

cal accuracy by reference to the skiagraph. In cases of hydor or pyonephrosis due to ureteral calculi, the obstruction can be removed and the kidney left intact.

### VESICLE CALCULI.

Stone in the bladder can usually be discovered by the ordinary means, such as the sound and the cystoscope, but I believe that one possessed of the necessary knowledge of the X-ray technique can diagnose calculi in the bladder more simply and more accurately. A positive or negative diagnosis can be rendered at once. There is no danger of infecting the bladder with instruments. The size, position and number of the calculi can be estimated. We know that even the most skilful surgeons have failed to detect stone with the sound. If there is enlargement of the prostate, or a urethral stricture that prohibits or renders difficult the use of the sound, the X-rays are invaluable. All encysted calculi can be recognized. This method has the further advantage of causing the patient absolutely no pain or disturbance.

Mr. T. had classical symptoms of vesicle calculus. The skiagraph which I pass around shows the presence of a large calculus which was crushed and removed.

Mr. R., age 55, had ordinary symptoms of stone, urine alkaline 1015, offensive, and containing triple phosphates, pus and bacteria. He was sounded twice with negative results, and I also introduced a searcher, but could not detect the stone. Skiagraph showed a calculus the size of a bantam egg which was removed by litholopaxy.

Mr. D., blacksmith, age 56, has had several attacks of renal colic on both sides. One year ago symptoms of vesicle calculus appeared, urine acid 1010, some pus. During my absence in Europe last year he was sounded for stone with negative results. The skiagraph showed three small calculi in the left, and one in the right kidney, and several multiple calculi in the bladder. That these stones were not encysted in the bladder was proven by the simple expedient of turning the patient on his abdomen, and taking another skiagraph, when the stones could be seen in an altered position, lying on the anterior wall of the bladder.

Mr. McK., age 56, about one year ago he consulted me for symptoms of stone in the bladder, the urine was alkaline 1012, contained pus, bacteria, triple phosphates, and had a very offensive odor. A skiagraph was taken and a large stone two inches by one and a half was observed, which was crushed and thoroughly removed by operation. For six months he was perfectly well, then he began to have symptoms of recurrence, for which he consulted me in May. A skiagraph was again