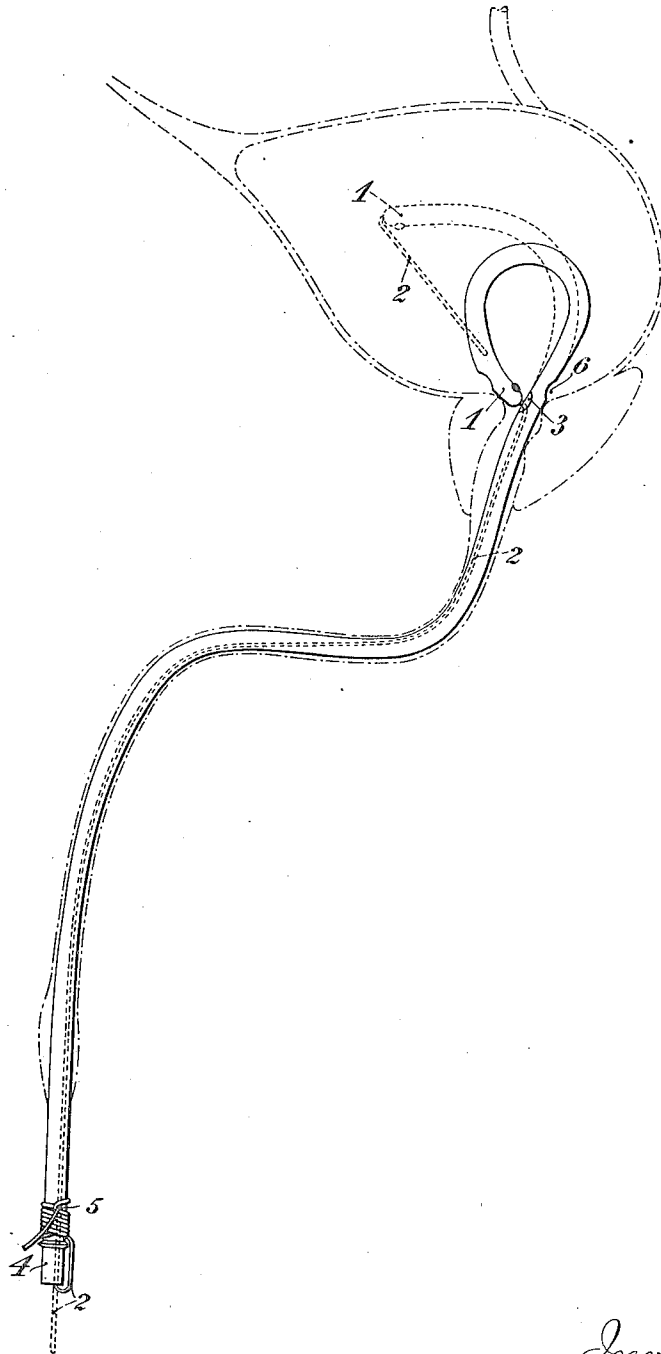


H. BISGAARD.
SELF RETAINING CATHETER.
APPLICATION FILED MAR. 5, 1915.

1,207,479.

Patented Dec. 5, 1916.



Witnesses
B. Dommers
E. Leckert.

Inventor:
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By *[Signature]* atty.

UNITED STATES PATENT OFFICE.

HOLGER BISGAARD, OF GLAMSBJERG, DENMARK.

SELF-RETAINING CATHETER.

1,207,479.

Specification of Letters Patent.

Patented Dec. 5, 1916.

Application filed March 5, 1915. Serial No. 12,384.

To all whom it may concern:

Be it known that I, HOLGER BISGAARD, physician, a citizen of the Kingdom of Denmark, and residing at Glamsbjerg, Island of Funen, in the Kingdom of Denmark, have invented certain new and useful Improvements in Self-Retaining Catheters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention refers to a catheter "*demeure*" (self-retaining catheter), the characteristic feature of which is that, at the interior end of an otherwise ordinary catheter, there is fastened a pulling member, which, for a short distance, is passed outside of the catheter, so that this part of the catheter, by means of the pulling-member, can be bent down inside the bladder. When the pulling-member, for instance a string, or a more or less rigid wire, thread, or ligature (passed through the interior of the catheter) is released, the deformation of the end of the catheter will be abolished either spontaneously or by means of a slight pull of the catheter, which can then be extracted with the same ease as an ordinary, smooth catheter. The catheter in question can, of course, be inserted into the bladder through a fistula, and likewise it can be inserted into other cavities than the bladder, and it can be inserted with or without the use of a *stilletto*.

One form of construction of this catheter is shown in the drawing. The catheter here shown is like the ordinary flexible catheters of uniform thickness, but at its anterior, closed and rounded end 1 there is attached in a suitable manner a string 2, which, for a suitable long distance, is disposed on the

outside of the catheter and then passed in through a hole in the wall of the catheter, said hole being preferably furnished with a reinforcing rim 3. The string, or ligature, is then passed on through the catheter and out at its lower end 4. When the catheter is inserted far enough, the portion inside the bladder (1—3) can be bent down by pulling the string, or ligature, 2, and, from the central position indicated by dotted lines, can be brought into position for use, in that the end 1 of the catheter is drawn down close to the hole (3), thus forming a loop. The lower end of the string, or ligature, is then wound around the lower end 4 of the catheter and secured by means of a hitch 5, or the like. The urine is drawn off through one or more suitable holes 6. The lower end of the catheter can be closed by means of a plug.

Instead of being passed through the wall of the catheter, the string, or ligature, 2, or another more or less rigid pulling member, can be passed through a longer or shorter canal in the longitudinal direction of the catheter wall, or may lie on the outside of said wall throughout the entire length of the catheter.

I claim:—

A hollow flexible catheter having an opening near its end, a flexible tension member secured to its anterior end and passing through said opening and the interior thereof to the opposite end, whereby when said member is drawn tight a self-retaining loop will be formed at the anterior portion of the catheter.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

HOLGER BISGAARD.

Witnesses:

P. HOFMAN-GANZ,

ONIEL BALLARD.