

- [54] **PORTABLE FEMALE URINAL**
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 abandoned, which is a continuation of Ser. No.
 710,889, March 6, 1968, abandoned.

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[58] Field of Search..... 128/283, 294, 295

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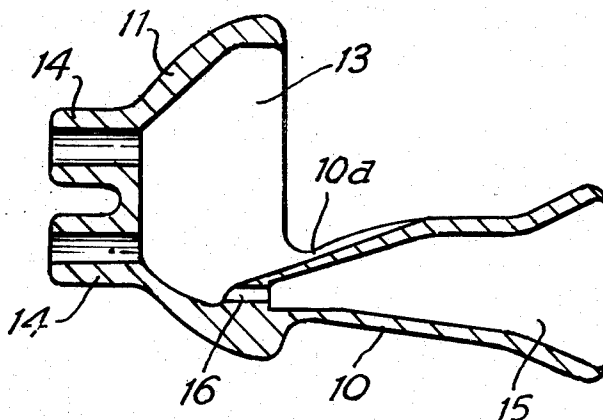
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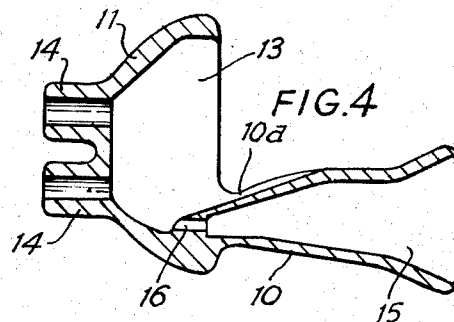
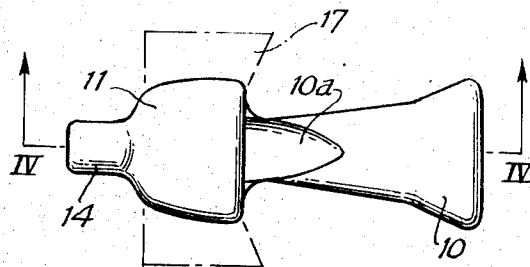
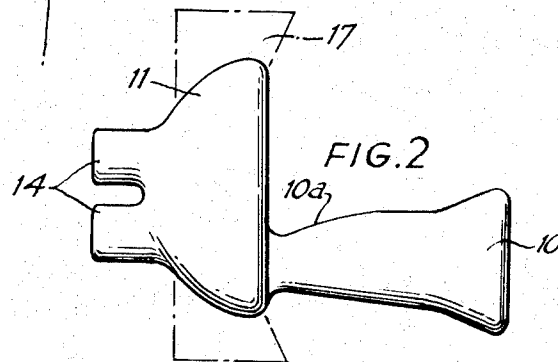
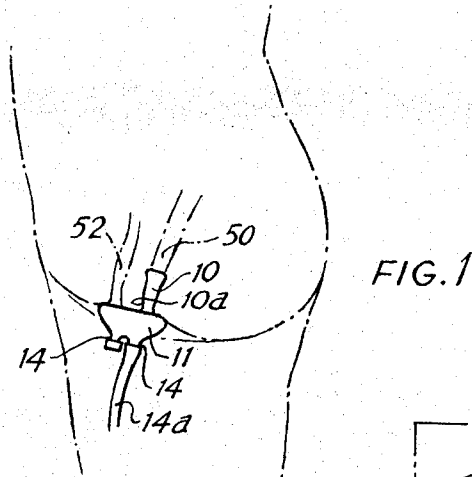
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ABSTRACT

The device for female incontinence comprises a collection and funneling container, a retaining member fixed to said container and adapted for removable vaginal insertion. The retaining member is positioned with respect to said container in a manner such that when the member is inserted into the vagina, the container is disposed at the urethral orifice so as not to contact said orifice. The container serves to collect and funnel urine discharged from said orifice.

7 Claims, 4 Drawing Figures





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PORTABLE FEMALE URINAL

This application is a continuation of application Ser. No. 77,025 filed Sept. 30, 1970, which in turn is a continuation of application Ser. No. 710,889 filed Mar. 6, 1968, both now abandoned.

This invention concerns surgical appliances of the kind used for overcoming the problem of, for example, incontinence in females, said appliances being herein-after termed "incontinence appliances".

Hitherto it has been difficult, if not impossible, to provide an incontinence appliance which is completely effective in use.

One known form of appliance consists of an elongated pouch having an inflatable ring on the open edge thereof. An outlet tube extends from the pouch to a bag for containing urine. This form of appliance is attached externally to a patient's body by means of straps and a belt, the inflatable ring being thus loosely positioned to cover the urethra and the vagina.

This form of incontinence appliance has been found to be considerably ineffective in collecting urine discharged from a patient when the latter is in a substantially horizontal position, by virtue of the fact that the inflatable ring is located loosely against the body in a substantially vertical position. In addition this form of appliance is undesirably cumbersome and thus complex and expensive to produce.

The object of the present invention is to provide an incontinence appliance in which the above mentioned disadvantages are removed or at least substantially reduced.

According to the present invention, an incontinence appliance for females includes a retaining member adapted to be removably located internally of a patient, said retaining member being connected to a urethral cap having an open end and adapted to be located externally and in the region of the outlet of the urethral orifice, the walls of said urethral cap, in use, being spaced laterally with respect to said orifice, whereby contact between the latter and said walls is prevented and said cap is arranged to act as a funnel to collect and dispense urine discharged from said orifice.

According to a further feature of the invention, the urethral cap is hollow and is adapted to be located at least substantially within the labial folds and thus forms an intra-labial reservoir, and includes a chamber, connected with which is at least one drain tube for removing urine therefrom, said drain tube leading to a container for the urine.

Preferably said retaining member is provided with an internal aperture communicating with said chamber, whereby any fluid collecting in the region of said retaining member can be transferred to said chamber for disposal.

According to a still further feature of the invention said retaining member includes a cut-away channel portion communicating with said chamber.

The invention will now be described further, by way of example only, with reference to one practical form thereof as illustrated in the accompanying drawings in which:

FIG. 1 is a diagrammatic illustration of an appliance made in accordance with the invention, when in use,

FIG. 2 is a side elevation of the appliance,

FIG. 3 is a plan view, and

FIG. 4 is a cross section taken on line IV—IV of FIG.

3.

An incontinence appliance made in accordance with the present invention includes a retaining member 10 of resilient material. The retaining member 10 is hollow and tapered towards one end. It also has a cut-away channel portion 10a, the purpose of which is to be described. Attached to, and preferably integral with the narrow end of the retaining member 10 is a urethral cap 11 also of resilient but slightly more rigid material.

The cap 11 contains a hollow chamber 13 which communicates with the channel 10a in the retaining member 10. Attached to the wall of the cap 11 are two drain tubes 14. One end of each drain tube 14 opens into the hollow chamber 13. A bag or other container (not shown) is arranged to be connected, via a pipe 14a, to one or other of the tubes 14 as will be described.

A recess 15 provided by the hollow retaining member 10 communicates, via an aperture 16, with the hollow chamber 13.

If required, a resilient ring 17, for example, of foamed polyurethane, can be located around the urethral cap 11 as shown in FIGS. 2 and 3, the purpose of which will be referred to hereinafter.

The incontinence appliance is adapted for use with a patient in the following manner.

The retaining member 10 is inserted into the vagina 50 and tends to be self-supporting therein by virtue of its tapered form. In this position, the appliance is so arranged that the urethral cap 11 is located closely and adjacent the body and is contained at least substantially within the labial folds thus to form an intra-labial reservoir. In this position it surrounds the outlet of the urethral orifice 52. The dimensions of the cap 11 are such that the walls thereof are at all times spaced laterally with respect to the outlet of the urethral orifice 52. In this manner, the urethral cap 11 is arranged to act as a funnel to collect and dispense urine discharged from the orifice 52 and contact between the latter and the walls of the cap is prevented.

When the appliance is in position, any urine discharged from the urethral orifice 52 is allowed to run into the hollow chamber 13 and thus runs away via one of the tubes 14 to a bag or container.

It will be appreciated that, whether the patient is in an upright or horizontal position, urine is free to run from the urethral orifice 52 into the hollow chamber 13. The provision of the cut-away channel portion 10a, is such that, when the patient is in the horizontal position wherein the urethral cap 11 may tend to fall away slightly from the surface of the body, stray urine is allowed to run downwardly into the portion 10a and thus into the hollow chamber 13. Therefore, it is virtually impossible for any urine to run outside the appliance, or to enter the vagina 50. Thus the danger of infection is avoided.

The purpose of providing two drain tubes 14, one (the rear) being substantially aligned with the retaining member 10, the other (the front) being spaced therefrom as illustrated, will now be described. In use it is preferable that one drain tube 14 only is connected with the container or bag, whilst the other is closed by a plug as shown in FIG. 1. The selection of the correct drain tube 14 is dependant upon the prevalent position of the patient and the pressure of urine discharged.

Any fluid collecting in the vagina in the region of the retaining member 10 is allowed to flow along the recess

15 and into the hollow chamber 13 via the aperture 16 for disposal.

As already described a resilient ring 17 can be located on the appliance and is self-retaining thereon. Its purpose is to provide increased comfort and it can, if required, be medicated thus to reduce any possibility of infection.

The appliance, whilst being substantially self-retaining, can be held more firmly in place by a surrounding garment or by straps as used in known appliances. Alternatively, a ring pessary, of the type known per se, can be attached to the retaining member and inserted therewith into the vagina 50 to be located in the upper region thereof

Conveniently, the appliance is integrally moulded from resilient plastics material.

It will be appreciated, from the foregoing description, that an incontinence appliance, made in accordance with the present invention, is effective whilst being compact. Thus a user is virtually unaware of its presence and thus considerably increased comfort is provided. In addition, in view of the fact that contact between the walls of the cap and the outlet of the urethral orifice is avoided, the prevention of infection is further assisted.

Although the appliance is herein described and claimed as a device for overcoming the problem of incontinence, its function is as a urinary drain for use whenever desirable. A further example of its use is in cases of acute illness or post-operative treatment wherein other methods such as catheterisation has been previously used with its attendant dangers of infection.

What we claim is:

1. An incontinence appliance for females including a urethral cap, a retaining member attached to said urethral cap and adapted for removable vaginal insertion, said urethral cap being so disposed with respect to said retaining member that when the latter is inserted into

the vagina, the cap is disposed adjacent the urethral orifice and surrounds the latter without being in contact therewith, said cap being of such a size and shape as to be contained in use substantially within the labial folds and capable of insertion therein without deformation of the cap; two drain outlets in said cap, at least one of which is open to urine flow, one of said outlets being adapted to receive high pressure urine discharge and the other being adapted to receive a lower pressure urine discharge, each of said drain outlets forming an intra-labial funnel and being disposed directly in the path of urine as it is discharged from the urethral orifice.

2. An incontinence appliance according to claim 1, further comprising an internal aperture in said retaining member which communicates with said funnel whereby any fluid collecting in the region of said retaining member can be transferred to said funnel for disposal.

3. An incontinence appliance according to claim 1, further comprising a cut-away channel portion in said retaining member, said cut-away channel portion being adapted to said funnel.

4. An incontinence appliance according to claim 1, wherein said retaining member is hollow and tapered towards one end, its wider end being remote from said urethral cap, whereby the appliance is arranged to be at least substantially self-retaining within the vagina.

5. An incontinence appliance as claimed in claim 1, being integrally moulded from plastics.

6. An incontinence appliance as claimed in claim 1, further comprising a resilient ring capable of being medicated, said resilient ring being located around the urethral cap.

7. An incontinence appliance as claimed in claim 6 wherein said resilient ring is made of foamed polyurethane.

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