

Sept. 27, 1966

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3,274,620

BATHING ENCLOSURE AND RECEPTACLE

Filed Aug. 26, 1963

2 Sheets-Sheet 1

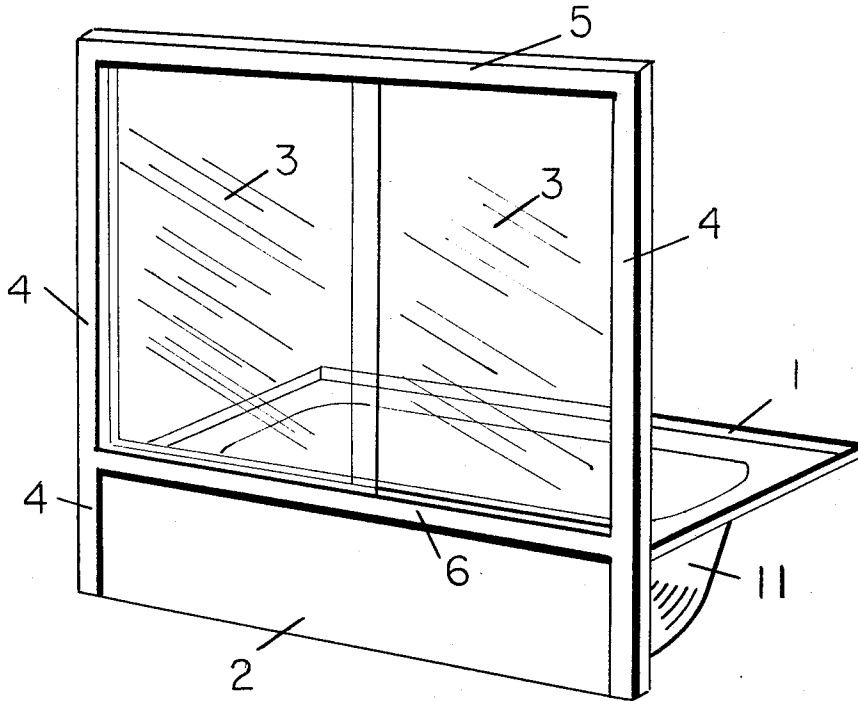


FIG. 1

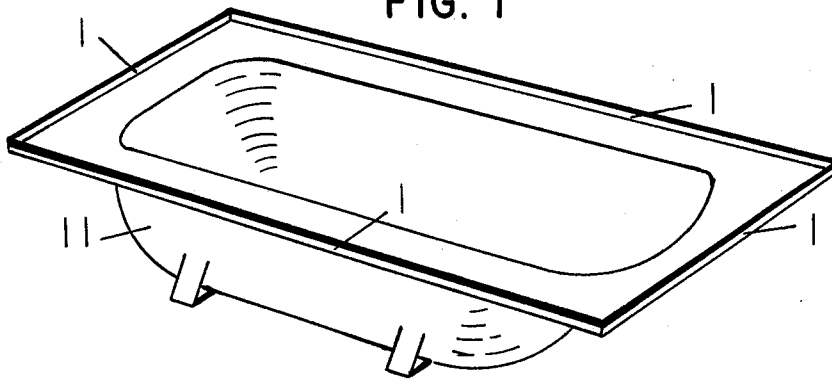


FIG. 2

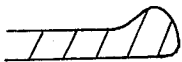


FIG. 3

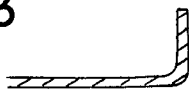


FIG. 4

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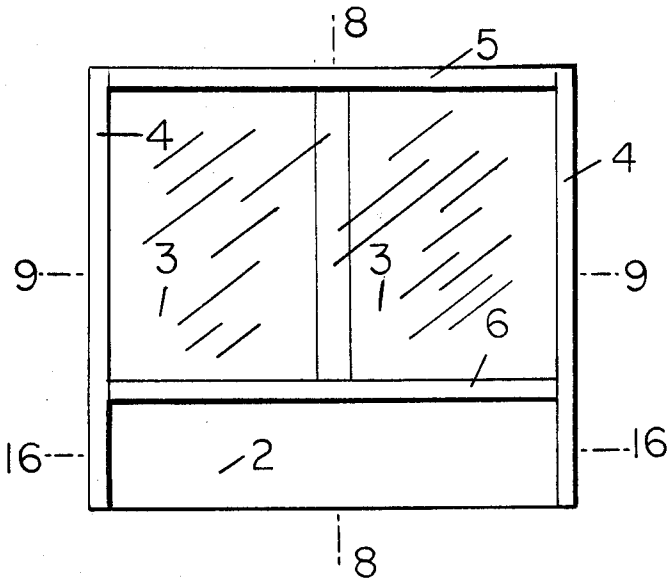


FIG. 5

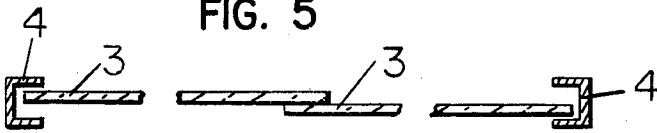


FIG. 7

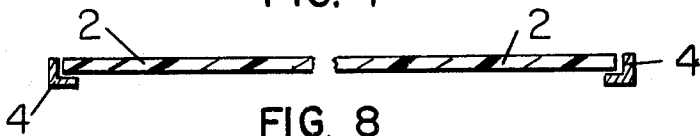


FIG. 8

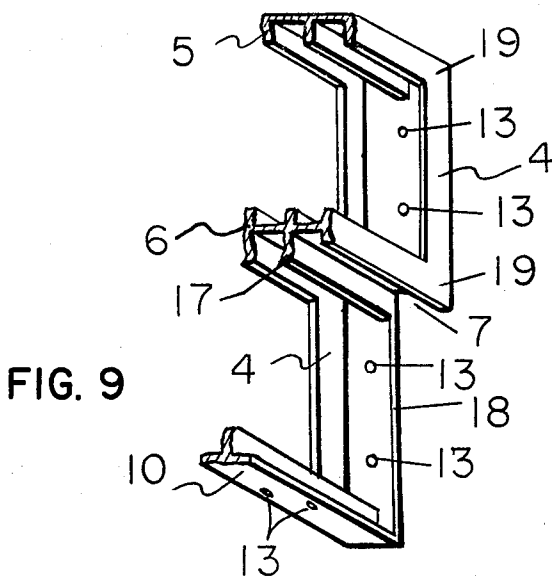


FIG. 9

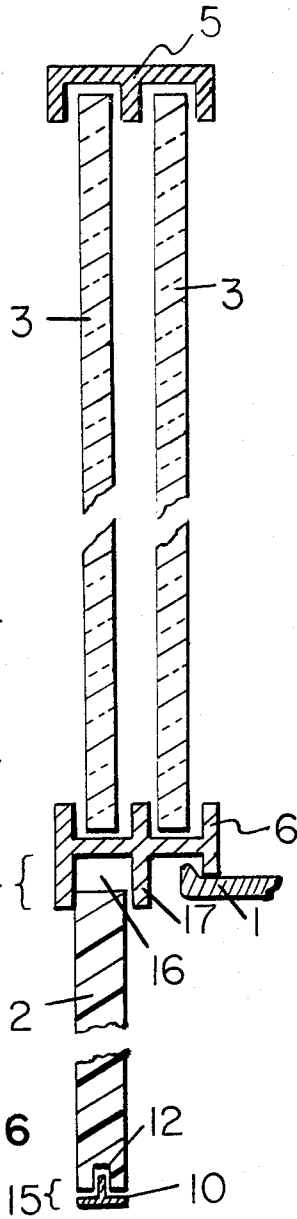


FIG. 6

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BATHING ENCLOSURE AND RECEPTACLE

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5 Claims. (Cl. 4-149)

The object of my invention is to provide a combination bathtub, shower enclosure, and an apron panel separate from the bathtub, joined one to the other by a common mating frame member which makes of the enclosure and apron panel one component, and of the bathtub another component. A mating flange is provided on the bathtub to mate with a complementary flange on the enclosure-apron frame member so that a water resistant joint is formed.

By providing a frame whereby the shower enclosure and bathtub apron panel can be joined to form a component separate and distinct from the bathtub, but with provision for forming a water resistant joint with the bathtub when installed, my invention achieves several definite advantageous objects over conventional combinations of bathtubs with aprons and separate shower enclosures.

It is industry practice to make bathtubs with an integral or attached apron on the side, or sides, not intended for building into the wall. This apron is a continuation of the bathtub rim and therefore of the material and finish of the bathtub. This apron and the bath receptacle forms one continuous surface, rising as the walls of the bathing receptacle, flattening horizontally to form a rim and then curving downward and continuing to the floor as an uninterrupted surface. Separate model bathtubs must be produced for right or left drains, and with aprons on two or more sides when these sides are exposed. A shower enclosure, when used, is seated on the flat horizontal rim of the bathtub which has no provision for mating with such an enclosure or forming a water resistant joint.

The principal object of my invention is to interpose a mating frame element between the bathtub and the apron panel and the shower enclosure which makes these elements separate and distinct from the bathtub in appearance and in actuality. This allows material to be used for the apron other than the material of which the bathtub is made. Thus apron material may be selected for economy or decorative effect.

An equally important object in my invention is to provide a flange on the bathtub which will form a water resistant joint with the mating frame member of the apron-enclosure component, said flange to be essentially the same in cross section as the flange normally fabricated on bathtubs on the sides which are intended to be built into the walls of the bathroom. The presence of this flange on all sides of a bathtub modified for my invention will allow the enclosure-apron component to be installed adjacent to any side, or sides, and any side, or sides, to be built into the walls of a bathroom. Consequently my invention requires only one model bathtub to be produced for any installation configuration.

Another object of my invention is that by combining the apron and shower enclosure in a common frame separate from the bathtub, the resulting component installs adjacent to but outside the bathtub. Thus my invention allows full width utilization of the bathtub in bathing and showering which is not the case when the apron is a part of the bathtub and the shower enclosure must sit on the bathtub rim, occupying this area.

An additional object is that, at present, bathtub height is limited by production and economic considerations related to the aprons being a part of, and of the material of, the bathtub. This height limitation precludes raising the drain outlet enough to allow desirable and efficient into-

the-wall plumbing connections. My invention would allow apron panels of a height in excess of the bathtub height to be easily and economically produced, and allow raising the bathtub sufficiently for above-the-floor plumbing systems.

Some advantage will also be found in the division of the weight of the bathtub and apron, in my invention, facilitating easier handling. In addition, larger bathtubs of heavier materials, such as cast iron, may be manufactured and handled with the weight of the apron removed.

My invention will be best understood by referring to the attached drawings. It should be understood that while these drawings show a specific embodiment of my invention with the shower enclosure detailed as a particular type sliding door, that frame detail may be altered to accommodate accordion, other sliding, or other type doors, or fixed panels. Both the enclosure and the apron panels may be of any material such as metal, wood, plastic, glass or ceramic. In addition, it should be understood that while a removable apron panel is shown held in place by a snug fit with the frame channels, that this panel may be fixed.

FIGURE 1 shows a perspective view of the components of my invention in the correct combination for installation.

FIGURE 2 is a perspective view of the bathtub component.

FIGURE 3 is a cross section of the modified bathtub rim when made of cast material and

FIGURE 4 when made of pressed material.

FIGURE 5 is a front view of the enclosure and apron component showing the various elements thereof and location of the cross sectional views shown in the following figures.

FIGURE 6 is a cross sectional view through points 8-8 of FIGURE 5 showing method of joining with a bathtub rim of cast material.

FIGURE 7 is a cross sectional view through points 9-9 of FIGURE 5.

FIGURE 8 is a cross sectional view through points 16-16 of FIGURE 5.

FIGURE 9 is a perspective view of the enclosure side, or vertical frame section.

All these drawings relate to a recessed type bathtub which is to be built into a washroom wall on three sides and requires the enclosure-apron component element on only one, the front, side. It should be understood that additional enclosure-apron component elements can be combined to enclose two, three, or even all four sides of a bathtub using corner posts of any available material.

In FIGURE 1 it can be seen how the vertical side frame members 4 of the shower enclosure are extended to the floor to hold, as a part of the frame, the bathtub apron panel 2. A central horizontal frame member 6 serves both as the top channel for the apron panel 2 and as the bottom track for the doors 3. Structural rigidity is given to the frame structure by a top frame member 5 which also serves as the top truck for the doors 3. The bathtub 11 is shown in combination as installed.

FIGURE 2 shows a recessed bathtub of well known type, modified by continuing the turned up flange 1, provided where built into the wall, across its fourth, or front, side. This continuation of the building-in flange 1 provides a slightly, water resistant joint when used in combination with the enclosure-apron assembly and replaces the turned down apron extending to the floor now found on all the sides of bathtubs not designed for building into the wall. Thus, a single model bathtub can be installed as a recess tub with one side open, or as a corner tub with two sides open. Enclosure doors 3 may then be replaced by fixed panels on one or more sides, in any combination.

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FIGURE 3 shows a cross section through bathtub building-in flange 1 when of a cast material and

FIGURE 4 when of a pressed material.

FIGURE 5 shows a front view of the enclosure-apron elements described in FIGURE 1. The position of cross sectional views 8—8, 9—9, and 16—16 are indicated.

FIGURE 6 is a cross section through 8—8. Shown is a section through the bottom frame member 10. This frame member 10 is hidden by the apron panel 2 in the previous drawings. Sections through top horizontal frame member 5, central horizontal frame member 6, doors 3, and apron panel 2 are shown with relationships of placement.

The notch 12 in the apron panel 2 provides for seating this panel firmly on the concealed bottom frame member 10. Also shown is the method of seating the central horizontal frame member 6 overlapping the bathtub flange 1 to produce a water resistant joint.

This section view shows the installed relationship of the apron panel 2 to the central frame member 6 and the bottom concealed frame member 10 which allows the apron panel 2 to be removable. The vertical portion of the bottom frame member 10 is dimensioned 15 to not more than half the depth dimension 14 of the apron panel channel in central frame member 6. The apron panel 2 has a vertical height so that a space 16 will exist between its top, when it is in place, and the top of its channel in the central frame member 6 so that it may be lifted sufficiently to clear the vertical dimension 15 of bottom frame member 10. When raised clear of bottom frame member 10 the apron panel 2 may be pushed inward for removal.

FIGURE 7 is a section through 9—9, showing a cross section through the vertical side frame members 4 and through the doors 3.

FIGURE 8 is a section through 16—16, showing a cross section through the vertical side members 4 and through the apron panel 2.

FIGURE 9 is a shortened perspective view of the vertical side frame member 4 with portions of the horizontal frame members shown. The view is from below the floor level through the position normally occupied by the bathtub. Shown is the configuration of the vertical side frame element 4 which is decreased in width below the central horizontal frame member 6 to the width of the apron channel in the central frame element 6 as determined by the inside flange 17 of this channel. Note that along the inside edge 18 of the vertical frame member 4, there is no retaining flange. This is necessary to allow installation or removal of the apron panel 2 after the frame is fastened in place. The cutaway portion of the side frame 4 must extend fully into the lower inside channel 7 of the central horizontal frame element 6 to allow insertion of the bathtub flange 1.

The frame elements 4, 5, 6 and 10 in FIGURE 9 are shown welded at points of juncture 19 into a single homogeneous frame. Other methods of affixing one frame member to another such as bolts, screws, etc. would be equally acceptable. Holes 13 are in the bottom frame element 10 and in the side frame element 4 for attaching to the floor and wall, or other building structures with screws. Alternate methods of attaching the frame to the structure such as glue or snap-in clamps could be used.

I claim:

1. A bathing receptacle and an enclosure, in combination, comprising a bathtub having generally vertical walls, and a horizontal flange member located at the end portion of one of said vertical walls and integral therewith, and an enclosure consisting of a plurality of panel members held in place by a plurality of related framing members, one of said framing members being substantially horizontal and coextensive in length with said horizontal flange member of said bathtub, and having a flange coextensive in length with said framing member for matingly overlapping said horizontal flange member of said bathtub to thereby produce a water tight joint, said horizontal fram-

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ing member having upper and lower supporting surface portions, said upper supporting surface having disposed therein at least one of said panel member that extends upward as a shower shield, said lower supporting surface having disposed therein at least one of said panel members extending downward from said horizontal framing member substantially to the floor.

2. A bathing enclosure as defined in claim 1, including a vertical frame member fixed to each end of said horizontal framing member and extending upwardly therefrom to the upper portion of said shower shield panels and downwardly therefrom substantially to the floor, said panels being additionally supported by said vertical frame members, two additional horizontal framing members attached at their ends to the vertical frame members to provide lateral support to said panels at the top of the shower shield and at the bottom of the downwardly extending panel, respectively.

3. A bathing receptacle, comprising in combination, a bathtub having generally vertical walls and a horizontal flange member located at the end portion of one of said vertical walls and integral therewith, and an apron assembly consisting of a panel member held in place by a plurality of related framing members, one of said framing members being substantially horizontal and coextensive in length with said horizontal flange of said bathtub, and having a flange coextensive in length with said framing member for matingly overlapping said bathtub flange member to thereby produce a water tight joint, said horizontal framing member having a supporting lower surface having disposed therein an apron panel member extending downward therefrom substantially to the lowermost portion of the bathtub.

4. A bathing enclosure consisting of a plurality of panel members held in place by a plurality of framing members, one of said framing members being substantially horizontal and coextensive in length with the horizontal rim of a bathtub, and having a flange coextensive in length with said horizontal framing member for seating on said bathtub rim so that a water tight joint can be established, said horizontal framing member having upper and lower supporting surface portions, said upper supporting surface having disposed therein at least one of said panel members that extends upward as a shower shield, said lower supporting surface having disposed therein at least one of said panel members extending downward from said horizontal framing member, replacing in function the apron of the bathtub, said enclosure assembly being essentially independent of, and exterior to, the bathtub with which it is installed.

5. A bathing enclosure as defined in claim 4, including a vertical frame member fixed to each end of said horizontal framing member and extending upwardly therefrom to the upper portion of said shower shield panels and downwardly therefrom substantially to the bottom of said apron panel, said panels being additionally supported by said vertical frame members, two additional horizontal framing members attached at their ends to the vertical frame members to provide lateral support to said panels at the top of the shower shield and at the bottom of the apron panel, respectively.

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