DIAGRAM showing the various directions in which an appendix may point.

a. In iliac fossa.
b. Along iliac vessels.
c. Into pelvis.
d. To promontary of sacrum.
e. Among small intestines.
f. Mesial to caecum under ileum.
g. Mesial to caecum over ileum.
h. Behind caecum.
i. Lateral to caecum.
j. Behind ileo-caecal junction.

a. Median incision.
b. Paramedian incision.
c. Lennarder and Schuller (vertical incision).
d. Battle's incision.
e. Morris' incision.
f. Fowler's oblique incision with extension.
g. McBurney's incision.
h. Edebohl's incision for both kidney and appendix.
i. Sonnenburg's incision.
No. I. "Normal" appendix — This is described in the text under the heading of "Histology of the Appendix." The lymphoid follicles and glands are readily seen.

No. II. Gangrenous appendix — In contrast to the above, the individual elements are practically indistinguishable.

The section shews necrosis of the lymphoid follicles and disintegration of the mucosa.
Photograph of transverse section of an Appendix shewing a "carcinoid tumour."
These are relatively benign, metastases being late in occurrence.
BRIEF CLINICAL HISTORY

Specimen No.1.

P.G. Male, aged 30

4 previous attacks of appendicitis.

The nearest hospital being 20 miles distant, I treated the patient on 3 occasions on the Murphy-Ochsner régime.

A cottage hospital was opened in the district and the patient, who had just recovered from an attack, was admitted. His symptoms were typical of acute appendicitis, viz., epigastric pain, vomiting and pain, tenderness and rigidity in R.I.F.

On each occasion, sips of water only were allowed by mouth, aperients withheld and Fowler position instituted.

T. P. R. Normal.

Patient was free from symptoms on 3rd day and was allowed up on the 10th day.

Operation in quiescent stage. McBurney's incision. Definitely kinked appendix removed.

Recovery: Discharged 14th day.
APPENDIX No. 1.

The tube has a sharp bend near the proximal end, below this it is distended and filled with faecal material. The wall of tube above the bend is thickened due mainly to hyperplasia of the lymphoid tissue and swelling of the mucosa. Below bend the wall is much thinner. At parts the mucosa shows a loss of the epithelial secreting glands, thus leaving an ulcerated surface covered with blood corpuscles from haemorrhagic erosions. Blood has passed into and mixed with the contents of lumen. The submucous tissue is diminished - especially the lymphoid nodes. Lymphocytes form a thin irregular line below the mucous membrane. The muscle fibres in the muscular coat are atrophied and stretched. The subperitoneal tissue is scanty. These atrophic changes in the coats are uniform throughout the tube from the bend, only the extreme distal end has escaped. The contents of the dilated lumen are mainly composed of faecal material with altered secretion, inflammatory cellular exudate and blood.
P.S. Female, aged 14

3 previous attacks treated by Murphy-Ochsner régime.

Admitted to Cottage Hospital 14 days after onset of last attack.

Symptoms then were pain (umbilical): vomiting: pain, tenderness, rigidity over McBurney's point.


Recovery: Discharged 14th day.
Chronic inflammatory changes - thickened and partly obliterated tube. The mucous and submucous coats are swollen with the hyperplasia of the lymphoid nodes, and lymphocytic infiltration of the mucous membrane. Eosinophil leucocytes are numerous and are seen invading the tissues. There is endothelial and fibroblastic proliferation. These cellular reactions are also seen in the muscular and subperitoneal coats, and are fairly general throughout the thickened tube. The hypertrophied muscular coat shows the connective tissue from the submucous layer invading the muscle fibres accompanied by numerous inflammatory cells. The peritoneal coat is also invaded by this fibrous and leucocytic infiltration. The vessels in this layer are congested and show a marked accumulation of lymphocytes in the perivascular spaces. There is slight exudation of lymph on serous surface.
F.R. Female, aged 43


On examination: Stout: vague tenderness over epigastrium, gall bladder and R.I.F.

Operation: Gastric ulcer: cholelithiasis; and a thickened appendix bound down by adhesions.

Appendix removed: gall bladder removed

Recovery: Discharged 24 days after operation.
APPENDIX No. 3.

Shows a somewhat chronic condition. There are no marked pathological changes in the upper part of tube. The lower half contains some retained faecal material with thinning of the coats. The mucous surface near the distal extremity is atrophied and in parts the secreting glands are lost. The lymphoid tissue in submucosa is diminished and the lymph nodes are necrosed. In parts the muscular tissue is being invaded by connective tissue from the submucosa.
BRIEF CLINICAL HISTORY

Specimen No. 4

S.D. Male, aged 18

2 days ago complained of epigastric pain, nausea and difficulty in walking. Pain became localised to right loin. Aperient (Epsom salts) taken 36 hours ago.

T. 100.8° : P. 84 : R. 24.

On examination: tenderness in right loin and to lesser extent in R.I.F. Patient kept right knee flexed: psoas test positive: urine showed no abnormalities.

Diagnosis: Retro-caecal appendicitis.

Operation: Grid iron incision.


Appendicectomy: stump not buried. Drainage tube (1) to loin (2) into R.I.F.

Recovery: Discharged in 21 days.
APPENDIX No. 4.

ACUTE GANGLRENOUS APPENDIX.

Extensive inflammatory and necrotic changes in the lower half of tube, with masses of retained faecal material within the lumen. The necrotic process has involved practically all the coats, mucous, submucous, muscular and peritoneal. At a point below one of the faecal concretions the wall is extremely thinned out so that perforation would soon have occurred. The acute inflammatory process is extending to the upper part of tube especially along the subperitoneal coat. Vessels are distended and engorged with blood, and there is marked leucocytic infiltration of the connective tissue. A thin layer of fibrinous exudate is present on the peritoneal surface. There is marked hyperplasia of the lymphoid tissue in the upper half of tube and numerous lymphocytes have invaded the mucosa.
BRIEF CLINICAL HISTORY

Specimen No. 5

M.T. Female, aged 18

1 previous attack 6 months ago. 5 days ago complained of acute epigastric pain at 2 a.m.: vomited 3 times 6 a.m. Pain in R.I.F. 4 days ago.

72 hours ago took 2 castor oil pills and 24 hours ago Epsom salts.

T. 97.8° : P. 130 : R. 32.


Diagnosis : Paralytic ileus due to general peritonitis and perforated gangrenous appendix.


Patient died 4 days after operation from paralytic ileus.

Post-mortem : "Ileus duplex" present and widespread peritonitis.
APPENDIX No. 5.

This specimen shows practically the same as Appendix No. 4. The lower half of tube is extremely swollen by the inflammatory process, and there is marked necrosis. The lumen contains faecal concretions. All the coats show an acute inflammatory process - are markedly swollen and infiltrated with polymorphonuclear leucocytes. At points there are small suppurating areas (abscesses). Vessels are acutely congested and there are a few small haemorrhages into the necrosed tissue. Much of the mucosa is destroyed. The submucous, muscular and peritoneal tissues are swollen and separated by oedema and leucocytes. The peritoneal fat is invaded by the inflammatory cellular process. The upper half of the appendix shows excessive lymphoid reaction - hyperplastic germ centres and lymphocytic infiltration of the musoca.
BRIEF CLINICAL HISTORY

Specimen No. 6

J.J. Male, aged 16

No previous attacks.
2 days ago complained of "colic" and vomiting: bowels constipated; castor oil taken 12 hours ago.


On Examination: Definite pain, tenderness and Rigidity over McBurney's point.
Rectal examination - nil abnormal.

Diagnosis : Acute Appendicitis.

Operation : No free fluid.

Appendix congested: walls thickened.
Appendix pelvic in position.
Appendicectomy without drainage.

Recovery
APPENDIX No. 6.

The coats of the tube show a general thickening. At points the mucosa is ulcerated with loss of the glandular acini. Submucous tissue is swollen and infiltrated with cells, and definite foci of inflammation can be seen. The cellular elements present are mainly polymorpho-nuclear leucocytes and eosinophil leucocytes, but lymphocytes and fibroblastic cells go to make up the general reaction seen in this layer. Both muscular and peritoneal coats show little or no inflammatory change.

In the lumen is seen a section of an intestinal worm - Oxyuris Vermicularis (female) - recognised as that parasite by the characteristic ova contained in its ovarian tubes.
M.W. Female, aged 21

Has suffered from 3 previous attacks.

Two days before admission complained of epigastric pain and nausea - no vomiting - no aperient.

**On Examination**:
- Pain
- Tenderness
- Hyperaesthesia
- Localised to R.I.F.
- Rigidity


**Diagnosis**: Catarrhal appendicitis.

**Operation**: McBurney's incision.

No fluid in peritoneal cavity.

Appendix sub-cecal and congested. Walls thickened.

Uninterrupted recovery.
This specimen shows some degree of hyperplasia of the lymphoid tissue, and invasion of the muscular coat by fibrous tissue from the submucosa. At lower extremity of the tube there is necrotic change with thinning and loss of the mucous and muscular coats. Otherwise there is nothing of histological interest to note.
BRIEF CLINICAL HISTORY

Specimen No. 8.

J.B. Female, aged 32.

No previous attacks.
3 days ago - umbilical pain: no nausea: no vomiting: pain in right loin: no frequency of micturition.

Aperient (castor oil) two days ago.


On Examination: Tenderness in right loin and to lesser extent in R.I.F.

Diagnosis: Lay between appendicitis and renal lesion. Cystoscopy shewed healthy bladder wall; both ureteric orifices normal; efflux of indigo carmine from both orifices in 8 minutes. Ureteric catheter passed up right ureter for 30 cm. No evidence of hydronephrosis.

Decided to explore abdomen.


Recovery: Discharged on 24th day.
APPENDIX No. 8.

Practically the whole tube is involved in an intense inflammatory process with necrotic changes. The lumen is filled with retained faecal material. The mucous membrane is completely destroyed by the necrotic process and appears to fuse with the submucous, muscular and subperitoneal coats. The lymphoid tissue and the muscle fibres are markedly degenerated and disorganised. The subperitoneal tissue in parts, especially at the extremity of the tube, shows an acute inflammatory reaction. The vessels are distended with blood and there is much haemorrhage into the tissues. Polymorphonuclear leucocytes have accumulated in large numbers along the outer coat. There is much polymorphonuclear leucocytic infiltration of the outer coat of tube, and at the extremity there are found definite suppurating areas. Pus cells with erythrocytes have accumulated within the lumen and mixed with the faecal material. The stroma of the peritoneal fat shows a slight degree of inflammatory oedema and leucocytic infiltration.
BRIEF CLINICAL HISTORY

Specimen No. 9.

S.L. Male, aged 28

6 days ago had an attack of "appendicitis." Pain disappeared 2 days ago when patient got up; took food and aperient (castor oil) 6 hours ago; sudden exacerbation of pain and vomiting.


On Examination: Pain tenderness \} localised
circumscribed swelling \} to R.I.F.
dullness

Diagnosis: Appendix abscess.

N.B. Patient walked into hospital.

Operation: McBurney's incision.

Appendix abscess, with omentum around. Appendix acutely inflamed and necrotic. Removed with drainage for six days.

Recovery: after 3 weeks.
APPENDIX No. 9.

The whole of the tube shows a diffuse inflammatory process, fibrinous and cellular in character. The lumen contains many inflammatory elements but little faecal matter. The mucous membrane shows small haemorrhages and leucocytic infiltration between the epithelial glands. In parts the lining epithelium has been destroyed by suppuration. The submucous zone is markedly swollen by an acute suppurating process with destruction of the lymphoid tissue and surrounding connective tissue, and in parts there is erosion through epithelial covering into the lumen. The suppuration is associated with haemorrhage. The muscular coat shows leucocytic invasion and the muscle fibres are separated from each other by leucocytes and oedema. The same condition is seen in the connective tissue of the subperitoneal layer. There are no suppurating foci in either of these layers. The "pus area" is limited to the submucous layer. Adherent to the surface of the swollen and oedematous peritoneal coat is an irregular layer of fibrinous exudate - peritonitis. The peritoneal fat shows evidence of involvement in the inflammatory process and is covered with a thick layer of fibrinous exudate.
BRIEF CLINICAL HISTORY

Specimen No. 10.

J.P. Male, aged 18.

First attack. 3 days ago, epigastric pain - vomiting and pain in R.I.F. - no aperient.


Rectal examination - nil abnormal.

Abdominal examination - localised pain, rigidity and tenderness in R.I.F.

Diagnosis : Acute appendicitis.


Appendix - behind ileo-caecal junction.

Recovery : Uninterrupted.
APPENDIX No. 10.

The upper half of tube shows a slight hyperplasia of the lymphoid nodes and some catarrh of the lining epithelium of the mucosa. The lower half shows an excessive increase of lymphocytic cells in the lymph nodes. Associated with this there is a polymorphonuclear leucocytic inflammation causing disorganisation of the various coats of tube with atrophy and thinning of the muscular and subperitoneal coats. The dis tended part is filled with disorganised tissue elements and inflammatory cells.
BRIEF CLINICAL HISTORY

Specimen No. 11.

F.G. Male, aged 35.

Complained of epigastric pain 1½ hours after food. Relieved by taking food.

Rhythm of symptoms: - food, comfort, pain.

**Diagnosis**: Duodenal ulcer.

Medical treatment did not completely relieve symptoms so operation advised.

**Operation**: Right supra-umbilical paramedian incision.

Duodenal ulcer and thickened appendix. Posterior no-loop iso-peristaltic gastro-jejunostomy; and appendicectomy.

**Recovery**: Discharge 28 days.
There is a stricture about the middle of tube. The whole of the wall is thickened. The lumen does not show any retained faecal material. Mucous surface has a nodular appearance due to enlarged lymphoid follicles. These swollen lymphoid areas are pressing on the surrounding connective tissue and causing atrophy of the supporting tissue elements of the submucosa. The muscular wall is hypertrophied and there is slight increase of the fibrous connective tissue between the muscle fibres. The subperitoneal tissue is somewhat increased. There is no evidence of any acute inflammatory reaction.
BRIEF CLINICAL HISTORY

Specimen No. 12.

J.F.E. Male, aged 14

No previous attacks.

52 hours ago seized with acute umbilical pain. 2 hours later vomited twice: then 18 hours later (i.e. 34 hours ago) pain became localised to R.I.F. 12 hours ago took castor oil.


On Examination Well-marked pain, hyperaesthesia, tenderness and rigidity in R.I.F. - no dulness.

Rectal examination - nil abnormal.

Diagnosis Acute Appendicitis.

In view of taking of purge, immediate operation.

Operation McBurney's incision.

Serous fluid in peritoneal cavity. Appendix sub-caecal, acutely inflamed, with flakes of lymph on peritoneal coat. No perforation. Appendicectomy without drainage.

Recovery N.B. Operation was carried out immediately before perforation should set in due to purgation.
APPENDIX No. 12.

Unfortunately the section in this case has not been made through the middle line of the tube, so that the changes in the lumen and mucous layer cannot be studied.

From the fibrinous and cellular exudate involving the peritoneal surface, the evidence goes to show that the process has been acute and has started in the submucosa.
BRIEF CLINICAL HISTORY

Specimen No. 13.

F.J. Male, aged 25.

Has suffered from "indigestion" for 3 years - pain worse 1½ hours after food - relieved by taking food - nocturnal pain 2 a.m. relieved by milk.


ON Examination:

Pain tenderness) over Rt. upper rectus.
rigidity )

Also slight tenderness in R.I.F.

Operation:

Rt. paramedian incision.
Duodenal ulcer.
Kinked appendix.
Gastro-jejunostomy and appendicectomy.

Recovery
APPENDIX No. 13.

The mucosa is markedly infiltrated with lymphocytes. The lumen contains degenerated lymphocytes and epithelial cells from the glands. The submucosa is swollen by the marked hyperplasia of the lymphoid follicles. The muscular coat shows little change, and the peritoneal surface has in certain parts small deposits of fibrinous exudate, but the tube is mostly smooth and healthy. From the arrangement of the muscular fibres seen in section the probability is that the tube was kinked.
BRIEF CLINICAL HISTORY

Specimen No. 14.

A.C. Male, aged 14.

Attack of tonsilitis 16 days ago. 2 days ago complained of "indigestion" and vomiting a day ago - complained of pain in R.I.F. - Castor oil 20 hours ago.


On Examination:

Pain
- tenderness
- rigidity
- dullness

in R.I.F.

Rectal examination - nil abnormal.

Throat congested.

Diagnosis:

Acute appendicitis following tonsilitis.

Operation:

McBurney's incision - sero-purulent fluid in peritoneal cavity.

Appendix sub-caecal - acutely inflamed and oedematous.

Appendicectomy with drainage through suprapubic stab wound.

Patient developed "ether pneumonia" - discharged from hospital after six weeks.
APPENDIX No. 14.

A very extensive and acute inflammation involving the whole of the tube, pyogenic in character. The lumen is distended and filled with inflammatory (pus) cells, desquamated epithelial cells from mucosa, blood corpuscles and faecal material. The mucosa is extensively disorganised by the inflammatory process, many of the secreting cells of gland having been cast off. The softening and ulcerative process is eroding the submucous tissue and breaking up the lymphoid tissue. Much haemorrhage has occurred from vessels in this layer. The thin and stretched muscular coat is being invaded by large numbers of polymorpho-nuclear leucocytes. The subperitoneal coat is also markedly infiltrated with these wandering leucocytes, and the blood vessels in it are dilated and engorged. The fat attached to the tube shows involvement in the inflammatory process - acute hyperaemia and leucocytic emigration. Among the inflammatory contents in the lumen near the free extremity of the tube are seen several colonies of bacteria - filamentous in character, possibly branching, and having a close resemblance to the colonies of Streptothrix actinomyces.
BRIEF CLINICAL HISTORY

Specimen No. 15.

P.J. Female, aged 35.

Has complained of dysmenorrhea and vague abdominal pains for several months. No vomiting.

Pelvic examination: thickening and tenderness in right fornix.

Operation: Right infra umbilical paramedian incision.

Uterus normal.

Appendix thickened: pelvic in position: adherent to right ovary which was cystic.

Appendicectomy and puncture of ovary.

Recovery: Discharged 14th day.
APPENDIX No. 15.

The mucosa shows little change. The submucous coat is fibrosed and the lymphoid tissue atrophied. The muscular coat is hypertrophied. The subperitoneal coat is thickened, fibrous and vascular, with lymphocytic cells infiltrating the fibrous tissue. Along the perivascular lymphatics near the surface numerous small haemorrhages have occurred. In the fat surrounding the tube the fibrous stroma is thickened, very vascular and haemorrhagic. Numerous lymphocytic cells are seen along the strands of fibrous tissue. Blood corpuscles are also seen between the fat cells. Small masses of old fibrin are adhering to the surface of the fat lobules.
BRIEF CLINICAL HISTORY

Specimen No. 16.

J.J. Male, aged 42.

Complains of epigastric pain after food. Nausea - no vomiting. Tenderness in epigastrium and more especially in R.I.F.

Operation: Right supra umbilical paramedian incision. Stomach, duodenum, gall bladder normal. Appendix: thickened and bound down by old adhesions to R.I.F.

Appendicectomy.

Recovery and Disappearance of symptoms - Case adjudged to be one of appendicular dyspepsia.
APPENDIX No. 16.

The upper third of tube shows swelling of the mucous and submucous coats due to hyperplasia of the lymphoid follicles and invasion of the mucous membrane by lymphocytes. There is slight catarrh of epithelial glands. The rest of the tube, unfortunately, does not appear to be cut in middle line, or there is complete obliteration of its lumen. The muscular coat is thickened from a hypertrophy of the muscle and an increase of fibrous tissue. The position of the lumen and submucous coat is occupied by fibrous tissue in which are blood vessels. No lymphatic follicles or lumen seen in section, and there is no evidence of any acute inflammatory reaction.
BRIEF CLINICAL HISTORY

Specimen No. 17.

R.S.T. Male, aged 10.

Complained of abdominal pain and vomiting 4 days ago. Castor oil given 2 days ago. 1 day ago pain on micturition.

T. 100.8° : P. 106 : R. 28.

On Examination: Distended bladder with rigidity and tenderness in R.I.F. Rectal examination - nil abnormal. Specimen of urine not obtained.


Appendix adherent to bladder: empyema of appendix.

Appendicectomy with drainage.

Recovery: Discharged 28th day.
This section is not quite in the middle line of the tube. The upper part shows swelling of the lymphatic tissue with little other change. The lower half, however, shows evidence of an acute inflammatory reaction. The blood vessels in the wall of tube and in the surrounding fat are acutely congested, and there is much haemorrhage into the tissues; this is associated with invasion of all the tissues by inflammatory cells. The free end of tube is much disorganised by the inflammatory process and is converted into an abscess. The surrounding fat at the lower end shows haemorrhage and polymorpho-nuclear leucocytes are invading it along the fibrous septa.
BRIEF CLINICAL HISTORY

Specimen No. 18.

C.E. Female, aged 15.

Sister suffering from whooping-cough.

Patient complained of cough, abdominal pain and vomiting.

Diagnosis: Incipient whooping-cough. Mother advised to keep child in bed and give no aperient.

2 days later, I was asked to call and see the child.

Symptoms: abdominal pain; tenderness in R.I.F. Aperient given 2 days ago contrary to instructions.

T. 100.2° : P. 104 : R. 28.

Diagnosed acute appendicitis.

Operation: Grid iron incision.

Pus in peritoneal cavity.

Appendix: gangrenous at tip.

Appendicectomy with drainage.

Recovery: Discharged in 18 days.
There is much catarrh and desquamation of the epithelium of the mucosa into the lumen of tube. Some thickening of the submucous and muscular coats is noted. The main lesion is at the free extremity - an acute suppurative process, which is eroding the coats and involving the surrounding fat of the part, forming a septic slough.
BRIEF CLINICAL HISTORY

Specimen No. 19.

A.R. Female, aged 12.

Complains of recurring abdominal colic.
No vomiting: no tenderness.


Sent in by doctor as appendicitis.

Operation : McBurney's incision.

Apparently normal appendix but on incising organ, numerous threadworms were found.

Recovery
F.W. Female, aged 22.

Complained of "dysmenorrhoea" for 2 days. Menstruating on admission. History of abdominal pain in lower abdomen and vomiting.

Dose of senna taken 24 hours ago. Bowels acted three times.

On Examination
abdominal facies, dry tongue, faecal odour of breath.


Widespread pain, tenderness, rigidity and dulness: also some abdominal distension.

Pelvic examination - tenderness of pelvic floor.

Diagnosis : Acute gangrenous appendicitis with peritonitis.

Operation (immediate) Foul smelling pus encountered through mid line infra umbilical incision. Matting of intestine with flakes of lymph.

Appendix - ulcerated in one area and perforated. Pelvic in position and adherent to right tube.
Removed: stump not buried: drainage.

Patient developed left femoral phlebitis.

Recovery : After seven weeks.
APPENDIX No. 20.

The whole tube with its surrounding fat shows an intense inflammatory process with excessive fibrinous exudation rapidly becoming degenerated. The leucocytic and fibrinous exudate is causing extensive and general disorganisation of the structure of the organ. The lumen contains much necrosed fibrinous and cellular exudate, which is adherent to the ulcerated mucosa. The epithelial lining is largely destroyed, and all trace of the lymphoid follicles in the submucosa is lost. The muscle fibres in the muscular coat are thin and separated by the leucocytic infiltration, while the subperitoneal tissue is largely replaced by a thick layer of fibrinous and cellular exudate. All the tissues in the tube show excessive invasion of leucocytes and oedema with softening and wasting. The surrounding fat tissue shows the same intense inflammatory process - congestion, leucocytic and fibrinous exudation.
E.D.W. Male, aged 48.

Has been complaining of epigastric pain, eructation of acid into mouth, and loss of weight.


On Examination: Patient very thin. Tenderness in epigastrium. X-Ray shewed rapid emptying of stomach but no ulcer or "filling defect". Patient's symptoms persisted despite treatment; exploratory laparotomy advised to exclude carcinoma.


Recovery: Reported 2 months later - Appetite improved. Put on weight, and free from gastric symptoms.
APPENDIX No. 21.

The whole length of the tube lumen appears to have been completely obliterated. There is no evidence of mucosa or lymphoid tissue, these being replaced by well formed fibrous tissue. At points along the central line in this fibrous tissue are small cellular areas composed of lymphocytes, and between the collagen fibres are numerous vacuolated mononucleated cells - "foamy" cells or phagocytes. The muscular coat shows much interstitial connective tissue between the muscle fibres. This suggests a condition of chronic replacement fibrosis with obliteration.
BRIEF CLINICAL HISTORY

Specimen No. 22.

A.J. Male, aged 19.

3 previous attacks.

4 days ago had "abdominal colic" and vomiting; continued working for 2 days; no aperient.

T. 98.2° : P. 100 : R. 22.

On Examination:

Pain

- tenderness

- localised in R.I.F.

- rigidity

Diagnosis: Acute appendicitis.

Operation: Acutely inflamed appendix found. Removed.

Recovery
APPENDIX No. 22.

The upper end of tube shows a chronic fibrous thickening of both subperitoneal and muscular coats with obliteration of the lumen. A little further down the outer coats are thickened and the submucosa is cellular, the lymphoid follicles being enlarged and having hyperplastic germ centres. The lumen contains masses of blood, and many desquamated gland tubes from the mucosa. The epithelial surface shows a very cellular infiltration of the intertubular tissue; in parts the epithelium is cast off leaving an ulcerated surface. Immediately below this point starting from the lumen and passing through the greatly thickened coats a broad zone of inflamed and necrosed tissue is seen erupting through the peritoneal surface, and forming a ragged mass of inflamed and necrotic material. It is of interest to note that lying near the free margin of this necrotic mass is a section through a parasitic worm, which, although the species cannot be absolutely determined, is probably the thread-worm — (Oxyuris vermicularis). In all probability the parasite reached that position from the lumen of tube, via the necrotic tract. It appears to have been attacked and broken up by numerous large foreign body giant cells present in the necrotic material.
BRIEF CLINICAL HISTORY

Specimen No. 23.

B.E. Female (married) aged 28.

3 days ago - abdominal pain and vomiting.
2 days ago - aperient: tenderness in both iliac fossae.
Diarrhoea since yesterday.


On Examination:

Pain

Tenderness in both iliac fossae.

Rigidity

Pelvic examination: tenderness of pelvic floor especially the left side.

Diagnosis: Pelvic peritonitis. ? cause.


Appendix removed - drainage.

Recovery: Discharged on 21st day.
APPENDIX No. 23.

This tube shows an extreme suppurative process which involves practically the whole of the tube, all coats suffering from its destructive effects. The wall of the tube is excessively infiltrated with polymorpho-nuclear leucocytes, and there is much haemorrhage. At points the structure of the tissue is still recognisable and appears to have escaped the toxic effect of the irritant, but much softening and degeneration of the tissue elements is evident. The general leucocytic reaction and invasion of the tissue is evidence of the severe inflammation. The lumen is filled with pus cells and blood. An acute suppurative condition.
BRIEF CLINICAL HISTORY

Specimen No. 24.

P.W. Male, aged 7.

2 days ago colic and constipation - Vomited; senna given.

T. 98.4° : P. 84 : R. 24.

On Examination: Tongue dry and furred.
Pain tenderness in R.I.F. rigidity

Rectal examination - nil abnormal.

Diagnosis: Acute appendicitis.

Operation: Grid iron incision:
Pus in peritoneal cavity.
Perforated gangrenous appendix with faecolith.

Appendicectomy with drainage.

Recovery: Discharged on 18th day.
APPENDIX No. 24.

The whole of the tube shows necrosed mucous surface and much loss of secreting epithelium. The submucous, muscular and peritoneal coats are much stretched and in parts the subperitoneal coat and peritoneal surface show patches of necrosed inflammatory exudate. The distal end contains a long large concretion.
BRIEF CLINICAL HISTORY

Specimen No. 25.

C.J. Female, aged 23.

2 days ago - epigastric pain: vomiting. Pain in R.I.F.
Krushchen salts 12 hours ago; bowels not acted.


On Examination: Pain
tenderness in R.I.F.
rigidity

Pelvic examination: tenderness in right fornix.

Diagnosis: Acute appendicitis.

Operation: Battle's incision.
Appendix pelvic in position - acutely inflamed and ulcerated with faecolith at tip.
Serous fluid in peritoneal cavity.

Appendicectomy with drainage for 12 hours.

Recovery
APPENDIX No. 25.

The tube shows marked acute inflammatory changes. The mucosa is extensively necrosed and ulcerated, and most of the secreting gland tubules are lost. Much of the submucous tissue is necrotic and practically all the lymphoid tissue has been eliminated by this degenerative process. It also shows acutely engorged vessels, with a considerable amount of haemorrhage, and polymorpho-nuclear leucocytic infiltration. The muscular and subperitoneal coats show haemorrhage and leucocytic invasion. At the distal end in the region in which a concretion was lodged the haemorrhagic and leucocytic invasion of the tissues is very evident. There is an excessive accumulation of the inflammatory exudate on the peritoneal surface. There are also a few foci of suppuration in this region. Leucocytic invasion of fat is to be noted.
BRIEF CLINICAL HISTORY

Specimen No. 26.

B.L. Female, aged 25.

2 days ago sudden attack of abdominal pain and vomiting.

Aperient (castor oil) taken 24 hours ago.


On Examination:

- Pain
- Hyperæsthesia in R.I.F.
- Tenderness
- Rigidity

No dulness: no distension.

Pelvic examination - nil abnormal.

Diagnosis: Acute appendicitis - ? Perforation.

Operation: Battle's incision.

Serous fluid in peritoneal cavity.

Appendix adherent to lower ileum - acutely inflamed - Removed without drainage.

Specimen shews gangrene limited to the mucous membrane.

Recovery: Uninterrupted - Discharged on 18th day.
APPENDIX No. 26.

The mucosa shows inflammatory changes and slight ulceration. The submucous coat is infiltrated with lymphocytes and with polymorpho-nuclear leucocytes. The muscular and subperitoneal coats are also markedly infiltrated by these inflammatory cells.
BRIEF CLINICAL HISTORY

Specimen No. 27.

A.J. Male, aged 19.

2 previous attacks of appendicitis.
3 days ago - epigastric pain: vomiting.
2 days ago - pain in R.I.F.

Glauber salts 2 days ago (ordered by patient's doctor).


On Examination: Exquisite pain
   rigidity in R.I.F.
   tenderness

Diagnosis: Acute appendicitis.


Recovery: Discharged 24th day.
APPENDIX No. 27.

The whole of the tube shows an acute inflammatory process, and the upper part contains a faecal concretion, which bulges out one side of the tube. The mucous layer is necrosed and ulcerated. The various coats are congested and infiltrated by inflammatory cells. Below the dilated zone the walls are thicker, the swelling is mainly due to excessive inflammatory cellular infiltration of all the coats, and accumulation of pus into the lumen. There is extensive destruction of the mucous layer, but a few secreting gland tubes still exist. The fat tissue along the side of the tube shows extreme inflammatory changes. The vessels are engorged with blood, and there is polymorpho-nuclear leucocytic emigration, and a fibrinous exudate along the strands of the fibrous stroma, while at points definite centres of suppuration may be seen. The extremity of tube shows ulceration of the mucous layer and pus lying in the lumen.