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2,697,475

BATH LIFT

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2 Sheets-Sheet 1

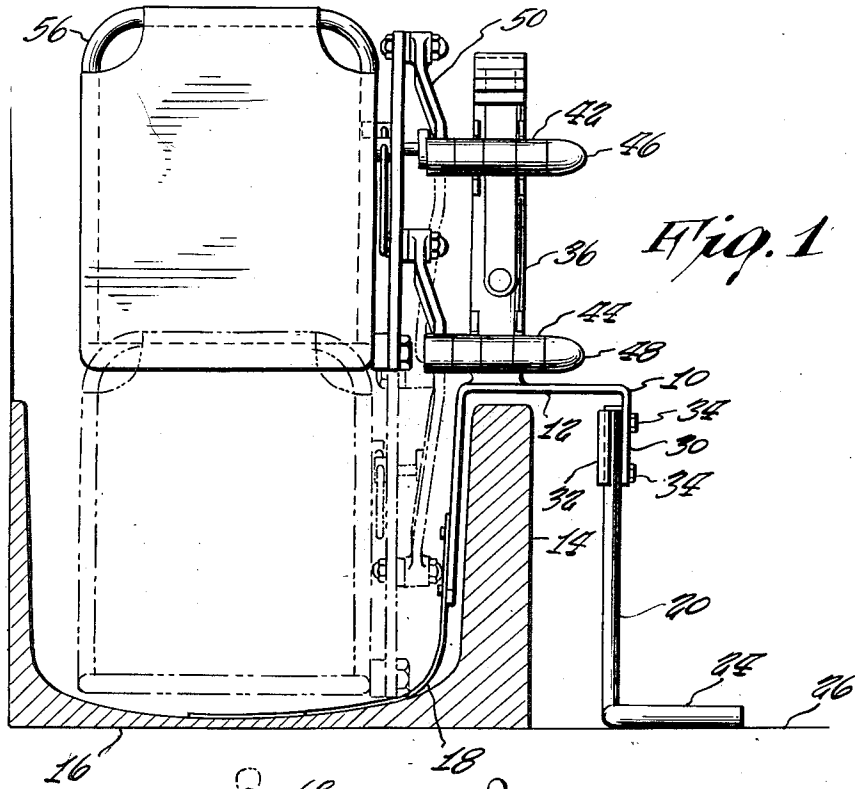


Fig. 1

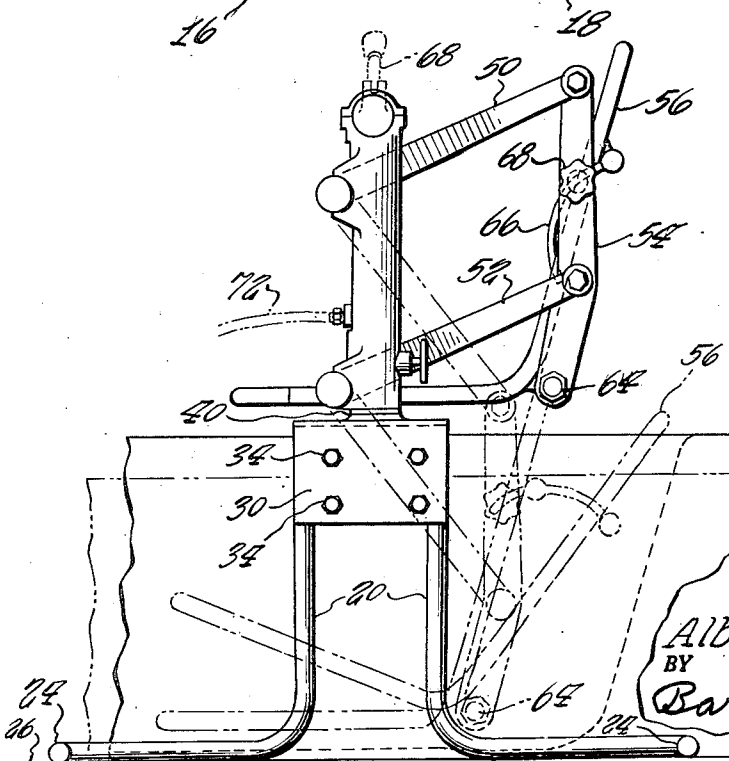


Fig. 2

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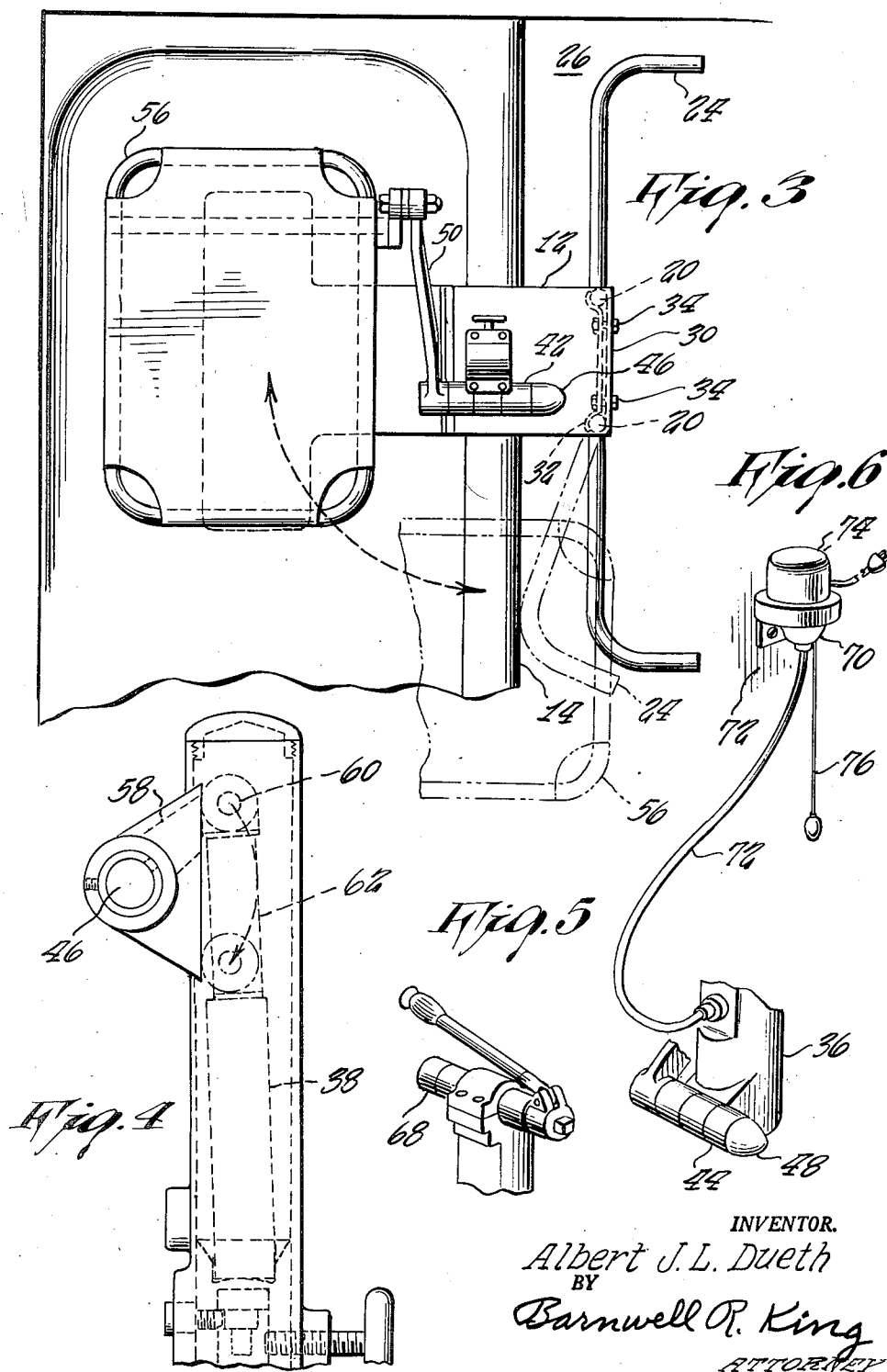
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BATH LIFT

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7 Claims. (Cl. 155—36.5)

This invention relates to bath lifts.

The main object of the invention is to provide a bath lift that is simple and economical in its parts, relatively light in weight, and efficient and effective in operation. Other objects will appear from the following description.

In the drawing:

Fig. 1 is front elevational view of a bath lift illustrating the invention associated with a conventional bath tub that is shown in cross-section;

Fig. 2 is a fragmentary view in side elevation of such lift;

Fig. 3 is a fragmentary top plan view of the lift;

Fig. 4 is an enlarged fragmentary view in elevation of the column;

Fig. 5 is a fragmentary perspective view of a hand-pump mounted on such column; and

Fig. 6 is a similar view of a motor-driven pump connected to the column.

In the illustrated bath lift there is provided a base 10 in the form of a saddle 12 which is adapted to straddle the side wall 14 of a bath tub 16. Such saddle is supported by a member 18 that is curved to fit the bottom of the tub while resting thereon, and by legs 20, 20 having feet 24 that rest on the floor 26 outside of the tub. The legs are pivoted to the outer flange 30 of the saddle by a clamp 32 secured to the flange by bolts 34, for adjustment relative to the side of the tub due to variations in thickness of tub sides. The arrangement also provides convenient means for adjusting the saddle on the supports 18 and 20 to accommodate tub walls of different heights.

Mounted on the top of the saddle 12 is a vertical column 36 that is hollow and contains a hydraulic jack 38. The column is pivoted to turn on the saddle about a vertical axis, a suitable stud-bearing 40 being provided on the saddle for this purpose. The column is formed with lateral upper and lower brackets 42 and 44 to which are hinged horizontal shafts 46 and 48. The inner ends of which shafts are connected to links or arms 50 and 52, respectively, the outer ends of the latter being pivotally connected to a vertical member 54 constituting the support for a chair 56. The upper shaft 46 is provided with a crank 58 which is pivotally connected at 60 to the piston 62 of the jack 38, the lower end of which is mounted in the column for tilting movement therein.

The chair 56 is pivotally connected at 64 to the support 54 for suitable adjustment about a horizontal axis, a curved slide 66 and hand clamp 68 therefor being provided

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on the back of the chair and support 54 for securing the chair in the desired position of tilt. The arms 52 and 50 form a parallel linkage which maintains the chair in the same relative position during vertical movement thereof into and out of the tub when the jack 38 is operated to move the crank 58 which, in turn, operates the arm 50.

The jack 38 may be operated by a hand-pump 68 which may be conveniently mounted on the top of the column, Fig. 5; or by a motor-driven pump 70, Fig. 6, which is connected to the column by a flexible hydraulic conduit. The pump 70 may be mounted on a wall 72 remotely located with respect to the column 36, and the motor 74 which drives the pump may be controlled by a switch operated by a pull-string 76, to avoid shock-hazard to the operator/bather.

In operation, with the chair 56 in elevated position over the side 14 of the tub 16, a person first sits in the chair and is then swung seated in the chair over the side of the tub through an arc of 90 degrees. This places the person above the inside of the tub and the chair is then operated, through the jack 38, to lower the person to the bottom of the tub. After bathing, the person, still sitting in the chair is elevated to a position above the level of the side of the tub and then swung back through such 90 degree arc over the tub side wall, from which position he can leave the chair.

I claim:

1. A bath lift comprising the combination of a base in the form of a saddle adapted to straddle the side wall of a bath tub, a column mounted on said base for rotation about a vertical axis, a chair mounted on said column, and means associated with said column for raising and lowering said chair into and out of said bath tub, such combination thereby providing a bath chair in which a person can sit outside of said bath tub, then, while sitting on the chair, can swing over the side wall of the tub and be lowered thereby to the bottom of such tub by said means, in which latter position the person can bathe, after which said chair carrying the person can be lifted by said means to a level above such tub side wall and swung over the latter.

2. A bath lift as defined by claim 1, in which said means comprise parallel arms which act to hold the chair in substantially the same relative position during movement thereof with respect to said tub.

3. A bath lift as defined by claim 1, in which said saddle is provided with adjustable supports adapted to rest on the bottom of the tub and on the floor adjacent the outside of such tub, to prevent the lift from tilting in use.

4. A bath lift as defined by claim 1, in which the means for raising and lowering said seat comprises a jack.

5. A bath lift as defined by claim 1, in which the means for raising and lowering said seat comprises a hydraulic jack; and a hydraulic pump connected to said jack.

6. A bath lift as defined by claim 5, in which said pump is manually operable.

7. A bath lift as defined by claim 5, in which a motor is connected to drive said pump, and means are provided for remotely controlling the operation of said motor.

No references cited.