

- [54] **WASHING MACHINE OUTLET BOX**
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[56] **References Cited**

UNITED STATES PATENTS

2,469,991	5/1949	Reichenbach.....	285/202
277,427	5/1893	Recht.....	285/382.2
3,096,782	7/1963	Williams.....	137/360
2,291,706	8/1942	Frease.....	285/221
2,643,790	6/1953	Quillinan.....	285/204 X

695,614	3/1902	Lape.....	285/382.2 X
1,998,653	4/1935	Briegel	285/382.2 X
3,068,563	12/1962	Reverman	285/382.2 X
302,110	7/1884	Danziger	4/287
2,698,441	1/1955	Shobe.....	4/287
3,148,698	9/1964	Arnold.....	137/360

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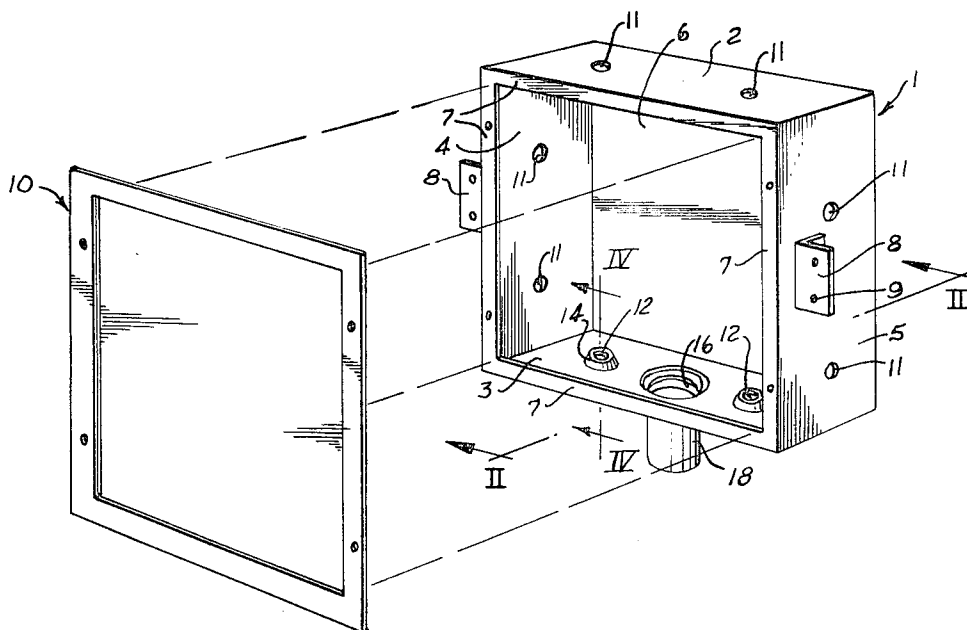
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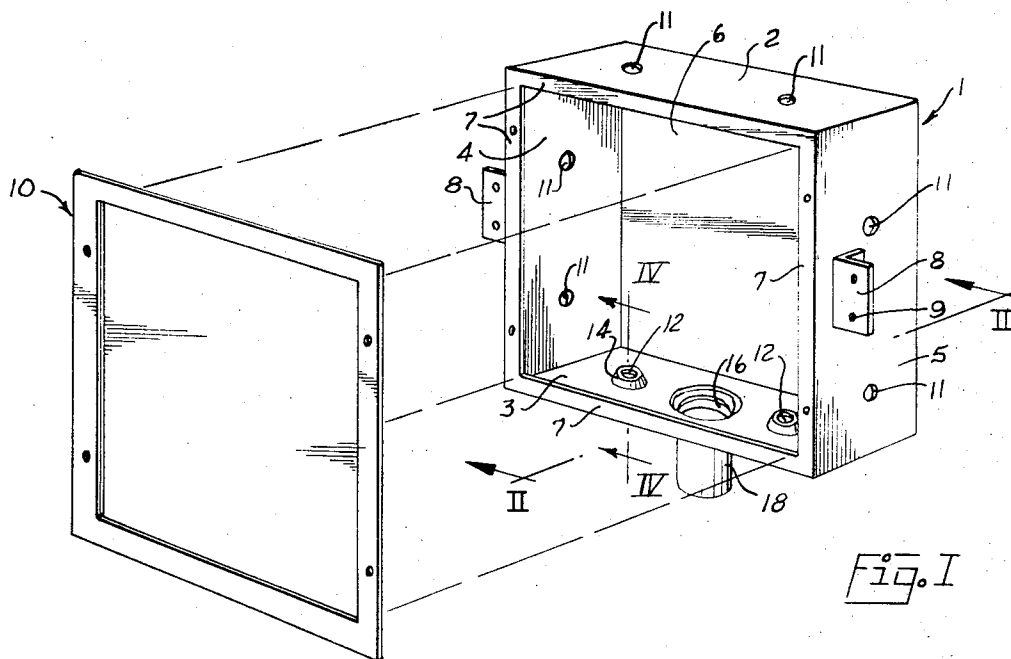
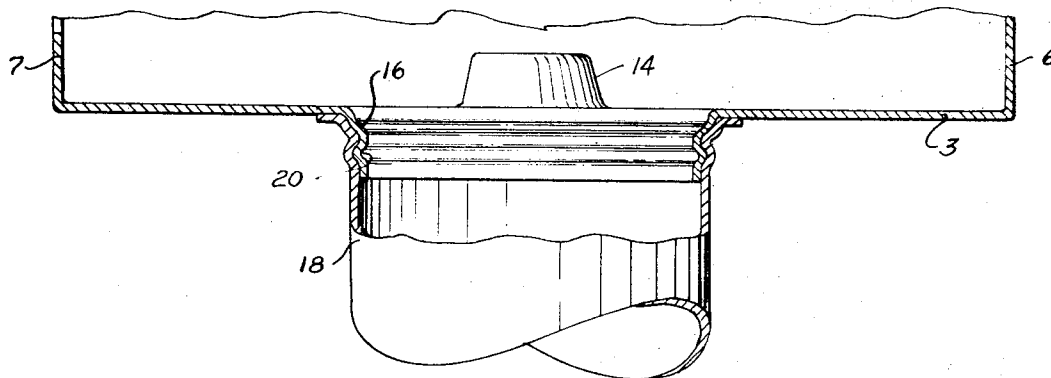
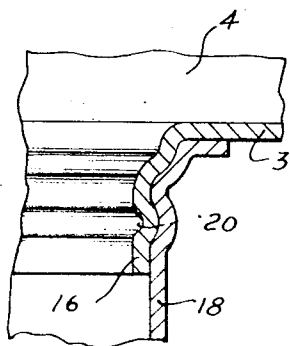
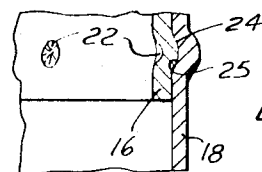
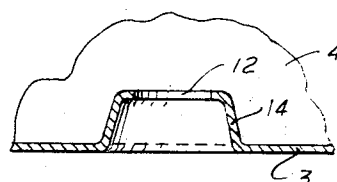
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ABSTRACT

A washing machine outlet box having a waterproof trough formed in the bottom thereof to prevent leakage. The bottom of the box has a downwardly extending neck around a drain opening formed therein and upwardly extending surfaces around openings through which pipes extend. The neck around the drain opening extends downwardly into a drain pipe and the neck and the pipe are dented to lock them together.

2 Claims, 5 Drawing Figures





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WASHING MACHINE OUTLET BOX

BACKGROUND OF INVENTION

Washing machine outlet boxes heretofore developed for use in walls have allowed quick entry to water shut-off faucets by removing an access panel behind which faucets and drain pipes are concealed.

However, such outlet boxes and frames have required substantial welding or braising to form water tight connections between drain pipes and water pipes extending through the box to prevent leakage of water through openings in the box.

SUMMARY OF INVENTION

I have developed a washing machine outlet box having a bottom adapted to channelize water toward a drain pipe in which a water proof connection is formed between the box and the drain pipe without welding or braising the members together.

A downwardly extending neck, around a drain opening in the bottom of the outlet box, is drawn into a drain pipe tailpiece and the neck and the tailpiece are simultaneously indented to mechanically lock the neck and tailpiece together.

Portions of the bottom of the outlet box through which hot and cold water pipes extend are raised and have openings formed therein at an elevation above that of the bottom of the box to prevent flow of water through the openings.

A primary object of the invention is to provide a washing machine outlet box having a leakproof connection between the bottom of the box and the drain pipe which may be formed without welding.

A still further object of the invention is to provide a washing machine outlet box which may be installed in both new and existing installations with minimum labor.

A still further object of the invention is to provide a washing machine outlet box designed to have a life exceeding that of a building which may be inexpensively manufactured.

Other and further objects of the invention will become apparent upon referring to the detailed description hereinafter following and the drawings annexed hereto.

DESCRIPTION OF THE DRAWING

Drawings of two preferred embodiments of the invention are annexed hereto so that the invention may be better and more fully understood, in which:

FIG. I is an exploded perspective view of the washing machine outlet box;

FIG. II is a cross section view taken substantially along line II—II of FIG. I;

FIG. III is an enlarged fragmentary cross sectional view of the connection between the bottom of the outlet box and a drain pipe tailpiece;

FIG. IV is a cross sectional view taken substantially along line IV—IV of FIG. I; and

FIG. V is an enlarged fragmentary cross sectional view similar to FIG. III of a modified form of the invention.

Numerical references are employed to designate like parts throughout the various figures of the drawing.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring to FIG. I of the drawing numeral 1 generally designates a washing machine outlet box of rectangular configuration having a top 2, bottom 3, ends 4 and 5 and a back 6. The box 1 has a front opening with flanges 7 extending therearound.

Suitable means, such as angle members 8, is provided to secure the box 1 to an opening formed in a wall. In the particular embodiment of the invention illustrated in the drawing angle members 8 have screw holes 9 formed therein such that angle members 8 may be positioned behind wall members and connected thereto by screws such that flanges 7 will be disposed substantially flush with the outer surface of the wall.

An access panel 10 may be detachably secured to flanges 7 by suitable means such as screws 11 to form a closure while providing access to faucets inside the box.

The top 2 and sides 4 and 5 of the box 1 preferably have holes or knockout plugs 11 formed therein to allow passage of cold and hot water pipes therethrough whether pipes leading to the box are directed thereto only through the top or through the sides or upwardly through the bottom thereof.

As best illustrated in FIGS. I and IV flange 7 extending upwardly from the bottom 3 of the box forms a waterproof trough. Openings 12 are formed in upwardly deformed portions of the bottom 3 of the box such that upwardly extending surfaces 14 encircle openings 12. It should be noted that openings 12 are disposed at an elevation above that of the bottom 3 of the box to prevent flow of the water from the bottom of the box through openings 12.

As best illustrated in FIGS. II and III of the drawing, the bottom of the box has an opening 15 formed therein about which a downwardly extending neck 16 extends.

The box 1 is preferably constructed of heavy gauge galvanized steel or other corrosion resistant material. The neck 16 extends downwardly into the inside of a drain pipe tailpiece 18, which is preferably a relatively soft easily workable tubular member, such as brass, of a diameter slightly less than that of a drain pipe such that tailpiece 18 may be connected to the box 1 and then inserted into the drain pipe (not shown) at the time of installation thereof.

The connection between the downwardly extending neck 16 and tailpiece 18 is preferably formed by drawing the bottom 3 of the outlet box 1 into the drain tailpiece 18 and simultaneously forming an indentation 20 in the neck 16, extending downwardly from the bottom 3 of the box, and in the upper end of the tailpiece 18.

In the embodiment of the invention illustrated in FIG. III of the drawing, indentation 20 is substantially continuous and extends circumferentially around the neck 16 and tailpiece 18 to provide an interlocking ridge and groove on overlapping surfaces of the tubular neck 16 and tailpiece 18.

In the embodiment of the invention illustrated in FIG. V, indentations 22 comprise a plurality of equidistantly spaced dimples disposed at spaced intervals around the circumference of the neck 16 forming protrusions 24 on the outer surface of the neck and coinciding indentations 25 in the inner surface of the tailpiece 18.

It should be appreciated that since neck 16 extends into tailpiece 18, water in the trough in the bottom of outlet box 1 will flow downwardly and cannot leak through the space between neck 16 and inner wall of tailpiece 18.

It should also be appreciated that indentations 20 form interlocking or interengaging surfaces on the outer surface of neck 16 and the inner surface of tailpiece 18 preventing longitudinal relative motion between neck 16 and tailpiece 18.

From the foregoing it should be readily apparent that I have developed a washing machine outlet box of simple construction having a drain opening formed in the bottom thereof and adapted to be connected expeditiously to a drain pipe. The connection, is leakproof, and does not require time consuming welding as has been heretofore required to form such a connection.

Having described my invention I claim:

1. In a washing machine outlet box, a substantially planar bottom wall having at least one outlet opening and at least one inlet opening extending therethrough; a downwardly projecting neck formed on the bottom wall about the periphery of said outlet opening; an upwardly projecting neck formed on the bottom wall about the periphery of said inlet opening, said inlet

opening being above the elevation of the outlet opening; a tubular member positioned such that the downwardly projecting neck extends into the tubular member; indentations formed in the inner surface of the tubular member; and projections on the outer surface of the downwardly projecting neck, said projections extending into said indentations limiting movement of the tubular member relative to the downwardly projecting neck.

2. In a washing machine outlet box, a bottom; a downwardly deflected portion of the bottom forming a neck having a drain opening extending therethrough, said bottom and said neck being of unitary construction; a tubular member positioned such that the neck extends into the tubular member; an indentation extending circumferentially about the inside of the tubular member intermediate opposite ends thereof; a protrusion extending circumferentially about the outside of the neck and extending into said indentation to prevent longitudinal movement of the tubular member relative to the neck; and means on the box to receive a water pipe, said means being positioned at an elevation above that of the bottom to prevent flow of liquid therethrough from the bottom of the box.

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