

indirect the circle of the viscus which comes into view is at right angles to the long diameter of the instrument. Some are so constructed that the illumination is on both sides of the beak, while others throw the light on only one side, either back or front. In some the catheters emerge on the convex while in others on the concave side. Personally, I use the improved Nitze instrument with the light on the concave aspect of the beak near its termination, the prism being placed in the concavity formed by the shaft and the beak; while immediately behind this lies the opening for the emergence of the catheter with an arrangement for changing the direction of same. The cystoscope proper can be withdrawn from its sheath for irrigation purposes and without allowing the bladder content to escape. The calibre of the instrument used for cathetering purposes is No. 22 French. For simply examining I use Nitze's No. 18 French.

Before attempting to use a cystoscope upon the living, unless one is fortunate enough to receive his training from someone thoroughly acquainted with its use, he should practise carefully upon a bladder in the post-mortem room; or, if that be impossible, then with Leiter's phantom bladder. The former method, however, is much the better, for one can familiarize himself with the passage of the instrument and can also open the abdomen and pass a catheter down the ureter until it just enters the bladder, thus allowing the operator to orient himself. It is surprising what a good view may in this way be obtained; the color of the mucous membrane, provided the subject be fresh, differing very little from that seen in the living. By so doing he will save himself an immense amount of time and his patients much pain. At the same time he will become familiar with the various distortions of the images seen and appreciate, for example, that an object which is apparently in front of an ureteral orifice is in reality behind it. True, there are instruments now made correcting such distortions, but to one who has become acquainted with the uncorrected images they are very readily intelligible. Thus equipped, the surgeon is in a position to examine his patient, and I now propose to describe briefly the technique employed.

There are three requisites for a successful examination of the bladder: (1) The urethra must permit of the passage of the instrument without the use of any undue force, and generally the calibre must be 22 French, although for examination purposes only an 18 French might suffice. (2) A clear medium, either in the form of the patient's urine, as desired by Fenwick, or a 1:30 boracic solution. If the bladder is particularly sensitive I use a normal salt solution,