

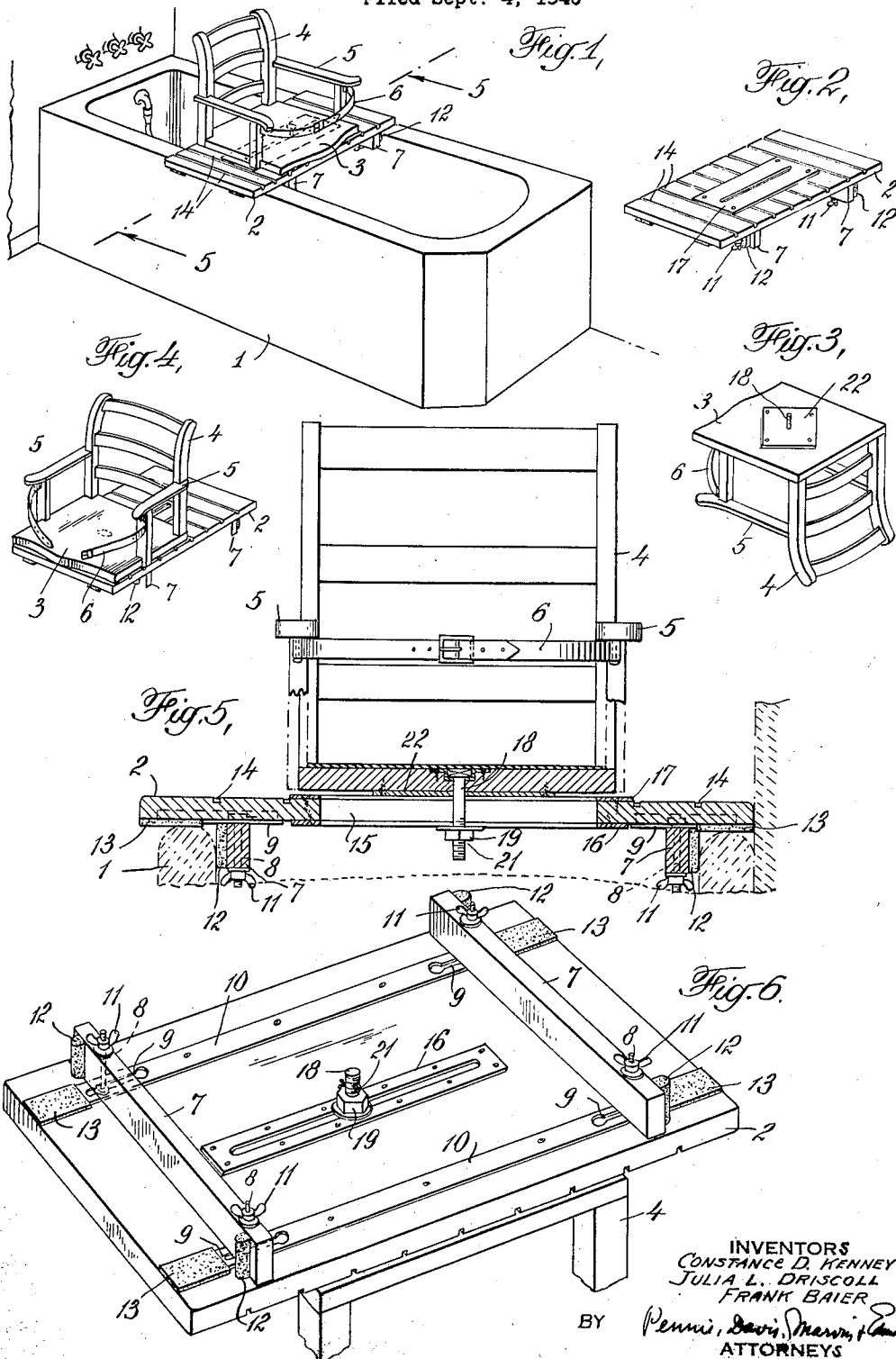
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BATH CHAIR FOR INVALIDS

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BATH CHAIR FOR INVALIDS

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This invention relates to a chair in which an invalid may sit while being bathed. Various seats have been proposed for use in connection with bathtubs but these have not been adapted for use by invalids, particularly paralytics, for whom the problem of getting into and out of the seat and getting the seat into bathing position presents serious difficulties, or they have required special mountings making it impossible to use them on an ordinary bathtub without first going to the trouble and expense of providing the necessary fittings. In accordance with the present invention, we have provided a bath chair that can be used with any standard bathtub without special fittings, that can be readily adjusted to fit tubs of different widths and securely held in place, and that permits an invalid to be seated at the side of the tub and moved into bathing position at the center of the tub with a minimum of effort.

Generally our chair comprises a supporting board and a seat adjustably mounted on it. The board is long enough to span the width of any standard bathtub, wide enough to support a seat without possibility of tipping, and has adjustable clamps on its under side adapted to bear firmly against the inner sides of the tub and hold the board against dislodgment. The seat itself, provided with arms and back, and if necessary, straps for complete security, is swiveled on the board, the swivel pin passing through a longitudinal slot in the board. The seat can thus be rotated on the board and moved transversely of the tub, the frictional engagement of the seat and board being sufficient to prevent unintended relative movement but not too great to make adjustment difficult. By means of this construction, the seat can be swung around to face outward and overhang the outer edge of the tub. With the chair in this position, the invalid can be easily seated. The seat is then swung through 90° and moved to bathing position in the center of the tub, the invalid's legs, of course, being raised to clear the side of the tub and lowered again. After the bath, these movements are reversed.

We have illustrated a preferred embodiment of our invention in the accompanying drawing in which

Fig. 1 is a perspective view of a bathtub showing our improved seat mounted upon it in bathing position;

Fig. 2 is a detailed view of the supporting board;

Fig. 3 is a bottom view of the seat;

Fig. 4 is a view similar to Fig. 2 but showing the seat mounted on the board and swung into receiving position;

Fig. 5 is a transverse section on an enlarged scale taken along the line 5—5 of Fig. 1; and

Fig. 6 is a perspective on an enlarged scale of the bottom of the board showing the clamps by means of which the board is held in place on the tub.

The bathtub 1, shown in Fig. 1, is a conventional tub, one long side of which is against a wall, as is usual. The chair of our invention is shown mounted upon the tub in bathing position. This chair comprises a board or other rigid support 2, adapted to be placed across the tub and be supported by it. A seat 3, provided with a back 4, side arms 5, and a strap 6 across the front, is swiveled relative to the support or board 2. The board is provided on its lower face with a pair of transverse clamping strips 7 adjustably mounted by means of bolts 8, the heads of which are slidable in slots 9 in metal strips 10 extending longitudinally of the board and adjacent its edges. The clamping strips 7 are held in adjusted position by means of wing nuts 11. The outer face of each clamping strip 7 is provided with a pair of rubber blocks 12, each designed to bear against an inner wall of the tub when the chair is mounted upon it. The lower face of the board is provided at its ends with rubber blocks 13 designed to rest upon the upper edges of the tub and support the board. The upper face of the board is provided with a plurality of transverse drainage grooves 14. The board is provided centrally with a longitudinal slot 15 defined by a narrow slotted metal plate 16 on the lower face of the board and by a wider metal plate 17 on its upper face.

The seat is swiveled on the board by means of a swivel pin or bolt 18 mounted in the center of the seat and extending downwardly through the slot 15. The seat is held against vertical movement by means of a nut 19 on the lower end of the pin 18, which nut is held in place by means of a cotter pin 21. The lower face of the seat is provided with a metal plate 22 surrounding the pin 18. This metal plate engages the metal plate 17 on the board and makes frictional contact with it. The nut 19 is set so as to bring the two plates 22 and 17 into such frictional engagement that unintended movement of the seat relative to the board is prevented, this frictional engagement being insufficient, however, to prevent ready adjustment of the seat relative to the board.

When the chair is to be used, it is placed upon

the tub, as shown in Fig. 1, with the board extending across and supported by the upper edges of the tub. The clamping strips 7 are moved into snug engagement with the inner side walls of the tub and secured in position by means of the wing nuts 11. The board thus clamped in position cannot be accidentally moved during use, although with the clamping strips once set for a given tub, the chair can be removed and replaced on the same tub without further adjustment. To receive the invalid to be bathed, the seat is moved longitudinally with reference to the board until the swivel pin 18 reaches or approaches the outer end of the slot 15. The seat is then turned or swiveled through 90° until its outer edge overhangs the end of the board and the side of the tub, as shown in Fig. 4. The invalid is then seated and, if necessary, strapped on the seat. The seat is then swung about its swivel through 90° and moved back to the center of the tub to the position shown in Fig. 1, the legs of the invalid having meanwhile been raised to clear the side of the tub during the inward movement of the seat and then lowered. The invalid can now be bathed by any accepted method, the water, of course, draining into the tub, any excess splashing on the board draining off through the drainage grooves 14.

The chair is preferably made of wood which may or may not be painted or enameled. The whole structure is simple to operate, cannot easily get out of order, and is foolproof. It provides a simple and easy means of bringing an invalid to and removing him from the tub, and holding him in a comfortable and convenient position during his bath. The chair can be readily mounted on any standard tub without special fittings. Although the invention is intended primarily for invalids, it can, of course, be used for children, for the old and infirm, or for anyone else, the bathing of whom ordinarily presents difficulties.

We claim:

1. A bath chair for invalids comprising a board adapted to be placed across a bathtub, a seat swiveled on the board, a longitudinal slot in the board, and a swivel pin extending from the seat and through the slot, whereby the seat may be moved longitudinally of the board and swung outwardly with its forward edge at or beyond the edge of the tub.

2. A bath chair for invalids comprising a board adapted to be placed across a bathtub, a seat swiveled on the board and movable longitudinally therealong, a swivel pin connecting the seat and the board, engaging metal plates on the bottom of the seat and the top of the board around

the swivel pin, and means for holding the plates in frictional engagement.

3. A bath chair for invalids comprising a board adapted to be placed across a bathtub, means for clamping the board to the tub, a seat having arms and a back swiveled on the board, a longitudinal slot in the board, a swivel pin extending from the seat and through the slot, engaging metal plates on the bottom of the seat and the top of the board around the swivel pin, and means for holding the plates in frictional engagement, whereby the seat may be moved longitudinally of the board and swung outwardly with its forward edge at or beyond the edge of the tub to receive the invalid and swung inwardly to hold the invalid in bathing position.

4. A bath chair for invalids comprising a rigid support adapted to be placed across a bath tub, and a seat mounted on and swiveled relative to the support, the support being so constructed as to permit the seat to be moved longitudinally therealong, whereby the seat may be moved along the support to a position at one side of the tub and turned to enable an invalid to be seated therein.

5. A bath chair for invalids comprising a board adapted to be placed across a bath tub, means for clamping the board to the tub, and a seat mounted on and swiveled relative to the board, the board being so constructed as to permit the seat to be moved longitudinally therealong, whereby the seat may be moved along the board to a position at one side of the tub and turned to enable an invalid to be seated therein.

6. A bath chair for invalids comprising a board adapted to be placed across a bath tub, adjustable clamps depending from the board, means for holding the clamps in engagement with the inner side walls of the tub, and a seat swiveled on the board, the board being so constructed as to permit the seat to be moved longitudinally therealong, whereby the seat may be moved along the board to a position at one side of the tub and turned to enable an invalid to be seated therein.

7. A bath chair for invalids comprising a board adapted to be placed across a bath tub, drainage slots in the upper face of the board, and a seat mounted on and swiveled relative to the board, the board being so constructed as to permit the seat to be moved longitudinally therealong, whereby the seat may be moved along the board to a position at one side of the tub and turned to enable an invalid to be seated therein.

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