

methods introduced since 1885, pointing out the use and advantages of each. Chromocystoscopy is a useful method of determining the activity of the kidneys. The patient is given a dose of methyl blue or indigo carmine, which are normally excreted by the kidneys in fifteen to thirty minutes. By watching the urethral openings with a cystoscope, the exact time of the appearance of colored urine from each kidney can be determined. If one is manifestly slower than the other, it is evidently the diseased kidney.

Urethral catheterization and segregation enable us to collect the urine from the individual kidney. The former method, while becoming more and more popular, is expensive, and demands skill and patience on the part of the operator. Segregation is open to the objection that the bladder may be diseased.

The history of cryoscopy, or the determination of the freezing point of urine, and the application of Dr. Coppe's law, that the lower the freezing point the greater the concentration, was considered in some detail. The method combined with segregation has been shown to be a most valuable aid in diagnosis, and has removed the fear of the surgeon after nephrectomy to a large extent.

*Phloridzin Test.*—After the hypodermic injection of phloridzin, a diseased kidney is found to excrete sugar less rapidly than a normal one. . . . Electrical conductivity of urine, X-rays and various bougies were briefly mentioned also. In concluding, the writer explained that these new methods of diagnosis are gradually replacing the old exploratory operation.

Dr. R. D. Rudolf (Toronto) followed next with a paper on "Diagnosis of Functional Heart Murmurs."

Functional murmurs, as first described by Laennec, are soft and blowing in character, occur most commonly in the position of the pulmonary area, opposite the second left costal cartilage, and are in no way connected with valvular diseases. They are due, not to the anemia, as so often taught, but to a condition of hypotonus of the muscles of the circulatory system; that is, there is a relaxation of the sphincter muscles guarding the mitral and tricuspid orifices, and permitting of a leakage. In the pulmonary area, the fibrous band around the orifice permits of no dilatation, but the muscular structure of the pulmonary artery permits it to dilate, and consequently we have a condition in which the blood stream flows from one chamber, that is, the right ventricle, through a relatively constricted orifice, into the dilated pulmonary artery. This is the most favorable arrangement for the pro-