July 19, 1949. J. BERG 2,476,531

COLLAPSIBLE RECEPTACLE

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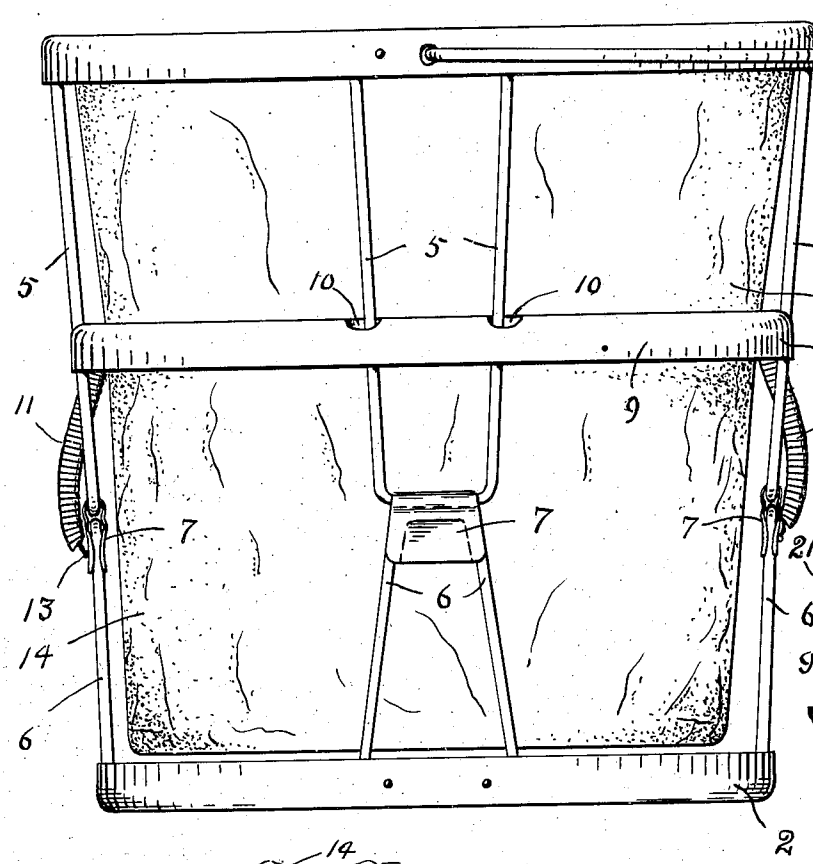


Fig. 1.

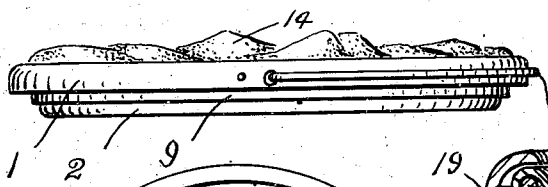


Fig. 2.

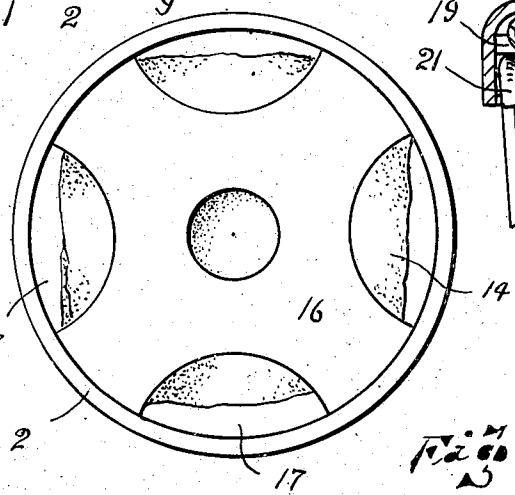


Fig. 3.

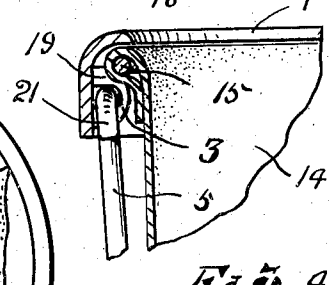


Fig. 4.

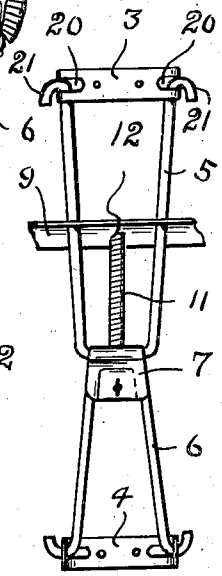


Fig. 5.

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COLLAPSIBLE RECEPTACLE

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3 Claims. (Cl. 150—49)

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This invention relates to collapsible receptacles such as pails or the like and has special reference to improvements in such receptacles as shown in my former U. S. Patent No. 1,848,929 dated March 8, 1932.

One of the principal objects of the instant invention is to augment the practicability of such a pail.

Another of the principal objects is to provide such a pail which is capable of being manufactured and assembled with as little expense as possible.

Another object is to provide a more substantial intermediate operating locking member together with a pair of normally contractile members for alternately biasing the frame structure of the pail in both collapsed and erected positions.

Another object is to provide a more convenient frame structure for throwing water from the pail equipped with the invention as for example in the event of fire where quick application of water is essential.

Still other objects and advantages will appear as this description progresses.

Referring now to the accompanying drawing forming part of this application:

Fig. 1 is a side elevational view of one of the pails fully expanded and ready for use.

Fig. 2 is of the pail completely collapsed.

Fig. 3 is a plan view of the pail bottom.

Fig. 4 is an enlarged broken cross sectional view through the upper rim of the expanded pail.

Fig. 5 is a reduced inside elevational view of one of the foldable stanchions or standards of the frame structure of the pail.

The reference numerals 1 and 2 represent the top and bottom angularly shaped hoops respectively of the pail and which are preferably attached as by suitable rivets through the top and bottom clips 3 and 4 respectively of the stanchions 5—6.

There are preferably four of these foldable stanchions 5—6, the two parts of each of which are pivotally united at their smaller ends as by the folded stamped clamp-like member 7, the latter being firmly attached and clamped to the smaller end of the part 6 and overlapping the bight of the larger part 5 of the stanchion, thus providing a relatively long and durable pivotal connection at this point.

Intermediate of the two rim hoops is permanently installed the adjusting hoop 9 of similar cross section to hoops 1 and 2, through which all of the upper portions 5 of the standards are

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adjustably rove within elongated holes 10 in said hoop 9.

As auxiliary holding means for automatically biasing the frame structure towards either open or closed position after first being so adjusted, there is installed within two opposed stanchions 5—6 a contractile helically formed spring 11. The upper end of each spring is attached as at 12 to the lower face of the horizontal flange of the hoop 9 and the opposite end of each spring is attached as at 13 to the outer face of its respective clamping member 7.

The container member here indicated by the numeral 14 may be of any fabric-like material and if contemplated for use as a water receptacle would be of water-proof material and of course of such as is most readily collapsible without ultimate injury.

For holding in what is deemed the preferred cooperative relationship of the flexible container 14 to the supporting frame just described, the wire ring 15 is provided of a diameter but slightly less than the inside of the upper hoop 1 and into the angle of which it is fitted after the upper marginal edge of the container 14 has been folded and stitched thereabouts as clearly shown in Fig. 4 of the drawing.

The bottom of the frame structure is deemed novel in that an integral sheet metal reenforcing member 16 is fastened spider-like within and to the lowermost hoop 2 and preferably being of somewhat Greek-cross shape, providing a plurality of crescent-shaped openings 17 for most convenient occupancy of the fingers of one hand of an operator when in the act of throwing or dumping liquid out of the receptacle with both hands manipulating the same.

In collapsing the pail to the position shown in Fig. 2, all that is required is to place the thumb of each hand inside the upper rim of the pail on opposite sides thereof and with the fingers squeeze the rim 9 upwardly. At this time the stanchions will fold inwardly. Continued upward stress on the rim 9 will ultimately bring the pail into completely collapsed position.

To open the pail for use, all that is required is to grasp the handle 18 and with a slight downward flick, the pail snaps completely open. When in open position, the pail cannot be collapsed by downward pressure on the upper rim, only by the squeezing of the center rim 9 towards the upper rim can this be accomplished, thus making a sturdy dependable pail for selective use.

To simplify the manufacture and assembly of the pails the rims are stamped of any suitable

sheet metal as are the clips 3 and 4 and the clamp-like member 7. In assembling a pail, the clips 3 and 4 are riveted to the top and bottom rims respectively, it being noted that each clip 3 is notched as at 19 to receive the upper wire reenforced edge of the fabric lining or container 14. After the clips have been fixed to the rims, the upper portions 5 of the hingedly united stanchions are extended through the openings 10 in the hoop 9 and then by squeezing the upper ends thereof inwardly they may be readily hooked through the openings 20 in the clips 3 for such purpose, the hooked ends 21 providing locking engagement of the parts. The lower portions 6 of the stanchions are applied to the clips 4 in the same manner as the upper portions. At this time, the biasing spring members and handle may be applied and the frame structure is complete. It is then but a simple matter to spring the container 14 into position in the upper rim to complete the pail.

Having thus described my invention, what I claim is:

1. A collapsible container comprising a bottom hoop, a top hoop, a plurality of jointed, equally and peripherally spaced stanchions each pivotally attached at one end to said bottom hoop and similarly attached at its opposite end to said top hoop, and an intermediate hoop vertically and adjustably supported by said stanchions for adjustment of said container either to its erect or collapsed condition, said stanchions each comprising a pair of opposed substantially U-shaped frames, a folded clamp uniting each pair of said frames and forming a pivotal union therefor, means at one end of each of said frames for pivotally securing the same to said bottom and top hoops, and a fabric-like container supported at its top peripheral edge by said top hoop.

2. A collapsible pail comprising a lower hoop; an upper hoop; said upper and lower hoops each carrying a plurality of equally and peripherally spaced brackets fixed thereto; a plurality of jointed, equally and peripherally spaced stanchions pivotally secured at their opposite ends to vertically aligned top and bottom brackets; said stanchions each comprising a pair of opposed substantially U-shaped frames, a folded clamp member uniting each pair of said frames and forming a pivotal union therefor, and means at one end of each of said frames for pivotally securing the same to said vertically aligned brackets; a third hoop of angular cross section and having spaced pairs of openings therethrough aligned with each pair of vertically aligned brackets; said third hoop being carried by said frames intermediate said upper hoop and said clamp members with said frames extending through pairs of said openings; a contractile spring secured to the outer face of said clamp members at one end and to the inner edge of said third hoop at its opposite end; and a fabric receptacle supported at its top peripheral edge by said upper hoop.

3. The structure as set forth in claim 2 and said receptacle comprising a fabric member having a semi-resilient ring on its upper edge; and said brackets carried by said upper hoop being notched to receive said ring.

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