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 HAEMATEMESIS NEONATORUM.

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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