the scalp was reflected, and a trephine opening was made over the point of entrance of the bullet. A probe was then introduced through the opening in the dura mater, and with the head turned on the side, was allowed to run by its own weight along the track of the ball. It slipped along easily until it encountered the falx, when it stopped abruptly; but a little gentle manipulation carried it through the opening, and it then ran by its own weight directly across to the skull on the other side. By taking a probe long enough to project considerably from the skull while it lay in the bullet-track, it was possible to sight pretty accurately the course of the ball. It was found that it had traversed the brain from side to side, with an inclination backward and upward, so that it must have struck the inside of the skull under the posterior part of the opposite parietal eminence.

The point where the bullet-track reached the skull on the other side being determined as closely as possible by careful observation of the probe, a needle was thrust through the scalp, as a guide to it, and reflecting the flap; a trephine was put on; and when the button of bone was removed, it was found that the probe from the other side touched the dura mater at the centre of the opening. An incision was made in the dura, which had not been lacerated by the bullet. At once, clots of blood and brain-matter began to issue; and a probe, feeling about with great gentleness, demonstrated a cavity in the brain-substance just posterior to the opening. The finger was carefully introduced into this, the bullet was felt, and with a little difficulty was seized and removed.

A drainage-tube was introduced into the cavity where the bullet had lain, and another small one was slipped just within the wound of entrance.

After the patient came out of the ether, he was rather more unconscious than before the operation; and, in spite of supporting measures, he gradually failed, and died a little more than twenty-four hours after the operation. There had been so little disturbance of the brain-substance in the manipulations required, that it was a little hard to see why its condition should have been less good after the removal of the bullet. It is possible that the drainage-tubes which were introduced in order to conduct away the fluid, blood and brain-matter with which the sinus was filled, acted as irritants, and it might have been better to content ourselves with a little wick of absorbent gauze.

My reason for reporting this case is, to draw attention to the comparative ease with which the bullet was found by the manipulation adopted. The probe found its way very easily along the sinus left by the ball, and being long, and projecting to a considerable extent beyond the skull, it was possible to sight along it; and by drawing lines around the side of the head and also over the top, and bringing these in exact line with the probe, the intersection of them was marked on the opposite side, and, as the event proved, they were an exact guide to the end of the probe. This method would lead to the detection of the ball in those cases in which it lay close to the opposite end of its course through the brain-substance, and also in those cases where it had imbedded itself in the bone on the opposite side. If it ricocheted and glanced away from the inner table on the opposite side, it would of course be impossible to follow it with accuracy further, the line of its deflection being difficult to determine. Even in such a case, however, the counter-opening at the opposite end

of the first bullet-track would be of advantage, as affording drainage.

The post-mortem examination of this brain showed the brain-substance to be more widely destroyed close to the wound of entrance than it was on the further side. Whether this was due to minute bits of bone carried in by the bullet, or due to its greater momentum and possibly greater velocity of rotation in this part of its course, it is not possible to say. It is to be noticed that the paralysis was more marked on the right side, which receives its innervation from this motor area.

A CASE OF INTESTINAL OBSTRUCTION DUE TO IMPACTED GALL-STONE.

BY LEONARD B. CLARK, M.D., WAVERLEY, MASS.

MRS. L. J. H., aged ninety, was taken sick on September 3, 1892, with an attack of nausea and vomiting, accompanied by abdominal pain and tenderness.

Her previous history was excellent, save that about thirty years ago, for several weeks, she suffered from intense pain in the right hypochondrium and was considered to be beyond recovery. The pain suddenly ceased, however, and soon after there followed copious evacuations of bloody matter. From this illness she made a slow recovery, and was always troubled with more or less pain in the right side after any undue exertion or fatigue. During the last three years a patch of chronic eczema on the right cheek had been gradually degenerating into an epithelioma. For the past year this had begun seriously to affect her strength by reason of the constant pain and frequent capillary hæmorrhage.

The present illness increased in severity, and soon there was total inability to retain food; the abdominal pain required small doses of morphine subcutaneously to control it. A physical examination showed abdominal tenderness, more marked in the right iliac region, where there was some distention and slight dulness upon percussion. These symptoms and signs suggested a peritonitis, due to an appendicitis, or to intestinal obstruction from faecal scybala, or impacted gall-stones. Appendicitis was thought to be the most probable diagnosis. The age of the patient and her general condition contraindicated an operation, so that a symptomatic treatment was followed. On the 7th she became comatose, and died on the 8th.

A partial autopsy was made, only the abdomen being opened. The omentum was rolled up and adherent to the transverse colon. No trace of a gall-bladder could be discovered; but the liver was closely adherent to the duodenum, about one-quarter of an inch below the pylorus; the hepatic ducts discharging the bile directly into the bowel. The peritoneal surface of the bowels was reddened and covered with flakes of fibrin. Upon following the distended intestine downward, a hard mass was found about eighteen inches above the ileo-cæcal valve; below this mass the bowel was pale and empty. Incision showed the mass to be a gall-stone, as large as a pigeon's egg, firmly impacted in the lumen of the gut. This was the immediate cause of the peritonitis and death. Might not it also have been the cause of the abscess that destroyed the gall-bladder, and formed the adhesion between the liver and duodenum thirty years before?