

taken. A large stone one and a half inches by one inch was seen in the bladder, in the right ureter about an inch from the bladder wall were two calculi, one the size of a hazel nut, and the other very minute, in the left ureter in the same position was a calculus the size of a pea. I am thoroughly satisfied that the removal of the bladder stone was complete at the first operation, for after the last fragments were removed the washing bottle was used several times but no clicking could be obtained. The stone was removed by litholopaxy. A subsequent skiagraph showed the bladder to be perfectly free of any fragments, but the ureteral calculi were in the same position as previous to the operation. There is very little doubt in my mind that a small calculus emerged from the ureter, and, lodging in the bladder, rapidly grew to the size of the present stone. Many recurrences both after lithotomy and litholopaxy probably arise in this way.

BILIARY CALCULI.

In these cases the Roentgen method is not of so much value as in urinary calculi, because many difficulties surround the technique of skiagraphing gall stones. In many cases, in which gall stones are present, we are unable to obtain the desired skiagraphic evidence, but in time I think that all the difficulties will be surmounted. If by means of the X-rays we obtain shadows of the calculi, we can render a positive diagnosis immediately. If the calculi are small it indicates that a course of medical treatment, such as the intelligent use of the Carlsbad Sprudel Salts should be advised, as there is a possibility that the calculi may be passed. If the calculi are large and there is no possibility of their passing the biliary ducts, an operation should at once be recommended.

Mr. F., age 52, a patient of Dr. McClenahan, has had several attacks of biliary colic, but never any jaundice. Skiagraph shows numerous small calculi very distinctly. The patient was placed on medical treatment and many small stones were passed in the stools. When last heard from he was entirely well.

Mrs. H., age 40, had several attacks of biliary colic, gall bladder very much distended. Many small and large stones were shown in the skiagraph.

Mrs. H., patient of Dr. Boyes, had persistent vomiting and nausea, but never any colic or jaundice. Distended gall bladder could be palpated. Skiagraph negative. I removed two enormous calculi by cholecystotomy, with complete recovery from all symptoms.

Mrs. M., has had biliary colic for years, no distention of bladder. X-rays showed several large calculi and numerous small ones. Operation confirmed the skiagraph. Recovery.