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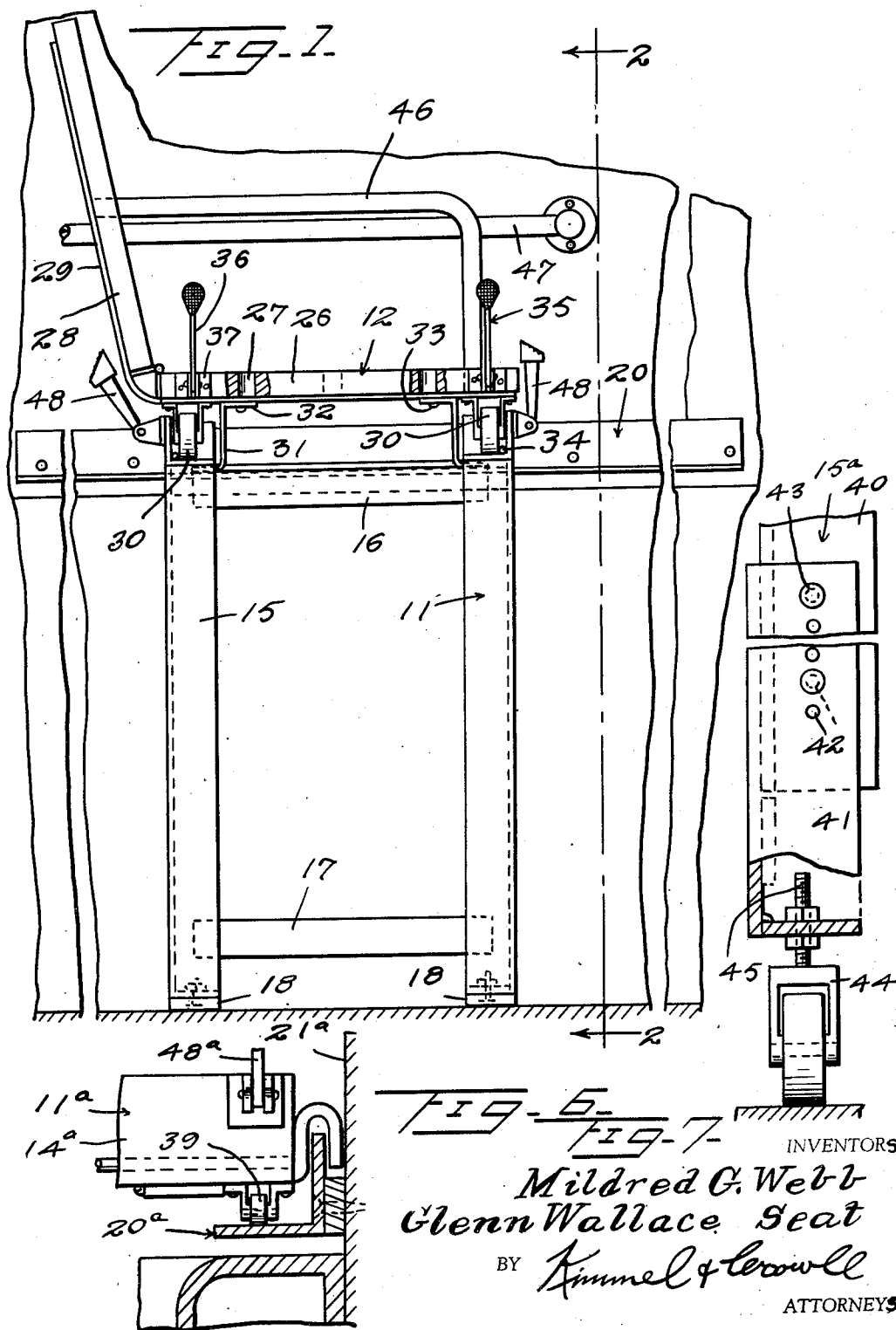
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INVALID CHAIR FOR BATHTUBS

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INVALID CHAIR FOR BATHTUBS

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6 Claims. (Cl. 4—185)

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This invention relates to invalid chairs or seats for bathtubs.

An object of this invention is to provide a chair or seat which is adapted to be removably positioned over a bathtub which has a shower head over it or in a shower stall, whereby the invalid may take a shower bath without entering the tub and without fear of slipping.

Another object of this invention is to provide a means whereby an invalid may bathe under a shower which includes a supporting frame which is movable lengthwise of the tub, with a seat which is movable on the frame and movable transversely of the tub.

A further object of this invention is to provide in a device of this kind means for locking the seat against movement on the frame.

With the above and other objects in view, our invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a detailed front elevation partly in section of an invalid chair and support constructed according to an embodiment of this invention.

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

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a fragmentary sectional view taken on the line 4—4 of Figure 2.

Figure 5 is a fragmentary plan view showing the mounting for the inner end of the carrier for the chair.

Figure 6 is a fragmentary sectional view showing a modified form of supporting frame structure.

Figure 7 is a fragmentary front elevation partly in section showing the lower ends of the frame legs embodied in the modification shown in Figure 6.

Referring to the drawings, and first to Figures 1 to 5, inclusive, the numeral 10 designates generally a conventional bathtub with which the invention to be hereinafter described is adapted to be associated.

In order to provide a means whereby an invalid, who is crippled to the point where he cannot readily bathe in the tub 10 or cannot stand up in order to take a shower, may bathe, we have provided a movable supporting frame, generally designated as 11, on which a chair or seat, generally designated as 12, is movably mounted. The frame or carrier 11 is constructed

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in the form of a pair of horizontal rails 14, which are disposed in spaced apart parallel relation and are fixedly connected together at their inner ends by means of a connecting bar 13.

The forward or outer ends of the rails 14 have secured thereto vertically disposed legs 15 which are connected together at their upper ends by means of a connecting bar 16. The legs 15 and the rails 14 are of angle shape, with the rails 14 in confronting relation. The lower ends of the supporting legs 15 are connected together by means of a connecting bar 17, and the terminal ends of the legs 15 have rubber cushion members 18 secured thereto by fastening means 19.

A horizontally disposed angle shaped guide rail 20 is adapted to be secured to the wall 21 at the inner side of the tub 10, and the guide rail 20 is spaced slightly from the wall 21 by means of a spacer 22. The connecting bar 13 is adapted to slidably engage on the horizontal side 23 of the guide rail 20 and the inner end of each rail 14 is formed with an inverted U-shaped member 24, which loosely engages over the vertical side 25 of the rail 20.

The U-shaped member 24 provides a means whereby the rails 14 will be held against outward movement with respect to the rail 20 and at the same time will be permitted to slide horizontally along the length of the rail 20.

The chair or seat 12 is formed of a bottom plate 26, having openings 27 for permitting water to drain from the seat 26, and a back member 28 is hinged to the seat 26 and braced in upstanding position by means of supporting bars 29. The seat 26 is movably mounted on the rails 14 by means of pairs of rollers 30, which are rotatably secured to the bottom of the seat 26. The seat 26 is held against tilting movement on the rails 14 by means of opposed pairs of L-shaped holding bars 31 formed with horizontal upper ends 32 which are secured by fastening means 33 to the bottom of the seat 26.

Each rail has a bumper rod 34 fixed in the angle of the rail and against which one edge of the rollers 30 is adapted to engage so that these rollers will be held out of contact with the vertical sides or the rails 14. The rails 14 are locked against movement on guide rail 20 by means of pivoted stop members 48.

In order to provide a means whereby the chair or seat member 12 will be held against movement on the rails 14, we have provided pairs of chair locking members, generally indicated at 35. These locking members are formed of an elongated arm 36, which is pivotally secured by a mounting 37 to the seat 26. The outer end of

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the arm 36 has a rubber shoe 38 secured thereto which, upon downward swinging of the arm 36, is adapted to frictionally engage the horizontal side of the rail 14, as shown in dotted lines in Figure 2. The chair or seat member 12 has an outer and an inner pair of the holding members 35 secured thereto so that the chair 12 will be held against movement in either direction on the rails 14.

Referring now to Figure 6, there is disclosed a modified form of this invention wherein the frame member 11a has a pair of rollers 39 secured to the inner end thereof which engage the guide rail 20a, which is fixed to the wall 21a. Stop members 48a similar to stop members 48 are carried by the rails 14a of frame 11a. In other respects, the structure shown in Figure 6 is identical with that shown in Figures 1 to 5, inclusive.

In Figure 7, there is disclosed a modified form of front leg structure for the chair supporting frame wherein the front legs 15a are formed of an upper leg member 40 and a lower leg member 41. The leg members 40 and 41 overlap each other and are provided with spaced openings 42 whereby a pair of bolts 43 may be extended through selected ones of the openings 42 so that the lower leg member 41 may be secured in adjusted position relative to the upper leg member 40.

A caster or roller 44 is secured to the lower end of the lower leg member 41 by fastening means 45. The caster or roller 44 provides a means, in association with the rollers 39, whereby the chair supporting frame may be readily shifted lengthwise of the tub.

Preferably, the chair or seat 12 has an arm rest 46 of substantially L-shape secured between the seat member 26 and the back rest 23. There may be an arm member 46 at either or both the inner and outer sides of the chair 12. Preferably, however, there is only one arm member which is disposed at the inner side of the chair so that entrance may be had to the chair from the outer side thereof.

In the use of this device, the base frame 11 is disposed with the rails 14 engaged with the rail 20 and extending transversely over the tub 10. The person then moves the chair 12 to the forward ends of the rails 14 and may, at this time, lock the chair 12 against movement inward or outward on the rails 14 by dropping the holding members 35 downwardly to rail engaging position. When the person is seated in the chair 12, the holding members 35 may then be raised to released position and the chair moved inwardly until the person is disposed over the tub 10.

A horizontally disposed hand rail 47 is preferably secured to the wall 21 above the rail 20 so that the occupant of the chair 12 may move lengthwise of the tub or crosswise of the tub by pulling on the rail 47. This device will provide a convenient means whereby a handicapped person may readily take a shower without danger of slipping or injury, and the device can be easily removed from the tub by lifting the frame 11 upwardly off of the guide rails 20.

We do not mean to confine ourselves to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What is claimed:

1. An invalid chair for use in combination with a bathtub comprising a frame formed of a pair of horizontal rails extending transversely over said bathtub, a pair of vertical legs de-

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pending from the rail ends which extend exteriorly of said bathtub, connecting bars connecting said rails and legs together, a horizontal guide bar, said rails movably engaging said guide bar, a chair, rollers carried by said chair movably engaging said rails, and means holding said chair against movement on said rails.

2. An invalid chair for use in combination with a bathtub comprising a frame formed of a pair of horizontal rails extending transversely over said bathtub a pair of vertical legs depending from the rail ends which extend exteriorly of said bathtub, connecting bars connecting said rails and legs together, a horizontal guide bar, said rails movably engaging said guide bar, a chair, rollers carried by said chair movably engaging said rails, and pairs of holding levers pivotally carried by said chair engageable with said rails for holding said chair against movement.

3. An invalid chair for use in combination with a bathtub comprising a frame formed of a pair of horizontal rails extending transversely over said bathtub, a pair of vertical legs depending from the rail ends which extend exteriorly of said bathtub, connecting bars connecting said rails and legs together, a horizontal guide bar, said rails movably engaging said guide bar, said guide bar being angle shape in transverse section with one side horizontal and the other side vertical, inverted U-shaped retaining members carried by said rails loosely engaging over the vertical side of said guide bar, a chair, rollers carried by said chair movably engaging said rails, and means holding said chair against movement on said rails.

4. In combination with a bathtub, an invalid chair and supporting means therefor comprising an inverted L-shaped frame, means supporting said frame with one side thereof horizontal and projecting over said bathtub, and a chair, means supporting said chair for transverse movement on said horizontally projecting sides of said frame.

5. In combination with a bathtub, an invalid chair and supporting means therefor comprising an inverted L-shaped frame, means supporting said frame with one side thereof horizontal and projecting over said bathtub, a chair, means supporting said chair for transverse movement on said horizontally projecting sides of said frame, and means locking said chair against movement on said frame.

6. In combination with a bathtub, an invalid chair and supporting means therefor comprising an inverted L-shaped frame with one side thereof horizontal and extending over the top of said bathtub, a horizontal guide bar disposed above the bathtub, inverted U-shaped retainers carried by said frame loosely engaging said guide bar, a chair, and means supporting said chair for transverse movement across said bathtub on said horizontally projecting sides of said frame.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,237,076	Kenney et al.	Apr. 1, 1941

FOREIGN PATENTS

Number	Country	Date
116,462	Austria	Feb. 25, 1930