Aug. 25, 1942. C. G. EBERLE 2,294,164

BATHTUB APPLIANCE

Filed Aug. 29, 1941 2 Sheets-Sheet 1

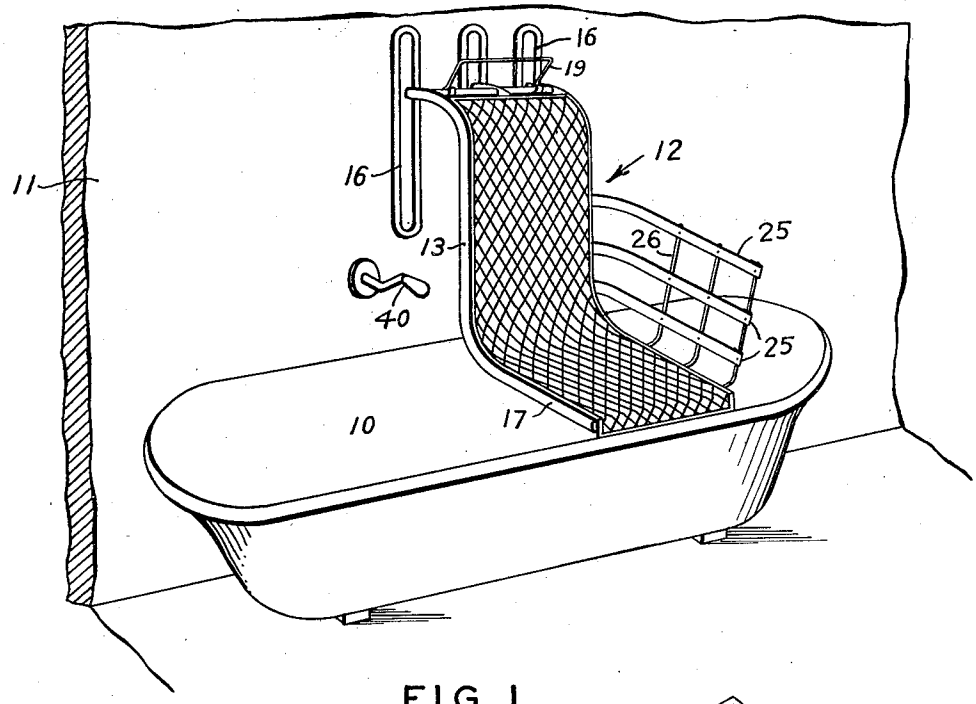


FIG. 1.

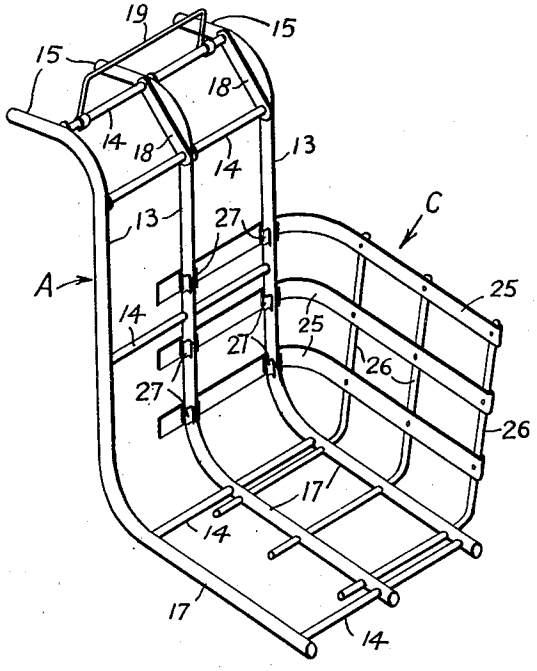


FIG. 2.

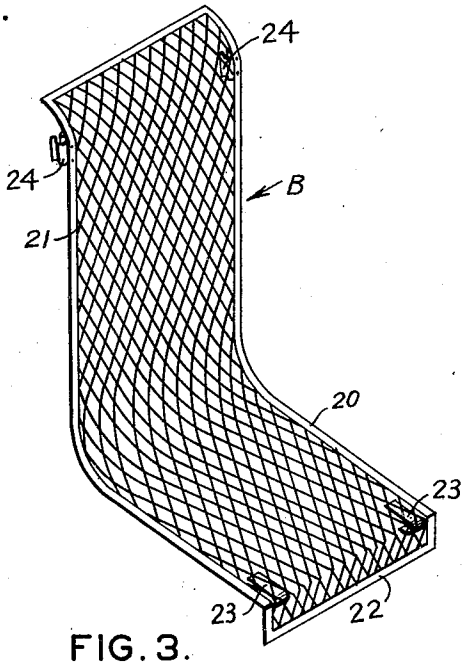


FIG. 3.

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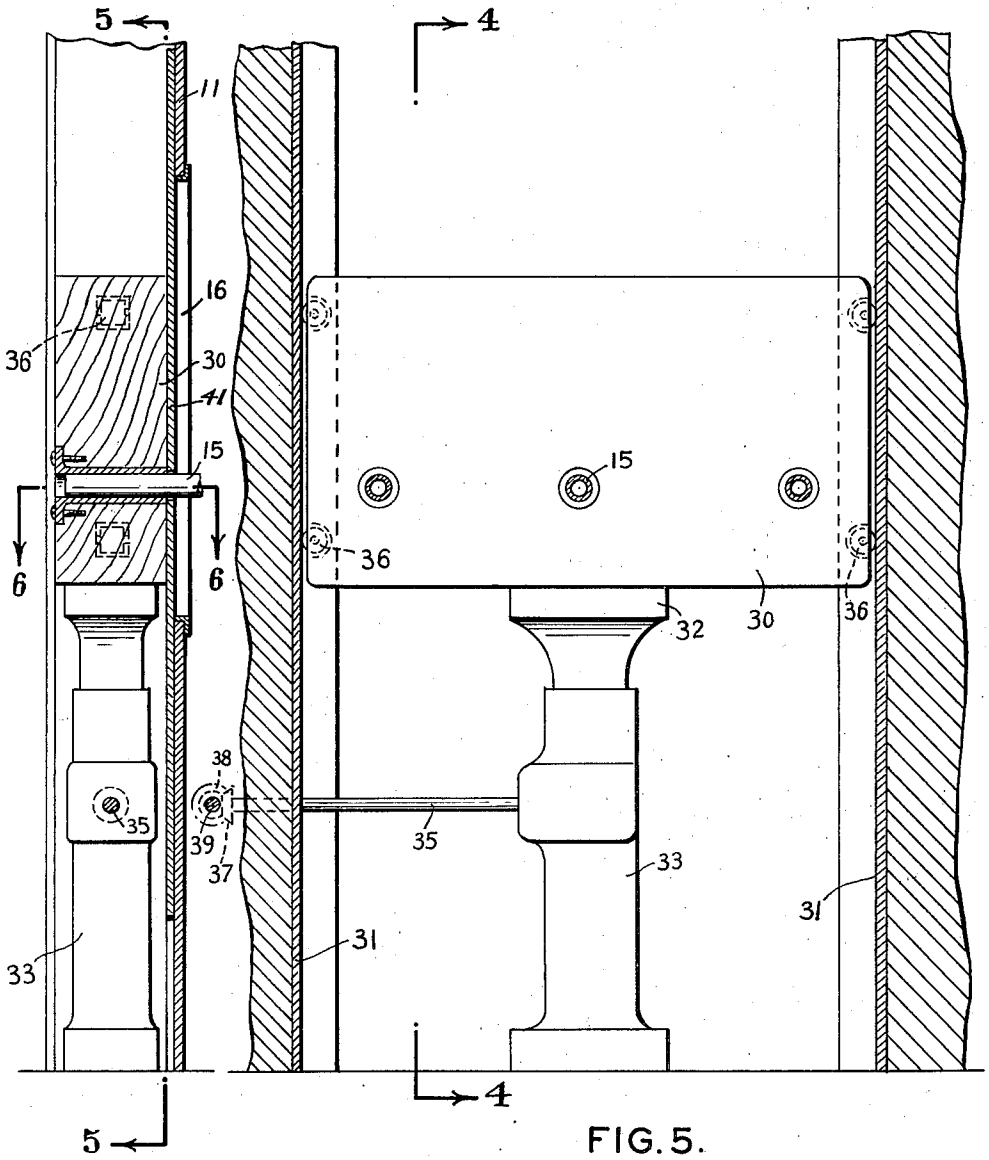


FIG. 4.

FIG. 5.

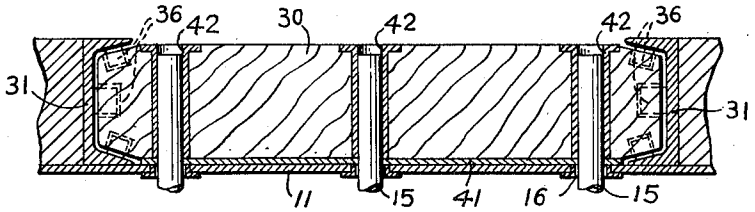


FIG. 6.

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UNITED STATES PATENT OFFICE

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BATHTUB APPLIANCE

Charles G. Eberle, Jamaica, N. Y.

Application August 29, 1941, Serial No. 408,789

1 Claim. (Cl. 4—185)

This invention relates to new and useful improvements in a seat or the like for use in connection with bathtubs to support the bather, and is especially directed to that type of supporting device adapted to be raised and lowered in the bathtub by any suitable mechanism within the wall of the bathroom adjacent the tub, the invention having for its primary object to provide a seat which is simple in construction and which is portable in that it may be quickly and easily removed from the raising and lowering mechanism when not in use and readily inserted into position for use by the bather.

The invention consists in a supporting device of this character embodying a chair constructed of a minimum number of parts which can be quickly assembled together and likewise taken apart when not in use and stored in any convenient place and occupying a minimum space.

The invention consists further in a removable seat or the like for use in connection with bathtubs, said seat consisting of a frame formed of rods or tubular members adapted to be inserted through suitable openings in the wall adjacent the bathtub and connected to the traveling member of the raising and lowering mechanism, said frame having removably secured thereto a seat-forming member of mesh construction, said frame also having removably secured thereto an auxiliary frame forming a back rest for the bather.

The invention consists also in any other novel features hereinafter more clearly set forth in the following description, illustrated by way of example in the accompanying drawings, and more particularly pointed out in the appended claim.

Referring to the drawings, in which numerals of like character designate similar parts throughout the several views—

Fig. 1 is a perspective view of a bathtub with the supporting device forming the subject-matter of the present invention mounted in the wall of the bathroom;

Fig. 2 is a detail perspective view of the frame and back-rest-forming auxiliary frame of the supporting device with the seat-forming part removed;

Fig. 3 is a detail perspective view of the seat-forming part of the supporting device shown in Figs. 1 and 2;

Fig. 4 is a vertical sectional view through the wall of the bathroom taken on line 4—4 of Fig. 5 to show the raising and lowering mechanism for the supporting device of Fig. 1;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 4, and

Fig. 6 is a sectional view taken on line 6—6 of Fig. 4.

In the drawings, referring more particularly to Fig. 1, a bathtub 10 is shown resting upon the floor of a bathroom or the like, and arranged along one side wall 11 in which is mounted the supporting device of the present invention, generally designated as 12, said device consisting essentially of a main frame A, a mesh-like section B, and an auxiliary frame C, as clearly shown in Figs. 2 and 3. The main frame A is formed by a plurality of steel rods or tubing 13 transversely spaced from one another and connected together by cross-bars 14 welded or otherwise suitably secured in place. Each rod 13 terminates at one end in a substantially right angular bent portion to form a relatively short stem 15 adapted to be inserted in a suitable vertical slot 16 in the side wall 11 for connection with the raising and lowering mechanism hereinafter described. Each of the rods 13 also terminates at its other end in a substantially right angular bent portion forming an arm 17 oppositely disposed with respect to the corresponding stem 15, and adapted to extend in a substantially horizontal direction transversely across the bathtub 10 and within the boundaries thereof when the supporting device is in place, as clearly shown in Fig. 1.

Inasmuch as the entire weight of the bather is borne by the supporting device 12, and the stem portions 15 form the sole anchoring means for the device, the bent portions of the rods 13 adjacent the stems 15 are preferably reinforced by any suitable braces 18 to take up stresses and prevent undue strain on such bent portions. In order to assist the bather in entering and leaving the tub, a hand-rail 19 is provided on the frame A adjacent the upper end thereof.

The mesh-like section B corresponds in shape substantially to that of the frame A to form a substantially horizontal seat portion 20 adapted to rest on the arms 17, and a vertical side portion 21 extending along one side of the rods 13 preferably to a point adjacent the hand-rail 19. The lower portion of the section B terminates in a skirt 22 extending across the extremities of the arms 17. The mesh-like section B is removably secured to the frame A by means of hook-shaped members 23 and spring clips or the like 24, the former adapted to engage a cross bar 14 adjacent the ends of the arms 17, and the latter adapted to embrace separate rods 13 adjacent the upper bent portions thereof.

As clearly shown in Fig. 2, the auxiliary frame C consists of a number of angle bars **25** secured together in spaced relationship by one of the legs of angle rods **26** which extend transversely across one of the legs of said angle bars to form a vertical back-rest across one side of the main frame. The other legs of the angle rods **26** extend transversely across the arms **17** through suitable drilled openings therein, and the free legs of the angle bars **25** extend across the back of the frame A and are removably secured to the rods **13** by means of spring clips **27**.

It will thus be seen that the three frames A, B and C forming the supporting device **12** are all removably secured together and can be quickly and easily assembled and taken apart so that whenever the supporting device is not to be used, it can be stored away and will occupy very little storage space.

Referring to Figs. 4, 5 and 6 the raising and lowering mechanism for the supporting device consists of a traveling member **30** guided at its opposite longitudinal extremities in vertical channel bars **31** transversely spaced from one another and mounted in the back of the wall **11**. The traveling member **30** rests on the head **32** of a lifting jack **34** of any well known construction, said head adapted to be elevated by rotation of a handle **35** in one direction and lowered upon rotation of the handle in the opposite direction.

Interposed between the inner face of the wall **11** and the adjacent face of the traveling member **30** and movable with the latter is a vertical partition or facing **41** which extends a predetermined distance beyond the upper and lower limits of the slots **16** and serves to close the openings in the wall **11** defined by the slots. The partition **41** is provided with circular openings in alignment with the slots **16** and registering with similar openings in the traveling member **30** fitted with bushings **42** to receive the stems **15** of the supporting device **12**.

Rollers **36** are provided on the opposite guided extremities of the traveling member **30** which cooperate with the adjacent surfaces of the channel bars **31** to relieve friction between the cooperating surfaces and thereby facilitate vertical movement of said traveling member in the channel bars by the head of the lifting jack, upon turning the crank **40**.

It will therefore be appreciated that inasmuch as the supporting device **12** is removable from its raising and lowering mechanism, it may readily be inserted in place whenever it is desired to use the same, and likewise removed, and, when so removed, the appearance of the bathroom will not materially be altered since the raising and lowering mechanism is arranged out of sight in back of the wall **11**.

From the foregoing it is believed that the construction and advantages of the present invention may be readily understood by those skilled in the art without further description, it being borne in mind that numerous changes may be made in the details disclosed without departing from the spirit of the invention as set out in the following claim.

What I claim is:

In an appliance for a standard bathtub, the combination of a sloping body receiving portion formed of a vertical back portion having its upper end adapted to be connected to raising or lowering means, and a horizontal seat portion, the seat portion having a length substantially equal to the transverse interior width of the bathtub adapting it to enter into the bathtub from the top to the bottom thereof, with the vertical back portion disposed vertically along one side of the bathtub, a meshlike portion extending over the body receiving portion and a detachable backrest portion at one side of the body receiving portion, the other side being unobstructed, whereby the patient is seated on the horizontal seat portion with his back to the vertical portion and then turned to a position with his back to the back resting portion, when lowered into the bathtub, and the body receiving portion and back resting portion disassembled when not in use.

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