

Sept. 1, 1925.

1,551,820

B. GOLD

COLLAPSIBLE WALL TANK

Filed Nov. 15, 1922

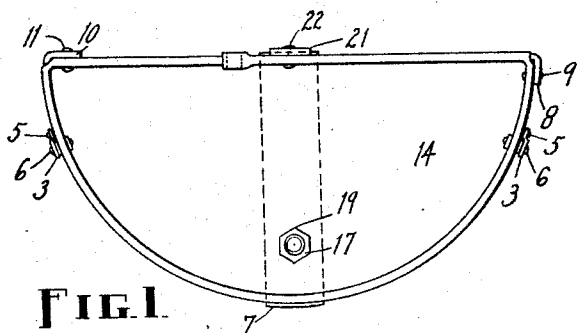


FIG. 1.

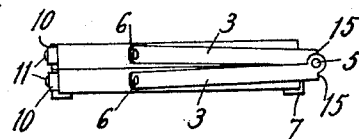


FIG. 2.

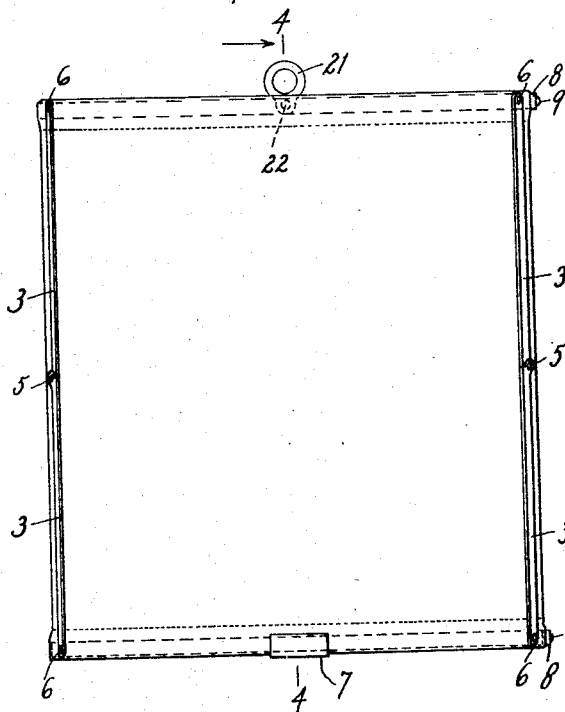


FIG. 3.

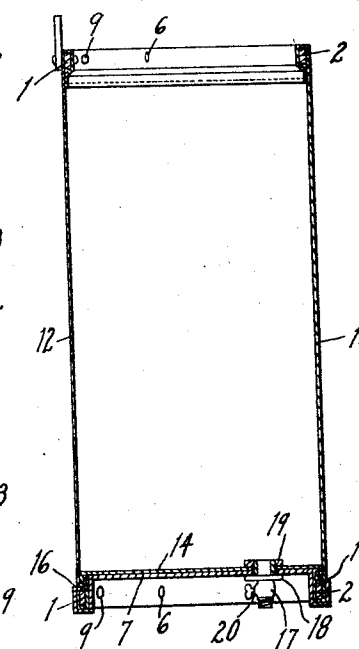


FIG. 4.

Benjamin Gold

INVENTOR.

BY

Frank A. Cutter

ATTORNEY.

Patented Sept. 1, 1925.

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UNITED STATES PATENT OFFICE.

BENJAMIN GOLD, OF WESTFIELD, MASSACHUSETTS.

COLLAPSIBLE WALL TANK.

Application filed November 15, 1922. Serial No. 601,023.

To all whom it may concern:

Be it known that I, BENJAMIN GOLD, a citizen of the United States of America, and a resident of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Collapsible Wall Tank, of which the following is a specification.

My invention relates to improvements in containers for water which are adapted to be hung or suspended from walls or other supports, and consists essentially of upper and under rigid frames having straight back members and approximately semi-circular front members, a pair of folding braces connecting said frames, a waterproof fabric casing attached to said frames and forming the back, front, and bottom of the tank, a rigid reenforcing or stabilizing support extending between and attached to the back and front members of the bottom frame, a discharge member, such as a nipple provided with a cock or valve, attached to and depending from the fabric bottom and said support, and a supporting member for the tank, together with such other parts and members as may be necessary or desirable in order to render the tank complete and serviceable in every respect, all as herein-after set forth.

The primary object of my invention is to provide a comparatively simple and inexpensive folding or collapsible tank for water, which tank can be suspended from a nail, screw, or hook inserted in a wall, tent-pole, or other suitable or convenient support, and is then used for taking shower baths, and for other purposes as well, where the ordinary facilities for obtaining the results that can be obtained with this tank are lacking, as in a room in which there is no running water, or in a tent, or even out of doors where a tree can be found upon and against which to hang the tank. When not in use the tank can be folded into such a compact form as to be packed in a trunk, dress-suit case, or other portable receptacle.

Another object is to produce a tank of this character which is so constructed as to be capable of being placed against a flat surface without swaying, tilting, or moving in such a manner as to spill the contents thereof.

Although my tank is primarily designed for shower-bath purposes and the like, it may be used for carrying water, and con-

taining water when the tank is placed on the floor.

Other objects and advantages will appear in the course of the following description. 60

I attain the objects and secure the advantages of my invention by the means illustrated in the accompanying drawings, in which—

Figure 1 is a top plan of a collapsible wall tank which embodies a practical form of my invention; Fig. 2, a side elevation of said tank collapsed or folded; Fig. 3, a front elevation of the tank, the same being expanded, as is assumed to be the case in the first view, and, Fig. 4, a central, vertical, transverse section through the tank, taken on lines 4—4, looking in the direction of the associated arrow, in Fig. 3. 70

Similar reference characters designate similar parts throughout the several views. 75

The skeleton or frame of this tank comprises an upper frame consisting of a straight horizontal bar 1 and an approximately semi-circular bar 2, and a lower frame consisting of similar members, and a pair of jointed braces each pair consisting of two brace bars 3 having their contiguous ends pivotally connected at 5 and their other ends pivotally connected at 6—6 to the bars 2 at points adjacent to the junctions of said last-named bars with the bars 1, together with a cross-piece or support 7. As shown in connection herewith, one end of each bar 1 is bent forwardly onto the outside of the adjacent terminal of the connected bar 2, as represented at 8, and riveted thereto at 9; and the opposite terminal of said bar 2 is bent inwardly behind the adjacent terminal of said bar 1, as represented at 10, and riveted to said last-named bar at 11. The connections between the frame bars are rigid. 85 90 95

The tank has a back 12 and a front 13, which are respectively straight or flat and curved in plan when the tank is extended or expanded, said back and front being formed of a piece of waterproof canvas, or other suitable fabric or material, which is securely attached at the top and bottom to the aforesaid frames, by any suitable means and in any suitable manner, as by stitching. In the present construction, the bar terminals 8 and 10 extend through slits in the fabric covering the bars 1 and 2. The tank also has a horizontal bottom 14 which consists of a piece of canvas or other fabric 100 105 110

similar to that out of which the back 12 and front 13 are made, which piece of canvas is stretched across the space between the under bars 1 and 2, but at a higher elevation than said bars, and is stitched, glued, or otherwise secured to the front- and back-forming fabric.

The vertical dimension of the fabric which forms the back 12 and front 13 is sufficient to enable the upper and under frames to be separated to their full extent by the jointed braces. At such time the fabric is taut. The fabric is, however, capable of being compactly folded on itself and compressed when the tank is collapsed.

The folding braces are of ordinary construction and provided with customary stop members 15—15, which members engage each other, when said braces are unfolded, and, with the pivots 5, lock the brace bars 3 in extended position, and cause the frames to be firmly supported in their relatively most remote positions by said bars. This occurs when the pivots 3 pass back of the vertical plane in which are located the pivots 6, as will be well understood.

The support 7 fits between the bars 1 and 2 of the under frame, beneath the tank bottom 14, in the transverse center of said frame and bottom, and at the terminals extends downwardly, outwardly (rearwardly or forwardly), upwardly, and inwardly to form lips 16—16 above the top edges of said bars, said lips projecting through slits in the back 12 and front 13. Thus the bent terminal portions of the support 7 embrace the under bars 1 and 2, but portions of the fabric are interposed between the sides and bottoms of said bars and adjacent parts of the support terminals. The support acts as a brace and binder for the lower frame, assists in sustaining the bottom 14 and the weight of the contents of the tank, and carries a nipple 17.

The nipple 17 is provided with a flange 18 beneath the support 7, and has a nut 19 screwed onto the same above the bottom 14, whereby said nipple is securely attached to said support. The nipple opens above into the interior of the tank, and below into a flexible tube (not shown) which the lower terminal of said nipple is adapted to have attached thereto, and the latter is provided with a cock or valve 20. Preferably the nipple does not extend below the plane of the bottom of the under frame, consequently the tank is not tilted by said nipple when said tank is set on a level surface, for, as previously observed, the tank may be placed on the floor.

A ring 21, for suspending the tank from

a hook or other supporting member, is pivotally connected at 22 with the upper bar 1 in the center thereof and behind that portion of the back 12 which extends up behind said bar. The ring 21 can be swung downwardly on the pivot 22 until said ring is entirely out of the way behind the back 12.

To collapse the tank, swing the brace bars 3 forwardly on the pivots 5 and thus cause the upper and under frames to approach each other, until said bars on each side are in approximately parallel relationship and said frames are in contiguity, substantially as shown in Fig. 2. The fabric of the front 12 and the back 13 is or may be compressed within the spaces formed by the frame bars. The ring 21 is usually turned down out of the way at this time.

To expand the tank, draw apart the upper and under frames, thus unfolding the braces, and then force said braces into approximately vertical positions with the bars 3 in locking engagement. The ring 21 is swung upwardly, if necessary, into position above the top of the tank. The tank is now ready to be supported, by means of the ring 21, from a hook or nail, and to have a tube connected with the nipple 17, the tank being filled with water either before or after the same is suspended. The water is drawn from the tank by opening the valve 20. The force of the water from the tank is, of course, dependent upon the height at which the tank is supported or suspended.

The flat back side of the tank enables the latter to be placed tightly against a wall, and to remain in such position after being so placed, as would not be the case if the tank were cylindrical.

More or less change in the shape, size, construction, and arrangement of some or all of the parts of this tank may be made, without departing from the spirit of my invention or exceeding the scope of what is claimed.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a collapsible wall tank, with a flat back and a curved front of flexible material, bars forming rigid frames at the top and bottom of said back and front, a bottom member between said back and front, and folding braces between said frames, of a rigid support between the bars of said bottom frame and beneath said bottom member, the terminals of said support extending downwardly, outwardly, upwardly, and inwardly to form lips above the top edges of said bottom-frame bars.

BENJAMIN GOLD.