nition of this form of fracture, the possible presence of crepitus should not be overlooked.

ACUTE DIVERTICULITIS OF DESCENDING COLON AND SIGMOID PERFORATION.

DR. CLARENCE A. McWILLIAMS reported the history of a man, 47 years old, who was brought to the Presbyterian Hospital by ambulance on October 4, 1907, at 8 P.M. His sickness began four days previously, and prior to that he had been constipated for a week. His previous history was negative. Four days prior to his admission he had a chill in the morning and some cramps in the abdomen, which were not localized. During the two following days he was up and about and did not have any medical attention. About 4 A.M. of the morning of admission he was seized with an excruciating pain in the abdomen, requiring the administration of morphine, which relieved him. In the afternoon he vomited for the first time. He could not localize his pain but thought it was more severe on the right side. His temperature on admission was 104.4; pulse, 155, and of poor quality. The abdomen was much distended and rigid in all directions. The patient was a very corpulent man, and no mass could be felt. The abdomen was tender everywhere, but especially so in the suprapubic region and in the right iliac fossa. There was flatness in the right flank, which extended downward anteriorly. There was an indistinct fluid wave in the abdomen. Rectal examination was negative. The leucocytosis was 14,000.

The diagnosis was made of general septic peritonitis due to appendicitis. On opening the abdomen over the appendix by an intermuscular incision, milky fluid under great tension spurted out for a distance of two feet. The intestines were flaked with large masses of fibrin; they were dull and rough, and adherent in places. The pelvis was full of milky fluid, which also gushed from the liver region. The appendix was brought into the wound and was found to be no more inflamed than the remainder of the intestines. The appendix was removed and a small incision was then made through the middle of the upper part of the right rectus, allowing the escape of a large amount of fluid which was clearer than that in the pelvis. A large quantity of fluid was also found between the liver and diaphragm. The stomach was enormously dilated with fluid; its surface was normal, showing

that there was no perforated ulcer present. The pancreas and gall-bladder were normal. At this time the man's condition was such that further exploratory procedures were deemed inadvisable, and the wounds were hastily closed, with drainage. Death occurred shortly after the operation.

Autopsy.—On opening the abdomen, the omentum was found adherent to the coils of intestine. There was a thick coating of pus over the latter, gluing them together, and forming many pockets of pus. The purulent exudate extended over the entire peritoneum from the pelvis to the dome of the liver and the splenic region. The peritoneum was not much injected excepting in a few areas, the largest and most intense of which was just below the greater curvature of the stomach and to the left of the median line. There was also a considerable collection of pus in this area. The exudate had no distinct fecal odor.

The intestinal canal was apparently normal until the cecum was reached. The stump of the appendix was found to be in good condition. In the upper part of the ascending colon the saccules became of large size, and this condition increased in extent throughout the transverse and descending colon. The depth was considerable and in some cases seemed to penetrate to just below the serosa. On the peritoneal surface of the descending colon, about 10 cm. below the splenic flexure, there was a thick layer of lymph 5 cm. in diameter in the centre of which a funnel-shaped depression was seen. This communicated with a round, punched-out area about the size of a lead pencil, in the interstitial wall situated at the apex of one of the sacculi. The number of saccules diminished in the rectum, which was fairly smooth. No concretions were found in the diverticula. Cultures from the peritoneum, spleen, liver and heart-blood showed pure growths of the *baeillus coli*.

The perforation in this case, Dr. McWilliams said, was not discovered in the autopsy until the intestines had been removed from the body and had been split open. It could readily be seen how impossible it would be to detect such an opening on the operating table, buried as it was by fat and intestinal folds. From the adhesions in the abdomen it was fair to assume that the peritonitis had been in existence for three or four days, the perforation probably dating from the initial chill and abdominal pain. His previous history threw no light on the etiology of

the diverticulitis save a constipation of one week's duration, for the relief of which he had taken Rochelle salts.

DR. BLAKE said that about eight years ago he had operated on a case of diverticulitis of the large intestine, with perforation and diffuse peritonitis, which was not general. By sewing up the intestine and introducing free drainage, the patient recovered with a fistula. An attempt was subsequently made to close the fistula, but this proved unsuccessful, and when Dr. Blake last saw the patient the fistula still persisted probably on account of epithelization of the tract.