Record of some work done
during the Winter Session 1876-77

By

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B. A. C. L. L. (1876)

Thesis in Competition for The
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Introduction

Preface

Not having thought of competing for this Prize till January of this year being ex-temtly busy in other bands I have been unable to work up one special subject to take thought that a second try at some other literary theme might be without interest. That such work is incomplete will be readily understood.

Thus as the experiment I could but try to write the essay over the middle of February. As regards me for the present I have probably performed as in the end will be clearly seen that the method of Experiment followed was not such as would have been followed had that been I mean my proposal. I could not delay till the next year because I understand that the three other candidates of that year taking nothing were altogether excluded from future competition.

These few words in parenthesis I trust make clear why I have made bold hand in the present form of address. (The last part been last time to write the present essay,)

Eldridge Pratt, D. M. A.

April 24th, 1877

* I don't quite understand the reason. This seems to be no more. Candidate this year.}
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## IV. Interesting Case of Bilocation at the Elbow Joint
On the alleged occurrence of Bacteria, especially under antiseptic dressings.

A short article entitled "Die Bakterien-vegetation unter den antiseptischen Wickeln" published in the number 7 of the "Centralblatt für Chirurgie" on 27 June 1894 by H. R. Ranke, assistant surgeon, at the University of Berlin in the occasion of the present investigation. In this communication, Ranke gives the results of 396 examinations of discharges from 65 antiseptic cases made during the month of May 1894. Among the cases examined were amputations in which healing occurred without suppurative or constitutional disturbance. The examination of the discharges was made immediately after the dressing. As result of states that with one exception he found in all cases Coecobacterium micrococcus for the most part in pairs - more seldom in small middle-sized bacteria. Micrococci were found even 12 days after the operation.

From these observations he concludes that "with the same certainty with which the antiseptic treatment now protects from Pyemia, so the etiology of these diseases has not been sufficiently explained merely by the growth of Coecobacterium micrococcus."
It may be mentioned that others besides Ranke have since advanced the same statement. Thus, I have heard it stated both in Vienna & elsewhere that Ranke's statement has been found to hold true in their wards also. But let us look for the moment at this antiseptic treatment. The operations are performed with a single hand spray. This spray is held about an inch or two of the wound and that last large tissue may not cover the whole wound. While the spray jet thus the edges to not the operation being still proceeded with. After stitching up the wound it is rubbed dry with a towel. Then a piece of soft cotton wool. Then a piece of sterile white plaster. A mass of cotton wool. The antiseptic dressing being carefully applied outside. In all the cases there is a very pale film due to the antiseptic dressings. In Mr. Lister's wards the German. The statement that under this dressing sterile to be true. With Ranke the statement of nearly was quite different. Such a statement coming from one of the very few who practiced the antiseptic treatment, thoroughly is delusion of the most careless attention because the antiseptic treatment has been tried by Mr. Lister. He agreed with the supposition that Pyogenic be rare due to absorption of antiseptic materials. It might have caused a wound that antiseptic materials were equivalent with the growth of organisms but in fact the cause of putrification in
A wound was the development of disease in the discharge. The treatment is therefore directed entirely against these discharges to kill them before they reach the discharge in which case the discharge might theoretically be made entirely free from the development of any organism if the patient be seen from the first of the first symptom, or if, however, it has been under the antiseptic dressings properly conducted, this would point to one of two conclusions.

1. Either the theory is entirely wrong or the facts that are not due to development of organisms at all, they do not result from treatment or

2. Some forms of organisms can resist the action of 1-40 perchloride acid while forms of organisms being at the same time unable to produce this treatment or injurious results.

Unfortunately Dr. Ranke gives no details of the cases examined. Since he was writing their nature course he would have been well able to point out the necessity of each case being filled in order to judge the preceding course.

And this led to raising of the statement of Ranke to really conclude of organisms to occur under the antiseptic dressings properly conducted.

During the present winter Dr. Ranke anyone in the latter's hands have had an opportunity such as few have of examining into this subject.
could be certain as to the accuracy of the report. I have at the time of leaving out of the details of the treatment of the cases of disease set to this discharge for examination when I have to do so. From the time since the beginning of March almost daily examined microscopic the discharge from patients treated here and shall now state some of the results.

The discharge is to me always a few hours as to the method of procedure.

As to the time of examination.

In many cases dressed by myself I examined the discharge immediately, as it was found best to be examined as soon as possible after removal from the wound.

The discharge was transferred to the slide either by touching it with the finger or by placing it with the dressing. If it was taken by a flat needle from any collection of discharge found on the dressing it took it with a needle, the needle must be taken up to decant the protective or dressing otherwise familial material may be present. After the dressing consisting mainly of debris of the dressing the smear moved by immersing a piece of glass. Protective action, found for some time. Thence began to develop the protective as if to assume discharge. A debris in some places very like bacteria - 

The microscopic elongated branching.
Pillating movement. Of course care must be taken to leave the needle quite clean. I have been greatly surprised at finding bacteria in the discharge where a more careful investigation have found that I had immediately before placed a portion of discharge into the same needle without removing it thoroughly. In repeated preparations made with a clean needle I could find no organisms.

If should have been mentioned that the deep dressing when removed from the wound was taken as soon as possible out of the way otherwise the carbolic acid would kill the tissue and no one of their characteristic would be lost.

The discharge was diluted with some fluid—generally distilled water or a weak solution of Chlorid of Potassium in distilled water (1/2 per cent). The care must be taken that this fluid does not contain organisms since whenever I had them in the dressing I examined the fluid I used as fresh fluid. The Chlorid of Potassium solution is not to become muddy bacteria be may be found in it.

The determination of bacteria in discharges is not so difficult as that of Micrococci. Micrococci according to the authorities are disposed as follows. They are generally in clumps though they may be single. These clumps consist of minute fransules &c. Replicates
any interwoven autolytic decomposition of the fatty coccic tissue may be an indirect evidencing of the coccic colonies as distinct organisms and their presence in the colonies which are albuminous and different piges. Further on adding acetic acid to the coccic colonies remain unchanged or in a group of these agents which the coccic colonies have not developed becomes more distinct. Fatty granules in the colonies become more distinct. This effect of acetic acid is also true for other bacteria. These tests are used thus micrococci occurring in a blood vessels instance in which are claimed to be albuminous or marked contrast to the surrounding tissue. These not included in all cases as there are applicable as well as unapplicable examinations of the same discharge made. In one or two cases which for as not certain whether the patient was important Dr. Lott, has finally examined the discharge and I will now mention as having as from the same cases.

As the blood serum it was a

brainwave that pneumo and from 300 to 500 kilometer.
Was this condition not sustained prior to amputation at the elbow?
May 20th from 50 cent, admitted.

On examination there was found a very small swelling on the right thumb joint. This had been as noticed twice before coming to hospital. There was also a small swelling of firm consistence in the outer part of the thigh.

On the 16th an exploratory puncture was made an ¹/₄ inch deep. No abscess forming. The tumour was malignant. Amputation at the shoulder joint was commended but the patient would not at first consent. Being half-witted she thought the amputation dressing the same night and the result was a putrid condition of the wound next day and continuing till the arm has amputated. A large dressing was used at the last troublesome dressings through the wound was putrid. There was heat constitutional disturbance high temperature averaging about 101.4 to 103.4 on an average. Amputation was performed in the 22nd and the wound remained neat and well. On the morning of the 23rd there was no smell in the thing. A strong dressing was given and a needle punctured for the pus at the base of the shaft of the femur to be catheterized by malignant from leaving of at the base part a thin piece of bone to keep up the continent of the femur. Read today a small amount of fluid from the amputation, malignant from leaving of at the base part a thin piece of bone to keep up the continent of the femur.
Lumens was complete but the lumen was everted
the tunical tissue, the site of the lumen being
expanded into a cavity, surrounded externally by a thin shell of bone,
principally the lower part of the
removal of the shell was found to
be round-celled carcinoma that of high
epitheloid carcinoma. The capsule in the
being to consist for the most part
round-celled carcinoma. The cast
too was also examined with a like result. There in 30.5 mm.
fully into the case in account of its first
pathological interest.

15. Material evacuated from shoulder
consists of round cells on section, showing
chromatographic nature, no bacteria of opinion.

17. All round cells some white cells, amylase
mater & some tingling with reacting
reagents - very mysterious reaction in
general multiplicity & discharge.

18. Some flat cells - an array of staminal matter
in microscopy. Numerous amylase
reaction. No cells with aching motion
and resisting reagents.

19. Very fluid, churning. Numerous lacteal
appearance of the ordinary amylase
mater stained after reaction for any
collections of amylase in red like forms.

20. Very bad smell; full of bacteria &
small, waxy white in very dense actin.

21. Movement of stress, supervene also numerous
fat particles. With cocci acid & yellow
the reaction remains also much amylase
matter.
like arrangement just as in the wound

of great quantity and occasional matter to

bacteria adhered to white cells.

II.

Finlay Baragwanath A. 29. Miss

Admitted Jan 12 1577

Died 16th

As a result of a fall on the inner side of the
left hip joint the leg he had fractured into
the immediate below the fulcrum

of the bone had limited. At an angle the bone

had directed more inward than

natural. As he was not able to walk

probably he wished that some thing should

be done.

16th: The latter cut down on the fibula & cut it
across then exopring the bone at the level of
fractured he cut out a bridge of 4 bones
with a chisel. The base of the bone being
plunged enough to bring the leg straight. he
then removed about the necessary

amount from the fibula without of

accurate combination. The bones were then

drilled stuck together with autolene. No

catches occurred the wound being left

with open drainage interposed.

As the result of the operation there was

no slightest bad symptom. No con-

stitutional disturbance whatever. The

blood clot lay exposed in the wound till

it became absorbed. After the first every

no pain whatever. On the 1st of March

all wounds were fine. Except after a weeks

with
By white cells I mean all cells of the same appearance as white blood corpuscles, but the terms are used indiscriminately.
...
II

James Cook at 53

Admitted Jan 22, 1874

Ununited fracture of the Radius

The patient's radius had been broken by direct violence about six weeks before admission. Fracture hand quite well

Dec 9th

Mr. Little tried the ulna to remove a portion so as to allow the ends of the radius to come into close apposition. The patient was quite straight and of the bones all united. After having the silver wires removed the hand was

III
the ulcer & the other on the radial side of
the forearm. No stitches
The operation was followed by no
constitutional disturbance whatever. The pulse
was nil & temperature. The temperature
the eight of the operation was 98 8. The
the temperature & fever had receded within
the normal limits. The wound was
cleansed on the 27-28-29. (28th) -12
& 21. The wound was quite healed in about
5 to 6 weeks. The blood cell lay flush with
the surface becoming red & firm & vascular.
The ulcer around a piece of tendon
lay exposed uncovered by blood cells at
first white but gradually becoming more
There was a slight from the circumference
of the centre slowly becoming covered by
epithelium though without flattening.
27. Altered red blood corpuscles - a considerable
quantity of granular debris having the
sort of arrangement. No organisms.
28. Red cells from yesterday's digestion
still like bacteria or micrococci.
No white cells.
29. Red-white blood cells. The white was
generally altered in shape & size.
A similar thing usual. Much granular
matter assuming in some places the
form of irregular cells with many
pale streaks of non-hematochrome.
30. Less granular matter. How white cells
no bacteria at all.
31. Granular matter the remains of granular
size. A very few white cells. Hobbesian
Temperature by Chart 194 in 52°. 10 min Cesspool, 8°. 2nd day.

No notion of state of pulse or any pulmonary symptoms of hemi. have occurred at such a date after operation.
It may be said that the word "bacteria" has been used interchangeably both in the literature and in microscopical nomenclature. A definite statement "No bacteria" seems to mean that microscopically no organisms can be seen, but it implies also that reagents have been used.
15. Seemingly, Dr. Litter: no bacteria. Much
granular matter. Hornet.
16. A few white cells and some granular
matter. No organisms.
17. (After hemorrhage) Blood cells-red and white.
Some granular matter—some very
like bodies appearing in the addition of
salts and then no product, motion.
18. Much granular debris-some reunion
not like bodies appearing on the addition
of reagent. A few white cells.
19. In connection, several red blood
corpuscles and few white cells. Much
granular matter. No organisms.
20. Blood squeezed out contained some
yellow (white) and some yellow.
Much granular debris. No bacteria.
21. Some white cells a considerable
amount of granular matter. Some
small strips of granular. Not bacteria.
22. Numerous white cells—some from
the granular debris. Some small
epithelial cells. No organisms.
The pus cells seen the day from the
original margin of the small one
which was granulating and from the
deeper part.

1891. 15. Dissected heated as in operation.

James W. Phillips Oct. 24, 1891.
Admitted Sept. 31st. 1891.
This patient was admitted with pneumonia
of the breast. He received local treatment
but the abscess joint came out purulent.
* Has the diphtheria condition present produced no symptoms constitutionally - or if so why not recorded?
The limb was distended with liquid, pus
rose up to the middle of the gypsum.
Suspicions had by at the 24 hours
the thumb. Amputation by the
nail was performed immediately. At the
wound through joint. It was
attacked with foul smelling gases. This
followed the usual necrotic course except
that the drainage tube was
been removed by the surgeon.
Inflammation occurred in the stump.
Tissue and small shrink in the
portion. A few blood cells were present.
Mucus and bacteria were present.
Small imperfect formed pus cells.
Some bacterial matter. Nothing
insignificant.
1. "Pus cells. Some well formed
imperfect. Much "mucular" matter.
Insignificant as bacteria. Good well.
Some cells without bacteria but
insignificant. In addition a few
shrink in the portion.
3. "Pus cells. Mucular matter very
insignificant.
4. "Pus cells. A little mucular matter
in some places. Tinea that conspicuous
however no mention. The
mucular matter disappearing in addition of
lakes.
5. Numerous pus cells. Mucular less
mucular matter. The mucules being
very small, local discharge of bacteria.
Charles Breckman of 29 Prince, Campan, admitted Feb 10 1877.

Sciatica

Patient has suffered from severe sciatica almost for a year and had constant
approximately almost two years. He is unable to walk or turn in bed from
constant severe pain in this last week, Feb 11. Dr. Little performed the operation
Nevestretching. The lower border of
the surface of the lesion is held by small
a longitudinal division. It was about
upward from the flap and in the
same horizontal. There was very
little cutting or tearing. Wound stitch
and drain tube inserted.

Wound heals by 1st intention except
where the drain tube was inserted. On
March 10th March 1877 several
weeks interval there was only a small
Suppurative core.

The pain less but sensation
but actually though rapidly diminishes
till before leaving hospital in the
beginning of April he could walk a
turn in bed without any pain in foot
or perfectly eaned

As the result of the operation there
was no constitutional distress from

The patient has now relieved from his
old pain and no new pain experienced.

Felt 20 + some peculiar feelings of
mucus matter . Welling about in the
fluid not ready to much mucous
matter as usual. hoeamall shooting pain.
21st Scattered matter some white cells. No bacteria.
22nd Host cells no bacteria. A few granular masses.
23rd Some irregular white cells. A little granular matter. No bacteria.
24th A few granular masses. No white cells, no bacteria.
25th Some of these granular masses present. No pus cells. A little granular matter. Notting physicians.

The urine examination at 3 small number. Of granular matter. Compared to the amount normally present. After injection was made in another case I have trouble done during the urine test. The particular observed that in this patient there was little more than a mere linear vision. No dissection of the part.

Samoso Eastman æ. 40 Dinsmore
Admitted Dec 26 1847
Empyema

After suffering for some time from cough, pain in the side. Difficulty of breathing. A swelling suddenly appeared on the upper part of the right chest. Occurring 2 weeks before admission. After 3 days of fever and no the swelling appeared lower down. These rapidly increased till admission. On admission 2 large masses were found on the right side of the chest. At autopsy and examination the physician revealed the existence
Feb. 18th 1842

Mr. Clinch opened the lower collection tank and examined the upper collection tank through the lower tank there has been a small point of communication between the two. A communication could be seen between the upper cavity of the chest [the thymus in the skin of the brachial plexus]. Mr. Clinch did not think it advisable to continue the piercing into the thorax for some days. Large clumps of tissue came away.

On the 20th the ground was cleared daily hit the 3 of Land. 3 men 2 laborers and 1 firing which has been already found. From the lower cavity into the thymus inserted a drainage tube into the thymus. Draining at the same time a large quantity of pur.

After his all went well the man was in the 4th room destroy body of the demise of the body

Aching in strength in the chest and rapidly diminishing in the amount and becoming clear in the character.

On the 7th April the drainage tube was removed and some two inches was removed.

On the 17th ditto 7 3/4 clean serum was evacuated.

On the 23th Mr. Lester removed the drainage tube and in a few days the wound had completely healed.

Dismissed Feb. 29th cured.
From the beginning until the case the temperature varied from 99°.

Dec. 11. Large number of pustules. Some pus cells.


VIII


Abscess in the buttok. He was admitted at 6 and was found to have a large, fluctuating swelling on the subcutaneous region.
had suffered from gout; joint being
the abscess had opened on the 22nd. Draining
went well the abscess being absolutely healed
in June.

Fluid evacuated showed the pus to be
very granular gelatinous. Numerous
fibrin threads. Torula felix.

5" Numerous flat parasites. No well
formed parasites. No bacteria.

10" Epithelial cells. Some parasites with
Brunner's movement. No organisms in
swell.

12" Discharge very slightly granular. Some
parasites show. No parasites in blood.

7" Well formed parasites some
phagocytes present. Plasma present
in granules.

26" Drainage still present. No parasites
by bacteria.

IX

James Martin a. r. 14. Butcher
admitted Feb. 19th. 28th
large abscess in C. f.

Small drainage tube introduced on
the day of admission. Progress
rapid. Patient was dismissed from
the beginning of March.

Patient felt better after the abscess
was opened. Had no more pain.

 Constitutional disturbance.

The pus evacuated consisted of well
formed parasites. Some red cell parasites
and many small parasites. Nothing
killing. Tined in C. J. W. (presumably Charles E.)
Feb. 12th. Alfred Ford and a little girl and
1/2" by parasites some granular matter.
21

Incipience of Discharges. 1st. Week.
Fell 12 1/2.
RedBlood.
Increased Sluam.
A few white cells, (most from the hood.)
No pus, either in
the bone or cells, a few all but white cells
A little slud.
No bacteria.

I read off immemorably some examples from the numerous cases I have examined,
such as those of lumbar. This point arises
while I have in mind that I remember having found two cases
while the discharge consisted of the
most part of granular masses, which when
they examined, sure had been converted
into masses of granules marked as in a
constituent substance, or falling about
in the lipids. In the cases of put vibrant
knee joint. The cause appearance
was present till such time as the
superficial part of the incision had
granulated from the irritation of the
catarrhal fluid.

In several cases there Instigation
and previously reported, of decaring the
channels by applying the chloride of soda
solution under the name for the factor
has been overcome. In the second half
of an acute course of 30 cases
was found in the discharges.

This in a colloidal state. The leg
were on Fell 5 3/4. Chloride of soda
mixed with saline acid
Fell 7 2/4. Numerous pus cells and
some small granules. An appearance of
bacteria.
In a case where putrid ulcers of the
breast are present in the mamma
which was on Feb 5, treated by
injection of Chloride of Zinc and
Hydrochloric Acid.
Feb 11th: Procto gave patient
a mixture with the appearance of
bigamia. Its smell, its thickening of the protective
milk or thickening of the protective
milk at that general due to infection but the
protective may also be thickened for
a few drainage tube. In one case this
wound was a case of lesion of the breast
site, but plain, after the dressing
was completely healed around one day
that the smell of thickening at that
part was very disagreeable, that the
protective on the site and of the case
was thickened white that covering the
external part of the case. The smell superficially
resulting here still remaining
unhealthy was not thickened in the summation
of the side showed a sense of
leucemia - a most interesting and
important fact as regards the value of thickening
of the protective as a test for leucemia.

As long merely recording some of
the results of my present book allow me to be
looking at the cases mentioned as to the
injection of leucemia to make me in two
observations upon them.

Of the cases themselves need say
nothing. They are the ordinary case of
cases in Dr. Lister's hands and are
not remarkable. One of practicing
antiseptic treatment however they
Had Mr Cheyne been more of an independent observer and less of a partisan, the silly remarks at pages 12 and 23 would not have been made. For during the same period which his thesis embraces and in which the cases occurred which according to him "must seem marvellous and in fact almost incredible" to those who do not use the so-called "antiptotic" system, there were treated in the same hospital in the wards under my charge by my ordinary single methods of dressing:

13 Cases of the greatest complications with only one death - (a falling injury).
The nine compound cases included a compound of the thigh and a double primary amputation of the legs.
3 Cases of joints - including hip, shoulder, elbow, knee, arthrosis plus both two deaths, one from pulmonary.
consumption, &c. from three months after operation.
Fifteen sections of tumours with one death, in an old man; suddenly after the wound had closed, (he had infirmity from great bodily exertion.)
The other cases included sections of upper & lower jaws, deep seat tumours of neck, sections of tongue tumours from cancer, & primary expansive resection of the wound of breast.

The successful miscellaneous operations included subtotal resection of half of the in acute necrosis.
Cholecystectomy of distended & partially united effusion in an old man—Colotomy.

Lithotomy—These cases were all within reach of Mr. Cheyne for observation & comparison, and a view of the results of different systems might have modified his opinions of "the marvellous."
must seem marvellous the fact almost incredible. However, these are not a defective series of cases. It merely happens that these examined them more regularly than those others, therefore I do not think.

As to the character of the disease it bears out Mr. Lecter's statement that wounds and abscesses may heal without any help of yours if treated antiseptically. But confess that before making these examinations thought that though to the naked eye discharge especially from abscesses did not seem to be purulent but that when examined microscopically they would be found to contain some cells. The lower the eye is that you really do in acute cases but even some cells are found under indeed the very margin of the wound have formed from the irritation of the catapholic ointment which recurred from imperfect drainage. Many cases healing by organisation from cells without formation of cells only appear where the cell lay because opposed to the surface. But the cells however be find many in appearance unequal in shape and connected in some way or the with some cells withdraw in the Phillips to the cases in which as the cells cells increased in number the glandular mass of any size disappeared. Whether these are degenerated or other fibrous cells? were not at recent pleased to say. The demonstration of that point is of great importance as regards the origin
of the cells because if they are abnormal cells then these cells may be white cells which have passed out of the blood stream in small quantities there have been down whereas if they are abnormal cells they couldn't come from the blood but must have come from the tissues themselves. I think that there have been in some cases appearances which would almost imply that they were the result of degeneration; there have been in the same specimen one or two perfectly formed cells; and then some more peculiar where these bodies closely look like a partly advanced degenerative condition of the white cells. In the other hand notice we have the fact that the cases where tension has occurred we have immature pus cells in the discharge, these also being numerous, one of the cases has progressed without suppuration, in some time these cells will be seen at first to be irregular in shape and have an appearance as if imperfectly formed while if the irritation continues in some time these cells will be found in a day or two to be well formed to present the appearances of normal pus cells. This is well seen in Bouchard's case in which he reports of the tension are very instructive as regards the occurrence of suppuration in abscesses.

He has here an erosionation of the mucous cell formed in the cells. (This is) Dr. Bouchard (mucous cells having almost complete disappearance tension having occurred pus was evacu-
Does Dr. Cheyne consider the result of this case due to interference with the draining, alone or chiefly? Does he make no account of the state of the blood, on dysentery in which there seems to exist such a general dissemination of malignant disease as...
The mucus cells were "pretty well formed.
In the 10 text there is a column to the naked eye but microrganisms were cells looked but "not well formed".
In the 17 text a column for examination microrganisms of a few white cells but as may be found in any zone of the body may be found. The characteristic thing is that it is always in connection with the mouth of the body.

We now let us look at the cases individually and see clearly whether or not the question of the occurrence of organisms is rare as the first case that a woman in whom the antiseptic treatment was instituted the patient herself produce the wound became infected. In microscopy examination of the discharge there were found numerous bacteria large and small. Some in extremely active movement. She had an extremely painful and great constitutional disturbance. He also had a severe cough. Place of the ordinary granular matter found in the discharges from a few wounds. The bacteria had a quite regular and regular outline. They were not irregularly outline the granular as the end of the granular matter is.

We find that after amputation the bacteria disappear. We have the usual appearance of granular matter lying in other operation wounds.

Now we look at the cases of Tullis Macdonald, Arno Seid, E. H. Pen-
... severe operation wounds where there was much destruction crushing and tearing of the tissues we find a large amount of granular matter assuming all forms. The granules of the same size and disappearing in the addition of water and absence.

In Mr. Phillips case we had no bacteria although the band was disturbed with corduroy. (The cellular tissue acts as a filter). Here we had the usual granular matter but as the wound increased the granular matter decreased in amount & in size.

Last but not least Charles Reed's case. He had a little cutting & there was little granular debir compared with the former cases. The same holds good with the other newest thing I have.

Now turn to the abscesses. Take first James Eastman in whose case there was next day long large mutton fat coming away. J. B. of course there could also be microscopic clumps. The lane in the ordinary discharge from the wound much fatty material, same irregular tone will.

The fluid drained we have in the joint a considerable amount of granular matter but in the last the granular matter was much less prominent. In Walter there was little & in fact absence of the granular matter at first. It consists of fatty granules as in operation cases.
Energy is lost by the action of the carbonic acid.
By age on the 19th we have the granular matter in masses of homogeneous substance with granules of biliary pigment embedded in them rolling about in the fluid.

James Martin had also at just only a few days. Small granules notwithstanding he had more granular matter than masses of Jos. them seen in former case.

From these cases prevalent otherwise in acute cases after an operation the discharge contains much granular matter grouped together as single the granules sometimes arranged in a somewhat elongated form, and well defined and jointed a fact which seldom found. Can easily be shown if done careful examination the case of tests find to be of a bacteria nature.

The question thus comes to the What is this granular matter? Does it consist of role from of organisms a merely of portions of tissue? A careful examination of the cases of the following consideration may help us to a conclusion.

I. The appearance of the granular matter. In the cases where it forms nod like bodies these irregular and ragged in outline — Bacteria are applied in outline (g. in case they may be joined to the faces small but these are tagged in line granules in being thrown at the side e). The bodies found in found may be seen when large to consist of pure granular matter in which the granules are dissolved.
and crystals, but being equal to in size an elixir as regards the nature of its action, as is the case with the common domestic remedies. I have found long time and many well define on time that these are the chief in the digestion of the food and from the chronic states at scenes when first opened they do not read the reading in bacteria showing that the meli-pot crystals.

I. The motion of these pranular cells is merely oscillating in a forward movement. The oscillation is merely a d arranged manner. The bacteria may possess it yet the great majority of bacteria have an inward or nothing movement.

II. The pranular matter is more abundant in a wound than in an ascence is less abundant in the acute ascence. The less extended the wound, the less violence used in making it. The less will be the pranular matter.

The pranular matter in the ascence in a wound has not the same appearance - the smaller & not like an arrangement, & generally being present in the ascence (if there were due to the development or phenomena, and it would expect that the latter really present in both to have the same appearance). Further the pranular matter disappears as the months increase.

In a wound, the pranular matter is most abundant the first day & gradually less. (This is not constant for). If the pranular matter consists of organisms we should expect it to
In at least two days and a few at least for a few days or longer.

I have kept pus in a vessel for a long time allowing the growth of organisms. The male scotia conform to the definition given above but we have no granulae. Matter resembling that found in wounds now like arrange animals. Much patch but a micrococci minute granules all of the same size are actuated by agents.

Two days from a lumbar abscess opened date 28 examined then found to consist of fatty degenerate non cell growth formed itself numerous fatty granules some of the ordinary granular debris of wound examined again March 8 having been kept in the meantime in an opaque tube covered a cap the cap being occasionally removed for a short time allowed the matter to drain 2 granules found to be separated into 2 layers a dark thick lower layer and a smaller clear upper layer. A small amount of micrococci (bacilli) was present. It was at first believed in a clear fluid (hydrocele fluid) which was evacuated but 40 ml was put into a small vessel as the tank. Examined that 28 was found to be full of micrococci in clumps not marked after 10 days. Acetic acid was applied to the same.
and no appearance of granulations as in wounds.

Then we consider that in wounds where the blood clot becomes organized, organization does not generally advance completely to the surface but that we can often feel off a superficial layer of the blood clot and find a deep partial or complete venereal vesicle. That the very surface thus remains organized is subject to constant friction from the movements of the dressing. We can easily understand the fact that in a wound healing without suppuration by organization of the blood clot, we have profusely runy granular matter than in other wounds that the granular matter is longer present. The friction in fact breaks off pieces of the now living blood clot.

Lastly consider what takes place in the operation. We have a knife really a microscopic razor having through the use of the sharp instrument the same violence is done on microscopic layers of the tissue which is larger than can be cut with scissor. We hare many times when making sections especially of soft tissues with a somewhat blunt knife found the examination of the sections that the tissue, instead of being full of granular matter that peculiar substance having all forms quite resembling that found in wounds. We observe that part of this granular matter is so to speak the adherent to cause the knife that it also arose from particular
accross the tissues, (remainder
sent surfaces be in contact. These
surfaces would be disturbed but whether
it is a free space between the latter to
be kept away in the tissues).

This suggestion is borne out by the
fact that in cases where the operation
is accompanied by almost no cutting
as in the non-stretching cases there
is much less granular matter than usual.

From carefully weighing these considerations
we are led to the following conclusions:
I. That bacteria do not occur in wounds
attended careully antiseptically. And so
microbes or other organisms do not.

II. That the granular matter found in wounds
does not consist in certain organisms
but may be sufficiently explained by
the action of the knife as a saw.

The lesions in microscopical layer of the
issues, portions of wood cells, fibrous
and plasma masses, indicated in
healing process.
But while these observations are believed satisfactory and sufficient proof that bacteria do not occur unless antiseptic measures still it may be objected that although undoubtedly the greater part of the material matter has its origin in the latter, yet part especially the smaller and finer cells may be some form of bacteria.

Some ready to discount this infection as having any influence. But it is very difficult to state with certainty that all isolated minute wound particles is a is not a specific organism.

To settle this point we must have recourse to some other method of investigation. Let us assume that changes in both the fluids are due to the development of organisms and that by inoculating a fluid some of the pure form of organisms into some material containing organisms it can be proved, theoretically, that would only require to inoculate pure nutriment fluid with various bodies in the one hand to get a development of organisms - on the other to find the fluid unaltered from organisms unchanged. That would be shown by numerous investigators. The present series of experiments though incomplete that undertaken on the former and during this point are themselves sufficient part of it.
In the present investigations, some points of detail must be treated, purified, and inoculated under higher accuracies with discharges from stands. We have a plan for absolute accuracy. The inoculation has been carried out in such a way as to prevent the influence of any unknown dynamic. The inference from such development occurs, would naturally be that the dynamic has been present in the fluid from which inoculation occurred, if on the other hand the same method has been employed. The dynamics describe the influence would be that no dynamics be visible in the fluid. Consider this merely a rough statement of what is not intended. The following experiments demonstrate a desire to attain accurate results and must therefore be done very carefully.

I will first describe briefly the apparatus and methods of preparation employed.

As plasters had a tendency to crack, it was necessary to make with a wood spitting. These are arranged in a series of boards, each board containing five plasters each. Each board was covered with a layer shade.

For the improved inoculation, steel needles were used, what flattened at the point, fixed in a handle and bent at right angles to the handle of a William fixed with a rigidly apparent. The wood had to be fluted to prevent the development of organic...
in the work that being the most delicate part of the plant, such as the tubes and the stems, led to the selection of the methods of purification. Purification of the plants for the method in.

There was a tendency to use the plants to avoid loss of any plant. It was found to be most effective according to the pattern.

The plants were treated with a solution of 1-20% calcium chloride, which was introduced under the test tube. A long filler filled under the plant. A distilled water (calculated) was introduced into the plant, and a cavity was created. Cotton wool (introduced as a cotton) was surrounded by the plant. The water was completely held off by the plant. The water was allowed to cool.

The reasons for this performance were that there was no proper care for heating the pipes, the pressure in the laboratory, and the plants were cracked. The calcium chloride would have prevented the insufficiency, but it might have been said that the calcium chloride was afterwards sprayed onto the tree and prevented development. Therefore, the calcium chloride was taken to water. The tree was grown according to the environment as usual. The plant could not absorb the water inside the plant. Instead, water left in the bottom of the plant. This was avoided by now
Alcohol instead of water
The mixture was treated in the same way first with carbonic acid then distilled over a spirit boiler 0f 9 in. carbonic acid cotton wool being placed over the spout of the boiler and left there till completely cool.

The milk was introduced through a long funnel into a glass flask fitted with a stopper for a length of time care being taken to avoid getting over in any case it was also immersed in boiling water for an hour or more.

The milk after having been boiled at cool was then decanted under a jet of fine spray into these tubes - the decanting being done as quickly as possible before decanting out of the flask an al Demo cover cotton cap the rim of at the mouth of the flask was damped with carbonic acid

Inoculation of the milk
The needles were heated red hot after being plunged into a glass of hot water as in carbonic acid was held up as a rod between the tips of the wound, the phials were then rapidly passed behind this rod cap removed needle picked up some discharge (rapidly passed into the milk till the treads kept as far away as possible the needle was 20 to 30 in. washed in the morning to ensure any particle of gray dust...
To prove that it was not caused in the milk but as much of the bacteria as possible into the milk. (The handles of the vessels, substances of the patient were injected in 1-20 of the serum.)

The decantation inoculation took place under the may because it was found that milk exposed under the may kept the organisms alive better. Then some of these decanting that is, the medium of organisms present in the milk. They could not have infected accidentally during decantation. Also in an antiseptic cell, I could not expose the blood in the may. The may bottles change to the patient, if not kept in airtight glass tubes that showed no such organisms as previously existed in the wound.

And now before passing on to the experiments with discharges observed subsequently.

I asked milk to be prepared and preserved remains unchanged and free from organic development? The answer is yes as shown by the following experiments. I tried the method of incubation under a lantern to the same set of meat all the same.

Set T. Meat 29. In tubes prepared

Set 30. All 3 tubes changed half filled with

The may with milk prepared the same day.

Set 26. No external change in any. Buffered

Microscopically, the caps being under
The May 9th am washed into the milk. There was no instance of bacteria or other organisms of any kind. The milk cloths also remained perfect as before.

Tet 111. Changed as before. No change either externally or microscopically.

19 2/6. 0f the set examined immediately after examination of one of the test tubes to be mentioned of November 27th was examined with bacteria. No change externally, quite a different appearance microscopically from the test tube for 24 hours. Staining to indicate the presence of bacteria in the organism.

March 3 0l still all right both externally and microscopically (kept at 17 2 used for inoculation).

April 11. Child there change in the 3. (inoculation)

Set V

February 15. Into prepared

16. Charged with milk prepared to light

29. At change externally in microscopically.

No careful examination by examination. Any tube. The milk cloths also remaining as at first.


2 1/2 hot 17 2 also perfectly right. Stained. Microscopically nothing in the slightest.
Dear Squire

Oct 14 & 15 Prepared
16 & 17 Chafed with Milk
18 No change & to half a microscopically

April 4 & 5 Still no change. Sear for incubation.

And to-night as a piece not attempt to
which there been at the preserving
the milk in the manner described to
be practically certain of its remaining
true. The wax was to examine the
following experiment carefully. But that this is not the fact.

II

A second question is arising in
as this milk to prepared a good, fabulous
for bacteria or is it so altered as to be
lost for the growth of bacteria or so
as to be safe, such a universal bacterium?

The answer is for 1. Yes. The milk to
prepared green, after long preservation. Being
because the heat of the development of
ordinary bacteria when the heat of
there is permitted. It shows that it
still remains a ready, population to a large
kind of experiments will relate a much

I (see preparatory page 31)
March 7 & 8 in prepared with milk from the

tube II (see last in which externally there
has not change & numerous bacteria,

been under the flame

In 3 or 4 days the fluid begins to separate
into 2 layers & then examined

April 9. It was entering with bacterial lumps
as a rule there was only small reddish lumps
April 2. No. 3 sp. as described and under the gray incrust need not be used to the cap left off at about 4 p.m. tone.

April 2. Put away small. Has separated into layers - a clear upper of another color. A small red mound along on Medford. Round surface of this is also numerous small activity moving hatching profound inlighty.

April 3. Had a piece of German yeast put into it.

April 4. Numerous minute hatching in 6 or 7 active motion. Some very large.

April 4. Numerous oval bodies with smaller buds of small tubes in chains 9.

April 5. Als some of the same body as the last.

April 6. Numerous body groups of small bodies aggregated separated. Fluid separated into 2 layers. Clear above think below the brown layer in the top.

April 6. Small long fat natural dome others bodies as before numerous tiny small hatching. Some clumps on lacharoi 7 small forms of the other bodies in 6 no.

April 7. Of all bodies not last but large very faint tendency to side side like 9 10 minute hatching.

Set X

April 11. Prepared.

16. Change broth milk of the same day.


April 15. Still remains without change. (Entered 3/4/10).
April 5th No. 1 inoculated with 2 drops of tapwater

No. 2

Some dust from the table

No. 3. I walked through the room once without it without the tag (for about one minute) I must be mention

that the dust had been left in the corner remaining

for some time and that the dust in the room is rarely disturbed.

Lost 1 & 2 under that may.

Apr. 21st No. 1 still much in appearance separate into large

and numerous bacteria chiefly small.

No. 2, covers with Reinhard's Run. Fluorid

Table.

No. 3. Not yet definite. Some suspicious odor.

Set X

Feb. 14th Prepared

Feb. 15th Charged with daily prepared the same day.

No. 2. Change in any Water System 0 minutes.

Feb. 20th No. 2 Charge.

No. 1. had a drop of tapwater added under the tag after 10 minutes.

Feb. 21st No. 2 Drop of tapwater added without the tag.

Feb. 22nd No. 1. Altered in appearance disagreeable stining

swarming with minute bacteria.

Feb. 23rd No. 1. In absence of bacteria.

Feb. 24th No. 1. Taken at the end of 12 hours.

Feb. 25th No. 1. Taken at the end of 12 hours.

Feb. 26th No. 1. Taken at the end of 12 hours.

Feb. 27th No. 1. Taken at the end of 12 hours.

Feb. 28th No. 1. Taken at the end of 12 hours.

Feb. 29th No. 1. Taken at the end of 12 hours.

Feb. 30th No. 1. Taken at the end of 12 hours.

Feb. 31st No. 1. Taken at the end of 12 hours.
was a few small bacteria. Milk & cream
seemed unaltered.

The experiments are sufficient to show that this milk is readily invaded with organisms of very different kind. Does the citric acid which may set in from the gran during decaying to carbohydrates
under development. (The time it takes is about 1-35 to 1-40). This has perhaps been insufficient allowed to the action of the various organisms. But it may be said that the citric acid had not
prevented the inoculation. Hence I have made the following by Penicill
Feb 13th 5 sets that takes place. In each box
placed 100 parts of boiled milk of 2 das
certain number of minutes of citric
acid (1-20) has added. The spray used.
To this I was added 2 minutes

- - - - -

- - - - -

- - - - -

- - - - -
The box shaken up kept in front of the
air all night then covered being loosely
set with very loosely fit of caps. The
caps were removed occasionally during the
following day.
Feb 16th change of itself in any way & quencing
(as the cap being taken with air in a pure
needle) with definite is seen.

5 No definite change in any.
This contains multitudes of small bacteria. No stickiness.

II. Numerous bacteria some in a Stickiation state. They contains a few bacteria in a Stickiation state.

II. Contains a few bacteria in a Stickiation state.

I. Contains bacteria of very small size. Some very conspicuous bodies nothing definite.

II. Some bacteria in active movement will form a white in appearance and separate into layers.

III. Oil globules much more by mixing now with the 5-minute bacteria in actual but now.

IV. All have separated into layers. At the bottom a clear fluid in which the gas bubble is formed. Fluid is of greenish color.

II. At the part a few weeks. Numerous bacteria micrococci.

II. Numerous small bacteria come up thinly. long delicate filaments hanging about the cells.

II. Tumor as in I. Numerous small bacteria.

II. Numerous small bacteria.

I. Numerous large & beautiful crystals (Relate to Lime or something) a brownish separation in the layers. Numerous bacteria micrococci. Thin wet film.

II. In this last added color changed with blue at the same time as the others. But without the addition of carbonate of separated slightly into layers. No clear fluid the film in appearance. Full of bacteria micrococci.

In all three oil globules had fallen.

Pinters disappeared.

One experiment to show that when the carbonate of calcium is placed under the usual precautions the fluid under
free from the development of organisms. In other words, the organisms are not alive in the carbonate solution.

Take VII.

To be prepared. Prepared 3 parts of each. April 19th. To add mixture. Add bentonite or microscopically. The Brinonius motes
of the filaments are rather more active than usual.

From these experiments we see that all the carbonate acid which can get in from the spray will have no effect in preventing the development of organisms. How can the bacteria travel from one vessel to another under the spray without being destroyed?

To show that this can be done at the following points. Let I. (page 16)
Let VIII. (page 39) Let IX. (page 40)
Let II. (page 40) Let X. (page 40)
Let II. (page 40) Let XII. (page 40)

But I may add that these are the times late inoculated wine. Posterior clinis solutions from Altered milk under the spray just as from a wound that has not failed to get a corresponding developing function of fluid against the mattress. Have a red film between the spray and the wound, so as to allow the spray complete to surround the wound at the same time leaving the part around the wound, where the needle is free from the spray.

That the spray is a sufficient guard against the entrance of leptin particles.
Have found by exposing milk to the air for a long time under the spray even in a very dusty room without taint or alteration occurring in the milk.

Having thus found that milk can be preserved some that this milk is quite ready to be the seat of asepsis. The organisms in spite of the minute amount of carbonate of lime which may have filtered through the water can be successfully performed under the spray. I am now in a position to proceed further to relate the few experiments which have already been performed with regard to the occurrence of organisms under antiseptic treatment. I will relate all the experiments in order that if any conclusion can be drawn from them it may be done fairly.

Set II
Feb 3. Prepared
Feb 8. Changed with milk prepared yesterday.
Feb 18. Incubated with discharge from Mrs. Alexander, who was admitted Feb 15, with a small wound in the thigh which had since admission been dressed with Osmotic lint. This was wound healed in a few days. The discharge had no smell whatever. When examined microscopically showed well formed pus cells, a small amount of granular matter but no evidence of the existence of bacteria. As to the milk no change in P or microscopically.
Case 172 were inoculated. No 3 did not and the needle point in just as in the 2 cases and it was not previously stung in the discharge.

May 15th breakfast done for all. That finger has been the method pursued in all cases & being inoculated & used itself. Not one discharge put in. In all cases for two or all the inoculation was done under the glare & before breakfast.

Wm. & Helena spoke of Amric. no change.

31st no change & the patient feeling fine results of inoculation (other symptoms) done under the.

14th Placed again for inoculation. It may be said that the inoculation of the milk was into Patient's ear (to 2.4 & Amric). 16th kept for 4 days at about the temperature of the human body (prostitute) & before the.

21st milk allows in good preparation. In three of the 3 are organisms to be found though one is somewhat suspicions.

Set IV

28th prepared & charged with milk from infected

20th inoculated with discharge from infected

arm & limb to neck on his leg. He also had two abscess below the knee communicating with an ulcer. The abscess cavity was daily syringed with Caroto & dressed with hine lint. The inoculation was performed 24 hours after last dressing.

Discharge shows pus cells usually mucus appearance due to presence of minute bodies no definite bacteria of any size. Though one or 2 suspicious this is present.
Rich all right

17 2 60 inoculated 2o.3. test

April 3rd 4th for purposes of inoculation
At that time the milk just began appearance
seemed right but was not examined Microscopically

April 12th 13th were not large small not ill resembling
More numerous oil globules. On looking
out the tube the surface has a somewhat

All 3. had 3. leučocytes. a few bacteria in
active motion very numerous clumps of

3. seems all right as bacteria in Microscopical

Set VII

Feb. 14th purified

16 1 Chilled with milk prepared tonight
28 2 All right 2 leucocytes Microscopically
Mark 1st inoculated with discharge from Thomas
- a case of incisions into the mucous part which
went on well for a time but lately the discharge
has become more obvious than a discharge small
Numerous pus cells some smaller matter some minute reds.

1st 17 2 inoculated by 2. 3. 4. test

Feb. 15th placed for inoculation

16 1 100% all right no bacteria or Microscopic

25 2 seen no change or gums or no bacteria or Microscopic

Mark 8 9 inoculated with discharge from Thomas

Set VIII

Feb. 14th prepared

16 1 Chilled
28 2 No change or gums or Microscopic

March 5th inoculated with discharge from Thomas

[Note: The text is difficult to read and seems to be a record of observations or experiments, possibly in a biological or medical context. The handwriting is unclear, and some words are difficult to decipher.]
February 7th

1. This day a very bad smell of the

2. Discharge from Hill prepared yesterday.

3. Inoculated with a little of the

4. Inoculated with a little of the

5. Unchanged by the acid as a Microscopic
April 1st inoculated with 1 cc. of milk which had been boiled yesterday. No action. No organism found.

July 3rd All clean and in good preservation. Bil. nodules just as in fresh milk. No bacteria. No Micrococci in urine.

April 5th Placed for inoculation.

July 10th All clean in good preservation. Bil. nodules just as in fresh milk. No bacteria. No Micrococci in urine.

July 14th Purified.

July 16th Changed with milk of the same day.

July 25th Unchanged.

Marked 41. Inoculated with discharge from an operating room at the hospital. No action. No organism found. No bacteria. No microscopic or histological changes. No unusual phenomena. Fresh matter taken this morning. No unusual change. No infection.

Ho. 283 inoculated with drainage tube No. 7.
April 4th. Opened for inoculation.
April 20th. In this case are bacteria or micrococci present. No anatomical change.

Set XVI

March 9th. Prepared & changed with milk prepared today.

12th. Inoculated from McKeachie—a man who had an abscess of the shoulder joint 4 days ago. Times still not healed. Now a partial excision has been performed as well as blackening of the surface. No inoculation from the wound for excision as from the old times. Test 2.

March all right.

Discharge from wound showed no cells or bacteria. From times nothing special from particular matter but tons no bacteria.

April 4th. Explained for inoculation purposes.

No anatomical change in any two inoculated animals as any organisms detected.

Set XVII


April 4th. Explained for inoculation purposes. The fluid at the top of the tube not microscopically had any bacteria or micrococci.

Test exchanged.

Set XVIII

March 9th. Preped & changed.
March 28th - inoculated from a man's hand 
visited a compound dislocation of 3 
figurs following an antiseptic course. 
No blisters, no protective but a peculiar 
difficult smell which is found on the hands 
feet when the dressing is kept on a long 
time. 172 inoculated. No. 3 Test. 
Washing made until. Regular 
healthy appearance. 
Milk received all right.
April 6th. Declined for inoculation. 
April 20th. No. 172. Reem all right. (40)
was all right and 200 days ago inocula.

In selecting these cases for inoculation 
I have tried to obtain the least yet set 
the discharge under a variety of circumstances 
I have taken the dressing from each 
individual cases from a case the day after 
operation from other cases bone the 
operation from abscess etc. Then opened the pailage of the milk 
the vinegar bath. Avoided getting the 
discharge in quantity from abscess etc. 
has been found some time from 
cases which have been long under 
treatment from cases here. There is a 
tendency to bad smell.

On looking at the results we find that 
refers to the inoculation from really 
antiseptic cases they are quite satisfactory 
Inoculating an antiseptic discharge 
from our antiseptic case into pure 
milk no development occurs. Hence
It should be mentioned as to the cases themselves that
Nag’s Thomas (set III) was irremedial anaemia without
any doubt in my own mind from the appearance of
the dressings or the without further examination
that one or more organisms was present
The other (set IV) was a case of indolent cancer where
the tumour of the injection were under half present
and where the injection I could not into the mass
2 hours before instillation could not render the case
accepted judging from former experience
We would conclude from former experience that no bacilli existed in the discharge, but the question arises:

Do furnished discharges inoculated into milk give rise to development of organisms in the milk? We have in this respect unfortunate but had long real cases furnished case since I began these experiments. We have now had one or two cases in which he could hardly consider it any significant (from which he had any great extent of development) and inoculated from 4 such cases set II., IV., VII. & IX. Of these in 2 cases development has occurred in 2 the milk has remained apparent unaffected.

Let us look first at the 2 cases in which development occurred. Two cases in which it had been placed that development was not to be seen. Another question how was to arise. Here the organisms found in the milk were derived from the wound a time they feed in it to some subsequent period? Or it must be cleared that before the final examination the cases had been removed. More needles inoculated under the skin it may be said that the organisms were in at that time.

Judging of this the following points must be listed.

1. The question: Given if the tests in April 1845 were conducted under these circumstances.
Dein in other cases the spray is throughly
promptly.
2. A number of cats was treated in this
same way at the same time those of the
untreated cats went wrong.
3. Further one time later in reality isolated
from the discharges went wrong. 1937
the cats remained perfectly right. If
that had been done half of the spray at 1
50% like that 1927 the cats should
have escaped in fact. Then to 10% the
probabilities there was a very great chan
that one of the number 3 5 should
go wrong or one of the second group.
4. Lastly the needles and the careful work
in 1-20 camel to form treated before
the spray had not that right been used
in any fluid containing bacteria.
5. Then the fact that nearly 3 weeks
have elapsed since that time and the
bacteria are still not so numerous
as after 3 days in other cases also
that no further change has occurred
in the milk would seem to point to these
bacteria being some other different kind
of bacteria which for some reason
other do not multiply very fast and
produce unique changes in milk.

Therefore think that these 3 cases might
be accepted as cases in which developmen
t of bacteria in milk occurred from
inoculation with discharges containing
them. It would be interesting to know if
Any relation exist between the seer colour of the Tange in Tizzy Thomas's case & the seen colour of the fluid in the test tubes containing carbonic acid?

In the other 2 cases no development occurred. One was that of a common thrush which healed in a few days. The lesion is small very little discharge no definite appearance of organisms under the microscope. Here the thought arises: are the small organisms really present or is this discharge? In a rapidly healing case where the discharge is constant (removal) is absorbed some material in which it cannot penetrate as Brachy tint. There is no smell but other evidence of potterfection. May it not be that such cases are counterparts of the case of the healthy ulcer or wound healing by the first intention which have not been treated antiseptically? In these last cases of anise develops the organism? Is it possible? Although at the surface of the lesion there are organisms & other leukocytes & numerous septic particles fall into the wound?

As at the knee the wound and the appearances give such good rendering it impossible that potterfection had not occurred and we must special case in inoculating them as little as possible of the spray on the needle.
As development occurred in the discharge there was nothing absolutely certain as to the existence of bacteria. Still in this instance, the bacteria may have been too small and delicate as not to be readily observed on rapid examination with a low power. It must be mentioned that the smell was much less when inoculated than it was when the case was declared fatal.

Several solutions of sugar themselves:

1. Bacteria (organisms) may not have been present. At this point I will not be positive.

2. These particular organisms may not have found milk a favorable medium. This in borderline as very likely as milk is no means the death of development of all kinds of organisms.

3. Perhaps the organisms had destroyed in their transit. In this case I took particular care that this should not occur. This suggestion may I think be dismissed.

4. The change of temperature may have an influence. A bacteria living in a fluid at the temperature of the human body may not be able to develop in a fluid at the winter temperature. This I believe especially from some experiments I am now making to be a very valid objection in some cases at least organisms keep after leaving the body at the low temperature better than those kept at the cold.
(This may perhaps account for the slow development in the 2 cases in which it went wrong). Nevertheless, considering the various antiseptic cases used, and the fact that in some that did develop seriously, we may consider it likely that there were no organisms in the discharges. I have already commenced further investigations on this point, but am not at present able to give the results.

In these experiments we have another strong proof of the truth of the serum theory, and the occurrence that this method of investigation is trustworthy and will ultimately lead to definite result.
One of temperature occurs from shock of injury without wound apparently due to affection of the parasympathetic nerves.
Some remarks on temperature after wounds.

From experiments on animals and from clinical observations of temperature, Billroth concludes that elevations of temperature after operations are due to absorption of pyrogenic products which produce fever in the wound. The temperature, according to him, begins to rise about the 2nd day and remains high for 6 or 7 days. Yet from elevation of temperature from absorption of acid products he does not recognize any therapeutical advantage of temperature due to disturbance of the venous system he dismisses on the very fallacious experiments of Braun and Creutz. He shows that even a section of nerves which would conduct the irritation to the venous centers elevation of temperature still occurs. That Billroth is brought this with deadly accuracy from the following facts: a careful examination of these will show that there are two distinct sources of elevation of temperature.

1. Absorption of pyrogenic material
2. Nervous disturbance. This nervous disturbance may further appear in the shape of tension from confinement of discharges or injury to the tissues in the operation.
due to a source of external materials for that elevation is due to other causes.

Nothing is surpassed in the antiseptic treatment more for precipitation is avoided.

Where does Mr. Cheyne show the comparison of the temperature between what he calls antiseptic and non-antiseptic cases. Abortion is not justified.
As in the antiseptic treatment we present the occurrence of pus formation, thus exclude the irritation and absorption of irritant materials as an elevation of temperature.

Serum as is by careful comparison of antiseptic and non-antiseptic cases we can judge what elevation of temperature is due to absorption of anti-irritant materials, as in the antiseptic treatment of pus formation is avoided. The difference of temperature in an antiseptic and non-antiseptic case where fever was existing can only be due to the absence of pus formation in the one case or its presence in the other.

The case of Finlay McDonald may be taken as typical of the temperature curve after a pulse operation done antiseptically. Here he had four tuberculous tibia portions of the whole thickness of the bones removed. The wound was not stitched up but instead drainage tubes were introduced. Here there was no pus formation (see case 157) - no alteration in the discharge. The wound did not lay exposed in the wound for weeks till it became organized - no production of acid materials - no inflammation. No formation or absorption of protein products. Here also there was no tension - the dischargelocally free through the wound through the drainage tubes.

But here it will be noted that there
Mrs. C. J. elevation of temperature after this elevation began immediately after the operation & began to fall again after 24 hours. There being no signs of inflammation or tension this elevation of temperature can only have been the result of the operation & the result of the nervous disturbance caused by the operation.

This slight elevation of temperature is present in all operations antiseptic performed on living animals. In such cases it seldom rises above 103° & attains its highest point either on the morning after the operation or on the following day when it begins to fall. It is not present in minor operations & in opening a stone. In opening abdomen there is no appreciable nervous hurry in the operation & the tension which was kept up by the presence of the tumour is relieved. There is no interference with the circulation & the temperature of the body before generally begins to fall immediately after the opening of the abdomen.

I add 2 more antiseptic cases as illustrations.

Dr. James Allison also suffered from continual elevation of the temperature with fever while 2 large incisions were made into the knee joint & drainage instituted. The case professedly pronounced pain at first disappeared—no constitutional disturbance.
and the wound had healed in about 6 weeks. The puffiness of the face having then much diminished.

The third case is that of Robert Hussey who had cuts of the flexor tendons. The fluid was both in the palm and above the wrist. An incision was made above the wrist antiseptically. Fluid was in the cavity containing numerous small red fibrous particles. The edges were carried loose and then was cut out in the palm. The horse hair was used as a drain. Soon the discharge became red. The hairs were pulled out at each dress and was discharged in 8 or 4 weeks. It healed all over. He came back after 6 weeks, was still well. The temperature of once 103.5° above the normal line (99.5° normal).

The next case is that of James Brown who it illustrates a rise of temperature due solely to tension. Here there was no contamination (see case 1) nor abruption of bone and no evisceration. It was a case of old-standing dislocation of the elbow reduced after incision. There was considerable difficulty in reduction of great tension of the parts hence the delay and contusion of the patient. Rise of temperature was due alone to the operation but to the operation of the tension of the parts. This was decreasing when removed.
See statement at page 61 that one pupil case has occurred to enable the suspect to compare the date of indulgence. Suppl. Comm. 7th. roll. as of between cases of this kind case this to a firm.
occurred (on the 6th day) & itself into
the joint. Changes great swelling, pain
& tension. Incisions were made to relieve
the tension on the 8th day. How clots
were evacuated & soon there was a fall
in temperature but for a few days there was
much bloody discharge & the swelling
the joint did not subside for some time.
Suppression did not occur.

This case then shows first time
combined with the nervous disturbance
consequent on the operation, secondly
tension from simple uncomplicated

In James Jackson's case (2) we have
seen, & also the temperature after incision
into the joint, & best of all, constant
pressure & that with great force.
The patient had suffered for some time
from disease of the joint, with
heat, pain. & then 7 incisions
were made into the joint. All went well
but as the pain was not completely
relieved & the joint still ran constant
discharge, & to keep & the tubes in
place 3 gauge were placed in them. The gauge had
been well soaked with gauge until this date the wound was found to be
closed. It may be mentioned that the
products of the fermentation in this case
were not by acid but rather formed
the products probably being present.
Assumes that indifference occurs in all words and
ideas on the social and artistic method. As
the strongest had opportunity of seeing other
methods of drawing he had compared them
with the basal he has arrived instead of
referring to the observations of another.
It will be seen that after the first operation there was no rise of temperature just as in other similar reactions. As before irritation was caused the site was somewhat retched. In the 2nd occasion the operation was not more severe than on the first but it was followed by immediate rise of temperature & a continued high temperature. This was the result of the fermentation.

In most cases the course of operations are performed antiseptically, surgery and a depressive chlorid of zinc solutions applied. Hence character & some fortuitous temperature to show but the one chart of that will be found in "Allgemeine Chirurgische Pathologie" at Licentiate no. 1878.

The 2 following cases had Chloride of zinc applied but still the effect of the reaction tell on the temperature. It is strange that admitted with a very large malignant tumour of the upper and involving the eye and cheek increased to the bone at the supraorbital ridge & infiltration also the skin of the cheek. A very extensive operation was therefore done & the large mass could be left. This was touched with Chloride of zinc. The temperature chart shows continued high temperature with a painful redness & the cause & account for it remains...
Does ur Cheyne. Ign one. other causes of increased temperature, than that which he calls jaundice? What is the effect of such observations on the organic cerebral spinal nervous system and its effects with rise of temperature?
Interference of this cage surface

W. Cohn (VII) had the whole of the

lower lip removed for bitheloma

of plastic operation, as required.

To fill up the gap of course a large

nasal membrane was in the mouth

sufiication occurred there. There was

a corresponding rise of temperature

which was very marked.

I consider this case illustrative

of acute thermal elevation but that

would necessarily be temporary

were this factor to be as

formerly noted.

I. After some operation there is a

rise of temperature concurrent with

the keeping down of the tissues due
to venous stasis. This does consequently

attain a height on an average about 100°,

attains its maximum usually within

36 hours. Then begins a fall which does not

rise again.

II. Confinement of discharges, tends to

give rise to tension. Cause a rise of

temperature in proportion to the

tension. This rise is higher than

200 per cent. Then the former embolus

when the tension is released. This

rise of temperature is brought about

through the medium of the nervous system.

III. When the interference occurs in a

mound of any size there is a rise of

temperature which rise is progressive,

demonstrating the necessity of

cooling the area.
high for 5 or 6 days or more. Before leaving this subject it may be mentioned that rise of temperature after operations may be due to other causes besides those mentioned. This in women menstruation has been noticed to affect the temperature and in several cases this would indicate that the temperature was found to rise as variable it was found on inquiring that the patient had the temperature.

Another example may be given that of Thomas Williams who admitted with a cancer of the right of the abdomen. This was noticed if pronounced remarkably well but even though the wound was quite incised its tension relatively very early. The patient stated that the first few days the temperature was found to vary in a most remarkable manner. In careful inquiring however it was found that the patient had suffered from a glandular infection and still had a gland or an abnormal gland in the cervical region attacks. Gland tumor that enlarged. He was treated with quinine as quinine the gland result may be thus seen.
The increase in temperature of the aneurismal bulb some hours after operation of the removal has been long observed, the cause is very obscure. If Mr. Hayne had studied the subject of the effects of aorta he would scarcely have been surprised at this circumstance.
Some interesting temperatures after ligation of the femoral artery seen worth while recording.

Mr. Cargill (X) was admitted with a rapid increasing palpitated auricular systole of the left leg. The pulse was also more swollen than the right. The veins were somewhat distended. Temperature of the left leg was taken behind the calf (a many cotton wool wrapped around with the left thigh being examined at the same time). After the ligation the left leg was of course enveloped in cotton wool, the right was not enveloped for half an hour before taking the temperature, but in the 15, the right leg was also permanently cooler. It will be seen that there is a rise of temperature that evening.

The results are seen on the chart. It will be seen that immediately after the operation the temperature of the left leg fell but the following evening it had risen very high. It was still high in the morning of the 3rd day; then it gradually began to fall.

As to the cause of this falling and rising in case bumper left ventricles an opinion; however, we see that after ligation of the elastic band the veins flushed. After ligation of the femoral artery it is done time before that fluid flows through the heart muscle.
branches but when it does there is increased circulation so to speak to make up for lost time the result is a rise in temperature. This seems to be the most probable explanation but it may have been due to the enlarging of the superficial veins in this case or some increased capacitance caused from the passage of the main blood.
Interesting Tumours

Case of Adenomata. Thyroid gland becoming portions without enlargement of the normal Thyroid.

Henry Bailey, aged 29, dollar admitted November 23rd, 1856.

History. Patient stated that he first noticed a small swelling on the right side of the neck, which had gradually increased in size. It causes no inconvenience.

On examining the patient, it was observed that a tumor was introduced to the right side of the second cervical vertebra. It was a small, firm, movable tumor and it was movable through a joint very freely on the thyroid cartilage. The lower end of the tumor could be distinctly felt below the neck of the larynx, and a distinct connection could be traced between the tumor and the larynx, either in front or laterally. The thyroid gland being apparently normal no special objection was raised.

In the tumor removed along with the larynx it allowed a considerable amount of hemorrhage.
from some large vein connected with the
vessels. The tumor remained in the
spleen. The case for medical advice
seemed the patient being dismissed to
the 26th Dec.

Examination of the tumor showed it
to be completely surrounded by a distinct
fibrous capsule and reacting to the
naked eye. The appearance of
normal thyroid gland.

Microscopically it showed the well-known
structure of the thyroid gland, the cells
being very numerous and for the most
part very small while in some places
their size large. The large cells contain
colloid material.

Points of interest.

1. It is a distinct adenomatous thyroid.
   This is shown by its position - situated in
   the middle line for distant from the
   normal thyroid with no apparent con-
   nection between them. It had a capsule
   complete at all
   joint at no point showing connection
to the gland. The pedicle was definitely
   attached to always a pedicle connects
   the tumor with the rest of the gland.
   (The nature of the degeneration
   hyperplasia with colloid fat degeneration)
   Vitals against it being merely a developed
   thyroid in which cases the change of being
   more hyperplastic.

2. I point of interest is that the adenomatous
   thyroid should become portions (in tissue
   hyperplasia into colloid degeneration) while the
Normal thyroids undergo no change.

That cases of adenomatous thyroids occur along with Parry becoming jellied along
with enlargement of the normal gland to
occur is mentioned & Parry in his logical
physical pathology but no where in his work
you will find mentioning instance of the adenomatous
thyroid becoming jellied while the normal
thyroid remained unchanged.

2. As the growth of the thyroid gland Bello
in a paper "Vista para pelas Textura molecular
de la Minerales" (Waller Thall.
states as the result of observations made in a case of cystic the bones of the thyroid
pland that the new formation of thyroid
structure (canci) takes place either by
the penetration of a column of cylindrical
cells from pre-existing canchies into the
fibrous tissue where columns becoming
constructed at various points ensuing the
commencement of new canchies of the cell
of the mother canch growing at one point increases & this mass becoming
followed in itself the new canch.

In this case these

By per periplasm of the thyroid tissue
becoming connective rapidly
The largest canchies containing Collodion
material would be larger than the normal
thyroid structure. There are also
numerous smaller canchies some con
aining Collodion material but the very
smallest of these then distinguishing under
a High Power Lens to consist merely of
round cells having all the appearance
of necrosis as when Eighty five the car...
tral cells began to undergo colloid degeneration, and there was no appearance whatever of growth or lesions of other structures mentioned.

Case of Atheromatous cyst under the tongue in the position of a Remulla.

Mr. Douglas 12 3. Admitted Dec. 1876.

For 3 years patient has noticed a swelling under the tongue. This has been twice incised when grayish, flat material escaped. The swelling returned again soon after each operation.

On opening the mouth a prominent swelling is seen under the tongue which swelling is of a somewhat firm consistency. Palpation for tortuous any distinct pulsation.

Dec. 21st Mr. G. Lithot dissected out the tumour carefully with a fine pointed knife, taking the string as a guide to separate the tumour from the tongue without opening into it, patient did well.

The cyst was found to contain a thick, grayish, material which under the microscope showed epithelium of fat vessels, no cells or cells forming sections of the wall of the cyst. Almost all the appearances of sections of skin. Internally we have papillary fleshy and skin covered by layers of epithelium which peel flattened towards the surface. The rest of the wall consists of fibrous tissue.

Hair was not found. The hairs of the eyebrows were found.
beyond the surface. Connected with these are small, indistinct D.C. like structures which form a very coarse bone of 22 sections. The occurrence of aberrations and the tongue is very rare. Though mentioned by various writers.

As the origin of the present cyst it is evident of new formation. It could have arisen from dilatation of glands in the mouth because of its structure more especially of the absence of hairs. It is a relic of a new formation. As it being concluded the fact that it did not develop the lesion for 20 years seems to be against the theory of its being in connection with many lesions seems to be untenable.

While speaking of the former cases another case may be mentioned of a large cyst over the sternum in which numerous hairs were found of extreme length to the character of the hair of the sternum which were also very long.

Case 2. Chondromen of the 2.

Donald Marks, born at 64 Carpenter, admitted Dec. 21, 1876, of his left leg. For 6 years after birth he has been able to walk or sit. Now he has a swelling—vibrating in shape, in some parts hard and others more elastic almost fluctuating of the proximal phalange of the 2. toe
itself immoveable, but the skin freely
indurated on it.

The 1st phalanx was connected with a
fungus about the size of a deaths egg.
The other part of the phalanx affected
being the tochter of the head of the
metatarsal bone. The tumour was
regular in form, indurated on the
surface, the most projecting part being
soft, almost fluctuating, while the
other parts, externally, are pretty firm.

A vein running through the tumour
shows it to be externally covered by a
layer of dense bone about 8 or inch
thick except in some places the hard
prominent bone the tumour is softer,
almost different towards the centre.

Under the microscope it is found
that the tumour consists of a number of
tubules aggregated together without
any well defined interstitial substance.
The part between the tubules is made
up of nuclear cells only a few tubules
it is brownish tinge of stains, containing
fields of patches in it which on
close examination are found to consist
of small round cells, commingling
with tubules.

Close examination of the tubules shows
them to consist of cells embedded in
a homogenous substance. These cells are
branching anastomosing and are
Most numerous towards the centre of each tube.

In some places the cells are surrounded by distinct capsules in others only a partial capsule or for the most part no capsule is apparent or only very faint traces in the intercellular substance around the cells.

No tendency to ossification in the interior of the tumour. No hard nuclei could be seen in the interior of the tumours, which in part were dense. Areas of blood vessels were found within the tumours. The layer of bone around the tumours was much thicker than could be explained solely by expansion of the original bone tissue of the bone. These muscles also have been formation of bone on the surface.

A case of multilocular thymus, diagnosed by Dr. Lea in great interest on account of its rarity. The growth had existed for seven months, had been treated in all from the lungs. After the patient was sent to the Lister for opinion, the growth was found and after dissected it at that time. The slight prostate made at the hand and a comparatively small quantity of fluid. Natural bone was excavated at the cyst could not be simulated. Microscopical examination made showed that there were at least 2 or 3 more distinct cavities separated from the cellular masses. The location present live were mentioned. Many were interesting. Microscopical
Observations made this winter but deemed unimportant from the absence of any interesting case of dislocation at the elbow joint.

Robert Nunn age 38 boarded with Mr. and Mrs. B. metric March 17 1857. Ten months before admission he fell striking the inner side of the forearm against the sleeper. The present condition appears as the result of looking at the arm the anterior surface of the humerus looking direct forward the forearm is seen to be reflected towards prominence through the shaft of the humerus externally an angle of about 120°. This is slight upward deviation but no outward rotation.

The bicipital condyle at the posterior surface of the humerus can be felt posteriorly at the inner side of the arm 1/1/2" in line with the natural markings of the humerus. The outer side on applying the pressure of the fingers can be distinctly felt out. Portions of the biceps and the triceps process is marked at the outer side of the arm somewhat above the radial vascular surface of the humerus. The head of the radii is also marked. A projection of the biceps is also manifested by a hollowing in the volar surface at the head of the radius which is normally in natural relation to the ulna and apparently concealed with the other arm. The attempts at motion of the fingers and the muscles seem to indicate the connection of the flexion of the fingers and attempts at motion of the arm the triceps seem to be attached to the...
By formal conduct of the humerus
in making the rotation of the pectoral
and attempt of reproduction of the
shoulder muscles below the attachment to the
head of the clavus.

When here can be felt protruding
on the middle of the posterior surface of
the humerus.

[Elbow 18th Projection.

Not that a large glenoid cavity
situated at the base of the humerus.
The cavity was found to be covered with a layer of fibrous
connective tissue on the surface of which, in most places it passed
over the articular surface covered with a thin layer of apparent healthy
cartilage. In one part a mass of bony
and fractured. In one or two places the
gluteus muscle was very adherent to
the capsule and a cut off. In front of it was
it was found that there was a small projection of
bone on from the articular surface
for the clavus. This was adjacent
but at the other part of the articular surface.
Muscular fibers were found attached to
the gluteus muscle in line with it. They were
found to separate and attachment of the
fibrous capsule.

The articular surface of the humerus
was at first noticed as
bony. On proceeding beyond this one
area it was found to the articular surface
of the scapula. This so was the clavus was
found covered by gluteus muscle which was
peeled off.

Is the near of the clavus conductible to the

from the internal bleeding and by the
one was made. The head of the radius
defeated when the conical shape has
been cut off. A small portion of the bone
remained. The humerus being then
broken off and the remaining, in connection
at the head of the radius. This was removed
with the fibrous tissue covering the head of
the radius removed.

There was great difficulty in
accomplishing reduction on account
of the shortening of the muscle and
in the attempt a portion of the cartilage
surface has been broken off from the joint
surface of the humerus. After casting
the elastic and reduction was
satisfactory accomplished.

At the present date (April 25) the
case is progressing rapidly and satisfac-
tory. The wound is healing
nearly. The blood cells having left
in the wound all this tissue. No inflammation
no pain except in
some movement.

After the operation the arm was placed
in a cast from the shoulder to the elbow.
During the operation
he was almost completely
completely removed. He could bend his elbow through a complete
with no additional pain.

Partial recovery has been carried on from
the time of the almost the full extent
of all the normal movements.
She was no constitutional disturbance
in the way of pain or appetite.
This is by no means a unique form of dislocation. It is the form which latent dislocation ordinarily or backwards almost invariably assumes when left unacted.
The condition of the articular surfaces caused a large fibrous tissue which was noted off after having a cartilage cover articular surface. The covering the time, the cartilage covered volatile fibrous film with green film (interior). No cartilage is seen in it.

The relation itself, that a joint can be treated as this type. As the articular surfaces cut to reveal the natural...
From 20 to 30 cases at the same time a rise of malarial fever takes not the slightest red symptom is sometimes
in the course of recovery a convincing proof of the efficacy of the antihelminthic treatment
when properly used.