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COLLAPSIBLE BABY BATHTUB

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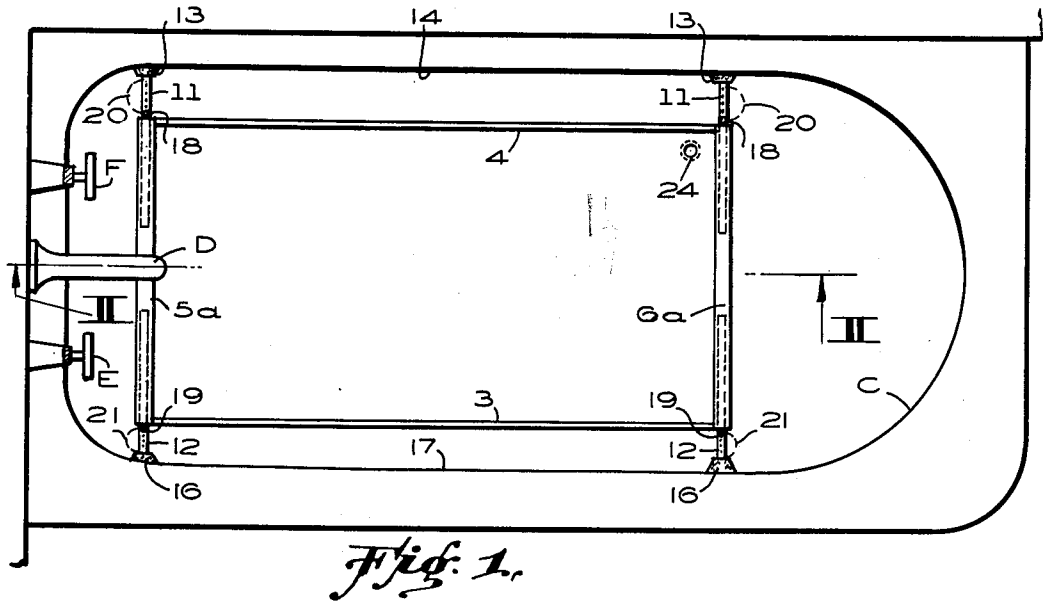


Fig. 1.

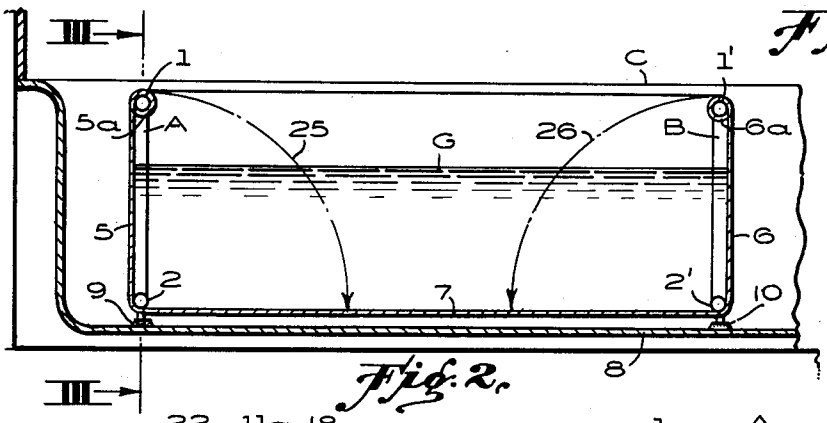


Fig. 2.

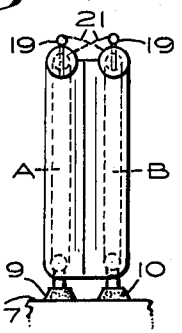


Fig. 6.

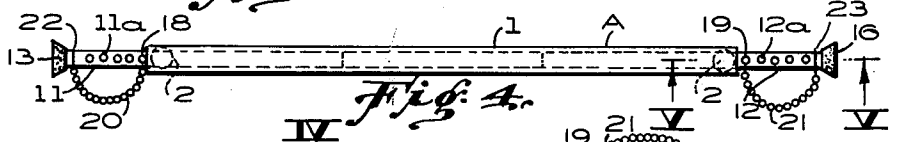


Fig. 4.

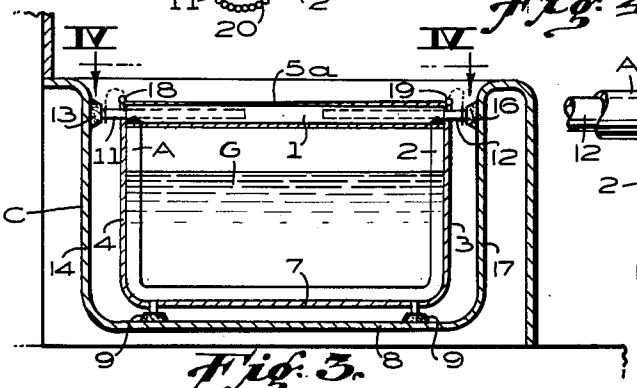


Fig. 3.

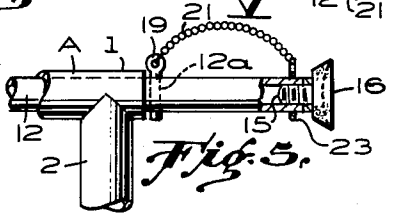


Fig. 5.

INVENTORS
KATHERINE M. HYLTON
HUGH R. McMENAMIN IV
BY
Munn & Liddy
ATTORNEYS

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COLLAPSIBLE BABY BATHTUB

Katherine M. Hylton and Hugh R. McMenamin IV, San Leandro, Calif.

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2 Claims. (Cl. 4—177)

An object of our invention is to provide a collapsible baby bathtub that is designed to be removably mounted within a standard bathtub and to be secured to the larger tub so as to be self-supporting. The fastening means for the baby bathtub are adjustable to accommodate it to tubs of different sizes.

The collapsible baby bathtub can be folded into a compact bundle when not in use and will require little storage space. The device is simple in construction and is durable and efficient for the purpose intended.

Other objects and advantages will appear in the following specification and the novel features will be set forth in the appended claims.

Our invention is illustrated in the accompanying drawing, forming a part of the application in which:

Figure 1 is a top plan view of the device shown operatively applied to a bathtub;

Figure 2 is a longitudinal section taken along the line II—II of Figure 1;

Figure 3 is a transverse section taken along the line III—III of Figure 2;

Figure 4 is an enlarged top view of one of the end frame members when looking in the direction of the arrows IV—IV of Figure 3;

Figure 5 is an enlarged section of a portion of one of the end frames and is taken along the line V—V of Figure 4; and

Figure 6 shows the bathtub folded into a compact form.

While we have shown the preferred form of the invention, it should be understood that various changes, or modifications, may be made within the scope of the annexed claims without departing from the spirit thereof.

In carrying out our invention, we provide two end frames indicated generally at A and B in Figure 2, and since both frames are identical, a detailed description of the frame A will suffice for both. The same reference numerals for the frame B, will be primed. The frame A comprises a transversely extending tubular member 1. A U-shaped tubular member 2 has its ends welded or otherwise secured adjacent to the ends of the member 1, see Figure 5.

A rubberized canvas, a synthetic rubber, or any type of waterproof and flexible material may be used to form the side and end walls and the bottom of the collapsible baby bath tub. The side walls are indicated at 3 and 4 in Figure 1, and the end walls at 5 and 6 in Figure 2. The bottom wall 7 is preferably twice as thick as the side and end walls although this is not absolutely necessary. The end walls 5 and 6 have their upper edges wrapped around the transverse tubular members 1 and 1' as indicated at 5*a* and 6*a* and secured thereto or secured to the adjacent portion of the end wall. The side and end walls merge into each other at the corners of the baby tub and extend around the outer sides of the vertical portions of the end frames when the latter are in open position. The bottom wall has its marginal edges merging into and wall 7 extend around the horizontal portions of the U-shaped tubular members 2 and 2'.

The means for supporting the baby tub in open position within a standard bath tub C, will now be described. The horizontal portions of the U-shaped tubular members 2 and 2', each carry two vacuum cups that are designed to engage with the bottom 8 of the large bath tub C. The end frame A is provided with two of these vacuum cups 9—9 while the end frame B is provided with the vacuum cups 10. These vacuum cups secure the bottom of the baby tub to the bottom of the large tub C.

The end frames A and B are held in a vertical position by adjustable vacuum cups. Figure 4 illustrates the transversely extending tubular member 1 on a large scale. Tubular rods 11 and 12 are slidably mounted in the transverse tube 1 and they are provided with a plurality of openings 11*a* and 12*a* respectively. The rod 11 carries a vacuum cup 13 that is designed to contact with the side wall 14 of the large tub C. The tubular rod 12 has its outer end internally threaded for adjustably receiving a threaded shank 15 of a vacuum cup 16. The rod 12 may be moved for forcing the vacuum cup 16 against the side wall 17 of the tub C, at the same time the rod 11 is moved for causing its vacuum cup to strike the side 14 and thus center the baby tub frame A between the sides of the large tub.

The rods 11 and 12 are held against retraction by pins 18 and 19 that are placed in the holes 11*a* and 12*a* respectively which are disposed closest to the ends of the tubular member 1. The pins bear against the outer end of the tubular member 1 and prevent the retraction of the rods 11 and 12. Chains 20 and 21 are connected to the pins 18 and 19 respectively and have their other ends connected to rings 22 and 23 which are mounted on the rods 11 and 12 respectively as clearly shown in Figures 4 and 5. It is conceivable that the vacuum cup 16 be advanced a little farther with respect to its rod 12 in order that both vacuum cups 13 and 16 contact with the sides 14 and 17 of the large bath tub C to create sufficient suction to hold the top of the frame A against movement in any direction. This is why the vacuum cup 16 is provided with the threaded shank 15. The vacuum cup 16 can be rotated for rotating the shank 15 for moving the cup into suction contact with the bath tub wall 17. The shank 15 is long enough to permit the vacuum cup 16 to be advanced or retracted with respect to the rod 12 a distance equal to the space between two adjacent holes in the row of holes 12*a*. In this way a fine and accurate adjustment can be made for the two vacuum cups 13 and 16 so that they will firmly secure the top of the frame A in the large tub C and prevent movement of the frame top in any direction with respect to the large tub.

What has been described as the means for securing the frame A to the large tub C, holds true for the frame B. Since the securing means for the frame B is identical to that for the frame A, no further description of the securing means for the frame B need be given and similar parts will be given like reference numerals. The baby tub is preferably placed in a position in the large tub C where the water inlet pipe D for the large tub will deliver water into the baby tub, see Figure 1. Hot and cold water valves E and F respectively, may be adjusted to temper the water to the right degree for the baby's bath.

The baby tub has an outlet 24, see Figure 1, that may be closed by any means, not shown, for retaining the water in the tub. The water G is shown in the baby tub in Figure 2 and it will be noted that it will cause the side and end walls of the tub to assume vertical positions. The weight and pressure of the water will aid

in preventing the side and end walls of the tub from collapsing inwardly. The suction cups **9**, **10**, **13** and **16** are all that are necessary for rigidly securing the baby tub in proper position within the large tub C.

After the baby tub has been used, the outlet **24** therein may be opened and the water will flow out through the outlet and into the large tub C and then escape through the drain, not shown, provided in the large tub. The dot dash arcuate arrow lines **25** and **26**, indicate how the end frames A and B may be swung toward each other when it is desired to fold the collapsible baby tub into a compact bundle. The vacuum cups **9** and **10** are freed from the bottom **8** of the large tub C and the vacuum cups **13—13** and **16—16** are freed from the side walls **14** and **17** of the large tub before the inward folding of the end frames A and B is commenced. Also the pins **18—18** and **19—19** are removed from their respective openings **11***a* and **12***a* for permitting the retraction of the rods **11—11** and **12—12** within the tubular members **1** and **1'**, until the suction cups **13** and **16** are disposed adjacent to the outer ends of the tubular members.

When the end frames A and B are swung inwardly toward each other they will carry the end walls **5** and **6** of the baby tub therewith until these walls will substantially parallel the bottom **7** of the baby tub. The side walls **3** and **4** will collapse and can be folded over the end walls and extend toward each other. It is then possible to swing the U-shaped members **2** and **2'** of the end frames A and B, upwardly and toward each other so that the vacuum cups **9—9** and **10—10** will now be facing upwardly. The up ended frames A and B, parallel each other and can be moved so that their planes will lie close to one another, the excess material forming the sides and bottom of the tub being folded inwardly so as to be received between the end members A and B.

The collapsed and folded bathtub is now inverted into the position shown in Figure 6, with the vacuum cups **9** and **10** facing downwardly and adapted to rest in a supporting surface **27**. The pins **19—19** may be placed in the openings **12***a* of the adjacent rods **12** so that the chains **21** for these pins will interconnect the frames

A and B together. In like manner, the pins **18—18** may be placed in the opening **11***a* of the adjacent rods **11** so that the chains **20** for these pins will interconnect the frames A and B together at ends opposite to the pins **19**. The frames are thus kept close together while the collapsed baby tub is being stored.

We claim:

1. A collapsible baby bathtub comprising two end frames substantially rectangular in form and each having a tubular top member with open ends; a water-receiving receptacle having a flexible bottom, side and end walls; the end walls being secured to the two end frames; vacuum cups carried by the end frames and positioned to rest on the bottom of a large bath tub when the baby bathtub is placed therein; rods slidably mounted in the open ends of the tubular top members; vacuum cups carried by the outer ends of the rods and adapted to contact with the sides of the large tub for securing the end frames thereto when the rods are moved outwardly; and means mounted on each rod for securing it in adjusted position in the tubular top member.

2. A collapsible baby bathtub as set forth in claim 1; and in which the length of the flexible bottom of the receptacle is sufficient to permit the end frames when freed from the large bath tub to be swung toward each other so that the end walls will parallel the bottom wall; and in which there is still sufficient length of the bottom wall between the top tubular members when thus folded, to permit a further swinging of the end members about their tubular members as pivots for bringing the end frames into parallel relation with each other with the baby bath tub walls being in a collapsed position; the rod securing means on each rod being adapted to be secured to the adjacent rod for holding the baby bath tub in collapsed condition.

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