frequent attacks of renal colic. Examination of the urine has been made at intervals since October, 1900. There is no record of casts having been found at any time. A trace of albumin was usually present. Oxalate of lime crystals, a few red blood cells and usually many leucocytes were found. The specific gravity varied from 1020 to 1032. In a few specimens nothing abnormal was detected. The patient was referred to me by Dr. McPhredan for removal of a stone from the left kidney.

The kidney was exposed in the usual manner by an oblique incision and brought into the wound. A calculus was felt in the pelvis. The kidney was split along its convex border, and when the pelvis was reached a mulberry calculus of oxalate of lime, weighing two grammes was extracted. The bleeding from the kidney was profuse at the time of operation, and it became necessary to place a tampon of gauze in the kidney wound. The patient made an uninterrupted recovery from the effects of the operation, and has suffered no renal colic since. For the first 24 hours after the operation she passed 25½ ounces of urine, and the following 24 hours 30 ounces. The urine had a specific gravity of 1025, it was acid in reaction and contained albumin and blood. There were also granular casts and red blood cells under the microscope with numerous pus corpuscles. The subsequent post operative course was very different from that observed in chronic Bright's disease. In this case of calculous nephritis the percentage amount of albumin at first increased rapidly and then diminished much more slowly, whilst the operation had little or no effect upon the amount of urine secreted from day to day. In the course of three weeks, however, the albumin eventually fell from 1 to .01 per cent. The amount of urea increased markedly after operation, so that four days after operation there is recorded 3.6 per cent. of urea, but a week after operation it was 1.9 per cent., and it remained low subsequently, the daily record for the remaining two weeks of observation being on an average about 1.4 per cent. This urea output was extremely low, when one takes into account the small quantity of urine secreted representing in fact one-third of the normal amount. The general health and nutrition appeared to be excellent, however, and she left the hospital for her home four weeks after operation.

Before proceeding to discuss the significance of the results obtained in these cases let me enter a protest against the suggestion that ether should be the form of anæsthetic used in such operations upon the kidney. There can be no doubt that ether is a powerful irritant of the kidney when administered as an anæsthetic. This fact has been clearly shown by Dr. Chace [4] of the New York Post-Graduate Medical