half of a Petri dish, x, and the metal plate is pressed firmly down on it, so that the edge of the dish is securely embedded in the lower plasticine containing trench. Extra plasticine is added all round up to the level of the dotted line shown in the diagram so as to make an absolutely air-tight lute.

2. The other half of the Petri dish, y, is sterilized in a larger Petri plate in the hot-air oven, filled up with a suitable amount of agar or agar-gelatine, and when cooled is inoculated.

3. Saturated caustic soda solution, 10 c.cm., is poured through the hole o into the plate x, and then as quickly as possible the plate y in an inverted position is pressed firmly down into the upper trench and luted down with extra plasticine all round up to the level of the dotted line shown in the figure.

Organisms thus grow on an agar surface in an air-tight box from which most of the available oxygen is absorbed by sodium pyrogallate. The smearing of the agar surface with alkaline egg-albumen at the time of inoculation greatly facilitates growth. Where difficulty is experienced in getting growth by this method, the organism may be coaxed into giving good surface colonies by a preliminary passage through several subcultures in alkaline meat under paraffin.

The following organisms have been successfully cultured by this method—*B. welchii*, *B. von Hübner IX*, *B. aëro-fetidus*, *B. fallax*, *B. oedematiens*, *B. sporogenes*, *B. histolyticus*, *B. tetani*, *B. paratyphicus coli*, *V. septique*, and others not yet definitely classified.

Advantages of the Method.

1. The procedure is a simple one and requires no special skill.

2. The lid, b, serves a double purpose. It provides a black background against which colonies can be easily discerned, so that the progress of a culture can be watched from day to day. It also prevents soiling of the agar surface with pyrogallate solution.

3. The apparatus takes up very little room in the incubator. A series of cultures can be stacked one on top of the other, and each one can be taken out and examined separately.

4. It is cheap; the tin lids cost but a trifling sum. They are unbreakable, and can be used again and again.

The prepared and blackened metal plates, with or without $\frac{3}{8}$ in. Petri dishes to fit them, may be obtained from Messrs. R. B. Turner and Co., 9-11, Eagle Street, Holborn, London.

I have to thank the Medical Research Committee for placing a supply of these at my disposal.

MELAENA AND HAEMATHEMESIS NEONATORUM.

By BETHEL SOLOMONS, M.D., F.R.C.P.I.,
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In this very fatal condition the details of a successful treatment are useful, and for that reason I submit the notes of a case which occurred in my practice:

The mother was a young primipara, and delivered herself of a full term female, weight 8½ lb., length 22 in., after seven hours' labour, on March 16th, at 8 p.m. The family history was good on both paternal and maternal sides.

I saw the child on March 17th, in the morning, and everything was normal. I then left town for twenty-four hours, and did not visit the case again until the following evening. On March 17th, at 5.30 p.m., the baby vomited a little brown fluid. For the next three hours she was very restless. At 9.30 she passed a large tarry motion with streaks of blood through it; at 10.15 she vomited about 3 oz. of red blood. From 10.30 until 11.0 she was very collapsed, with lips and fingers cyanosed. At 11.30 she passed a very large bloody offensive motion. She seemed in pain, and did not sleep more than ten minutes at a time. On the morning of the 18th, as I was away, Dr. Fitzgibbon kindly saw the patient for me. At 9 a.m. she had a very large fluid motion, with blood through it. At midday, horse serum 2 c.cm.

was injected into the loin. Very shortly after this there was a motion containing a large quantity of blood. Some blood was vomited. I saw her at 5.50 p.m., and soon after this there was a large tarry stool. At 10 p.m. horse serum, 4 c.cm., was injected. On this day she had four doses of a mixture containing calcium lactate, gr. 1, and adrenalin chloride 1 in 1,000, one minimi to each dose. She had a restless night, waking every hour.

March 19th. At 3.15 a.m. and 4 p.m., large melaena were passed. She looked better and I decided to wait before giving any more horse serum. However, after the second tarry stool, I injected 5 c.cm. hypodermically. The adrenalin mixture was administered twelve times. She had a good night and slept well.

March 20th. Slight melaena twice—at 3 a.m. and 4 p.m. At 4.45 p.m., 5 c.cm. of horse serum hypodermically; twelve doses of the mixture in the twenty-four hours. She was very restless and evidently in great pain, which was probably due to flatus.

March 21st. In much pain. At 2 a.m. a small rubber catheter was passed per rectum and a large quantity of flatus came away. The chill was taken off the water, which until this day had been given dead cold. There was one small tarry stool.

March 22nd. At 2.20 a.m. the infant was very restless and inclined to cyanosis, and looked as though about to die. Horse serum, 5 c.cm., was given by mouth; this was repeated at 9.30 a.m. She seemed weak through the day, and I decided to give her something stronger than water. I therefore ordered albumin water (one egg to the pint of water) every two hours, which was the first "food" given. This was the sixth day of the illness and the seventh since birth. The mixture was given eight times in the day.

March 23rd. Albumin water 2 oz. every two hours. Mixture eight times. Horse serum, 5 c.cm. twice in the twenty-four hours by mouth. Two motions, improved, but still rather tarry. One pound weight lost in the week.

March 24th. Albumin water during the night. At 8.30 a.m. the first slightly yellow motion. At 11 a.m. rennet whey 2 oz. Serum 5 c.cm. by mouth twice. Two more yellow motions. Rennet whey through the day. The mixture three times.

March 25th. The mother's breasts had been kept pumped in order to continue secretion, and on this day the baby had 2 drachms of breast milk with rennet whey. Serum 5 c.cm. by mouth. Mixture three times in the day. Two motions.

March 26th. Whey and breast milk. Mixture three times daily.

March 27th. Breast feeding only.

After this the baby gradually improved, and is quite healthy to-day.

Many theories have been brought forward to account for intestinal bleeding in the newborn, and I do not intend to enter into a discussion of them here. I believe it possible that one of the unknown toxæmias of pregnancy which circulate in the mother is carried to the child, whether causing a premature gastric secretion as suggested by Dr. Crawford, or in what other way the ulceration is caused, it is impossible with our present knowledge to state. The very large offensive motion which was passed on the first day of the illness was strong evidence for a toxæmic theory. In necropsies on eclamptic patients, hæmorrhages have been found in various intra-abdominal sites. When eclamptic fits occur in infants, when scopalamine can be demonstrated in the urine of the newborn, why should not gastro-intestinal hæmorrhage be caused by a toxæmia carried from the mother to the child while still *in utero*? The starvation treatment which is so successful in cases of maternal toxæmia is extraordinarily successful in a case such as the one described.

STRANGULATION FOLLOWING REDUCTION EN MASSE (LEFT INGUINAL HERNIA): LAPAROTOMY: RECOVERY.

By

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In past years, when taxis was very frequently practised, a case such as the following was not regarded as uncommon. Nowadays it is rarely met with, because earlier operative measures are undertaken. The case is especially noteworthy in that the patient himself apparently performed reduction *en masse*.

C. G., aged 44, was taken ill suddenly on February 5th, 1917, with severe pain in the left iliac fossa and vomiting. The next day he felt better, and no vomiting occurred. The bowels acted properly on February 4th, and by enema on February 6th and 7th. On February 7th he vomited again, and complained

of severe pain in the same situation as on February 5th. There was no history of haematemesis, nor of melaena. The quantity of urine passed had been normal, and there was no information pointing to any disorder of micturition. On January 26th and January 28th he had experienced similar but slighter attacks of pain, which came on after snowballing. He stated that he had worn a double inguinal hernia truss for fifteen years. Three or four weeks before admission he said that he had found his left inguinal hernia down, and, after pushing it back himself, reapplied his truss.

On the evening of February 7th his pulse was 80, and the temperature 100.2° F. His tongue was thickly furred, and he looked sallow and ill. The abdomen was slightly distended. It was rigid, but the rigidity was not absolute. There was distinctly more resistance on the left than on the right. In the region of the lowest quarter of the left rectus there was a swelling the size of a tennis ball, which was extremely tender. The swelling was resonant on percussion; there was no dullness in the flanks. Small scybala could be felt in the rectum high up, and an ill defined fullness up towards the left iliac fossa.

Later in the evening of February 7th laparotomy was performed by Mr. John Everidge, F.R.C.S., through the sheath of the left rectus. The abdominal wall over the swelling was very oedematous.

Ten inches of small intestine were found strangulated in a large sac communicating with the general peritoneal cavity by a very narrow neck, which was deeply situated. The constricting ring and diaphragm of peritoneum were divided and the strangulated intestine was carefully examined. As it was found not to be viable, 14 in. of gut were resected. The upper and lower free ends of intestine being of very different sizes, a lateral anastomosis was performed. The abdomen was closed without drainage.

The sigmoid colon with its mesentery lay posterior to the swelling, which was situated immediately beneath the anterior abdominal wall and was pushing the peritoneum lining the left iliac fossa up towards the diaphragm.

The patient progressed most satisfactorily until February 13th when he passed by the rectum about a pint of dark blood containing clots. Hiccough developed but not to an alarming degree. On February 16th two severe haemorrhages from the rectum, each of about 1½ pints, occurred in the morning and evening respectively. No further operation was performed and the patient passed steadily into convalescence, and was finally discharged on March 17th.

During the after-treatment, when the bleeding occurred from the rectum, pituitrin was administered with the idea that it might stimulate the bowel to contract down on the bleeding point. There is no direct evidence that such was its action in improving the patient's condition, but the possibility of such a therapeutic use for pituitrin is worthy of note.

At a future date Mr. John Everidge hopes to perform an operation for radical cure of the patient's double hernia, when it will be easy to clinch the diagnosis of reduction *en masse*.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF HAEMATOCOLPOS IN BIFID UTERUS AND VAGINA.

On September 5th, 1916, I was asked by Dr. Cayet, of the civil hospital at D—, to see a French girl of 18 with a pelvic tumour. A week previously Dr. Cayet had been called in, as the girl was suffering from acute retention of urine, which he relieved by passing a rubber catheter. He observed that the girl was menstruating at the time.

The patient told me that she had menstruated regularly for three years. Occasionally the loss was excessive—six or eight days. The retention of urine occurred for the first time during the last period. Constipation had given some little trouble.

On examining the abdomen, a hard nodular tumour could be felt rising above the pubes. It was not movable, not tender, and the abdominal wall could be made to slide over it. On rectal examination, the pelvis appeared to be almost filled by a smooth, immovable mass, rounded in outline. No uterus could be distinguished. The hymen was intact, admitting one finger. The vagina ran along the left side of the tumour, with which it seemed intimately involved. The cervix was out of reach.

Bimanually, tubes, ovaries, or uterus could not be distinguished.

Pregnancy was considered out of the question. The hard, rounded appearance suggested fibroid or semi-solid dermoid, but the inability to discover tubes or uterus was

against the latter diagnosis. Operation was considered advisable.

I opened the abdomen near the mid-line (Battle's incision) and found what appeared to be a large fibroid of the uterus involving the whole of the body and cervix. The tubes and ovaries were perched on the summits of two nodules at the top of the tumour, which made it inadvisable to attempt to separate them and their blood supply from the tumour. The usual steps of separation of peritoneum and ligature of blood vessels were carried out. On cutting into the vagina, a gush of dark, sticky fluid took place, filling the pelvis. At the same time the tumour diminished considerably in size. The condition of haematocolpos was at once realized, but the operation was too far on to allow the uterus to remain. Having removed the tumour, the vagina was closed, peritoneal toilet performed, and the abdomen closed.

The tumour, on examination, proved to be a completely bifid uterus. The right

DV, Distended vagina. PV, Patent vagina.

side vagina was closed at the orifice. The walls were extremely thick, almost half an inch. A small ridge marked the position of the cervix; the cervical canal and cavity of the uterus were also distended. The right tube was larger than the left, but not distended.

On the left side the vagina was narrow and the walls thin. A more distinct ridge marked the cervix. The cervical canal was narrow and elongated to about 3 in. The uterus was smaller than on the right side.

The patient made an uninterrupted recovery and returned home in three weeks.

Eight months later I examined the patient and found her general condition excellent. The patent vagina admitted a finger for 3 in., and no collection of fluid could be felt in the closed vagina. The accompanying diagram is drawn from the hardened specimen.

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Honorary Surgeon, Derbyshire Hospital for Women.

CINNAMON AS A PROPHYLACTIC IN MEASLES AND GERMAN MEASLES.

CINNAMON is a drug whose therapeutic virtues are not sufficiently recognized. The essence of cinnamon in 25-drop doses is one of the most effective remedies in cases of acute coryza. It is certainly more efficacious as well as more pleasant than the popular ammoniated tincture of quinine.

Some years ago an article was published in the JOURNAL strongly advocating cinnamon as a preventive of measles. The writer stated that it was his practice, when he met with a case of measles, to prescribe a course of cinnamon for any unprotected children in the family. He stated that in most cases the child who was treated either failed to contract the disease or took it in a very mild form. I myself have had the same experience, but I was able to try the experiment only in a few cases, as I gave up general practice.

Recently I have had an opportunity of trying a course of cinnamon as a prophylactic in German measles. One of our nurses, who has charge of the most delicate children, developed a rash one Thursday afternoon. She thought little of it, and continued her duties, which included bathing and putting to bed a considerable number of young children. On the following morning the rash was more pronounced, but she did not go off duty until she was seen by me at 10 a.m. Before that she dressed a number of the children, and was therefore in close contact with them while in an infectious stage of the disease. I diagnosed the case as a very typical example of German measles. To make quite sure I telephoned to Dr. Sydney Smith, who informed me that German measles was very prevalent in the neighbourhood, and kindly called at the institution and confirmed my diagnosis.