a healthy person get into
 cold bath, the first effects of the cold is to contract the
 capillaries of the skin. This gives the body a white, pale hue.
 In this comes "reaction"; when the capillaries are dilated and
 the body is in a glow. The bather should leave the bath before
 second ~~contraction~~ contraction of the capillaries takes place, as this
 and "contraction" is permanent.

A cold bath is very good in persons of robust health but in
 those who are weaker it is not to be recommended as the
 "shock" of the cold water might be injurious.

The foregoing pages I have tried to mention some of the most important uses of water "therapeutically". I have treated the subject very imperfectly, but to mention all the uses of this most indispensable element, and its comparative worth in different diseases, would require a longer and a much longer article, than is allowed by the limits of a college "thesis".

Very respectfully

Chas. C. Lucas.

Digestion

J. Sloane Scott,
Stewartstown
Pa.

1886.



Food & Digestion

In treating this subject I will endeavor to be as clear and simple as possible, for no one during the short time they spend at college can by any means do such a vast and important subject the justice it requires. Many have written, and much has been said concerning this subject and yet there remains room for much to be said. Men will as the subject becomes more clear express their different views. I will endeavor in a brief way to describe the process of digestion as it is carried on in the human stomach. We are all compelled to take some kind of nourishment to keep the vital forces at or in working order.

and the nourishment must have some kind
of an apparatus for carrying the food to
the stomach where it is distributed to the va-
rious parts of the body to sustain this force
As the animal body increases in size
and weight from birth to manhood
during the whole of life there is an
incessant change going on in the body
It is a law made by the creator at the
beginning that life cannot continue
long in animal matter The atoms
which compose the living body re-
ceive the principle of life when they
enter their appointed places and be-
come the body They however retain this
principle but a short time and
while they retain it they perform their

work Food is not living matter
much that we eat. Bread, vegetables
and fruits do not bear any resemblance
to flesh. Yet these matter life
less as they seem are converted in
to living flesh and not only one kind
but several and various kinds which
enter into the composition of the Human Body.
The digestive apparatus effects a
change in the food. First it grinds
it in the mouth, dissolves it and
converts it into a mass of material
fit to supply the blood and send
the nutritious materials to the heart.
The blood vessels carry this blood to
all parts of the system and with this
they supply the waste and growth of

the different organs.

This digestive apparatus consists of a mouth and pharynx the oesophagus or gullet the stomach and the intestinal or alimentary canal. At the upper end of this apparatus is the lip which prevent the substances which are taken in the mouth, from dropping out. The teeth and tongue which assist in grinding up the material, these are also assisted by the salivary glands which pour out saliva and moisten the substances and make the task of swallowing much ^{more} easy for without the aid of these glands it would be a difficult task to perform. The mungling of saliva effects two objects

For coated over with glairy substance or juice the crushed or bruised substances are much more easily passed along the oesophageal tube into the stomach, but there are certain other changes which take place in the mouth. Food undergoes a chemical change which is completed in the stomach and this is of essential importance in aiding the process of digestion.

The oesophagus is a tube commencing at the mouth and connecting ^{with} the stomach and is about eight or ten inches long. It is made up of three coats, muscular, cellular,

and Mucous. the Muscular or
outer coats being somewhat
thicker than the others

The stomach is a long round
and somewhat irregular shaped
sack It is placed on the left side
of the abdomen just below and
within the lower ribs and runs
crosswise toward the right side. It
has two openings one toward the
left end where the gullet enters
and the other at the right end where
the stomach opens into the intes-
tinal canal This organ is muscu-
lar and varies much in size in
accordance to the amount of food
taken into it. It has been so much

distended at times to be able to hold
two or more quarts this is apt to be the
result after one has taken a hearty
meal or when a great amount of
liquid has been taken into the stom-
ach. At other times the stomach
has been so reduced as to be only
hold a pint this condition is gen-
erally found to take place in per-
sons who do not get enough to sub-
ply the cravings of nature. It us-
ually contracts itself down to
its contents however small
The stomach is never completely
empty there is always some
fluid substance remaining
in it. The size of the stomach

is said to vary with the habits of
men and the kinds of food used.
It is claimed to be larger in
those who confine themselves
strictly to vegetables than in
those who live on animal food.
The vegetarian gets less nourish-
ment from his food and is
compelled to take a larger
amount to supply the wants
nourishment to staving trisna
while the man who uses animal
food can get more nourishment
from a smaller bulk. Men
who are in the habit of gross
indulging have larger stomachs
than those of temperate habits.

The texture of the stomach is of a fleshy character very soft and flexible and consists of four coats each of which has a distinct part to perform in the digestive process and each is prepared for its own function, the outer coat gives support to the whole the middle coat expands and contracts to give due size to the sack it also produces motion in the stomach which agitates the food and helps promote the work of digestion and aids in expelling the contents when they are digested.

The inner coat exudes upon its surface a slimy mucous sub

stomach which protects it from all substances which would irritate it and also prepares the gastric juice a powerful fluid which dissolves the food. It exerts a powerful action on all natural sorts of food. It dissolves certain important elements which form a part of nearly all our food. By its aid the finely divided mass is reduced to a condition fit for the absorption of the nutritious portions into the blood and by the blood carried throughout the whole system replacing the waste and supplying nourishment to the growing tissues.

As soon as food is swallowed
some gastric juice is poured
out upon the lining membrane
of the stomach, and the mass be-
comes softened the more com-
pletely the food has been masti-
cated the more readily the gastric
juice is absorbed. At first it
only mixes with the minute
particles and these being un-
worn more particles are exposed
and so the work goes on until
all the food has been wet and
softened by this powerful acting
agent. The stomach is not al-
ways full of gastric juice there
is usually none of this fluid

to be found in the stomach except when there is some thing in it, to excite and cause the lining membrane to secrete and pour it out. The gastric juice is not poured out with a rush but it oozes out slowly (very much like the perspiration which oozes from the forehead) until there is enough to mix with the new morsels which are taken into the stomach the juice commences to flow as soon as the food reaches the stomach and continues to flow if stimulated by new morsels this flow is however not without end.

This liquid cannot like saliva in the mouth be made to flow as long as we desire. It flows then not in proportion to the amount of food we eat but in proportion to the amount of nourishment which the body needs therefore only so much of this juice is poured out as will dissolve what food be needed at one time. therefore the stomach may be likened to an acute measuring machine as it measures by the gastric juice the amount of food the stomach is able to digest with ease and when there is enough food taken into the

body, The stomach seems to give the signal that it has had enough to supply its demand. By being careful we can supply the exact amount to the wants of the stomach and stop as soon as this want for food ceases for it is nothing more than natural to feel the pang of hunger. It is through this median the stomach makes its wants known. The time required by the stomach varies according to the amount and kind of food taken in to the stomach. Many of the foods that are taken in the stomach are more readily acted

upon by gastric juice than
other digestion however
commences as soon as food
reaches the stomach and con-
tinues from one to five or more
hours. When the stomach has fin-
ished its work the food is con-
verted into Chyme and to us
it seems to have the same ap-
pearance throughout there seems
to be no traces of the meat and
vegetables which entered the
kind and this was the science
that was taught by the old teachers
But now the microscopic re-
searches have set aside this mode
of teaching and that the mass

is not all the same but that
this mass is submitted to fur-
ther digestion in the small
intestine When the stomach has
finished its operations on
the food it is then turned over
to another agent of digestion
namely the duodenum, by pass-
ing the pyloric opening into this
the jejunum, here
it undergoes another change
and is acted upon by a fluid
known as the intestinal fluid
or juice and also by the pan-
creatic fluid this latter fluid
enters into combination with
all the elements of food but

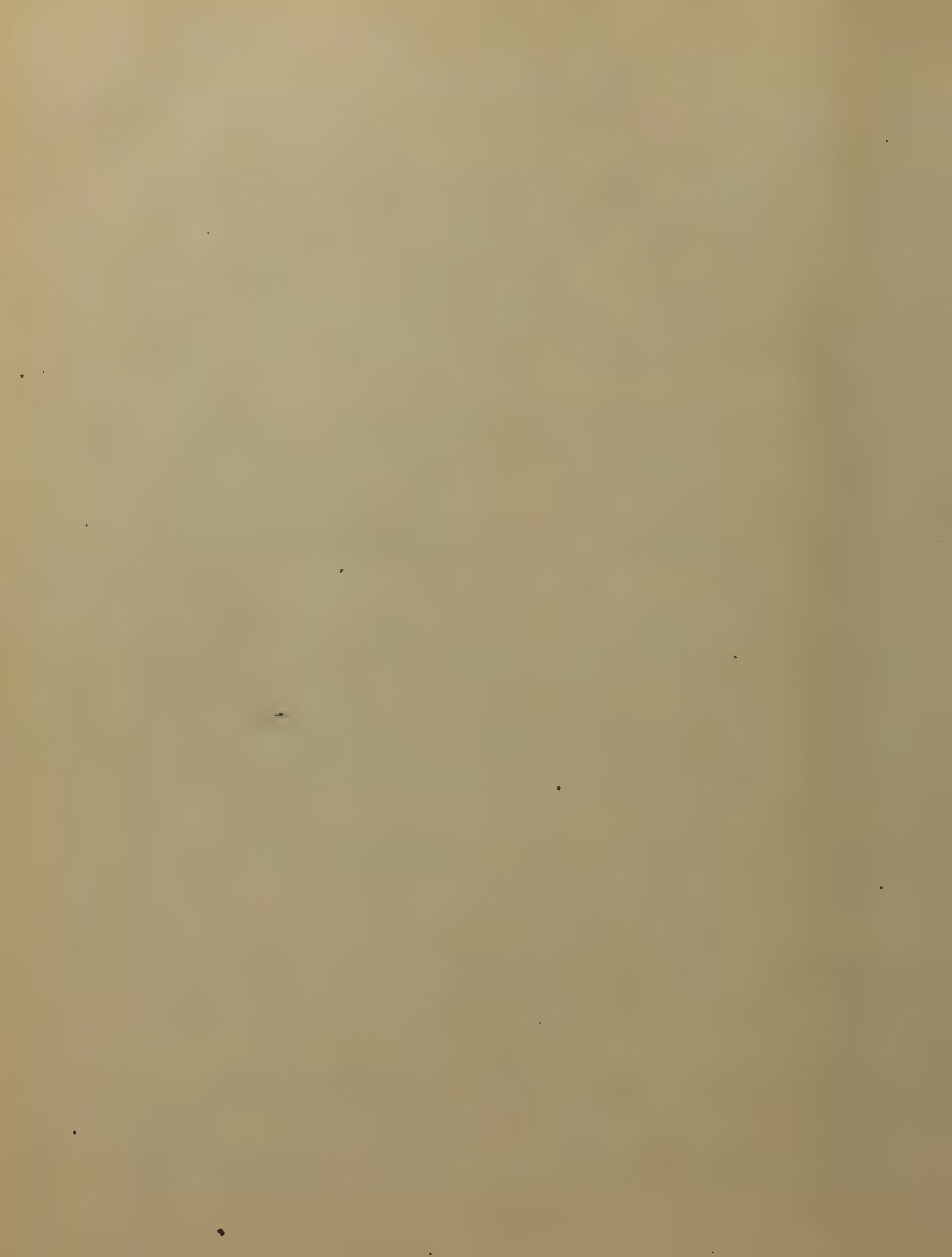
more especially the oily matters
which have not been acted
upon by the gastric juice
and prepares them for the
use of the blood. These three
digestive fluids constitute a
milky fluid known as chyle
which is yet in the alimentary
canal. Chyle is a milk white
fluid which coagulates spon-
taneously and on standing sep-
arates more or less completely
into a clear part

The nerves carry the feeling of
hunger from the stomach to the
brain where it is felt and recog-
nized no such sensation is

felt and no feeling of hunger
is conveyed if the nerves are
diseased the appetite is always
felt in the brain but is not
perceived unless we can give it
attention to it - the appetite is affect-
ed by the state of health both in
the body and mind In fevers
and certain dyspeptic states
the stomach craves little or no
food, so in sorrow or mental
distress and may also be af-
fected by the announcement
of the death of some near friend.
Hunger according to Prof
Miles consists of a twofold
meaning, one when the

system requires food and
the other a local feeling of
the stomach. In older times
hunger was thought to be the
rubbing together of the walls
of the stomach, but different
views have been advanced
from time to time until
now it is thought to be the
contracting of the stomach
upon itself which produces
this feeling of hunger.

The feeling of hunger is es-
sential to the maintenance of
life for food is required to
give power to the organs
and muscles and to supply



the growth of the various parts
with nourishment. The gen-
eral feeling of hunger is an
important one and should
never be overlooked. Some
times just before death
you will hear a patient
complain of a feeling
of hunger.

The appetite may be
aroused by the smell of some
good thing cooking and we
all know how our mouths water
when we smell some thing
good and how we long for
some and the various fluids
secrete freely although there

is nothing in the mouth to
cause them to do so. When
the food has been digested
the nutritious particles are
then taken into the body by ab-
sorption. In the process of ab-
sorption the fats etc. that have
been taken into the body are
acted upon by the Bile and
pancreatic juice. The fats un-
dergo two changes when taken
into the body exactly how the
fats are absorbed is not clear
most of the fats get into the lac-
teals as oils and not soluble
soaps as was once thought to
be the way. The blood vessels are

also thought to have some part in the function of digestion. The nutritious part of the digested food is carried from the digestive organs in the abdomen through the absorbent vessels and lacteal tubes and the great lacteal tubes duct to the veins near the heart where it is mixed with and becomes a part of the blood. This blood is then carried to the lungs where it undergoes certain changes and then is distributed to all parts of the system for repair and building up of the tissues as to the eating and digestion of food leaves us

other object in view than the supplying
the wants of the blood. This fluid moreover
has an apparatus for the transportation of
this fluid from one part to another and
is known as the circulatory apparatus
But a lengthy description of this sub-
ject would be out of place here.

From this examination of the struc-
ture and uses of the various digestion
organs of the human system we
learn that the stomach performs
some of the most delicate oper-
ations and effects some of the
most wonderful changes in na-
ture. in these operations it requi-
res the aid of the intelligent hand
to supply its wants and fit the sub-

ply - There is no human instinct
to be our unerring guide and to
direct us how much to eat
and drink, the living machinery
within and the dead material without
our bodies are prepared for our use
and the law of nature is declared thus
for our government and that
law we are required to understand
before we can perform our part in the
sustenance of our frames. This is
not a law of appetite that directs
us always to take food when we
are hungry and take such
kinds of food and as much of it
as the palate craves nor is it a
law of convenience that allows

such food as chance or chance
may place before us. This law is
founded upon the structure
of the digestive apparatus
and the wants of his frame,
temperature, age, and his
habits & exercise. In the many
different rules and laws laid
down for the government of all
men of every rank, profession
and habit and location and which
attempt to sustain all men
with one absurd and fail for
every man or every class of men
have their peculiar powers
and peculiar wants and
if they disregard these

and endeavor to supply
life by any other means
or rule they will not fully
accomplish the purpose that
may. As the mind needs the body
for its earthly home so the body
needs the mind for its director.
This responsibility for the care of
the body and mind comes upon
every one in every condition of
life and whosoever discharges
it with intelligence and
faithfulness will increase
his power and his enjoy-
ments and have length of
days on earth.

masturbation.

by

F. F. Corbell

- 1886 -

1870

1871

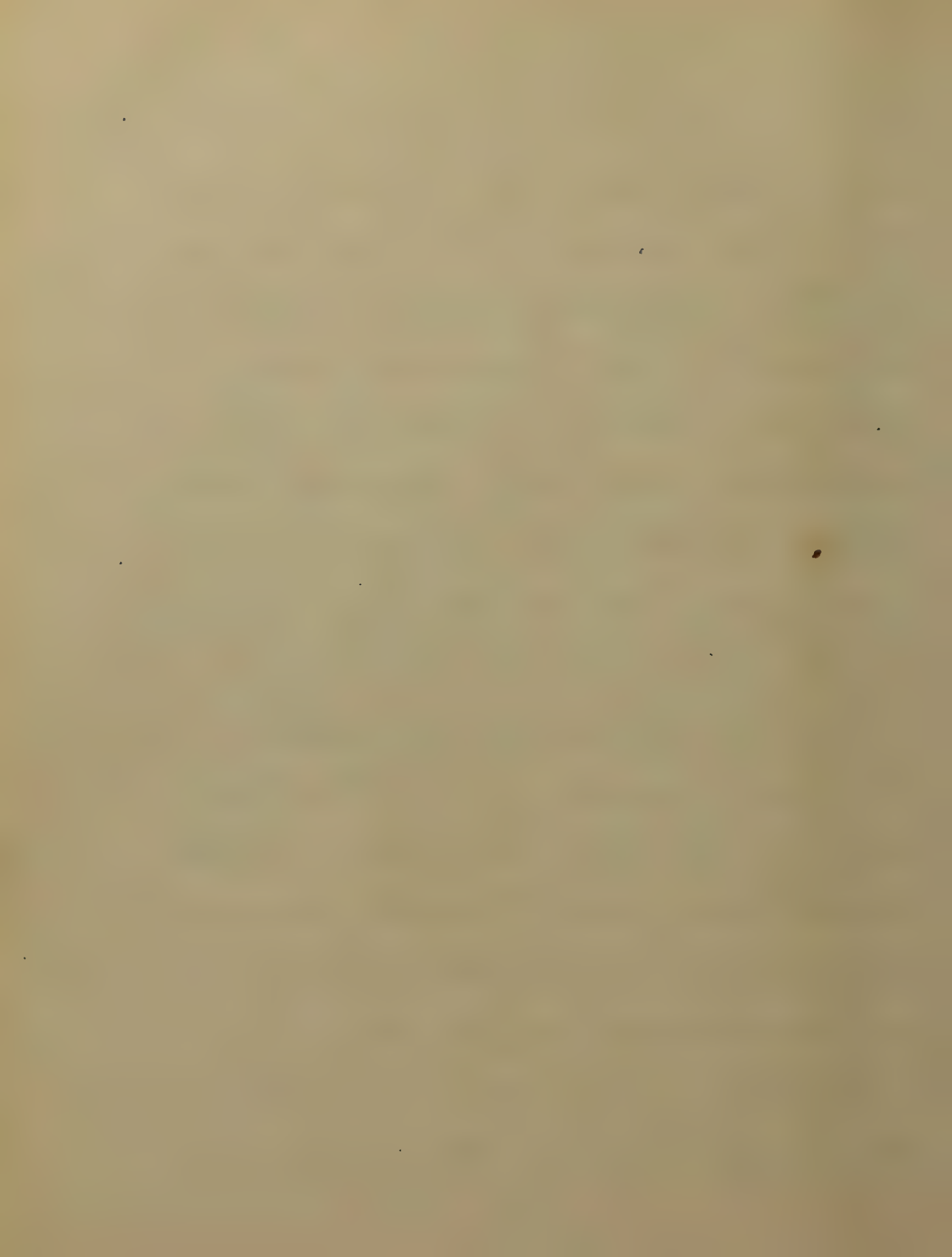
1872

Masturbation:

This evil is also termed Solitary
Indulgence, Self abuse, Onanism,
Venereal Debauchment, Voluntary Pollution.

The functions of the sexual organs
are greatly impaired by the unnatur-
-al excitation of the genital organs
by friction with the hand. It is
a deplorable fact that this vice is
sometimes acquired by boys, before
they reach their sixth year. In some
instances the habit may be attributed
to foolish or vicious nurses, who quiet
children when they cry by tickling their
sexual organs. These wretched persons
may not know how dangerous such
a practice is to health and morals,
or how easily the child is overcome by

his propensities. It is wrong to commit these important trusts to the keeping of those who may easily transform a naturally healthy desire into a precocious morbid sensibility that will eventually ripen into a degrading animal lust. Unholy are the miseries which arise from masturbation. Self-abuse is one of the most prolific sources of evil, since it leads to degradation of body and mind. It is practiced more or less by both sexes, and the habit once established, it is with the greatest difficulty that it can be overcome. It is the source of numerous diseases which derange the functional activity of the organs.



and eventually impairs the mind & constitution. This solitary vice is mostly practiced by those ignorant of its dangerous results, and diseases are incurred when it is too late to redeem the broken down constitution. Immoderate indulgences in any practice are deleterious to an individual. Emphatically true is this with regard to sexual excesses. Not unfrequently does the marriage rit cover a multitude of sins. The abuse of the marital relation produces the most serious results to both parties, and is a prolific source of some of the gravest forms of disease - Postlorrhoea, Spermatorrhoea, Impotency, Hypochondria & general

debility of the productive organs,
arise from sexual excesses.

Boys seem to regard the practice of
this vice, like the vile habit of
smoking and chewing tobacco, as
a manly accomplishment. It is
evident that they act under the
impression that the practice of self-
pollution indicates their near approach
to maturity, and thus they vie with
one another as to who shall first
succeed in awakening his sexual
sensibilities sufficient to give un-
mistakable evidence of his masculine
attributes. One boy may inherit a
predisposition to this practice, or
his sexual feelings may be awakened

at an early age, and his bad ex-
ample be imitated by many others.
In this way a dangerous habit
is early acquired, and when the
sexual propensities are habitually
indulged to the exclusion of the
cultivation of higher and nobler
pleasures, if not rendered impotent
by these abuses, he will transmit
the same desires to his offspring,
so that the propensity and habit
becomes irresistible. a physical as
well as a moral taint or disease.

The earliest account of man reveals
the fact that his creator did not
design him to live in seclusion,
for we find him with his "helpmate."

in his Eden-Home. History shows
that when a man has been
deprived of the society of woman
he has become reckless, vicious,
depraved, and even barbarous
in his habits, thus illustrating
the sentiment: 'It is not good
for man to be alone.' Good as
socialions promote mental and
physical development physical,
because the body can't be perfectly
developed unless the mind be
cultivated. The development
of a person implies the unfolding
of every power, both physical &
mental. Nothing so regulates &
restrains passion as a healthy

condition of the organs through which it finds expression - and every organ of the body is powerful in proportion to its soundness.

The Propensities play a prominent part in the education of the child. When properly disciplined and held in subordination to the higher faculties, they constitute an important factor in the economy of man. Boys are more liable to be morbidly excited when excluded from the society of girls, and vice versa. Again, when the sexes are accustomed to associate, the passions are not apt to be aroused, because of the natural,

antagonizing, physical elements.
The influence of one refiner, energizer
and ennobler the other children
should be taught to understand
their nature, and knowing these
they will learn self government.
It has been truthfully said: "As
man rises in education and moral
feelings, he proportionately rises in
the power of self restraint; and
consequently as he becomes
deprived of this wholesome law
of discipline he sinks into self
indulgence and the brutality of
savage life." The passions may
be aroused by the language, appear-
ance or dress of the opposite sex.

A word spoken under the impulse of purity is often rendered in a very different version by one whose passions color the thought, and made to convey an impression wholly unlike that which was intended by the speaker. So, too, the dress may be of such a character as to excite the animal nature. The manner in which the apparel is worn is often rendered so conspicuous as to become bawdy, there by appealing to the libidinous desires, rather than awakening an admiration for the mental qualities.

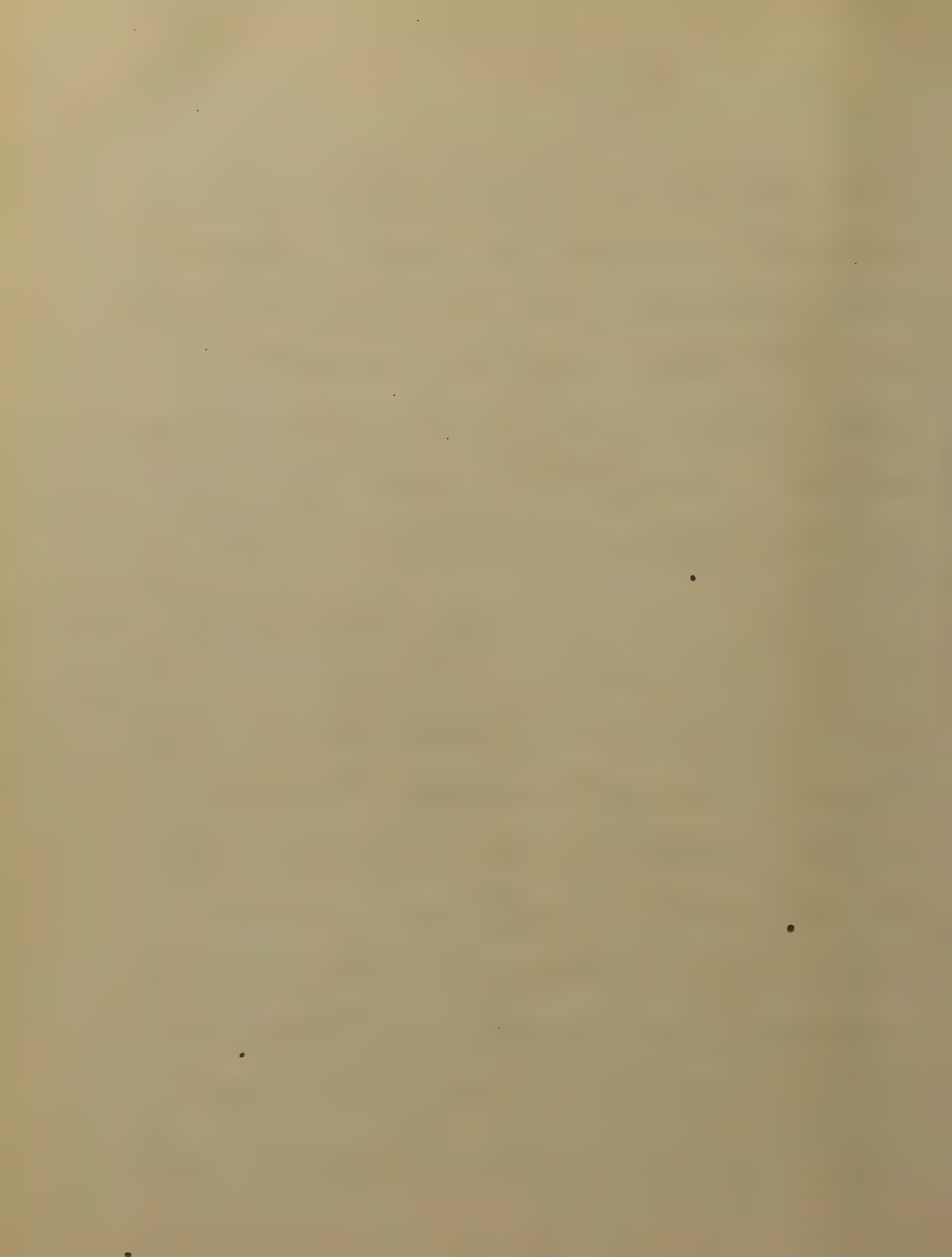
Literature is a powerful agent either for good or evil. If we would

improve the morals, choice literature
must be selected, whether it be
that which realizes the ideal, or
idealizes the real - Obscene books,
or literature written for the express
purpose of intensifying sexual
desires in the young leads to an
elicit gratification of the passions,
and ruins the moral & physical
nature - It not unfrequently
happens that a child is born
with a vigorous mental organism
which gives promise of a
brilliant future, but manhood
finds him incompetent, debil-
itated, and totally incapacitated
for mental or manual labor -

This may be the result of
youthful indiscretion, ignorantly
committed, but not unfrequently
it is the effect of a pernicious
literature which inflames the
imagination, tramples upon
reason, and pictures to the youth
a realm where the passions
are the ruling deities. Many
persons are born into the world
with disordered organizations
for which they are not responsible.
Such are entitled to the sympa-
thy of humanity. Dyspepsia,
Scrofula, consumption, and a
thousand ills to which mankind
is heir, are transmitted from parents,

The results of ill-assorted marriages. Children of healthy parents, who have good constitutionally, temperamentally adapted, are usually healthy and intelligent. Frequently in a family of children, who have the same parents, there are marked varieties of characters. One manifests great precocity, another is below the average in mental attainments; one is amiable, the other irritable in disposition; indeed, there are often as great differences in children of the same, as of different families.

This is due to the physical & mental condition of the parents, more especially the mother, not only at the time of the genesis, but also during the period intervening between conception and the birth of the offspring. We are told that the ancients regarded courage as the principle virtue. By us purity is so esteemed. Personal purity is an essential requisite to the growth and perfection of the character. Purity is inward, secret, self-sufficient, thoroughly & intimately personal, in proportion as one resists temptation, is he virtuous. The practice of onanism



squanders the vitality & bankrupts
the constitution. indigestion, inactivity,
emaciation, shortness of breath,
palpitation, nervous debility are
all symptoms of this exhaustion.
Subsequently, the yellow skin
reveals the bones, the sunken eyes
are surrounded by a leaden
circle, the vivacious imagination
becomes dull, the active mind
grows insipid, in short, the
spring, or vital force, having
lost its tension, every function
wanes in consequence. Excessive lustful
enjoyment produces feebleness, and
finally terminates in disease
and impotency. Masturbation

Perverts the excitability of the nervous system and sexual organs and causes debility, which is indicated by the premature discharge of semen during sexual intercourse. These premature emissions indicate not only partial impotency, but also that the nerve-centers have become morbidly sensitive by the practice of solitary vice, or marital excesses - at length the powers of the erectile tissues are diminished, and there is weakness at the root of the penis when erect, thus preventing the act of copulation.

or the erection may be slow and not last long enough, on account of a faulty functional condition of the spinal chord. This condition is sometimes associated with a morbid irritability of the urethra, which, being inflamed, may become sufficiently constricted to prevent the emission of semen when the penis is erected, causing it to pass back into the bladder. The inflammation may extend downwards to the prostate glands, and cause a discharge of thick,ropy, viscid slime.

Masturbation prevents and finally destroys the secretory

Junctions of the testes It some-
-times causes chronic inflamma-
-tion, which may result in
obliteration of the minute semi-
-nal canals, or obstruction of the
conveying ducts. The sperm is
imperfectly elaborated & totally
unfit for procreative purposes.
Sometimes the spermatazoa
are entirely absent, and, when
present, are very few in number,
incomplete in structure, diseased,
and deficient in power as well
as in organization. The husband
may appear to be healthy, and his
inability to procreate may be
erroneously considered a defect in

his wife - Symptoms: Irritability,
impatience and restlessness, loss
of flesh, pallor, and a timid
downcast look - There is loss
of memory and the intellect
becomes enfeebled, They are depressed
-ed in spirits, easily discouraged,
and prefer solitude - They do not
retain what they learn, the gener-
-al health fails, and the nervous
system shows serious impair-
ment, The symptoms are too sig-
nificant to deceive the experienced
eye - The short, irritable replies of
the boy & his general sensitiveness
and nervousness are indicative
of the loss of nerve power, occasioned

By this bad habit various complications: are likely to arise in the progress of this terrible malady. Tumors, which sometimes degenerate into cancerous disease of the testicles & finally result in death are not uncommon.

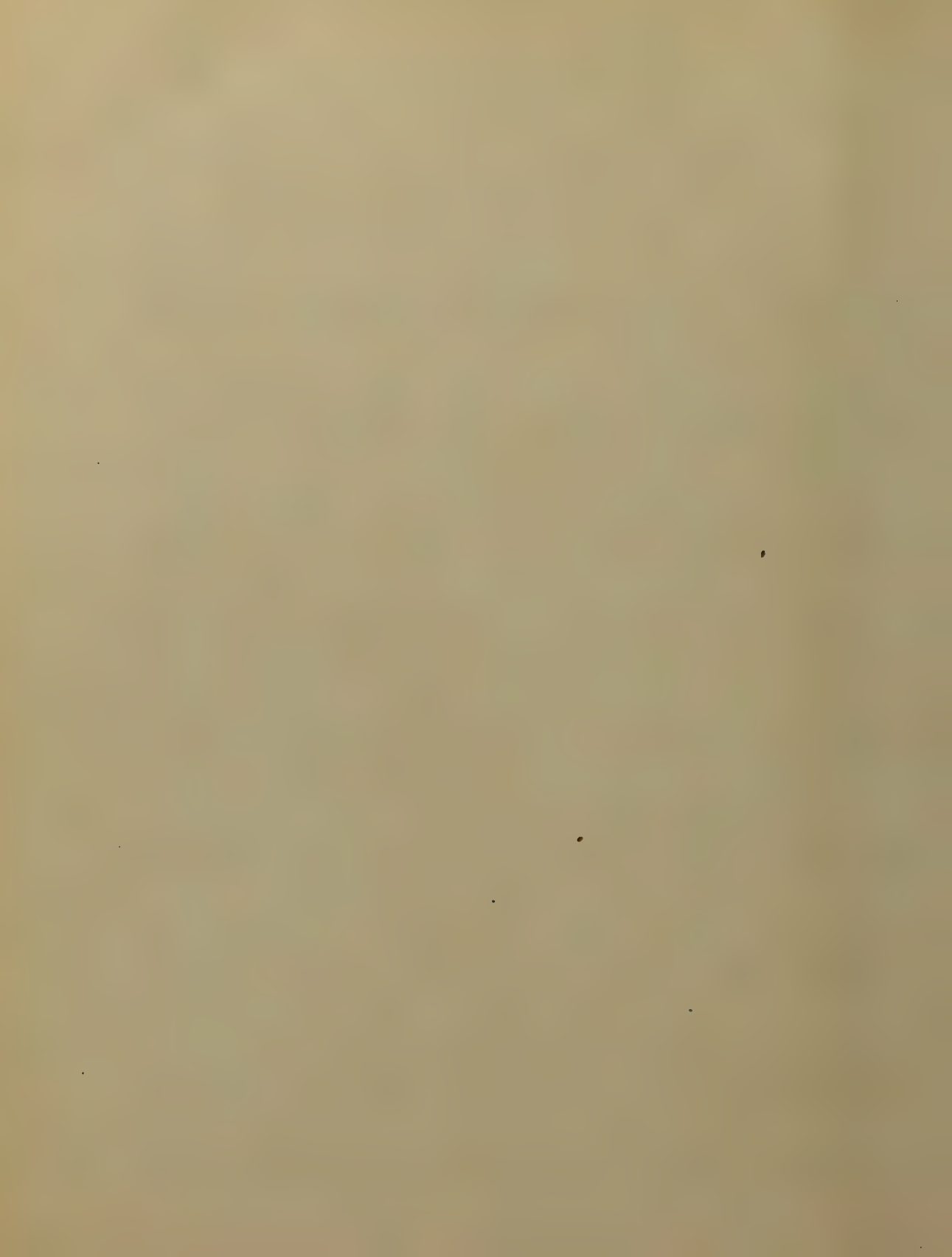
Stricture of the Urethra, Hydrocele, Varicocele, are all common complications. Sequelae, which are of the most consequence are, Spermatorrhoea, Seminal weakness, Nocturnal and Diurnal emissions and frequently act as the cause of spinal affections.

Treatment: The best is prophylactic. The child should be forewarned

by its parents of this destruc-
tive tendency & that such a prac-
tice results in calamities that
will embitter the whole life.
Parents hesitate to talk to their
children, because they fear put-
ting impure ideas into innocent
minds. Their hopes are strong
that their children will never
indulge in so degrading a
practice. If however the habit
has been formed, the first
thing is to see that the child
quits it, for if he or she
continues it, nothing will be
of any avail. Hygienic Treat.
Daily physical exercise and regular

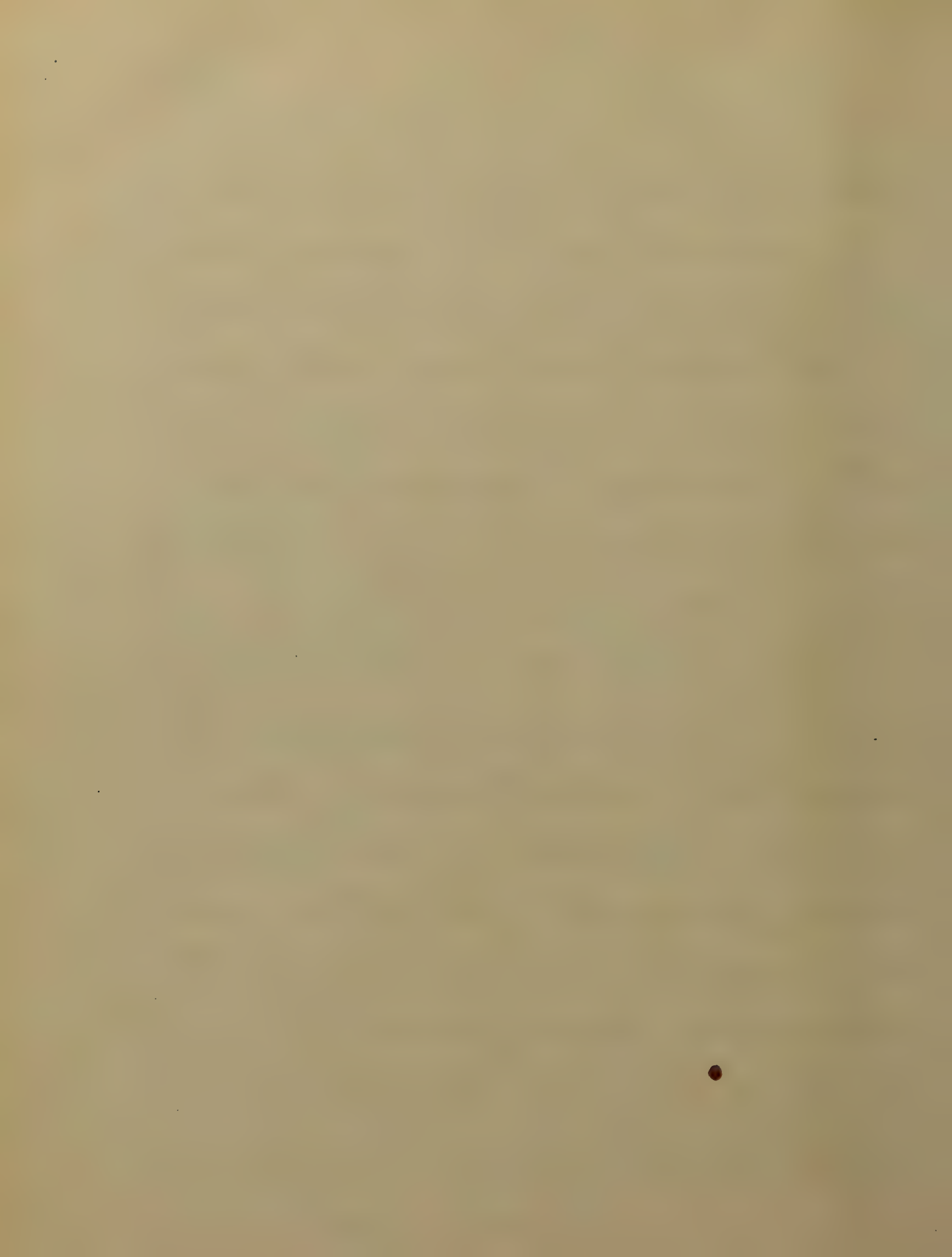
habits must be established. It is important that the mind, as well as the physical powers, be directed into active and wholesome channels, there must be restraint and discipline. It is useless to begin medical treatment while the patient continues to read exciting, amorous stories and obscene books, which are suggestive of evil thoughts. Something practical ought to occupy the thoughts and engage the hands. Regular and vigorous physical exercise is necessary to assist the circulation of the blood and compel its determina-

-tion into the minute and extreme parts of the vascular system - when blood is thus directed, nutrition is more vigorous & the activity of all the functions is augmented - Not only should there be regularity in eating, but sound discretion should be exercised in selecting a plain wholesome diet, consisting of such articles of food as best favor a daily & free evacuation of the bowels. All of fatty, spiced food, stimulating drinks, and tobacco in any form should be excluded. At night the patient should merely take a little



ice milk, and should drink
very sparingly, since fullness
of the bladder is apt to
produce erections. The patient
should sleep upon a hard
mattress & pillow, be lightly
covered, and not assume the
dorsal decubitus; he should not
sleep too long, & must avoid
taking a siesta during the day.
Early rising and cold baths
are very beneficial: after bathing
rub the surface of the body
well with a rough towel
until reaction is established.
Douches, or showering the genital
organs with cold water once

or three a day is very beneficial, but should not be done just before going to bed, it is well to bathe the head in cold water. Horse-back riding, climbing and all exercises which rub, chafe, or excite, the genital organs should be avoided - even the clothing should be loose, so that walking will not produce friction or cause any excitement of these organs. The calls of nature should receive prompt attention, and the urine be voided at any time when there is an inclination. If there be any irritation of the bladder & lower bowels,



injection of cold water into the bowels will be very beneficial, as it will reduce heat and subdue irritation.

Medicinal Treatment:

This must be both local and general. Among the internal remedies or general treatment.

Quinine and Iron are useful in anaemic subjects.

Camphor, lupulinae oleosina (in dose $v-x$ min.) morning and evening. Good effects are also

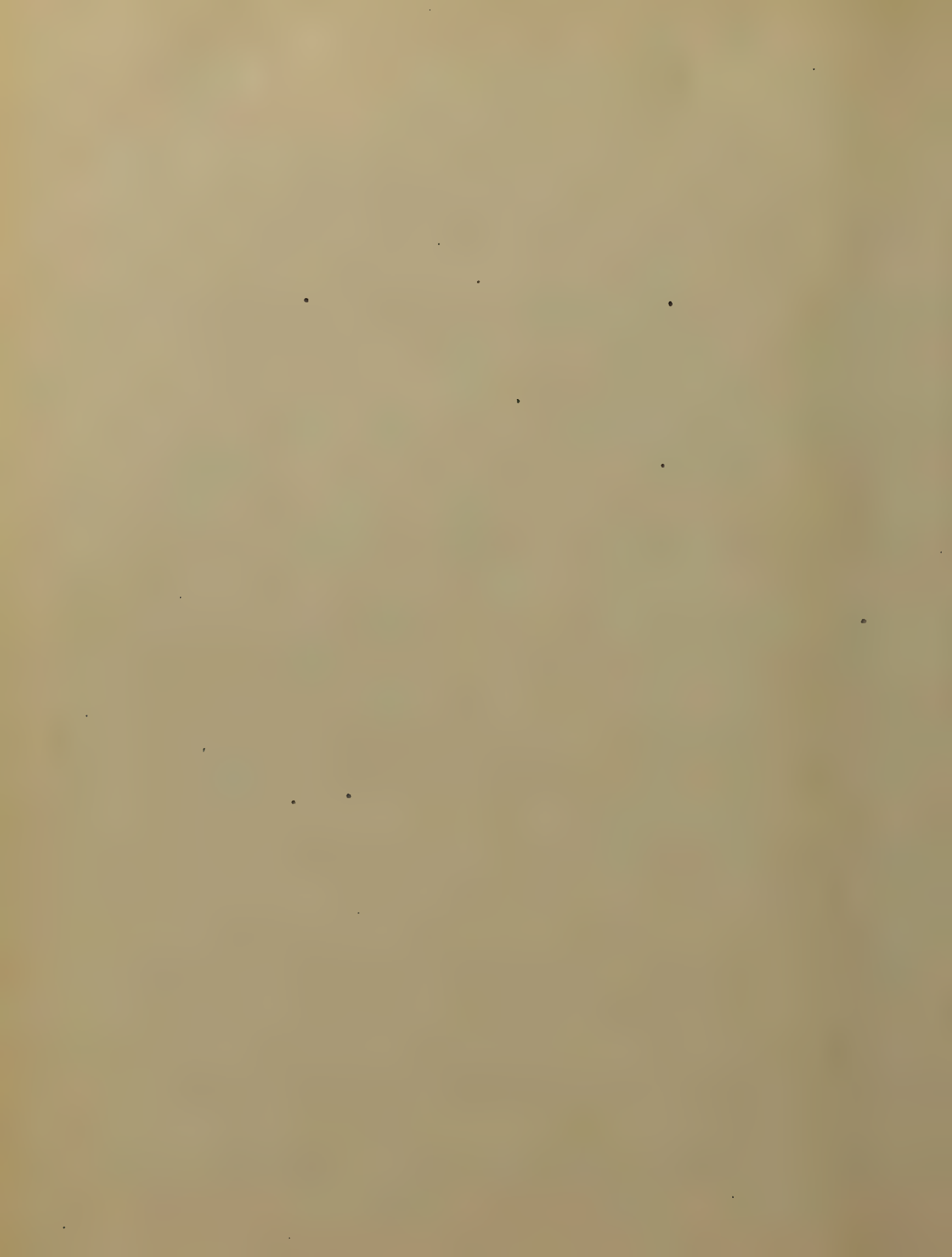
obtained from belladonna (administered in the form of extract, internally or in suppositories) and atropine

(the dose being cautiously in-
creased). Fowler's solution is
an excellent sedative of the
genital functions. It may be
given for a long time, in
5 gtt. doses, before going to bed.
Bromide Potassium stands
at the head of the list of the
remedies for lessening the
sexual power. It acts as a
sedative upon the secretions.
Lallemand recommended
cauterization of the prostatic
portion of the urethra by
means of a stick of nitrate
of silver, concealed in a
catheter two or three cauterizations,

repeated after an interval of
two or three weeks, will
generally suffice - Wittel (L'Espresso)
recommends a less painful
and more certain remedy,
consisting of the introduction
with the caustic holder of a
urethral suppository of butter
of cacao and nitrate of silver,
its position, being determined
by the rectal touch - We may also
resort to the intermittent in-
-troduction of elastic or wax
bougies, coated with belladonna
ointment. The urethral canal
is almost always hyperaes-
-thetic. Painting the prepuce

with Churchill's Iodine
repeatedly will render the
penis too painful for the
patient to handle; and in
this way it will do good.
Employment of electricity
is often resorted to, and with
great good resulting from
its use, the anode of the
battery of moderate strength
is placed upon the lumbar
regions, and the cathode is
applied for three or four
minutes along the spermatic
cord, the perineum, and penis.
Too prolonged or frequent
sittings are injurious.

In women who indulge in
the deplorable habit of
delectation or self-abuse,
There is only one thing that
will produce a rational cure
and that is excision of the
clitoris, (and all surgeons
recommmend it). The treatment
of this disorder is rather in
the direction of moral means,
keeping the patient somewhat
under restraint; and medical,
such as the internal use
of bromide pot. Then the clitoris
may be touched with caustic
or cantharides, or I^{r} . Sodine so
as to render it too painful



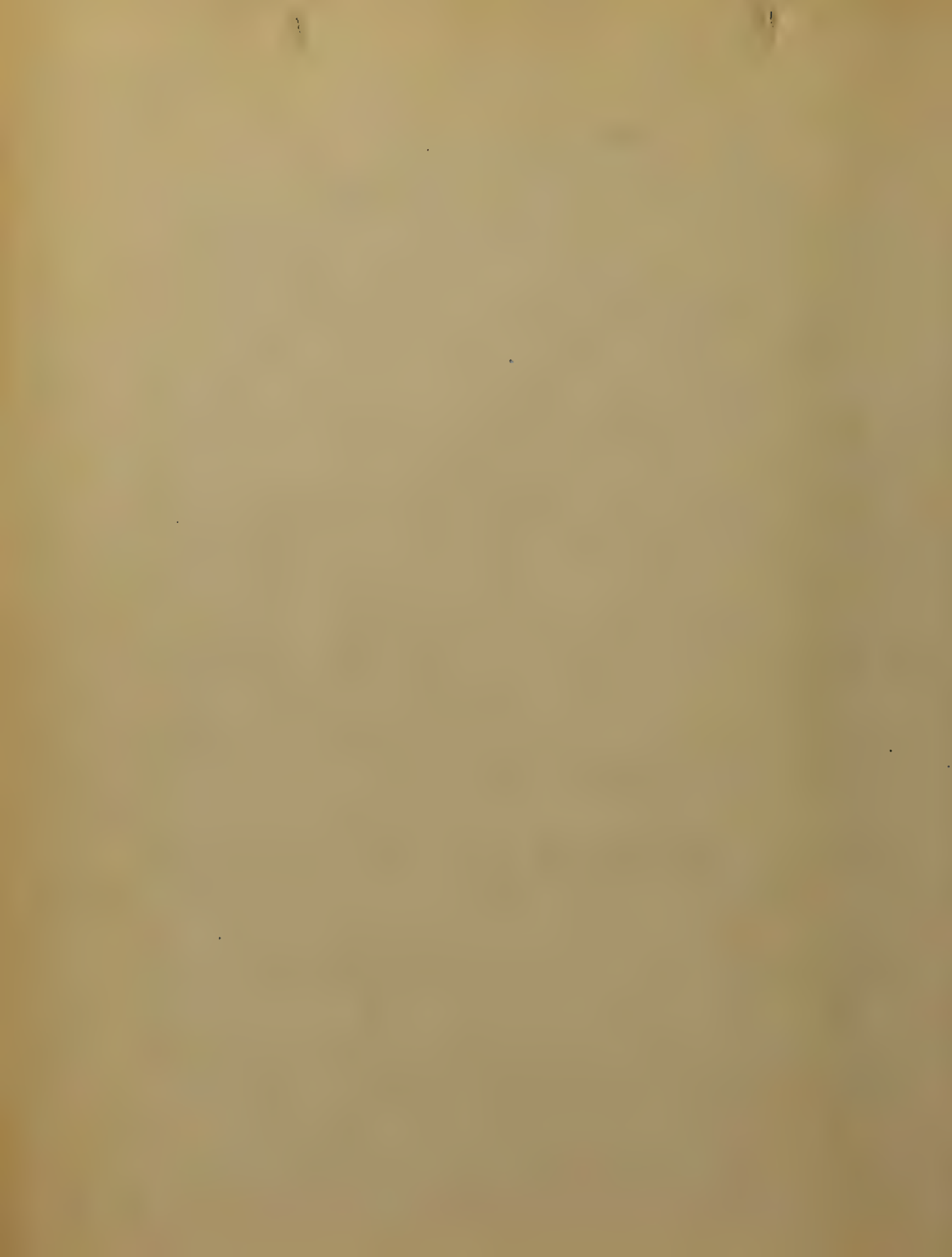
For the patient to handle

E. J. Corbell.

"Carcinoma" or "Cancer"

Carcinoma is a malignant epithelial growth, having a definite anatomical structure, therefore every tumor that possesses the organs of malignancy, must not be called cancer simply from its malignancy.

Cancers according to the older writers, were divided into Scirrhus, Colloid, and Amphiboid, each of which contained as its structural elements fibers, fluid, and cells. The fibers are made up partly from primitive and partly from newly formed tissues, and made up of fine granules, in which the cancerous cells lie, and these are called



the Struma. The fluid is undiluted
 serum. The cells are larger than
 white blood corpuscles and should
 not be confounded with them,
 even though the older authorities
 supposed that cancer always de-
 veloped from a morbid growth
 in the suprarenal white blood
 corpuscles. The division of Cancer
 into Scirrhous, Colloid and Glandular
 and must be regarded as a dif-
 ference of degree and not of kind
 since they all contain the same anatomi-
 cal elements but in different pro-
 portions. Scirrhous is composed
 mainly of a fibrous tissue with
 little fluid and comparatively few
 cells. There is the reverse in the

leucine, and this hardness is due to the connective tissue element that preponderates in this one than in the other varieties.

Encephaloid is the highest development of carcinomatous formations, it consists of an abundance of abnormal multiform cells and a peculiar fluid.

Encephaloid is one of the kinds of soft cancer, grows more rapidly and is more apt to show evidence of degeneration than the other varieties; occurs in any part where cancer may develop.

The softness of this variety is due to the small amount of stroma and the excess of cancer cells.

These cells are usually smaller than
 in the other kinds of cancer.

They vary in size and growth
 than the others and its malignancy
 depends upon the size
 and smallness of the cancer cells
 of which it is composed.

Colloid cancer has a variable amount
 of fibrous tissue arranged
 as a matrix, containing a jelly like
 substance, cells are also found in
 it but in a less proportion.
 It may simply be regarded as one
 of the other varieties which have
 undergone colloid or connective tissue
 have a secondary growth, it is less
 acute and not so malignant as the
 other varieties, but may be regarded

as an effort on the part of nature to return to the normal. Another division of leucosarcoma has been into sarcoma and epithelial cancer. A common referring to affections of the pleura and such lymphatic systems and embracing the three varieties already mentioned. While epithelioma is a general term, epithelial cancer is developed on the skin or these parts covered with mucous membranes to favour place as at the junction of the duct and is produced by a process, known as the tissue of the epithelial cells. Owing to the small amount of stroma, which they are some-

times even destitute of they are more malignant than the other varieties.

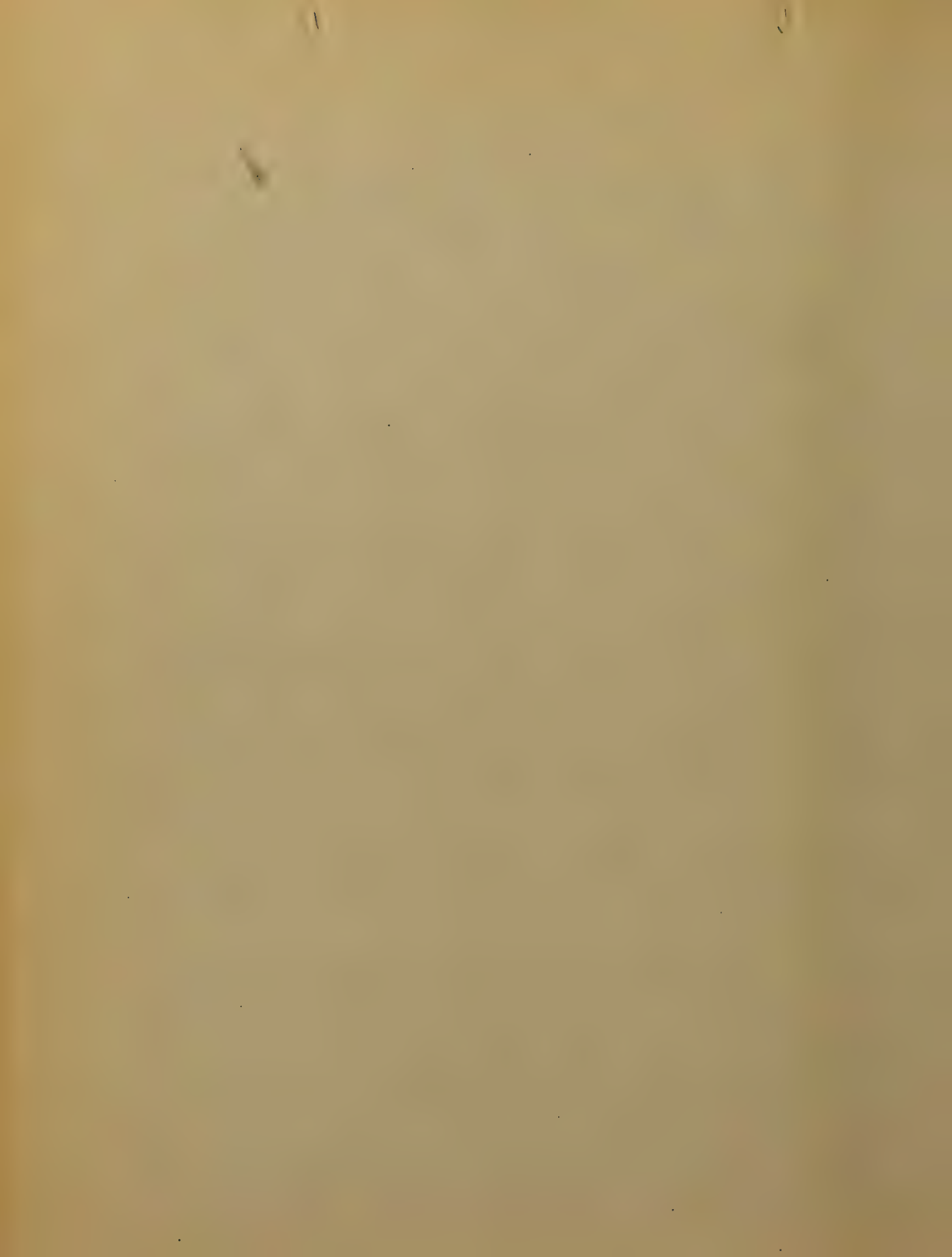
Flint believes that carcinoma is family local in its origin and is not preceded by any dysplasia, the carcinoma arising following the development of the primary and secondary growths.

The cells of carcinoma resemble gland cells but are larger, they are said to be distorted and are homologous with other cells found in the body, yet they are of such form as do not normally belong to the part, being produced by morbid alterations of its normal elements. The difference in shape that is

found in cancer cells is mainly due to the mutual pressure that they are being crowded together and their development is dependent upon each other. Hence we find them in almost any form, and each having its own and peculiar. These cells are crowded together abnormally in the substance of an imperfectly and irregularly distributed connective tissue.

Classen expressed it as his opinion that cancers in general always originate in a morbid development of migrated white corpuscles, but this has not been substantiated by later Pathologists and that which occurs

to be pretty generally agreed upon
 in that these granules are due
 to a modification in the cells
 multiplication of ordinary epi-
 thelium, but whether they further
 form formally excited or epi-
 thelium or was developed from
 cells belonging to the connective
 tissue is a question still sub-
 ject to dispute. Causes of the uterine and
 testis might at first glance seem
 to contradict this theory of the
 Epithelial origin of the ~~in~~ these
 parts ~~but when we consider~~
 since they are developed from the
 mesoblast, but when we con-
 sider that the uterine and some
 of vessels are lined with Epithe-



since we still see that the
 theory holds good.
 Primary carcinoma of those parts
 destitute of epithelium is ac-
 counted for by the supposition
 of this theory in this way,
 namely, that some Epithelial
 rudiment in foetal life has
 been ripped off and enclosed
 in the mesoblastic develop-
 ment and here it remains until
 some lesion or over nourishment
 to the part causes an increase
 in the cells of this rudiment,
 and, they breaking down the bar-
 rier or restraint and growing in the
 direction of least resistance set
 up inflammation and pro-

rise to cancer. Growing in this way the carcinomata soon become encapsuled, but infiltrate the surrounding tissue and no line of demarcation being formed, since the great difficulty in dealing with this kind of malignant growth. Granting this theory to be correct the infiltration must be due to the crowding together of the cells, and that every thing must give way before the neoplasm.

In this way a wart may become carcinomatous

Within the stroma are contained the blood vessels which are often very numerous and form a close

network around the alveoli, these blood vessels never pass into the epithelial masses but are limited to the stroma. This distribution of the blood vessels is important as distinguishing carcinoma from sarcoma, though there are some varieties of sarcoma which are exceptions to the rule. The changes that take place during carcinomatous growths are numerous, among them may be mentioned, fatty degeneration, calcareous deposits, and formation of scar tissue. Fatty degeneration is one of the most common changes in carcinoma and this change takes place principally along the edge

of the tumor, hence the more
rapid the growth the greater the
degeneration. The calcareous deposits
are made in the stroma.

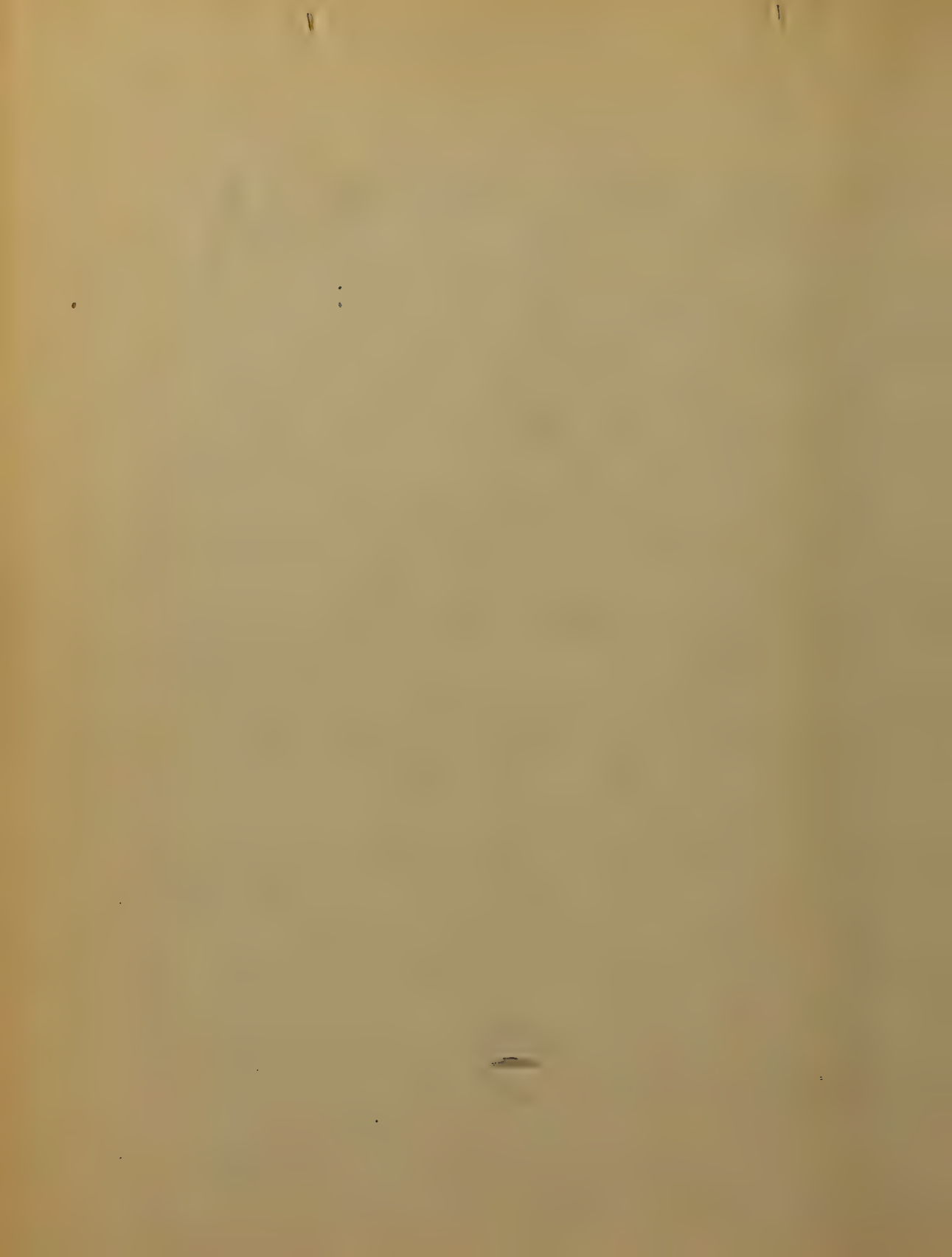
We often have scar formation in
one part of the tumor and the
disease goes on unchecked in another.

The natural tendency of the
disease is to extension by
means of the Lymphatics
and to enormous and un-
healthy formations, which
unless it and the glands involv-
ed be removed must sooner or
later prove fatal by the extension
of the disease to some vital
part, or by making such a de-
mand upon the patient's system

that her vital powers gradually
 fade away and he dies from
 exhaustion. Through the natural
 tendency of the disease is to ex-
 tension by means of the lymphatics
 i.e., still in the uninfected va-
 rity fatty degeneration may take place
 to such an extent as to destroy the
 connective tissue enveloping the blood
 vessels and the vessels themselves
 becoming morbid offer little or no
 resistance to the cancerous infil-
 tration, and the morbid cells be-
 coming detached get into the cir-
 culation. Getting into the blood
 they are carried along by them
 till they meet with some ob-
 struction to their onward pro-

sage and these underlying cell multiplication they set up the disease again.

One of the great difficulties in dealing with carcinoma is being able to recognize all the tissues involved in the recurrent process and again having recognized them not being able to remove them. Hence after the removal of the growth we are liable to have the disease showing itself in some other part of the body generally in the neighborhood of some gland. At best a favorable termination can only be hoped for. It is often difficult to differentiate carcinoma from



Lacerina until some of the nod-
ded growth has been examined
microscopically and by an ex-
perienced physician. Those who
are accustomed to operate for
the removal of such growths
will often differ in diagnosis
by mere inspection and palpation.
One case that I have in mind
was brought into the clinic at the
hospital and the surgeon in
charge of the clinic expressed the
opinion that it was a carcinoma
from its general appearance, being
excavated and crater-like and not
bleeding, and from the edges of
the growth projecting out over the
skin, though stating that the same

time that being unable to detect
 any glands involved might lead
 to the opinion that the growth
 was Sarcomatous. The surgeon
 who operated for the removal
 of the growth called it Sarcoma
 because when operating he was
 unable to find any enlarged
 glands; the microscope however
 showed the growth to be Sarcoma.
 As a general rule Sarcomata are
 attended with little or no
 pain, but if there is pain
 it depends upon the extension
 of the disease to tissues well
 supplied with nerves

Though Flint does state that
 the origin of Cancer is purely

17
local, yet we certainly recognize
^{in many cases} an hereditary predisposition to
it and this would lead to the
conclusion that in these cases
at least it was constitutional
in origin. It is even stated
by some authorities that a can-
crous cachexia is recognized in
many cases, even before the de-
velopment of the primary or
secondary growths, and that its
most obvious sign is a sallow-
ness of the skin.

As regards the local origin of can-
cer, scar tissue is a favorite place
for its development and in the
majority of such cases we can
obtain no family history of cancer,

and the patient otherwise appar-
ently in the best of health, in
such cases surely the disease is
local in origin.

Carcinoma is much more frequent
ly found in Women than in
men, and in the Whites much
more frequently than in any
other race.

Cancer usually develops after
40 years of age but may occur
at any age, as cancer of the kidney
which is more frequently found
in the young and especially in
boys before the age of puberty.

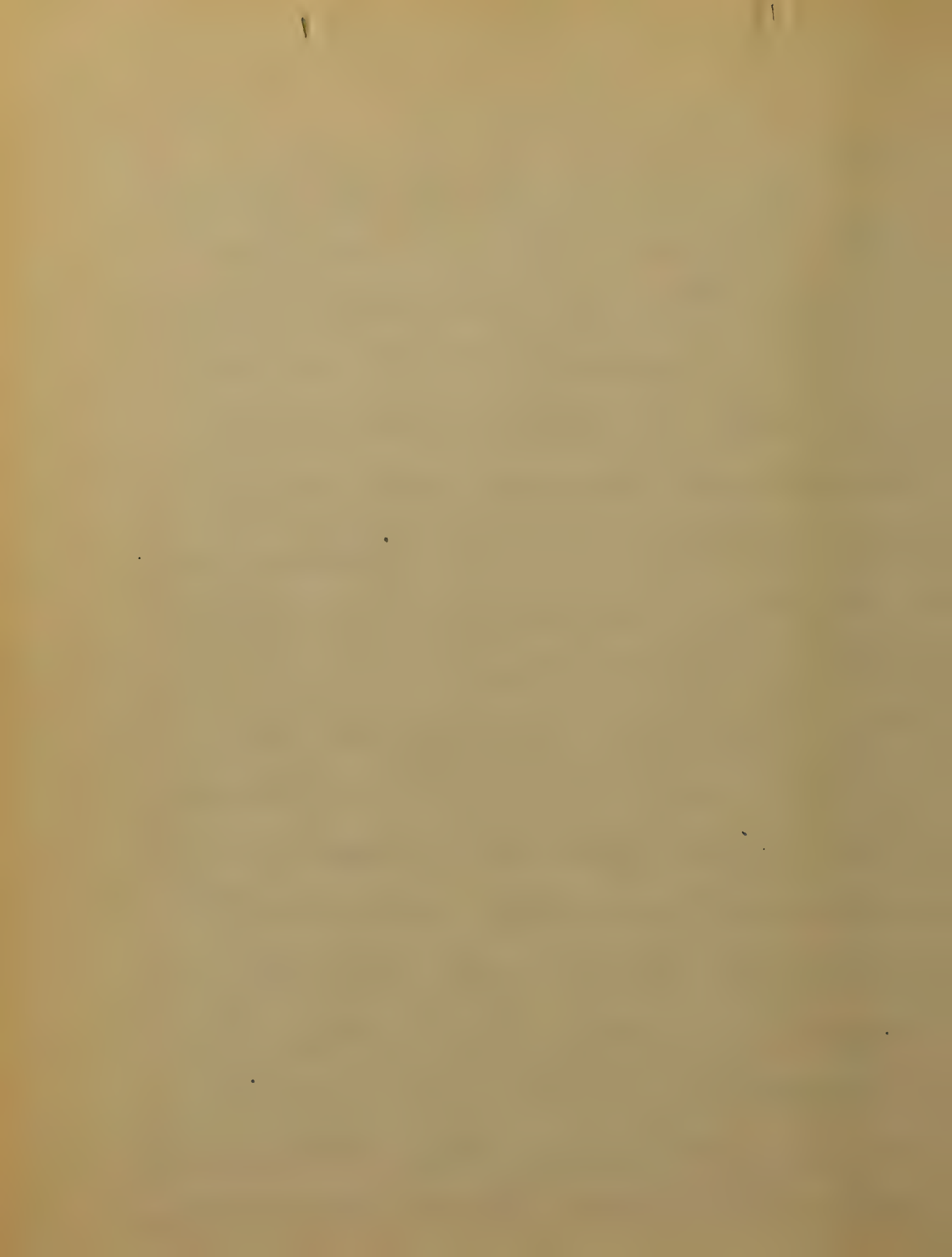
The choice of its different parts
seems to be as about the fol-
lowing order, viz, Uterus, Mammary,

Stomach, Rectum, Lymphatic Glands,
Liver, Bones, Skin, Brain, Eye,
Testicle, Ovary, Tongue, Oesophagus.

A large majority of the cases
of cancer of the uterus are
found in women who have
born children, hence supposed
to be due to injuries sustained
during parturition.

Cancer of the mammae is more
in women who have born children.

I have seen quite a number of
malignant growths about the
mammae and with but two
exceptions they have been car-
cinomatous; these two were
sarcomatous and the other doubt-
ful. All that I have seen open



ated. for have been of the Scirrhus variety, and this is the kind that most often comes under the notice of the general practitioner.

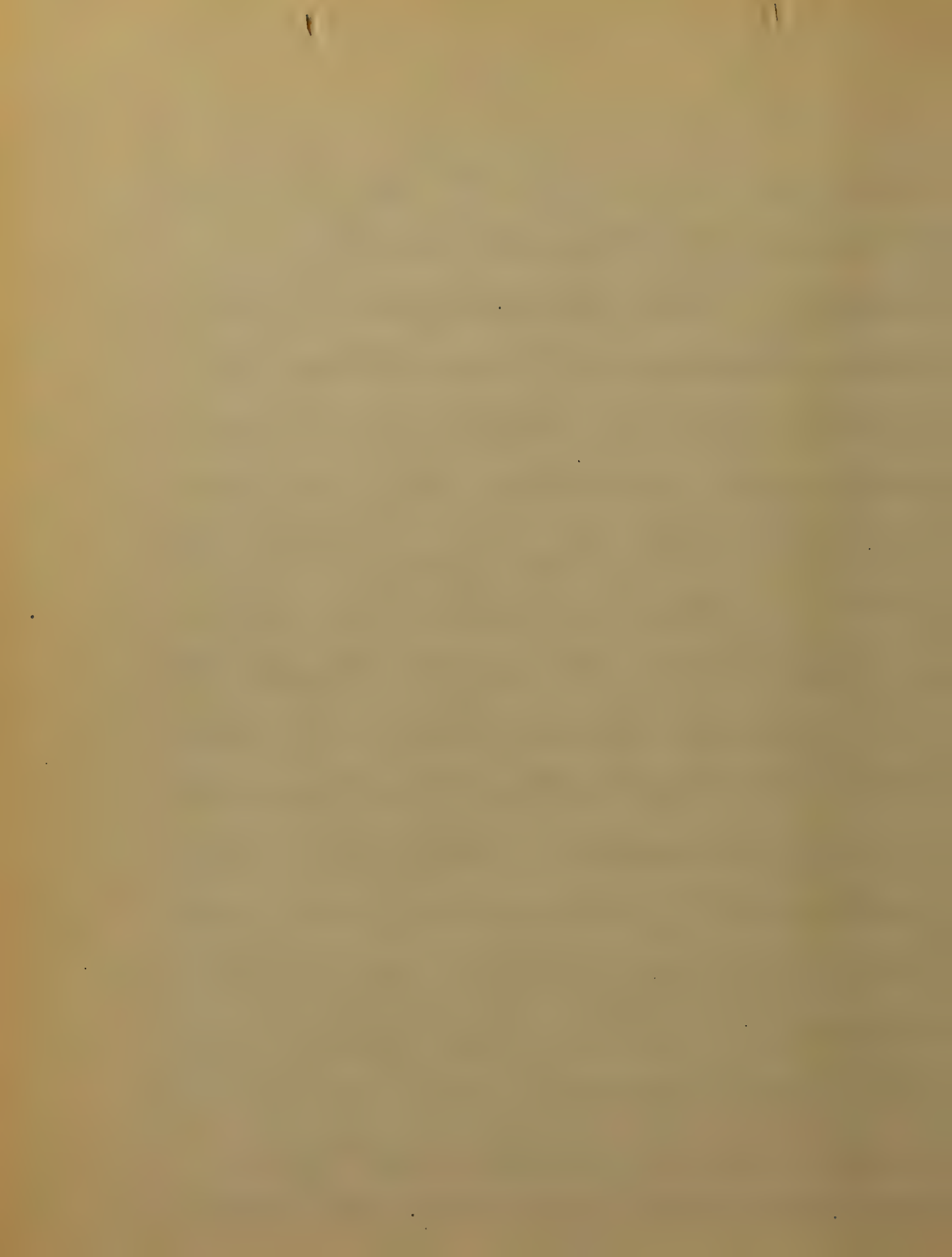
Scirrhus cancer seems to prefer especially the Mammae, Stomach, and Intestines; Colloid, the Stomach, Rectum, and Peritoneum, while Encephaloid may occur in any organ, it alone attacks the Liver, Kidney, Lung, Testicle, Eye, and Lymphatic Glands.

Carcinoma of the liver is always fatal and usually runs its course in a short time. Cancer of the internal organs is largely due to scars from Syphilitic lesions.



Each sex seems to be alike liable to cancer of the Stomach.

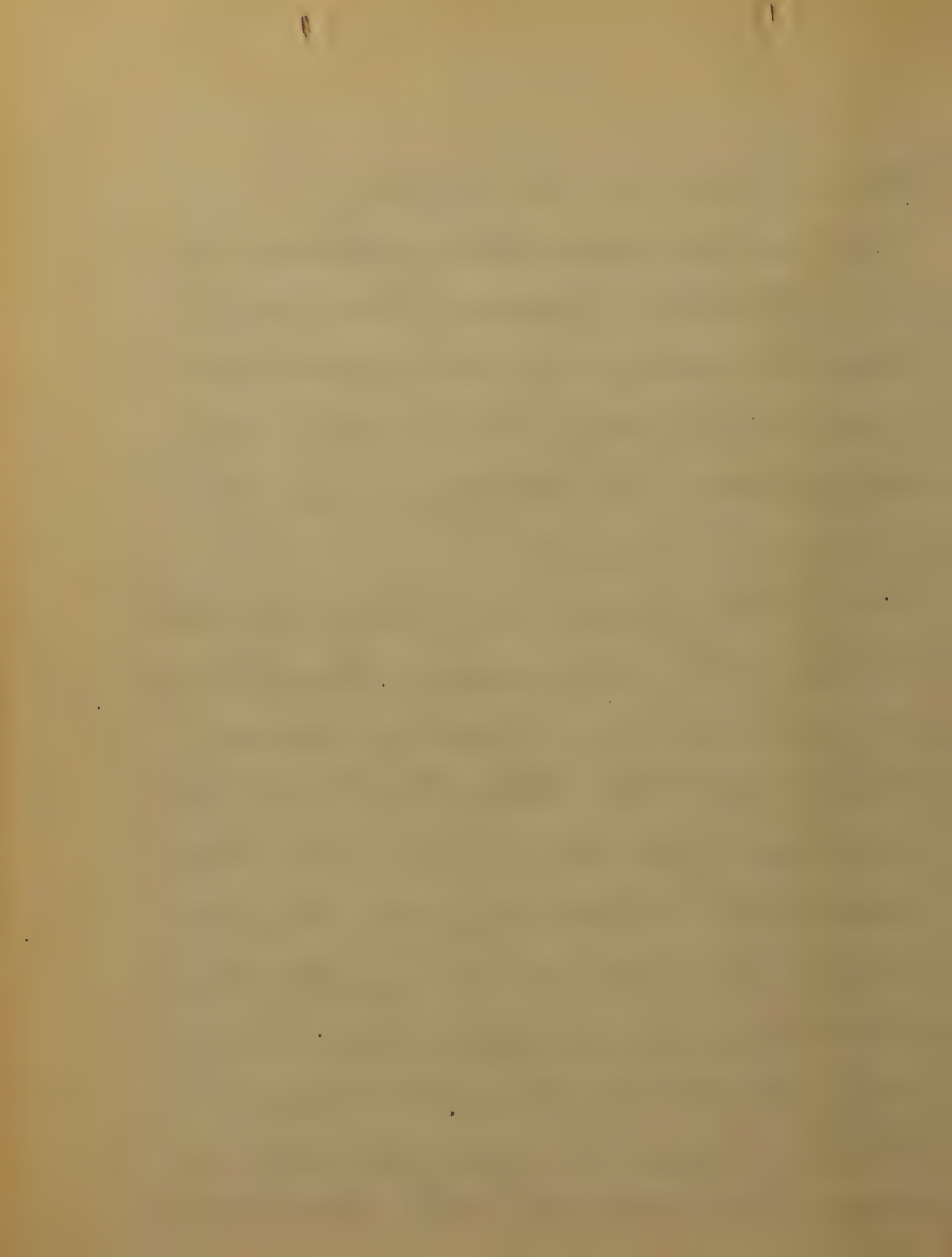
Cancer of the Oesophagus is much more common in men than in women, though it occurs at an earlier age in women than it does in men. The frequency of the affection in this situation in men is supposed to be due largely to the irritating drinks taken by them, which being swallowed by them set up inflammation and this being followed by ulceration we will have a scar formed and the disease will be developed in the scar tissue again in scar due to chancre of the Oesophagus, chancre being also more common in



Men than in women.

Carcinoma may disappear by spontaneous degeneration, but this however is very seldom seen. When once it makes its appearance the tendency is to become worse.

The only hope we have for cure is in the surgeon's knife and even it in very many cases fails; yet even though it may fail as far as a cure is concerned, still it may give the sufferer a period of immunity from the disease in which he or she may be in comparative comfort. Thus, Mrs. — aged about 60 was brought into the Monday



Clinic for reamputation of the
breast for Scirrhus Carcinoma.
Three years previous to this time
she had had the same breast
operated on for the same trou-
ble, at that time she was suf-
fering intensely with pain in
her breast, after the operation
she went for nearly three years
suffering no inconvenience
whatever. Other cases of this
kind might be cited but as
a rule the operation for cancer
should not be attempted un-
less there are hopes for the
patient's ultimate recovery.
The time for operating is as
soon as the growth is recognized



and the patient's system at large is in proper condition, as however these growths that are within reach of the knife ^{generally} make their appearance in those who are otherwise in good health the time for operating ~~for~~ on them is as soon as they are recognized. In general however if the neighboring glands are found to be very much involved an operation is hardly to be thought of.

In operating the surgeon should not be too sparing of tissue as they may be involved beyond what he can appreciate by merely feeling them.



For the relief of pain poultices and hot applications are not to be thought of as they tend very materially to hasten the progress of the disease. Belladonna or Opium plasters however give marked relief.

Caustics have in some cases where the knife could not be used done good, but they are to be regarded as secondary to the knife, and they do not seem to have met with much favor. The local treatment may be regarded as removal, and the general as addressed to the system at large, good food, fresh air, cheerful society, Tonics &c.

When it is not proper to operate
then the patient should have
the same constitutional treat-
ment, and anodynes for the
relief of pain, locally the Opium
or Belladonna plaster, and a
plenty of raw cotton for pro-
tection, remove as far as prac-
ticable all sources for irritation,
and render the patient as comforta-
ble as possible

Edward Smith
New York
1860.

Edward A. ...

...

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Rheumatism

L. M. Burchinal
1886

Acute Articular Rheumatism,

The term rheumatism is derived from the Greek word, "rheuma" which literally means "to flow." Ordinarily employed, "It is a broad, general term that includes many affections and covers much ignorance."

Properly defined, as a specific inflammation affecting the fibrous structures of the larger joints, and other fibrous structures of the body with a peculiar tendency to involve the heart. Locally manifested by heat, redness, pain and swelling in the affected joints.

It is accompanied by intense pyrexia, and constitutional disturbance. The Acute form very rarely becomes

Chronic. It is a systemic disease and is self-limited.

Morbid Anatomy. Death rarely affords us the opportunity of making an examination of the affected parts - the joints.

It is said, that, when symptoms are well marked in life, but little change is noticed after death.

But by inference, we believe there is thickening of the synovial membrane from the hyperaemia and serous infiltration.

The synovia is increased, more or less turbid mixed with pus-cells.

There is an excess of fibrin-factors in the blood, as shown by tests.

Instead of having three or four parts of fibrin to the thousand parts of blood, as in health, it is increased to eight, or ten parts to the thousand. This increase of fibrin-elements passing through the heart has a tendency to deposit some of it on and around the valves of the left heart. As the valves are in a state of inflammation - being fibrous in their nature. These deposits are found on post-mortem as vegetations which are agents of a very serious nature in many cases.

Why it is that the left side of the heart is alone affected by these deposits of fibrin, is not known.

Clinical History.

The attack may come on gradually, after some days of indisposition. But this is not the rule, rather the exception. In most cases the onset is sudden and at night.

Chilly sensations or a distinct chill with high fever which in many cases precedes the attack for some time. The temperature may be out of proportion to the severity of the other attendant symptoms.

It usually ranges about 103.5°F . The pulse is full and bounding, but rarely exceeds ninety beats per minute in an uncomplicated case.

The disease is now locally manifested by intense pain in one or more of the larger joints.

Usually the knee, ankle, wrist, elbow, or metacarpophalangeal joints are first attacked.

There is increased heat and redness in the part. It is swollen sometimes extremely so.

The affected joints are very sensitive the weight of bed clothes causing pain, and patient will keep one position for hours in order to avoid pain which results from motion.

The swelling is due to an increased amount of synovial fluid and effusion into the structures around

the joints. It is most prominent in those not covered by muscles, as the knee, elbow, wrist etc.

One striking peculiarity of articular rheumatism is its tendency to leave one joint and attack another. It will leave one part suddenly and attack the part corresponding on the other side of the body. Sometimes parallel joints are affected - hence known as the "rheumatic law of parallelism". If the attack suddenly leaves a knee we may expect the other knee to take on inflammation in a short time, or it may go to the elbow, a joint similar to the knee.

This law is almost invariable.
In an analysis of 21 cases which
presented 18 instances, there was but
a single exception to this rule, as
reported by Dr Austin Flint.

The tongue is frosted, but is cov-
ered with a thick creamy coat-
ing, more or less brown.

This coating is almost character-
istic and lasts throughout the dis-
ease. The thirst is increased, and
appetite greatly impaired, or en-
tirely lost.

Pain in the head and delirium
are not common, and when
present denote some central
complication.

Sweating is a peculiar feature of this disease, and lasts during the whole course of the affection.

It has a sour disagreeable odor, and is most abundant at night. The sweating differs from that of many other diseases, in that it does not alleviate the suffering in the least.

The patient feels as badly after as before it had occurred.

Sudamina may occur on the neck and trunk, produced by the moisture. The urine is scanty and high colored, and deposits urates on cooling.

Owing to an increase of the

pigment the deposit of urates is of a "brick dust" color.

The saliva becomes acid.

Sleeplessness is a source of discomfort and more or less prostration from the pain and frequent perspirations.

The bowels are usually constipated. In general, the strength is well preserved. Anaemia is produced early in the disease, as indicated by the sallow skin, and the blood murmur heard with the systole of the heart and with greatest intensity over the 2nd intercostal space on the right side of the sternum. In other words, at the base of the heart.

The anaemia is due to the peculiar poison circulating in the blood.

Ultimately, the most important feature of this disease is, the liability of the fibrous structures of the heart to take on inflammation.

The inflammation is usually limited to the Endocardium and Pericardium of the left side.

Endocarditis is the more frequent.

It occurs in about 20 per cent, and Pericarditis in about 14 per cent, (of each one hundred) attacked by acute articular rheumatism.

The immediate effects of the heart complications are not serious, but after some years they often

cause most disastrous consequences. Endocarditis is the one, most to be dreaded.

The general symptoms disappear gradually, but there is a sense of uneasiness in the joints with neuralgic pains for some time afterward.

The effusion is slowly absorbed, but the ligaments seem to be softened and the motion of the joint is interfered with for some time. It is usually only temporary, and soon the function of the part is fully restored. This impairment is a result of the inflammation.

Etiology.

The causes are predisposing and exciting. A distinct heredity can be traced in about 30 per cent.

It may be congenital, inherited or acquired. Be this as it may, the rheumatic diathesis is present. Age is a predisposing cause, as it rarely occurs before five or after forty years. If it occurs after the latter period - it is not a primary attack.

This disease occurs usually between fifteen and thirty years of age. It may attack persons much earlier. Prof Chew relates a case - a little child who died

from it at the age of eight mo's.,
As to sex - males are more liable
as their avocations necessitate more
exposure than that of females.

Again, it is most apt to attack
the weak, and broken-down - who
live in dark damp and ill-ven-
tilated houses.

Exciting causes are cold and
damp. These act by checking
the secretions of the skin, thereby
retaining the peculiar and sub-
-tle poison, which "lights up"
the attack, as cold does a pneu-
-monia.

The proximate cause however
is undoubtedly the specific

poison circulating in the blood.
This poison is almost universally
believed to be a form of lac-
tic acid. This has been shown
clinically, in the production of
acute rheumatism, in the ad-
ministration of lactic acid to
Diabetic patients.

The acid is partly generated in the
muscular elements of the body,
hence it is called *sarcolactic acid*.
It is in combination with the
acid phosphate of potassium.
Experimentally, the presence of this
acid has not ^{been} demonstrated, but
in the therapeutic management of
the disease, based on the presence

of an acid in the blood is more effectual than any other method known at present."

Diagnosis.

A typical case cannot be mistaken for anything else, however it may be confounded with either of the following affections, viz: Gout, Pyaemia, Hysterical Joint Pain, Simple Synovitis, or Gonorrhoeal Rheumatism.

To distinguish from Gout.

The essential cause of both depend on an acid in the blood.

In Gout it is uric acid while in Rheumatism it is lactic acid.

Gout is a disease of advanced life

and is excited, and brought on
by luxurious living and especially
drinking malt liquors.

Rheumatism is a disease of early
life, and influenced by cold and the
vicissitudes of weather.

It involves the larger joints.

Gout the smaller, usually confined
to the metatarso-phalangeal joint
of the great toe.

Lastly, there is the absence of the
profuse sweats in gout, and
is usually confirmed by a
gouty history.

Pyæmia, - is usually confined
to one joint, characterized by
 hectic great prostration, irregular

sweats and the joint tends to sup-
purate. This order of things is
reversed in acute rheumatism.
The history should never allow any
one to mistake these diseases.

Hysterical joint pain - is differen-
tiated by absence of pyrexia,
also of heat, redness and swelling
in the part. Pain is only appa-
rated on examination and where
patient's mind is directed to it.

Acute Arthritis (Simple Synovitis)

When confined to one joint is fixed
throughout the disease, has slight
fever, no sweats nor heart complica-
tions, and recovery is more slow
than in rheumatism.

Gonorrhoeal Rheumatism is excluded by the absence of fever, and the attendant gleet, urethral discharge which is the exciting cause.

Complications, and Duration:

The most common complications are: Endocarditis Pericarditis Bronchitis Pneumonitis Pleuritis and Central Endarteritis.

The duration is governed entirely by the presence, or absence of complications. Uncomplicated cases recover in from ten to twenty days, however it may be prolonged five or six weeks.

Cases recover within six weeks, on an average, without treatment.

Prognosis.

Recovery is the rule, the mortality being only about 3 per cent.

When death does occur it depends upon the hyperpyrexia, cardiac complications or cerebral endarteritis.

Treatment.

As most every other disease, acute rheumatism has undergone a revolution in the way of treatment within the last half century.

Bloodletting, blistering, mercury to salivation and colchicum to the extent of producing vomiting and purging, etc., etc., have all fallen into disuse, as more effectual methods are known.

Hygienic regulations are very essential. The room should be kept warm and at an equal temperature all the time.

Avoid all draughts of cold air and it is very necessary that the parts affected should be kept covered with flannel, or cotton wool over which is spread oiled silk.

Rheumatic subjects should wear flannel the year round.

The texture of the goods must be varied as the seasons indicate.

Rest in bed is imperative, and all sheets should be taken off and supplanted by blankets.

The diet must be simple and easy.

of digestion, milk being the best.
Since it is believed the prime
cause is dependent upon an acid
in the blood, we would very nat-
urally try to remove the cause
in order to cure the disease.

Now the chemical antagonists
of acids are alkalis.

And we do not look to these in
vain - for it is a well establish-
ed fact that the alkali not only
antagonizes the acid - but cures
the disease.

The alkaline treatment was first
systematically employed in this
disease by Dr. Wright in 1842, and
on a larger scale by Drs. Garrod & Fuller.

Barrod reports fifty cases treated
this way which showed an aver-
-age duration of only six or seven days.
In no case was any heart com-
-plication developed after the patient
had been under treatment 24 hours.
By these statistics and thousands
of others which might be enumer-
-ated, it is beyond doubt that the
alkalies lessen heart complication.
Can as much be said of any other
remedy which has up to this time
been used in this dreaded disease?
It can not be said of the so styled
"specific" of narrow-minded men
the salicylates. Salicin and its
compounds (rather) tend to - rather

than prevent heart complications.

The influence of Salicylic acid and salicylates on acute rheumatism was communicated to the Medical World by Dr. MacLagan in 1876.

Salicylic ^{acid} has much utility in its place to diminish the pyrexia and lessen pain for its anæsthetic properties are undoubted.

It is apt however to produce gastric disturbances if continued any length of time, and last, but not least, it does not prevent the dreaded inflammation about the valves of the heart.

Hence, from a logical standpoint it would seem that better results

would be obtained by combining
the two great rival remedies of
the alkalis and calciculates.

The bicarbonate of potassium bicar-
bonate of sodium, and lithium
are the alkalis principally used.
It is necessary to give the alkali
in large doses and bring the sys-
tem speedily under its influence.
Commence with bicarbonate of
potassa gr. xxv-xxx and repeat at
intervals of three hours until the
urine is alkaline. When the urine
is decidedly alkaline, the dose
may be diminished, or the interval
of administration prolonged.
But the urine should be tested

from day to day, and when it be-
comes acid - increase the dose of
the alkali.

For the pyrexia give the Salicylate
of Soda. As it is a less nauseous salt
℞. XX - XXV. three times a day, or
often if required but it must
be discontinued after two or three
days at most, as it is a great
cardiac and respiratory depressant
and weakens the patient rapidly.
The salicylate can be given in
large doses for the alleviation of
pain as well as the antipyretic
effect. It is always well to
combine the alkali with qui-
nine in doses of ℞. V - VII every

Three hours. Better to give it interme-
diate the time of giving the alkali.
which would make the intervals
between giving the quinine and the
potash one and one half hours.

Keep the patient on the alkali for
some days or even weeks after the
acute symptoms have subsided.

For the acute pain hypodermic of
morphine. Begin with a small
dose as will relieve the suffering.
Secure sleep by chloral hydrate
if the patient is full and strong.
Otherwise use an opiate.

Quinine and salicylates for the
hyperpyrexia. Do not use the cold
bath as it is dangerous.

When delirium, coma and convulsions are present, they denote grave cerebral trouble, and we can only treat the symptoms. Treat the complications as they arise as would be necessary in a primary affection.

Locally. Keep warmth to the part. Use some anodyne liniment. If the effusion tarries too long hasten it with "flying blister". Strap the joints in flannel saturated with a solution of Tincture of Opium and subacetate of lead. Keep the parts covered with oil & silk or some non-conducting substance.

1886

CAPEHART

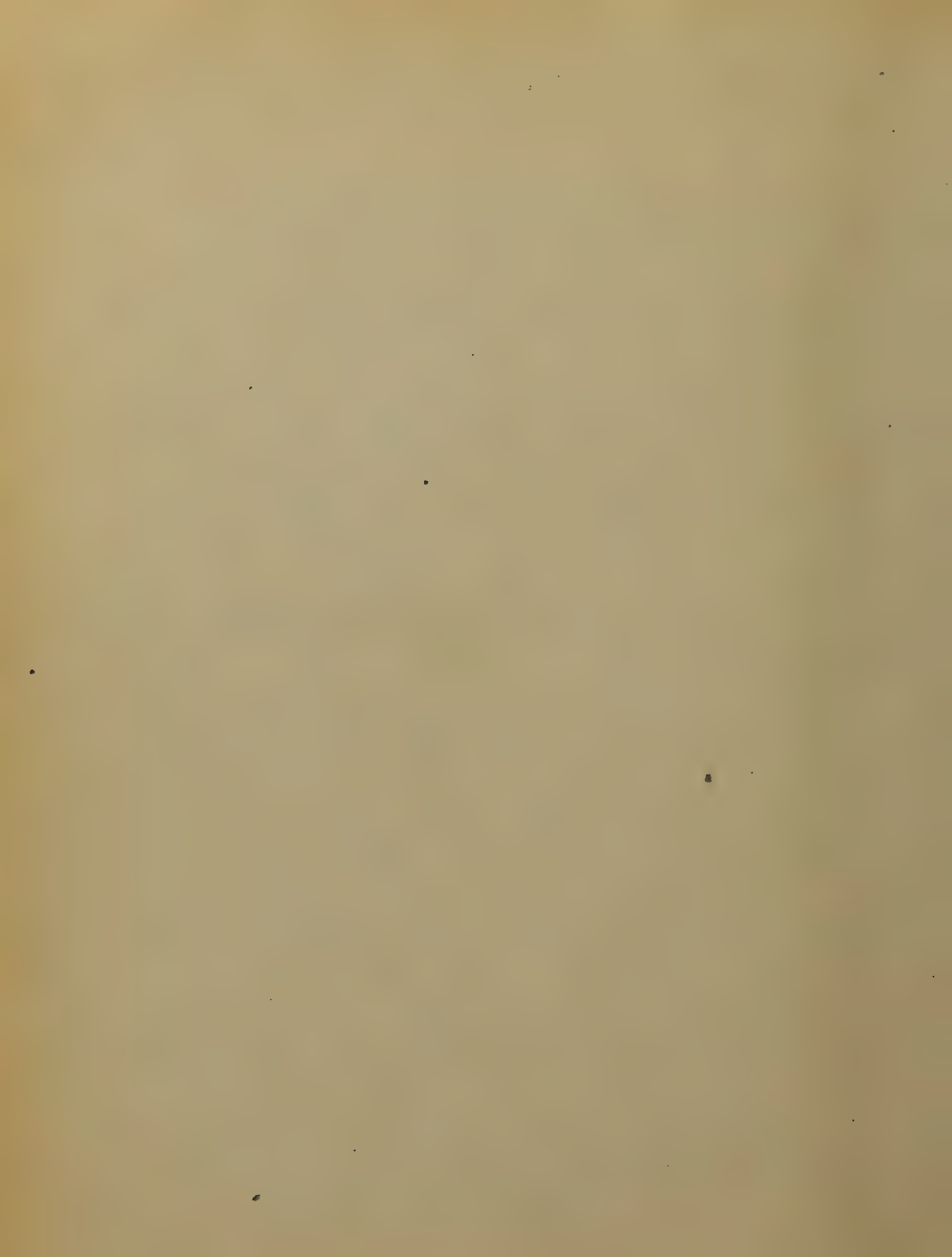
Inflammation.

Inflammation is altered nutrition in a part characterized by redness, heat, swelling, and pain, with disturbance of functions.

The phenomena of inflammation.

The redness is due to the dilatation of the vessels. The heat is due to an over amount of blood, and it is doubtful whether the blood itself is increased in heat.

The swelling is due essentially to the stasis



of the blood, and also
to the exudation of serum
from the vessels. In the
cellular tissue, from
the stagnation of the blood
in overloaded capillaries.

Pain, which varies
according to the intensity
of the inflammation, partly
due to the pressure on
the nerves. In loose
tissue the heat is great,
swelling rapid, and
pain slight. In con-
nective tissue, situated
beneath fascias, redness
and swelling necessarily
slight, but pain great.

on account of tension.
Inflammation is acute
and chronic.

When acute all of these
symptoms develop rap-
-idly, when chronic they
manifest themselves &
more slowly.

With these local symp-
-toms there will always
be associated some
disturbance of functions,
and what is of equal
importance there will
be some constitutional
disturbance which is
known as an inflame^m-
-tory fever. This fever

depends upon the severity and character of the inflammation and its seat.

Causes are predisposing and exciting. The former are such tendencies as make the patient liable to the recurrence of inflammation; as sex, occupation, and previous attacks of inflammation.

Exciting causes are those which produce the actual outbreak of the disease, as irritating

substances, and wounds.
 Inflammation spreads
 about the system in
 several ways, by con-
 =tinuity, by contact,
 by nerves and by the
 blood current, as in
 cases of embolism.

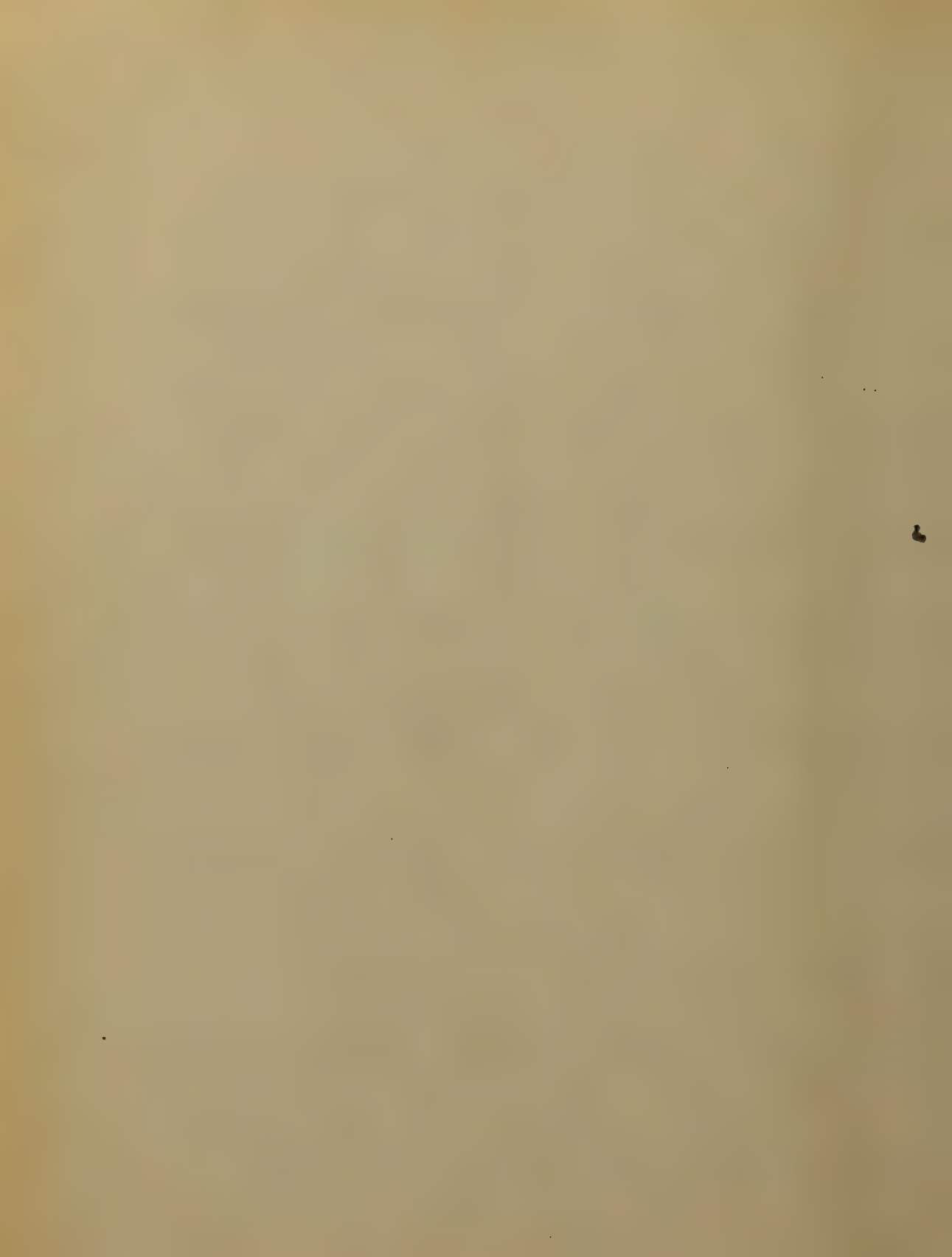
Subacute inflame-
 =mation lies between
 the acute, and chronic.
 The two terminations,
 a return to health by
 resolution, or ab-
 =sorption of the in-
 =flammatory deposit
 and the sepsis, or
 the death of the part.

Death may occur
molecularly, when
it is called ulceration,
in the soft tissues,
and caries in the
bony tissues.

In a mass, which is
called mortification,
in the soft parts, and
necrosis in the bony
parts.

The pathology of inflam-
-mation.

The process of inflamma-
-tion comprises changes
in blood, vessels, and
circulation, exudation
of fluid, and of blood.



corpuscles from the vessels, and changes in the inflamed tissues. Changes in the blood vessels, and circulation are essential to the existence of inflammation, both in vascular and non vascular tissues. In the latter which comprise the cornea and cartilage they take place in the adjacent vessels from which these tissues derive their nutritive supply.

It has now been deter-

minded that no increased
 activity, no multiplied-
 -tion of tissue elements
 occurs as a part of
 the process of inflamma-
 -tion, but that on
 the contrary the process
 leads eventually to de-
 -pression of vitality,
 degeneration, and
 death.

Pus is made up of
 pus-cells, and pus-
 -cells are made up
 of dead white corpus-
 -cles.

Treatment.

Remove the cause, and
put the part at rest.

The treatment depends
on a knowledge of the
phenomena.

Whenever possible, con-
-sine, the part artificial-

-ally, as by applying
a splint. Elevate the
limb above the heart,

if possible. When ir-

-ritating always pro-

-vide for carbureting
off water, by oil cloths,

So as always to have
the patient neat.

By irrigation, lacer-
-ated, ulcers may often

be saved, which would
 otherwise be inevitably
 lost, but care must be
 taken not to apply too
 much cold to injured
 parts. Never apply cold
 when pus is present.
 The sensation of the
 patient must be the
 guide. If he feels chilly,
 elevate the temperature
 of the water. It is
 often difficult to say
 from inspection whether
 heat or cold is required.
 As a general rule, in
 frank, open, energetic
 inflammation, in sturdy

constitutional cold is better, and in subacute inflammations occurring in weak persons, warmth applications. In all cases let the sensation of the patient be the guide!

But how do heat and cold, being opposites, act favorably in the same disease? Cold is sedative, reduces temperature, and circulation, and acts favorably on nutrition.

When the tissues are tough, heat molifies

and takes off the pressure, thus allowing the circulation to go on, relieves the irritation and pain.

Heat also favors exudation. Heat with moisture is indispensable when inflammation is in the act of passing into suppuration. Yeast or porter for a fermenting poultice. Flax seed makes the best poultice, charcoal may be incorporated with flax seed, as a deodorizer. Sometimes well regulated

pressure may do good.
 'Vessication performs
 a two fold work, it attracts
 blood from part, and
 attracts serum, and thus
 diminishes pressure.

Vessication is usually
 produced by canthar-
 ides.

Tiffany—
 "In treating in-
 -flammation I don't
 "treat simply the name,
 but treat what you
 have before you. Use
 common sense. Well
 regulated pressure is
 good in some stages.

Pressure such as plaster =
 = paris coating with cotton
 between it and the
 skin. It keeps the blood
 vessels from dilating
 and becoming congested.
 Wrap the part with rubber
 tubing, and pass ice
 water through it, is very
 good, when the vessels
 are dilating, but not
 when pulsus is present.
 When pulsus is present
let it out.

Give the patient enough
 opium, to make him
 comfortable. If one
 preparation will not

agree with him, give him
Such a preparation as
he can take.

Fluctuation is a sensation
appreciated by the fingers
when there is a
fluid in a sac under
them, and you tap the
part or press on it.

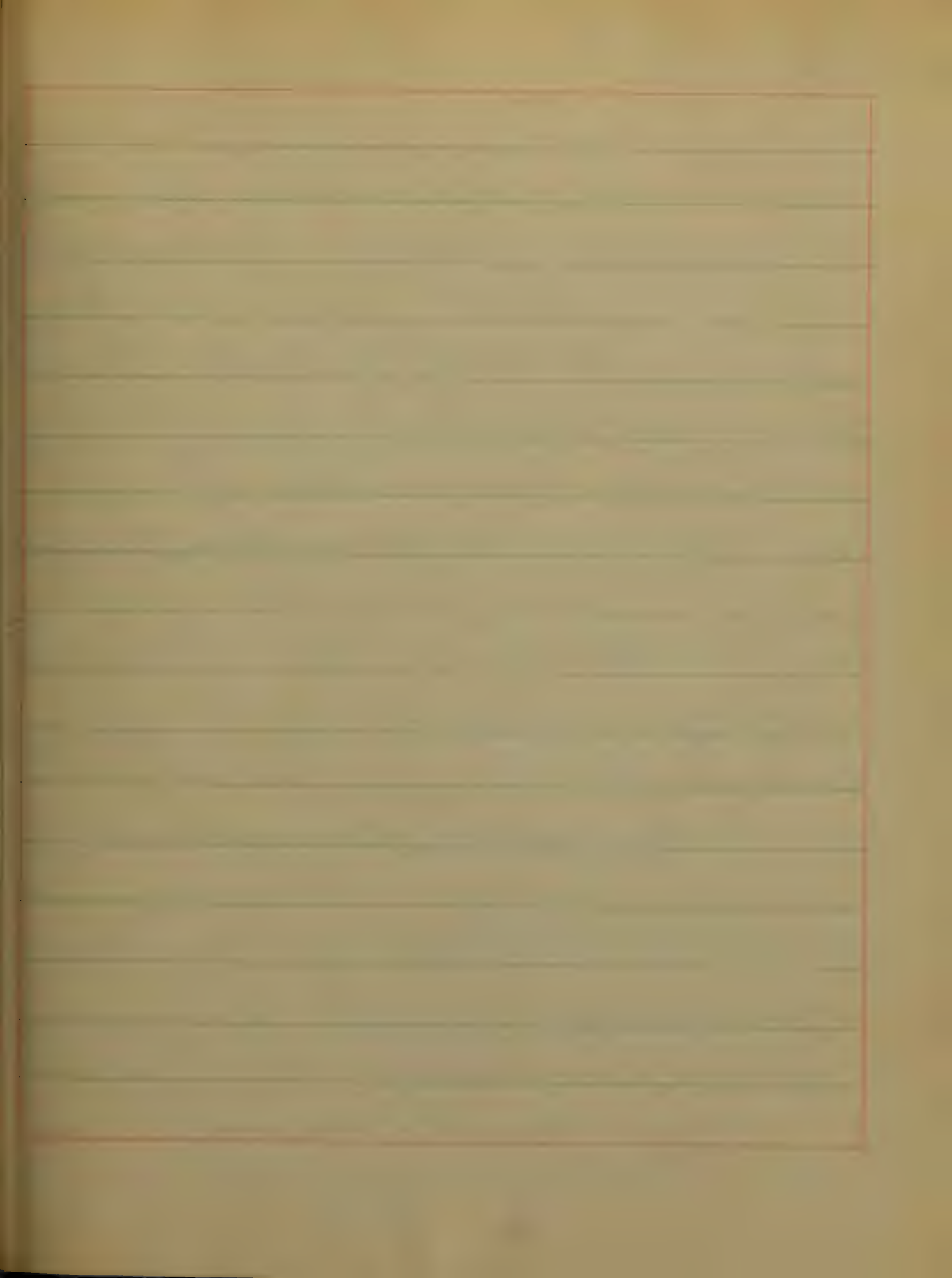
You can get fluctuation
across the belly of a
muscle very often. Do
not make a mistake
and open the belly of
a muscle for an abscess.

It is not generally
proper to wait for
an abscess to get ripe.

f

before you open it.

When the middle of an abscess is soft, put a knife in it, and cut it out the pus. When this is done the patient acts rest. When you open an abscess, open it free: - but never make a small puncture. After this, small blood vessels begin to loop and loop until they meet, or nearly so - they fill up the abscess cavity, and this is called granulation.



Pneumonia - Pneumonitis - Inflammation of the Lung

Causation - It is an inflammation of the substance of the lungs, like bronchitis, is generally due to the influence of cold and wet. It is also caused by the spread of inflammation from other parts, as from the bronchial tubes, in pertussis, bronchitis, measles, influenza diphtheria etc.; from the pleura in case of pleuritis; or, if the pleural cavity be obliterated by adhesions, from the chest walls or the surrounding viscera. It may be developed by the direct action of mechanical and other irritation, as the inhalation of irritant gases, particles of dust or metal, or it may be caused by emboli in the branches of the pulmonary artery, or by tubercles or clots in the walls of the

Robt. T. Howell.

lungs. It is more prevalent at certain seasons, especially those seasons when the temperature is liable to decided variations. In the British Islands winter is the season of greatest prevalence; on the Continent, spring; in this Country, winter and spring, the former especially—hence the name winter fever. Persons who have a diathetical tendency are more liable to it, and there are other diathetic states concerned in the production of pneumonia, rheumatism, gout, diabetes, the eruptive fevers, especially chronic alcoholism. But acute idiopathic pneumonia occurs quite often amongst those who seem to be in the best of health. It is met with in both sexes and at all ages, but is more common in men than women.

because in their avocations - they are more exposed.

Morbid anatomy. - It is generally divided into two forms; namely lobal and lobular pneumonia, or as they are termed by German writers, *crampus* and *catarrhal*; the type of the former variety being furnished by the idiopathic affection, that of the latter by the condition which is secondary to the disease of the air passages. The two varieties however, pass into one another.

Lobal pneumonia begins with hyperaemia of the small vessels in the walls of the air cells and bronchial passages; with proliferation of the epithelial cells in these parts, and circulation of lymph, and corpuscular elements of the blood. Communicating with these vessels are air-vessels and fat-

sages which become gradually distended with
 exuded matter, and the air they contain
 is expelled and this portion of the lung
 becomes solid. The dilated vessels are
 more or less plugged up by their corpuscu-
 lar contents, and the alveoli filled with
 cells; these cells are modified epithelial
 cells, some granule-cells, and others hav-
 ing the characters of pus-corpuscles - all
 are blended together by a glutinous mate-
 rial, or fibrillated network. During the
 affection the contents of the air-vesicles lique-
 fy, and acquire more and more the
 microscopic characters of pus. The
 fatty degeneration may become gener-
 al throughout the accumulated cells,
 which may be either expectorated or ab-
 sorbed. Abscesses are sometimes formed

in the lungs by the conversion of the inflammatory exudation into pus, and sometimes by the concurrence of gangrene. Inflammation of the lung like inflammation in other parts, seldom occurs without ~~exudation~~ exudation into the surrounding tissue and pneumonic inflammation, like other inflammations, tends to spread.

Pneumonia is divided at least into three stages; first is the stage of congestion or engorgement, the second that of red hepatization, and the third that of gray hepatization. In the first stage the lung contains some air, it is congested, much more moisture and is easier lacerated than a normal lung, and is also heavier. This is the period of congestion and the beginning of hepatization, and at this

time it is difficult to distinguish the condi-
 tion of the lung from that of hypostatic
 congestion. In the second stage the
 lung is consolidated; it has lost its
 air and its cavities are filled with cells;
 it is distended and its lobules can be
 distinctly seen; and presents a mottled
 appearance. Blood is sometimes uter-
 ated into its tissues. The lung-tis-
 sue is easily torn and readily sinks
 in water. The third stage differs from
 the second, mainly by the lung-tissue
 being of a pretty uniform grayish color,
 yellow and greenish tinge, and in its in-
 creased friability, and in the exudation
 of a thick, purulent fluid from its sur-
 face. In some cases the fluid
 is scanty, and in others very abundant.

The oedema generally extends beyond the part of the lung affected. Inflammatory lymph is often deposited on the surface of the inflamed part of lung, and also upon the parietal pleura. Since pneumonia tends to spread, we occasionally find its stages all present at the same time in the same case.

Inflammation may be limited to a small patch, or it may involve a whole lung, or even both lungs may be affected. The right lung I believe is said to be often affected more than the left, and the lower lobe than the upper.

Lobular pneumonia is an affection of young children especially, but it is not with great infrequency in adults.

persons. There are pneumonic patches in the lungs, varying from the size of a pea to that of a fist, and involving one or more lobules, and separated by a network of capillary, and perhaps healthy lung-tissue. These patches may be engorged, if such be the case it may be difficult to recognize their character; sometimes they present the ordinary features of red or gray hepatization. Much of the lung-tissue may become involved by these patches extending and coalescing; and this is the way lobular and lobar pneumonia pass into one another. True lobular pneumonia is always secondary to the blocking up of air-passages, especially the

capillaries; it may be excited by the gradual extension of inflammation from the tubes to the air-vesicles, or inflammatory products may enter the air-vesicles during inspiration which act as irritants and, consequently, are also exciting causes. Epithelial, granular or embryonic cells are found in greater or less proportion, according to the stage of the disease. The disseminated pneumonia is closely allied to lobular pneumonia, it is due to obstruction of the small branches of the pulmonary artery, either by embolism or thrombosis, or in the course of pyaemia. In these cases the affected patches are, also, usually of small size. Lobular pneumonia is generally

but marked towards the base of the lung.
 There is a tendency to the development,
 in all forms of pneumonia, of bronchitis
 to a greater or less degree. In the begin-
 ning of pneumonia, a transparent
 viscid fluid, stained with blood is ef-
 fused from the air-cells into the tubes;
 sometimes this fluid coagulates in
 the bronchial tubes, and thus they
 become filled to a greater or less
 extent with casts. Pneumonia often
 proves fatal; and sometimes passes
 into a chronic state or emphysema. Pneu-
 monic abscesses are generally small
 and irregular in form. Gangrene
 rarely occurs in idiopathic pneumo-
 nia; but is principally met with
 in cases in which the pneumonia

is secondary or a complication of another affection! When the lungs become gangrenous their tissues break down into a fetid greenish yellow pulp, and the discoloration of the firm surrounding tissue is more or less greenish; and this solid tissue is sometimes calcareous. Gangrene may involve a large portion of the lung or several patches, or even one small patch. The margin of the gangrenous cavity, if a post mortem examination be held, will be found in some cases ill-defined, and in others well-defined. Besides pleurisy and bronchitis, we often meet with an hepatic eruption on or near the lips; more or less purulose; inter-

tinal congestion, and inflammation of the bronchial glands. During pneumonia other organs besides the lungs are sometimes involved by the inflammation; as the bowels, kidneys, pericardium and brain. After death, generally the left side of the heart is contracted and nearly empty, and there is a clot of fibrin in the right side of the heart which projects into the pulmonary artery.

Symptoms and progress. — Idiopathic pneumonia is ushered in with a day or two of feverishness. The invasion of the disease is generally marked by a sudden and severe rigor, or a succession of rigors, and in children by an attack of convulsions; thus

is also considerable elevation of temperature. The specific signs of the pulmonary affection usually show themselves immediately or in about twenty-four hours; very rarely are they delayed for a longer period.

These signs are rapid breathing; dorsal decubitus; cough which is soon attended with viscid sputum stained with blood; sometimes pain when a long breath is taken; and according to the stage of the affection, fine crepitation, or dullness with tubular breathing, and increased bronchophony and vocal fremitus. The patient is pulse continuous; his skin is hot and dry or perspiring; his tongue is furred;

his pulse accelerated; jaundice and diarrhoea are apt to occur; his urine is scanty and albuminous, and delirium occurs especially at night. In mild cases after two or three days of illness, the temperature falls; and the other symptoms subside gradually until convalescence is established.

In favorable cases convalescence may be delayed for a week or fortnight, and then the patient may recover suddenly or gradually.

Death may occur in fatal cases at any period of the disease, and is due generally to asthenia or apnoea, or both of these conditions.

The respirations are usually shallow

and hurried, and run up from the normal to 50 or 60 and even more in the minute, and when rapid the alae nasi expand, and there is usually a sucking sound in the mouth, and more or less dyspnoea. Cough, which is sometimes very troublesome and even paroxysmal, is almost always present. It is a dry cough at first, but is soon attended with expectoration of transparent and viscid mucus stained with blood. This sputum is usually described as having a rusty color, it often has, but it varies in color, and is sometimes a bright vermilion, when it may be taken for pure blood. After a few days, the

expectoration becomes opaque and
 greenish, and in fact acquires a
 muco-purulent character; and
 then gradually diminishes in quan-
 tity. Sometimes it acquires a deep
 purplish or reddish-brown tint and
 a watery consistence. This form of
 sputum is also likened to prune-
 juice, and is a sign of increased
 congestion and escape of blood. It
 is also a sign of the presence of the
 third stage, and a fatal issue. The
 presence of pulmonary gangrene is
 indicated when the expectoration is
 purulent, or is attended with fetor.
 The quantity and quality of the ex-
 pectoration vary in different cases.
 In some there is none; in some the

patient never expectorates more than
 one or two rusty-colored sputa; in other
 cases the sputum never presents the
 characteristic tint. The expectoration
 contains sodium chloride, mucus
 and albumen. Sometimes the
 patient complains of no pain; some-
 times of a sense of heat; and there
 is a stitch sometimes when he coughs
 or draws a deep breath. This pain is a
 sign of the coexistence of pleurisy. The
 most characteristic auscultatory phe-
 nomenon during the first stage is
 fine crepitation, which can be heard
 during inspiration, and sometimes
 during expiration, and frequently at
 the end of a deep inspiration. On per-
 cussion there may be no change,

or there may be high-pitched resonance or cracked, pot-sound. The second stage is marked by dullness over the consolidated portion of lung, with increase of vocal fremitus; instead of fine crepitation, we get tubular breathing, and the corresponding whiffling character of cough and voice; and bronchophony. A metallic crepitation is also sometimes present. There is almost an absence sometimes of respiratory sounds and bronchophony over the affected region, due probably to obstruction of the bronchial tubes leading to a portion of consolidated lung. During the coexistence of pleurisy with pneumonia we get friction sounds, and probably other phe-

nomena indicative of plugging. When
 resolution takes place, or the lung-tis-
 sue begins to break down a coarse
 crepitation takes the place of tubular
 breathing, to which the name, crepi-
 tatio rediæ has been given. When
 the lung is consolidated, the move-
 ments of the thoracic walls in rela-
 tion with it become impaired, and
 the resistance on percussion increas-
 ed. Pneumonia may be deep-seat-
 ed in the lung, or confined to the
 inner surface, and thus escape
 detection by auscultation or percus-
 sion. Some dullness on percussion
 usually persists long after the local
 signs of pneumonia have disap-
 peared. The cardiac pulsations

always increase during the febrile stage, but rarely increase proportionately to the respirations; their ratio instead of being about 4 to 1, sinks to 2 or $1\frac{1}{2}$ to 1. The pulse in adults may range from 80 to 120; in children may reach 200 or more. When the pulse is very rapid, it is an unfavorable sign, it is generally associated with febrile heat. The pulse is frequently at first, somewhat full and strong, but sometimes full, soft and rebounding; later on it is always more or less feeble and thready. There is always an excess of fibrinogen in the blood. The tongue is coated, and in some cases becomes dry and brown, and

sordes accumulate upon the teeth.

There is always loss of appetite, and thirst is pretty constant. The bowels vary, sometimes are not particularly affected; sometimes constipated, and at other times there is more or less diarrhoea, and this may be dependent in character. Jaundice is said to occur more frequently when the right-lower lobe is affected, but there is no more connection between right pneumonia and jaundice than between left pneumonia and it. The urine is scanty, dark-colored, and of high specific gravity; contains less sodium chloride than usual and an excess of uric acid and urea.

with a tendency to deposition of mucus. It contains sometimes albumen with myaline, granules, or epithelial casts. It gets more abundant, pale, and of lower specific gravity, during convalescence; and the mucus diminishes, while salt increases. The face is flushed in the early period of pneumonia, and may be somewhat livid; the skin is hot and dry; but there are often profuse sweats during the disease, and they generally attend its decline. An eruptive eruption about the lips and base of the nose is almost pathognomonic. In the beginning of this affection the patient complains first of headache and joint pains. Se-

lirim passes generally into coma
 in fatal cases. Subcutaneous mus-
 cular tumors, and loss of control
 over the bladder and rectum some-
 times occur in some cases. The
 temperature varies from 100° to 106° or
 more; and attains its maximum
 in a few hours. There are morn-
 ing remissions and evening exacer-
 bations in the temperature, until
 convalescence begins. Idiopathic
 pneumonia might be confound-
 ed with typhus and enteric fever;
 but generally its symptoms are so
 characteristic that it is almost
 impossible to mistake their
 significance. Sometimes these
 affections are complicated with

secondary pneumonia. It is different, however, ^{in respect of} ~~with~~ the various forms of intercurrent or secondary pneumonia, and with the lobular variety of the disease. These occur generally insidiously in the course of other grave affections, which have already probably produced serious pulmonary symptoms; such as dyspnoea, cough, expectoration of mucus, mucous or bloody sputa, lividity of surface, carbonic acid poisoning; but their onset is not usually attended by rigors, or high fever which characterize the idiopathic variety; and they are not often accompanied by labial herpes, or jaundice; and often there is an entire absence of delirium,

excepting towards the close of the disease. These forms of pneumonia can only be positively determined by careful physical examination of the condition of the Thoracic organs. But lobular pneumonia may be present to considerable extent without dullness, tubular breathing or other specific signs of the disease. The phenomena of auscultation and percussion may differ little if any from those of capillary bronchitis. The breaking down of lung-tissue in the latter stages of pneumonia does not reveal itself by any special sign, unless the cavities be of such size or position, to cause characteristic auscultatory phe-



nomena. These abscesses sometimes
 open into the pleura, or perforate the
 thoracic walls, and sometimes form
 sinuses running down behind
 the peritoneum, and they finally
 open into the colon or some of the
 hollow viscera of the pelvis. When
 gangrene is present there is a dis-
 gusting fetor of the breath. When
 gangrene appears there is also de-
 pression of vital powers or collapse.
 Pneumonia is always a disease
 of considerable gravity. The idio-
 pathic form is seldom fatal,
 unless a large portion of the lung
 be involved, or both lungs be
 attacked; and in cases in old peo-
 ple, or where patients have injured

Their constitutions by bad habits, overwork or disease. Lobular pneumonia is very fatal.

Treatment.— The treatment must be governed according to the conditions of each individual case. It is well not to employ remedies that interfere with the normal course of the disease. In nervous irritability, pain rapid breathing— etc, administer morphia. Give five or six minims of Magnesia solution with a third of a grain of the sulphate of atropia added to it. The morphia may be administered by the mouth in doses of a sixth or eighth of a grain. When resolution has taken place pneumonia can not be avoided, but

if the treatment is begun at the outset
 of the disease, it can be aborted by the
 administration of large doses of quini-
 nine combined with morphine.
 Tincture of aconite may be given
 in the earlier stage, provided the
 pulse is rapid. but it is a sedative
 consequently its effects need to be
 watched. Sedatives after consolida-
 tion occurs, should not be used,
 because the heart wants all its
 strength to drive the blood through
 the lungs. Opium should be
 given very cautiously, when the
 patient is suffering from dys-
 pnoea and insufficient aeration
 of blood. In the second stage the
 main indications are to sustain

the weak pulse and to treat the high
 temperature. For lowering temperature
 wine, or the hydrochloric acid solution
 may be used. It keeps the tempera-
 ture in moderate limits until
 the crisis occurs, when naturally
 it begins to abate. If the pulse is
 feeble and intermittent alcohol
 may be given, the amount must
 be regulated by its effects. If it seems
 to be doing good continue its use,
 if not stop it. Carbinate of Am-
 monia may be given in five
 or ten grain doses with the alcohol,
 it favors expectoration. Do not
 use opium if the case will become
 blue, you may give Alcohol but
 water its effect as it is a solvent.

Turpentine also is given sometimes
 as a stimulant expectorant, in
 doses of ten or fifteen drops in the
 third stage, when resolution takes
 place slowly, a blister may be put in
 the axillary space. Let it be left on
 long enough to produce a diffused
 redness, after its removal put on a
 lay-salve poultice. Iron, quinine
 and cod-liver oil are the best a-
 gents to be employed during con-
 valescence. Some physicians
 think it well to keep the abdomen
 invested in a large poultice or layer
 of cotton wool, others prefer the appli-
 cation of ice-bags or cold compresses.

Robt. S. Glassell, Jr.

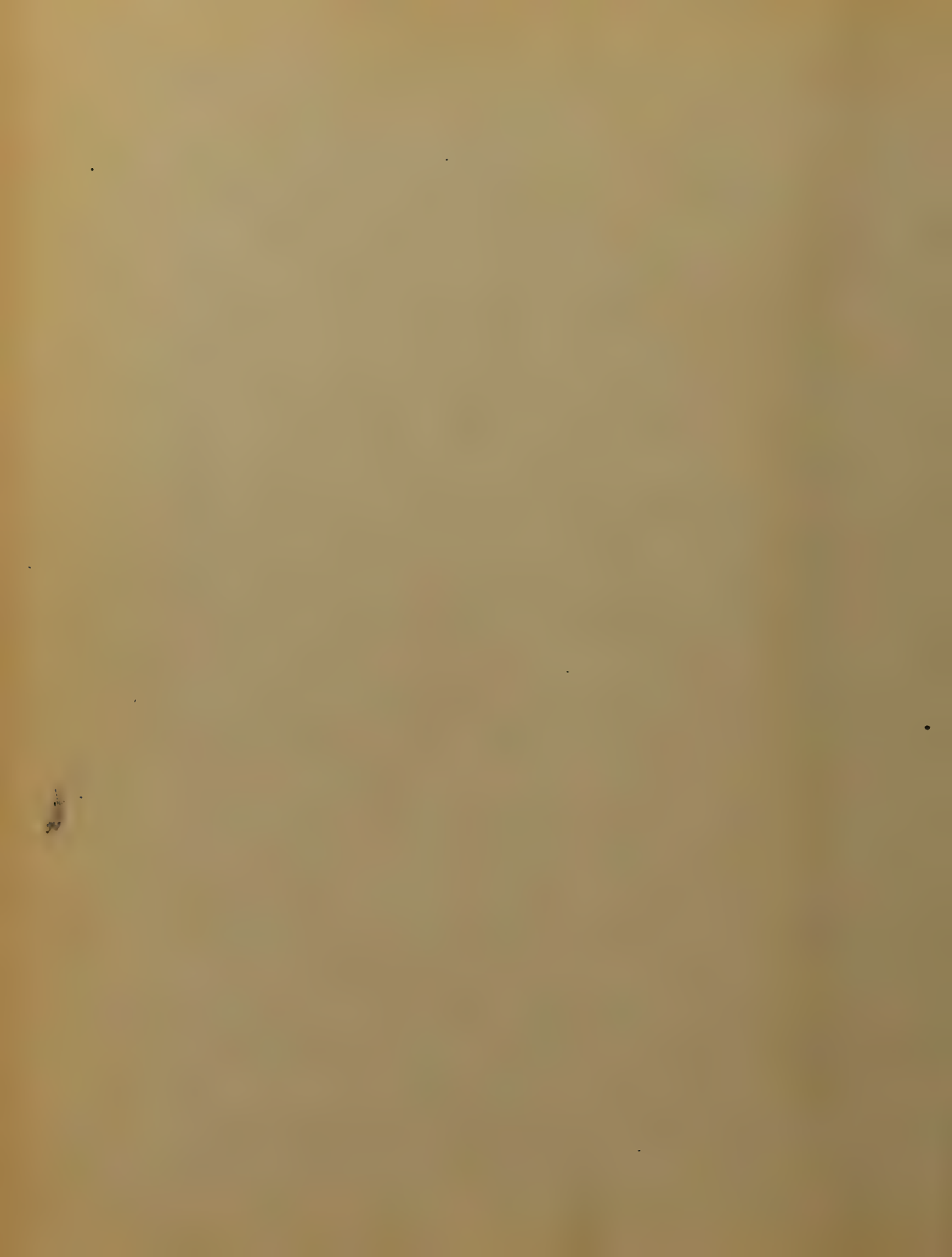
Disinfectants & Disinfection:

by
 J. Hayward Esq.
 Class 1885, & 1886

Owing to the prevalence of cholera
 in Southern Europe during the past
 year or two, a greater attention has
 been given to the subject of disinfect-
 ants, in order if possible to abate in
 some measure the terrible ravages
 made by this and similar contagious
 diseases, whose origin is supposed to
 be due to living organisms. The lit-
 erature on this subject is very ex-
 tensive and the results arrived
 at during the last year have indeed
 been flattering and bids fair, at a
 near period, to solve the question:

What is the most efficacious remedy
for the destruction of these organisms?
I will not attempt to answer the
above question in this article, but only
wish to give the result of my long
experience in the handling and
using of those articles commonly
used as disinfectants.

By a disinfectant is meant, first,
a substance either in the liquid,
solid or gaseous state, which destroys
or renders inert, that which probably
would produce disease, whether of an
infectious or contagious type, and
secondly, a substance which arrests
those putrefactive changes in decom-
posable materials, which foster or



produce those germs, gases, or vapors, that induce disease in the human system. An antiseptic on the other hand is a substance which prevents decay in material that is liable to decay, and thus it may seem that disinfectants act upon materials, that produce those death giving germs, while antiseptics act upon those substances, which enter into that state, but have not as yet done so. The use of salt, sugar, vinegar, and the employment of heat, are well known examples of household antiseptics. Mercuric chloride and arsenic are extensively used in embalming and in the preservation of medical specimens. Thus it will

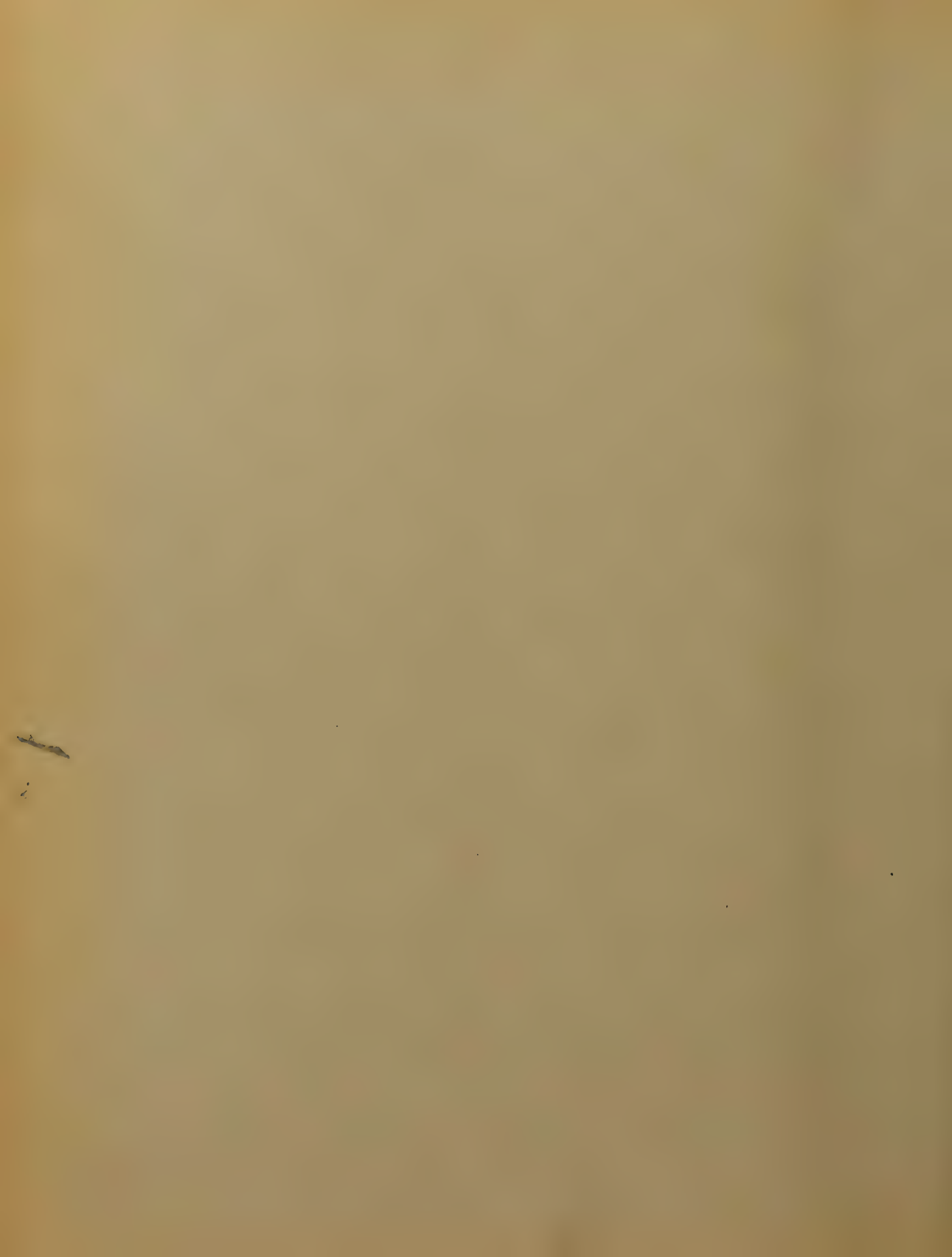


be observed that any substance classed under the head of disinfectants, may also be used as antiseptics, and if large quantities of antiseptics possibly will also act as disinfectants.

Since the masses of material which we are called upon to disinfect, are usually large, it becomes necessary to seek out the smallest quantity of material necessary to decompose the decaying matter, or destroy the germs, gases, etc already formed, and it is necessary to find also the cheapest article possible for such purposes, for usually the localities that call for a vigorous disinfection are the houses and

surroundings of the very poorest of our population. The disinfectants now in use are more or less poisonous, and some of them are even dangerous to handle. The safest plan is the destruction or removal of the excreta or animal refuse, but this is not always practicable in a household or community. The question is how can the putrid fermentation be arrested and destroyed? To answer this the process of putrefaction should be understood, and the causes and most favorable conditions for this process studied. A certain amount of moisture is necessary, and a temperature not exceeded 100 degrees.

Fahr. or lower than 55. will give us the necessary conditions to set up putrefactive changes in animal matter. If the temperature is carried beyond 100 degrees, and the process of driving out the moisture by drying the putrescible matter, decomposition will be arrested, and the process for a time suspended, a like result will be obtained if the temperature is lowered below 55 degrees Fahr. but it has been proven without a doubt, that in such cases, where the dried and frozen material are again placed in the same favorable conditions, a like result will be ob-



stained, desiccation then can only
 be regarded as an antiseptic process
 which suspends the vital force of
 the organisms taking part in the
 fermentation of the animal matter,
 the same remarks are applicable to
 a low temperature, which suspends
 animation for a time, but are brought
 again into activity by the application
 of warmth. Heat on the other hand
 when carried to a high point, has
 been shown to prove fatal to such
 organisms, a short exposure to a high
 heat, and a long exposure to a low
 temperature has been found to de-
 stroy infectious or putrefactive organisms.
 Another factor in the putrefactive

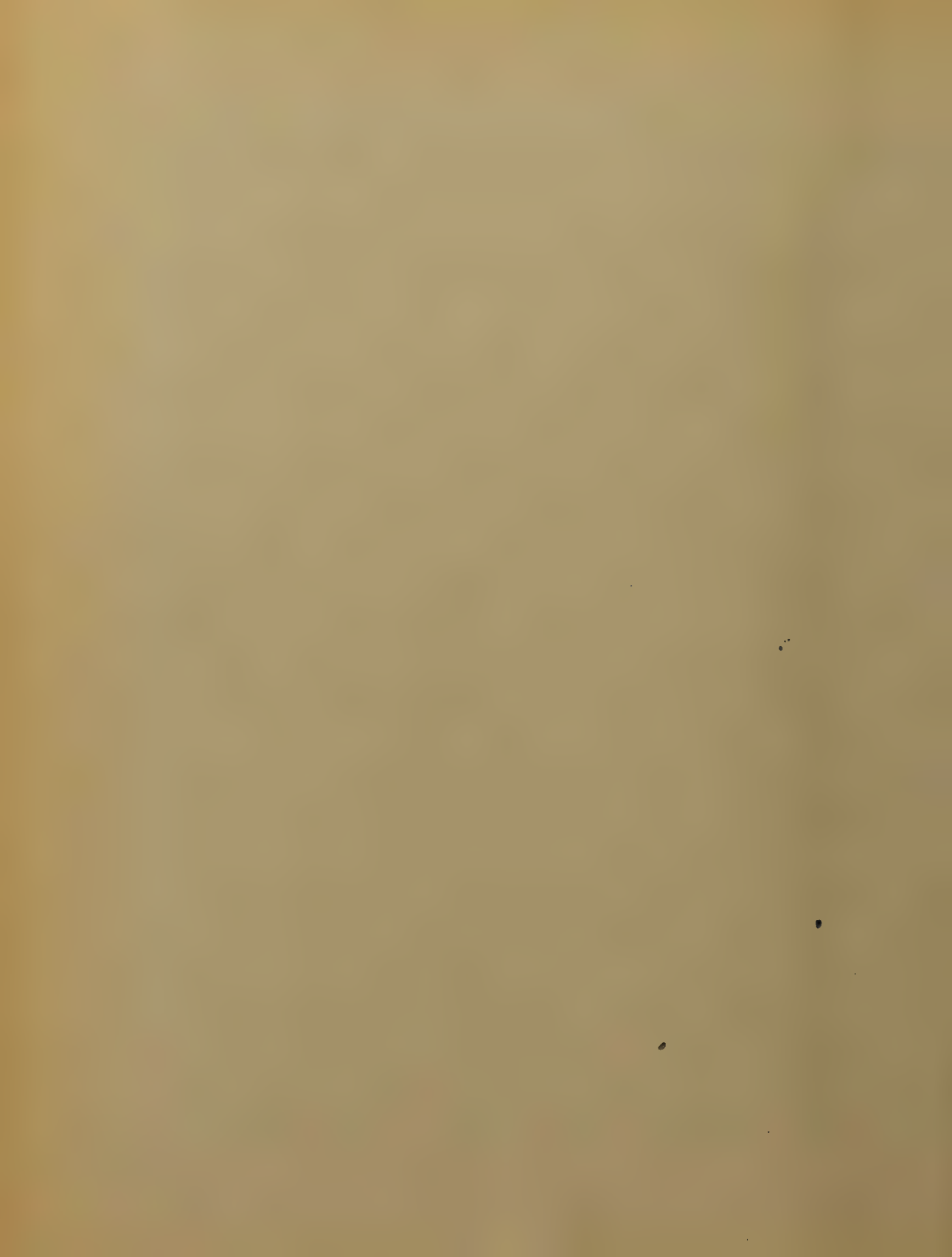
process is the presence of a small amount of oxygen, although it has been advanced by some that oxygen is not an essential element to the process but it is said to retard the change. The investigation however of this theory requires more time and attention, together with considerable outlay which is beyond my power to give or bestow upon it.

The subject cannot be settled by the use of those materials that will ~~supply the necessary amount of oxygen~~ ^{remove all the oxygen} as these agents complicate matters by the coagulation of the albumen but if we supply an excess of oxygen this will and does disinfect

The process is in itself stages in the oxidation of the elements of the constituents of the decomposed matter. If then we supply them with a larger amount of oxygen, especially in a condensed and active form, aside from any direct active action on the organisms present, the organic matter is rapidly carried through these stages, to a greater or less extent according to the amount supplied, and is converted into compounds less favorable for the development of such organisms. A number of substances used as disinfectants act in this way as ozone, hydrogen peroxide, nitrous fumes, Permanganate Potash, per

Salts iron, chlorine, Bromine, or substances which can be made to supply chlorine, as chloride Lime, which by combining with the hydrogen of the water or of the organic materials sets oxygen free, various substances disinfect in a way which is not fully understood, but which seem to have something in common with their power of coagulating albumen, That is all these substances have the power of coagulating albumen, though their power of disinfection, are not proportioned to their power to coagulate, and in the case of some it has been observed that a disinfective power exists even when so.

diluted that they fail to coagulate albumen, at any rate the nitrogenous matter in organic substances is the chief source of nutriment for putrefactive organisms, and this explains why the decomposition of animal matter, (which contains a large proportion of nitrogenous matter represented by albumen) is more dangerous than vegetable matter and some action not clearly understood is made upon the nitrogenous matter by certain agents. The agents which produce this change are the so called coal tar products: as barbalic & cresylic acids. He will now consider brief-



by the several agents used as disinfectants

Sulphurous Acid

This acid stands at the head of the list and the power of its ability for destroying diseases which are dependant upon the germ theory is almost universally known.

It is used by sanitary authorities with the greatest confidence, especially in destroying the infection of small pox, scarlatina, yellow fever.

It has been known to possess these properties for a long time, even as early as 1771, it was used by the Russian authorities during the pest at Moscow. It has been said that

a number of criminals condemned to death were made to wear the garments of soldiers who deceased with small pox. the clothes being previously subjected to the action of sulphur dioxide for several hours. The result of this experiment was successful as none of the condemned men contracted the disease. The acid is even yet used extensively and with the greatest confidence in disinfecting ships, hospitals & public institutions. but recent researches have shown that it is not the powerful germicide that some claim for it and that its use on a large scale may eventually be abandoned. and some

other agent, from which more positive experimental results may be obtained adopted. Sulphur Dioxide may readily be obtained by burning sulphur, it is two and a half times heavier than air, and soluble in water, but it deteriorates if kept in the aqueous state, and for experimental purposes should be freshly prepared, it is very extensively used for its bleaching properties, owing to its exceedingly pungent odor, it cannot be used where human beings are exposed to its effects, so small a quantity as one part in ten thousand of air will produce ^{dis}comfort. Sulphur dioxide should not be used to.



ether with chlorine as one neutralizes the other. In disinfecting a room from one to two ounces of sulphur roll or flowers should be used for every hundred cubic feet of space. This is placed over sand or water to prevent accident, and then ignited, the apartment should be kept as air tight as possible and left from five to six hours exposed to the gas, as already intimated there has risen a doubt in the minds of scientific men as to the true position of sulphur dioxide as a disinfectant, it having been demonstrated by carefully conducted experiments that the gas has not.

the power of destroying the potency of some organisms. While its efficacy in destroying bacteria, and the micrococcus from a vaccinia vesicle, with a five per cent solution, yet it utterly failed in spore containing material.

In an able article written recently by Dr Geo M Stenberg, Surgeon U.S.A., he concludes his paper in these words "My experiments show conclusively that it does destroy the specific infecting power of vaccinia virus dried upon ivory points, when present in the air of a disinfecting chamber, in the proportion of one volume per cent, and that in aqueous solution it destroys the vitality of various mi

crocci in comparatively small amounts. It is even practicable to destroy these organisms dried upon pledgets of cotton on long exposure in gas tight receptacles. But the conditions of success are such that it appears almost impracticable to conform with them on a large scale, and it is evident that much of the so called "disinfectant" with this agent is a farce.

Heat

The effects of heat have already been noticed. Dry heat is considered the most efficient for disinfecting purposes. The articles contaminated, should be exposed

from five to six hours to a temperature above 212° Fah. In Great Britain dry heat is much used by the sanitary authorities, this is applied to clothing &c. in a large oven constructed for the purpose, and the heat carried from $212.$ to 300 degrees Fah. Such an elevation of temperature would seem to effect the material, but it is shown that woolen goods exposed to this temperature do not deteriorate, but in cotton and silk goods the fibres are more or less damaged.

Chlorine

This gas like Sulphur dioxide has

also been long known and accepted as a disinfectant and is extensively used in the form of chloride lime. Chlorine may be readily obtained by the spontaneous liberation from bleaching powder, or solution of sodium hypochlorite, or by the action of sulphuric acid on binoxide of manganese and common salt, for disinfectant purposes it should be generated in large quantities. The most convenient method in generating it is to use for every cubic meter of space to be disinfected fifteen grams of dry chl. lime. It should, mix it with q.s. water to make a thin paste. This to be divided in several portions

and placed in different parts of the room and to each portion add the same quantity of common hydrochloric acid as ~~it~~ ^{contains} ~~there~~. The same precautions in reference to windows and doors should be observed as laid down in the use of Sulphur dioxide. The most thorough experiments with chlorine were made by Fisher and Broshauer, the material tested ~~was~~ consisted of the spores of *Bacillus anthracis*, *Micrococcus tetragenus*, *Micrococcus prodiginus*, bacillus of septacemia of mice, bacillus of septacemia of rabbits, *Aspergillus nigrescens*, and *Aspergillus ruber*, and bacteria of foul cholera, and

microorganisms, their conclusions seem to justify the statements that blebline is an efficient disinfectant when in the proportion of one part in one hundred. but the air and objects to be disinfected should be in a moist state and should be exposed from two to three hours. blebline being a powerful bleaching agent all fabrics will undergo more or less change when exposed to its influence

Iodine + Bromine
 These two substances though differing in physical appearance, seem to have about the same value as disinfectants, their effect on the

various non-pathogenic microorganisms of equal value. Iodine may be used by gently heating in a saucer over a water bath. Bromine may be placed in an open dish and allowed to evaporate, the extreme unpleasantness in handling Bromine has in a measure been overcome by an invention in Germany which consists of a block of porous material, preferably made of infusorial earth saturated with Bromine used in this form it may be handled with perfect ease.

Carbolic Acid

Carbolic and cresylic acids may be said to have been used as disinfectants since 1834. when discovered by Runge. they are distilled from coal tar. and the articles made by Carbolic Co. have a universal reputation for purity etc. Carbolic acid is the basis of Professor Lister's antiseptic surgery, and was brought prominently to the attention of the scientific world through this channel. and thus led to an investigation as to its disinfectant properties. Prior to this it was used in Europe as a disinfectant and was also held in high es.

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term in this country for similar purposes, but of late years its use as a disinfectant has been called in question and has led to the most careful & practical investigations by Dunzall, Baxter, Stenberg & others. It was demonstrated by them that Carbolic Acid could not be relied on as a disinfectant except in special instances, and especially in the bacteria of putrefaction it was inefficient. The large per cent of carbolic acid ^{required} in the liquid form for disinfectant & germicidal purposes prepares us for its failure in the gaseous form so that the popular idea shared by

a great many physicians that an odor of carbolic acid in the sick room, or in a foul privy, is an evidence that the place is disinfected in entirely unfounded, and in fact the use of this agent as a volatile disinfectant is entirely fallacious, and impracticable because of the expense of the pure acid and the amount required for the purpose, it being estimated that in order to disinfect a room twelve feet square and twelve feet high, it would be necessary to scatter 17 lbs pure acid or 84 lbs common acid. & even this would not entirely destroy the bacteria, but as an antiseptic this article has few superiors

Mercuric Chloride

During the last four or five years this agent has been brought prominently before the public as a disinfectant. It is claimed, however by Prof. Voening of Göttingen, and in a paper recently published in the "Centralblatt für Chirurgie" that he has used it in the form of vapor with uniformly satisfactory results during the last twenty years both in hospitals and in private sick rooms. It has also been known as a parasiticide and as an antiseptic agent for the preservation of animal tissue for a long time. But it is only recently been demonstrated that Bi chlorides Mercury occupies

a leading place among germicidal agents. The iodide has also been put forward as an antiseptic and a germicide, but owing to the cheapness and solubility of the chlorides it will doubtless be accorded the first place. Experiments were performed on the anthrax spores *B. subtilis*, the sputum of tuberculosis, etc and Dr Stenberg who performed the above mentioned experiments was justified in forming the following conclusions: "Mercuric chlorides in aqueous solution in the proportion of 1:10,000, is a reliable agent in the destruction of micrococci and bacilli in active growth not containing spores."

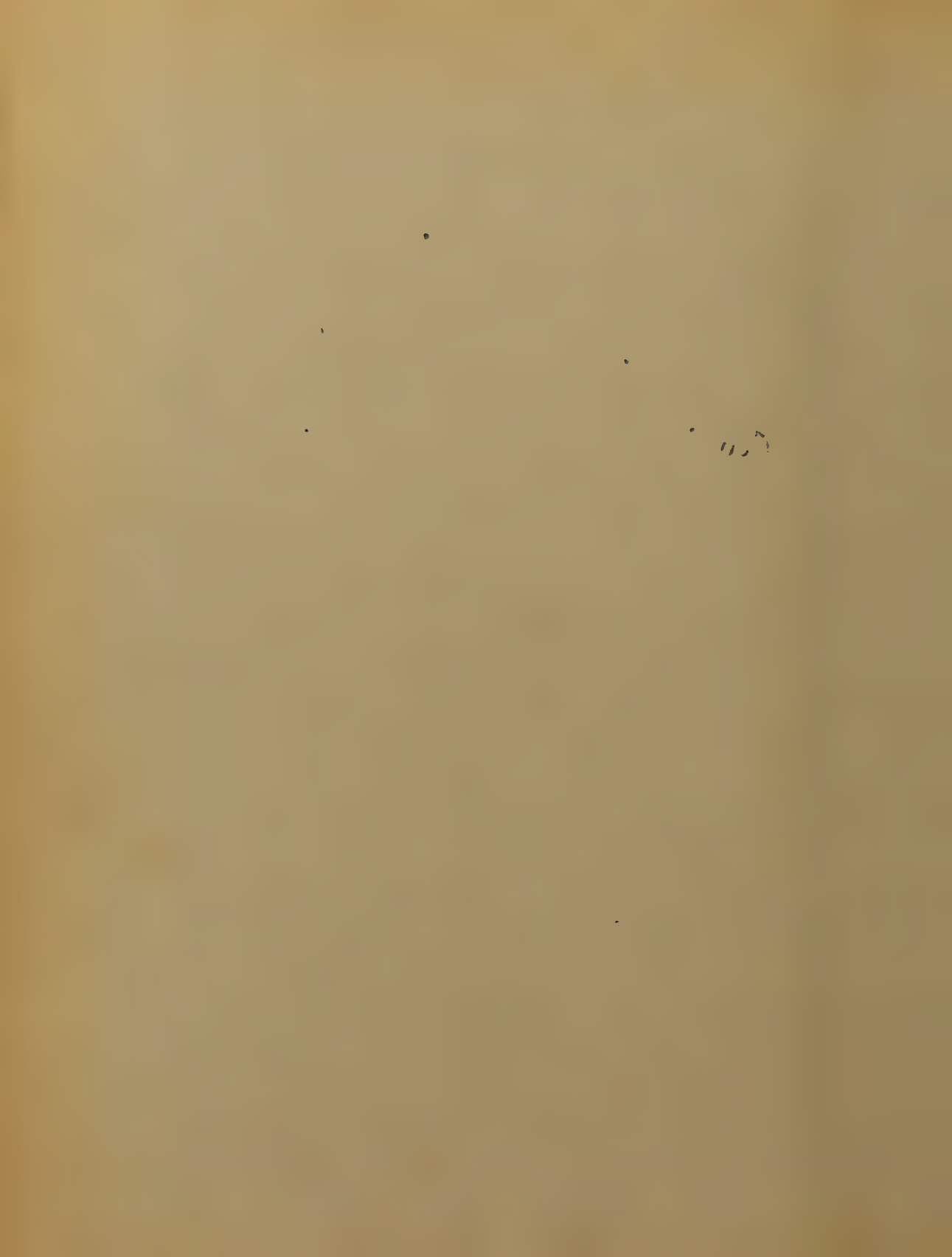
~~spores~~. and in the proportion of 1. in 1000
it destroys the spores of bacilli; provid-
ed that the microorganisms be exposed
fairly to its action for a sufficient
length of time. A standard solution
1 in 1000 may be safely recommended.
For the disinfection of bedding and
clothing which can be washed, for
washing the floors and walls of in-
fected apartments: for disinfecting
the hands of surgeons and gynecolo-
gists. and as a disinfectant wash for
superficial wounds or mucous surfaces.
For continuous application to wounds,
a solution of 1 in 10,000 or less, should
be effective."

A few practical remarks on carrying out the application for ordinary disinfecting purposes will conclude this paper. Soothing bedding &c which will not be injured thereby should be exposed to a temperature not exceeding 300 Fah. for two hours, soothing may also be disinfected by immersing non colored material in a solution of 1 lb. Linc in the proportion of one part in thirty. Soothing that can be washed should be boiled for a half hour, no delay should occur however for as soon as the soiled clothing & bedding is removed it should be transferred to the laundry.



A Solution of one part of Labanque's Solution in five of water is excellent for washing the bodies of sick persons or attendants when soiled with infectious discharges, the excreta of small pox, scarlet fever & cholera should at once be disinfect with a solution of chloride lime in the proportion of one in four of water. or if the odor is disagreeable to patient use a solution of Bi Chlor Mercury, and Permanganate Potash in the proportion of two drachms of each, to a pint of water. To disinfect a room containing a patient suffering with an infectious disease, the room should be vent

tilted and the strictest cleanliness
 observed, and noxious odors may be
 neutralized by the use of carbolic acid.
 The walls, floor, window ledges & fur-
 niture should be washed with a solution
 of Carbolic Sublimate of the strength of
 one part in one thousand. The walls
 should be whitewashed, after the room
 is vacated by the patient, it should
 again be subjected to the same treat-
 ment. and sulphur may be burned
 to destroy those organisms upon which
 it is supposed to act. For privies, cess
 pools etc, use one pound of lebl. Mangan
 to every hundred lbs of fecal matter estimat-
 ed in the vaults. one lb. of lebl Lime
 to every thirty pounds, walls of vaults



should be washed down with the same solution, during yellow fever cholera or other epidemics. LIME should be sprinkled in vault every day. All water for drinking or cooking purposes during an epidemic stage should be boiled, and filtered before use.

12

Thesis.

John M. McLaughlin.

- Arsenic. -

Arsenic is sometimes found in nature, but more frequently combined with other metals, chiefly with iron, nickel and sulphur. It is also contained, in very small quantities, in many mineral springs. To separate it from the metallic ores in which it occurs, the ore is roasted in a reverberatory furnace; the arsenic combines with the atmospheric oxygen forming arsenic trioxide, or commonly called white arsenic, which is carried in the state

2
of vapor from the furnace
into long chambers or flues
in which the arsenic trioxide
is deposited. Metallic arsenic
may be prepared from this
oxide by mixing it with
charcoal and sodium carbonate,
and heating in a closed
crucible; the upper part of
which is kept cool; arsenic
condenses in the cool part of
this apparatus as a solid,
with a brilliant luster.

The vapor of this arsenic
possesses a remarkable garlic
like smell.

Arsenic in the middle state

is inert unless it is oxidized and forms arsenic trioxide and act with unexpected violence. When brought in water it forms an acid. It is therefore an anhydride. It is best in solution for internal administration.

The dose of arsenious acid is $\frac{1}{30}$ to $\frac{1}{40}$ of a grain.

Iodide of arsenic is an orange red, crystalline solid. There is $\frac{1}{40}$ of a grain. Arsenic in solution with the alkalis are all soluble in water.

The best preparations of arsenic are the following:

4
Liquor Arsenii et Hydrargyri
Sodici; known as Donovan's
solution, Rose mii to V

Liquor Potassii Arsenatis; known
as Fowler's solution, Rose mii-X.

Liquor Sodii Arseniatis; known as
Parson's solution, Rose mii-XX.

The strength of this preparation
is one-hundredth of the arsenic
of all the solutions mentioned
above, Fowler's is said to be
the best. Arsenious acid ad-
ministered may act with
unexpected violence.

When a course of arsenic is
begun, large doses should
be prescribed, and the quantity

5
administered should be regular
reduced. In this way arsenical
poisoned is avoided. When con-
tinual increasing doses is kept
up for a length of time the
arsenic accumulates and toxic
symptoms are quickly induced.
However when the idiosyncrasy
of the subject is unknown
it is better to make experiment
with a few small doses
before you begin with
larger doses.

The chemical incompatibles
of arsenic are the salts of
iron, magnesia, lime and
all the astringents.

6
The chemical antidote to arsenic in solution is the sesquioxide of iron freshly prepared.

It is harmless and should be given in teaspoon doses ever ten or fifteen minutes. However the first thing to be done in arsenical poisoning is to evacuate the contents of the stomach.

In the absence of the hydrated sesquioxide of iron, magnesia, chalk and lime water may be given freely.

After the acute symptoms has pass off you may use diluent drinks, ruble slightly

7
alkaline water, to ~~the~~ ^{the} ~~effect~~ ^{effect}
elimination of the poison,
and opium to subdue
inflammation.

All those agents which produce
constructive metamorphoses
are synergist to arsenic.

Physiological actions.

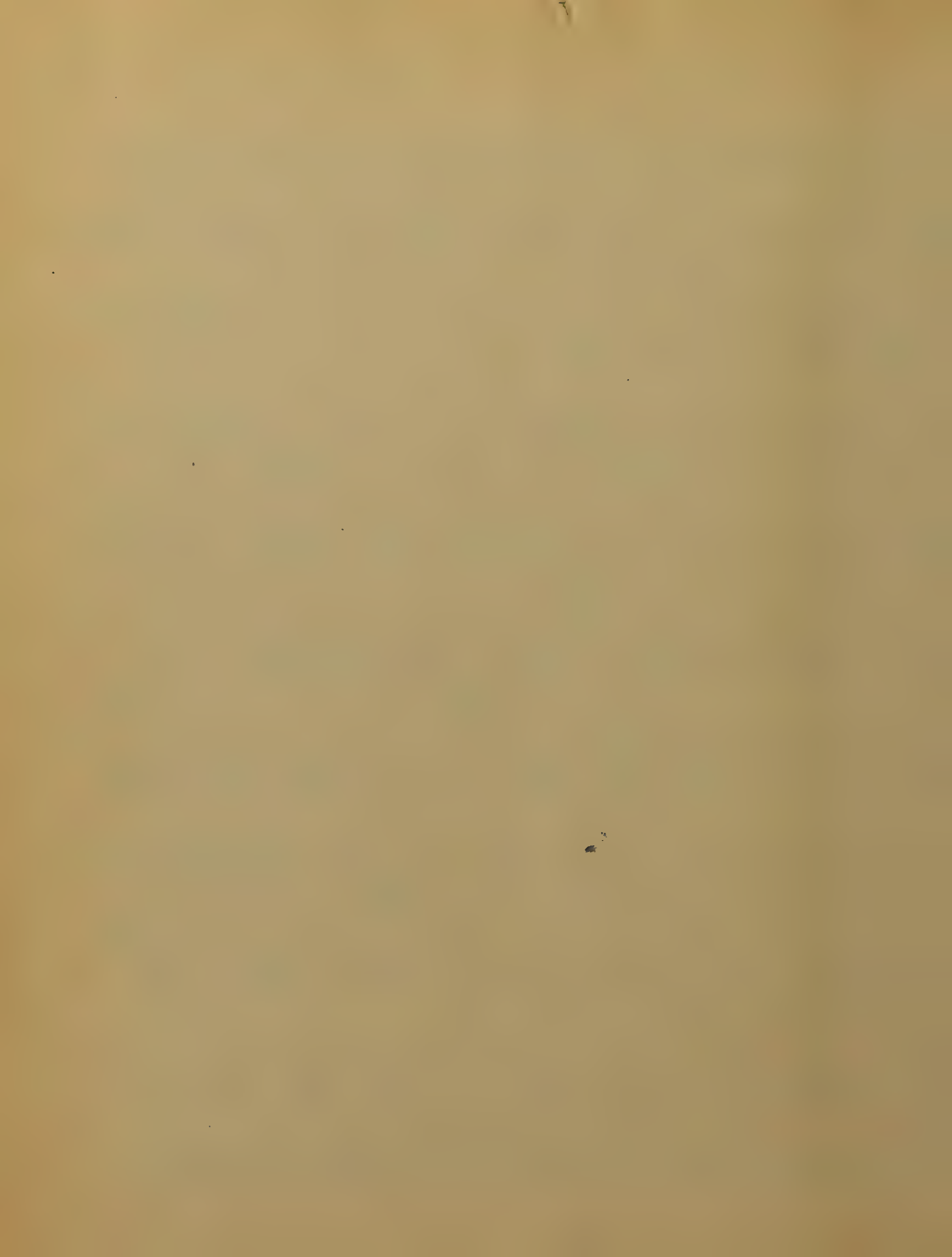
The compounds of arsenic
are powerful escharotics, and
will produce sores on those
who work in the arsenic
preparations. Applied external
it absorbs and produce sym-
ptom as though it were taken
by the stomach, redness, soreness
& pain, is a curious fact.

8

The effects of the administration of arsenic depends on the amount administered and the way in which it acts.

In medicinal doses, it promotes appetite, digestion function, and improves the body nutrition. It increases the secretion of the gastro intestinal secretion, and hastens the intestinal peristaltic movements. Arsenic diffuses into the blood with facility and probably enters into the red blood globules.

It certainly lessens the excretion of carbonic acid and



9
probably also of urea, or checks
the retrograde metamorphosis.
It stimulates the cerebral functions
and in some subjects
mental exhilaration.

In larger doses, short of acute
poison, administered for a
lengthened time there is a
metallic taste; nausea & vomiting
of glairy mucus epigastric
pain and soreness and af-
ter a time diarrhoea of mucous
stools. The heart is feeble and
palpitation, depressed breath-
ing. The skin shows its
self by itching of the eyelids
urticaria and psoriasis.

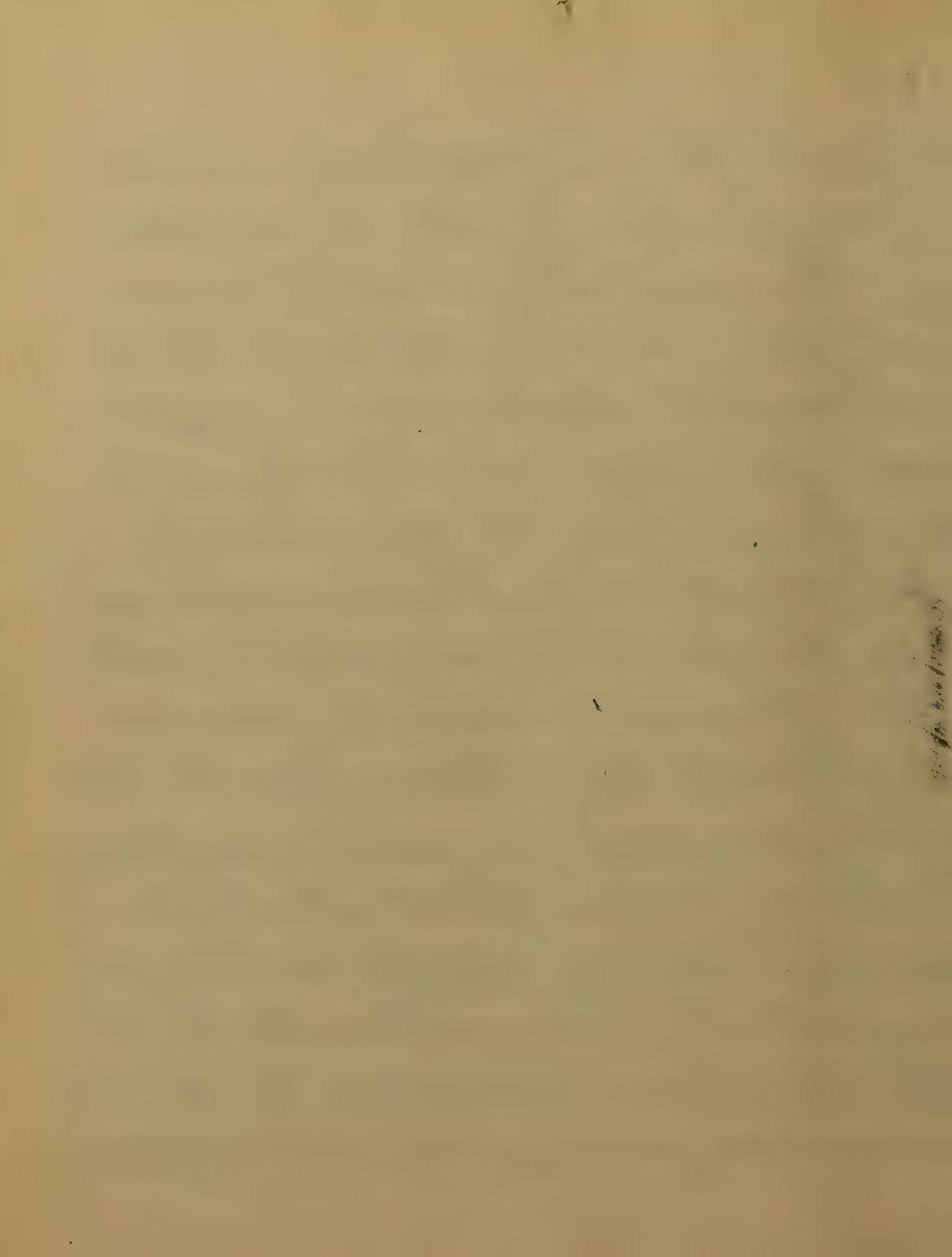
As regards the nervous system: disordered motility. trembling stiffness and contraction of the joints. disorders of sensibility. However it is true notwithstanding the above effects that a certain degree of tolerance may be established as witness by the arsenic eaters of Southern Austria, who become habituated to enormous doses taken toxic in themselves with impunity. They find it serviceable by improving the bodily condition become stronger gain in breathing powers

11
As a proof of this bodily
improvement brought about
by the use of arsenic, is shown
by that they can persist in
long runs ascending high
mountains, and great bodily
exertion without much
fatigue compared to those not
using arsenic.

When arsenic is taken in suf-
ficient quantity to produce symp-
toms of acute poison the phe-
nomena produced are of two
kinds: one gastro-intestinal
and the other cerebral effects.
The gastro-intestinal forms
of arsenical poison are burn-

ing at the epigastric, violent vomiting, great dryness of the mouth and fauces, intense thirst, bloody stools, retracted abdomen: suppression of urine or bloody urine, palpitation of the heart, oppressed breathing, sunken eyes, features and cold breath.

The other or cerebral form without the characteristic abdominal symptoms, the patient is suddenly put in a condition of profound insensibility, similar to that of opium narcosis, profound unconsciousness abolished relieved



Recovery from acute arsenic-
 al poison is rarely complete.
 Gastro-enteric irritability per-
 sist for a long time and life
 may be lost by continued sus-
 pension or the functions ^{of the} ~~of the~~ ^{of the} ~~of the~~ ^{of the} ~~of the~~
 Changes found after death
 are due to an irritant: deep
 redness erosion. More or less
 redness of the tracheal and
 bronchial mucous membrane
 and perhaps congestion of the
 lungs. Death from the cerebral
 effect there is no anatomical
 change except redness of
 the intestinal tract may be
 observed. Fatty degeneration

4
of the liver, kidney and spleen
is produced from arsenical
poison, perhaps by lessening
the amount of oxygen to the tissue.

Paralysis of a certain limb or
or more frequent palsy.

The dust from arsenical wall
papers, which contains a large
amount of arsenic, have pro-
duced a cachectic state accom-
panied by headache, vertigo, Gargul
dyed by arsenic have excited
ulcerations of hands and
nails and anaesthesia and
paralysis of the extremities. In
fact sleeping apartment lined with
arsenical paper may produce ^{poison} ~~poison~~

Therapy:- Arsenic is very beneficial in the so-called irritative dyspepsia, best adapted by the following symptoms: ^{or} poor appetite, distress after meals, and pain; few drops of Fowler's Solution with a few drops of Laudanum. It is very beneficial in some forms of vomiting of pregnant. In vomiting of chronic gastric catarrh and chronic ulcer of the stomach, cancer of the stomach, by relieving the morbid state of the mucous membrane on which the vomiting depends.



In all states of stomach dis-
orders only small doses of ar-
senic is required. Large doses
by creating an irritant of the
gastric mucous membrane
will only defeat the end in
view. Jaundice due to catarrh
of the bile duct, succeeded to
catarrh of the duodenum

It is better ^{to} jaundice depend-
ing upon malaria origin
Constipation due to deficient
secretion dry faeces is over-
come by small doses of Fowler's
Solution. In chlorosis and ana-
emia where iron does not agree,
arsenic with iron is more efficient

7
Troubles of the broncho-pulmonary
mucous membrane such as
is catarrh chronic form of phthisis
is much benefited by long
continued use of small doses of
arsenic. In cases of hay asthma
and spasmodic asthma chronic
bronchitis, emphysema, these
may be treated with advantage
by the use of fumigation.

Formula and mode: Arsenic
of potassa fifteen grains. Still
water one ounce. Take sufficient
quantity of white paper and thor-
oughly moisten with this solution
of arsenic, dry & cut up into
fine pieces and divide into



18
7
twenty equal parts, and put one
of these parts on a plate and set
it on fire and the patient in-
hale the fume with a blanket
~~over~~ his head. This may be prac-
ticed 3 or 4 times a day.

Attacks of angina pectoris
may be lessened or prevented
by persistent use of large doses
of Fowler's solution.

It is said to be good in cerebral
congestion, melancholy of the eye,
neuralgia, epilepsy, some forms
It is highly recommended in
chorea. Large doses are required
ten to fifteen drops three times
a day. Local chorea best injected.



Twitching of the eye lids and
 paralysis of the third nerve, known
 as ptoxis. Three drops of Fowler's
 solution before meals three times
 a day. In many forms of
 skin affection, more especially
 of the scaly and chronic form.
 It should be administered for
 an indefinite length of time.
 By continued use symptoms
 of poison manifest themselves
 should still persist its use
 by lessens the dose & give a
 purgative. Arsenic and quinine
 has an important position in
 the treatment of malarial fevers.
 Good in diminishing the



enlargement of the spleen caused
by malaria. In these forms

it is best used in combination
of arsenic, quinine and iron

Amenorrhoea and menorrhoea
due to anaemia arsenic with iron
is the best form for these troubles

Functional impotence is some
times greatly benefited by arsenic iron.

Arsenious acid two parts sulphur
morphia one part and sufficient

croscoble to make a paste is good
in toothache applied to the carious

part of the tooth in cotton satur-
ated with this solution. It is

also used to destroy cancerous
growths.



Thesis— Dedicated to the
Honorable Faculty of the University
of Maryland by

R. J. Anderson.

Baltimore Md

1886



Intermittent Fever

Intermittent Malarial fevers are characterized by their recurrence in certain regions of the world. Knowledge to produce the Periodic Malaria by their periodicity and by their regular succession of the cold and hot and sweating stage various designations have been applied to these forms of fevers such as fever and ague, (Shill bilious fever, or Quinlan

Cause

The great etiological factor is malaria the tectonic and other conditions favorable to the development of malaria exist largely in the country along the Atlantic sea board as far north as Boston in all that great Interior river drained by the Mississippi and its tributaries the valley of the Sacramento in the western the prairie in the atmosphere and alluvial principles which is developed in certain atmosphere. although the distance of such a

1

principale is admitted the attempt to describe and define it - have proven abortive unless the recent discovery of the life and *Foussmaei-nakli* supply the sub-microscopic form the *Bacillus malarie* which they have discovered floating in the atmosphere of the Pontine marshes. Produces for years of intermittent fever in the animal subjected to it - either by inoculation. If this discovery is confirmed and these rod-like bodies are proved to be the cause of those fevers which we call malarial fevers it will prove to be the first - and most important step towards permanent eradication since *Paludis* is also called *marsh miasm* because of the abundance of this *Bacillus* about marshes but all marshes free from marsh miasm although well adapted to do it - marshes that are pretty trackish are

1

worse than those entirely fresh in country,
Malaria is more produced. the sandy alluvium
of the River valleys, subject to annual overflow
and heat - by the summer sun the alluvium
and some very sandy soils of Malarial zone
not - subject - to overflow also generate Malaria
when Malaria infectious occur or re-established in the
system all diseases occurring will have more
or less of the periodical character the forms
of Malaria disease will depend upon the
conditions of the system and the intensity of
the Poison itself.

Pathological Anatomy.

Changes caused by Malaria Febrilis are essentially
the same except degree in all the forms, in
which the disease manifest itself in two organs
the Liver and Spleen. becomes very

much enlarged & heavily congested in acute
cases the splenic pulp increases in relative quantity
and sometimes there are dents which have
been observed, in some cases of Typhoid fever in
some chronic cases the spleen undergoes enormous
enlargement its texture is tough and smooth in
sections, and has a grayish slate color this
change consists of hyperplasia of the trabeculae
with hypertrophy of the capsule but in some cases
the increased size of the organ is due to amyloid
degeneration when the organ is very large
it is known as ague cake usually in chronic
Malaria during the spleen is some what enlarged
but not much increased to be called an ague
cake the change consisting of diminution of the
splenic pulp and hypertrophy of the trabeculae and
capsule the color of the spleen is a grayish

1

1

Slaty-color due to pigment-deposits which are found in great abundance in the walls of the blood vessels when it is detailed by disintegration of the Red-globules. An important change takes place in Liver during Intermittent *Malaria*. becomes hyperaemic and swollen and if Jaundice is present very much enlarged and stained with pigment and the Portal capillaries distended with blood and the gall bladder filled with thick black-barry Brown Bile in chronic cases the Liver has a grayish tint due to pigment-deposit along the vessels, it is firm in texture and the divided parts preserve sharp outlines, the hepatic cells are pale and filled with fat granules. The Intestinal canal presents characteristic changes during an acute attack there extensive and considerable hyperaemia of mucous membrane and more or less

thickening and elevation of the solitary gland.
in chronic cases the intestinal mucous membrane has
a slate color due to pigmentation of the capillaries the
Kidneys are also affected by characteristic changes
Hyponemia during the acute attack, and subsequent
atrophy as thickening membrane the tubules filled
cast-off epithelium the interstitial connective tissue
proliferating and is more or less amyloid changed in the
Malpighian tufts and small arteries. The heart is flabby
its muscular fibers easily torn the cavities are distended and
soft-black coagula very loose the white corpuscles are much
increased in number. the most important change in the
composition of the blood is the formation of pigment from
Hemoglobin the hemolysis is set free

Symptoms

a certain period elapses after exposure before there
are any disturbance in the functions of the Period

Varies from a few hours too many weeks
 the average is usually fourteen days in long.
 Progress of cases the patient has a feeling of lassitude
 and weakness super with backache and general muscular
 soreness he has an inclination to yaw on cold damp
 days his headaches tongue coated stomach & gums
 towards evening his skin becomes dry warm his
 sleep is disturbed by dreams and in the morning
 there are profuse sweating there is a yellowish tinge
 to the skin languor loss of appetite and condensation
 the vomit is loaded with bile pigment intermittent
 fever - ague & Fever. There are three distinct events
 in every Progress of intermittent fever - the chill & the fever
 and the sweating when the chill comes on there is a
 feeling of Restlessness weakness & illness there is head-
 ache. Backache Creeping chill is felt along the Back
 the whole surface becomes cold and the patient

gladly return to Bed does not make any
difference how much cloathing is put on the
bed the fingers become blue his lip blue the nose
Pinched the countenance shrouds are felt after another
shuddering comes on the teeth rattle together the
bed shakes meanwhile the pain in the back, head & limbs
continues, there is extreme thirst and often
nausea & vomiting Respiration is quick voice is weak
trembling pulse small rapid the voice is false & hoarse
begins to rise with out of the chest the thermometer
indicates fever the chilliness remains for several hours
the chilliness does not abate abruptly the shivering
subsides slowly as the feeling of warmth appears, the
face becomes flushed Pulse becomes fuller bluness of
the skin disappears and a throbbing is felt in the
head and pain in the back and limbs disappears a pain is
felt in the temples the ideas are confused, the patient is

Tempted to get up there is noise in the ears
Vertigo and nausea are experienced in attempting
to get up. the Mouth is dry Thirst-Constipation
high color scanty urine Duration of this stage
varies from an hour to Ten or Twelve and ends
by the third sweating stage while the fever is
succeeding a slight Moisture occurs on the fore-
head, presently it becomes to drops and finally
pours off. Sweating the sheets. Shortly the sweat is
an acid in reaction contains a large quantity
of organic Matter the urine is also acid and
high colored owing to the Pyruvic acid contains
much Uric Acid the disease may begin abruptly
when the patient is in full health or during the
feverish state or in the course of Chronic
Malarial Poisoning
Intermittent Fever Ague and Fever

There are three distinct events in every Paroxysm
of Intermittent Fever the chill the fever & the sweating
when the chill comes on there is a feeling of Restlessness

Course Duration Termination

After certain intervals which is different in several
Types and there are again presented a chill fever
and sweating Intermittent fever follows a defined
periodicity the variety of types is known as
Quotidian Intermittent they do occur on
alternate days on the third day including
these attacks there is still another variety
it is called Quartan Intermittent this last
variety is uncommon. Sometimes two distinct
Paroxysms may occur on the same day
the Tertian it is a variety in which
there are two distinct Paroxysms on one day
and one Paroxysm on the next and finally there

after day without fever diarrhoea comes
with the disease or Malaria. Prussing he said
thereby occurred the disposition to attack continues
for a long time or Period for years exposure to cold
Diet Fatigue Mental anxiety may excite an new attack
It is rare for Intermittent Fever to cause death directly
but Indirectly through various alterations running
in Malarial Periods the course of Intermittent is much
diversified by the variation. a profuse sweating
copious Urinary discharge, and rise of Temperature
there is an attack of *Yersinia* when Diarrhoea occurs
it may be Intermittent or Remittent sometimes accompanied
with Abundant Sputum not very frequently the attack
occurs in cardiac nervous trouble Producing a Stenosis
of Arteria Pectoris. There is some of great difficulty
in breathing a slow hard pulse cold skin blue
lips & fingers ending with Gros eruptions of skin.

a discharged quantity of pale urine
Fervid Intermittent in those parts of United
States where Malaria is most-concentrated and
Malarial fever most-severe the ordinary Intermittent may
assume a most-favorable character it is properly
known as Convective. That an attack of Intermittent
will assume a fervid character depends the condition
of reaction induced by every attack *Cholera Morbus* and
may render the Patient insupportable. There may be a profuse
sweating it is not often that the first-attack proves fatal
but they are being more and more dangerous and often
the first may succeed may be fatal in itself from
the Effluvia in the heart which is an obstructive
feverishness comes on rather in the fear or the sweating stage
while distress Intermittent heat is experienced by the patient
the surface becomes cold, livid & Pulse small and very
rapid action of the heart becomes feeble the skin



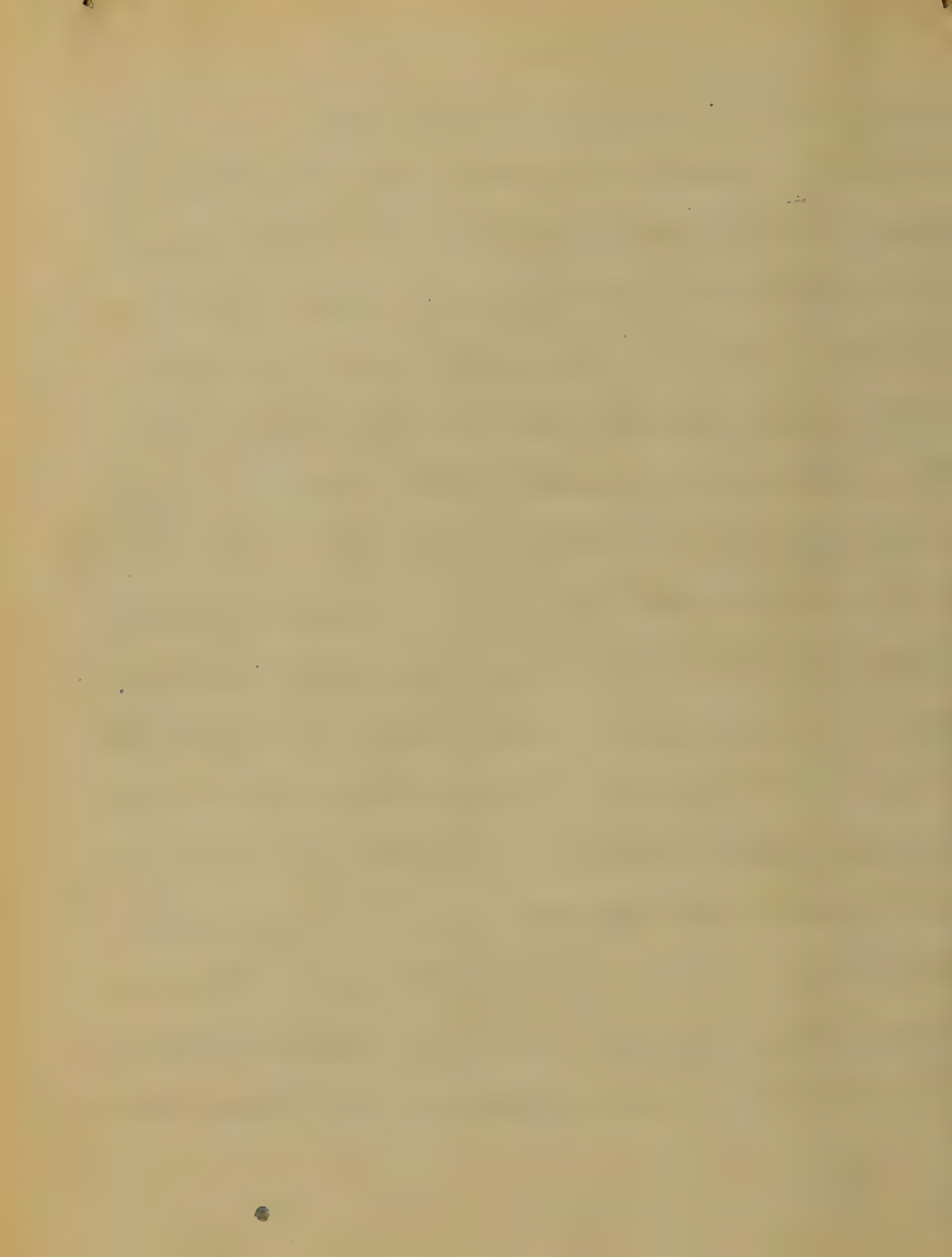
... with a cold sticky sweat but the sweat
... if death occurs the constitution of the
coldness disappears but after a longer or shorter
duration of the Agyid the action of the heat
grows a little stronger and gradually becomes
warmer until it restores the surface.

Signs of Intermittent Fever

When the attacks of Intermittent Fever have been
disturbed Treatment perhaps is apt to occur in
fact by the Treatment Intermittent of Fever may
have been removed in close inspection that there
and still occurring in regular Synchronous with
disturbance the Thermometer may show elevation
of Temperature there may be distinct sweat or
profuse Urinary discharges may occur after
a determination of Type of Prognosis may
occur the Pelagic from the Seventh & Fourth and



Doubtful first day. It is not a good sign. The
 birds will occur on the sixth day at the first
 former attack. Flaps will take place on the third
 six & ninth and twelfth day and soon the recurrence
 of flaps is definitely upon the age it is most
 greater under twenty and vanishes after
 six weeks or six months. The tendency of flaps
 is due to the conditions which determined the first
 seizure the result of long continued action
 of thalassa. While the most disastrous the blood
 loses its red globules while the white diminishes
 in size and increases in number. The spleen
 becomes swollen the liver & spleen enlarged. The
 skin is yellow the appetite is poor. The excretion
 yellow stools and a clay color and the urine
 may contain albumen and is colored with hae-
 moglobin. Fluid accumulation in the peritoneal cavity



Symptoms indicative of disturbance in the
Intracranial circulation such as headache
Vertigo Sopor

Prognosis

Ordinary Sympal Intermittent fever or ague is
is not a grave affection whenever the disease
undergoes immediate danger it is to be considered
as Remittent and not belonging under the
head of ordinary or Sympal Intermittent
Fever an important fact Intermittent Fever at first devoided
of medical danger may become Remittent an ordinary
or Sympal Intermittent may become very serious
if continued long, or recur frequently by Medicines
anemia general dropsy or Malaria cachexia the effect of
Sicca however they are very rarely themselves
fatal death may result from prostration of Intermittent
fever with other affections it is not a small matter to

Diagnosis

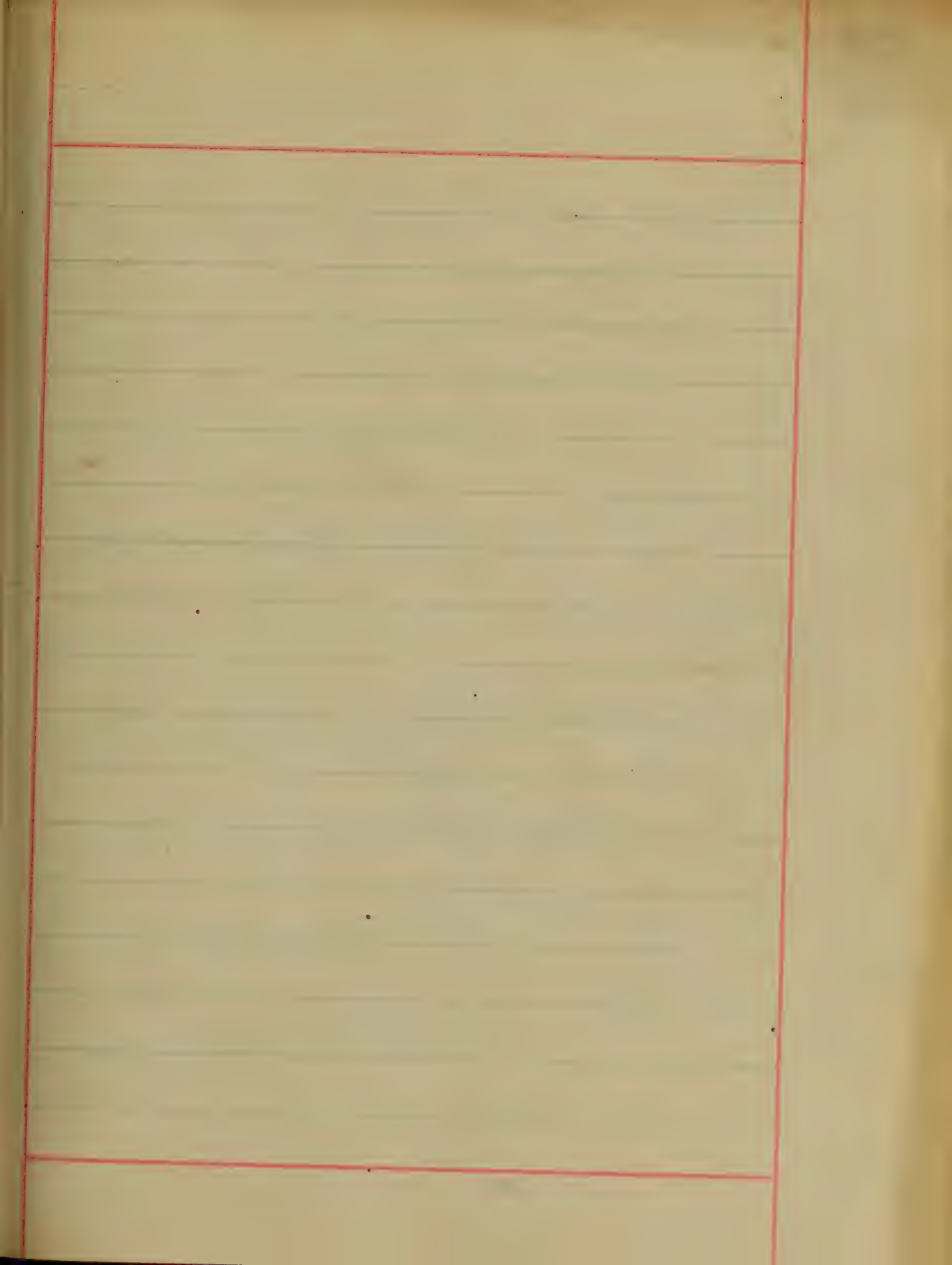
A case of Intermittent Fever complete at all points could hardly be confounded with any other - Malaria or Malade. It may be mistaken for Pyemia in which they are distinguished with an interval it differs from Pyemia in its course and in clinical course Intermittent is due to suppurated Miasm Pyemia to wound suppuration of tissue Intermittent is regular in course Intermittent begins effusion promptly cured by Quinine Pyemia is a fatal disease over which Quinine has no other influence it ought to be remembered that Remission has occurred at time when the regular Proxyma is due and that probably a strong malarial influence precedes the comatose variety of Opium produced by

Palpitation of the Heart and a various Humour
 over the great vessels occurring a watery state
 of Blood, and for the same reason Epistaxis
 takes place menses becomes profuse the change
 that takes place in the Blood and due to
 various causes to the interference by the
 Stomach & Intestinal trouble with primary
 assimilation to the morbid state of the Blood
 making organs especially to the destruction of the Spleen
 of the Red Blood globules and to the
 conversion of hæmaturia into Pigmur
 which we have shown to take place in various
 cases among all other Nephritis amygdal
 degeneration of the Liver Kidney Spleen
 and Intestinal glands Sclerosis of the Liver
 anaemia Dropsy Tuberculous Neuralgia
 Epilepsy Hemiplegia & Mucia

Contract - Intermittent was on account of
libility to relapse, and w. account of Diseases with
other effections

Treatment

For the cure of Intermittent Fever Medicines
Proves Specific in any remedy are
intended to this Affection this Treatment is
Salts of Lime of which Sulphate is one
Universally used Sulph. Lime will promptly interrupt
the recurrence of Paroxysms of Intermittent Fever
in most majority it is always desirable to meet the
disease as speedily as possible the Preparation of Cinchona
and other anti Powders and good Intermittent
remedies is Maximum Force.



Presidential Power.

Ed. D. Dowd,
Gainesville,
Texas.
1880

"Puerperal Fever."

Puerperal Fever is a name given to a disease peculiar to women in the puerperal state, and at times affecting those in the latter period of gestation. It is both contagious and infectious, and occurs occasionally in epidemics. According to modern views of the disease the most common cause to be alluded to, and which implies some disease, is not itself fever, but a symptom of the disease. A better name, in that regard, is not mentioned without any

puerperal septicemia, since it is
a disease characterized by the same
symptoms, viz, which are found
in surgical septicemia. The disease
has been known from the time of
Hippocrates, and has at various times,
and in different epidemics, been
the cause of many deaths among
puerperal women. It occurs
with great frequency, being the
cause of 51 of the deaths
occurring in New York City.

According to statistics, the proportion
of deaths, from the disease, to the
number of births, in the community
between 1855 and 1875, was 1 to 146.
The disease is very violent, is one

to which all flying mammals are liable,
and one which often proves fatal
in young birds & tender fowls;

Pathological Anatomy. — The pathological
anatomy of the parts affected is
classified by B. Spigelberg in the
following manner:

1st. Inflammation of the Oviduct, Fallopian
Tube, &c. — Oviductitis & Oviductitis.

2nd. Inflammation of the Uterine Pouch
and of the Salpinx, or Fallopian Tube,
&c.

3rd. Inflammation of the Cervix, or
neck of the Uterus, and its appendages,
Cervicitis, Cervicitis, &c. &c.

4th. Inflammation of the Uterus, or
the formation of a tumor, &c.

peruviana.

5th Pure Strychnia - Cutis Absorption.

The first form is of two varieties,

Cutis, but a superficial one - Ulcerative.

The second is the most common and most frequent variety. In this form

the disease is confined to the vagina

is smaller and less extensive than the first

and is attended by less pain; the itching is frequent;

The tips of the vaginal fingers of the

ovary are sometimes red and swollen

and sometimes bleed at the

slightest touch; but the only part of the

body that is diseased is the vagina,

and pain is frequent.

In the Ulcerative form, the disease

is first met frequently in the

weight, and of the position in
various cases. The weight is
light. They find them in other
parts of the spine, in the ribs,
and in the cavity of the lungs,
and in the sin. dist. pleura.
They are also found in the
cavity of the abdomen, in the
peritoneum. The most common
is in the lower part of the
cavity of the abdomen, in the
sin. dist. peritoneum. They
are found in the sin. dist. peritoneum,
and in the sin. dist. pleura.
In other parts of the body,
they are found in the sin. dist.
peritoneum, and in the sin. dist.
pleura.

in the lining of the cavity. There will
occur a local inflammatory infiltration of the
tissues of the cavity, the exudation
being soft and fluffy. In the
of the first division, this may be
followed by pyogenic in the more
central part, when the entire
cavity will be inflamed, followed
by severe infiltration, the formation of
pus, abscesses being formed in dif-
ferent parts. The lymphatics are
enlarged. The inflammation may
extend to the adjacent connective
tissue when it is termed para-
metritis; or it may extend to the uterine
muscle when it is termed myometritis.
This inflammation

is first characterized by edema,
the fluid portion being composed of
free-cells; or it may be plethoric.
If this collection of fluid is small,
it may disappear quickly; if large,
the free-cells undergo fatty degeneration,
the fluid portion is absorbed, the
remainder forms a hard tumour which
under favourable circumstances is to
be cut out in a few weeks. Ulcers
are rarely formed. Pleurisy sometimes
may also occur from the absorbed
viscosity of the first division, from
the inflammation, either extending
through the permeability of the vessels,
or passing through along the pleural
free surface. It may also arise from

to maintain from stretching and
irritation. The extension of pelvic
fractures may present different
fractures. The fourth division
is here it occurs, it is to be
fracture of the sacrum and
pubis, the fracture of the
in the anterior and posterior.
There should be a good prognosis
from a fracture of the sacrum
the best information, prognosis
to be a softening.

Blind's History. - A fracture
of the sacrum is usually of
about three days duration, and
may be the result of a fall
into the water at the bottom

the fever. There are no prodromic
symptoms during this period.
Distantly sharp, increasing
of the afternoon and a pulse of 110
or 90 are suspicious symptoms.
If the attack comes on a few hours
after childbirth, the infection has
taken place before or during labor.
If a week elapses after parturition
without the patient being attacked,
she is generally considered safe.
They are usually attacked after the
fifth day. The following patho-
logical symptoms are present; in-
creased temperature, usually not
over 104 by a child; enlargement
of the Spleen; distended umbi-

But in the acute cases of the
nature of the disease. The
chill may be the main
cause; if they are febrile
cases, and pyrexia is indicated.
Symptoms. - These vary
with the different varieties of
the inflammation -

In Acute Catarrh of the
and phlegm, and sometimes
and; after pain of the unusually
acute; in others, etc.; the
local is more felt, namely that
the organ is much enlarged,
and the temperature is raised; the
large circulation is sometimes
interfered with, etc.

In *Ensiscolopita* the original height
is thin and pointed, pair not
varying in deflection or in
position; extreme of the bulb is
where the various outcrops are
situated. The form is usually
subcylindrical, is of more
uniform taper, usually reaches its
height in the evening, is tallest
on fourth days, and is measured
 103° or 113° N. In the course
of the disease the form may continue
from first to second days. At the
end of second day, the swelling of the
cabin subsides, and the animal,
if preserved, begins to grow better.
In *Palaemonetes* the form is

accompanying by a chill or rigors
by convulsive, voice rapidly, and
ing its height, number, and time
and day, and in some cases
a pulse of 103° in evening, 102° in
the middle; it declines gene-
rally, but not regularly.

In cases of long standing there
may be some fever in the morn-
ing, but other symptoms, such
as rapid pulse, disturbed sleep,
anxiety, and sometimes a
pressure upon the sides of the
chest will show some list-
lessness. They have appeared
after complete disappearance of
the fever, which was usually

Shorter than the primary attacks.
In circumscribed inflammation
the pulse rarely exceeds 120 to 130 per
minute. If it reaches 140 per min-
ute, severe septic complications
exist. In the first day or two of the
fever, there may be a pulse of 50 or
70 per minute, with a temperature
of 104° F. Other symptoms are:
Headache, sleeplessness, profuse
sweating following attacks of fever,
pain, want of appetite, rigors of
the uterus sensitive to pressure,
occasional vomiting, constipation,
constipation common, & rarely
diarrhea. Most cases terminate
in five to ten days, the symptoms

gradually subsiding. If the fever
continues longer than a week,
there will be suppuration, the deposit
forming a tumor, which is less
common than a fibroid or an ovarian
tumor, and which seldom exceeds
in size, that of a large apple.

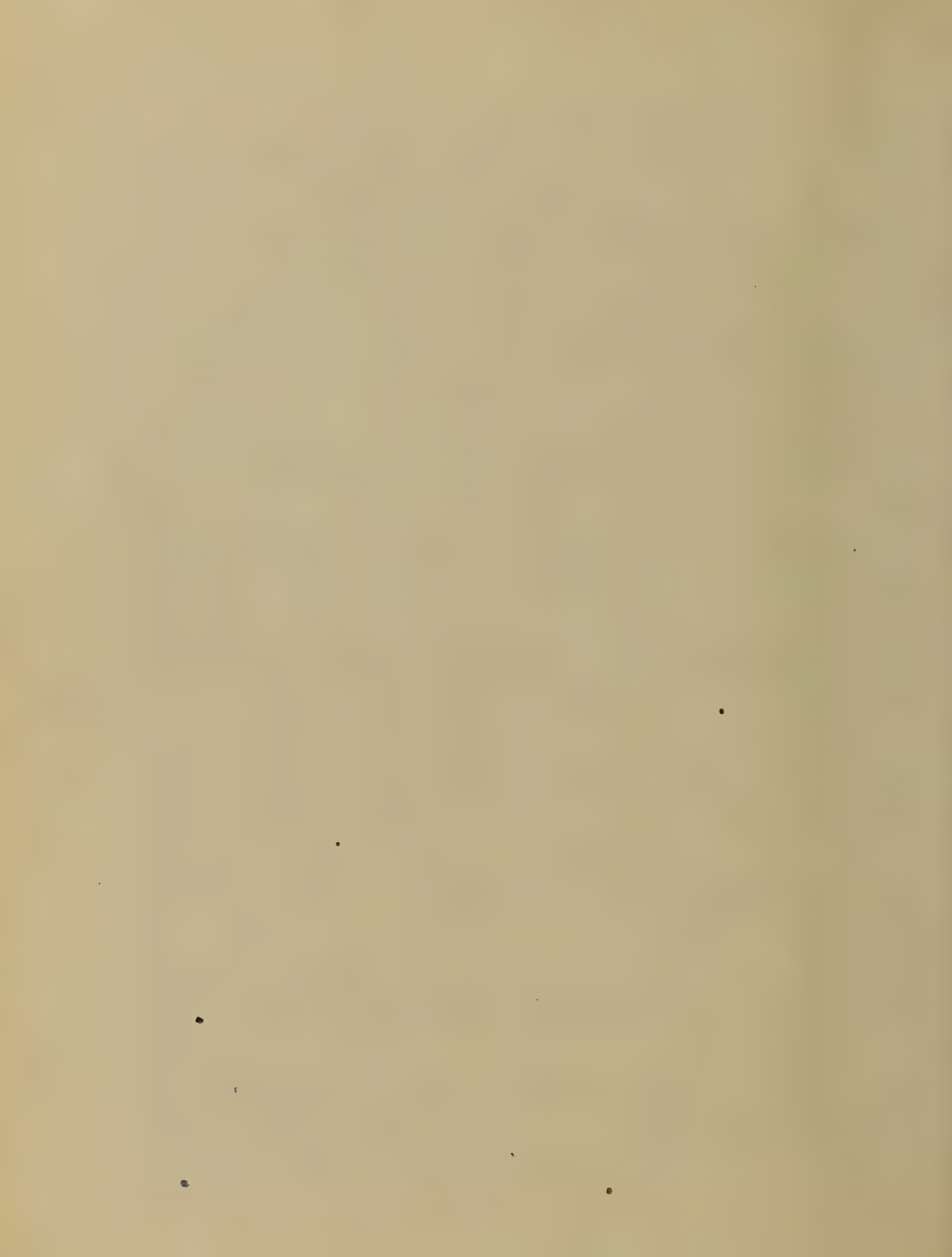
The older the tumor, the less in-
tense will it be. The suppu-
ration usually disappears rapidly, as
the fever passes off. If the fever
lasts for five or six weeks, there
is likely to be free formation.

Diffuse Peritonitis usually begins
with an intense chill, the
temperature rising afterwards to
104° F. pulse is small, hard,

with resistance, rapidly increasing to 150 or 160 beats per minute. Tenderness gradually spreads over the abdomen; the pain in the abdomen being of a tearing or lancinating character.

Dyspnoea from pressure of gases in the bowels; respiration of a grating character; rupture of the contents of the bowels as low as the middle portion; constipation at first, which may be followed by diarrhoea. Peritonitis lasts from four to six days.

The symptoms in the Septicæmia variety differ somewhat with whether the focus is taken up by



The Lymphatics or by the veins.
In that variety, in which the
pus is taken up by the lym-
phatics, the disease manifests
itself soon after labor. This
variety is always attended
by a chill; temperature 104° or
higher; pulse thin and frequent,
ranging towards the end, to 140
or 100 beats per minute; abdomen
swells rapidly, but is not firm, full,
turgid, or painful, generally slight,
water sometimes quite clear;
discharge at times; blood in
the nose frequently; respiration
superficial and quick; urine
usually contains albumen.

Plum is a great complication
of this form. The most frequent
windy is south, which oc-
curs in form from 6 to 10
days.

The winds, in which the plum
is taken up by the wind, is
combined in by a violent chill,
long continued, which may last
for hours, and which is ac-
companied and followed by high
temperature, this is followed by
profuse perspiration. The form
is of the smallest type of the.

The pulse rises and falls fre-
quently, with the change in temperature,
but in other cases it remains

above the average.

Causes:

Causes are of two kinds, viz: congenital and hereditary.

By congenital infection is meant those cases in which the woman inoculates herself. The decidua scaling off ^{the} mouth of the uterine sinuses, ^{are} ⁱⁿ ^{the} ^{case}; the passage of the child along the genital canal may produce some disease in the child along that route. If part of the placenta or membranes are left in situ, they decompose, and the poison passing through the open mouth of the uterine sinuses, or through

through the open wounds before they
begin to heal, the patient in some cases
herself, and puerperal septicæ-
mia is not infrequently introduced
not soon after the wound begins
to heal.

Heterogenic infections.— Any material
of a septic character introduced, from
without, into the genitalia, from
man to man, or after confinement,
may produce the disease. The in-
fection may be carried from one patient
to another by physicians or attend-
ants. Epidemics have been produced
in this way. It is said that the
epidemics are attended by
the more deadly forms of

is generated. This was shown
by experiments on animals.
Plyfain thinks it produces
any accompanying material
infect, and being formed in
the same form, derived from
contact and first appearance
in an embryo, with the
virus and Dr. Simpson is
an authority. Some think
that there is not a marked
prevalence of the disease of
patients, who have had any
ordinary disease, but only in
those who have had of some
febrile or contagious disease.
Dr. L. H. ...

found, from his experiments, that
the poison was peculiar to pro-
peral septicaemia. The injection
into the region of genital acidity,
arising from the action of sperm
which had not died of septicaemia,
and produced no fatal result;
while rapid death followed the
injection, under the same cir-
cumstances, of pure poison into the
thorax of a woman who had died
of pro-peral septicaemia.

There is thought to be some re-
lation between the symptoms
in these two pro-peral forms.
Lankford thinks, that a poison
may be conveyed from patients

suffering from irritation, diffi-
culty, or impediment, which may
be attended by the formation
of a tumor, and may in long
time to an impaction of
our intense structure. The fact
of a suppurative inflammation
occurring in paronychia
which extends from paronychia
original ulcers over the skin of
the hand down to the base, or up-
wards over the ulcers, shows
the connection between the
disease and impediment.

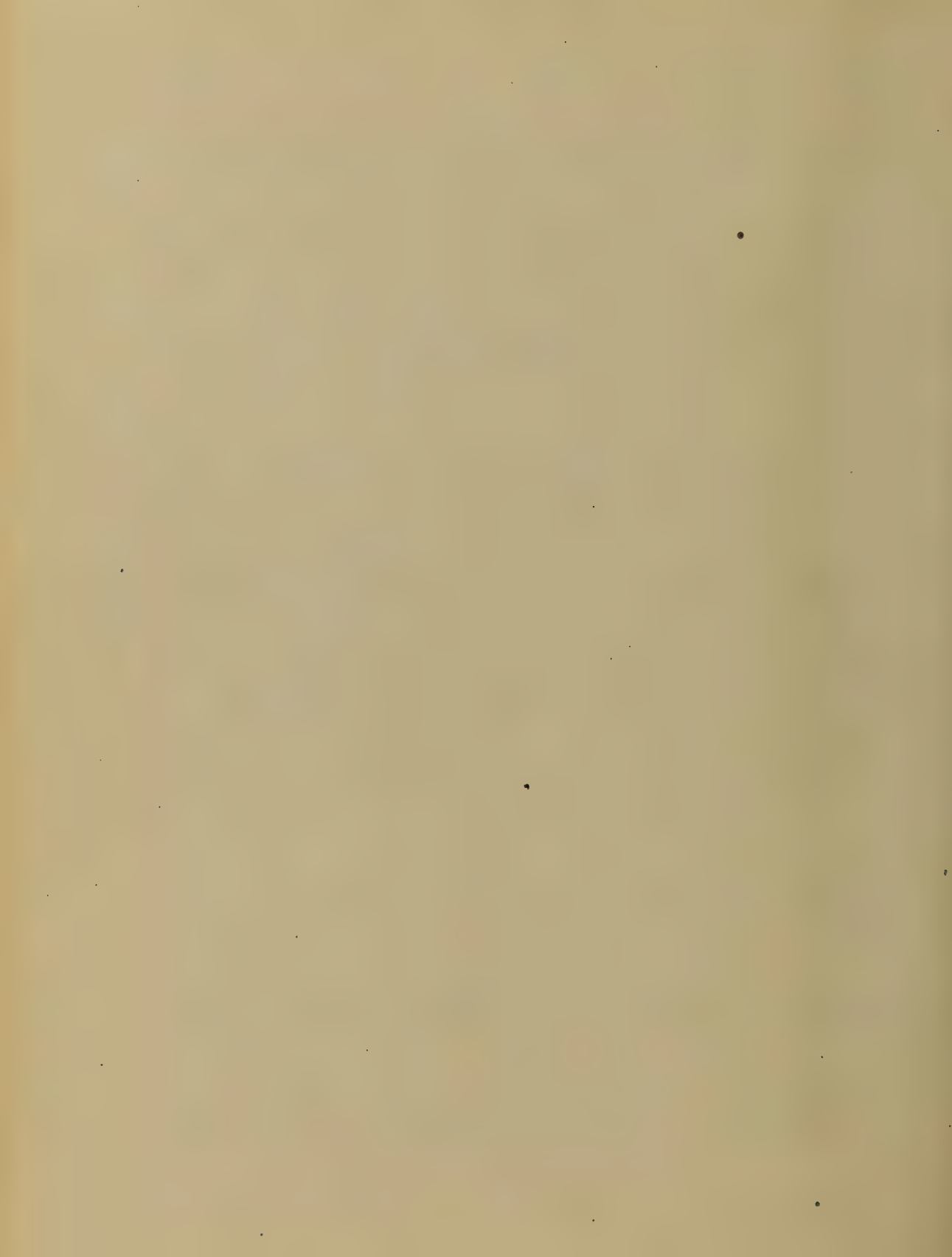
Some think the disease due to
a pressure, but this may
be proved through the structure

of the disease, and it is not the
disease, even on the most
proper soil. It does not develop the
disease. Dr. Joseph Clark
said, that during an epidemic,
the cause appeared to be common
general occurrence, rendering
even those who do not have
the fever, liable to remain in
bed for a longer period.

Prevention of it.

Waller's gives the following indica-
tions of prophylaxis, and
submits, when followed will
prevent the occurrence of the
disease, except in very
unfavorable cases.

It is necessary to prevent the
introduction of germs. This by
antiseptics before confinement.
3rd To prevent the infection of
the lower genital tract.
4th To accomplish this, there is
antiseptics at after confinement.
5th To shut up the doors into
symptomatic and pathological
traces. This is best done by the
employment of measures which
promote uterine contraction.
Physicians should avoid at-
tending cases of labor when
fresh from the presence of
contagious diseases, or from
contact with septic materials.



Even if it be true that the patient
is over peculiarly susceptible
of fear, as some authorities
think, and as the same
would be proved, the risk is
not great to allow of him con-
vulsing the risk of inflicting on
his patient such a disease,
which will most probably
end in his death. Especially
should be avoided attending
of value if he have a patient
with general fear, however
careful he may be to dress
himself and to change his clothes
frequently all these precautions,
many instances have been

known where such action on
the part of the accoucheur has
resulted in death to his patient,
or the fatal affection. If he
should attend women in confi-
dence, while he has a case
of puerperal fever, he should
change his clothes and disin-
fect himself, for even, ~~then,~~
with these precautions, the da-
ger of conveying the poison
from one patient to another
is very, very great. Physicians
should avoid making too frequent
examinations during labor.
Care should be taken that no bits
of placenta be left in the uterus.

All instruments used should
be rendered antiseptic. Should
have good ventilation and plenty
light in the lying-in room as
they aid in preventing septic
decomposition. In other words,
the accoucheur should perform
his whole duty to his patients
where, if this is done, he will
have very few cases of puer-
peral fever.

Treatment - As like surgical
septicaemia, the disease is due to
septic infection, the first thing
to do is to inject a two or four per
cent solution of carbolic acid into
the vagina every four or six hours.

as it is the source of the vagina
or cervix from which injections
generally take place, and as in-
jections are apt to collect in the va-
gina from the position of the
organ in bed. The solution should
not be injected into the cavity
of the uterus unless strictly
called for. Intra-uterine injections
are called for when there are
loose portions of placenta, strips
of membrane, or coagula, which
are the active causes in the pro-
duction of the fever. These injections
should be made with great care
using the syringe in a horizontal
position. For uterine injections, or those

some of it will be retained,
If there be peritonitis join, treat
with opium. If constipation be pre-
sented, relieve by purgatives, and when
there is not a local inflamma-
tion, when some is retained
Do not fear to give the local
bain freely. Treat first with
opium. If this fails to remove
it, treat with your cathartic of
choice, but what is indicated
later, for long prostration, Cold
is retained in connection with
other catarrhs.

Liquid food, as milk and
Lump tea should be given
very soon after the above to keep

use the patient's strength.

Electrolysis in small doses, may
be given in some form.

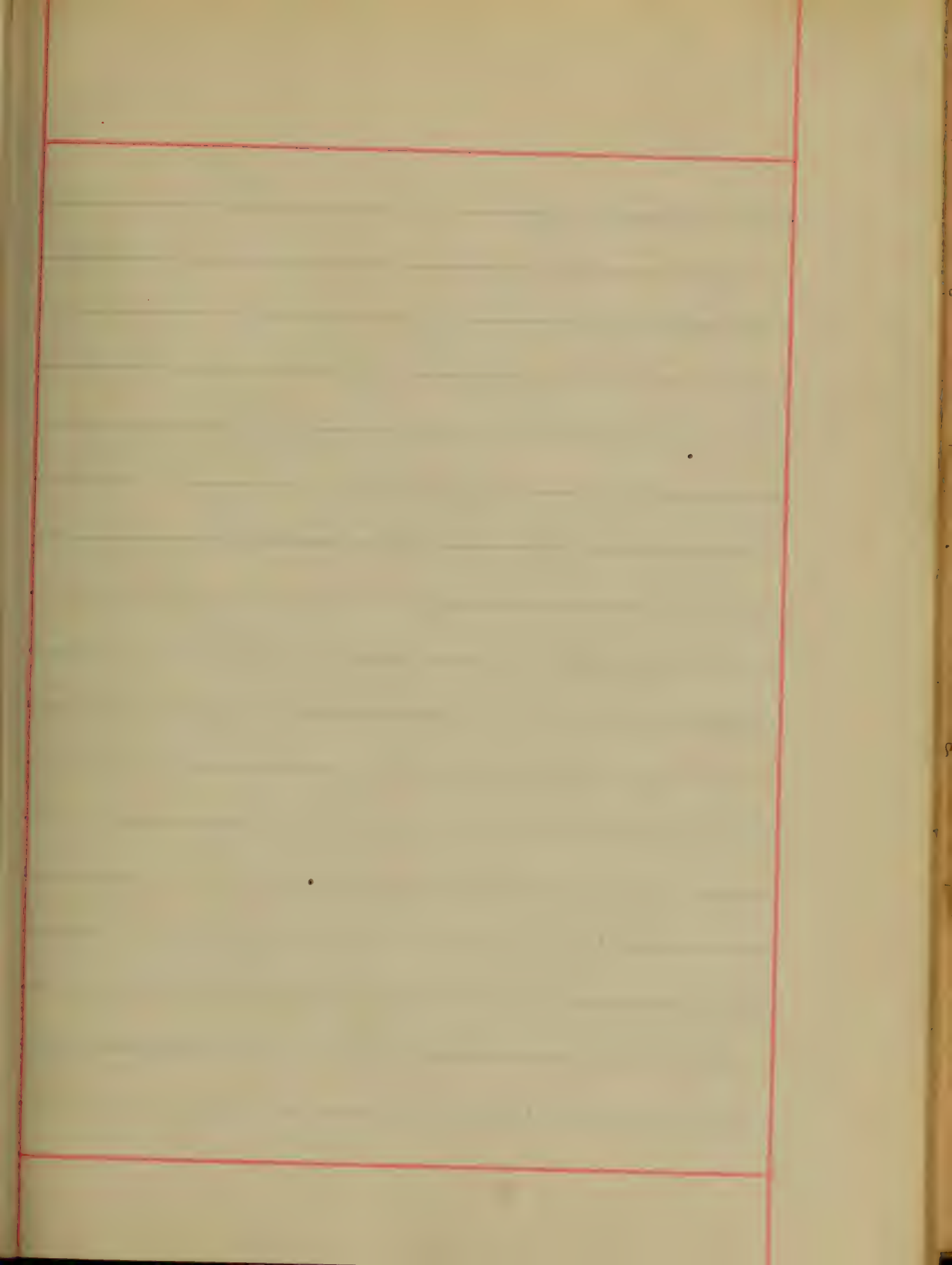
As soon as the degeneration
of the patient gets stronger and
steadier and even more vigorous.

Prolonged rest in bed should
be enjoined. If there are any
traces of pelvic disease, find

the points of suppuration, —
make a free opening, and let

the pus out. Break the abscess
cavity by frequently inserting

the probe.



Shelton
Lynch & Co.
St. Louis
1886

Professors I say of some read
his production of the pen, excuse its
brevity - originality, and many other
faults, and at least accept it as
payment of the debt each graduate
of medicine owes, that of writing
a thesis.

As several of the students say that
they have written theses of a hundred
pages or more, which if they all
did, you would hardly have time to
read (matters not how thirsty you
might be to acquire the knowledge
which they contain).

As a student attending lectures and
studying for examination. (and of
course to make a good physician
of himself) has very little extra time.
From these reasons, but more

especially, as I have made very few
discoveries, yet to astonish the
medical world, hope you will over-
look its brevity, and also its many
other imperfections, for I am as
poor a writer as Dr. Marion Sims
thought he was, when young.
But as these are not for the edifi-
cation of the professors, but to give
them an idea of what the student
knows. I hope this one will at
least show you that your lectures
have awaked in me a desire to
learn and thoroughly understand
the medical science. (however
far I may be from it at the exam-
inations) And the manner in which
all of you dwell upon the importance
of making a correct diagnosis, going
to the bottom, or finding out the

cause of everything is why I have
chosen such a subject and written
— it a learned discourse.

With this elaborate introduction, which
is nearly as long as the thesis itself,
I submit to your possession, if not
inspection. (and I hope you will not
expect it) this my thesis. asking
your forbearance, — especially at the
end — and hope I will not
have to ask myself. Why did I not
get my diploma?

at all very respectfully and
humbly
yours

Wm West

Jan 10 1860

Why

There is no question a physician or student of medicine, should ask himself often, and answer, or at least endeavor to answer,

then that, containing the word Why. He must make of himself, as it were, a living introspection point, and everything he sees, feels, hears or does, he must ask himself Why he sees, feels, hears or does?

It is true that many things occur, or don't occur, the cause of which have not yet been satisfactorily explained. Such as the mode of action of some drugs, many things in chemistry, or

Why the stomach don't digest itself
and many other similar questions,
that can only be answered, with
an hypothesis, or not at all,
It is true that some say, that the
stomach does not digest itself, from
its vitality, because its walls are
alkaline, the gastric juice only diges-
ting. in the presence of an acid, and
from its thick ^{mucous} and epithelial coating.
But it is known that living things are
digested in the stomach. and when it
comes to the walls being alkaline, pre-
venting the action of the gastric juice
the question comes up. Why don't the
duodenum digest itself? for there
the pancreatic juice digests all
kinds of food. and - but, in the presence
of an alkali. or when it comes

to the thick mucus coating and epithelial lining, which are not digestible by the gastric juice, then why the ulcers of the stomach, when the mucous membrane is destroyed, muscular tissue exposed, why don't the gastric juices digest right through the walls. But all questions like these, are yet to be solved, and while they will give to their discoverer fame, still, whyes that will most concern a young physician starting out, are those that are explainable: and while we may not know, why a medicine acts, we do know how it acts: and should know why we give it. Though we don't know, why the stomach doesn't digest itself, still we know that

It does not digest itself: and should give nourishment to our patients not expecting it to go into the peritoneal cavity, but to be assimilated and absorbed from the stomach etc.

When a physician is called to see a patient suffering pain etc. he should find out why there is pain; what remedy will best relieve it, and why. For how foolish to use anodyne liniments: for pain referred to the shoulder, when a person has disease of the liver: or to make local applications to the testicle, when a patient has Bright's Disease; or how foolish to pour turgid down a woman's throat, expecting to cure her of her menorrhoea, when an antiphlog

at least of the various (or present forms)
is the cause, or how not only
foolish, but wrong, to treat incip-
ient or the first stage of coxalgia
as rheumatism, thereby losing
much precious time.

But he must know why there is
pain, what is the cause of it
and to be original cause.

When he performs an operation
he must know why he operates
whether it is necessary to save
life give a useful limb, or to
if some advantage to be gained,
and if only to put money in
his own pocket.

When he gives a medicine he
must know why he gives it, for
I will act, and not give me

drug always for the same dis-
ease, in a mechanical way,
not treat the name of the disease,
but the disease, or its symptoms.

As a student of medicine, with
interest and pleasure, and also
with great practical advantage
to a physician, he might ask,
Why does a plastic cause redness
of the part to which it is applied?

Because the vasomotor nerves cause
dilatation of the delivery vessels
of the part, and more blood goes to them.
Why does cold or fear cause paleness?

Because an influence is sent to
the vasomotor center, which sends
out an influence to the vasocon-
strictors of the part causing contrac-
tion of the blood vessels, with less blood etc.

Why does cold cause wrinkling
of the skin or goose flesh?

Because each hair has at its root
a little muscle, which is caused to
contract shrinking the hair.

Why does alcohol render persons
unable to stand as much cold
as they could, if they did not use it?

Because alcohol prevents oxidation,
and causes increased flow
of blood to the surface, thus bringing
more blood to a part where it
is most rapidly cooled.

For the same reason, just the least
hint of increasing the flow of blood to
the surface persons coming into the
house from out in the cold, and
unable to get so full warm, alcohol
causes them to feel warmer by

producing dilatation of the peripheral blood vessels, causing more warm blood to flow there, and thus raising the temperature, where the sense of heat and cold reside.

Why is it, that a person after receiving a blow upon the head, a contusion, and having recovered from the first shock may in course of several hours have a secondary shock or collapse?

Because a blood vessel was ruptured by the blow, and the blood escaping all the time into the cranial cavity, causes compression as soon as enough has escaped, the smaller the vessel ruptured, the longer will the secondary shock be in following the first, not only

because I take longer for the
same quantity to exude, but also
because I take a greater quantity
the brain seems to become excess
so it were to the pressure.

Why should you tie both ends of
an artery or vein?

To prevent recurrent hemorrhage.

Why is it that an artery only partially
cut will continue to bleed when
if it were entirely severed it would
I suppose to bleed.

Because when only partially cut
I cannot retreat, another cause
a clot to be formed.

Why don't a woman after parturi-
tion bleed to death with the great
number of open mouthed veins
opening to the uterus during

only a thin internal coat, in the
power to contract or retract in
their sheathes?

Because the muscular fibers
surrounding the veins, with the
contraction of the uterus act like
so many ligatures, tying them
Hence the importance of permanent
contraction of the uterus to prevent
post partum hemorrhage.

Why does the middle muscular
coat not extend to the lower part
of the uterus?

To give less resistance there, so that
the fetus will be driven in that
direction by contraction of the uterus
We might ask himself why some
toes are so uneven, have so many
deep grooves, tubercles, processes

foramina etc. making to a great
part of anatomy. The legs a ball
down to the knee.

And he would answer that every
tubercle process foramen etc
was for the attachment of mus-
cles passage of nerves blood
vessels or for the articulation
with other bones etc.

If by all joints keys the wrist
to turn from left to right or
all wrist right-handed or left-handed.
Because the biceps muscle in
contracting separates the hand
turns the right hand from left to
right and the left from right to
left. Consequently left handed per-
sons work at a disadvantage with
such instruments as a screw

able to bring theiceps into play
If he should see injured eye, the
sight of which is irrevocably
lost be gotten rid of?

Because I may at any time take
on inflammation, and set up
sympathetic inflammation in
the other eye.

Why should strabismus be cor-
rected as soon as it is established?

Because after continuing for a
long time, sight in the squinting
eye is lost from disease.

Why should glaucoma be early
recognized, and not be mistaken
for neuralgia?

Because the only cure is early rec-
ognition, and iridectomy. It
should never be mistaken, or

menstrual, for menstrual causes
causes disturbances of vision.
Last, but not least, when he sits
in his bill he wrests with himself.
Why he sends it in.

And if he has answered all other
why properly, he can well say
because I have earned it.

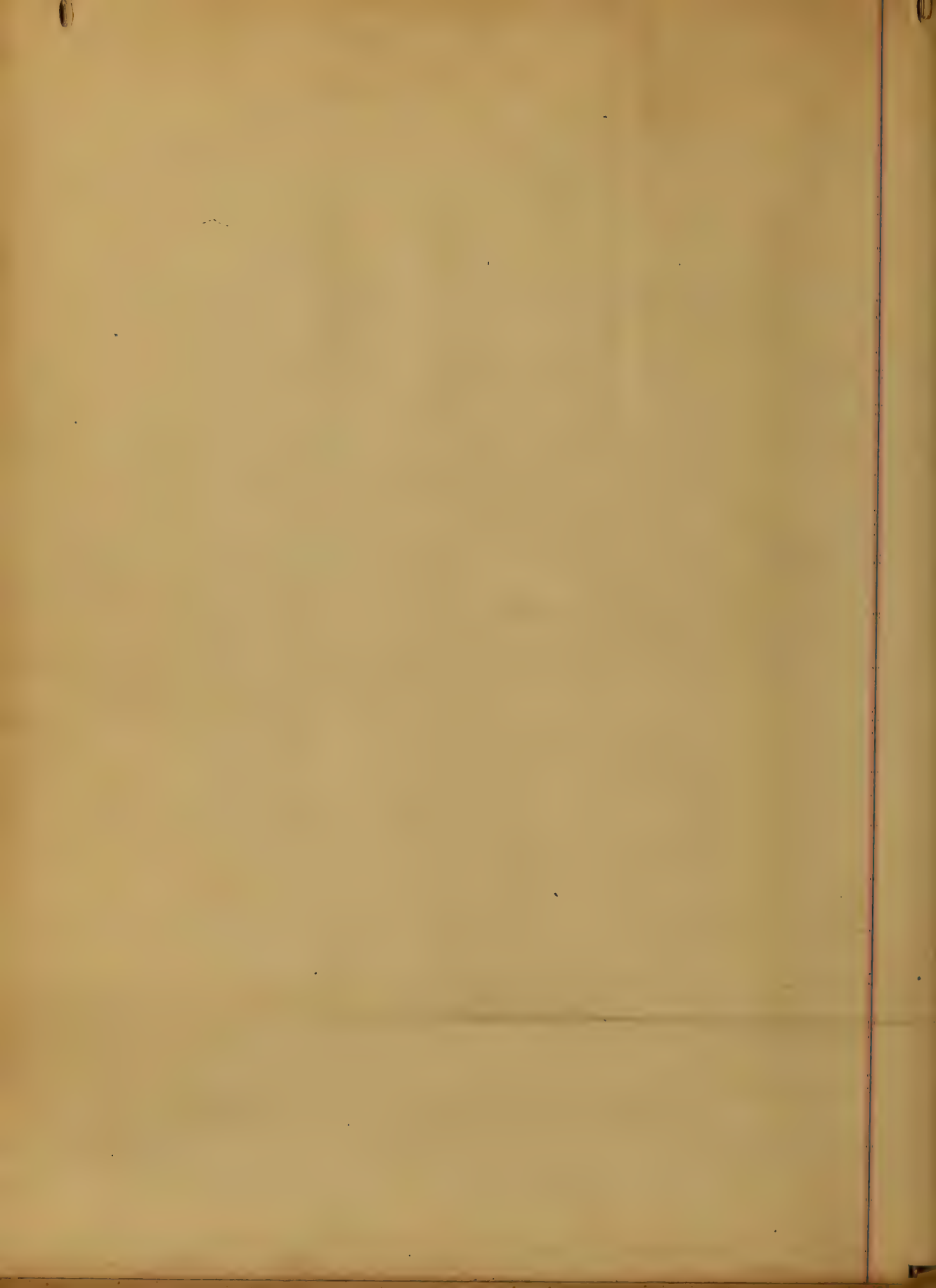
The Physiological Actions and Therapeutical Uses of Arsenic.

Before discussing the actions and uses of Arsenic, it will be necessary to give some of the preparations most commonly used as the pure arsenic is never prescribed itself. The solid preparations most commonly prescribed are arsenious acid and Iodide of Arsenic.

The arsenious acid - *acidum arseniosum* - is generally found in the shops in white opaque masses. Formerly it was kept in powdered form, but

lesions are found, but generally the mouth, stomach and intestine are inflamed. Eschar^s ^{perforations} of all the coats of the stomach and duodenum are found. The villous coat of the stomach is reduced to a reddish brown pulp. The heart, kidneys, liver, spleen are found to have undergone fatty degeneration, even when the poison has done its work in a few hours.

The above alterations are found also when death ensues from applications of arsenic to large cancerous and ulcerating surfaces.



Asiatic Cholera.

The disease here chosen as the subject of my treatise
is known by several names. The terms *Malig-*
nant cholera, *Shan T. a. l.*, &c.

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Thesis.

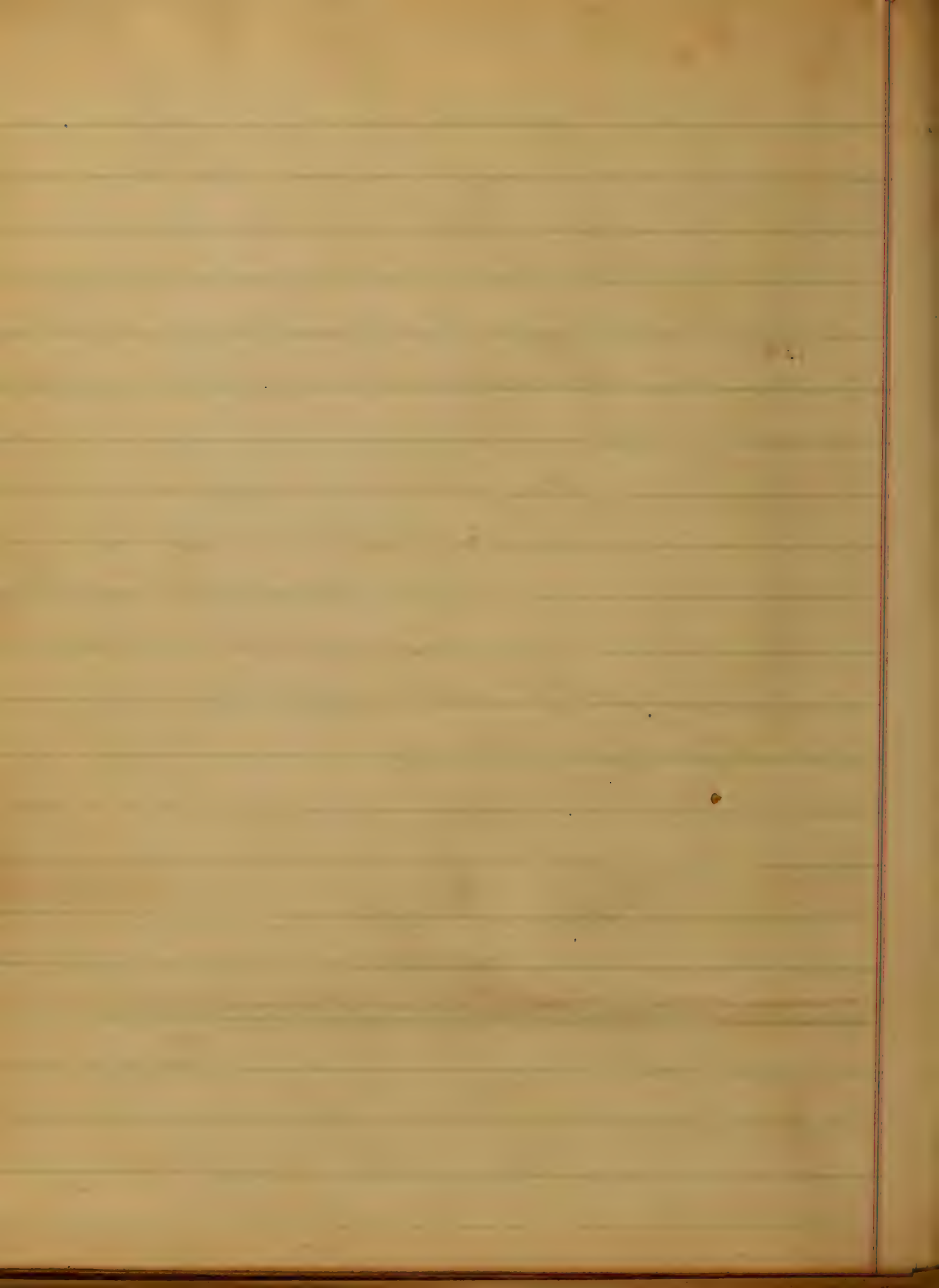
Ad. E. M. Triona



Development of the Embryo.

The whole human body is developed from the female ovum which has been fertilized by the spermatozoa of the male semen. Whatever spiritual, mental, moral or physical powers ^{are} found in man must come from this protoplasmic cell which has been thus impressed and undergone various and complicated changes in the accomplishment of such mysterious functions. It will now be our purpose to trace the development of the embryo from the earliest stages of conception to the full development of the incubation ^{and}

in the shape of a small pyriform vesicle, springing from the outer lar and inner layers of the blastoderm near the caudal extremity of the embryo. This little organ has an important part to play in forming an apparatus upon which the foetal vessels are projected to the maternal yolk from which it imbibes the materials of nutrition and to which it gives up those matters that are necessary to get rid of for its purification. The blood vessels, two arteries and two veins, one of which after



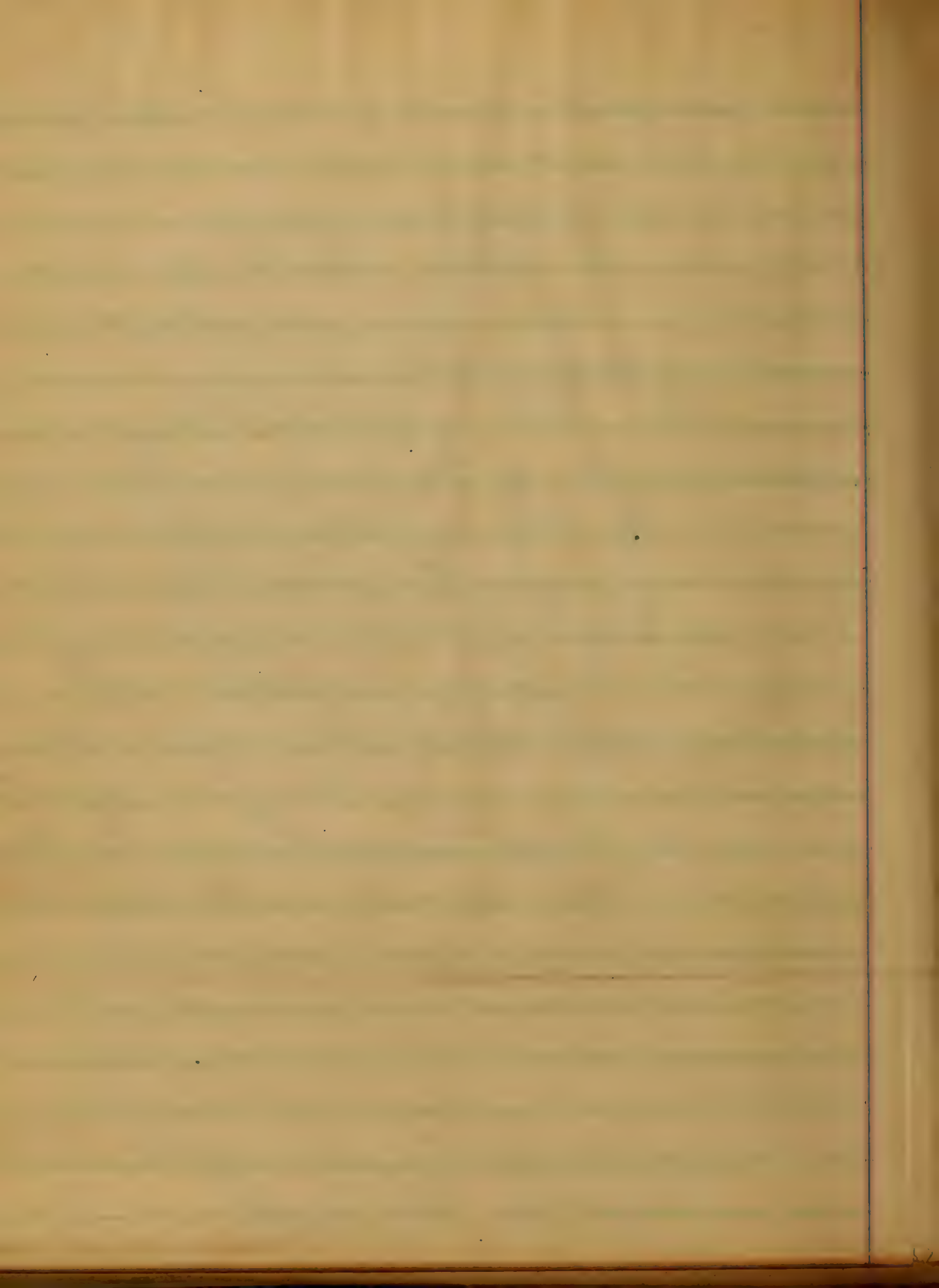
Typhoid fever

This disease is essentially the same in every country but it has received different names. The French give it the name of typhoïdisme or the typhoïde or typhoïde. English and German authors describe it respectively as enteric fever and abdominal typhus or gastric fever. American writers call it typhoid fever. It was called typhoid fever from its supposed similarity to typhus fever. But since it is known to be essentially dissimilar, and sometimes distinct from that disease, probably a better name would be enteric fever. For its route of entrance into the system

four feet above the ilio-caecal valve.
Though changes in their structure
closely resembling those which occur
in typhoid fever may take place in
other diseases, yet in no disease do
these processes mark a regular course
of development and present successive
steps of changes according to the
stage of the malady as in typhoid-
fever. The first change consists in hyper-
aemia and cellular infiltration with
swelling of the granules and
iteration of them above the walls of
the intestine. Both Peyer's patches and
isolated nodules are affected.

being cut off, become inflamed, necrotic and ulcerate. Thus the symptoms of typhoid fever may depend upon those changes which take place in the liver. Of course these things have not been proved they are hypothetical.

Differential Diagnosis. After five or six days the diagnosis of a typical case of typhoid fever is not difficult. It may be recognized by its gradual development, absence of pronounced remissions, the thermometrical curves, headache, tympanitis, diarrhoea, tenderness in the right iliac region and gurgling, and the appearance of the



tion of the thermometer is
sensed it a valuable remedy in
the hands of a judicious physician.
The following is the manner of its use:
As soon as the patient's axillary temper-
ature runs above $103^{\circ}F$. he is placed in
a bath the temperature of which is
 $70^{\circ}F$ to $75^{\circ}F$. The temperature of the water
is gradually lowered by ice or cold
water till reduction in the patient's tem-
perature is effected. If the temperature
fall rapidly to $99^{\circ}F$ in five or six min-
utes the patient should be removed at
once, for it will continue to fall with
removal. If the fall is more slow the

