Dec. 24, 1957 J. F. ROTH 2,817,096

VERTICALLY ADJUSTABLE BATHTUB SEAT

Filed March 9, 1956

Fig. 1.

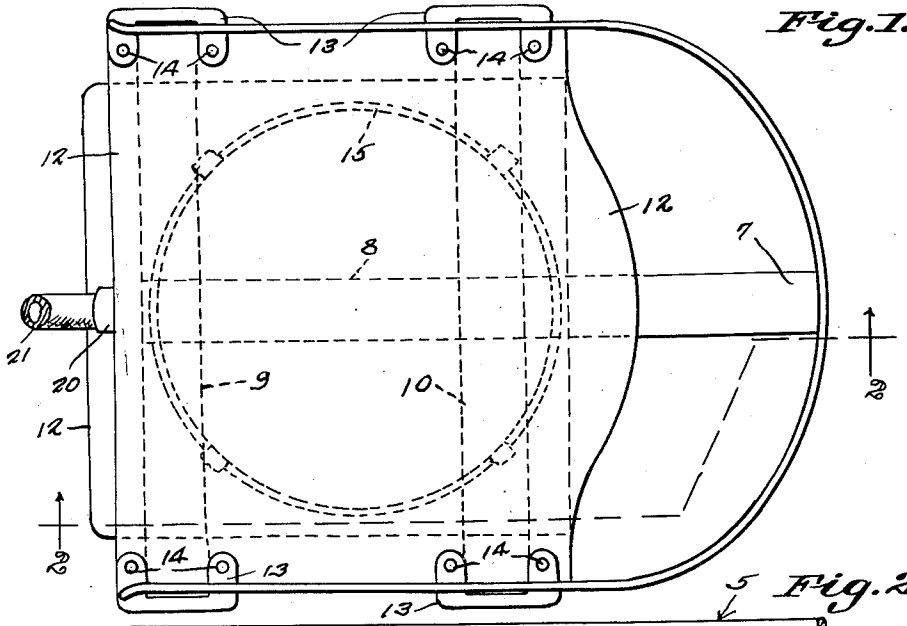


Fig. 2.

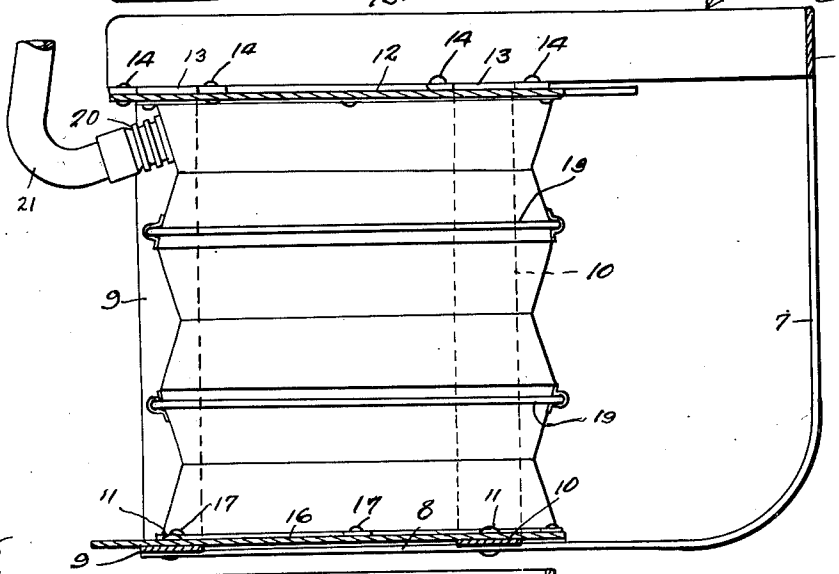
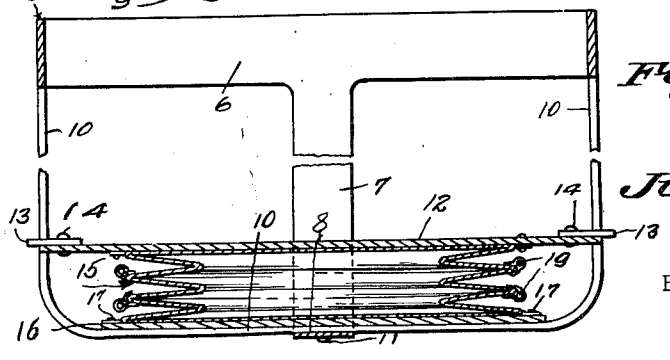


Fig. 3.



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VERTICALLY ADJUSTABLE BATHTUB SEAT

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1 Claim. (Cl. 4—185)

This invention relates to portable bathtub seats, the primary object of the invention being to provide a bathtub seat of a collapsible construction with means for admitting water under pressure thereto for expanding the seat to a position adjacent to the top of the tub, to permit the person seated thereon to conveniently rise to a standing position after the seat has been elevated to the top of the tub, whereupon the person may readily step out of the bathtub, with the least effort and without danger of slipping.

Another object of the invention is to provide a bathtub seat wherein the domestic water pressure is applied and is sufficient for expanding the flexible collapsible cylinder for elevating the seat, means being provided for releasing the water within the cylinder, while allowing the weight of the person seated on the seat to force the water from the cylinder resulting in the lowering of the seat to the bottom of the tub.

Still another object of the invention is to provide a frame in which the collapsible tube or cylinder operates, which is so constructed that it will closely fit within the bathtub in such a way that the seat will be securely held against movement within the tub, by contact with the bottom and side walls of the tub, eliminating the necessity of providing clamping means for securing the seat within a tub.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing,

Figure 1 is a plan view of a vertically movable seat designed for positioning in a bathtub.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a transverse sectional view through the seat.

Referring to the drawing in detail, the seat comprises a frame embodying an upper U-shaped section 5; to the rear curved end 6 thereof is connected the bar 7 which extends downwardly and forwardly providing a base bar 8 that extends to a point adjacent to the front of the frame.

The frame also embodies vertical U-shaped bars 9 and 10, respectively, the U-shaped bar 9 being disposed at the front end of the frame, while the V-shaped bar 10 is disposed at a point substantially intermediate the front and rear ends of the frame.

The U-shaped bars 9 and 10 are secured to the base bar 8, by means of rivets 11.

These U-shaped bars 9 and 10 provide guides for the seat section 12 of the device, the seat section 12 being preferably rectangular in shape and of a size to closely

fit within the U-shaped bars 9 and 10, as better shown by Figure 3 of the drawing.

U-shaped guide plates 13 are secured to the upper surface of the seat section 12 and have their open sides disposed inwardly where they are secured to the seat by the rivets 14. Thus it will be seen that due to this construction, the seat section 12 will be held in a true horizontal position and may move vertically without binding within its frame.

The seat section 12 is in the form of a bellows-like tubular body 15 having its lower end mounted on the base plate 16 and secured thereto by means of rivets 17.

The upper end of the bellows-like tubular body 15 is secured to the lower surface of the seat section 12, by means of the rivets 14.

The bellows-like tubular member 15 is reinforced at intervals, by means of rings 19 that limit the expansion of the bellows-like tubular member 15 under excessive water pressure.

The reference character 20 indicates a threaded coupling that connects with the upper end of the bellows-like tubular body 15 to which the hose 21 is connected, the hose 21 having its other end connected to a spigot or faucet of a tub through which the normal domestic water will pass.

In the use of the device, the seat may be readily and easily positioned within a bathtub, and the hose 21 connected with the coupling 20 at one of its ends, the opposite end being coupled to the spigot or faucet so that the domestic water pressure will operate to move the seat section 12 upwardly to the position as shown by Figure 2 of the drawing, whereupon the person seated thereon may readily rise to a standing position and step out of the tub without danger of slipping with resultant injury.

When it is desired to use the seat and the seat 12 is in its elevated position, it is only necessary for the person to step into the tub and seat himself on the seat 12. The hose 21 is now disconnected and the weight of the person seated on the seat 12 will, of course, cause the bellows-like tubular body 15 to collapse, lowering the seat to a position adjacent to the bottom of the tub, as better shown by Figure 3.

To elevate the seat, it is only necessary to admit water under pressure to the bellows-like tubular body 15 as described.

Having thus described the invention, what is claimed is:

A portable bathtub seat comprising a frame adapted to fit within a tub in contact with the walls of the tub, said frame comprising an upper horizontally disposed U-shaped section, a base bar extending downwardly and forwardly from said U-shaped section, terminating below the open side of said upper U-shaped section, a base plate secured to said base bar, a pair of spaced vertical U-shaped side bars having their ends connected with said upper horizontally disposed U-shaped section at the sides thereof connected with said base bar, a vertically movable seat section mounted within said frame, U-shaped guide plates secured to said seat section, movable over said side bars guiding said movable seat section in its vertical movements, a collapsible flexible cylinder secured between said base plate and seat section, and a pipe for directing water under pressure to said collapsible flexible cylinder, expanding said cylinder and elevating said seat section.

References Cited in the file of this patent

UNITED STATES PATENTS

2,725,578 Keller ---------- Dec. 6, 1955