Feb. 25, 1958 J. S. MONTAGUE ET AL 2,824,668

LIQUID MEASURING AND FILLING DEVICE

Filed July 12, 1954

Fig. 1.

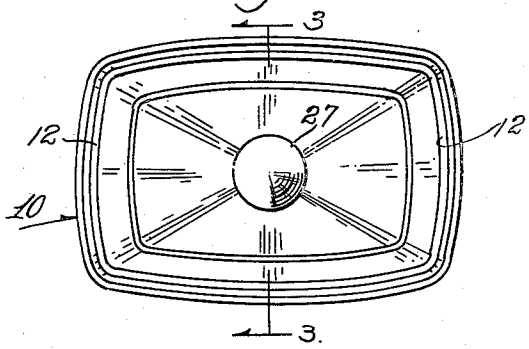


Fig. 2.

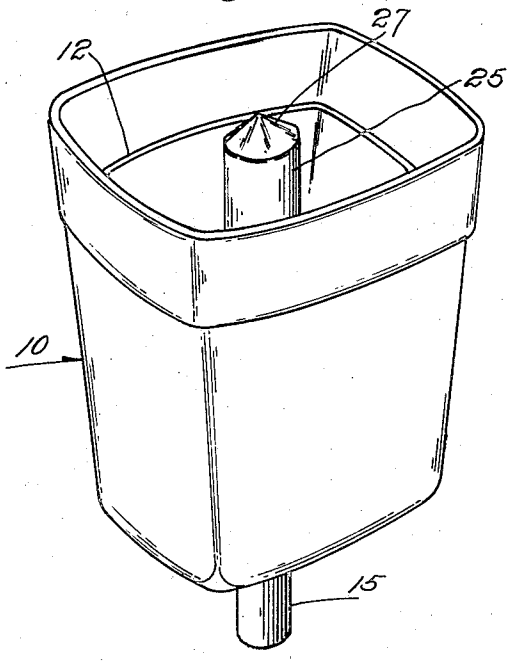


Fig. 3.

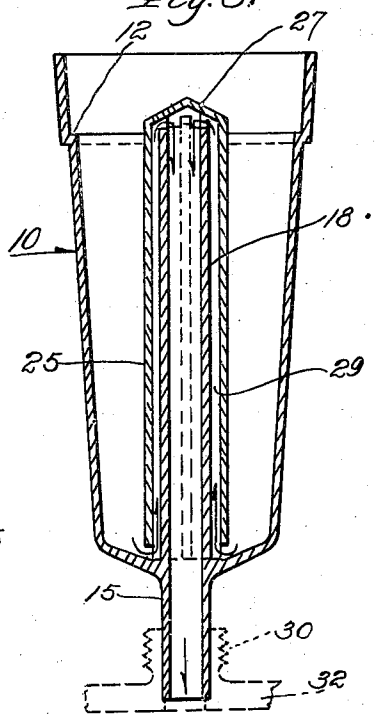
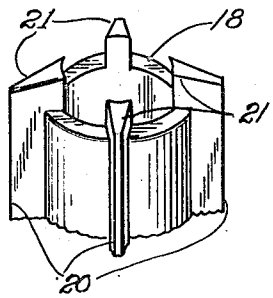


Fig. 4.



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LIQUID MEASURING AND FILLING DEVICE

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Application July 12, 1954, Serial No. 442,606

1 Claim. (Cl. 222—23)

Our invention relates to liquid measuring and filling devices especially designed for use with steam irons, although readily adaptable for other purposes.

A particular object of our invention is to provide an article of the type referred to which will operate by syphonic flow to supply a predetermined volume of water to the reservoir of a steam iron or other receptacle. In its preferred embodiment we provide, in accordance with our invention, an inexpensive article which may conveniently be formed of a moldable flexible plastic material or the like and comprising a container portion adapted to receive a predetermined quantity of water or other liquid with a unitary feed portion for delivering said liquid to a steam iron or other receptacle.

Our invention will be best understood from the drawings forming a part hereof and illustrating a preferred embodiment of our invention, wherein:

Fig. 1 is a top plan of a device embodying our invention;

Fig. 2 is a perspective view of the same;

Fig. 3 is a sectional view taken substantially along the line 3—3 of Fig. 1, and

Fig. 4 is a fragmentary perspective view of the upper end of the feed or delivery tube forming a part of our invention.

The device comprises a generally cup-shaped receptacle **10**, the vertical or depth dimension thereof being preferably greater than the breadth or width theerof. The cup-shaped receptacle **10**, may be so formed as to provide a predetermined volumetric capacity in its overall dimensions or, preferably, indicia means of some kind is provided below the top thereof marking the upper limit of such predetermined capacity, in this case the latter being in the form of a line, ledge or shoulder **12**. Thus, by filling the receptacle **10** up to the shoulder **12** a predetermined quantity of water or other liquid may be employed without risk of spilling when bodily moved.

The receptacle **10** may be formed of any suitable flexible material, such as thin sheet metal, but is preferably formed of a suitable moldable plastic such as one of the common vinyl esters or other suitable resinous materials, either natural or synthetic, such as rubber. In any event, it is desired that this receptacle be of flexible character so as to be readily distortable by manually squeezing the same and of such resilience that it will return to its original shape on release of manual pressure.

The receptacle **10** terminates at the lower portion thereof in a tubular stem **15** which serves as a delivery spout, said stem continuing up into the receptacle, as indicated by numeral **18**, to about the level of shoulder **12**. As seen best in Fig. 3, the stem **15** and its extension tube **18** are preferably integral with each other and with recpetacle **10**.

Integrally formed on the tube **18** and extending radially

outward therefrom is a plurality of vertical ribs **20**, these ribs also extending at **21** above the top edge of tube **18**, as seen best in Fig. 4.

A cylindrical cap **25**, of somewhat larger diameter than that of tube **18** plus the ribs **20**, is normally disposed over said tube, said cap being closed at the top thereof, as indicated at **27**, and open at the bottom thereof. This cap is normally loosely disposed over the tube **18**, defining a channel **29** therebetween.

When it is desired to use the device, the stem **15** thereof is inserted into whatever receptacle it is desired to fill—in its preferred application it is inserted into the filling nipple **30** of a steam iron **32**. Water or other liquid is poured into the receptacle **10** up to the indicia point, such as the shoulder **12**, either before or after placing the device in position for delivery. In order to start the flow and delivery of liquid, the receptacle **10** is manually squeezed, distorting the walls thereof inwardly and thus forcing the liquid to rise above the upper extremity of tube **18**. Inasmuch as the water will already have filled the space **29** between said tube **18** and the cap **25**, raising the head of water will, of course, increase the hydrostatic pressure, causing the liquid to overflow the upper extremity of tube **18** and to be discharged through the delivery spout **15**. Upon releasing manual pressure on the walls of the receptacle **10**, discharge of the liquid will continue by syphonic action until the contents of receptacle **10** have been entirely drained. Thus, the measured quantity of liquid will have been fed out of receptacle **10**.

While we have illustrated and described a preferred embodiment of our invention, it will be obvious to those skilled in the art that various changes may be made without departing from the spirit of our invention, and hence we do not wish to be limited to the specific form shown or uses mentioned except to the extent indicated in the appended claim.

We claim:

A liquid measuring and syphonic dispensing device, comprising a cup-shaped receptacle having a distortable and resilient side wall portion and a closed bottom wall, a substantially straight tube open at both ends and extending through said bottom wall, said tube having its inlet end disposed a relatively short distance below the upper end of said receptacle and its outlet end a relatively short distance beyond the bottom wall of said receptacle, the outlet portion of said tube serving as a spout adapted to be inserted within a filling nipple of a liquid magazine, indicia means on said side wall portion of the receptacle approximately level with the inlet opening of said tube, a generally cylindrical cap member having a closed end disposed over said tube within the receptacle and spaced from said tube and the bottom of the receptacle so as to provide a channel permitting liquid to enter the space between the cap and the tube and to be discharged from the receptacle through the tube, means disposed between the tube and said cap member at the sides and top thereof whereby the cap is maintained in spaced relation to the tube while providing channels for passage of liquid therebetween, the resilient side wall portion of the receptacle providing means whereby siphonic discharge of the liquid contents of the receptacle may be initiated.

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