

1

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PREFABRICATED VALVE AND DRAIN UNIT

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3 Claims. (Cl. 4-1)

This invention relates to improvements in plumbing systems and in particular to prefabricated valve and drain unit installations.

In the past, considerable difficulty has been encountered in the installation of hot and cold water outlets and the drain system therefor to be used in conjunction with washing machines, such as automatic washers, and other similar equipment. In modern homes, efforts have been made to hide the plumbing installations in order to give an attractive appearance to the room in which the washing machine has been placed. Most modern homes have finished utility rooms either in the basement or on the ground floor for laundry equipment and the like. Many housewives have these machines located in their kitchen to add to the decor of the kitchen and to save time and effort because of the convenience of location.

In order to make the washing machine installation attractive, the plumber has to fabricate his pipe, valves, and drain in the wall, each separately. The plumbing for these machines must then be boxed in, lathed, cornerbead fitted, and then the wall must be plastered and painted. In the construction of new homes, the carpenter and lather cannot complete their work until the plumber has fabricated his pipe, valve and drain in the wall. All of this takes considerable time causing delays and increased cost in construction.

It is an object of this invention to provide a single unit which can be installed in a very short period of time.

It is also an object of this invention to provide a prefabricated valve and drain unit which eliminates much of the carpentering, lathing, plastering, and painting work heretofore involved in the installation of valve and drain equipment.

Yet another object of this invention is to provide a prefabricated valve and drain unit which is inexpensive to manufacture.

Another object of this invention is to provide an adjustable prefabricated valve and drain unit.

These and other objects and advantages of this invention will be apparent from the following description and claims.

In the accompanying drawings which illustrate by way of example various embodiments of this invention;

Fig. 1 shows a fragmentary section of a wall with the prefabricated valve and drain unit installed, and a side elevational view of a washing machine connected to the unit;

Fig. 2 is a fragmentary front elevational view of a wall having the valve and drain unit installed therein, with portions of the wall broken away;

Fig. 3 is a sectional view on line 3-3 of Fig. 2 looking in the direction of the arrows;

Fig. 4 is a sectional view on line 4-4 of Fig. 2 looking in the direction of the arrows.

As shown in Figs. 1 through 4, the prefabricated drain and valve unit 5 hereafter referred to merely as "the unit," comprises a rectangular frame or box-like member 10 of sheet metal, plastic, wood, or other similar material having a top plate 11, a bottom plate 12 and side plates 13

2

and 14. Plates 11, 12, 13 and 14 are welded or otherwise secured together at their ends in order to give frame 10 rigidity. The plates 11, 12, 13 and 14 are secured to a dust plate 15 by any means such as welding, nailing, gluing, or the like.

Bottom plate 12 has an opening 20 in which is fitted and secured by means of welding or the like, a drain coupling 21 which is adapted to be connected to a standard drain pipe.

Side plates 13 and 14 are provided with adjustment slots 30 (Fig. 3). Angle plates 31 and 32 are connected to the side plates 13 and 14 by stud bolts 33 which engage in slots 30. Nuts 34 engage the bolts 33 and provide means for locking angle plates 31 and 32 against movement of the bolts 34 in adjustment slots 30 of the plates 13 and 14. Angle plates 31 and 32 have holes 35, Fig. 2, for receiving placement screws 36 as best shown in Fig. 4.

An upright plate 40 is welded or otherwise secured to the top plate 11 at a distance somewhat removed from the front edge thereof for reasons hereinafter explained. Upright plate 40 has openings therein to receive hot and cold shutoff valves 50. Valves 50 have a T type base 51 as best shown in Fig. 1. A hose nipple 52 extends from each valve base 51 downwardly through holes in plate 11 and projects into the frame member 10 a short distance. Threads or other means may be provided on the ends of nipples 52 for engaging a hose coupling 53. Escutcheons 54 are fitted to the projecting end of nipples 52.

The "unit" 5 comes preferably fabricated with shutoff valves 50, having valve bases 51, and nipples 52 and escutcheons 54. These parts may, however, be removed in order to permit the use of different style shutoff valves 50 depending upon the wishes of the customer into whose home the unit is to be installed.

As shown in Figs. 1, 2, 3, and 4, the unit is mounted in a wall W. Angle plates 31 and 32 are secured by means of screws, nails or the like to adjacent studs or joists J in the wall W. Slots 30 allow for adjustment of the frame 10 with respect to secured plates 31 and 32 so that the front edge of frame 10 will be flush with the external surface of the wall W. The plate 40 and the drain coupling 21 are sufficiently removed from the front portion of the plates 11 and 12 of the frame 10 so that plaster or wallboard P may be placed in the front thereof in order to cover up members 40 and 21.

Water pipe 70 is connected to valve bases 51 and drain pipe 71 is connected to drain coupling 21. A washing machine M as shown in Fig. 1 is connected to "unit" 5 by an outlet hose which empties into the drain coupling 21 and by connecting hose members 81 having hose couplings 53 which are attached to nipples 52.

The dust plate 15 acts as a dust and dirt guard and seals off the inside of wall W from view. This dust plate 15 and the frame 10 may be painted a color similar to the room in order to maintain the attractive appearance of the room.

It will be understood that this invention is capable of further modification, and this specification is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains, and as may be applied to the essential features hereinbefore set forth and as fall within the scope of the invention or the limits of the appended claims.

Having thus described our invention what we claim is:

1. A prefabricated valve and drain unit for walls comprising a frame having top, bottom, and side walls, said bottom plate having a hole therein, a drain coupling connected to said bottom plate and seated in said hole, said top plate being coextensive with said bottom plate and

3

having an upright plate secured to the outside surface thereof, said upright plate mounted perpendicularly to said top plate at a distance from the front edge thereof which is equal to the thickness of the wall surface behind which the unit is to be mounted, said upright plate having a hole therein, a shut-off valve stem inserted in the hole of said upright plate, a T type valve body associated with said valve stem located immediately behind said upright plate, said top plate having a hole therein which is vertically aligned with the corresponding hole of said upright plate, a hose nipple inserted in the hole of said top plate, said T type valve and said hose nipple being connected, and means for securing said unit within said wall so that the outer edges of said frame are flush with the outer surface of said wall.

2. A prefabricated valve and drain unit for walls as claimed in claim 1 having a dust plate secured to the rear edges of said frame, said frame being rectangular in shape, and wherein said securing means for said unit comprises an angle plate having threaded bolt-like members connected thereto and extending from one surface thereof, a plurality of horizontally disposed rectangularly shaped slots in each of said side plates, said stud members being adjustably secured in said slots by nuts threaded on said studs.

3. The combination of a wall and a prefabricated valve and drain unit, said unit comprising a frame having top, bottom, and side plates and a dust plate secured to the rear edge of said frame, said bottom plate having a hole therein, a drain coupling connected to said bottom plate and seated in said hole which is spaced from the front edge of said bottom plate, said top plate being coextensive with said bottom plate and having an upright plate secured to the outside surface thereof, said upright plate

4

mounted perpendicularly to said top plate at a distance from the front edge thereof which is equal to the thickness of the wall surface behind which the unit is to be mounted, said upright plate having a hole therein, a valve stem mounted in said hole in said upright plate, a T type valve body associated with said valve stem and located immediately behind said upright plate, said top plate having a hole therein, a hose nipple mounted in the hole in said top plate and threadedly connected to said valve body, said wall having a pair of spaced joists, an angle plate mounted on each of said joists, said angle plates having a plurality of threaded stud members extending from one surface thereof, said side plates being provided with a plurality of horizontally disposed rectangularly shaped slots, the threaded studs on said angle plates extending into said slots and adjustably secured therein by nuts threaded on said studs, whereby said unit is located between said joists, said wall having a plastered outer surface, the front edges of said frame being flush with the outer surface of said plaster, said upright plate and said drain coupling being located behind said plaster, and said valve stem extending through and beyond the outer surface of said plaster.

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