

ON AN
IMPROVED VULCANISED INDIA-RUBBER
CATHETER, FOR RETAINING WITHIN
THE BLADDER.

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FOR many years I have used the vulcanised india-rubber catheter for tying in the urethra and bladder, and have found it, as many others have done, extremely valuable from its perfect flexibility, and the consequent small liability to excite irritation which its presence produces. In most cases it is easily kept in place by a loop of soft twine, loosely tied round the penis, just behind the glans; but in a few instances this very quality of flexibility, which is so advantageous, permits the escape of the instrument from the canal, and difficulty is experienced in efficiently retaining it there. Hence Mr. Holt's suggestion of "wings" to the end of the instrument which lies within the bladder. Efficient as these may be when *in situ*, although they unquestionably sometimes occasion irritation, an instrument so furnished does by no means always pass easily, and usually causes more uneasiness, both in the act of passing and afterwards, than a catheter not furnished with such appendages.

The problem, then, is to efficiently maintain the soft vulcanised catheter in place without making additions of this kind. This I have accomplished, I believe completely and successfully, in the manner following:—Into an ordinary vulcanised india-rubber catheter, say about the size of 8, 9, or 10, or more, according to the requirements of the case, a thin German-silver tube, about four or five inches long, is introduced by the maker, so that the last six inches of the catheter remain as flexible as ever, also about two inches of the anterior part, to form a spout or conductor outwards for the urine. This being done, the calibre of the interior is still nearly uniform,—the thinness of the metal tube and the elasticity of the india-rubber being so accommodated to each other as to accomplish this object. This description has been practically realised for me by Messrs. Weiss, the well-known instrument makers. (See figure.) The instrument is furnished with a silk cord to fasten it, which, owing to the metal tube, cannot diminish the choke or diameter.

The advantages of this catheter are several:—

First, not only is it not more difficult to pass, but less so than the original instrument without wings, since the metal tube affords a handle which almost invariably carries the flexible part beyond it easily into the bladder.

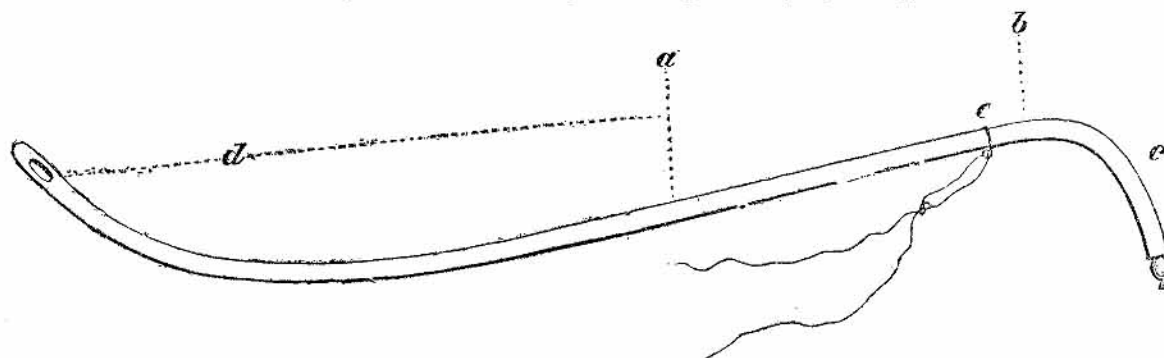
Secondly, when the loop of silk with which the catheter is provided is loosely tied behind the glans, it is next to impossible for the instrument to escape; the want of flexibility in the silvered part securing this. In special cases

in which it is desired, the silver may be shortened to two or three inches with perfect security.

Lastly, since no appendage exists in that part of the catheter which is within the bladder, the liability to retain any phosphatic deposit is reduced to a minimum, and no special attention to remove such foreign matter is always

necessary. In one instance I kept it in six weeks without the slightest incrustation occurring. It is, however, as a rule prudent to remove the catheter every few days to observe if any takes place, and this is a matter of no consequence, as no difficulty or pain arises from its reintroduction.

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Improved vulcanised india-rubber catheter.—*a* to *b* shows the length of the German-silver tube which at this part lines the tube and stiffens it. *c*. Anterior portion of catheter, which remains flexible, and conducts away the urine; a peg is fitted into it. *d*. Posterior portion of catheter, which remains flexible, and rests in the urethra and bladder. *e*. A piece of stout silk, the free ends of which, lightly tied behind the glans penis, secure the catheter in its place.