

Dec. 15, 1964

W. W. GLAS ETAL  
CATHETER

3,161,197

Filed July 2, 1962

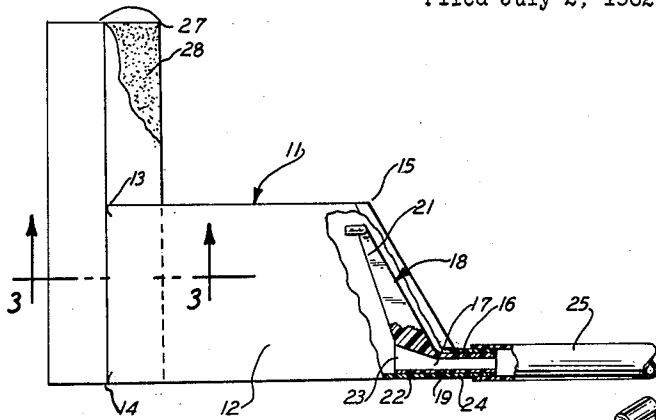


FIG. 1

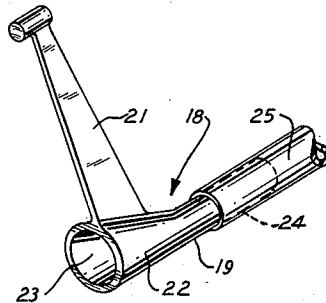


FIG. 2

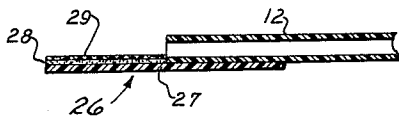


FIG. 3

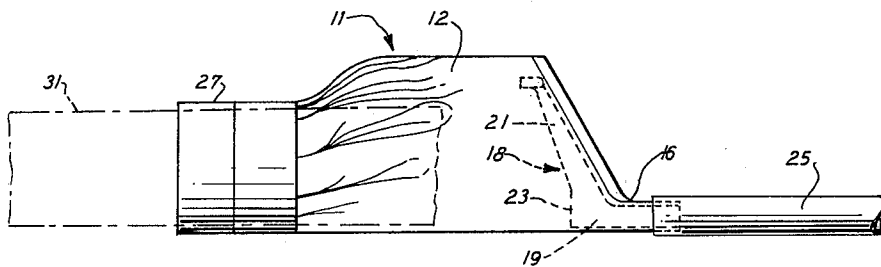


FIG. 4

WAYNE W. GLAS  
CHARLES J. TRICK  
INVENTORS

BY *Jerry G. Beck*

ATTORNEY

1

3,161,197  
CATHETER

Wayne W. Glas, % Wayne County General Hospital,  
Eloise, Mich., and Charles J. Trick, 31811 W. Chicago  
Blvd., Livonia, Mich.

Filed July 2, 1962, Ser. No. 206,879  
4 Claims. (Cl. 128-295)

The present invention relates to an improved catheter of a type described in copending application S.N. 65,840, now abandoned, filed in the name of one of the co-inventors of this invention.

The catheter as described in copending application S.N. 65,840, now abandoned, is adapted to be secured to a human penis of a male patient. This catheter comprises a pliable, foldable bag portion with an inlet opening or open end at one side. A tube is attached to the other side of the bag portion for conducting urine from the bag portion to a receptacle. An adhesive wrapping means, which is attached to the open end, is adapted to be wrapped around the human penis to substantially seal a portion of the penis in the bag portion of the catheter.

Although this catheter is a considerable improvement over other catheters found in the art, it has been found that the foldable bag portion may collapse upon being secured to the male patient when the patient moves his legs. The collapse of the pliable bag portion may interfere with the flow of urine being discharged by the patient through the catheter to the receptacle. Further, the opening of the drainage tube within the bag portion may be partially blocked by the sides of the bag portion when they are accidentally folded by the patient or the bed covers.

The obstruction to the flow of urine may result in the bursting of the bag portion or loosening of the adhesive wrapping means to cause the spilling of the urine over the patient and the bedding. Also extreme discomfort may be felt by the patient if the bag portion is filled with urine and is not readily and speedily drained therefrom.

To overcome these disadvantages, the improved catheter embodying this invention comprises a pliable, foldable bag portion having an inlet opening at one end and means for connecting a tube at the other end. The bag portion is larger in cross-section than the human penis to which it is to be attached. A substantially flat member is placed within the bag portion. This member has one end secured to the connecting means and another end projecting along a portion of the periphery of the bag portion to maintain the bag portion in an unfolded condition when the catheter is secured to the penis by an adhesive wrapping means.

It is, therefore, an object of this invention to provide an improved catheter which is comfortable to the male patient and prevents the leakage of urine from the catheter.

It is a further object of this invention to provide a simple, low cost catheter which can be readily folded for shipping or storage purposes when not in use but will not fold or collapse when in use.

A still further object of this invention is to provide an improved catheter that will prevent any interferences with the draining of urine from the bag portion into a tube which is connected to a disposable receptacle.

Other objects and advantages of this invention will become more apparent from the following description, particularly when considered in connection with the accompanying drawing in which:

FIGURE 1 is a plan view, partially in section, of an improved catheter embodying this invention and shown when in a flattened condition;

2

FIGURE 2 is a perspective view of a member that it is a component part of the catheter of this invention and which is shown detached from the catheter for greater clarity;

FIGURE 3 is a cross-sectional view taken along line 3-3 of FIGURE 1; and

FIGURE 4 is a plan view of the catheter embodying this invention and shown when in use.

Referring now to the drawings and especially to FIGURE 1, there is seen a catheter, generally designated as 11, which comprises a bag portion 12. The bag portion 12 is manufactured from a pliable, foldable, impervious material such as polyethylene although rubber or any other impervious, flexible material will be satisfactory.

The bag portion 12, which is supplied in a flattened condition, is in the shape of a truncated rectangle, having two right angles 13 and 14 at one end of the bag portion 12 and an obtuse angle 15 and an acute angle 16 along the truncated other end. The bag portion 12 has an intake opening at the edge between the right angles 13 and 14 while the remaining edges are sealed except for a substantially smaller outlet opening 17 provided at the acute angle 16.

A member 18, which is positioned within the bag portion 12, comprises an apertured portion 19 that is integrally formed with a flat wing shaped segment 21. The apertured portion 19 has a first part 22 provided with a funnel shaped opening 23 which is in communication with its aperture as best seen in FIGURE 2. The periphery of the first part 22 is received within the outlet opening 17 while a second part 24 of the apertured portion 19 extends through the opening 17 to the outside of the bag portion 12.

The bag portion 12 at the acute angle 16 is sealingly attached to the periphery of the first part 22 of the apertured portion 19. A tube 25, which may also be fabricated from polyethylene if desired, has one end sealingly connected to the periphery of the second part 24 of the apertured portion 19. The tube 25 may also partially encompass the part of the bag portion 12 which extends over the first part 22. The other end of the tube 25 (not shown) may be placed in a disposable receptacle to accumulate the urine drained from the bag portion 12 through the apertured portion 19 and its associated tube 25.

In FIGURE 3 is seen an adhesive wrapping means 26 which is utilized to attach the catheter 11 to a human penis. The adhesive wrapping means 26, in this instance, consists of a flexible band 27 having an adhesive coating 28 on one surface. A protective sheet 29, such as paper, covers the adhesive coating 28. A portion of the protective sheet 29 is cut away where the band 27 attaches to the bag portion 12 as best seen in FIGURE 3. This portion of the band 27 extends beyond the bag portion 12 in both a longitudinal and a lateral direction with respect to the axis of the truncated rectangle.

When the catheter 11 is to be applied to a male patient, the protective sheet 29 is stripped away from the adhesive coating 28. Then, as seen in FIGURE 4, a portion of the human penis, designated as 31 and shown by phantom lines, is inserted through the open end into the bag portion 12. The band 27 is wrapped around the human penis 31 to seal a portion of the penis 31 in the bag portion 12, thereby securing the catheter 11 to the male patient. The outlet opening 17 is pointed downwardly to provide for effective drainage of the urine.

The flat wing shaped segment 21 of the member 18 projects in an upward and inward direction within the bag portion 12 while the apertured portion 19 of the member 18 is securely held at the acute angle 16. This prevents the pliable bag portion 12 from collapsing or folding to interfere with the flow of urine. Also the fun-

nel shaped opening 23 of the member 18 facilitates the draining of the urine from the bag portion 12 to the tube 25 without resulting in the backing up of the urine to cause discomfort to the male patient.

It can be readily understood that the low cost, flat member 18 greatly improves the functioning of the catheter 11.

It will be understood that the invention is not to be limited to the exact construction shown and described, that various modifications and changes may be made without departing from the spirit and scope of this invention as defined in the appended claims.

We claim:

1. A catheter adapted to be secured to the human penis comprising a pliable, foldable bag portion having an inlet opening at one end and an outlet opening at the other end, said outlet opening being substantially smaller than said inlet opening, a tube for conducting urine away from said bag portion, a member substantially disposed within said bag position, said member having an apertured portion at one end and an integrally formed flat wing shaped segment at the other end, said apertured portion having a first part sealingly received within said outlet opening and a second part extending through said outlet opening to the outside of said bag portion, one end of said tube being firmly secured to said second part of the apertured portion, said flat wing shaped segment projecting into said bag portion to maintain the latter in an unfolded condition to allow for an unobstructed flow of urine through said bag portion to said tube when said catheter is secured to the penis, and a band having an adhesive coating at least on one side thereof, a portion of said one side of the band affixed to the outside of said bag portion along the perimeter of said intake opening, the remaining portion of said one side of the band extending beyond said bag portion a distance sufficient to permit said band to be wrapped around the penis to substantially seal a portion of the latter in said bag portion.

2. The catheter as described in claim 1 and which is further characterized in that said first part of said apertured portion has a funnel shaped opening attached thereto, said funnel shaped opening being positioned within said bag portion.

3. A catheter comprising a foldable bag portion constructed, when lying flat, in the shape of a truncated rectangle having across an edge of short dimension, two right angles and having across the opposite truncated edge an obtuse angle and an acute angle, said short edge being the open end of said bag portion, an outlet opening at said acute angle corner, a tube for conducting liquid away from said bag portion, a member having an apertured portion at one end and a substantially flat wing shaped segment at the other end, one part of said apertured portion being funnel shaped and sealed into said bag portion at the acute angle thereof and a second part of said apertured portion extending through said outlet opening to

the outside of said bag portion, one end of said tube firmly secured to the second part of said apertured portion, said flat wing shaped segment being positioned within said bag portion and extending towards said obtuse angle of said bag portion, and an adhesive band positioned across the open end of said bag portion, a portion of said band attached to the outside of said bag portion, other portions of the adhesive band extending beyond the bag portion longitudinally and laterally with respect to the axis of said truncated rectangle, said other portions of said band extending a sufficient distance to permit the latter to be wrapped securely around the human penis to seal a portion of the latter in said bag portion, said flat wing shaped segment maintaining said bag portion in an unfolded condition to allow for the unobstructed flow of urine to the tube when a portion of the human penis is sealed in said bag portion.

4. A catheter adapted to be secured to the human penis comprising a pliable, foldable bag portion having an inlet opening at one end and an outlet opening at the other end, said outlet opening being substantially smaller than said inlet opening, a tube for conducting urine away from said bag portion, a member having a tubular portion, said tubular portion being funnel shaped at one end, an angularly disposed integrally formed flat wing shaped segment extending generally upwardly from said funnel shaped one end of said tubular portion, the other end of said tubular portion being sealingly received within said outlet opening, one end of said tube being firmly connected to the other end of said tubular portion, the one end of said tubular portion and said flat wing shaped segment of said member being disposed within said bag portion, and a band having an adhesive coating at least on one side thereof, a portion of said one side of the band affixed to the outside of said bag portion along the perimeter of said intake opening, the remaining portion of said one side of the band extending beyond said bag portion a distance sufficient to permit said band to be wrapped around the penis to substantially seal a portion of the latter in said bag portion, said flat wing shaped segment extending upwardly and inwardly in said bag portion when a portion of the penis is sealed in said bag portion to prevent the latter from collapsing so as to not interfere with the flow of urine to said tube.

References Cited by the Examiner

UNITED STATES PATENTS

2,379,346	6/45	Farrell	-----	128—295
2,940,450	6/60	Witt et al.	-----	128—295

FOREIGN PATENTS

446,944	5/36	Great Britain.
---------	------	----------------

RICHARD A. GAUDET, *Primary Examiner.*

JORDAN FRANKLIN, *Examiner.*