

## NEW INSTRUMENT.

AN IMPROVED URETHROSCOPE.<sup>1</sup>

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It is too late in the scientific day to urge need of urethroscopy upon a learned society like this. Arguments in favor of making the urethra as accessible to sight and to operation as the external surface of the body would be as superfluous as diatribes against remedies advertised to "cure all urethral discharges." The question of urethroscopy now reduces itself mainly to the choice of instruments.

Three forms of urethroscope are in use. The simplest, of which the Klotz tube is the best type, requires a co-ordination between the head-mirror and the tube, which is difficult and requires much practice. Moreover, the reflected light cannot be as clear at the distal end of the

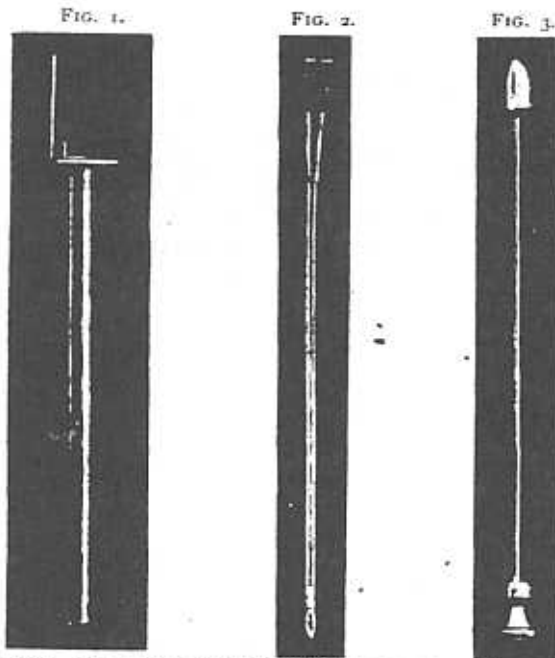


Fig. 1. Valentine's modified urethroscopic tube. The small spur on the disc is for attachment of the light-carrier, the large spur for that of the megaloscope.

Fig. 2. Light-carrier.

Fig. 3. Obturator for urethroscopic tube.

tube as it is at the visual end. Here a glare obscures vision, obliging the operator to look through a disturbing zone of more intense light, into one, six inches beyond, not by any means as clearly illuminated. The wonder is that Klotz has been able to do so much and such good scientific work with this instrument. The second class of urethral illuminators are those that use light projected directly into the urethra. The best of these is indisputably the Otis urethroscope. But it is a costly and somewhat complicated instrument, for whose use one must needs have as much skill as its talented inventor. In the

third class, the Nitze-Oberlaender urethroscope hitherto stood alone. A little incandescent wire is carried into the depths of the urethra, bringing the source of illumination almost directly into contact with the sites to be examined. The advantage is too manifest for discussion; it is simply in obedience to the physical law that requires intensity of illumination for accuracy of vision. The objections to this apparatus are, first, its cumbersomeness, entailed by the continuous current of water required to keep the lamp cool. Secondly, the minute lamp readily burns out, and entails difficulty for its replacement, especially if it occurs in the midst of an examination. Thirdly, the size and weight of the apparatus, as well as its fragility, demand that it be kept stationary, necessitating a separate room for the purpose of urethroscopy. Fourthly, even if the canal be exceedingly large, the light must be removed from the tube to swab excess of secretion from the urethra and to make direct applications to diseased spots. Fifth, the apparatus is expensive, almost prohibitive to the majority of beginning practitioners.

The urethroscope I have the privilege of showing overcomes all the objections cited. Previous to describing it I may be allowed a moment to do an act of justice regarding its origin. While Dr. Henry Koch of Rochester and I were fellow-students in Berlin, I often discussed with him my thought of a sufficiently small but encapsu-

FIG. 4.

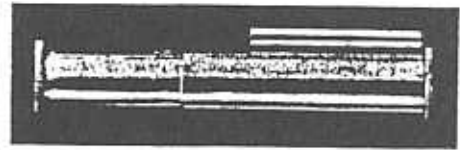


Fig. 4. Valentine's megaloscopic attachment for the urethroscope. Magnifies sixteen times.

lated electric light that would make urethroscopy easy and available to even novices in genito urinary work. I failed innumerable times to get manufacturers and workmen to make the light small enough for the purpose. Dr. Koch deserves the credit of having found and encouraged Mr. W. C. Preston of the Electro-Surgical Instrument Co. of Rochester to carry out my ideas on the subject. Under my directions the instrument has grown to its present conditions.

The apparatus consists of a small box containing four dry cells. These suffice for at least 350 deliberately performed, thorough urethroscopies. The price of a new set of cells is one dollar, making the cost of each urethroscopy less than one-third of a cent. The sources of electric light for other urethroscopes are either dip-batteries or accumulators. When they are exhausted from use or non-use, they require at least a day for recharging. The battery of my instrument can be replaced within five minutes. The tubes I use are similar to Kollman's modification of the Oberlaender tubes. Their burnished ends make it possible to examine the urethra from behind forward and from the front backward without giving the patient the slightest pain. The disc at the visual end of the tube is larger than those of other urethroscopes. A

<sup>1</sup> Presented at a meeting of the New York County Medical Society, held April 24, 1899.