Feb. 14, 1956 B. J. SIMONAITIS 2,734,369

WASHING MACHINE WATER INLET

Filed Oct. 28, 1953

FIG. 1.

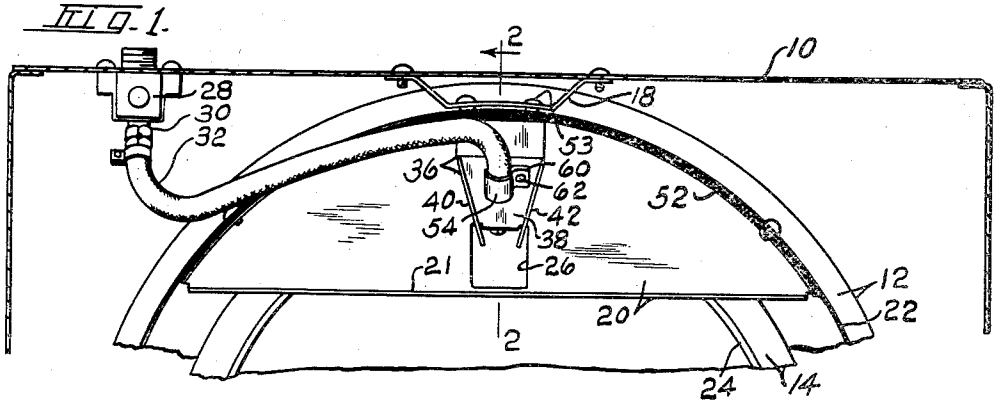


FIG. 2.

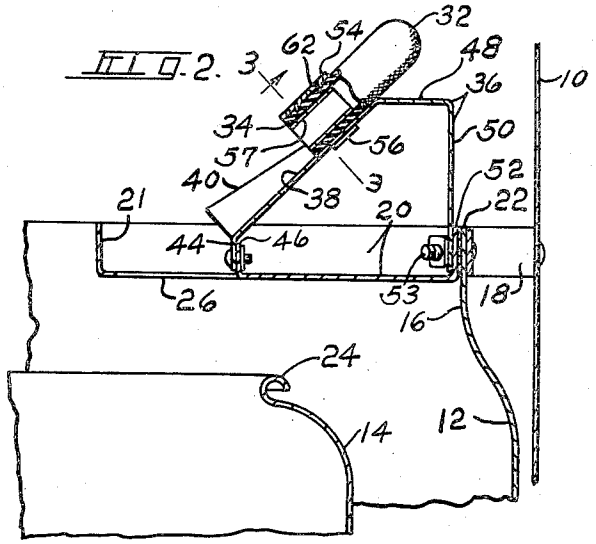


FIG. 3.

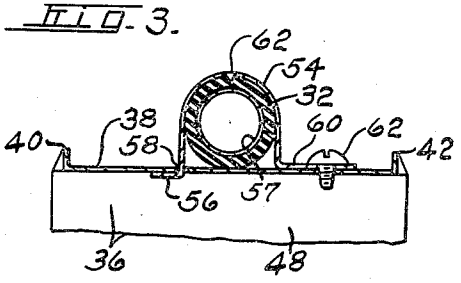
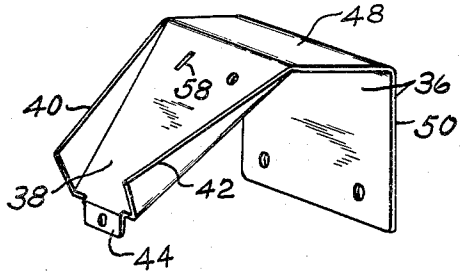


FIG. 4.



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WASHING MACHINE WATER INLET

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3 Claims. (Cl. 68—207)

This invention relates to washing machines, and more particularly to a water inlet therefor having provision for preventing back flow.

The invention is directed to a support and water chute construction for the water inlet of a washing machine, the support being adapted to hold the free end of a flexible conduit in elevated position above the rim of the tub and direct the flow of water therefrom positively into the wash tub, regardless of varying water pressure and flow rates, and without resort to any restrictive nozzle effect, which might otherwise reduce the rate of flow and delay the filling operation.

The above and other novel features of the invention will appear more fully hereinafter from the following detailed description when taken in conjunction with the accompanying drawings. It is expressly understood that the drawings are employed for purposes of illustration only and are not designed as a definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings, wherein like reference characters indicate like parts:

Figure 1 is a fragmentary top plan view, with parts cut away, of the washing machine water supply;

Figure 2 is a vertical section taken substantially on the line 2—2 of Figure 1;

Figure 3 is a somewhat enlarged approximately full-size section, taken on the line 3—3 of Figure 2; and

Figure 4 is a perspective view of the chute.

In the drawings, there is shown a cabinet structure 10, within which is stationarily mounted a tub or splash guard 12, within which is positioned a wash tube 14, the latter being mounted for rotation for centrifugal extraction on a vertical axis, as will be well understood in the art. The tub 12 has an inwardly flared rim 16, which is braced from the cabinet structure by a bracket 18. A segmental shelf-like member 20, upwardly flanged as at 21, is mounted upon the upper rim 22 of the inwardly flared portion 16, such shelf-like member overhanging the rim 24 of the rotary tub 14. Such shelf is provided with an aperture 26, through which a jet of water may pass into the tub 14.

The usual water supply for a washing machine of the type referred to comprises a mixing valve 28, which may be mounted on the casing structure 10, as shown, the mixing valve having an outlet duct 30 to which a flexible hose 32 is attached. In order to direct water into the tub 24 through a free-fall sufficient to prevent back flow, the end 34 of the hose 32 is clamped to the upper end of a chute member 36, which member comprises an inclined sector-shaped chute proper 38, having integral side flanges 40 and 42. The lower end of the chute proper is provided with a tab 44, which may be secured to an upstruck finger 46 formed integral with the deck 20. The chute to the rear is supported by a horizontally disposed, rearwardly extending integral portion 48 having a vertical support 50, which support is secured to the marginal flange 52 of the deck portion, the rim 22 of the

tub 12 and the bracket 18, the four parts being secured by common fastening means 53. The end 34 of the hose is mounted in position at the upper end of the chute and is held, so that the axis of the end thereof extends parallel with the chute proper 38 and toward the aperture 26. If desired, the end of the hose may have a thin metal ferrule projecting thereinto a short distance. The clamp comprises a clamp strip 54, having a lug 56 adapted to project through a slot 58 in the chute, and a fastening flange 60, which is secured to the chute by any suitable fastening means, such as a self-threading screw 62 threaded in the chute 38. The strip may have struck-in teeth 62 to grip the hose. It will be seen that the ferrule supports the tube against collapse without restricting the flow, since the ferrule may expand the internal diameter of the hose slightly for a snug fit.

It will be seen that the foregoing construction is simple, in that it provides a positive means for holding the free end of a flexible tube suitably directed so that discharge therefrom will enter the tub 14, the chute assuring guidance of the stream regardless of water pressure and rate of flow. It will be seen that the support comprises a single member and a quickly attachable clamp strip. The construction holds the end of the hose at an elevation such that the same is at a safe height above the rim of the tub 12, so that back siphoning of water or suds within or above either tub is prevented.

While a single embodiment of the invention has been illustrated and described, it is to be understood that the invention is not limited thereto. As various changes in the construction and arrangement may be made without departing from the spirit of the invention, as will be apparent to those skilled in the art, reference will be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. A vacuum breaker water supply for washing machines comprising an outer stationary tub, an inner tub for containing laundry rotatable on a vertical axis, a segmental deck secured to the rim of the outer tub and overhanging the rim of the inner tub, an aperture in said deck located radially inward with respect to the rim of the inner tub, a radially disposed water chute having side flanges mounted on said deck, and so disposed as to discharge through said aperture and in a radially inward direction and within the rim of the inner tub, an inlet water discharge hose having an end terminating at a point adjacent the upper end of the chute on the top side thereof, a transverse hose clamp secured to said chute near the upper end thereof embracing the end of said water discharge hose and securing said hose end with its axis extending downwardly and parallel with the chute, and centrally thereof, and lying in a radial plane with respect to the axis of the inner tub.

2. A vacuum breaker water supply for washing machines comprising, an outer stationary tub having an upper inwardly flared rim, a casing wall to the rear thereof, an inner tub for containing laundry rotatable on a vertical axis within said stationary tub, a segmental deck secured to the rim having an upwardly extending flange secured to the outer tub rim, said deck overhanging the rim of the inner tub, an aperture in said deck located radially inward with respect to the rim of the inner tub, a radially disposed water chute having side flanges mounted on said deck, and so disposed as to discharge through said aperture and radially inward and within the rim of the inner tub, said chute having a rear support secured to the flange of said deck, an inlet water discharge hose having an end terminating at a point adjacent the upper end of the chute, a hose clamp secured to said chute near the upper end thereof and embracing the end of said water discharge hose, with the hose end axis ex-

tending downwardly and parallel with the chute, and centrally thereof, and lying in a radial plane with respect to the axis of the inner tub, a bracket supporting said rim from said wall, and common means for securing together said bracket, rim deck flange, and support.

3. A vacuum breaker water supply for washing machines comprising an outer stationary tub, an inner tub for containing laundry rotatable on a vertical axis, a segmental deck secured to the rim of the outer tub and overhanging the rim of the inner tub, an aperture in said deck located radially inward with respect to the rim of the inner tub, a radially disposed water chute having side flanges mounted on said deck, and so disposed as to discharge through said aperture and radially inward and within the rim of the inner tub, an inlet water discharge hose having an end terminating at a point adjacent the upper end of the chute, a hose clamp secured to said chute near the upper end thereof and embracing the end of said water discharge hose, with the hose end axis extending downwardly and parallel with the chute, and centrally thereof, and lying in a radial plane with respect to the axis of the inner tub, said clamp having a tongue and lug on one end and a fastening flange at the other, and said chute having a slot to receive said tongue and engage said lug, and means for securing said flange to said chute.

References Cited in the file of this patent

UNITED STATES PATENTS

2,638,112 Shelton ---------- May 12, 1953