Jan. 23, 1968 J. L. BEACH 3,364,932

EXTERNAL CATHETER FOR MALE PATIENTS

Filed April 23, 1965

Fig. 1.

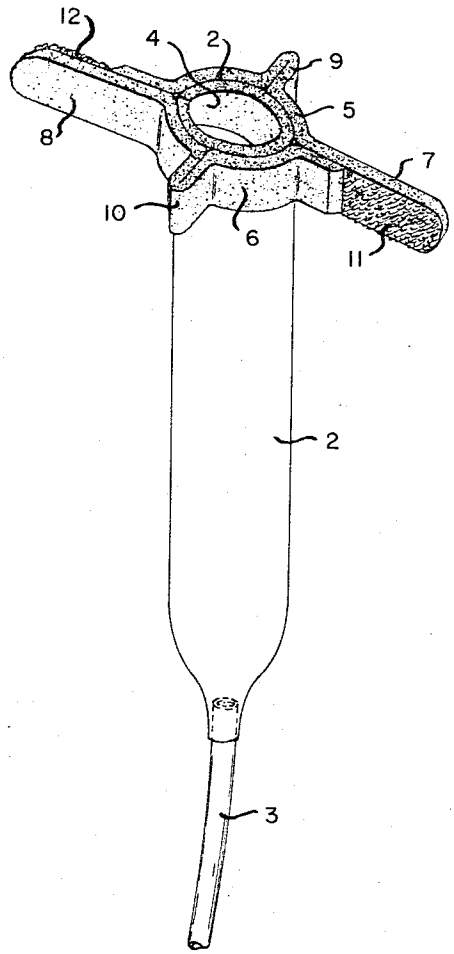


Fig. 2.

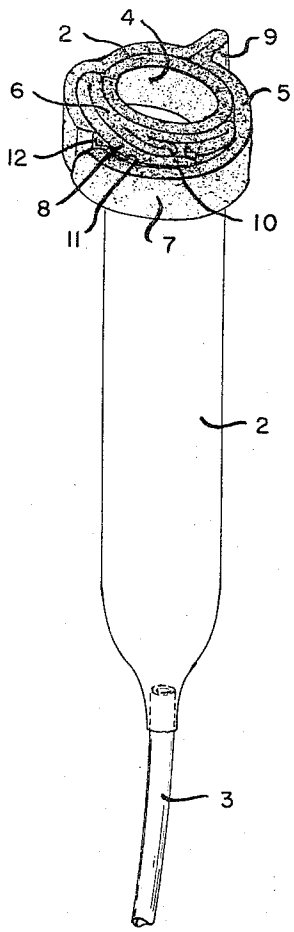
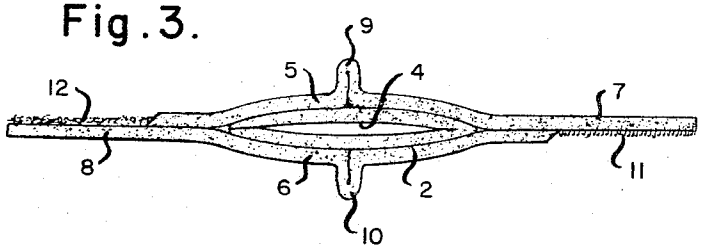


Fig. 3.



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EXTERNAL CATHETER FOR MALE PATIENTS

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ABSTRACT OF THE DISCLOSURE

An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having at the interior of its mouth soft material, which may be low density foam, which under body temperature tends to adhere to the penis to seal the pouch to the penis, the pouch having at the exterior of its mouth means adapted to be tightened about the penis. Such means may comprise extensions adapted to be drawn generally about the penis into overlapping relationship and having cooperating surface portions (such as a "Velcro" fastener) having means whereby such portions adhere to each other, one of such cooperating surface portions facing inwardly and the other facing outwardly when the extensions are drawn generally about the penis into overlapping relationship. The pouch may be collapsible and may have at the exterior of its mouth intermediate the extensions ears extending outwardly adapted to be grasped between the thumb and finger to open the mouth of the pouch for application.

This invention relates to an external catheter for male patients which affords the patient optimum comfort, which is easy to apply and remove and which when applied remains firmly in place and in sealed relationship to the penis, yet which at the same time is of simple construction and low cost.

External catheters for male patients have been proposed for many years but all such proposals have had shortcomings either in respect of comfort to the wearer, maintenance of the catheter in place, difficulty of application and removal or complexity of construction and high cost. I have solved all of the problems in a catheter of novel construction affording the wearer unprecedented comfort, which can be applied and removed virtually in an instant with no difficulty and no inconvenience to the patient, which remains firmly in place and properly adjusted throughout the time it is worn, which is fabricated of available elements and the cost of which is low in relation to its advantages.

My novel catheter comprises a pouch adapted to receive the penis of the patient or wearer, the pouch having at the interior of its mouth soft material, preferably low density foam, which under body temperature tends to adhere to the penis to seal the pouch to the penis, the pouch having at the exterior of its mouth means adapted to be tightened about the penis. The last mentioned means may comprise extensions adapted to be drawn generally about the penis into overlapping relationship and having cooperating surface portions which adhere to each other. The cooperating surface portions preferably have very small mechanically interlocking elements which interlock when such portions are pressed together and can be disengaged by pulling such portions about. Desirably one of the cooperating surface portions has very small loops and the other thereof has elements which substantially hook into such loops when such portions are pressed together, the loops and elements being disengageable by pulling such portions apart. The pouch may also have at the exterior of its mouth intermediate said extensions ears to open the mouth of the pouch for application.

The pouch may have at the exterior of its mouth oppose extension adapted to be drawn generally about the penis and fastened together to tighten the mouth of the pouch about the penis, the mouth of the pouch being normally collapsed generally in the plane of the opposed extensions, the pouch also having at the exterior of its mouth intermediate the opposed extensions ears adapted to be drawn away from each other to open the mouth of the pouch for application.

The pouch preferably has at both the interior and the exterior of its mouth low density foam, the low density foam at the exterior of the mouth of the pouch being formed with extensions adapted to be drawn generally about the penis into overlapping relationship and having means applied to the extensions causing the extensions to adhere to each other. Such means desirably have, as above mentioned, very small mechanically interlocking elements which interlock when the extensions are pressed together and can be disengaged by pulling the extensions apart.

In a preferred form my external catheter for male patients comprises a pouch adapted to receive the penis, the pouch having at both the interior and exterior of its mouth low density foam, the low density foam at the exterior of the mouth of the pouch being applied in two opposed strips each extending about approximately half the circumference of the mouth of the pouch and extending at one end away from the mouth of the pouch, such ends of the strips being substantially diametrically opposed, the mouth of the pouch being normally collapsed generally in the plane of the opposed extensions, the opposed extensions being adapted to be drawn generally about the penis into overlapping relationship and having means applied thereto causing said extensions to adhere to each other. The opposed strips are preferably formed with outwardly extending ears adapted to be drawn away from each other to open the mouth of the pouch for application.

Other details, objects and advantages of the invention will become apparent as the following description of a present preferred embodiment thereof proceeds.

In the accompanygin drawings I have shown a present preferred embodiment of the invention in which

FIGURE 1 is an isometric view of an external catheter for male patients embodying my invention, the catheter being shown with its mouth opened ready for application;

FIGURE 2 is a view similar to FIGURE 1 of the same catheter, but in applied position; and

FIGURE 3 is an enlarged top plan view of the catheter in collapsed condition.

Referring now more particularly to the drawings, the pouch is designated generally by reference numeral 2 and may be of any suitable material such as plastic which will withstand the chemical action of urine. From the bottom of the pouch 2 extends a tube 3 which carries the urine to a receptacle not shown which may be carried by the pateient at any convenient location as well known to those skilled in the art. If the pouch is of sufficient size of the tube and receptable are unncessary. The present invention has to do with the structure at the mouth of the pouch and the means for applying the pouch and maintaining it in place.

Soft material is applied to both the interior and the exterior of the mouth of the pouch. Desirably the same material is applied to both the interior and exterior although this is not essential. It is desirable that at least the soft material which is applied to the interior of the mouth of the pouch be material which under body temperature tends to adhere to the penis to seal the pouch to the penis. A material which I have found well suited to the purpose is low density foam which is sold in tape form by Minnesota Mining and Manufacturing Company under the designation Y–9140C. In the preferred embodiment of the invention shown in the drawings the soft material which is applied to the outside of the mouth of the pouch is the same as the material applied to the inside.

The material applied to the inside of the mouth of the pouch is designated **4** and consists of a strip of the material which is substantially coextensive with the circumference of the mouth of the pouch. It is adhesively applied to the inside of the mouth of the pouch by any suitable adhesive material.

Applied to the outside of the mouth of the pouch, also by any suitable adhesive material, are two strips of the same material designated respectively **5** and **6**. Each of the strips **5** and **6** extends about approximately half the circumference of the mouth of the pouch and extends at one end away from the mouth of the pouch as shown in FIGURES 1 and 3. Thus the strip **5** has an extension **7** and the strip **6** has an extension **8**. The ends of the strips or extensions **7** and **8** are substantially diametrically opposed as shown in FIGURES 1 and 3. The mouth of the pouch is normally collapsed generally in the plane of the opposed extensions as shown in FIGURE 3. The opposed strips **5** and **6** are preferably formed with outwardly extending ears **9** and **10** respectively adapted to be drawn away from each other to open the mouth of the pouch for application as shown in FIGURE 1. The ears **9** and **10** may be formed by doubling the material of the strips **5** and **6** upon itself as shown.

Applied to each of the extensions **7** and **8** are means forming cooperating surface portions which adhere to each other. Such surface portion of the extension **7** is designated **11** and such surface portion of the extension **8** is designated **12**. Broadly the portions **11** and **12** are such that when pressed together they adhere to each other but which may be pulled apart. Preferably the portions **11** and **12** have very small mechanically interlocking elements which interlock when such portions are pressed together and can be disengaged by pulling such portions apart. Desirably the portions **11** and **12** may be nylon tapes one covered with a myriad of finely woven monofilaments formed into permanent hooks while the other is covered with soft nylon loops. Pressed together they fasten tightly. Such hooks and loops are disengagable by pulling or peeling the portions **11** and **12** apart. The portions **11** and **12** in the preferred form shown constitute what is known in the trade as a "Velcro" all-nylon tape fastener marketed by Velcro Corporation.

When the catheter is to be applied its mouth is opened by pulling the ears **9** and **10** away from each other as shown in FIGURE 1. The penis is introduced into the catheter through the mouth of the pouch **2** whereupon the extensions **7** and **8** are drawn generally about the penis into overlapping relationship and the portions **11** and **12** are pressed together as shown in FIGURE 2. Those portions will remain together until they are pulled apart. Thus application and removal of the catheter can be accomplished very easily in a minimum of time. The catheter affords the wearer a maximum of comfort and remains in properly adjusted position until it is removed. It is of simple structure, easy to manufacture and low in cost.

While I have shown and described a present preferred embodiment of the invention it is to be distinctly understood that the invention is not limited thereto but may be otherwise variously embodied within the scope of the following claims,

I claim:

1. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having applied at the interior of its mouth a strip of soft material substantially coextensive with the circumference of the mouth of the pouch which under body temperature tends to adhere to the penis to seal the pouch to the penis, the pouch having at the exterior of its mouth means adapted to be tightened about the penis.

2. An external catheter as claimed in claim **1** in which the soft material is low density foam.

3. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having applied at the interior of its mouth a strip of soft material substantially coextensive with the circumference of the mouth of the pouch which under body temperature tends to adhere to the penis to seal the pouch to the penis, the pouch having at the exterior of its mouth means adapted to be tightened about the penis, said means comprising extensions adapted to be drawn generally about the penis into overlapping relationship and having cooperating surface portions which adhere to each other.

4. An external catheter as claimed in claim **3** in which the cooperating surface portions have very small mechanically interlocking elements which interlock when such portions are pressed together and can be disengaged by pulling such portions apart.

5. An external catheter as claimed in claim **3** in which one of the cooperating surface portions has very small loops and the other thereof has elements which substantially hook into such loops when such portions are pressed together, said loops and elements being disengagable by pulling such portions apart.

6. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having at the exterior of its mouth four extensions spaced 90° apart two of which are adapted to be tightened about the penis, the other extensions being adapted to be grasped between the thumb and finger to open the mouth of the pouch for application.

7. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having at the exterior of its mouth opposed extensions of material which is thicker than the material of the pouch adapted to be drawn generally about the penis and fastened together to tighten the mouth of the pouch about the penis, the mouth of the pouch being normally collapsed generally in the plane of the opposed extensions because of the relatively great thickness of the opposed extensions, the pouch also having at the exterior of its mouth intermediate the opposed extensions ears to be drawn away from each other to open the mouth of the pouch for application.

8. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having at both the interior and the exterior of its mouth low density foam, the low density foam at the exterior of the mouth of the pouch being formed with extensions adapted to be drawn generally about the penis into overlapping relationship and having means applied to said extensions causing said extensions to adhere to each other.

9. An external catheter as claimed in claim **8** in which said means have very small mechanically interlocking elements which interlock when the extensions are pressed together and can be disengaged by pulling the extensions apart.

10. An external catheter for male patients comprising a pouch adapted to receive the penis, the pouch having at both the interior and exterior of its mouth low density foam, the low density foam at the exterior of the mouth of the pouch being applied in two opposed strips each extending about approximately half the circumference of the mouth of the pouch and extending at one end away

from the mouth of the pouch, such ends of the strips being substantially diametrically opposed, the mouth of the pouch being normally collapsed generally in the plane of the opposed extensions, the opposed extensions being adapted to be drawn generally about the penis into overlapping relationship and having means applied thereto causing said extensions to adhere to each other.

11. An external catheter as claimed in claim **10** in which the opposed strips are formed with outwardly extending ears adapted to be drawn away from each other to open the mouth of the pouch for application.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,364,932 January 23, 1968

Janet L. Beach

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, line 7, for "pose extension" read -- posed extensions --; line 47, for "accompanygin" read -- accompanying --; line 65, strike out "of"; same line 65, for "unncessary" read -- unnecessary --; column 3, line 3, before "exterior" insert -- the --; column 4, line 39, after "other" insert -- two --; line 52, after "ears" insert -- extending outwardly adapted to be grasped between the thumb and finger --.

Signed and sealed this 18th day of March 1969.

(SEAL)

Attest:

Edward M. Fletcher, Jr.
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents