

closed that the words were uttered later, none of them before June 26th, and the plaintiff was "non-suited." He could pay the costs, amend his pleading and bring his action down for trial again, but it does not appear that he did so. He might also sue his lawyer for negligence and would almost certainly have succeeded.

A defect that was fatal in those days, a judge at the present would sweep aside with a contemptuous smile. Law has made in the eighty years almost as great strides as medicine. And it is pleasant to know that all the great advances made in either science have been made by those active in their profession.

RENAL CALCULI IN WOMEN, WITH REPORT OF A PYELO-LITHOTOMY IN AN UNUSUAL CASE.*

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SSTONE in the kidney is a condition of mid-adult life, operations for renal calculi being rare before the age of ten or after sixty years, the average in 28 cases in the General Hospital being 39.4 years.

Women are slightly less liable than men, 1 to 2 in the General Hospital, Toronto. Renal calculi belong more especially to the age of "stress and strain," often, however, with symptoms dating back to adolescence.

Either kidney may be affected. In 38 cases in this hospital, 20 cases were of the right kidney, 16 of the left kidney, and 2 cases were bi-lateral. Though at first uni-lateral, sooner or later both kidneys are affected, 50 per cent. of post-mortem returns being bi-lateral. At first the stone is uni-lateral, but later becomes bi-lateral.

Definition of renal calculus.—A renal calculus is an agglomeration (fusion) of crystals, held together by a cement and not crystallizations of certain inorganic salts. Hence one must trace the origin of the crystals in the urine and also the origin of the cement substance. Let us consider the cement substance first.

The cement substance is an "irreversible colloid," that is, one which does not re-dissolve when placed in a non-saturated solution. Hence the insolubility of renal calculi. This irreversible colloid is probably fibrinogen or fibrin, according to Schade, and therefore an inflammatory reaction is a necessary precursor of a calculus. This is not hard to believe, when one realizes that a single large oxalate crystal may in passing down from the kidney, cause all the typical signs of renal colic with hæmaturia.

* Read at the Section of Surgery, Toronto Academy of Medicine, 16th March, 1915.