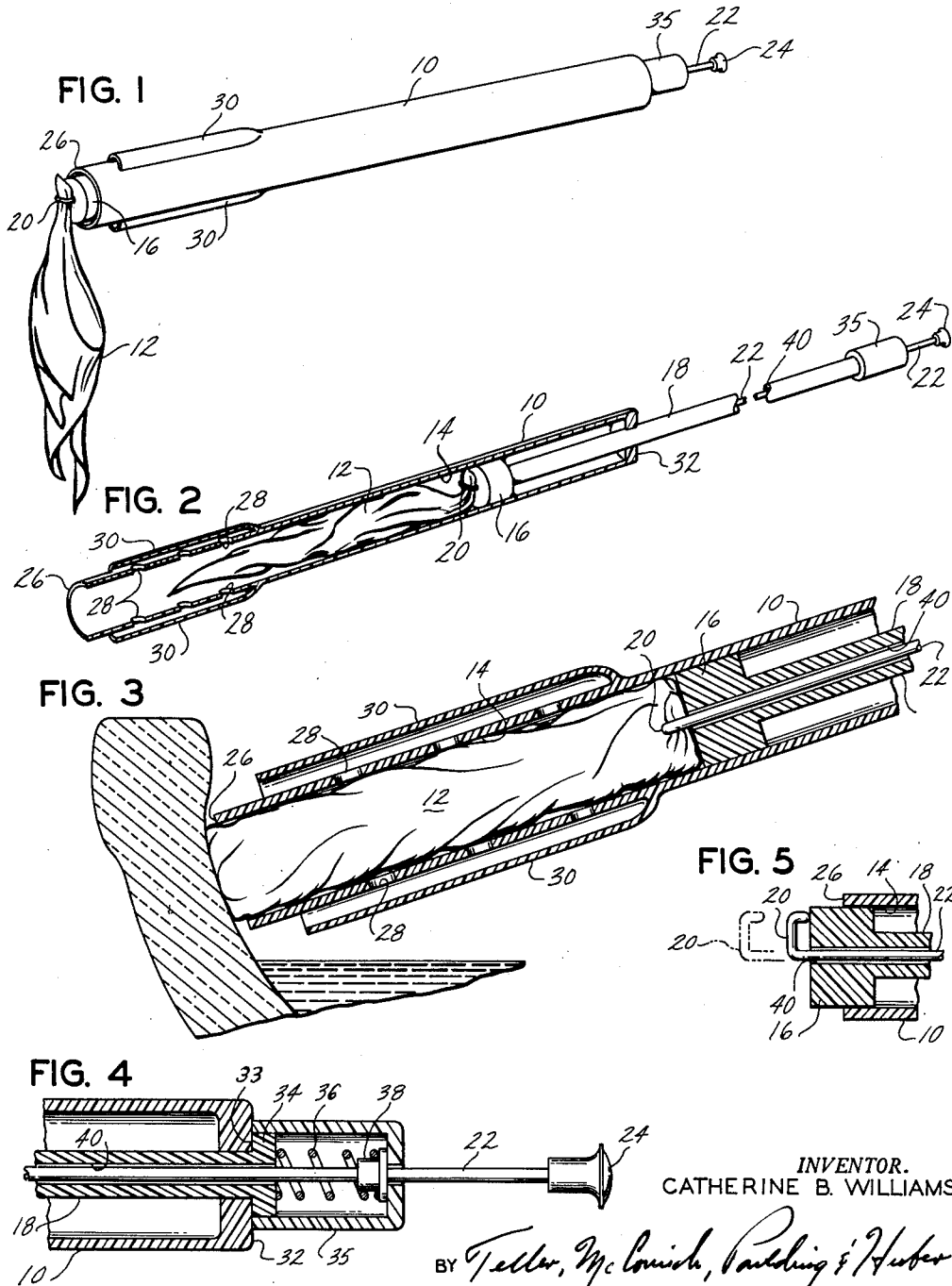


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DIAPER RINSING DEVICE

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**DIAPER RINSING DEVICE**  
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This invention relates to diaper rinsing devices, and, more particularly, to a diaper rinsing device for use in a water closet bowl.

It is well known that a water closet bowl provides a convenient receptacle for rinsing soiled diapers. It is also well known that there is a need for a convenient means for rinsing a diaper in a water closet bowl without having to manually handle the soiled diaper.

The principal object of the present invention is to provide a device for retrieving a soiled diaper from a water closet bowl, which device is adapted for manual manipulation without the user's hand touching the diaper, for removal of excess water therefrom, and for deposit of the diaper in a diaper pail or the like.

Another object is to provide a device for positively compressing a rinsed diaper in order to remove substantially all of the excess water therefrom.

The drawing shows a preferred embodiment of the invention and such embodiment will be described, but it will be understood that various changes may be made from the construction disclosed, and that the drawing and description are not to be construed as defining or limiting the scope of the invention, the claims forming a part of this specification being relied upon for that purpose.

In the drawing:

FIG. 1 is a perspective view of a diaper rinsing device embodying the present invention showing a diaper attached to the lower end thereof.

FIG. 2 is a sectional perspective view of the device shown in FIG. 1, the diaper being shown withdrawn into the device.

FIG. 3 is an enlarged side view of a lower end portion of the device, partly in section, showing the diaper being compressed against the inside of a water closet bowl.

FIG. 4 is an enlarged side view, partly in section, of an upper end portion of the device.

FIG. 5 is an enlarged side view, partly in section, of a lower end portion of the device, the broken lines indicating the relative position of a hook member when a diaper is to be released.

Referring to the drawing, the diaper rinsing device illustrated comprises a hollow elongated member 10 which is shown as being tubular and which is adapted to receive a diaper 12 within its cylindrical bore 14. A plunger head section 16, slidably received in the bore 14, is movable longitudinally therewithin by means of a plunger body section 18 which is attached thereto and which extends through the upper end of the tubular member 10. Also comprising a part of the device is a diaper gripping hook or hook member 20 adapted to clamp a diaper against the lower end surface of the head 16. The hook or hook member 20 is also operable from the upper end of the device by means of a knob 24 attached to a rod member 22, the said rod being integral with the hook 20 in the embodiment illustrated.

The tube 10 is open at its lower end portion 26 so as to receive the diaper 12 as shown in FIG. 2. The upper end portion of the tube is partly closed by a cap 32, which cap has an opening therein adapted to slidably receive the plunger body section 18. Said body section, which projects through the upper end of the tube provides a manually operable actuating means for moving the head

section and hence the diaper gripping hook 20, longitudinally in one and an opposite direction within the tube.

It will be apparent that the hook or hook member 20 and the lower surface of the head section 16 may be regarded as a diaper gripping means. As shown in FIGS. 1 and 5, the said diaper gripping means is movable to a position adjacent and at least partially beneath said open lower end portion 26 of the tubular member 10. A stop for limiting downward longitudinal movement of the diaper gripping means is achieved by contact between downwardly facing shoulder 33 on a collar 34 at an upper end portion of the body section 18 and the upper face of said cap 32 as shown in FIG. 4. In this position, as shown in FIG. 1, the device is well suited to retrieving a soiled diaper from the water closet bowl, and agitating it in the bowl water in a rinsing action.

In order to retrieve a soiled diaper from the bowl so that it can be rinsed the hook member 20 is moved relative to the plunger head section 16 by the rod member 22, which is illustrated as made integrally with the hook but which may obviously form a separate attached part without departing from the scope of the invention. As shown in FIGS. 3, 4 and 5 the rod 22 extends upwardly from the hook 20 through a longitudinally extending opening 40 in the head section 16 and in the body section 18 so as to project upwardly therefrom for manual manipulation thereabove.

As best shown in FIG. 4 the rod 22, and therefore the hook 20, are biased to the diaper clamping position by means of the spring 36, which acts between the collar 34 at the upper end of the plunger body section 18 and the rod 22. The spring acts on said rod by means of a flanged collar 38, which collar is fixedly attached to the rod as shown. Depressing the knob 24 so as to override the bias of the spring moves the hook 20 away from the lower end surface of the plunger head section 16 as shown by the broken lines in FIG. 5. When the hook is so held the device is ideally suited to retrieving a soiled diaper from the bowl. On release of the knob 24, the spring moves the hook upwardly toward the lower end surface of the head section 16 whereby to clamp and securely hold the diaper for agitating and rinsing the same.

In accordance with the presently preferred embodiment the diameter of the open lower end portion 26 of the tube 10 as well as the internal diameter of the internal bore 14 are so chosen that a diaper 12 drawn into the tube is subjected to some squeezing action, thereby removing at least a portion of the excess water from the rinsed diaper. Actuating means for drawing the diaper into the tube 10 comprises a small spring housing 35 attached to the upper end of the body section 18. By pulling upwardly on the housing 35 with one hand while restraining the upper end of the tube 10 with the other, the diaper will be drawn into the tube as shown in FIG. 2. The excess water squeezed from the diaper may be drained into the water closet bowl by holding the upper end of the tube 10 so that its open lower end 26 remains over the bowl. In order to facilitate the removal of such excess water drain holes 28, 28 are provided adjacent the lower end portion of the tube as shown in FIGS. 2 and 3. Preferably the holes 28, 28 are provided with spray guards 30, 30 as shown to direct the spraying water downwardly into the bowl.

After the diaper has been withdrawn into the tube as shown in FIG. 2, the lower end portion 26 of the tube may be placed inside the bowl just above the water lever as shown in FIG. 3. While so held the housing 35 may be pushed downwardly and the diaper compressed against the inside surface of the bowl by the plunger head section 16. Thus, the head 16 and the body section 18,

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which is shown as integral with the head in FIGS. 3 and 5, comprise a manually operable plunger means accessible at the upper end of the device for removing substantially all of the excess water from the rinsed diaper. The drain holes 28, 28 and associated spray guards 30, 30 combine to restrain the discharged water to the confines of the bowl as previously described with reference to the squeezing action achieved by withdrawing the diaper into the tube.

Finally, the rinsed diaper, relatively dry from the squeezing action and the compressing process just described, may be returned to the FIG. 1 position where it is held only by the gripping means comprising of the hook 20 and the lower surface of the head section 16. When so held the diaper may be conveniently conveyed to a diaper pail or other receptacle to await a more thorough washing. Depression of the knob 24 and rod 22 will cause the hook 20 to relieve clamping pressure against the diaper and head section to release the diaper.

The invention claimed is:

1. A diaper rinsing device for use in a water closet bowl and comprising a hollow elongated member having upper and lower end portions the latter of which is open, a diaper gripping means movable longitudinally in one and an opposite direction within said elongated member and to a position adjacent and at least partially beneath said open lower end portion thereof, said diaper gripping means being movable in said opposite direction so as to receive said diaper in said hollow member and actuating means disposed adjacent said upper end portion of said member and connected to said gripping means for selectively causing said gripping means to grasp and release a diaper and for moving the same longitudinally in said opposite direction whereby the diaper is subjected to a squeezing action by said hollow member.

2. A diaper rinsing device as set forth in claim 1 wherein said hollow elongated member is provided adjacent its said lower end portion with at least one laterally open drain hole.

3. A diaper rinsing device for use in a water closet bowl and comprising an elongated tubular member having upper and lower end portions the latter of which is open, plunger means slidable within said member and comprising a lower head section adapted to compress a diaper and an upwardly extending body section, said body section projecting through the upper end portion of said tubular member to provide a means for slidably operating the head section of said plunger means, diaper gripping means adjacent said plunger head section for releasably holding a diaper, and actuating means for said gripping means accessible and manually operable at an upper end portion of the device.

4. A diaper rinsing device as set forth in claim 3 wherein said tubular member has a plurality of generally radially open drain holes adjacent its said lower end portion.

5. A diaper rinsing device for use in a water closet bowl and comprising an elongated tubular member having upper and lower end portions the latter of which is open, plunger means slidable within said member and comprising a lower head section adapted to compress a diaper and an upwardly extending body section, said body section projecting through the upper end portion of said tubular member to provide a means for slidably operating the head section of said plunger means, diaper gripping means adjacent said plunger head section for re-

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leasably holding a diaper, actuating means for said gripping means accessible and manually operable at an upper end portion of the device, and said diaper gripping means including a hook member movable toward and away from the lower surface of said plunger head section under the control of said actuating means.

6. A diaper rinsing device as set forth in claim 5 wherein said actuating means includes a biasing means urging said hook member toward said lower surface of said plunger head section, and wherein said actuating means also includes a manually movable member for urging said hook member away from said plunger head section.

7. A diaper rinsing device for use in a water closet bowl and comprising an elongated tubular member having upper and lower end portions, said member being open at the bottom and being provided with a plurality of radially open drain holes adjacent its said lower end portion, plunger means comprising a lower head section slidable in said tubular member and having a longitudinally extending opening and also comprising a body section extending upwardly from said head section and projecting through said upper end portion of said tubular member, a hook member disposed beneath said plunger head section and movable toward and away from the lower surface thereof to grasp and release a diaper, an elongated manually movable rod member connected with said hook member and slidably received in said longitudinally extending opening in said plunger head section, said rod member projecting upwardly from said head section through said upper end portion of said tubular member for manual manipulation thereabove, and spring biasing means connected between said plunger means and said rod member so as to bias said hook member toward said lower surface of said plunger head section.

8. A diaper rinsing device as set forth in claim 7 wherein said body section of said plunger means comprises a second and smaller tubular member which extends longitudinally in said first tubular member and which slidably receives said rod member.

9. A diaper rinsing device as set forth in claim 8 wherein an upper portion of said body section of said plunger means above said first tubular member comprises a small spring housing, and wherein said spring biasing means is disposed within said housing and connected between the housing and said rod member.

10. A diaper rinsing device as set forth in claim 9 wherein said spring housing includes a shoulder engageable with an upper portion of said first tubular member to limit downward movement of said plunger means with said plunger head section approximately at said open lower end portion of said first tubular member and with said hook member projecting through said opening at said lower end portion of the member.

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