

July 17, 1951

F. O. THOMPSON

2,560,997

HOSPITAL BED PATIENT BATHTUB CHAIR

Filed Feb. 21, 1947

3 Sheets-Sheet 1

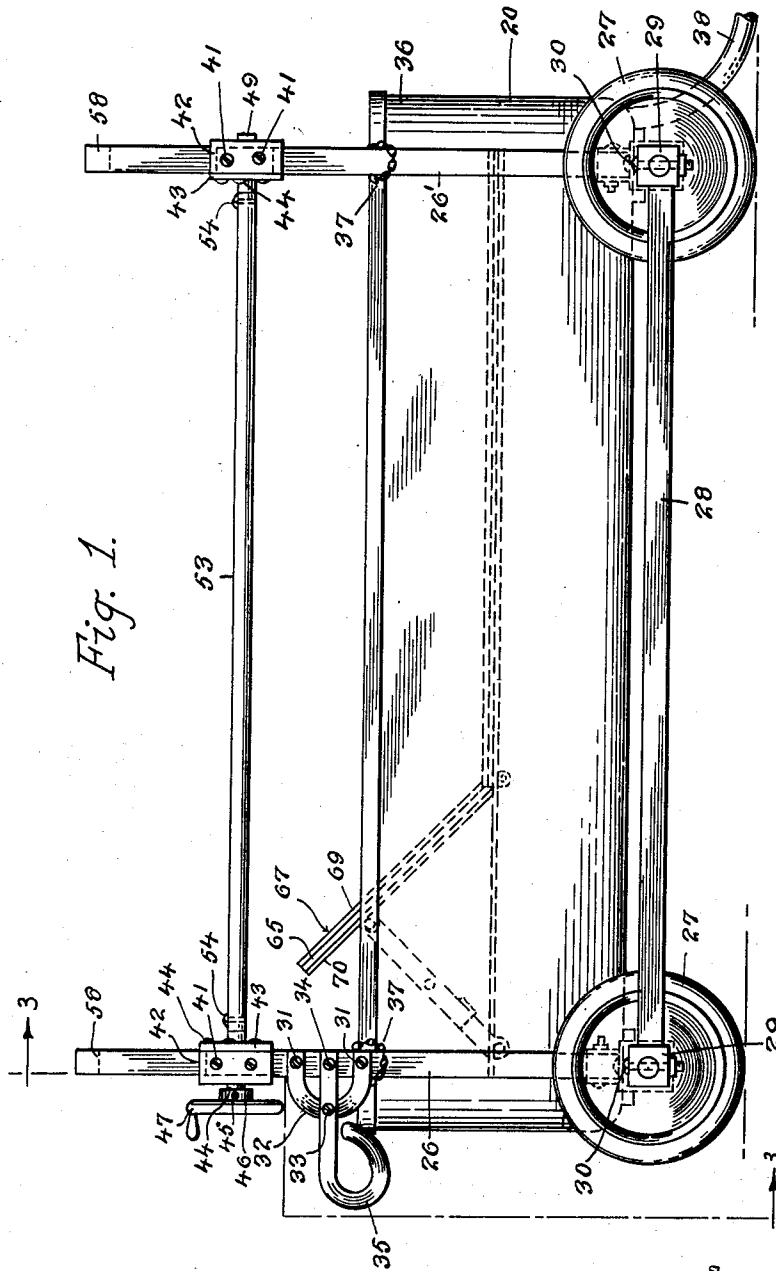


Fig. 1.

Inventor

FLOYD O. THOMPSON

334

Victor J. Evans & Co.
Attorney

July 17, 1951

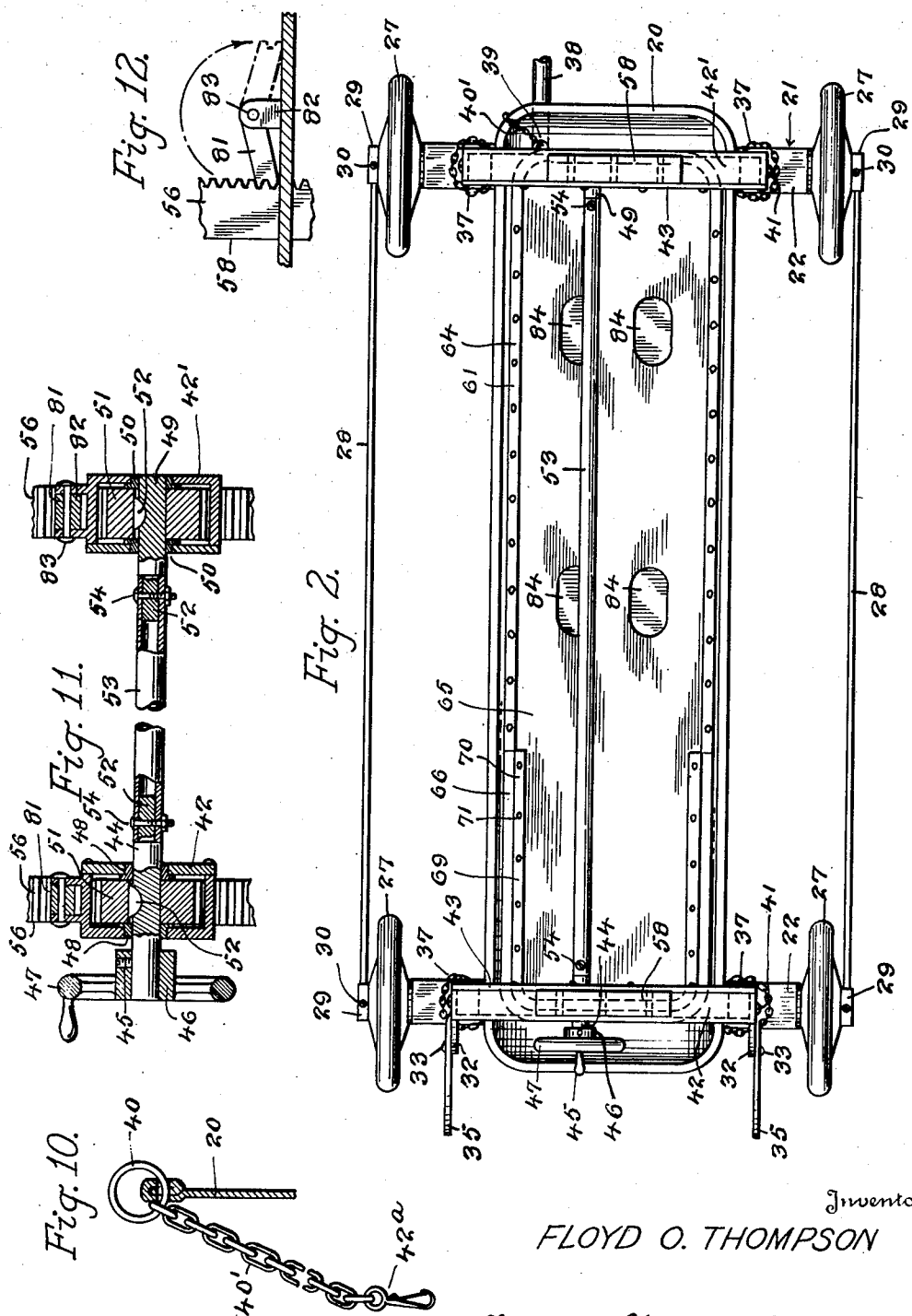
F. O. THOMPSON

2,560,997

HOSPITAL BED PATIENT BATHTUB CHAIR

Filed Feb. 21, 1947

3 Sheets-Sheet 2



July 17, 1951

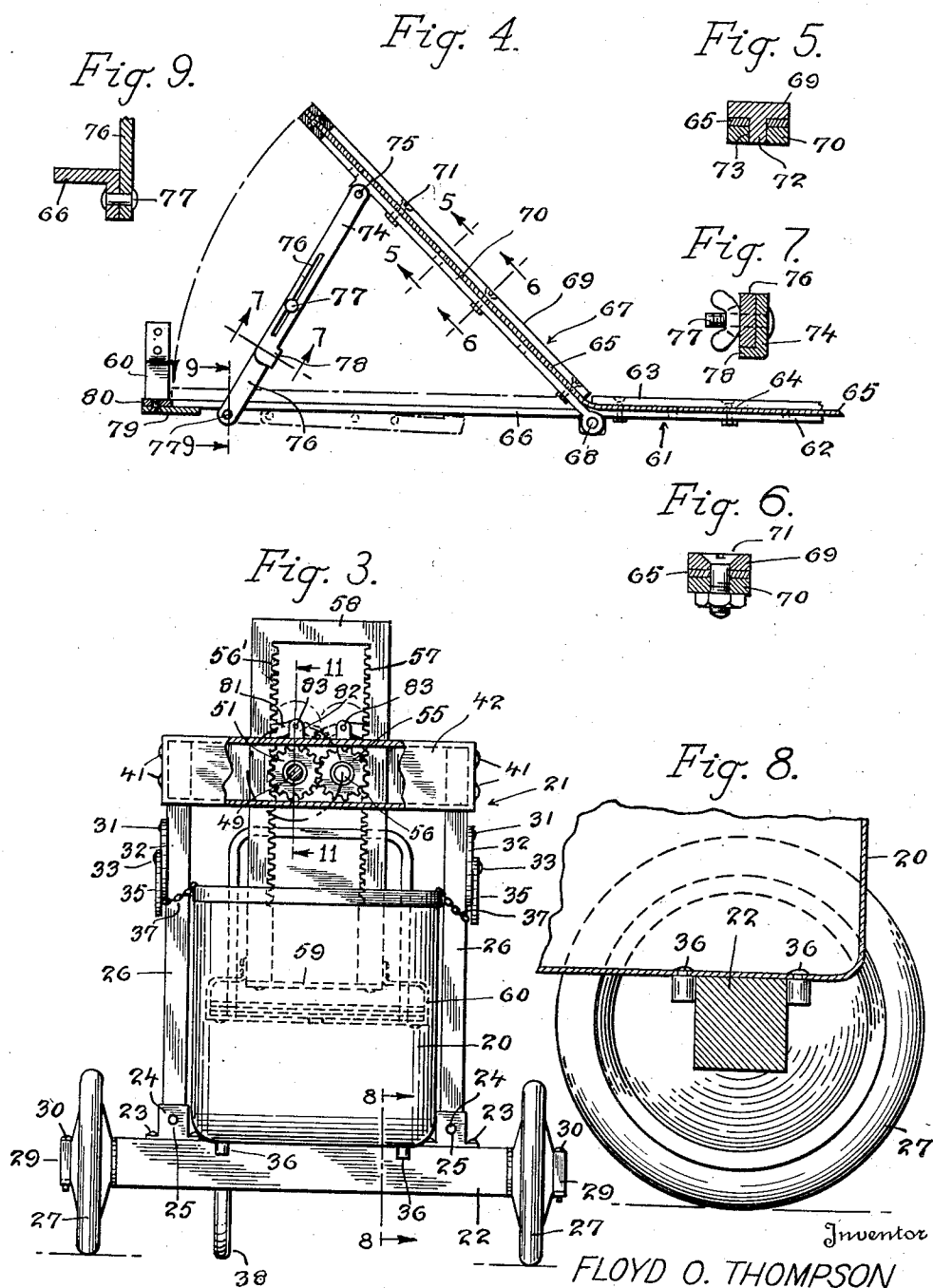
F. O. THOMPSON

2,560,997

HOSPITAL BED PATIENT BATHTUB CHAIR

Filed Feb. 21, 1947

3 Sheets-Sheet 3



Inventor
FLOYD O. THOMPSON

By

Victor J. Cranston

Attorney

UNITED STATES PATENT OFFICE

2,560,997

HOSPITAL BED PATIENT BATHTUB CHAIR

Floyd O. Thompson, Sedro Woolley, Wash.

Application February 21, 1947, Serial No. 729,968

1 Claim. (Cl. 4—185)

1

This invention relates to a combination bath chair and tub, which is especially adapted to be used by bed-ridden patients who, even with help, find it a chore to go to the bathroom for a bath.

An object of the invention is to provide a portable bath tub having means associated therewith to receive a patient, and lower the patient into the tub for bathing purposes.

With the above and other objects in view, the invention consists of the novel details of construction, arrangement and combination of parts more fully hereinafter described, claimed and illustrated in the accompanying drawings in which:

Figure 1 is an elevational view of an embodiment of the invention, with the movable platform shown in dotted lines;

Figure 2 is a top plan view of the device;

Figure 3 is a head end elevation partially in section on the line 3—3 of Figure 1;

Figure 4 is a fragmentary sectional view of the movable platform with the back rest raised;

Figure 5 is a sectional view on the line 5—5 of Figure 4;

Figure 6 is a sectional view on the line 6—6 of Figure 4;

Figure 7 is a sectional view on the line 7—7 of Figure 4;

Figure 8 is a sectional view on the line 8—8 of Figure 3;

Figure 9 is a sectional view on the line 9—9 of Figure 4;

Figure 10 is an enlarged sectional view of a portion of the tub wall showing the method of fastening the drain plug chain thereto;

Figure 11 is an enlarged sectional view on the line 11—11 of Figure 3, and

Figure 12 is an enlarged fragmentary view of the rack and pawl used to prevent the movable platform from falling under the weight of the patient when the hand wheel is released.

Referring more in detail to the drawings, the reference numeral 20 designates a bath tub which may be of any shape or size which is adapted to be supported by a chassis 21 comprising transverse substantially square shaped parallel axles 22 to which are secured by fasteners 23, the cleats 24 which support and are secured to the four corner uprights 25 and 26' respectively by fasteners 25. Mounted on the ends of the axles 22 are rubber tired wheels 27, and side bars 28 are provided with square shaped caps 29 which fit over the ends of the axles 22, and by means of bolts 30 retain the wheels on the axles.

Secured to the uprights 26 adjacent the top

2

thereof, by fasteners 31, is the U-shaped bracket 32, and secured to this bracket by fasteners 33 and to the uprights 26 by fasteners 34 is the handle 35, there being one on each side of the device.

Mounted on the axles intermediate of the uprights 25 and 26' is the bath tub 20, which is retained on the axles by means of spaced depending legs 36 which engage opposite sides of the axles, and chains 37 secured to the upper rim of the tub in alinement with the uprights encircle the uprights to further aid in retaining the tub on the chassis 21, and prevent tilting thereof. Snap hooks are provided on the ends of the chains, so they can be easily detached as desired.

The tub is also provided with a drainage tube 38 which, being flexible, can be moved in any position desired, to drain the tub after it has been used for bathing purposes, and a drain hole communicating with the tube and closed by a plug 39, in the conventional manner, which is connected to the tub by a ring 40 of a chain 40' and a snap hook 42a.

Secured to the upper ends of the uprights 26 and 26' respectively, transversely of the chassis 21, by fasteners 41, are the elongated rectangular shaped gear housings 42 and 42' respectively, which are provided with removable inner sides or face plates 43 secured by fasteners 44. Journalled in housing 42 is a stub shaft 44 on the outer end of which is secured by a set screw 45, the hub 45 of the hand wheel 47, and bearings 48 revolvably mount the shaft 44 in the housing 42. In like manner, a stub shaft 49 is journalled in housing 42' by means of bearings 50 in the housing 42', and both shaft 44 and shaft 49 have a pinion gear 51 keyed thereto by a key 52, and each gear is mounted within its respective housing. The inner ends of shafts 44 and 49 are provided with a reduced portion 52, and by means of the tubular shaft 53 and fasteners 54, the stub shafts are united to form a unitary shaft.

A second pinion gear 55 is mounted in each of the housings 42 and 42' on a shaft 56 in mesh with the first pinion gear 51, and these gears mesh with the oppositely disposed racks 56' and 57 respectively, which are formed on the inner surface of the U-shaped frames 58 which are mounted for up and down movement in the housings 42 and 42' respectively. Secured to the lower ends of the frames 58, transversely thereof, are the brace bars 59. Secured to the outer sides of the frames 58 adjacent the ends, are the

hangers 60 to which are secured the frame 61 which comprises the lower section 62, and upper section 63, and secured between these sections by fasteners 64 is a sheet of canvas 65. A portion of the section 63 is shaped angularly as at 66 to support the back rest 67, which is hinged at 68 at opposite points of the frame 61, transversely thereof. The back rest comprises the upper U-shaped section 69 and lower section 70, between which is secured the canvas 65 by fasteners 71, and the section 69 is provided with depending legs 72, which penetrate the canvas 65 and are received in openings 73 in the section 70.

The back rest has a link 74 pivotally connected thereto at 75, and a link 76 is pivoted to the frame 61 at 77. Each link is provided with an elongated slot 76 to receive a fastener 77, whereby the links are adjustably and foldably connected together, and a keeper 78 on the link 74 prevents buckling of the links when the back rest is in raised position, as shown in Figure 4.

In lowered position, the back rest is prevented from going below the horizontal by a plate 79 secured to a hanger 80 by fasteners 80.

By manipulation of the hand wheel 47, the frame 61 may be raised or lowered as desired, and pawls 81 mounted in upstanding apertured ears 82 by pins 83 engage the racks 56 and 57 to retain the frames 58 in fixed relation to the tub 20.

To quickly and efficiently drain the seat, the canvas is provided with a pair of oppositely positioned drain openings 84 which leave the canvas practically dry when the water is drained from the tub.

The object of the invention is to provide a tub that can be wheeled to a position close to a sick person's bed, when the canvas frame can be raised so that the patient may be rolled over onto the frame and the frame lowered into the water for a bath.

The back rest may be raised to permit the patient to sit up on the rest or to recline as desired.

From the foregoing, it is believed that the operation and construction of the device will be

apparent to those skilled in the art, and it is to be understood that changes in the minor details of construction, arrangement and combination of parts may be resorted to, provided they fall within the spirit of the invention and the scope of the appended claim.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

10 A device of the character described, comprising a chassis, a tub mounted on said chassis, means on said tub coacting with said chassis to prevent said tub from slipping from said chassis, uprights on said chassis, gear housings 15 mounted on the upper ends of said uprights, U-shaped frames comprising two vertically disposed parallel portions and a cross member joining said portions at their upper ends mounted in said housings, racks formed on the inner opposed longitudinal edges of said portions, gear 20 means in said housings intermediate of said parallel portions, adapted to engage said racks, shafts for said gears, means on said shafts for rotating said gears to raise and lower said U-shaped frames, means carried by said housings 25 adapted to engage said racks to retain said frames in fixed relation to said uprights and a rectangular shaped frame secured to the lower ends of said portions.

FLOYD O. THOMPSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,263,611	Scroggin	Apr. 23, 1918
1,874,826	Staudt	Aug. 30, 1932
2,123,398	Bowers	July 12, 1938
2,242,939	Buckel	May 10, 1941
2,314,044	Hunting	Mar. 16, 1943

FOREIGN PATENTS

Number	Country	Date
399,969	France	July 13, 1909