administered with a Juillard mask, chloroform with Koppeler's modification of Junker's apparatus. Chloroform was given in thirty-seven instances, twenty-five pure and twelve with morphine in addition. The influence of morphine tested in normal individuals demonstrated the absence of any influence on blood-pressure. The type of chloroform blood-pressure curve, when given pure or as a mixed narcosis, shows a subnormal pressure in 90 per cent. Individuals past fiftieth year comprise a large number of cases with increased blood-pressure, and children under fifteen years are exclusively represented in instances of greatest diminution of blood-pressure. This observation is contradictory to a popular current belief that children bear chloroform well.

Furthermore, the largest proportion of narcoses were half narcoses, so that very early in the administration of chloroform the blood-pressure is lowered, whereas with ether any lowering of number of cases with increased blood-pressure, and children under and prolonged. Finally, upon awakening from chloroform in 27 per cent. of the instances blood-pressure is normal; 46 per cent. it is subnormal.

A final comparison of ether and chloroform shows, with the use of chloroform, a curve of great fluctuations tending to a lowering of pressure on the whole; with ether as an anæsthetic we have always a curve marked by high pressure.—*Beiträge zur klinischen Chirurgie*, Band xxx, Heft 2.

MARTIN W. WARE (New York)

ABDOMEN.

I. Pathology and Therapy of Strangulated Hernia. By DR. RUDOLPH BUNDSCHUH (Heidelberg). The material constituting the basis of this paper is made from a study of 231 cases all operated within the aseptic era. Femoral (109) and inguinal (112) strangulated hernia were encountered in like frequency. The strangulation of herniæ increases in individuals

after the fiftieth year with greater frequency. In contrast to this infant life seems to be minimally affected.

Strangulation followed most commonly in individuals who casually a single time left off their trusses for herniæ always theretofore reducible. The mortality is directly proportional to the duration of strangulation, and inflammation of hernia could be differentiated from a strangulated hernia with great difficulty. The theory as to cause of strangulation seems to be settled in favor of elastic compression.

Changes in the urine were characterized in many instances by the presence of a large quantity of indican. In 6 per cent. of cases albumen was present. Under these circumstances, in every instance a loop of intestine was contained in the sac, and such cases as died showed acute parenchymatous nephritis.

Every possible form of hernia was encountered, and forty times the loop was gangrenous. The nineteen instances of Littré hernia were never diagnosed, and all were met in femoral hernia. The appendix was thrice encountered as the sole content of the sac, but cause for its strangulation is not assigned. Bacteriological examination of the fluid in the sac showed micro-organisms present in 60 per cent., though fluid was often clear.

Taxis has been practised less and less as operation has grown in safety. Prior to operative interference lavage of the stomach is resorted to, and where possible infiltration anæsthesia is favored. The incision was always very liberal, as affording the best insight, and the constriction was divided from within only if the finger could be introduced.

In estimating the degree of strangulation, attention should be mainly directed towards the afferent loop.

For gangrenous herniæ, fourteen artificial ani were made, ten died; twenty-four cases subjected to primary resection with the use of Murphy button, eight instances death followed.

If possible a radical operation should always follow, unless there exist contra-indications, extensive phlegmons of the hernial

sac, and in resection. If the union be not judged secure and, finally, if peritonitic signs be encountered. To combat the paralytic ileus following operation, the use of opium was diminished and the bowel emptied on the second day by enemata of 100 cubic centimetres of oil, repeated until flatus was manifest. The effect of laxatives tends to increase the secretion of the bowel, thus adding toxins to those septic contents already in the bowel. At times, though, opium is indispensable. Only the severest cases were subjected to anus præternaturalis. The choice favoring resection is oftentimes difficult, since the patient would collapse; on the other hand, too little interference leaning towards artificial anus is also wrong.

Objections to artificial anus are the dangers of peritonitis from afferent loop, possibility of perforation, and the possibility of inanition and the necessity of a difficult second operation, with dangers incident to it. Mortality attendant on artificial anus was 70 per cent.; upon primary resection, 8 per cent.

A particularly frequent complication subsequent to herniotomy is pneumonia of lobular type, not merely an aspiration pneumonia, but pneumonia of embolic origin from septic thrombi of the intestinal loop. Once a peculiar condition was encountered long after herniotomy,—viz., stenosis of the bowel at the site of the relieved strangulation traceable to original inflammatory conditions. The total mortality was 18 per cent. in contrast to 45 per cent. in preantiseptic days, and 36 per cent. in the earliest days of antiseptis.—*Beiträge zur klinischen Chirurgie*, Band xxxi, Heft 2.

MARTIN W. WARE (New York).

BONES AND JOINTS.

I. Operative Treatment of Congenital Dislocation of the Hip. By DR. A. CADWELLA (Bologna). Pursuant to a study and personal observation of seventy-six cases of congenital hip dislocation, the author offers the following suggestion in the