Dec. 6, 1949 L. S. DENISON 2,490,422

PLUMBING CLEANOUT ATTACHMENT

Filed July 2, 1946

FIG_1_

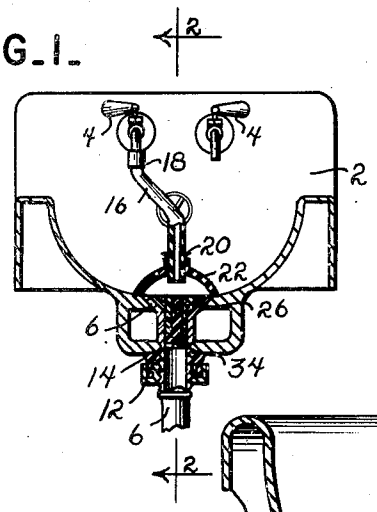


FIG_3_

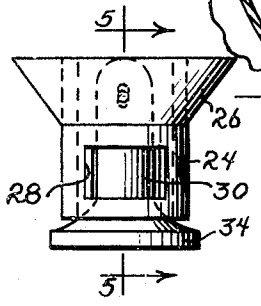


FIG_4_

FIG_6_

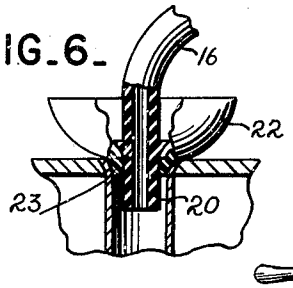


FIG_2_

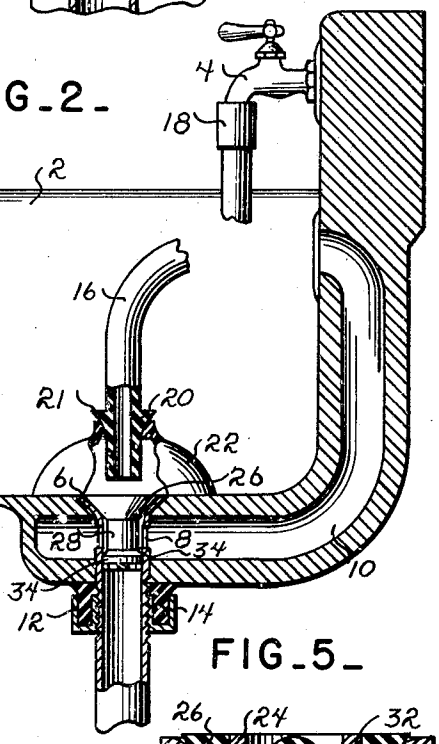


FIG_5_

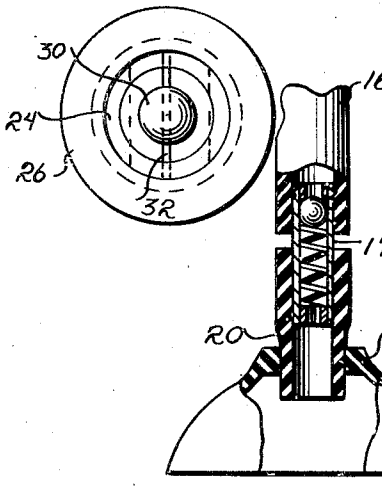
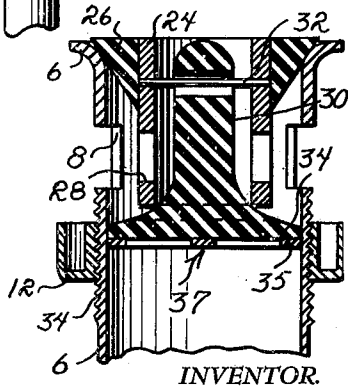


FIG_7_



INVENTOR.

LOUIS S. DENISON

BY Victor J. Evans & Co.

ATTORNEYS

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PLUMBING CLEANOUT ATTACHMENT

Louis S. Denison, Los Angeles, Calif.

Application July 2, 1946, Serial No. 681,089

1 Claim. (Cl. 4—256)

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My present invention relates to an improved pressure cleanout appliance for plumbing and more particularly to a device operable by pressure of water from the conventional faucet for cleaning out the basin or tub drain and also the overflow pipe therefor.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention according to the best mode I have thus far devised but it will be understood that various changes and alterations may be made in the exemplified structure within the scope of the appended claim.

In the drawings—

Figure 1 is a vertical transverse sectional view of a wash basin showing the application of the cleanout attachment of my invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a detail view in side elevation of the valve of my appliance.

Figure 4 is a top plan view thereof.

Figure 5 is a sectional view of the valve taken on line 5—5 of Figure 3, the valve being located in a wash basin drain pipe also being shown in section.

Figure 6 is a sectional view showing the cap of the appliance used as an adapter; and

Figure 7 is a detail sectional view showing the hose of the appliance equipped with a check valve.

Referring now to the drawings I have illustrated a conventional basin as 2, it being understood that my invention may with facility be employed in tubs or other usual plumbing equipment, and on this basis I have shown the faucets 4 and the outlet drain 6, with the drain pipe ported as at 8 for communication with the overflow pipe 10 of the basin. The drain pipe is secured by the normal collar 12 having packing 14 therebetween.

In carrying out my invention I employ a hose as 16 having a nipple 18 for engagement with a faucet while the lower free end of the hose is formed with a tapered plug 20 for insertion into the basin outlet whereupon the pressure of water from the open faucet will force away any matter clogging the outlet drain pipe.

However it often happens that the overflow of the basin or tub becomes clogged and the aforementioned equipment will not affect a stoppage therein. Therefore I have provided a hemispherical cap mountable on the tapered plug 20 and indicated as 22 which cap is designed to cover the outlet of the basin and to maintain the plug out of contact therewith as seen in the drawings.

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A valve is inserted into the drain pipe and this valve consists of a tube 24 having at its upper end a beveled resilient washer 26, and the tube 24 is formed with ports 28 adapted to be aligned with the ports 8 of the drain communicating with the overflow pipe 10. Within the tube is the valve body 30 comprising a solid cylinder attached to the tube by pin 32 and formed with a lower collar 34 which resiliently and closely engages the inner wall surface of the drain pipe and rests on the annular portion 35 of the guard 37 within the drain pipe, to close the outlet of the bowl. The valve and its parts except for the pin are preferably made of a resilient material such as rubber for flexible insertion and contact with the drain.

Thus as the valve collar 34 is forced down into the drain by pressure on the flange of the tube, the drain pipe is sealed off below the ports 8 and the pressure of water through the hose will flow through the ports 28 and the ports 8 back up into the overflow pipe cleaning out the same.

During the cleaning of the overflow, the cap 22 is manipulated to, in effect, pump the water through the overflow, and it is lifted from time to time to allow the water in the basin to flow into the drain pipe 6. The upward movement of the cap 22 causes, as will be understood, the opening of the valve unit in the drain pipe.

In cleaning a drain having an outlet too large to be closed by the plug 20, the cap 22 is inverted and arranged with its neck 23 in the outlet, and the plug 20 is inserted into the neck, as shown in Figure 6.

If desired the hose 16 may be provided with an upwardly seating check valve 17, as shown in Figure 7. The check valve prevents any back pressure developed in the drain from forcing contaminated water to the faucet to which the hose is connected.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

In a valve for a basin having a drain pipe, an overflow pipe connected to the drain pipe and a guard in the drain pipe below the overflow pipe, the combination comprising a tubular sleeve provided with outlet ports, a frusto-conical annular resilient washer secured to the outer periphery of the tubular sleeve, said washer being adapted to seat in the drain pipe to space the tubular sleeve from the drain pipe and to seal the space between the drain pipe and the tubular sleeve, a resilient valve body fitted within said sleeve and having a transverse slot, a radially expansible collar on said valve body and adapted to abut the drain guard, a pin extending transversely

through said sleeve and valve body slot, said slot being substantially greater than the pin diameter whereby said valve body may reciprocate axially of said sleeve to abut said collar against the guard to block the drain pipe, whereby fluid under pressure entering the drain pipe from the basin is forced through said tubular sleeve causing said collar to abut the guard and to be expanded against the drain pipe sealing the same thereby forcing the fluid to back up through the outlet ports into the overflow pipe.

LOUIS S. DENISON.

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