

Dec. 10, 1957

T. E. TILSON ET AL
SAFETY RAIL FOR BATHTUB

2,815,513

Filed June 5, 1956

2 Sheets-Sheet 1

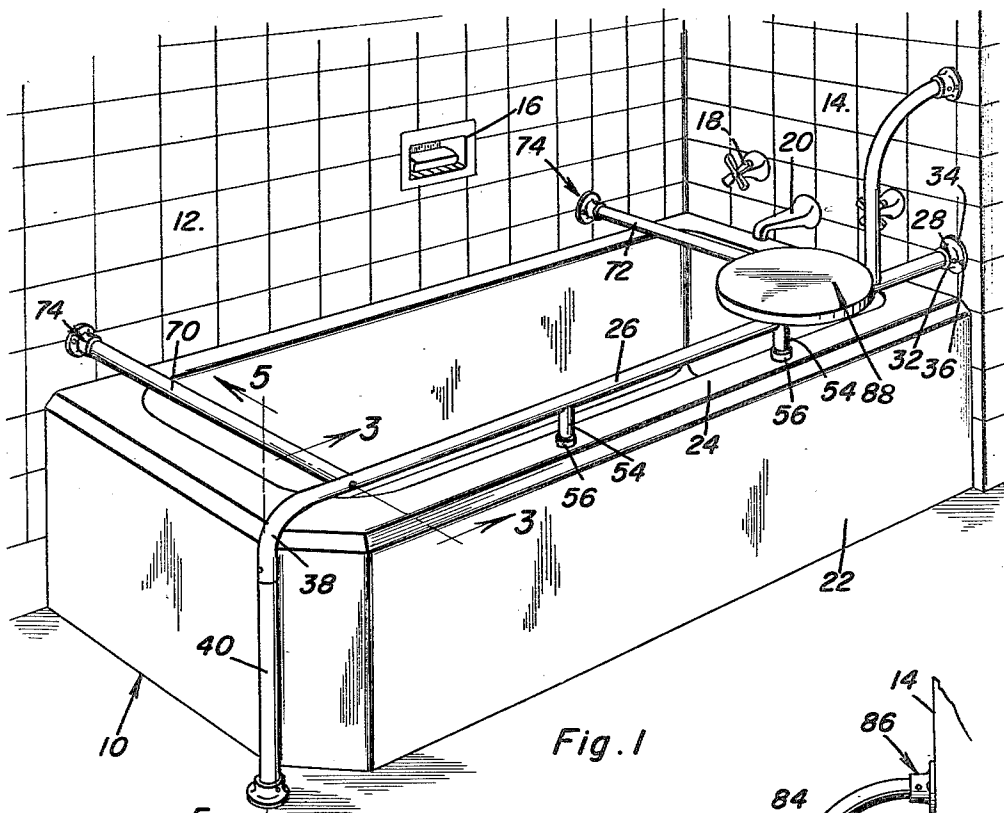


Fig. 1

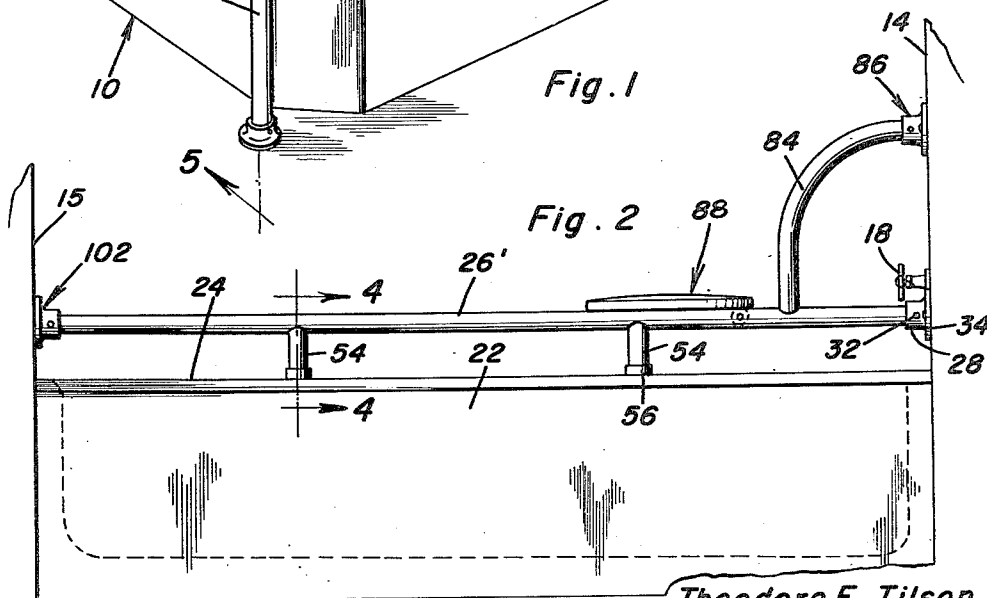


Fig. 2

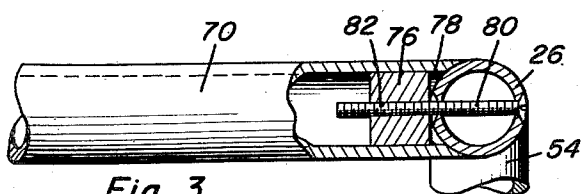


Fig. 3

Theodore E. Tilson
Katie E. Tilson
INVENTORS,

BY *Oliver A. O'Brien*
and *Harvey E. Jacobson*
Attorneys

Dec. 10, 1957

T. E. TILSON ET AL
SAFETY RAIL FOR BATHTUB

2,815,513

Filed June 5, 1956

2 Sheets-Sheet 2

Fig. 4

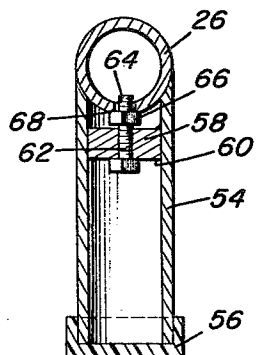


Fig. 6

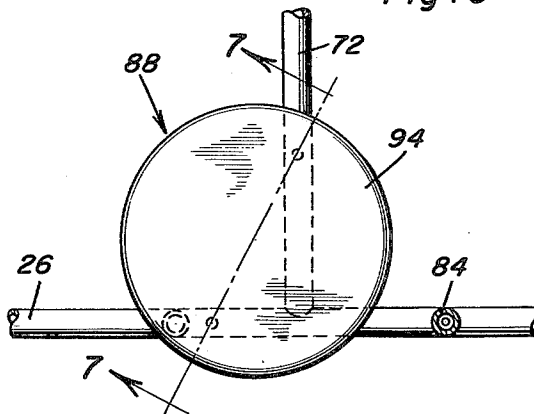


Fig. 7

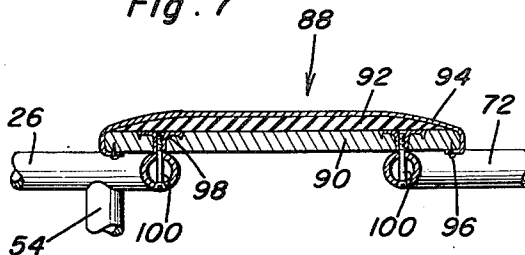
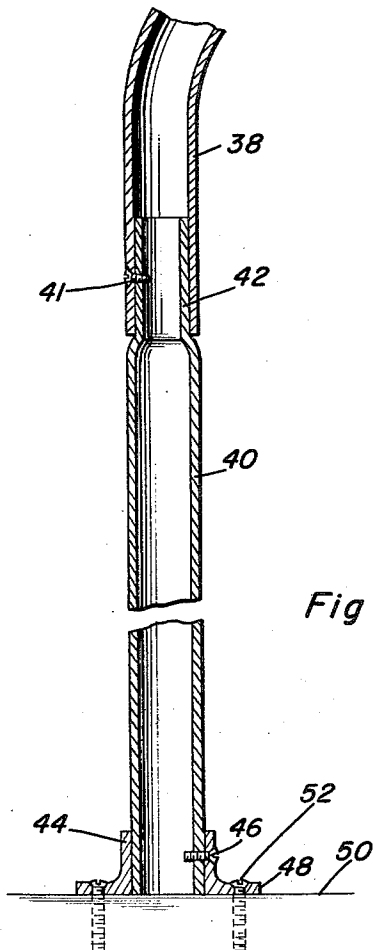


Fig. 5



Theodore E. Tilson
Katie E. Tilson
INVENTORS,

BY *Charles A. Olson*
and *Harvey B. Jackson*
Attorneys

1

2,815,513

SAFETY RAIL FOR BATHTUB

Theodore E. Tilson and Katie E. Tilson, Ulysses, Kans.

Application June 5, 1956, Serial No. 589,512

7 Claims. (Cl. 4—185)

This invention generally relates to a safety device and more particularly to a safety rail for attachment and association with a bathtub.

An object of the present invention is to provide a safety rail along the front edge of the top of the tub and also a cross rail or end rail together with an upstanding hand rail and a seat mounted on the device.

Another object of the present invention is to provide a safety rail for bathtubs which may be employed in conjunction with the type of bathtub recessed into the wall wherein vertical end building walls and a vertical side wall is provided or wherein only a single end wall and side wall is provided.

A further object of the present invention is to provide a safety rail in the form of an elongated tubular member disposed in vertical spaced relation to the upper surface of a side edge of a bathtub together with depending legs with protective pads thereon for engagement with the upper surface of the side edge and also to provide an upwardly curved hand rail at one end of the side rail.

Other objects of the present invention will reside in its simplicity of construction, ease of operation, efficiency for its particular purposes, ease of cleaning, safety factors and its relatively inexpensive manufacturing cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of one form of the safety rail of the present invention associated with a bathtub;

Figure 2 is a side elevational view of another form of the present invention;

Figure 3 is a detailed sectional view taken substantially upon a plane passing along section 3—3 of Figure 1 illustrating the manner of connecting the cross or end rails to the side rail;

Figure 4 is a detailed sectional view taken substantially upon a plane passing along section line 4—4 of Figure 2 illustrating the manner of attaching the depending legs to the side rail;

Figure 5 is a detailed vertical sectional view taken substantially upon a plane passing along section line 5—5 of Figure 1 illustrating the depending extension on the side rail for supporting one end of the side rail;

Figure 6 is a detailed plan view of the seat provided on the safety rail; and

Figure 7 is a detailed sectional view taken substantially upon the plane passing along section line 7—7 of Figure 6 illustrating the construction of the seat and also the manner of attaching the same to the safety rail.

Referring now specifically to the drawings, the numeral 10 generally designates a conventional type of bathtub which is partially enclosed by a side wall 12 and an end wall 14 alongside one side of the bathtub 10 and one end thereof respectively. Normally, the soap receptacle 16 is provided in the side wall 12 and control knobs 18 and

2

a discharge spout or nozzle 20 is provided in the end wall 14 all of which represents conventional construction. It will be noted that one side wall 22 of the bathtub 10 is provided with the usually substantially flat upper surface 24.

The safety rail of the present invention includes an elongated horizontally disposed side rail 26 supported in spaced parallel relation to the upper surface 24 of the side 22 of the bathtub 10. One end of the side rail 26 is provided with a collar 28 attached thereto by a setscrew 32 with a flange 34 provided on the outer end of the collar 28 for attachment to the vertical wall 14 by suitable fasteners 36. The other end of the side rail 26 is provided with a downturned portion 38 having a vertical extension 40 connected thereto by self-threading screw 41.

As illustrated in Figure 5, the vertical extension 40 is provided with a reduced upper end portion 42 for telescopic rigid engagement with the lower end of the downturned end portion 38 of the side rail 26. The lower end of the depending extension 40 is provided with a cylindrical collar 44 secured thereto by a screw threaded fastener 46 and provided with a flange plate 48 secured to the floor 50 by screw threaded fastening means 52 which is substantially the same construction as that construction for securing the collar 28 to the vertical wall 24.

Mounted in longitudinally spaced relation on the longitudinal side rail 26 is a plurality of depending legs 54 each of which has a protective cap 56 on the lower end thereof which may be constructed of plastic or the like for engagement with the upper surface 24 of the side 22 of the bathtub 10 to protect the surface from marring which would normally be caused by the lower end of the leg 54. As illustrated in Figure 4, the upper end of the leg 54 is provided with an apertured plate 58 secured therein as by welding 60 for receiving a fastening bolt 62 therethrough. The lower surface of the tubular side rail 26 is provided with an aperture 64 having a nut 66 secured thereunder as by welding 68 whereby the headed bolt 62 is inserted through the apertured plate or disk 58 and is disposed in screw threaded engagement with the nut 66 and extends into the aperture 64 thereby rigidly securing the depending lugs 54 to the longitudinal side rail 26.

A pair of transverse end rails 70 and 72 are provided and are connected to the side rail 26 at one end and the other end of each of the end rails 70 and 72 is provided with bracket means generally designated by the numeral 74 which is identical to the collar arrangement described previously in conjunction with each end of the rail 26. The end of the end rails 70 and 72 connected to the side rail 26 is provided with a plug 76 secured therein as by welding 78 and a screw threaded fastener 80 extends from the outer edge of the side rail 26 into screw threaded engagement with an internally threaded aperture 82 in the plug 76 thereby rigidly securing the end rails 70 and 72 to the side rail 26.

Adjacent the end of the rail 26 which is attached to the vertical wall 14 is provided an upwardly curved hand rail 84 which is rigidly connected to the side rail 26 and is provided with bracket means 86 at the upper end thereof for attaching the device to the vertical wall 14 wherein the bracket means 86 is identical to the bracket means 74 and the bracket means for securing the side rail 26 to the vertical wall.

A seat generally designated by the numeral 88 is supported at the juncture between the end rail 72 and the side rail 26 with the seat having a circular member 90 of wood such as plywood and provided with a cushion 92 and a covering 94 of waterproof material wherein the covering extends under the peripheral edge of the wood base 90 and is secured to the undersurface thereof by fastening members 96. The base plate or member 90 is constructed

3

of wood and provided with screw threaded adapters 98 which receive screw threaded members 100 which extend upwardly through the respective side rail 26 and end rail 72 substantially as illustrated in Figure 7 for rigidly securing the seat member 88 in position at the juncture between the side rail 26 and end rail 72 and adjacent to the curved hand rail 84 and adjacent to the control knobs 18 to facilitate ingress and egress in relation to the bathtub 10 and to facilitate the control of the water discharged into the bathtub 10.

Figure 2 of the drawing illustrates a slightly modified form of the invention with the bathtub being the type disposed between two vertical walls with the other vertical wall being designated by the numeral 15 wherein the longitudinal side rail is designated by the numeral 26' in that it is provided with a bracket means 102 at the end thereof which replaces the downturned end 38 of the construction shown in Figure 1 and which is attached to the vertical wall 15 in the same manner as the bracket means 74 and 86 are attached. Otherwise, the construction and orientation of the device of Figure 2 is the same as that of Figure 1 and identical reference numerals are employed in conjunction therewith.

The aperture in the side rail 26 receiving the screw fastener 80 is countersunk on both sides of the rail 26 whereby the invention may be used in either a left hand or right hand installation. All of the fasteners are provided with oval-shaped heads which are countersunk to provide a smooth external surface.

The present invention substantially eliminates the cause of falls in the bathtub and provides a sturdy rail which is natural to use and will become extremely useful in reducing the number of falls in and around bathtubs. The seat is ideal for invalids or elderly persons who may sit on the seat and lift their legs over the side of the tub thereby facilitating their entry into and exit from the tub and also permitting them to use the bathtub for a more effective washing operation.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A safety device for use in combination with a bathtub having a vertical building wall at each end and along one side thereof comprising an elongated side rail, means mounting the ends of the side rail on the vertical end walls with the side rail disposed in parallel relation to the side edge of the bathtub, a transverse end rail supported from the side rail and the vertical side wall, a seat supported at the juncture between the side and end rail, and

4

a curved hand rail extending upwardly from the side rail at a point adjacent the seat and being connected to the adjacent end wall, the hand rail lying in the same plane as the side rail.

2. The combination of claim 1 wherein said side rail is provided with a plurality of depending legs with protective pads on the lower ends thereof for engagement with the upper surface of a side edge of the bathtub.

3. The combination of claim 1 wherein said seat is circular and provided with a water repellant cushion and covering with screw threaded fastening means extending through the rails into the seat.

4. A safety device for use in combination with a bathtub having a vertical building wall at one end and along one side thereof comprising an elongated side rail, means mounting one end of said rail on the vertical end wall, a downwardly extending extension on the other end of the side rail for engagement with a supporting floor, a pair of transverse end rails connected between the side rail and the vertical side wall, a seat supported at the juncture of the side and one end rail, and a curved hand rail extending upwardly from the side rail at a point adjacent the seat and being connected to the adjacent end wall, the hand rail lying in the same plane as the side rail.

5. The combination of claim 4 wherein said side rail is provided with a plurality of depending legs with protective pads on the lower ends thereof for engagement with the upper surface of a side edge of the bathtub.

6. The combination of claim 4 wherein said seat is circular and provided with a water repellant cushion and covering with screw threaded fastening means extending through the rails into the seat.

7. In combination with a bathtub having an upper side edge and at least one end disposed adjacent a vertical building wall, of a safety device comprising an elongated side rail extending over and parallel with said edge and having one end attached to said end wall, legs on said side rail intermediate its ends rising from said edge and supporting said side rail, a seat fixed on said side rail adjacent to and spaced from the attached end of the side rail for supporting a person adjacent said one end of the bathtub and above said side edge, and a hand rail rising from said side rail between the seat and said wall for grasping by a person on the seat, said hand rail curving upwardly to said end wall and being terminally attached thereto for bracing the same.

References Cited in the file of this patent

UNITED STATES PATENTS

1,261,758	Brown	Apr. 9, 1918
1,543,238	Sturges	June 23, 1925
2,319,017	Tillman	May 11, 1943
2,503,145	Zukor	Apr. 4, 1950
2,736,904	Suggs	Mar. 6, 1956