

Dec. 29, 1942.

J. E. CADE

2,306,934

BATHTUB

Filed July 21, 1941

4 Sheets-Sheet 2

Fig. 3.

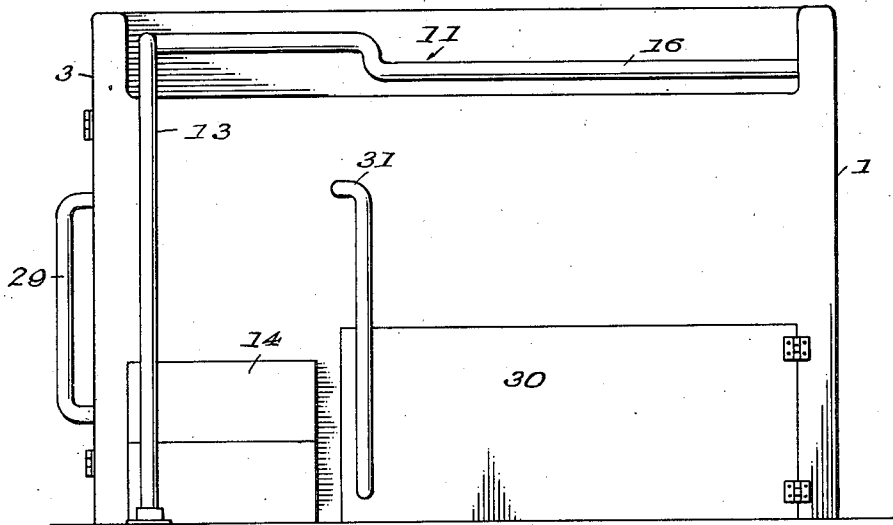
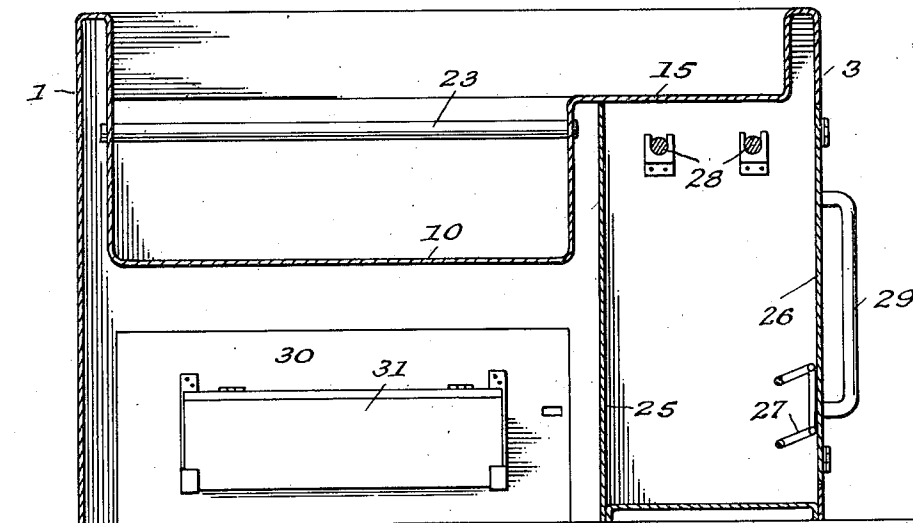


Fig. 4.



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Fig. 5.

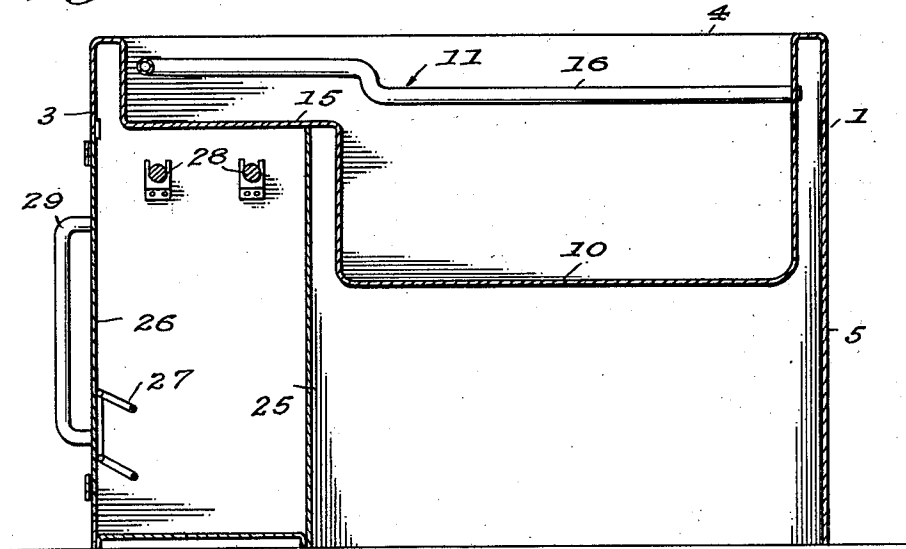


Fig. 6.

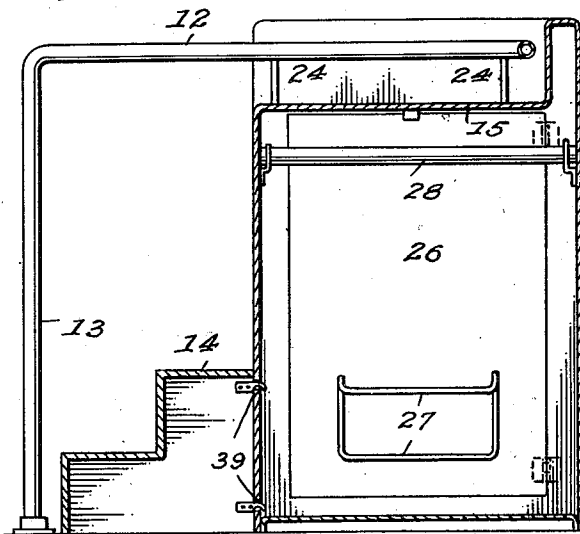
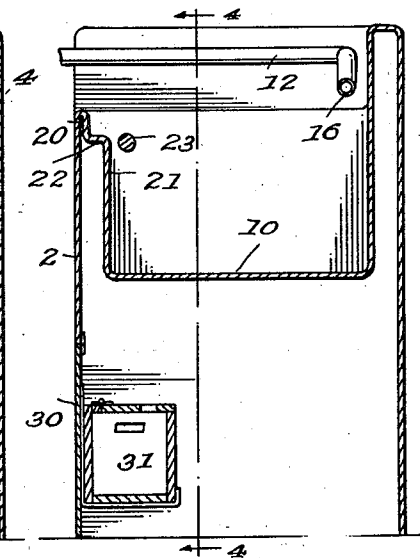


Fig. 7.



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Fig. 8.

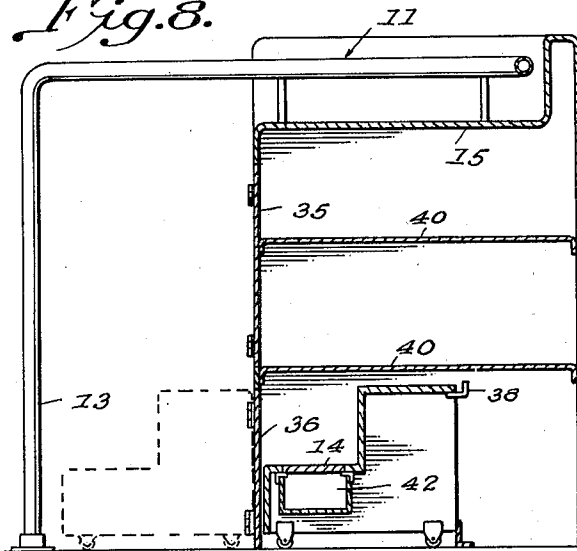


Fig. 9.

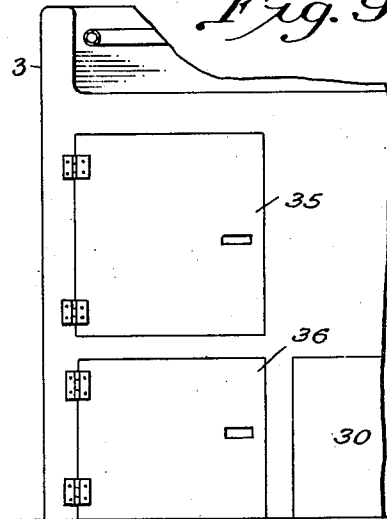


Fig. 10.

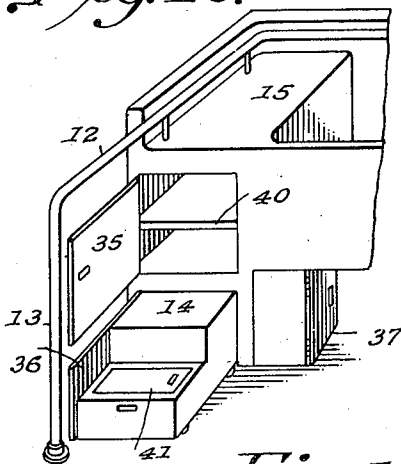


Fig. 11.

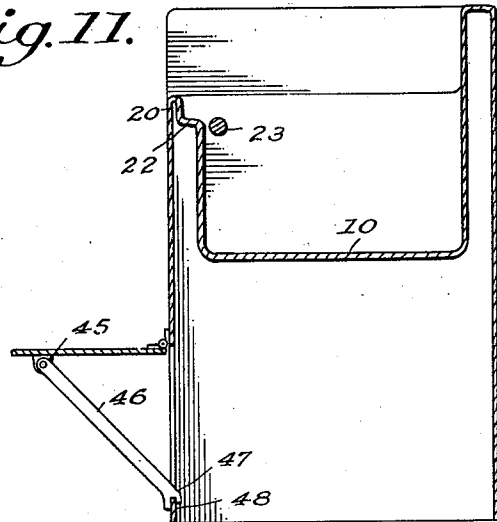


Fig. 12.

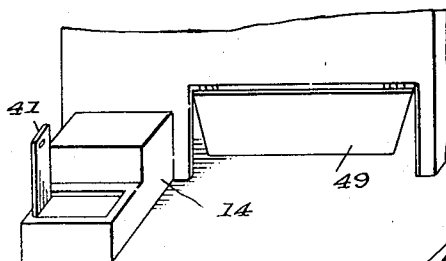
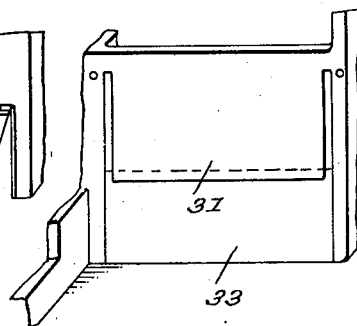


Fig. 13.



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UNITED STATES PATENT OFFICE

2,306,934

BATHTUB

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Application July 21, 1941, Serial No. 403,413

2 Claims. (Cl. 4—173)

This invention relates to bathtubs and more particularly to elevated or raised bathtubs for use in hospitals, sanatoriums, infirmaries and other institutions where a nurse is ordinarily in attendance, although it is also ideally suited for private use, particularly by semi-invalids and persons with infirmities.

One of the salient objects of the present invention is the novel design of the bathtub so that it may be used by convalescent patients and enable them to get in and out of the tub without danger of falling or slipping by providing means for safely supporting the patient in these operations.

Another object of the invention is to so construct the bathtub that the attendant nurse will have ready access thereto and be able to easily and simply direct the patient or assist the patient in bathing without stooping or straining.

Still another object of the invention is to provide a non-splashing side wall to protect the nurse from getting her uniform damp and to provide means at the lower edge of the front side wall so that the nurse can stand close to the tub.

Another object includes the utilization of the lower portion of the tub cabinet for storage. Neat and symmetrical cabinets and compartments have been designed to close the lower part of the vertical walls of the apparatus so as to utilize this normally wasted space for utilitarian purposes.

A still further object of the invention is the provision of easily mounted steps and hand rails extending from the side of the tub whereby the patient may get into the tub or sit on an adjacent platform in a sitting position.

In the drawings:

Fig. 1 is a perspective of the complete bathing apparatus showing the height of the tub, front compartment, safety hand rails and mounting steps.

Fig. 2 is also a perspective taken at a different angle and showing one arrangement of the front end and storage cabinets.

Fig. 3 is a front elevation showing the height of the tub above the floor and position of the steps and hand rail.

Fig. 4 is a vertical section partly in cross section taken on line 4—4 of Fig. 7, looking in the direction of the arrows.

Fig. 5 is a vertical cross section taken on line 5—5 of Fig. 1.

Fig. 6 is a vertical cross section taken on line

6—6 of Fig. 1, looking in the direction of the arrows.

Fig. 7 is a vertical cross section taken on line 7—7 of Fig. 1, looking in the direction of the arrows.

Fig. 8 is a vertical section taken on approximately line 6—6 of Fig. 1 but showing the means of placing the steps under the tub.

Fig. 9 is a partial front elevation of the modified construction shown in Fig. 8.

Fig. 10 is a partial elevation showing the cabinets under the tub seat and tub with the steps in operative position.

Fig. 11 is a vertical section illustrating a modified form of lower compartment closure under the tub and in extended position for use as a seat or support.

Fig. 12 is a partial side elevation showing a modified compartment under the tub where the front closure folds inwardly.

Fig. 13 is a further modification showing a front panel which may be elevated to give access to the under portion of the tub and a space for the attendant's feet.

Essentially, this invention pertains to a raised elevation bathtub construction which eliminates the drudgery of bathing convalescent patients where a nurse is in attendance and combines with the novel features of construction factors of safety for the patient or bather. The present design and construction possesses utility, novelty, symmetry and beauty, while being practical and economical to construct.

Specifically, in the drawings numeral 1 denotes broadly a raised bathtub or bathing apparatus which may be constructed of any suitable material such as enameled sheet metal, porcelain, stainless steel, plastics or the like. The improved bathtub is preferably rectangular in form, and while it may be positioned in any suitable manner, it is generally desirable to place it in the corner of a room with the front side 2 parallel with the side of the room so that the end 3 is exposed for purposes which will be hereinafter described.

The proportions and design of the entire bathing apparatus, such as its height, depth, sides, seat and tub portion, have been painstakingly investigated, and while minor changes may be made therein without departing from the spirit of the invention, it has been found that an apparatus as shown in the accompanying drawings meets all the requirements to satisfy the attending physician and nurse and patient.

As before stated, this bathtub may be composed

of any desired material, although in the drawings a sheet metal enameled construction has been shown. The ends and side walls thereof, 2, 3, 4 and 5, rest on and extend upwardly from the floor to a height which will permit the nurse standing by the front side 2 to readily reach in and assist in bathing the patient in the continuous depressed bathtub portion 10. It will be observed that the front side wall 2 is somewhat lower than the remaining side walls 3, 4 and 5 to thus enable the nurse to lean over the front wall to bathe or otherwise assist the person in the tub.

The walls 3, 4 and 5, being higher than the front wall 2, also serve the essential purpose of height for sanitary protection, together with lower inside patient hand rods in the tub, to safeguard against contaminated bath water splashing on the bathroom walls. Wall 3 is on an even line at its top with rims 4 and 5 and prevents the water from draining over to the robe and slipper compartment. The top rim to walls 3, 4 and 5 is designed to be wider than the top rim on the apron front to form a continuous shelf on which objects may be placed. Having the top rim of side walls 3, 4 and 5 wider than the top rim of the front side wall 2 also aids the nurse in assisting the patient by giving easier access to the inside of the bathtub.

Suitable hot and cold water connections and drain pipes are led to the apparatus, but as these are conventional, they have not been illustrated.

A substantial hand rail 11 is spaced from the inner end and side walls 3 and 4 and positioned parallel thereto and extends outwardly at 12 and then downwardly at 13 for attachment to the floor. This extended offset portion of the hand rail is adjacent a step box 14 which may be permanently or detachably attached to the front wall of the apparatus.

An important feature is the seat or platform 15 formed adjacent the inside of the end wall 3 as this platform or seat permits the bather to ascend the steps and while holding to the hand rail, position themselves on the seat and gently lower herself into the tub portion 10. For further safety and security, the portion 16 of the hand rail parallel to the tub 10 is lower than the portion 11.

The inner surface of the front wall 2 is turned inwardly and downwardly at 20 and thence outwardly and downwardly at 21 so as to form a ridge or splash guard 22 to prevent water from slushing over the front side and wetting the nurse's apron and shoes. Lying spaced and parallel to but slightly below the ridge 22 is a second hand rail 23 to insure further safety for the bather. The ends of the hand rails 16 and 23 may be secured in openings in the inner wall of the end 5 as shown in several of the figures, while the portion 12 of rail 16 lying parallel to the opposite end wall 3 is spaced from the wall and supported on vertical members 24.

It will be appreciated from an examination of the various sections that this standing height bathtub is easily fabricated from suitable gauge sheet metal or, as before stated, it may be formed of other types of material. Regardless of the material used, the edges of the seat, sides and tub are rounded and present no dangerous or sharp corners. Furthermore, the side walls of the tub 10 are substantially straight as this is of great advantage in supporting and bathing convalescent patients.

The various proportions of the bathing apparatus are the result of long study and experimentation, and the accompanying drawings are drawn on a scale of one inch equaling one foot. The critical proportions insure a bathtub possessing the essential characteristics and outstanding advantages of this invention. Preferably the apparatus is constructed so that the height thereof from the floor to the rim defined by walls 3, 4 and 5 is 4 feet. The overall length from the outer surfaces of walls 3 and 5 is 5¼ feet, while the side of the tub per se is 3½ feet and has a width of 2 feet and a depth of 16 inches. In width the apparatus is 2½ feet overall not including the steps which extend outwardly 10 inches each and are provided with 7 inch risers. These steps are 1½ feet wide as is the seat portion 15. The seat portion is 27 inches long and the upstanding higher rim is 3 inches wide. These several proportions and all others are drawn to scale in the drawings, as before described.

Parallel to the end wall 3 but spaced therefrom is a vertical panel 25 which helps to support the seat 15 and one end of the tub to insure rigidity of the construction and also to define the back wall of a storage compartment. Access is attained to this compartment through the hinged end door 26 which may have slipper racks 27 on the interior thereof and spaced horizontal towel racks 28 interiorly of the cabinet. The door 26 is opened and closed by means of a tubular handle member 29 whose ends are welded or otherwise affixed to the exterior thereof. Preferably, the upper part of handle member 29 is bent at right angles so as to lie parallel to the floor and thus this straight portion may be used as a towel rack in addition to acting as a handle for opening the door.

As before stated, the lower front edge 20 of the tub allows the attendant to stand close to the side, and to further permit a close position to the tub, a hinged door 30 or sliding panel 31 is placed at the bottom of the front edge so that when it is opened or raised, the attendant's feet may extend inwardly and allow her to get close to the front wall. The height of the front wall is such that the average size person may reach into the tub without stooping or bending.

The inside of the door 30, shown in Fig. 2, may be provided with a cabinet 31 secured to the inside thereof by brackets 32 for storing soap, brushes and cleaning agents, and the door itself is opened and closed by an upwardly extending, tubular, offset handle member 34 which can be grasped without bending.

As shown in Figs. 8, 9 and 10, the lower front compartment may be constructed with several doors 35, 36 and 37. The door 35, which lies directly behind the steps 14, is for the purpose of inserting the steps under the tub when they are not in use. The steps, of course, may be permanently attached to the outside of the tub, but the detachable arrangement with rollers under the steps and hooks 38 for engagement with the slots 39 makes for a neat and compact construction.

The upper door 36 may be used for storage of towels and the like and is equipped with a shelf 40, and for further storage, a door 41 and compartment 42 may be formed in the lower step.

In Fig. 11 there is illustrated a modification of the lower front panel. Here, a horizontally hinged section 43 is provided with pivoted brackets 45 having fingers 47 on their free ends for engagement with the lower edge 48 of the front

wall when the closure 45 is raised. This closure then becomes a seat or shelf.

In Fig. 12 the lower front panel closure 49 is hinged so that the nurse's shoes will press it inwardly and allow her to stand close to the front wall.

Thus, it will be seen that this improved bathtub insures safety to the patient, convenience to the nurse and presents a symmetrical and streamlined appearance and obviates the usual ugliness of the present day hospital bathing equipment.

What I claim is:

1. A bathtub comprising a substantially rectangular casing having its rear side and ends elevated above the front side, said ends and side portions being intumed to an extent to form an

elevated bathtub and a contiguous horizontal seat, the intumed top edge of the lower front side being provided with an inner offset platform and the top surface of said front side being in the same plane as the contiguous horizontal seat.

2. A bathtub for hospital use comprising an elevated bathtub having walls forming a substantially rectangular casing, a horizontal seat formed at the top edge of one wall, a rim around the rear and ends of the tub and seat, the front edge of the bathtub terminating below said rim and in the plane of said seat; the inner surface of the front wall being turned inwardly and downwardly and thence outwardly and downwardly to form a ridge or splash guard to prevent water from slushing over the front side.

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