April 26th
1893
18, Wellington Road S.
Stockport.

Chesterman
England

Dear Sir,

I am sending by the morning post a Thesis for degree of Doctor of Medicine — and I declare that the work has been done and the Thesis composed entirely by myself.

Yours faithfully,

Robert Alexander Murray
Professor Fraser.
Dean of Faculty of Medicine
Edinburgh University.
"Some Surgical Experiences"

A Thesis

for degree of Doctor of Medicine

by

Robert Alexander Murray


1879.

18 Wellington Road South
Stockport-
England

April 20th 1879.
Even since 1879 I have been anxious to obtain the degree of Doctor of Medicine. At various times I have thought on subjects on which to found the necessary thesis. I have made what I considered to be suitable notes - in a large busy practice, requiring close and constant attention it is hard to find time for original work. I am compelled to get material from my practical experience. A few years ago I was appointed an Honorary Surgeon to the Stockport Infirmary - and though at first I was only allowed 3 beds for cases - during the last three years I have been able to have more at my disposal - the Institution is not a large one and the wards may be said to be filled with patients suffering from injuries (large number of fractures which require rest and time) or emergency cases which require surgical aid.
I am in hopes that the following article on "Some Surgical Experiences" may be considered of interest and show a desire to carry on professional work on a sound basis so as to obtain favourable results.

The first principle that I tried to carry out in practice with success and the one which appears to be first - most important for a young surgeon to master in application to wounds is the Aseptic or Antiseptic Theory. From my student days when I followed the professors and teachers in the Royal Infirmary, Edinburgh, I saw results without any inflammation or purulent products, I have been convinced that the germ theory is at the root of all successful surgery. On commencing practice I quickly found that results that were obtained with apparent ease by experts were very difficult in my young and untried hands.
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I soon discovered that only by noting my mistakes and gaining by experiences - should I be able to break down my difficulties. I fail to see certainty of method - what causes Periposis and all its troubles in Surgery?

I should like before proceeding further to give extracts from an article on Anti-Syphilitic Surgery in Stait's Dictionary of Surgery by Watson Cheyne - his Investigations have shown as that the growth of Micro-organisms in an organic substance is accompanied by changes in that Material - the nature of these Changes depending on the variety of Bacteria which is there developing - in fact - as the result of the growth of these minute bodies the organic matter undergoes fermentation’ - again “it is not necessary to enter into the reasons for regarding Micro-organisms as the cause of fermentation - but into the mode in which they act.”
That they are the Causes of the fermentative changes, which organic material undergoes, may now be regarded as settled. — Further, there are two (2) modes in which attempts have been made to carry out such principles. In the one, various precautions are taken with the view of preventing the entrance of micro-organisms into the wound (A: Sepsic Surgery), and in the other micro-organisms are or have been admitted if they mean are taken to prevent or interfere with their growth and fermentative actions (Anti-Sepsic Surgery).

How are these general principles here laid down to be carried out in practice, details?

Now it has always appeared to me that the general doctrine that instruments must be sterilised, their parts cleaned. Nothing but sterilised ointions put on the wound — was not precise enough or sufficiently
detected — I have been convinced that the importance was not attached to other little matters such as handling of wounds etc. — which may largely affect primary union of healing without inflammation and purulent products —

When a fresh wound is made by the Surgeon (say for excision of breast), the steps of the operation completed and the dressing applied — one of these processes may set in: a (1) process of construction (primary union) — or (2) process of destruction which means the mastery of the germs into inflammation and fermentative products — these may be absorbed into the general system and produce serious results and in all such cases the local healing is much delayed — the aim of the Surgeon is to assist the former — to prevent the latter — what course is it. Necessary to follow? If the wound is kept quite aseptic then all goes well...
But if not, and it may be difficult to believe that every minute organism to keep out - then the battle is one between the powers of vital energy of the tissues and those of the poisonous forms introduced into the wound to thrive on the food provided for them. It will be always interesting for speculative writers to inquire what are the reasons why forms on one soil grow more quickly than more serious effects - than forms and what appears to the surgeon to be a Similar Soil. In the same way it might be asked why one plant grows bigger and stronger than another similar plant in a soil artificially prepared by a gardener.

From the writings which I have studied on Phagoctyosis and the power of Phagoctyes (White blood corpuscles) in transformed connective tissue cells, which lie on the organisms introduced, and which if not over-
Whelmed by the amount of such micro-organisms, can destroy any destructive power. I take it that in some cases absolute freedom from poisonous germs is not necessarily required but to be desired.

May I give other extracts on this theory.

Phagocyte Theory

In Professor Hamilton's 'Text Book of Pathology' published 1889, the following is stated:

"There remains another possible method of absorption which is fast gaining ground, and one on the subject of which more light is now being thrown, namely, that by which the living cells round about the suppurating part carry off and absorb the dead cells. Formally accounted for in absorption of fat put in this way in a tissue, and the observations of Metchnikoff seem to lend some support to it."

"Another hole in which they probably..."
take an active part in the
infiltration and digestion of
micro-organisms circulating in
the blood - if this be so and there
seems good reason to believe that
amœboïd cells of almost any kind
have this property - it might account
for the absorption of the dead
tissues in an inflammatory area
and moreover might explain why
a granulating surface - that is to say
one covered with amœboïd cells
is less dangerous as a source of
septic contamination than a freshly
made wound - as bearing upon
this Dr. Coli has shown that a
blood clot effused into a wound
which is filling with embryonic
organising elements has little tendency
to putrefy —

As a meeting of the Pathologique
Society in London February 16 1892
the subject of Phlegmophosis and
immunity was elaborately discussed
by all the leading Bacteriologists.
All the views of Speakers maintained the activity of emissions and serums producing bactericidal and antitoxic results, and that phagocytosis was of great importance in resisting the invasion of infective germs. 52 Bristol alone spoke from a clinical point of view. He showed the resistance of the body to the invasion of germs (infective) was:

1. Mechanisme, as the opposition of the Skin Membranes–

2. Inflammation and subsequent Emulsification or Suppuration–

3. Active warfare on phagocytes–

4. Impurities of site etc.–

Whether the fluids of the blood or Chemical Changes have the resisting power, or whether that power lies exclusively with the phagocytes – is but of tremendous importance to the practice of Surgeon. This duty is to keep out micro-organisms, and if they are introduced, even in small numbers
- to see that no material in the slight resisting power - is there as food for them -

At any rate no surgeon can be justified in making fresh incisions for removal of tumours etc. This has now the feeling that his methods for him a reasonable security that the wounds will not break down that if the final steps of operation do not admit him getting the parts accurately together and so obtaining healing by immediate union or first intention - this process will come about by secondary intention or granulation - unaccompanied by formation of discharges due to fermentative origin —

The methods to adopt - the construction process may be thus considered

W Affecting the operator - formerly the surgeon had an operating coat - which had done duty at many scenes worn at all operations - this
Custom is "not consistent with the
judgments of antiseptic surgery."
I prefer to be in 'my shirt sleeves'—
A clean apron even is to be advised—
No antiseptic to the hands before washing
is equal to turpentine (with turpentine)
which has the power of softening epi-
thelium. So—Solutions of Perchloride
of mercury are best in which to dip
the hands—
2. affecting the instruments—These are
effectively sterilized by boiling or
passing through a "Calco-carb
er Sterilizer"—They are allowed to
remain in a tray with Carbolic
Acid lotion—Always use
Cotton—Next Sponges (bees waxed
in gauze)—Never Ordaining over—
Calco-carb roll papers soaked in Tinct. Lotion
And always when I can—Salman
(or Silk-worm) gut—Sutures
3. affecting the patient—Except in injuries
And Emergency Cases requiring
immediate Surgical aid I am sure
it is well to prepare the patient—
That is part how, through a kind of training, I have had the experience of two cases with disastrous results. There I believe the strong man had his made of life too suddenly interrupted. The powers of his resistance were not at their strongest. Of course the ordinary routine preparation of all surgical cases, done for operation would be carried out. The skin must be strictly cleaned. And baths are to be advised. Formerly I was satisfied with washing the part with carbolic lotion but in searching for the cause of my failures about the axilla and pubis, I was induced to be more particular and now always employ a scrupling with turpentine before using a hair brush and soap to scrub the surface. I prefer mercury solutions to carbolic acid; too liable to difficult to quiet and irritate more. I remember reading a very interesting article in the Edinburgh Medical
Jouvenet on Tarantula by Dr Foole. He praised its effect as a germicide in furuncles and other skin diseases.

4 affecting the wound. It was in this stage of the operation that I found my most bitter experiences; for instead of assisting the powers of construction, I was unconsciously giving a helping hand to the micro-organisms - Time and more delicate manipulation came to my aid. By grasping the parts with less firmness and cutting with uncertain, heavy, spasmodic strokes I was bruising the tissues and making them a more fruitful soil for the germs - So doubt this is a factor with beginners but I have been sufficiently impressed as a student with its value. It makes all the difference between a lacerated wound and a clean incised cut. Complete arrest of hemorrhage should always be tried for. It is better to stop bleeding from small
Wounds by ligatures than depend on pressure from the dressings — My best results have been obtained where I take time — Catching a large piece of tissue with ligature forceps and twisting the blunting clamps makes a small bruise or leaves a necrotic patch — fit food for germs — The same remark applies to the mistake of ligaturing much tissue with the artery — just "to make sure" — For this reason I prefer the old artery Catch forceps to the pressure forceps of Plan V Spencer, as they have a smaller catching point, require more precision and are more easy to ligature over — Avoiding hemorrhage may require special caution — Cleaning the wound of all blood clots has now to be done — And if washed out with any fluid it must not be of an irritating character — In the carbonate of lime or delayed healing by using a toxic strong solution 450 forming a thin layer of necrotic tissue — There is some truth in the saying —
"Antisepcticise every thing except the wound" - 
but do not leave any food for the 
ferns - My usual practice is to 
apply The Surfaces with a small quantity 
of powder composed of equal parts of 
Boracic Acid + Sublimate (very fine) 
and it has always done very well - 
In closing the wound the same great 
care - handling - completeness 
are required - Get the parts dry 
then Obliteration of the wound cavity 
is the desideratum - The closer the 
Edges of the wound can be got at, 
Surface & deep down the better for quick 
and accurate healing but the dangers 
of great tightness & consequent 
Union must be avoided - The intro- 
duction of Salmon or silk worn wet 
as material for Salines has effected 
a great improvement - it can be 
kept absolutely clean to place - this 
the parts comfortably - be no painful 
and Skillful when coated is inclined 
to act as a Selon - Both require more 
frequent dressing of the soft Cat-gut-
which has many advantages may
fix any way too soon - The Self-worn
Gut, Can be secured without a knot
by simply making a double turn of
the ends - The hold is sufficient
and if the ends are left long, the
surgeon can tighten or slacken it
at a dressing as he may wish
Even though patience in the careful stopping
of small bleeding points, accurate Stitching
of edges. Tegasure pressure (very important)
by pads of bandages, will be successful
in a large number of cases in obtaining
a condition of affairs that does not
entail renewal of dressing for some
time - The surgeon has to watch symptoms
of prevent retention of fluid in a
wound - Much discharge, tension
of pain would require attention - Only
experience can tell when a
Drainage tube is necessary - Personally
I try without incurring risk, for
as short a time as possible - To do
without the tube - I do all to ensure
a long rest - for the growth of Union
Placing a dress and then disturbing it is surely wrong—
Every surgeon has his favourite dressing material—mine is Jodoform or Perchloride Gauze—Wood wool binding—I try for dryness and long intervals of change of dressings—all an improvement can be gained by experience—by the value of rest.

The delicate manipulation of bands.
I should like very much to have again the opportunities of any young student—Surgeon's days—The manipulation of parts at the first dressing (especially) after the operation requires great care on the part of the surgeon that you are trying to build up will soon be on shakily foundation—I do not know any better advice to a young surgeon on dressing than that given by Isaac Walton to his pupil for the dressing of the dressing of a frog as live bait—"Handle them as though you could eat them, that is, harm them as little as possible that the may live the longer"—
Antiseptic Surgery - In the foregoing
statements I have dealt with that
I consider to be the first essential in
a young surgeon - namely - the
acquiring of a knowledge of carrying
out thoroughly - Antiseptic Surgery -
in those cases where operations are
required - The op Surgeon will
also receive under this treatment - Cases
of wounds &c. Where "Micro. organisms
are or have been admitted" - This
treatment will then be directed to
destroying such organisms and
preventing their multiplication.
( Antiseptic Surgery ) - Micro-
organisms Cause fermentation in
wounds and grow in the discharge
or dead tissues - By this means
poisonous products are formed. T
being absorbed into the system, produce
Septic biliocation such as Septicaemia
in Pyemia &c. - The micro-
organisms seem capable of going
directly into the system, but it has
been proved that if means are
taken to prevent their development at the wound—these means will stop their entrance into the system. The means to be taken are to remove the discharges. 1. (2) dead tissues and (3) apply antiseptic lotions—The first is accomplished by drainage which must be free and complete—and the latter by excision or scraping. All tissues with dead vitality should be removed. The whole surface must be strictly cleaned and all washed out with antiseptic lotion (not any so good as Perchloride of Mercury). If supplicative discharges exist they must be treated in the same way by the antiseptic though by free drainage—these will not have time to undergo changes in the wound. The dressing will be an antiseptic one according to the surgeon's choice. Personally I have got best results from Carbolic oil (made with Crystals) + Tallow. These properties will be discussed later on—
Success may not be attained after the first dressing; but perseverance with antiseptic details will steadily improve the wound and encourage more rapid healing—A Chronic Sinus or Abscess— or abscess will do well by such dressing if parts are scraped when an acute abscess is forming or tissue is breaking down (not tunneling) say in a burn—it is always well to wait till the fluid is semi-encapsulated for by this means a barrier to absorption into the system is effected, then a free opening at the most dependent site can be made. Of course this would not apply where tension was great or where rapid absorption of septic products was taking place as in Periostal Abscess Antiseptic Materials—On this principle I should like to mention one—Podophyllin is not an antiseptic in the sense that it kills Bacteria but it seems under certain circumstances to have the
Powers of breaking up their product" (Watson-Cheyne) - On this theory the treatment of applying it in the form of an Emulsion with Alcoholic to Enclosed Cavities has been tried.

The writings of this Surgeon (Watson-Cheyne) have always been of great good to me, and a specific article in the British Medical Journal, December 1872, on treatment of Spinal abscesses brings out the great value of Antiseptic Surgery. Thus specific reference to the employment of injections of Iodoform I was taught to delay the opening of Osseous abscess as the result of subsequent drainage were unsatisfactory. Now according to this authority Early Helic Treatment can be adopted. By this view a Chronic abscess is merely "a tuberculous tumour with a softened Centre" and I think this is clearly proved by studying the course of Carcinising glands - the Treatment lies in
Removing the Cause—When the disease is in the bone, the caries portions are removed, but when the mischief is there obviuous and only the abscess remains, then treatment consists in removing the contents—destroying as gently as possible through completely the lining membrane which acts as a kind of factory in filling the cavity. This membrane is dealt with by excision or scraping. I have excised tubercular glands with success but in large abscess cavities, the removal of the lining membrane is impossible. By the method of scraping twice of iodophen solution I have obtained the very encouraging result. Samuel Planta, 30 years for two years under my care with spinal caries, kept in bed five months of plastic jackets, he had apparently improved the bone mischief but though temperature of body was never high—a large
Cold abscess formed and poired below popbunt ligament — usual site of Boas abscess — I read the article I have mentioned and determined to try the treatment. The time was in January — I followed out my usual aseptic details — made an incision into abscess sufficient to admit a finger — evacuated large quantity of pus — scraped the lining membrane away with my finger nail — washed out the fluid that came away was quite clear — with addition of very small percentage of mercuric chloride — inserted 3 sick worn fret-salaries through the two parietes of the wound — by holding them up reduced the threat of the opening into this I passed the nozzle of the syringe and injected a quantity of iodophor emulsion — I then fixed the salaries by passing the ends twice over each other & dre them tight with one knotting supplanting the dressing.
The patient had not an unfavourable symptom and all was healed up when the wound was dressed for the first time — I may say that I applied elastic bandage-pressure over the soft they were kept in bed for some time but is now at home apparently well — I am most anxious to watch this and similar cases under purely Roth, a procedure is to be recommended before repeated aspirations or drainings in that region where the difficulties of keeping out germs are great — at any rate one fact remains that only by careful antisepsic or aseptic methods can such results be obtained.
Examples of Aseptic Wounds.

Among my operations I have noticed of Removal of breast in 7 cases - which have all recovered but not all with equally quick and good result - This has always appeared to me to be an ideal one for Aseptic Surgical detail - as offering good prospect of healing by first intention. There is the probability of obtaining accurate position of parts - But I found many difficulties - My ordinary routine is how carried out: Thoroughly wash the surface with Spirit of Benzoin. Soap, Water, Sterile Instruments, Clean hands &c - Cut - Cleanly - tie all bleeding points (at any rate do not hurry closing of wound) And - wound lightly with powder of Equal parts Iodine and Boracic Acid, Obliterate wound cavity by saluting each accurately together - drain if required through separate opening - and give complete rest by pressure of dressing, Harm to side -
The arm is held up and through shape of chest, breast. I know will vary in each one. I have changed from the tranverse incision - which I was taught to the oblique one parallel with the anterior fold of axilla - the only point of elliptical incision being opposite to center of axilla. I followed the usual lines laid down for this operation but made the mistake - which I fancy other beginners must make - that of impairing the nutrition of the flaps by undermining the skin. Though I now skin clear of this mishap by cutting from without-inwards it is certainly an almost certain result in the novice's hands, especially if the woman is thin and the skin tight - Healing is delayed and in one case of mine a necrose piece of skin about the size of a half crown came away solid - By the oblique incision the axilla is much more easily
reached and drainage if required is carried out by making a separate opening at the most dependent part below the bony flap, thus forming a canal up into the cavity of the wound—Blinding points, even if small, must be stopped to ensure success in this operation especially and it is advisable to tie the Centre tube fast—The importance of rest and pressure can not be over rated till ali—After treatment—For the value of the arm as a splint (I have given up the many nailed bandages on this account for an ordinary broad flannel roller bandage) a drainage Gods has been used necessitating a change of dressing in two days—then the greatest gentleness must be employed for if the arm is much moved or the wound irritated—The Great Rectoral Muscle is housed into Constriction it will in a few seconds break down the first two days work
I have set myself the task of having
Union by first intention in Cases
of Incision of breast — In my last
operation performed March 17th 1893
the woman left the hospital and
the following month April 16th
Drainage was carried out by a few
strands of Catgut. Union took
place quickly all along the Line —
I fancy that a practitioner is
Consulted on the subject of breast
breast at an Earlier Date Than
formerly & so there is more healthy
and available Skin — but if the
Skin is large. The Surgeon has to
Carefully Map out Lines of Incision
And Not follow out the usual ones —
Deficient Skin after Removal of
Skin or it’s Consequent Tension and
the Outlines Employed Do not lead
Is a Granulating Sore which refuses
To heal or is Long delayed in
Healing — The Disease punctuated by
The Chronic Wound. Re-appears
At an Early Date. The operation gets
into disrepute —
This is a practitioner's view -
I know that an old lady was
brought to me from the Country
not so long ago - She was
thin and spare - but the lesion
in the breast was only about
the size of a big marble - very
hard. No doubt malignant -
It was growing very very slowly
And She was Seventy - I
Advised watching not removal.
In such cases. And in those
where most of the involvement
Covering the mamma to
involve - I think one ought
to Consider being Carefully.
if Such are desired for treatment
by operation, which only Stirs
up the Soil and gives an
impetus to the Disease.
No doubt Early removal
has saved many prolonged
many lives -
Colotomy

Though it is only in recent years I have had opportunities of performing any surgical work and my time has been principally occupied in trying to perfect dressings & establishing greater certainty in their efficiency. I have had cases requiring the operations of amputation, herniostomy, sphincter etc. Those which have given me the greatest anxiety both in their execution & results are operations which have become more general since I left College — namely, Colotomy & ostiotomies & I think straight. Mention the experiences of a beginner in such cases—though I follow the work in the wards of the Royal Infirmary Edinburgh. I do not remember having seen colotomy performed and I had to gain experience of myself from cases which
occurred in my own practice, from two operations which I performed—

Colostrum is an operation to relieve the function of defecation, by making an artificial anus in the inguinal or umbilical region. The inguinal was first performed by Selbin in the last century, but it was not till the year 1839 that Amassalbury performed Colossum Colossum—Dr. Bryant, President of the Royal College of Surgeons (whose preference for Colossum is referred to below) and his first case in 1857, and Sir Christopher Halket in 1871. Since then every surgeon of prominence has had experience of a large number of cases and they advocate an early performance of the operation. Relief of pain and rest to lower bowel, combined with the removal of diseases of operation have justified the practice in all cases.
Instead of delay, the bowels be-
coming distended. This operation
one of urgency: Surgeons advise
early interference but the re-
sponsibility of taking such a step
to being great. And I do not know
of any greater assistance to a
General Practitioner than the
Treatment of Concomitance Malignant
Inflammation of the rectum — in a
middle-aged man, who is as much
an intimate friend as a patient.
The treatment of piles calls for a
mild treatment and one may be in-
duced to prescribe without
digital examination but the first duty
is to break down any reluctance
and thoroughly explore the
bowel — if the finds the e.
Suspicion of Malignant Structure.
What is its over duty to say?
I know it to be very hard. The
remedies to the bowel would appear
important but surely it is wrong
to make an invalid of the patient.
Any sooner than one can help —
I should like to know the proper course to pursue—Perhaps it is best to put him on soft food (as milk), watch him, and like him an operation may be required some day—Do not let him go far from home, even short voyages or such like, but let him attend to his business. The Cooper is better than strong feelings on this subject based on painful experience—

If cholera is decided upon the next question is what slit to choose—Surely everything favours the inguinal, except in great distension of bowels, where Lumbar, in such conditions, would be safer—In inguinal the bowel is more easily found. His opened at a more convenient position. The opening in Lumbar is inconvenient by being behind. The former can be kept clean by the patient. The latter requires to be cleaned by an attendant. The drawback of escape of fecal gas odor from an inguinal opening up the person's clothes to face is slight.
and can be remedied by diet. Charcoal or other agents — Inguinal is an easier operation than Lumbar.

Failure to find the gut even by expert hands in the Lumbar region may take place — But in my clinical experience the strongest argument is that the Surgeon has in one Case a Rupt.-Acute wound (Inguinal) Thoroughly under his command, while in the other (Lumbar) he makes a large deep flesh wound, which is of itself difficult to Rupt. Sutur., drain. and heal — If you add to this that the bowel has to be anchored to the surrounding tissues. and the possible escape of some liquid feces into the depths of wound, Surely this argument is all in favour of the Inguinal method — Inguinal has one danger "bursting of wound" but after careful stitching this must require considerable force from constant or Cough. — The importance of attending to this point of diet — to all means
That would keep away such distant acts. Must be particularly noted—
Cumber: Cætiong is an operation for urgency only to relieve obstruction
with bowel distended to a great extent by faecal mallei in flatulence.
In such conditions inguinal would have to be done at one sitting. Then
there would be danger of peritonitis.
The prolapse of gut after opening will be mentioned afterwards—

I have now only inferred to left inguinal and left Cæmber. The common
sites of operation; each has its advocates—

Right inguinal, right Cæmber.

Transverse sites are rarely chosen.
Very definite knowledge would be required that the obstruction was
high up and there are the objections that faecal discharges would be
liquid, owing to the more active peristalsis in the higher part
of bowel.
Inguinal Colotomy (Lft.)—

Kitchen at 62 was an old thin, spare man with frequent diarrhoea. When he consulted me—From Digital Examination, I found that there was malignant ulceration of Reclive—Alimson describes 3 varieties: (1) Annular growth narrowing the gut—no much pain—very rapidly fatal—found in aged persons—(2) hard mass firmly fixed deeply ulcerated—very painful—(3) quickly spreading ulcer seen in young and middle aged—

(The operation may also be called for in innocent Stricture—tuberculous or Syphilitic Ulceration: or in Imperforate anus.)—I considered the disease in this case as one to be properly classified under No. I determined on performing the Course of the Complaint to perform left inguinal colotomy and I had every thing in my favour.
The steps of the operation have been slowly narrowed down to the one described by Allingham — to be performed at two sittings —

The site is a lica inside anterior superior spinaus process of ilium. Take that as the central point. Make a 2 inch incision which should be oblique. The anatomical considerations are the various layers of muscles which are known by the direction of their fibres — (Skin, cellular tissue, external oblique, internal oblique, transversalis muscle, transversalis fascia, arcular liga. Sub peritoneal fat, peritoneum). Retractors are required if patient is stout —

The peritoneum has to be opened with difficulty to said to be possible with this membrane — one of the deep layers of fascia might be mistaken for it but experience gained from hernia cases guides the surgeon to know when he is in the proper cavity —
When the peritoneum has been opened, and divided by scissors on a broad pointed bistoury to almost the same length as the skin incision, it is well to catch the free border of divided peritoneum at the middle point on each side with a pair of catch forceps. The forceps are allowed to lie flat on the skin, and so draw up the peritoneum by the weight of the instruments making the point drag up that membrane to form a lining to the wound. This prevents blood in a measure trickling into the abdomen. The next step is to find the large bowel and as a rule this presents and is little recognized by the longitudinal muscular bands which are made for the purpose. In my case as the bowel was empty I had to pass my finger down to the brim of the pelvis and took up the descending colon. A marking thread is now sometimes passed into the coat of the bowel for future guidance.
but I think this ought to be done at a later stage in operation — The method of pushing a sponge into wound to keep bowel out of sight is unnecessary. I think — when the parts have been surveyed and their position understood, the peritoneum is stitched up to the skin by fine silk — beginning at one corner and working round to it again — The surfaces ought to be very accurately brought together so as to induce healing and to obliterate any cavity — where even a small quantity of blood or mucus could collect — The parts are dried and the closed part of gut is brought out of the opening — Bell out — The greatest objection to inquiring Colotomy is the future danger of procidentia of bowel through the opening — and if the operator has promised the patient a more pleasant life — this possible complication has to be warding against — This condition largely depends
on the latter of the present -
attaching - of the sigmoid flexure
to the ileum - it may be long
medium - or short - to draw up
and anchor a good - huckle
of bowel, Allen iban introduced
the method of passing a loop sabre
through the abdominal wall on one
side of wound, then through the
presenting - back through the presenting
abdominal wall. Flying - Roy
this means - the parts are fixed to
the necessary spur should be ob-
tained as seen in the final result
the operation is now performed at two
settings, so those that required opening
at this stage need not be considered.
( molding divided ill - stitched
the upper opening to skin - glad the
lower altogether - venetian divided
+ stitched both openings to abdominal wall)
The bowel, by its obli. coats, is then
fixed by numerous firm sutures to
the skin all the way round - and
this is to be preferred to the mode
of drawing the bowel out, passing a glass rod underneath a cone (Victor Apgar) and waiting for the gluing of parts together by lymph - Cripps advocated drawing out the upper part of presenting bowel until the attachment of presenting can be perceived by the feel - retaining that part in position - and then passing the loose part back into the abdominal cavity - but as this procedure is just as likely to occur naturally from some part as upper - this procedure is of doubtful value - after the wound has been well cleansed - a thread is passed through the coat of bowel at that part where future opening is to be made to left there to act as a guide, for the wound after twenty-four hours presents a very different appearance - being then covered with effused lymph + serum - The parts are dressed with iodopovidone + peracetic acid powder - Covered
with clean protection. Supported with pads of wool. Held there by many tied bandages with 'buccal' band — the surgeon ought to feel assured that he has a bullet-like wound — and unless trouble (distressing from distension) arises this ought not to be touched for 24 hours. (Though might be in 6) — and certainly should be delayed for as many days up to five as possible with due regard to safety.

Second step of operation — The dressings are removed and if gut is found distended — after the guiding thread is found — the opening of bowel is made — I believe the practice is to take away nearly all the projecting part at once — there is very little pain — if the presently has been well lubricated up — the formation of spurs is successful and acts in a similar way to
Epi-gloccis when used passes down the throat, lay guiding the fascia
over the lower opening — if this
result has not been realized. Then
the operator has only, so to speak,
pull a window into bowel - a
fascial fistula will exist - and
their action will later place through
both the inferior opening of the
anes — cleanliness frequent-
dressings with non-irritating materials
(Boracic acid, Charcoal, etc) are all
that is now required — judicious
dieting is all important — general
attention to health. In one case I
saw — the fascia seemed to come from
the lower opening and this was
explained by the probable twisting
of gut as it was yellic out of
the wound — a strong argument —
against closing off the lower
segment of bowel — from the
effects of the anaesthetic — violent
vomiting might take place — and
owing to the great pressure of
An abdominal wound — a rupture of the wound attachments might take place with protrusion of small intestines etc. I suppose in such an event one would have to replace all with as little injury as possible and hope for a favourable result.

For a troublesome procedure which depends so much on the length of the mesenteric attachment - in more of the nature of an embolization I should be prepared to perform the supplementary operation as advocated by Allingham. That is — use a spiked clamp to hold parts in position to prevent bleeding. Then cut off the superficial gut protrusion. This would appear safer, than drawing out all bowel with loose mesenteric attachments — both from upper lower ends — and fixing outside abdominal wall at first step of operation —
Lumbar Colotomy — By this operation the course is opened in the Lumbar region. I remember one of the questions in the "Surgeon Paper" at final examination in 1879 was: Describe the operation of Lumbar Colotomy. State what diseases it may require it. Our knowledge on this subject has been gained from Professor Spencer's lectures and in this book the following description is given:

"Amuseum — operation commences this incision immediately over the superior margin of the mass of muscles forming the Erector Spinae and Carries it transversely outwards towards the crest of the 
iliacum — nearly midway between the crest of the last rib and rather nearer to the crest. On dividing the skin, fascia the free margins
of the Calotomus dorsi et interne.
Oblique muscles are brought
into view with an interval between
them. The cellular tissue is divided,
the branches of the before mentioned
muscles held aside or partially
divided — with a little further
dissection the portion of the
lumber aponeurosis giving
Common attachment to — the
internal oblique and transversalis
muscles is exposed and carefully
divided to the line of the external
bound. Also cutcle upwards
and downwards with the knife
to give more room: then by
grip of the knife and finger
the surgeon works his way
cautiously so as to expose the
fibra peritoneal aspect of the
descending colon — he then speaks
of the danger of opening peritoneum
of bowel be not distended — advises
care to prevent feculent matter
escaping among the tissues —
finally stitches the bowels to
the ligament by Continued
Suicide - He laid great stress on
the Continued Suicide.

At that time this operation was
carried out as a last resource
to relieve symptoms - but since
it has grown rapidly into
prominence which has been
written on the subject - it is
agreed on all sides that - the
operation should be done at
an early stage in the course
of the disease that demands
its performance. Perhaps the
pendulum has gone too far in
the opposite direction - Where is
the happy medium? Is it
undoubtedly capable of relieving
pain and prolonging life -
The ligature site, I am sure, is
bound to be preferred by most
surgeons - but still eminent
men stick to the ligature-
and Mr. Bryant, President-
of the Royal College of Surgeons is the Champion of this Lactie Method. He delivered the Bradshaw Lecture in 1849, and chose this subject. I strongly advocate this method of Cæsarean Section. The incision is oblique with its Centre in the same point as the Transverse, and this is adopted now by all Surgeons.

The first steps of the operation are as described before. When the gut is found, it is drawn out of the wound, its walls are stitched to the skin, and threads passed through the walls of the bowel - when this is opened the two threads are found, and drawn out, and divided. The four ends thus left in the bowel are then tied to the corresponding ones in the skin. Sometimes Mr. Bryans does the operation at two slips and does not open the bowel at first, setting but leaves to give parts time to get glued together if not quite healed. He claims for Cæsarean Cæsarean Section, our original, which has more advocates, than ci...
is last: Where great abdominal tension exists - that the peritoneum is not opened - that the large bowel is more easily found in the umbilicus. He questions that the inguinal hernia more accurately diagnosises and relies on other diagnostic symptoms for necessity of operation - On the question that in inguinal colostrum there can be no mistaking the large intestine for small ile - he holds that irregularity of position of colon is rare. Need not influence surgical practice. I certainly should not like against the umbilical operation — Allingham Cripps &c. The inguinal advocate) hold that the bowel can be readily drawn out of the wound and firmly fixed to the skin without undue tension on the stitches that a better span can be obtained — Against this Bryant calls that, though this is in a measure true it applies more to the condition of the large bowel when empty than it does.
to that of a patient the subject of distension from obstruction. Since a loaded bowel could hardly then be manipulated — He claims, that by drawing up the gut out of the lumbar wound — rotating it forwards to bring the posterior longitudinal band to the surface, and then fixing it, enables them to form a spur — which is successful as shown by the cases passing into bladder. When perforation into that organ had taken place in one of his cases before operation — I fancy his manipulation would require very expert and experienced hands — Perforation occurs in both operations and Blunt and Bryant holds that a slight amount is favourable in the lumbar operation to the prevention of feces passing into the rectum — but it is generally admitted that serious trouble frequently arises from this complication or sequel in cases of lumbar colostomy.
Against the general convenience of
the inquined site. He again raises
his objection that any dressing
or compress is more difficult to
keep in position over the anterior
opening - Surely this assertion is
not borne out in practice —
I am only a beginner and have
operated in two cases of malignant
disease of rectum - They were being
different — In one (previously
mentioned) I had an old man —
their +Spore — with frequent diarrhea
which rendered his life miserable.
He agreed to any operation I performed
in regard to colostomy — The wound was
kept aseptic throughout — Recovery
was perfect — From an indoor life
he is now able to resume regular
work at full time — I can manage
Everything connected with dressing
of wound — In the other - a middle
Aged man — had a quickly growing
rectal tumour. Yappolid for surgical
aid when his bowels were distended
from obstruction - I was forced to make the Lumbar incision and found the stop to the operation most difficult - The obstruction was relieved but the patient died 6 weeks afterwards from Exaustion. I have had Experience in other of my patients where the operation was performed by prominent Surgeons. and from that experience I am influenced to prefer the modern inguinal method. Except in Cases where the malignant disease has spread high up the descending Colon - inguinal Colotomy will be the recognized operation for opening the bowel - and the Lumbar Method will only be resorted to where surgical interference is required in extreme Cases of obstruction with Distension.

The ability to keep the inguinal wound aseptic must be a great gain - In any Case of Lumbar operation - when I had reached
the fatty tissue around the descending colon. I had a large conical cavity of a wound which Gibb's would require great attention and care to keep aseptic and if you add to this that the gut was opened by the old methods of passing silk threads through the walls of the wound and bowel, then even with the help of drainage and cleanliness, a healthy condition of tissues was nearly impossible.

If I had to perform the operation of lumbar ostotomy again, I should follow the lines laid down by Treves, as offering more favourable prospect for quicker healing. It is as follows. When the bowel is found at the deep point of the wound, it is raised from its attachments throughout out. It is desirable to get the extraperitoneal (posterior) surface but it is too much to expect that the
peritoneum will never be damaged but the opening in bowel must always be made on the un-covered surface — The care of the bowel at this chosen part is picked up in self-holding forceps (such as tongue forceps) — held lightly just outside the wound — which is now treated on other wounds — All blood is removed and the parts cleaned & dusted with iodoporum and Boracic powder. — The peritoneal wound is now closed by silk worm gut sutures passed deeply — (just as in operation for ruptured peritoneum) — to include all the divided structures down to the fascia lumborum — so as to obliterate the cavity around the bowel — All should be closed before any are tied — when they are tied the skin should be closely embrace the small dome of protruding bowel. — The skin is then united all
Bound to the intestine by many points of silk sutures. Which should pass into the muscular coat of bowel only—No fecal matter can then pass into the wound. The forceps can now be removed and an opening made into the bowel. It is remarkable what a quantity of feces thus will escape in some cases. When this is occurring or has ceased final sutures are introduced of silk-woven flat material through the skin of whole thickness of bowel—from without inwards using a fresh needle & a fresh thread for each suture—This is a most important detail. The old-fashioned silk threads, which were passed through the skin, through coat of bowel, across the lumen of bowel down to the other side of wound, became soaked by fecal matter & formed foul serous—With formation of
purulent discharges -
The object is to get the wound heal by first intention - and a small opening into bowel assists this - The after treatment is the same as in other cases -

Colostrum Belt - These are used to cover the opening into bowel and to collect the discharged pieces - They are made of Canvas - belt - and India rubber pads - Recently the pad has been made of metal (Combination of Copper & tin - Kindle) - And patients prefer this material - The pad is Sausage - shaped - has a perforated lid - which lies against the wound - Surgical instruments - Ankers - state that it is easier to fit an ilealial part of belt.