Aug. 9, 1932. B. BLEUSTEIN 1,870,488

INFANT'S FOLDING BATHTUB

Filed Aug. 22, 1931 2 Sheets-Sheet 1

Fig. 1

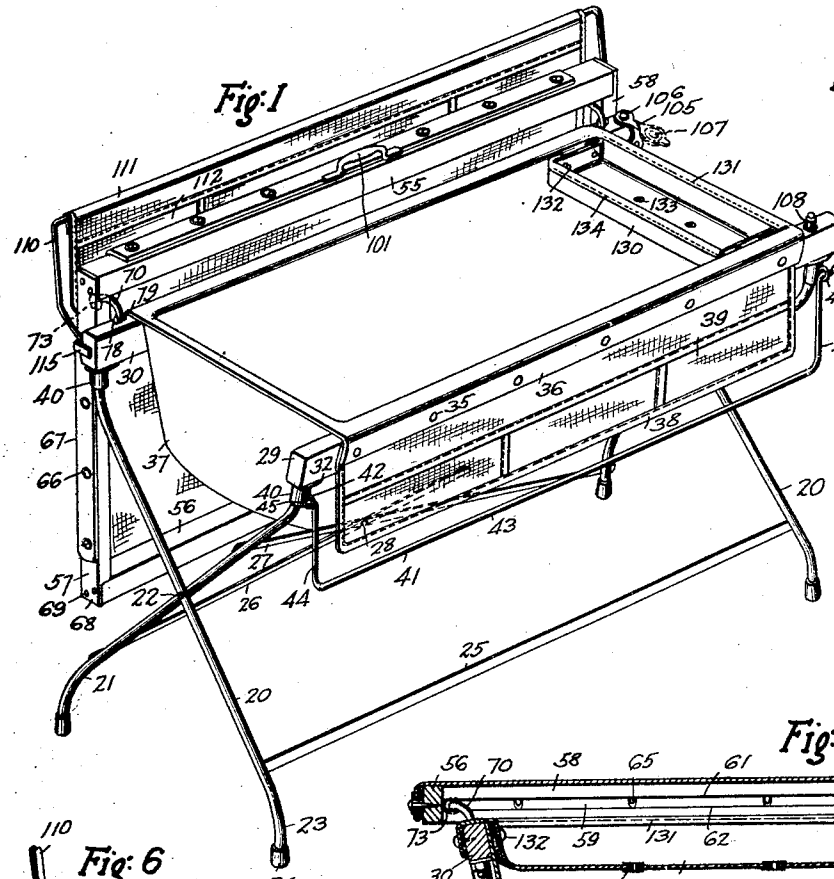


Fig. 5

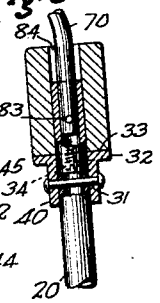


Fig. 2

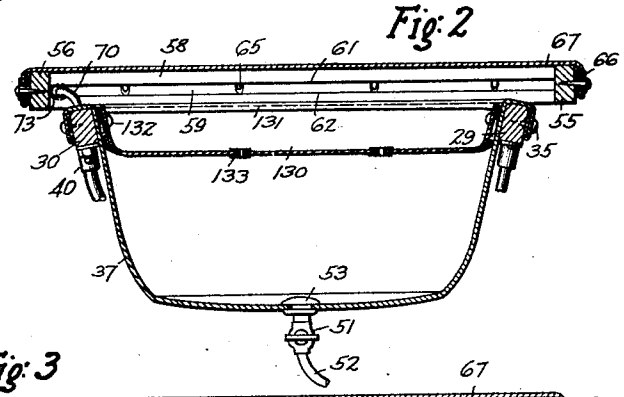


Fig. 6

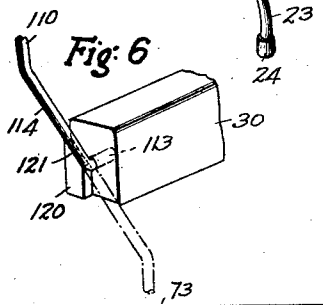


Fig. 3

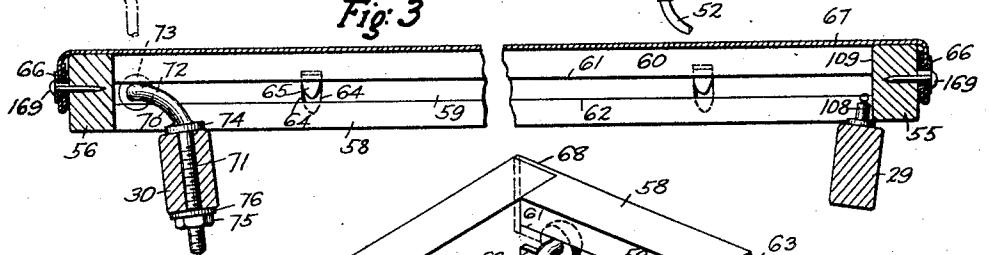
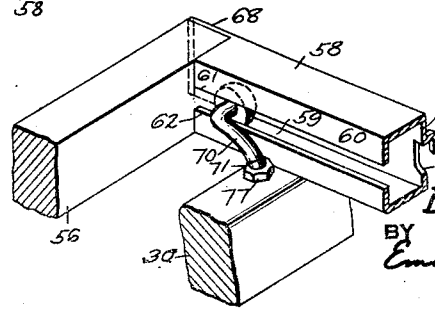


Fig. 4



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Aug. 9, 1932. B. BLEUSTEIN 1,870,488

INFANT'S FOLDING BATHTUB

Filed Aug. 22, 1931 2 Sheets-Sheet 2

Fig: 7

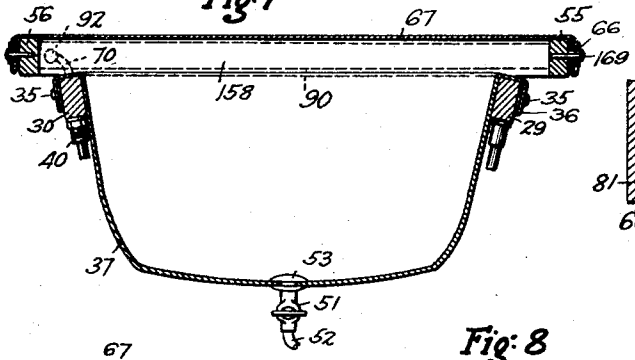


Fig: 9

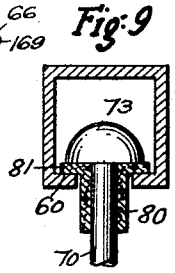


Fig: 10

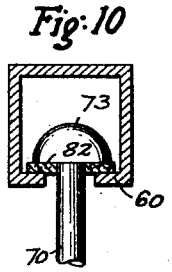


Fig: 8

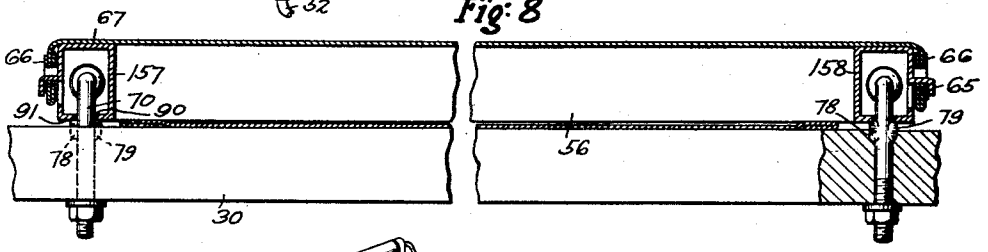


Fig: 11

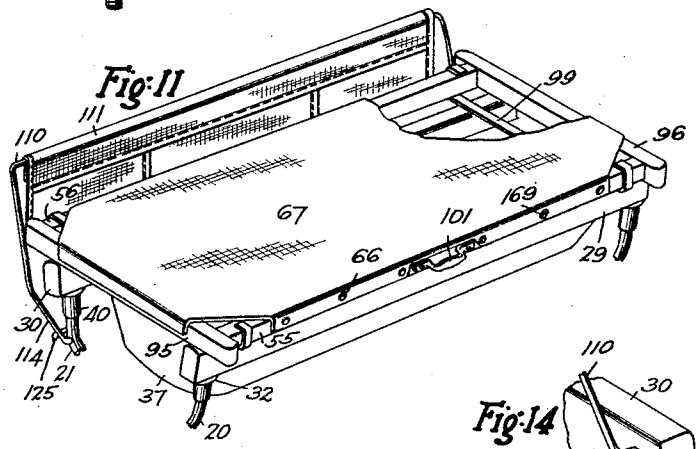


Fig: 12

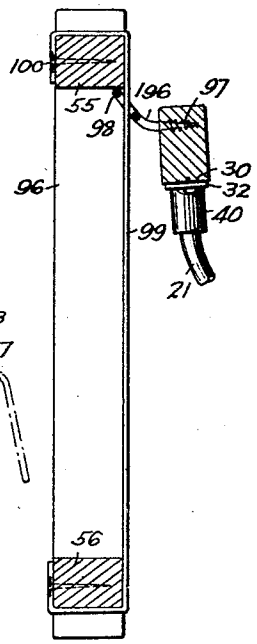


Fig: 14

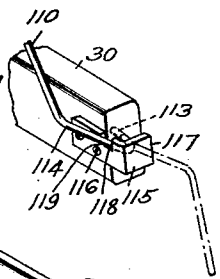
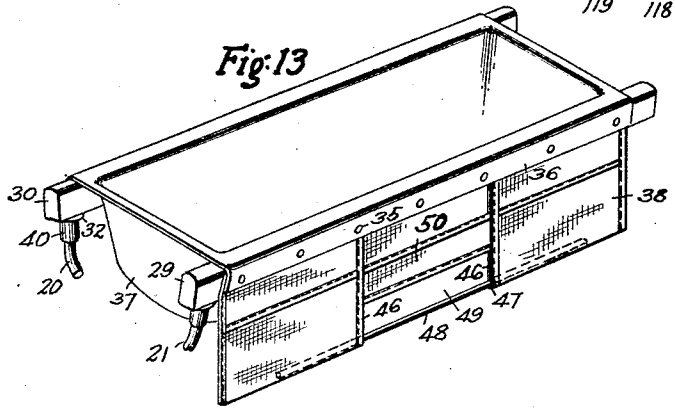


Fig: 13



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UNITED STATES PATENT OFFICE

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INFANT'S FOLDING BATHTUB

Application filed August 22, 1931. Serial No. 558,648.

This invention relates to foldable bath tubs and particularly, to that type used in bathing and dressing infants and which are intended to be folded up and set aside to occupy a minimum amount of space when not in use, but which can be unfolded in comparatively cramped quarters.

My invention contemplates the provision of a simple and efficent combination foldable bath tub, stand, and dressing table, and of comparatively inexpensive but durable and efficient connections therefor. My invention further contemplates a convenient and readily accessible arrangement and combination of the various parts such as racks supported by the stand, whereby the accessories customarily employed in the bathing of infants such as towels, soap and the like may be stored for convenient access when the bath tub has been unfolded into operative position.

The various objects of my invention will be clear from the description which follows, and from the drawings, in which,

Fig. 1 is a perspective view of a complete tub embodying the various features of the invention.

Fig. 2 is a cross-section of the bath tub proper, and of the slidable dressing table, in that position of the parts wherein the table has been moved across the top of the stand to cover the tub.

Fig. 3 is a similar section, partly broken away, of the dressing table and of the supporting and guiding means therefor, on an enlarged scale.

Fig. 4 is a perspective view of part of the dressing table frame and of the operative connection thereof to a tub supporting rail.

Fig. 5 is a vertical section of the upper part of the stand for the tub, showing a modified form of the means for guiding the dressing table in its movement.

Fig. 6 is a perspective view of a portion of the back wire frame, and of the means for supporting said frame and for limiting the movement thereof in one direction.

Fig. 7 is a cross-section similar to Fig. 2, showing a modified form of the connecting means between the dressing table and the tub-supporting parts.

Fig. 8 is a similar view of the same on an enlarged scale but showing a modified form of the means for maintaining the guide members against rotation in the rail.

Fig. 9 is a sectional view of one of the frame members and of part of the guide member therefor, showing the interposition of a suitable sound-deadening and wearing member between the head and the frame.

Fig. 10 is a similar view of the same, showing a modified form of the sound-deadening and wearing member.

Fig. 11 is a perspective view of a modified form of the back wire frame for the table and of the guide and supporting means therefor.

Fig. 12 is a vertical section of the same, showing the table in its vertical or suspended position.

Fig. 13 is a perspective view of the tub and of the supporting means therefor, showing a modified form of the front towel rack and pockets.

Fig. 14 is a perspective view of the means shown in Fig. 1 for limiting the movement of the back wire frame and for supporting said frame.

In that practical embodiment of my invention which I have illustrated by way of example, two similar pairs of legs as 20 and 21, are suitably pivoted together at the intersection 22 thereof. Each of said legs is preferably made of metallic tubing and may, if desired, be bent to provide substantially vertical lower ends 23 when the legs have been unfolded, the legs terminating in suitable rubber cushions 24. The outermost leg 20 is connected to the corresponding outermost leg of the similar pair by the flat brace 25. The inner legs 21 of the pairs are connected by means of suitable diagonally arranged braces, as 26 and 27 secured at their ends to the legs, and also secured together at the intersection 28 thereof. It will be seen that by means of this construction, both pairs of legs may be swung about the intersections 22, to bring the ends of the legs together and thereby to collapse the bath tub.

At the upper end of each of the legs, a suitable rail supporting member 40 is provided for either the front rail 29, or for the back rail 30, as the case may be. Each of the supports 40 is of generally tubular form, being perforated for the reception of the upper end of the leg, and having an opening for the passage of a suitable pin as 31, passing through the leg and suitably headed to secure the rail support in place (Fig. 5). Said rail support terminates at its upper end in an elongated flange 32, engaging the under surface 33 of the rail and of sufficient length and width to properly support the rail, to which it is attached as by means of the screws 34 passing therethrough, the flange being elongated in the direction of the rail for that purpose.

To the front rail 29 and to the rear rail 30, is secured the flexible bath tub 37 consisting preferably of a sheet of rubberized fabric such as is well known in the art. Large headed nails or other fastening means 35 driven through the edge portions of the sheet forming the bath tub and into the rails, serve to secure it in position. The bath tub further serves to limit the spreading apart of the rails 29 and 30 when the stand, comprising the legs and rails, is unfolded. Before, however, the front edge 36 of the bath tub is secured to the rail, I prefer to arrange thereunder, the upper edge of a suitable flexible member 38, provided with a series of suitable pockets 39 for holding soap, brushes or other articles used in bathing the infant, whereby the fastening means 35 serve also to secure the member 38 in place at the same time (Figs. 1 and 13).

The tub 37 is preferably provided with a suitable outlet 53 (Fig. 2) for waste water, said outlet being normally closed by the stop cock 51, to which is connected a length of flexible tubing 52, preferably of rubber, for the discharge of waste from the tub into a suitable drain when the stop cock is open. In that form of my invention shown in Fig. 1, in addition to the member 38, a suitable towel rack 41 in the form of a wire member depending below the member 38 may be provided. Toward this end, the pins 31 passing through the rail support may be dispensed with, in so far as the supports for the front rail 29 are concerned, and an eye member 42, having a shank passing through the leg and riveted to the rail support, and projecting therefrom may be substituted. The towel rack therefore consists of a substantially horizontal portion 43, upright side portions 44 and comparatively short, bent terminal portions 45 substantially parallel to the portion 43 and passing through the eyes 42. It will be seen that by means of this construction, the towel rack is suspended by the same means which secures certain of the rail supports in place, that the towel rack may swing automatically into folded position against the legs as the legs are folded, and that the rack can be made of sufficient length to support a considerable number of towels or the like, for easy access by the user.

As shown in Fig. 13, however, the towel rack may be otherwise suspended. For example, the stitching for the binding strip 46 of the member 38 may be omitted as at 47 at the lowermost part of the member, to allow the insertion at said lower edge of the straight wire member 48 to serve as a towel rack. Said member is exposed in the space 49 made by lessening the height of the middle pocket 50.

The dressing table is connected to the rear rail 30, as is customary in the art, so that said table is normally suspended in vertical position behind the tub stand, (Fig. 1) but so that it can be swung into the position illustrated in Figs. 2, 3, 7, 8, and 11 across and over the top of the stand, to cover the bath tub, and to provide means for supporting the infant while it is being dressed. Said dressing table comprises a frame and a removable top.

Referring now to Figs. 1 to 4 inclusive, I have there shown one form of the dressing table. In this form, a front member 55, made preferably of wood, is provided, together with a similar parallel rear member 56. To join the front and rear members together, I prefer to provide a pair of similar side members as 57 and 58. Each of said side members is preferably made of a single piece of sheet metal bent into the form of tubing, but providing a longitudinal slot 59 at the inner face 60 thereof. In other words, the side members may be made of a sheet bent up into substantially square or rectangular tubing which is not closed to form a complete tube, but wherein the edges 61 and 62 of the sheet so bent are spaced apart to provide the slot 59.

The outer face 63 of the side member is provided with a series of projecting and downwardly directed prongs or hooks 65, each formed integrally with the member by bending the material between the pairs of spaced cuts 64. Said cuts are arranged symmetrically with respect to each other, and intersect at their lowermost points. The hook or prong thus formed detachably receives suitable eyelets as 66 clinched to the fabric table cover 67, to stretch and hold said cover removably in place, it being understood that a series of such hooks or prongs are provided in the outer face 63 of each of the side members of the dressing table. In order to secure each of the sides to the front and rear members of the table, all of the material of the side members except that of the front face 63 is cut away at the ends of said side members for a distance substantially equal to the thickness of the front and rear members of the frame, to allow the front face 63 only to

project over the ends of the front and rear members as shown at 68 (Fig. 4).

Suitable screws or the like 69, passing through the flat projecting portions 68 into the ends of the front and rear members, serve to secure the parts together.

It will be understood that the front and rear members 55 and 56, being made preferably of wood, are provided with suitable projecting headed members such as the nails 169 or the like, adapted to have the eyelets 66 of the cover 67 hooked thereabout. Said cover is stretched in place by hooking the various eyelets 66 over the prongs 65 in the side members and over the nails 169 in front and rear members.

The means for operatively connecting the dressing table to the bath tub stand may take various forms. Still referring, however, to Figs. 1 to 4 inclusive, I prefer to provide for this purpose suitable members of round wire or the like connected to the stand and having headed portions passing through the slot 59 and into the interior of the side members.

Said wire guide members may also take various forms which will be pointed out in detail as the description progresses. As shown clearly in Fig. 3, the guide member 70 is provided with a threaded shank 71 at one end passing through the rear rail 30 and preferably bent rearwardly and outwardly at its other end 72. The portion 72 terminates in a head 73 of greater diameter than the width of the slot 59, and is arranged in the interior of the hollow slotted sheet of which the side member is made. If desired, a suitable shoulder or projecting collar or rim as 74, designed to engage the upper face of the rail 30 may be provided on the member 70, and a nut 75 may be arranged on the threaded extremity of the member 70 and engaging the washer 76, to secure said member firmly to the rail in its proper position.

As shown in Fig. 4, however, the threaded portion 71 may extend above the rail 30, and a suitable nut as 77 may replace the collar, rim or shoulder 74.

Both the nut 77 and the shoulder 74 may be dispensed with, if desired, and other means provided for holding the member 70 in place. As shown in Figs. 1 and 8, said means takes the form of a pair of projections 78 and 79 integral with the portion 70, and upset therefrom by squeezing part of the side portions of the material of said member together in such a way as to cause said material to spread transversely. It will be seen that when the nut 75 is tightened, the projections 78 and 79 are drawn into the member 30 and prevent rotation of said member under the stress of operation.

As illustrated in Figs. 9 and 10, suitable means may be interposed between the head 73 and the inner face 60 of the side member to take the wear, and to absorb or deaden the sound made by the sliding of the metallic parts upon each other. As in Fig. 9, said member takes the form of a flanged bushing 80, made of suitable fibre or the like material capable of withstanding friction and lessening noise. In this form, the flange 81 of the bushing is interposed between the head 73 and the inner surface of the face 60. In Fig. 10, the cylindrical portion of the bushing has been omitted so that a washer 82 of fibre or the like is interposed between the head and the inner surface of the face or wall 60.

It will be understood that the member 70 may, if desired, be secured directly to the upper end of the leg 20 of the stand, instead of to the rail 30, as is shown for example in Fig. 5. In this form of connection, the lower end of the member 70 need not necessarily be threaded, but it may mereby be inserted into the opening at the upper end of the member 20 and pinned in place as by means of the pin 83, an opening as 84 being made in the rail for the reception of the leg and for the passage of said member 70. The lower end of said member may, however, be threaded if desired and screwed into the leg, which may be correspondingly internally threaded, and the pin 83 may or may not be used in the latter case.

Referring now to Figs. 7 and 8, the side members 157 and 158 of the dressing table there shown, instead of having the slot thereof arranged at the inner wall 60, are provided with slots 90 in the lower wall 91, said side members being otherwise identical in construction with those previously described. The member 70 of Fig. 7, however, is provided with a substantially spherical head 92, instead of the hemispherical head 73 shown in Fig. 3.

As illustrated in Figs. 11 and 12, the side members 95 and 96 of the dressing table are preferably made of wood instead of metal and a different type of connection to the rail 30 provided. As shown in Fig. 12, said connection takes the form of a screw eye 196 threaded at one end 97 to the rail 30, and terminating at its other end in the eye 98. A stretched flexible strap 99 is secured to the front and rear member 55 and 56, as by means of suitable fasteners such as the nails 100, said strap 99 being passed through the eye 98.

It will be seen that by means of the various connections above described, the dressing table may be lifted substantially vertically, or it may be lifted by means of the handle 101 and at the same time rotated about the head 73, or the head 92, or about the eye 98. During the movement of the table relatively to the rail 30, the heads 73 and 92 move in the interior of the side members and in the slots 59 or 90, respectively, or the strap 99 moves through the eye 98. The table is lifted and its front edge moved forwardly over the bath tub, when the table is to be used, until front

portions of the side members 57 and 58, or 157 and 158, or the members 95 and 96 rest on the front rail 29 as illustrated in Figs. 2, 3, 7, 8 and 11. Similarly, to remove the table, the handle 101 is raised to remove the side members of the table from the front rail 29 while the table is moved rearwardly at the same time, thereby reversing the operation, the table in its rearmost position being arranged as shown in Fig. 1.

The front and rear rails may now be brought together to collapse or fold the stand, the legs at this time swinging about their pivots 22. To maintain the parts in their folded positions, I prefer to use a suitable flexible strap as 105, secured to the rear rail as at 106, and provided with a suitable opening such as for example, the snap fastener socket 107 or an ordinary eyelet. Said socket 107 is designed to snap into engagement with the snap fastener stud 108, to hold the stand in the folded position thereof. Said stud 108 is preferably so arranged, as shown in Fig. 3, that it engages, or is spaced slightly rearwardly of, the rear face 109 of the front member 55 of the table, whereby the table cannot be moved rearwardly unless it is first lifted, being obstructed in any attempted rearward horizontal movement by the stud. It will be understood that any pin, nail or other projecting member may be substituted for the stud 108 so that it may enter a suitable eyelet or other opening in the strap 105, if desired.

As illustrated in Fig. 1, I prefer to provide a back wire frame 110 for supporting the flexible sheet as 111 of fabric or other suitable material, provided with pockets 112 for the reception of the various articles used in dressing the infant and so arranged as to be in position for access thereto when the table top is in its operative or horizontal position over the bath tub. The member 111 is suspended from the frame 110 as by providing a stitched fold at the upper end thereof providing an opening for the passage of the wire. Said wire frame is preferably suitably supported upon the rear rail 30 for pivotal movement into upright position, or to be swung downwardly after the stand and bath tub have been collapsed or folded.

As shown in Figs. 1 and 14, the lowermost end 113 of the wire frame may be bent inwardly and inserted into a suitable bearing hole in the end of the rail 30. The inclined portion 114 of the lowermost part of the frame 110 is preferably inclined rearwardly and upwardly so that said frame will be in the proper position for easy access when the dressing table has been moved into its horizontal position. To aid in supporting the frame in its operative position, a suitable strap in the form of an angle as 115, is employed one leg of which is secured as by means of the screws 116 to the rear face of the rail 30. The leg 117 thereof is spaced outwardly from the end of the rail and thus provides a space therebetween for the movement of the portion 114 of the frame. A notch as 118 is made in the rear leg of the strap for the reception of the portion 113, said portion resting against the bottom 119 of the notch in the upright position of the frame. After the stand has been collapsed, the frame 110 may be swung about its ends 113 into the dash and dot line position of Fig. 14 to fold it out of the way.

In the form shown in Fig. 6, the strap 115 is dispensed with, but the end of the rail 30 is provided with a suitable projection 120, having an inclined stop surface 121, against which the portion 114 rests to maintain the frame 110 in its upright position, said frame being foldable into the dash and dot line position indicated in Fig. 6. As shown in Fig. 11, the frame 110 is pivoted to the leg 21 instead of to the rear rail. A suitable stop as 125 also secured to the leg, serves to limit the movement of the frame toward its operative position, but permits collapse of the frame.

A desirable and convenient feature of my invention is the flexible soap holder 130 best shown in Figs. 1 and 2. Said soap holder is preferably made of a sheet of the same material as that of the bath tub 37. One edge of the sheet forming the soap holder is suitably secured to an end of the tub as by means of the stitching 131. The ends of the sheet comprising the soap holder, however, are folded to form a box-like member and said ends are secured to the respective rails 29 and 30 as by means of the fasteners or nails 132. Suitable metallic eyelets 133 passing through the bottom of the soap holder provide discharge openings for the passage of excess water to maintain the soap holder dry. The terminal edges of the sheet may be turned over and stitched as by means of the stitching 134 to reinforce and finish the edges of the soap holder.

It will be understood that as the stand for the tub is collapsed, the soap holder 130 being of flexible material, also collapses and folds in the same direction and in the same manner as the bath tub and that when the stand is opened, the soap holder is automatically arranged in its operative position.

It will be seen that I have provided a simple, easily constructed and durable foldable bath tub wherein the parts are suitably connected for collapse and ready movement into operative position, that the various connections are efficient in their operation and economical to manufacture, and that I have provided a device well adapted to meet the severe requirements of practical use.

While I have shown and described certain specific embodiments of my invention, I do not wish to be understood as limiting myself

thereto but intend to claim my invention as broadly as may be permitted by the state of the prior art and the scope of the appended claims.

I claim:

1. In a folding bath tub, a stand including a front rail, a rear rail, and means for supporting said rails for collapse towards each other, a flexible bath tub supported by said rails, a dressing table including a pair of sheet metal side members, each slotted for the reception of a guide member and having an outer face unmutilated by the slot thereof, and a guide member for each of said side members fixed to and projecting above the rear rail and passing through the slot and adapted to move therein on the movement of the table, and having a terminal headed portion permanently arranged in the interior of the side member beyond the slot, and thereby preventing disengagement of the guide member from the slot.

2. In a folding bath tub, a collapsible stand adapted to support a flexible bath tub, a dressing table including a metallic side member formed of a single piece of sheet metal, the edges of said piece being arranged in spaced relation to form a slot in said member, spaced integral prongs adapted to have a cover secured thereto and projecting outwardly of the outer side face of said member and formed of the material of said member, and a guiding member for the table of substantially circular cross-section secured to the stand and passing through the slot and terminating in a head arranged in said member and beyond the slot.

3. In a collapsible bath tub of the character described, a dressing table including a metallic side member bent of a single piece of sheet metal to form top, bottom and side walls, one of said walls having a longitudinal slot therein, another of said walls having spaced prongs pressed outwardly from between meeting cuts therein, and the remaining walls being unmutilated.

4. In a folding bath tub, a dressing table having hollow metallic side frame members, each of said members having a sheet metal top, bottom and side walls enclosing the interior space therein, one of said walls being longitudinally slotted, and another of said walls being extended at each end past the ends of the remaining walls.

5. In a folding bath tub, a stand comprising tubular legs, rails, and a metallic member adapted to connect a leg and a rail including a tubular portion arranged at the upper end of a leg, means for securing said portion to the leg, and a substantially flat perforated flange arranged at substantially right angles to said portions and extending therepast in at least one direction.

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