- 1. They are not always necessary in order to arrive at a sufficiently accurate working diagnosis.
- 2. Patients frequently object, on account of the discomfort and expense involved until simpler procedures have been fairly tried.
- 3. The technique is difficult requiring not only manipulative skill of a high degree, but much experience in interpretation of results.
- 4. The discomfort and not infrequently dangers attendant in these examinations must be borne in mind. These are often discounted by the surgeon, and with skilful operators are no doubt greatly minimized, yet cystitis, pyelonephritis or other trauma not infrequently result. These dangers, however, are of secondary importance in cases where the diagnosis cannot otherwise be made.

Segregation of the urine is advocated by some as simpler in technique and less liable to do harm. It is certainly of value in some cases but neither in accuracy nor in completeness of the information furnished can it be compared with the measures before mentioned.

Just here may I refer to the value of the tests that have been recommended in recent years for estimating renal permeability or as an index to renal sufficiency. One need not refer to the technique as this is well known. The methylene blue test is open to the same objection which applies to the estimation of urea as an index to the excretory capacity of the kidneys. The inference is not warranted that because the organs can excrete one substance normally that they have an equal capacity with reference to others. The test has not proven of much practical value. The blue color imparted to the urine however enables one in making a cystoscopic examination to recognize the fluid more readily, as it is ejected from the ureter and thus assists the examiner in locating the ureteral opening.

More was hoped from the phloridzin test, as healthy renal epithelium was considered to be necessary for the transformation of this substance into glucose. Recent investigations however have shown that in animals after nephrectomy sugar is found in the blood after the injection of phloridzin; and if this be so, a phloridzin diabetes can no longer be considered an index to the functional capacity of renal epithelium. Dr. Parker, house physician at St. Michael's Hospital, has applied these tests in a number of patients under my care but in none did they furnish us with information of any value.

Urinary lithiasis, tuberculosis, tumor, etc., are frequently