of foreign insoluble bodies or gall-stones, for twists and internal herniæ, laparotomy, performed early, offers the best and almost the only chance, if the strangulation be acute; and I believe the time will soon come when this operation will take its place in surgery side by side with the parallel operation of kelotomy for external strangulated hernia. It is a question of diagnosis. Let us, then, strive to make our diagnosis of these grave cases more thorough and more certain.

CASE OF INTESTINAL OBSTRUCTION, AND ABDOMINAL SECTION.

By CHARLES FIRTH, M.B.,

Assistant-Surgeon to the Norfolk and Norwich Eye Infirmary, etc.

R. C., labourer, aged 49, was admitted into hospital on July 3rd, 1877, with left scrotal hernia, and the following history. He had had a rupture for five years, and had always worn a truss. On June 29th, at 8 A.M., he was carting bricks, when he felt a sudden pain in the left groin, and the hernia became larger. (The truss for the last month had failed to keep up the hernia.) He was sick once on June 29th, but the vomiting became urgent on July 1st, and had continued since. On admission, he had a large left inguinal hernia, which was easily reduced, but the vomiting continued. Pulse weak, and small, 112; tongue white, but moist. The abdomen was tympanitic, tender, and tense. He was very thirsty. The vomited matter was offensive, brownish-yellow, not faecal. The bowels were open three times on June 29th—not since. He had had hiccough since the 29th.

At 10.45 P.M., a consultation was held; and, at 11, under ether, the abdomen was explored, but no strangulation was detected. Stercoraceous vomiting occurred during the operation.

On July 4th, 3 A.M., faecal vomiting continued. There was retention of urine. He had stricture. A No. 3 flexible catheter was passed and kept in.

July 4th, 10.30 A.M. He had a great deal of pain in the abdomen in the night, which was better this morning. The abdomen was very tense. Pulse 128, weak and thready; temperature 97° to 98°; hiccough continued. Three sutures had given way, and were replaced by others. In the evening, sickness had been much less frequent since 1 P.M., and the vomited matter was not stercoraceous. Temperature 98.8°; pulse 108.

July 5th. The bowels were opened eight times since 2 P.M. yesterday. He was sick slightly this morning, slept fairly in the night, and had had no pain. Temperature 97.8°; pulse 104, of fair volume. The tongue was moister; he had no hiccough. Carbolic water dressing was applied to the wound.

July 6th. He was sick once in the afternoon. Pulse 108; temperature 98.2°. At 5 A.M., sickness returned; he had great pain and distension of the abdomen. At 11 A.M., he was vomiting a dark fluid, and was in great pain. The pulse was almost imperceptible, and the extremities cold. At 2 P.M., he died.

Post mortem Examination.—The abdomen was enormously distended, and tympanitic. On opening the abdomen, the coils of small intestine were found firmly adherent to the wound. There was no general peritonitis, but only congestion and loss of polish of the peritoneal surface. The cæcum was greatly distended with fluid and sanious faecal matters. One part, as large as half-a-crown, was greatly thinned, sloughy on the inside, and perforated in two places by two pin-hole openings. The cæcum was found lying under the diaphragm, close to the spleen, the large intestine attached to it having been twice twisted round the lengthened mesentery of the small intestine, causing a double obstruction. The other organs in the body were tolerably healthy.

REMARKS UPON THE ADVANTAGE OF THE EMPLOYMENT OF WIRE LIGATURES FOR THE APPROXIMATION OF DIVIDED BONES.

By T. SYMPSON, F.R.C.S.,

Surgeon to the Lincoln County Hospital.

ALL surgeons who operate frequently are aware of the extreme importance of placing and preserving the divided surfaces of bones in very accurate contact in such operations as those of excision of the knee, supracondyloid amputation of the lower extremity, Pirogoff's amputation at the ankle-joint, and the like. It is a well known and universally realised fact, that neglect of this precaution is apt to lead to disastrous results, and to the failure of operations otherwise well planned and satisfactorily carried out. Such neglect is often followed

by ulceration or necrosis of the bones, and the formation of immense quantities of pus. The limb, riddled by sinuses, becomes an incubance to its owner, and, in order to save the life of the patient, has to be got rid of by amputation.

Although, twenty-one years ago, Professor Cooper of San Francisco advocated the treatment of fractured patella by means of silver wire, yet, as an addition to other means for obtaining accurate approximation of the sawn surfaces of bones, the use of wire sutures seems scarcely to have met with that recognition among practical surgeons which its merits appear to claim. I therefore venture to call attention to two cases in which I employed it, and in which it clearly proved of very great service in securing the union of bones in a good position.

The first case was that of a healthy man, thirty years of age, whose foot was run over by a ballast-train on the Great Northern Railway, in consequence of which he was admitted into the Lincoln County Hospital on May 24th, 1881. On examination, the anterior and middle portions of the foot were found to be completely smashed, but the heel was intact. I therefore determined to amputate after Pirogoff's method, retaining the opposed portions of tibia and os calcis in position by the introduction of iron wires. The operation-wound was completely healed in ten days, but it was thought desirable to retain the wires for six weeks, at the expiration of which time the bones were found to be well united. The man staid seven weeks in the hospital. He can now walk well with the aid of a properly adapted shoe.

The other case to which I wish to draw your attention was that of a boy seven years of age, who was admitted into the Lincoln County Hospital on June 20th, 1881, for disease of the knee-joint of three years' duration, following an injury from his having slipped upon the pavement. The knee was much swollen, very painful and tender, and yielded a profuse purulent discharge through a long sinus on the outer aspect of the thigh. The boy was extremely feeble and emaciated, but had no visceral disease. On July 26th, I excised the joint, the incisions being a transverse one below the patella joined by a longitudinal one along the course of the sinus. On exposure of the surfaces of the bones, they were seen to be almost entirely denuded of cartilage, and in the head of the tibia were two masses of caseous material, each of the size of a walnut. These were removed by the gouge. The sawn surfaces of the femur and tibia were brought firmly together by two wire sutures, one on the outer, the other on the inner aspect, and iron splints applied, the posterior one being hollowed out on each side opposite the knee, and the anterior one arched in the corresponding position. These were retained *in situ* by a paraffin bandage, and the limb was swung from a cradle. The wound of the operation was completely healed in about two months, when, as the bones were found united, the wire sutures were removed. Unfortunately, a slough, due to the pressure of the splint, formed over the crest of the tibia; and partly in consequence of the time required for the healing of the sore thus occasioned, and partly from the wretched state of the home of the boy, he did not leave the hospital until October 24th, when he could bear weight upon the limb, which was shortened about an inch and a half.

It will be noticed that, at first sight, this appeared a most unfavourable case for operation, from the ill nourished condition of the child, the great amount of disease of the joint, the presence of a long sinus, and especially from caseous masses being imbedded in the head of the tibia. The termination of the case, however, is singularly satisfactory, as the boy now possesses an excellent limb, but slightly shortened, upon which he can walk well; a result which, I feel sure, is mainly due to the measures taken to preserve the complete immobility of the bones.

Both these operations were performed under strict antiseptic precautions, and in neither of them was any irritation caused by the wire. With regard to the method of introduction of the wires, it is desirable that the apertures made by the drill should be at least a quarter of an inch from the sawn surfaces, and that these surfaces should be very accurately approximated by twisting together the ends of the wires. It is preferable not to twist these ends more than twice, as otherwise considerable difficulty will be found in effecting their removal. Iron wire, such as that used for the stilts of elastic gum catheters, in size about No. 22 of the gauge, will usually be found the best.

THE *Liberal de Seine-et-Oise*, announces that a family consisting of six persons has been poisoned at Mureaux in the department of the Seine-et-Oise through eating poisonous fungi. Medical aid was summoned, but all six died in great suffering. The victims are a mother, her three daughters (aged 25, 19, and 15 years respectively), her son (aged 14), and her son-in-law. Special care should be exercised in the selection of fungi for edible purpose in a wet season like the present when the growth is likely to be profuse and rank.