infected area and remove the diseased tissue. One of his patients who died had renal tuberculosis and succumbed on the eighth day with postoperative anuria. The other fatal case was that of a child who had been ill ten days and died of a continuation of the peritonitis.

TRANSPERITONEAL CYSTOTOMY.

E. S. Judd, Rochester, Minn. (*Journal A. M. A.*, December 25), speaks of the danger of delaying diagnosis of growths in the bladder and the consequent necessity of early operation before they become inoperable, and describes his method of treatment. One of the greatest difficulties in handling a tumor at the base of the bladder, where 90 per cent of these growths begin, is the inability to get a good exposure through a suprapubic or perineal incision. The hospital staff at Rochester therefore determined to try to improve on former discouraging results by incising the bladder so as to get a good exposure of any part and doing a more radical operation. They determined to open the peritoneal cavity deliberately and pair off the intestines and omentum, preparing this area of the peritoneal cavity for resection in the bladder similar to that for resection of any organ. The patient is placed in the high Trendelenburg position, and on opening the abdomen an opportunity is afforded for exploring the liver, pelvic peritoneum and lymphatics. While they have never seen an extensive involvement of the lymphatics, in one case a metastasis in the liver had already occurred and in another the condition was found on examination to make vesical operation useless. The operation is described as follows: "The intestines and omentum are packed into the upper abdomen with several large gauze pads, the packing covering the abdominal wound. The posterior bladder wall is grasped with tenaculum forceps, one on either side of the median line, and the bladder is lifted into the abdominal incision. A longitudinal incision is made in the posterior wall of the bladder, beginning on its peritoneal surface in the midline and extending well back to the base of the bladder.

The urine is sponged from the bladder as soon as it is opened. This should be done carefully so as not to start a troublesome oozing. If the tumor is on a pedicle, this may be grasped by a pair of curved hemostats and excised with a cautery, leaving the cauterized surface to granulate. The area removed should include a portion of the healthy mucosa and submucosa. When the tumor has an indurated base it will be necessary to excise a portion of all the coats. At times as much as one-half of the bladder must be removed. It is essential to preserve as much as possible of the healthy tissue about the urethral orifice. If the bladder is involved at the ureteral opening, after the diseased portion of the viscera is removed, the ureter is divided near the bladder and drawn into the abdomen through a perforation in the peritoneum close to the remaining half of the bladder, into which it is passed and attached with catgut sutures. The peritoneum is closed over the exposed ureter in a fold, to insure rapid healing. The remaining part of the bladder is closed, and though greatly reduced in size, will be serviceable, and as time passes its capacity will tend to increase. Having completed the intravesical part of the operation, the same technic is employed in closing the wound in the bladder as that which would be used in repairing a wound in the intestines or stomach. The first row of sutures begins and ends with the knots inside. These are of chronic catgut placed as a running mattress or Connell stitch, including all the coats. The mucous edges are turned in not only making an air-tight and water-tight closure, but also controlling all bleeding from the edges. This suture line is re-enforced by a linen stitch, including the peritoneum, put in parallel to the previous suture line." Judd says that it is not necessary to drain the peritoneum or the bladder unless the growth involves the ureteral opening or the prostate is removed, when it is best to establish an independent drainage through the space of Retzius after the bladder has been closed. The Rochester surgeons have operated in this way in fifteen cases of tumors of the bladder with

one death. In this case the patient died of uremia at the end of the first week. There was found an acute nephritis of the right kidney, the other having been disabled by an old hydronephrosis which had almost completely destroyed it sparsely. Another patient died in three months of a recurrence in the peritoneum. The history of a number of these patients since operation is given. In nine of them the pathologists reported malignant papilloma and three were of the straight carcinoma type. While not advising the transperitoneal operation in case of tumors involving the upper quadrants of the bladder, Judd and his colleagues think that it is little, if any, more risky than any other operation in the greater number of cases which begin in or near the base.

HOSPITAL ANESTHESIA.

R. L. Dickenson, Brooklyn (*Journal A. M. A.*, December 11), classifies hospitals: First, into the large institutions where a salaried corps of anesthetists is possible and should be required. Second, the small group of private hospitals which can hardly do better than follow the plan of Baldy and the Mayos, who train an intelligent woman to do that one thing well. Such salaried service is reliable and unvarying and the work is dignified and cleanly. We may assume that physicians who find themselves in some ways unsuited for general practice would be glad to obtain an income from such a source. The third group is by far the largest. The country is covered with hospitals of medium size where ether is administered in a most haphazard fashion. He asks if we can maintain high standards of ether administration without too great an expense. It has been done, he says, by offering adequate inducements to men who were qualified or willing to qualify. These may be (1) the title of "anesthetist to the hospital"; (2) membership on the visiting staff or assistant visiting staff; (3) privileges, such as the use of the operating room for his own cases or the use of a free bed or beds in the hospital;

(4) fees for administering anesthetics to private patients when the operation fee warrants it. (5) the understanding that the surgeons who do operations in private houses contribute to the anesthetist's income. An ex-interne who has shown natural aptitude for the work, or one of the attaches of the surgical staff who will undertake to give a reasonable time to the work, may be elected and allowed to appoint one or more assistants or associates, according to the needs of the institution. In this way responsibility will be fixed. The office should not be a temporary one; the incumbent should engage to fulfill the duties for a fixed period, such as two or three years. A reputation may be gained by him in this line and his capabilities should be watched by the staff. Dickenson considers that the hospitals owe this to the public: First to furnish the patient the best possible anesthesia. Second to supply to the public as many members of the profession as may be needed who will have a fair working knowledge of anesthesia. Third to train for the profession, for its own hospital and other hospitals, a few expert anesthetists. He answers the objections that are usually made, and says that while it is drudgery in a measure, it is necessary and must be paid for or the present malpractice will continue.

ANIMAL EXPERIMENTATION.

The ethics of animal experimentation are discussed (*Journal A. M. A.*, January 15), by Prof. J. R. Angell, of the University of Chicago. He recognizes historically two divergent views, one that man is the overlord of the animals and may use them as he pleases for his pleasure and profit; the other that no man has a right to take animal life or cause animal suffering. The first of these views is hedged about with humanitarian restrictions in civilized countries. Buddhism is the great religious embodiment of the second view, but it has seldom been consistently followed. He finds no direct or unambiguous guidance in any of the theories of morals. Religious teaching is equivocal and certainly authorizes