covered. The oval piece of abdominal wall surrounding the fistula and forming the stomach pedicle was rapidly cut away from the rest of the parietes by means of blunt-pointed scissors. As the division of the abdominal wall was made, pads of sterilised gauze were tucked in, quite cutting off the area of operation from the general abdominal cavity. The piece of abdominal wall was then cut away from the stomach, the opening in which readily admitted the index finger. The interior of the stomach was explored and found to be empty, not dilated, and free from disease except in the neighbourhood of the fistula. The pylorus was situated immediately to the right of the fistula; was patent and free from disease. The fistula appeared to be the centre of a large ulcer, situated near the pylorus, on the greater curvature of the stomach. There was much thickening and matting of the great omentum around the ulcer, forming a mass very suggestive of malignant growth. To have excised this, so as to remove all scar tissue, would have been a more serious undertaking than the condition of the patient warranted. The edges of the fistulous opening in the stomach were freshened, and three rows of silk sutures inserted. The first was continuous, and passed through all coats of the stomach. Interrupted Halsted's sutures formed the second row; and a third continuous suture further strengthened the wound. Over all a piece of omentum was drawn and fixed by stitches. The abdominal wound was closed by through-and-through silkworm-gut sutures. The patient was very collapsed at the end of the operation; but, by rectal stimulation and feeding, and after injecting a pint of saline solution under the breast on two occasions, she got over the shock, and was able to take brandy, Brand's essence, milk, and other fluids in small quantities by the mouth. On the third day after the operation she was warm and comfortable, her temperature was 101° F., and her pulse 120. The abdomen was flat and not painful. The wound was dry. She retained rectal feeding, and was taking a fair quantity of fluids by the mouth. She, however, developed pneumonia, and died on the sixth day.

At the *post-mortem* examination there was found pneumonia at the right base. The abdominal wound was dry. There was no peritonitis, and no escape of stomach contents from the wound in the stomach; but the latter was not clean, and there had not been any attempt on the part of the wound to heal. The pylorus was healthy and not narrowed by the ulcer. There was no dilatation of the stomach. The ulcer surrounded the fistula, and was situated immediately to the left of the pylorus on the greater curvature of the stomach. The great omentum was matted and thickened, and formed a large mass which simulated malignant disease. On microscopical examination the ulcer was found by Dr. Eurich not to be malignant.

PERFORATED ULCER OF THE STOMACH.

By WILLIAM H. HORROCKS, M.B., F.R.C.S.,

Surgeon to the Bradford Royal Infirmary.

M. W., an unmarried millhand, was admitted to the Bradford Royal Infirmary on November 16th, 1900.

History.—She said that for several years she had suffered from pain after food, and the pain had never been very severe. At times she had been sick, but had never noticed blood in the vomit. She suffered from headache and palpitation, with shortness of breath on exertion. Her diet consisted chiefly of tea and bread, and very little meat or vegetables. At 12.30 P.M. on the day of admission she ate two slices of bread and butter and drank a pint of tea. She worked after the meal until 3 o'clock without any pain. At 3 o'clock she experienced very severe pain below the ribs on the left side, the pain soon extending over the whole abdomen. She felt very faint and weak, and was sick slightly once. She was taken by her friends in an electric car to the centre of the town, and from there in a cab to her own home. She was seen shortly after her arrival by Dr. Hector Monroe, who correctly diagnosed her condition, and sent her into the infirmary.

Anamnesis.—When seen at the infirmary she was not greatly collapsed; the pulse was 88, irregular, and rather small. Her temperature was 96° . Her nose and ears felt somewhat cold. She complained of pain over the whole abdomen, especially in the left hypochondriac region. The abdomen was not distended, but the walls did not move on respiration. The abdominal muscles were tense, and this was especially marked over the tender area. Hepatic dulness was not diminished; other parts of the abdomen were resonant.

Operation.—At 8.30 P.M. a 4-inch median incision was made above the umbilicus. Turbid milky fluid escaped on opening the peritoneum. The stomach presented in the wound, and on drawing it down a circular hole, about a quarter of an inch in diameter, was found on its anterior surface near the cardiac end and close to the small curvature of the stomach. The thickened edges of the opening were easily brought together by three interrupted catgut sutures. Part of the stomach wall was then inverted, and a row of continuous silk sutures applied. The fluid was mopped up, and care was taken to cleanse carefully the pouches in front of the spleen and right kidney and the upper surface of the liver. A third row of continuous sutures were now inserted in the stomach wall, and the omentum fixed over. On drawing up the omentum the whole of the abdomen was filled with milky fluid and half-digested bread. This was rapidly sponged and washed away, and a Keith's drainage tube, passing down into Douglas's pouch, was inserted above the pubes. The upper wound was closed with a plug of gauze passed down to the wound in the stomach. The operation lasted an hour and ten minutes.

Progress.—The patient had a somewhat restless night, and on the following evening the pulse had risen to 136 per minute, but after this time it gradually improved. The temperature rose to 101° on the night following the operation. Some milky fluid was pipetted from the Keith's tube on the day after the operation, but on the second day only clear serous fluid escaped, and the tube was removed. The patient made a good recovery.

The points of interest in this case are:

1. The absence of any indication of gastric ulcer before perforation. The position of the ulcer bears out Mr. Mayo

Robson's observation that latent ulcers of the stomach are generally situated near the cardiac end, and close to the lesser curvature.

2. The absence of any apparent exciting cause for perforation is notable in this case.

3. The pain and tenderness correctly localised the position of the ulcer, and the marked tension of the abdominal wall at this part made the diagnosis more certain.

4. The repeated movements of the patient spread the extravasated material over the whole abdomen.

5. The cleansing power of the peritoneum over its lower zone was markedly shown in this case, but it is doubtful whether the result would have been so good had the food not been of so simple a nature, or the ulcer near the pyloric end of the stomach.

A CASE OF SUBPHRENIC ABSCESS: OPERATION: RECOVERY.

BY

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and T. JASON WOOD,

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The following case is of interest when compared with those described by Mr. Horrocks and by Mr. Althorpe.

S. T., female, aged 25, unmarried, weaver, was seen in consultation with Dr. Hibbert, on November 28th, 1900, and subsequently sent into the infirmary for operation. The previous medical history was unimportant except that for some months before the onset of the present illness the patient had been anæmic and ailing, with a poor appetite and a general feeling of *malaise*. There had been no symptoms pointing directly to the stomach, no pain after food, no vomiting, and no tenderness on pressure over the epigastrium. Three weeks before admission she came home from her work feeling generally ill but with no pain, and sat down to her tea. In the middle of the meal she was suddenly seized with acute pain in the left hypochondrium, which rapidly extended across the whole of the upper part of the abdomen. Poulitices were applied almost continuously for three days, and then as the pain, though somewhat relieved, still remained severe, Dr. Hibbert was sent for. During this time she was not seen by a doctor, and the only treatment made use of was poulticing. When Dr. Hibbert saw the patient he found her a good deal collapsed and complaining of acute pain in the left chest; there was a loud rub in the left axilla, and the breathing was somewhat shallow. There was no cough or expectoration; the temperature was high and there was great restlessness.

The condition remained much the same for the next fortnight, except that the pain extended across the abdomen, being most intense in the epigastrium; the dulness at the left base became more marked, and the patient wasted considerably. The temperature during this time was very irregular. Dr. Hibbert tapped the left chest and drew off a pint and a half of clear serum; this relieved the dyspnoea somewhat, but otherwise had no effect. Three days later Dr. Hibbert again aspirated, but on this occasion only obtained a few ounces of clear serum.

The following were the conditions present two days after the second tapping: There was dulness and deficient entry of air at the left base behind up to the seventh rib and on the right side up to the ninth rib; in the left axilla there was absolute dulness as high as the fifth rib, and the lower costal margin was slightly bulged; in the epigastrium there was a prominent swelling over which the note was tympanitic, the skin in this region being somewhat boggy. A bell note was obtained in this region. Immediately below the tympanitic area the note was impaired but not dull. About 3 inches below the rib margin and running almost horizontally across the abdomen, from the left anterior axillary line to an inch to the right of the middle line, a very hard prominent edge could be made out, which was tender to palpation. The liver dulness was diminished. The heart apex could be seen to be in the fourth left space close to the sternum. The respirations were shallow, 26 to the minute, and there was very little movement of the lower portion of the chest. The patient was much wasted, and had a markedly abdominal expression. The so-called "diaphragm phenomenon" was not observed. The temperature was 103° , and the pulse was 110, small and somewhat thready. The diagnosis of subphrenic abscess on the left side was made, and, as the home conditions were such as to render operation in her own house out of the question, it was decided to remove her to the infirmary. The patient came into the hospital the following day, and was then seen by Dr. Wood, who agreed with the diagnosis, and arranged to operate as soon as she had somewhat recovered from the shock of her removal from her home.

Operation.—Gas and ether, followed by chloroform, were given on November 30th, 1900. An exploring needle was introduced into the seventh intercostal space, in the posterior axillary line, and a syringe of bloody serum readily obtained. This collection of fluid was not evacuated at once, as it was thought desirable, owing to the patient's grave condition, to avoid shock as far as possible. An incision 2 inches long was made in the epigastric region in the middle line. The peritoneum was seen to be oedematous, and on opening it there was a rush of gas, followed by a quantity (about a pint) of very fetid pus. The abscess cavity was well shut off from the peritoneal cavity by strong adhesions. The heart could be felt beating through its roof; to the left were the lower ribs, while the floor was formed by the liver and adherent stomach. The