

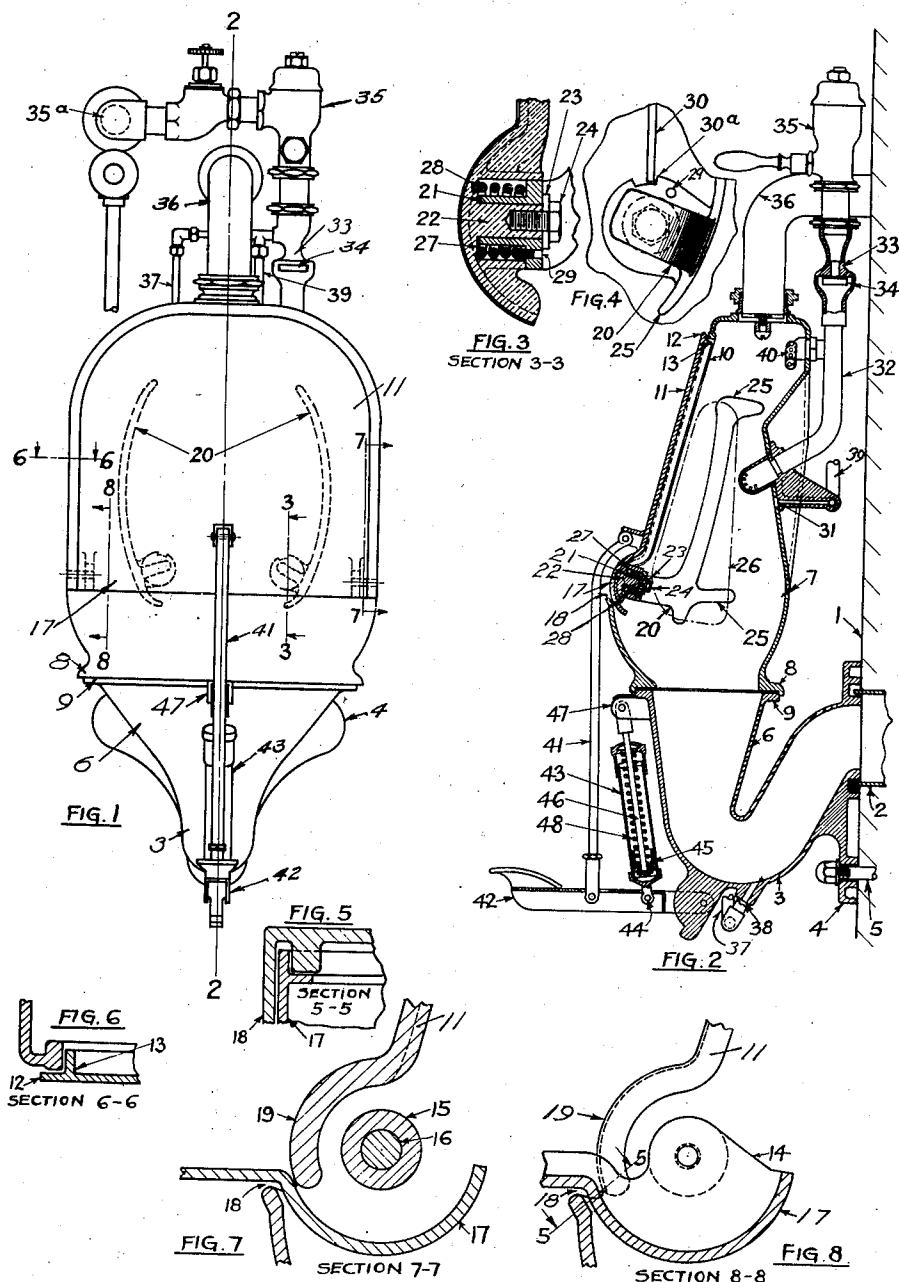
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R. L. JEWELL

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BEDPAN WASHER

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Raymond Jewell
INVENTOR.

BY *W. Z. Lenz*
ATTORNEYS.

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BEDPAN WASHER

Raymond L. Jewell, Millcreek Township, Erie County, Pa., assignor to American Sterilizer Company, Erie, Pa., a corporation of Pennsylvania

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5 Claims. (Cl. 220—32)

In bed pan washers which are arranged along a wall side difficulty has been experienced in effecting the washing with a simple door closure without having some leakage past the door which is very objectionable. The present invention is designed to improve the door structure so that in a simple and efficient manner it prevents any loss of water and is tight enough to prevent the escape of any objectionable odors. Features and details of the invention will appear from the specification and the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing as follows:—

Fig. 1 shows a front elevation of the washer.

Fig. 2 a section on the line 2—2 in Fig. 1.

Fig. 3 a sectional view on the line 3—3 in Fig. 1 of the hinge connection of the bed pan supporting arm.

Fig. 4 an elevation of said connection.

Fig. 5 a section on the line 5—5 in Fig. 8.

Fig. 6 a section on the line 6—6 in Fig. 1.

Fig. 7 a section on the line 7—7 in Fig. 1.

Fig. 8 a section on the line 8—8 in Fig. 1.

1 marks the wall construction, 2 a sewer connection leading to the surface of the wall, and 3 a trap connected with the sewer, the trap having a flange 4 and being connected to the wall by bolts 5. The intake end of the trap is in the form of a hopper 6 and a bed pan washing chamber 7 is provided with flanges 8 which are secured on a seat 9 at the upper edge of the hopper 6.

The chamber 7 has a door opening 10 and a door 11 is arranged to close this opening. The edges of the door have an overlapping portion 12 which overlaps the outside wall of the chamber at the edges of the door opening. Immediately inside of this overlapping portion a rib 13 follows around the edge of the door opening and makes a substantial closure and prevents a jet entering directly between the overlapping portion 10 and the wall face. The door has a hinge ear 14 which has an opening 15 receiving the door pintle 16. The axis of this hinge is horizontal and the hinge is arranged near the bottom of the door opening. The bottom part of the door wall is curved at 17 with the hinge axis as a center and overlaps the inside of the wall of the chamber along the bottom edge 18 of the door opening. As the door is swung from open to shut position, therefore, this wall surface 17 maintains its position in close relation to the edge 18. The sides of the door opening at the bottom are also curved at 19 on the axis of the hinge as a center so that the inner part of the wall 17 follows along this curved por-

tion and maintains that closure along the sides of the door opening. It will readily be seen, therefore, that with this simple arrangement any water operating as a jet will not be lost through the door opening.

The door has the supporting fingers 20. These fingers are provided with hinge sleeves 21 which are journaled on projections 22 arranged on the inner face of the door. A plate 23 extends over the outer end of the sleeve portion and a screw 24 secures the plate and consequently secures the arm on the door. The arm has projections 25 which receive a pan 26 as the arms are swung open in placing the pan in position thereon. A spring socket 27 is arranged in the door under the sleeve 21 and a spring 28 is anchored at the bottom of the socket, the free end of a spring engaging the arm through a hole 29 and thus yieldingly urging the arms on the door together. A stop 30 on the door extending into a notch 30a on arm limits the arm movement. A jet 31 enters the chamber 7 in position to flush the pan held in an upright position. This is supplied from a pipe 32. A jet 33 delivers water to the pipe 32 and a vent 34 is arranged below the jet. A timing valve 35 controls the flow of water to the chamber. The jet passing the vent 34 picks up some air so that the jet at 31 is broken by this air and is delivered in the form of a succession of slugs, or drops, the cleansing effect of which is more effective than a solid jet. The vent 34 prevents a return pull of liquid from the chamber 7 in case a vacuum is created in the water supply pipe 35a.

A vent 36 leads from the chamber to a connection, not shown, in the wall.

A pipe 37 leads from above the jet 33 and provides a jet 38 to the trap 3 and effects a siphoning action on the trap 3. The pipe 39 leads from pipe 37 to an auxiliary spray 40 which sprays the exterior of the bed pan and washes the inside walls of the chamber. A link 41 is secured to the door and to a foot pedal 42 so that by operating the foot pedal the door may be opened. A cylinder 43 is connected at 44 with said pedal. A plunger 45 is arranged in the cylinder and a plunger rod 46 is secured to an ear 47 extending from the hopper 6. A spring 48 is arranged in the cylinder around the rod 46 and tends to draw the cylinder on to the rod and consequently lift the pedal and close the door. The plunger 45 is arranged as a dash pot and prevents the too rapid opening, or closing, of the door.

What I claim as new is:—

1. A liquid receiving receptacle comprising a

chamber having a door opening; and a door hinged at its bottom and at the bottom of the opening, the pivot of the hinge being in the direction of the hinged edge of the door, the bottom of the door overlapping and being immediately adjacent to the inside surface of the wall of the chamber at the bottom of the door opening whereby the chamber is substantially sealed against liquid leakage delivered from a position opposite the door.

2. A liquid receiving receptacle comprising a chamber having a door opening; and a door hinged at its bottom and at the bottom of the opening, the hinge being in the direction of the hinged edge of the door, the bottom of the door overlapping the inside of the wall of the chamber at the bottom of the door opening, the door wall being curved along the bottom on the hinge axis as a center to maintain a closure in the overlapping portion of the door as it is opened whereby the chamber is substantially sealed against liquid leakage delivered from a position opposite the door.

3. A liquid receiving receptacle comprising a chamber having a door opening; and a door hinged at its bottom and at the bottom of the door opening, the hinge being in the direction of the hinged edge of the door, the sides of the door overlapping the outside surface wall of the chamber at the sides of the door opening and overlapping and being immediately adjacent to the inside surface of the wall of the chamber at the bottom of the opening whereby the chamber is

substantially sealed against liquid leakage delivered from a position opposite the door.

4. A liquid receiving receptacle comprising a chamber having a door opening; and a door hinged at its bottom and at the bottom of the door opening, the hinge being in the direction of the hinged edge of the door, the sides of the door overlapping the outside wall of the chamber at the sides of the door opening and overlapping the inside wall of the chamber at the bottom of the opening, the door wall being curved along the bottom on the hinge axis as a center to maintain a closure in the overlapped portion whereby the chamber is substantially sealed against liquid leakage delivered from a position opposite the door.

5. A liquid receiving receptacle comprising a chamber having a door opening; and a door hinged at its bottom and at the bottom of the opening with the axis in the direction of the hinged edge, the sides of the door overlapping the outside wall of the chamber at the sides of the opening and provided with a rib extending inwardly from the door along the edge of the opening, the bottom of the door overlapping the inside wall of the chamber at the bottom of the opening, the overlapping portion of the wall being curved with the hinge axis as a center to maintain closure in the overlapped portion whereby the chamber is substantially sealed against liquid leakage delivered from a position opposite the door.

RAYMOND L. JEWELL.