

prevent rotation of the transplanted bones. In either case the parts should be fitted exactly together. The new joint itself should be as nearly intact as possible, and should be obtained from a simultaneously amputated limb. It should not be the seat of disease, injury, or tumor, so that the supply of proper material is scanty. Lexer believes that such joints remain sterile, as a rule, twenty-four hours after removal. He suggests that under the strictest antiseptic precautions, a joint may be taken from a dead body. The preparation of the part to be transplanted is very important. All ligaments, tendon attachments, fat, and muscles should be carefully separated from the pericosteum, and the joint should be transferred immediately without contact with aseptic or antiseptic solutions. If any free periosteum remains attached to the bone ends of the defect, it should be made to cover the approximated cut ends of bone of the defect and transplanted joint. In one case a transplantation of a complete knee-joint, with its internal ligaments intact, at the end of two months, was successful, in that there was fair movement and no fistula. A month later, however, a fistula had developed. In fixing the transplanted piece in place, the use of all foreign bodies, such as nails, wire, or ivory pegs, should be avoided. If anything of the kind is necessary, pegs of fresh bone should be employed. Plastic operations on the muscles are very important in the later function of the joint. The difficulties are considerable, however, on account of the frequent contraction and atrophy of the muscles or their destruction by disease. In the after-treatment, the first movements should be undertaken as soon as union is obtained between the bony ends. The end results can be judged only after a long time. Of most importance is the preservation of the cartilage.

Experimental Investigations on the Sensibility of the Abdominal Cavity.
—RITTER (*Archiv f. klin. Chir.*, 1909, xc, 389) says that the question concerning the sensitiveness to pain of the abdominal cavity has been variously answered. He carried out a series of experiments on dogs and rabbits to determine this question. All the animals, especially the dogs, possessed a marked sensibility in all organs. To obtain positive results it was necessary to observe certain precautions. The use of local anesthetics, such as cocaine or its substitutes, as well as general anesthetics, was avoided, and, at the most, morphine was depended on. Parts poorly supplied with bloodvessels were the least painful. The bloodvessels themselves were the most painful. The best test of sensibility was by the ligation of bloodvessels. The pain caused by ligation was greater than that produced by irritation of the parietal peritoneum or pulling on the mesentery. Exposure of the intestine to the cold air or exposure to ordinary temperature for a long time causes the sensibility to diminish rapidly. The intestines are most sensitive in acute conditions. There have been observations made in men which tend to show that the abdominal cavity in them is sensitive. There are, possibly, certain differences between men and dogs. In men the ligation of vessels is especially painful. The lack of sensitiveness in the abdominal organs in men can not be due to the effect of infiltration anesthesia by cocaine, because this has a purely local effect. By the use of cocaine, however, the painful ligation of the vessels can

be prevented. The best explanation for any lack of sensation in the abdominal organs is to be found in the damage done to the fine sensory fibers in the abdominal cavity. These injuries have been demonstrated by various investigators, but only in animals. They can, however, be accepted for the same conditions in men.

An Operative Cure of a Hernia into the Fossa Duodenojejunalis of Treitz.—HELLER (*Archiv f. klin. Chir.*, 1909, xc, 360) reports a case in which a man had been suffering for six months from a chronic intestinal obstruction, and had become very weak and miserable. Vomiting occurred every twelve to twenty-four hours, with a sudden ejection of 1 to 2 liters of a gall-stained watery fluid, but without bad odor. The central parts of the abdomen were distended, the flanks rather sunken. The central distention was in the form of a globular tumor about the size of a man's head, in the region of which peristaltic movements were visible and audible. The diagnosis of a probable tuberculous peritonitis was made, with a kinking of the upper part of the intestine. After a wide opening of the abdominal cavity had been made, there was visible a tumor which had somewhat the appearance of a thick-walled ovarian cyst. The large intestine could not be seen encircling the mass of small intestines. Upon raising the lower pole of the tumor, the lowest coils of the ileum could be seen slowly emerging from a funnel-shaped opening. They were adherent to the margins of the opening, and could not be drawn out. The hernial sac was then split in its whole extent in the median line, when the enormously distended coils pushed out. They were, however, adherent within and were separated with much difficulty. From the duodenojejunal flexure to the cecum the coils were separated from one another, centimeter by centimeter, in order to remove the numerous kinks in them. The stomach was seen to be very much distended, and to be continued with a wide open pylorus over into the duodenum, which was almost as large as the arm. The stomach and pylorus, as well as the enormously distended ileum, were especially adherent to the inner wall of the sac, and kinked. The remaining intestines were also dilated and hypertrophied. At the completion of the separation of the intestines, the patient was in collapse. Two days after operation he again became acutely collapsed. Upon a partial reopening of the abdominal wound, an acute dilatation of the stomach was detected. A Kader fistula was made into the enormously dilated ileum, from which escaped large quantities of gas, but almost no fluid. The patient improved. On the fourth day the fistula had closed. A half year after operation the patient had gained eighteen pounds. Digestion continues without disturbance.

Reduction of an Unreduced Dislocation of the Shoulder by Posterior Arthrotomy.—MADELUNG (*Archiv f. klin. Chir.*, 1909, xc, 1126) in resections of the head of the humerus, employs the Kocher method, which consists of a curved posterior incision with a chiselling off of the spine of the scapula. It gives a free exposure of the joint, the function of the deltoid and the other shoulder muscles remains good, and subluxation of the upper end of the humerus toward the coracoid process is prevented. Madelung employed it in a case of subcoracoid dislocation of the