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BATHTUB SAFETY RAILS

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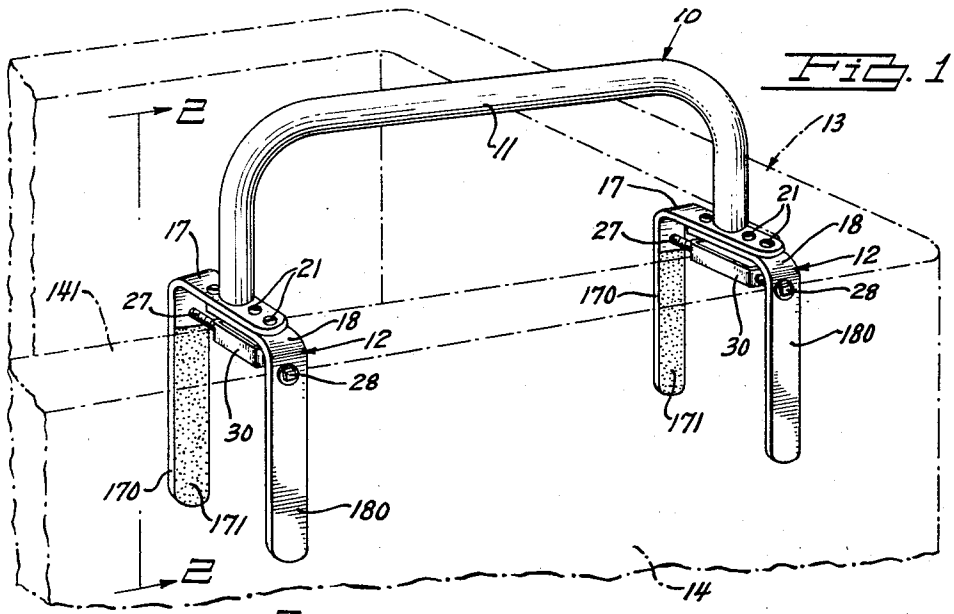


Fig. 1

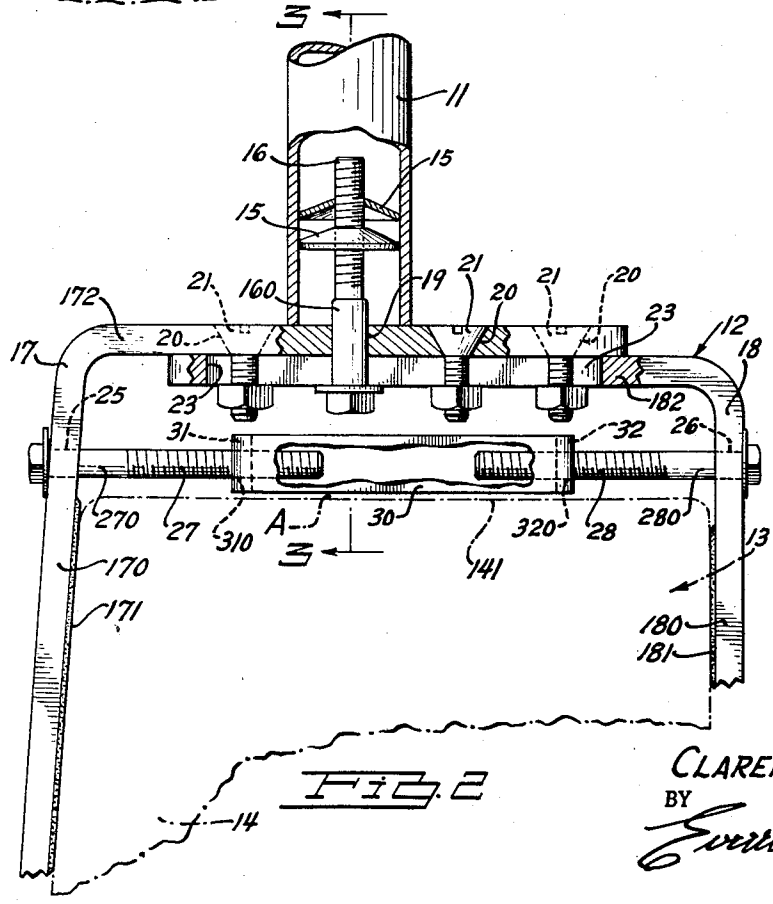


Fig. 2

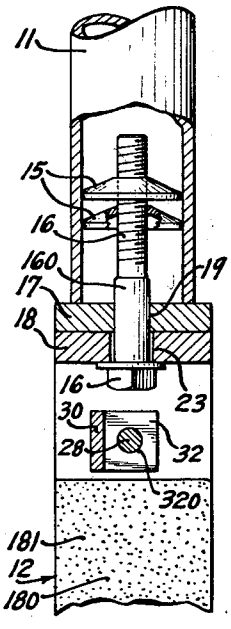


Fig. 3

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BATHTUB SAFETY RAILS

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1 Claim. (Cl. 4—185)

This invention relates to improvements in bathtub safety rails, and in particular to an improved construction that is adaptable to most modern bathtubs and which may be readily and securely installed without damage to the bathtub.

The primary object of the invention is to provide an improved bathtub safety rail including novel mounting bracket construction which is readily fixed to a side of a bathtub and which incorporates means to accomplish a final and positive securement of the bathtub safety rail to the bathtub.

Other objects of the invention will become obvious by reference to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a view in perspective showing a bathtub safety rail embodying the invention fixedly mounted on a side of a bathtub.

Fig. 2 is an end elevational view taken on the line 2—2 of Fig. 1 with portions broken away to clearly illustrate the construction.

Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2.

Referring now to the drawings wherein like reference numerals refer to like and corresponding parts throughout the several views, the particular embodiment of a bathtub safety rail **10** disclosed therein for the purpose of illustrating the invention consists of an inverted U-shaped safety rail **11** secured to an adjustable bracket **12** at each end thereof, which brackets **12** are particularly constructed to fit practically all modern bathtubs **13** and to positively secure themselves and the U-shaped safety rail carried thereby firmly to a side wall **14** of a bath tub **13**.

The said inverted U-shaped safety rail **11** is preferably tubular in cross section, is chrome plated and has fitted in the depending ends thereof suitable anchor elements **15** into which the rail anchor bolts **16** may be threaded.

Each of the brackets **12** consists of laterally overlapping inverted L-shaped upper and lower grip elements **17** and **18** respectively which are rectangular in cross section, are wider than they are thick, are chome plated, and are padded on the inside of the generally vertically disposed legs **170** and **180** thereof by a thin layer of suitable plastic or other non-slip padding **171** and **181** fixed thereto so that, when the legs **170** and **180** are drawn tightly against the wall **14** of the bathtub **13**, they will not damage the bathtub wall or slide in respect thereto responsive to heavy stresses applied to the safety rail **11**. The horizontal leg **172** of the upper L-shaped grip elements **17** is provided with an aperture **19** to telescopingly accommodate the smooth shank **160** of a rail anchor bolt **16**. The said horizontal leg **172** of the L-shaped grip element **17** is also provided with a plurality of countersunk apertures **20** to receive the complementarily formed countersink head bracket tightening bolts **21**. The horizontal leg **182** of the lower L-shaped grip element **18** is provided with a continuous slot **23** therein which accommodates the shank of the rail anchor bolt **16** and the shanks of the bracket tightening bolts **21**.

The vertically disposed leg **170** of the inverted L-shaped grip element **17** is formed at slightly more than a right angle in respect to the horizontally disposed leg **172** thereof so as to be parallel or substantially parallel to the inner sloping face **141** of the tub wall **14**. The legs **180** and **182** of the inverted L-shaped grip element **18** are preferably formed at right angles with respect to each other.

The vertically disposed legs **170** and **180** of the L-shaped grip elements **17** and **18** of each bracket **12** are provided with opposite horizontally disposed grip bolt apertures **25** and **26** to accommodate the shanks **270** and **280** of grip bolts **27** and **28** which are threaded into threaded apertures **310** and **320** in the end flanges **31** and **32** respectively of a horizontally disposed U-shaped final fixing bar **30**, all as best shown in Figs. 2 and 3.

The entire bathtub safety rail **10** is initially assembled as illustrated in the drawings preferably with suitable washers under the head of the rail anchor bolts **16** and under the heads of the grip bolts **27** and **28**. The upper and lower overlapping L-shaped grip elements **17** and **18** of each bracket **12** have their horizontal legs **172** and **182** telescoped laterally to neatly fit over the side wall **14** of the bathtub **13**, and the anchor bolts **16** and the bracket tightening bolts **21** are firmly turned toward a tightened position. The grip bolts **27** and **28** are then telescoped through the grip bolt apertures **25** and **26** respectively in the vertically disposed legs **170** and **180** of the L-shaped grip elements **17** and **18**, and the said grip bolts **27** and **28** are threaded into the threaded apertures **310** and **320** of the end flanges **31** and **32** respectively of the U-shaped final fixing bar **30**.

The bathtub safety rail **10** is then raised sufficiently in respect to the top **141** of the wall **14** of the tub **13** so that there is slight clearance "A" between the lower side of the fixing bar **30** of each bracket **12** and the said top **141** of the tub wall **14**. The said grip elements **17** and **18** of each bracket **12** are then pushed laterally toward each other so that the pads **171** and **181** thereof are disposed firmly against the wall **14** of the bathtub **13**, and the bracket tightening bolts **21** are securely tightened. After the said bracket tightening bolts **21** have been securely tightened, the grip bolts **27** and **28** of each bracket **12** are drawn up with sufficient force to cause the vertical legs **170** and **180** of the inverted L-shaped grip elements **17** and **18** of each said bracket **12** to tightly and positively grip the sides of the wall **14** of the bathtub **13**. The rail anchor bolts **16** are finally tightened, and installation is complete.

Properly installed as above set forth, bathtub safety rails **10** embodying the invention are completely safe and provide years of service without damage of any kind to the wall **14** of the bathtub **13** onto which they are mounted.

Although a single embodiment of the invention has been disclosed and described in detail, it is obvious that many changes may be made in the size, shape, detail and arrangement of the several elements of the invention, all without departing from the spirit and scope of the invention as defined by the appended claim.

I claim:

A bathtub safety rail comprising a tubular inverted U-shaped rail element and a pair of anchorage brackets for securing said rail element to a bathtub wall, each bracket consisting of a pair of inverted L-shaped grip elements having a horizontally disposed leg and a vertically depending leg each wider than it is thick, said horizontal legs of said grip elements being vertically overlapped and disposed in spaced relationship over a wall of said bathtub, the upper horizontal leg having a plurality of apertures therein and the lower horizontal leg having a slotted aperture therein aligned with said apertures in

said upper horizontal leg, the depending legs of said grip elements being disposed on opposite sides of said bathtub wall and including non-slip pad means fixed thereto and facing said bathtub wall, a plurality of bolts disposed through the apertures in said upper horizontal leg depending through the slotted aperture in the lower horizontal leg and including nuts thereon securing said horizontal overlapping legs of the grip elements of each said bracket together in laterally slidable relationship tightenable to fix said horizontal legs of said grip elements securely together with the said non-slip pads of the vertical legs thereof disposed firmly against said opposite sides of said bathtub, and draw bar means engaging the said vertical legs of the grip elements of each said bracket below the horizontal legs thereof and above the wall of said bathtub adapted to draw the padded vertical legs of the grip elements of each bracket toward each other and positively fix said brackets to said bathtub wall, the said

draw-bar means consisting of an elongated U-shaped final fixing bar threaded at its opposite ends and a grip bolt telescoped inwardly through each said vertical leg of the L-shaped grip elements of each said bracket and threaded into a threaded end of said U-shaped final fixing bar, anchor means in the depending ends of the said tubular inverted U-shaped rail element, and stud means engaging said anchor means fixing a depending end of said inverted U-shaped rail element to each of said brackets.

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