

operator instead of treating the entire vesical mucosa by means of injections more or less strong may direct any appropriate application to the diseased part only.

**THE SEGREGATOR.**—Another instrument of great importance is the urine segregator of Harris;\* This instrument collects the urine directly and separately as it passes from each ureter into the bladder. To a great extent it supercedes ureteral catheterization. By its use certain dangers of infection of the kidneys by ureteral catheterization may be avoided. The value of this instrument depends not only upon the fact that without ureteral catheterization we are enabled by its use to separate the urine from one kidney from that of the other, but also upon the fact that we temporarily, as it were, eliminate the bladder from the urinary tract. There may be present the subjective symptoms of cystitis, that is, pyouria, painful and frequent urination, and ammoniacal urine, and yet the bladder may be free from disease. It is absolutely necessary to a correct diagnosis of cystitis that we know what abnormal constituents of the urine have their origin within the bladder itself. Normal urine suffers no change in a normal bladder free from microbes, hence a comparison of analyses of urine, taken from the bladder, with urine taken directly from the kidneys may at once indicate the direct location of the disease.

The points to be observed in urine thus obtained are :

1. The reaction.
2. The presence or absence of pathological products, namely, pus, blood, epithelial cells, bacteria, crystals, etc.

The reaction of the urine should be taken at once, as secondary changes occur sometimes quite rapidly. If urine taken directly from the kidneys possess a normal degree of acidity while that from the bladder be alkaline, it is very evident that the pathological process producing the alkalinity must reside within the bladder. If urine from the kidneys be free from pathological products while that from the bladder contain pus, epithelium or bacteria, the involvement of the bladder is unquestioned.

The urine segregator possesses the following advantages :

#### CLASSIFICATION.

**ANATOMICAL CLASSIFICATION.**—In our present knowledge of the subject a perfect classification is impossible. Numerous classifications have been proposed.

**ANATOMICAL CLASSIFICATION.**—According to the special structures involved this comprises : pericystitis, paracystitis, interstitial cystitis and endocystitis. The difficulty, not to say frequent impossibility of separating these varieties one from the other and the fact that two or more usually coexist renders this classification, although diagrammatically attractive, clinically impossible. There are no sharp lines of demarkation between the so-called anatomical forms.

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\* Adaptations Transactions, Chicago, Gynecological Society, November, 1898.