Oct. 8, 1957 F. R. ZUM BRUNNEN 2,808,716

DIAPER WRINGER

Filed Jan. 27, 1955

Fig. 2

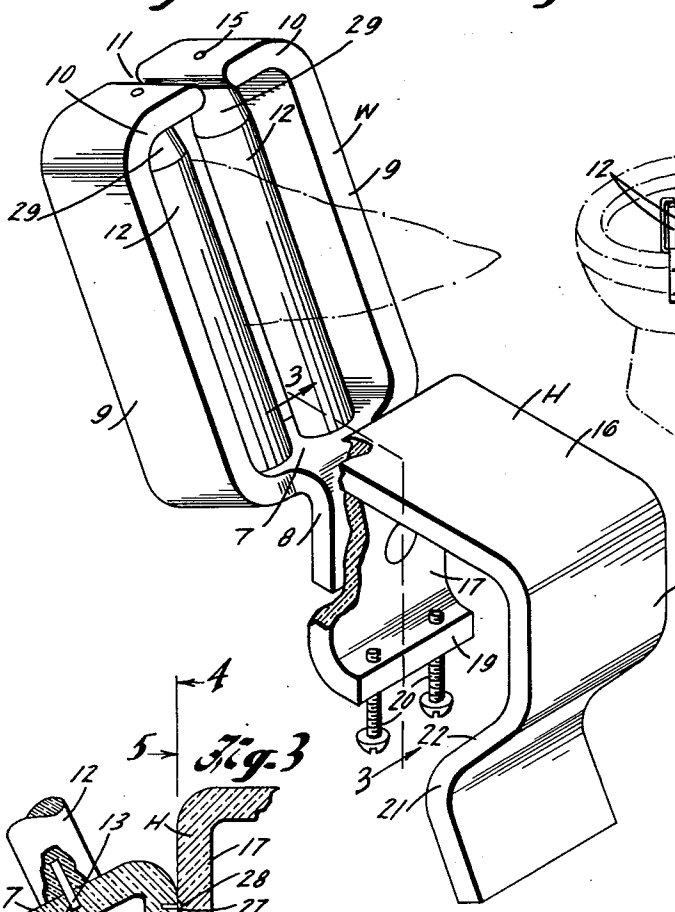


Fig. 1

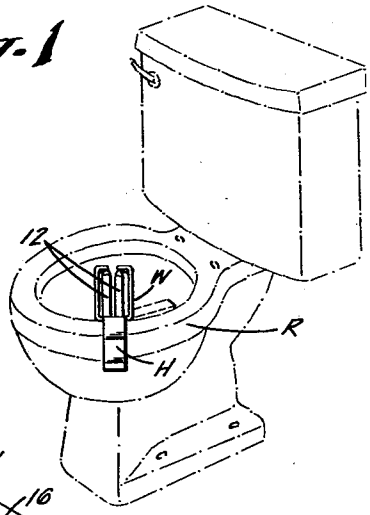


Fig. 6

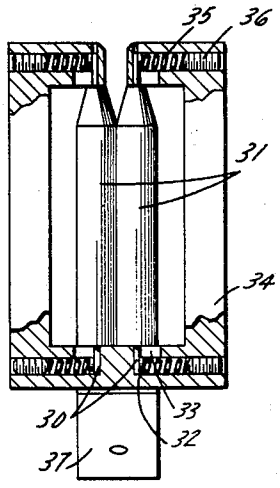


Fig. 3

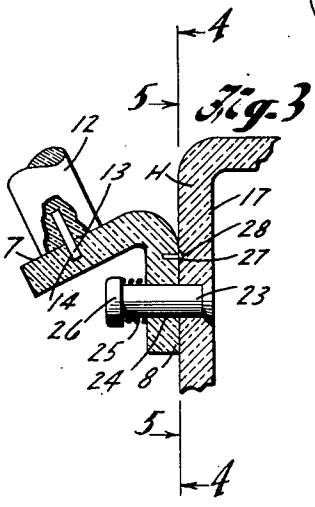


Fig. 5

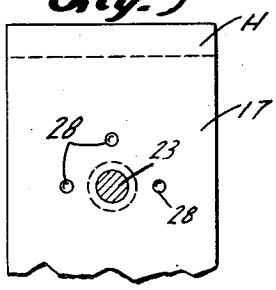
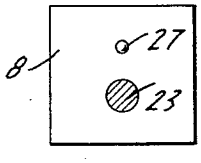


Fig. 4



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DIAPER WRINGER

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4 Claims. (Cl. 68—273)

The invention relates to wringers and more particularly to a diaper wringer.

In the washing of soiled diapers it is common practice to use the toilet bowl as a wash basin, and after removing the soil, lift the cleaned diapers out of the bowl for rinsing. In removing a cleaned diaper from the bowl for rinsing there is always the chance of spattering water over the toilet floor, and this is objectionable. The main object of the invention is to provide a diaper wringer adapted to be mounted on the rim of a toilet bowl so that it may be raised up to an operating position above the bowl to permit the wringing of a diaper as it is taken out of the bowl and adapted, when not in use, to swing or fold down along inside of the rim of the bowl in a position where it will not interfere with the normal use of the toilet.

A further object of the invention is to provide a novel form of wringer mechanism in which the wringer rolls are mounted on yieldable supporting arms which as they are spread apart by the diaper being pulled through the rolls will exert a wringing pressure on said rolls.

A further object of the invention is to provide a diaper wringer having cooperating wringer rolls with a supporting frame for said rolls, open at the top, so that the diaper may be introduced between the rolls from the top and drawn through the rolls with one hand by a two finger grip on the diaper, the rolls preferably being conically tapered at their top to facilitate the wringing operation.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a front elevation view of a wringer embodying the invention showing it in operative position on a toilet bowl;

Fig. 2 is a perspective view of the device, parts being broken away and parts being shown in section;

Fig. 3 is a detailed vertical sectional view through the device, the section for the most part being taken through the central portion of the hanger substantially on the line 3—3 of Fig. 2, parts being broken away;

Fig. 4 is a detailed vertical sectional view of a portion of the wringer base mounting with parts omitted and looking along the arrows 4—4 of Fig. 3;

Fig. 5 is a vertical sectional view looking along the arrows 5—5 of Fig. 3;

Fig. 6 is a front elevation view of a modified form of wringer, parts being broken away and parts being shown in section.

The preferred form of wringer is shown in Figs. 1 to 5 and includes a wringing device W and a hanger or support H for mounting the device on the rim R of a toilet bowl.

The wringing device W includes a frame having a base portion 7 provided with a depending foot or lug 8 which extends at an acute angle relative to the base 7. Arms 9 extend upwardly from opposite ends of the base portion

7 and then inwardly to form upper arms 10 that are spaced apart to form an opening 11 therebetween. Thus the frame provides a pair of oppositely disposed U-shaped portions and a wringer roll 12 is mounted to rotate in each of these portions by means of pins 13 mounted in the ends of each roll. One of the pins 13 for each roll is inserted in a hole 14 in the base portion 7 and the other pin is mounted in a hole 15 in the associated arm 10. The frame is preferably formed of a yieldable or resilient plastic such as "Plexiglas" so that the rolls 12 may be sprung into place and so that when the material to be wrung is drawn through the rolls tending to spread them apart, a yielding pressure will be exerted on the rolls by the frame. The frame could be formed of suitably fabricated stainless strip steel, if desired.

The hanger or attaching bracket H is a channel member having a web or top 16, a front end flange 17, and a rear end flange 18. The front end flange 17 has an inturned bottom flange 19 provided with spaced threaded holes to receive clamping screws 20. The rear end flange 18 has a V-shaped lower end tongue portion 21 that at its upper end 22 inclines inwardly from the upper part of said flange. The bracket H is adapted to be hooked over the rim R of the toilet bowl with the flange 17 engaging under the rim portion inside the bowl, the screws 20 permitting a clamping engagement of the bracket with different size rims and the rear side 18 with its tongue portion, adapted to be snapped over the larger portion of the rim, and permitting the engaging of the outer side of bowl rims of different sizes. The bracket is preferably formed of a yieldable resilient plastic such as cast acrylic resin (methyl methacrylate) thermoplastic sheet material or may be formed of stainless strip steel.

The wringing device has its base lug 8 pivotally mounted on a pin 23 anchored in the bracket H and extending through a hole 24 in said lug 8. The lug 8 is preferably yieldingly pressed against the end flange 17 by a spring 25 interposed between it and a nut 26 on the end of said pin. For retaining the device in one of its two positions a pin 27 is inset in the lug, or if of metal, a portion of the metal is bumped out to provide a projection. The projection or the head of the pin 27 is adapted to engage in one or the other of locking recesses 28 in the end flange 17 to hold the wringer either in its upper operative position or in its inoperative position down along side the inner side of the rim of the bowl as indicated in broken lines in Fig. 1.

The upper ends 29 of the rolls 12 are preferably tapered inwardly from the main diameter of the rolls so a diaper, indicated in broken lines in Fig. 2, may be inserted through the opening 11 and between the tapered portions of the rolls and then drawn downwardly and forwardly to wring the water therefrom. In this connection the operator may remove the washed diaper from the bowl by gripping one end of the same with the thumb and index finger of one hand and raise the diaper to the wringer, and with these fingers start and pull the diaper through the yieldingly mounted wringer rolls to remove the water therefrom. After the wringing operation, the wringing device is swung down to its inoperative position, the acute angle formed between the wringer base 7 and lug 8 being such that the wringer device will then be disposed close to one side of the inner rim portion of the bowl.

Instead of using the arms of the roll supporting frame as a source of yieldable pressure in Fig. 6, I show the pivot pins 30 for the rolls 31 as engaged at one side by blocks 32 mounted in slots 33 in the relatively rigid frame 34 and yieldably urged against the pins by springs 35 backed by adjustable screws 36, the frame 34 having a lug 37 similar to the lug 8 for attachment to a hanger bracket of the form shown in Fig. 2.

The rolls **12** or **31** may be of solid plastic, metal, wood, rubber, or other suitable material.

It is to be noted that the device above described may remain on the rim of the toilet bowl without interfering with its normal operation since it and its hanger bracket are disposed below the seat for said bowl.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claims.

What I claim as my invention is:

1. In a diaper wringer, the combination of a one piece wringer frame formed to provide a mounting base and a pair of U-shaped roll supporting arms on opposite sides thereof, the arms having first leg portions at the upper sides of said frame spaced apart, and the arms having second leg portions at the lower sides of said frame joined together and to said mounting base; a wringer roll mounted at its ends in each of said arms, said rolls having their upper ends disposed adjacent the space between the first leg portions at the upper sides of said frame, said frame being of yieldable material to permit the spreading apart of said rolls during the wringing operation under a yielding pressure, and means pivotally connected to said mounting base for mounting said frame on the rim of a toilet bowl in a vertically disposed position with the spaced apart upper side of said frame uppermost.

2. In a diaper wringer for use on toilet stool bowls, the combination of a U-shaped frame having legs with inturned spaced upper ends extending from a transverse portion to define a pair of oppositely disposed roll supporting arms, and having a foot depending from the front side of said transverse portion at an acute angle thereto, a wringer roll mounted at its ends in each pair of said arms, said rolls having their upper ends disposed adjacent the space between the arms at the inturned ends of said legs, said frame being of yieldable material to permit the spreading apart of said rolls during the wringing operation under a yielding pressure, and a clamp engageable over the rim of the bowl and having an inner side pivotally connected with said depending foot to support said frame in an operative position in which the rolls are above and incline inwardly from the rim of the bowl, or in an inoperative position in which said frame is disposed alongside said rim and within the bowl.

3. In a toilet bowl diaper wringer, the combination of a bracket adapted to be secured to the rim of a toilet bowl and having a part positionable at the inner side of said bowl, a wringer frame having a base portion, a single pivotal mounting securing one end of said frame to said part of said bracket inside of said rim for lengthwise lateral swinging movement of said frame transverse to said bracket part to an inoperative position alongside said rim within the bowl, and to a vertically disposed operative position projecting above the bowl, and a pair of wringer rolls mounted in said frame for yielding movement and extending lengthwise thereof, said frame having an opening at its end opposite to that of its pivotal mounting, said frame in its upper position disposing said rolls above and inwardly of the rim of the bowl with the opening therein uppermost.

4. In a diaper wringer, the combination of a wringer frame having a pair of roll supporting arms defining the opposite sides thereof, and a base portion to which one end of each arm is rigidly connected, said frame having a lug disposed at an acute angle to said base portion, a hanger bracket adapted to engage over the rim of a toilet bowl, and a pivotal connection between said angularly disposed lug and the inner side of said bracket permitting said frame to extend upwardly and inwardly of the rim of the bowl when in an operative position and be swung laterally transversely of said bracket down into the bowl and alongside the rim thereof to an inoperative position.

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