April 7, 1931. W. O. YANCEY 1,799,401

MEASURING DISPENSER

Filed July 1, 1929

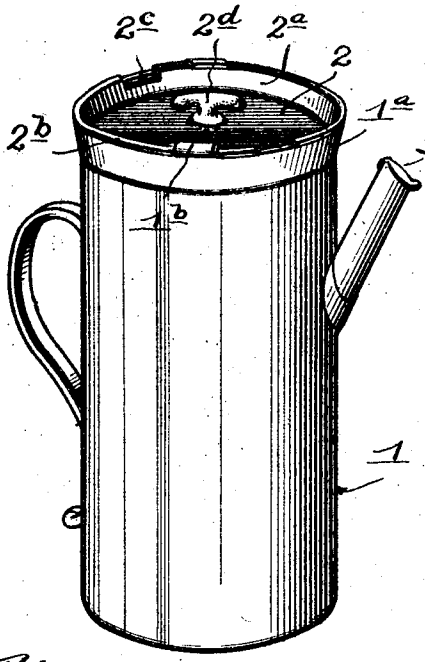


Fig. 1

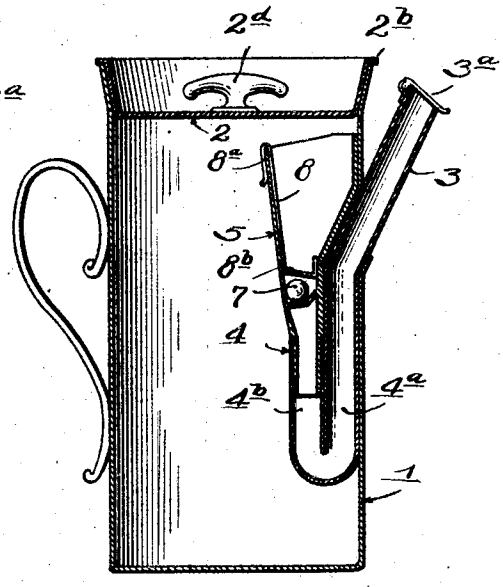


Fig. 2

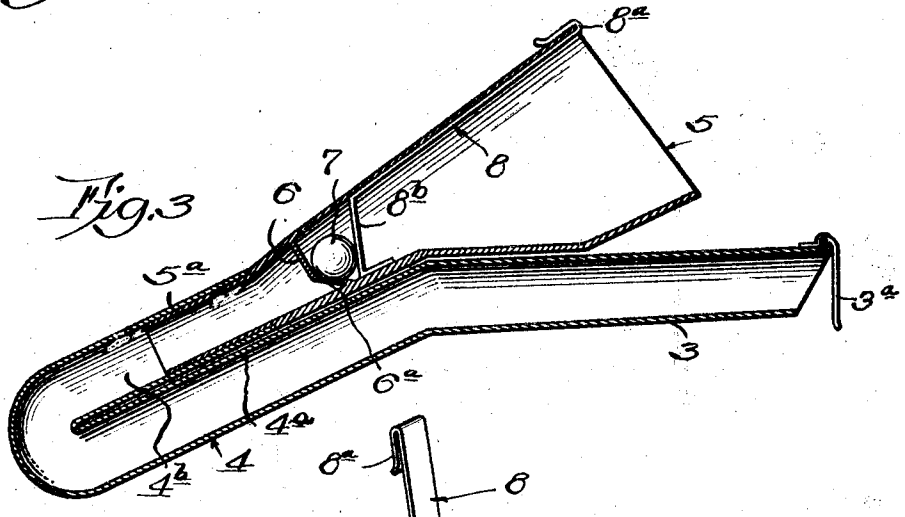


Fig. 3

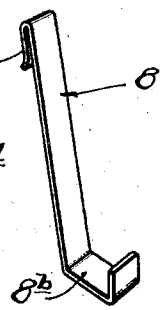


Fig. 4

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UNITED STATES PATENT OFFICE

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MEASURING DISPENSER

Application filed July 1, 1929. Serial No. 375,215.

This invention relates to improvements in measuring dispensers, and more particularly to containers for use in restaurants and other public eating establishments for the serving of milk, cream or other fluid.

The object of the invention is to provide a practical and sanitary container, capable of dispensing the same amount of the liquid at each serving, thus preventing waste by discouraging the partaking of an excessive quantity of the contents.

A preferred embodiment of my invention is disclosed in the accompanying drawings, in which—

Figure 1 is a perspective view of the dispenser.

Figure 2 is a view in vertical section through the dispenser.

Figure 3 is an enlarged detail view of the measuring tube of the dispenser, tipped to the angle of pouring; and

Figure 4 is a perspective view of the ball valve retainer.

In its general appearance, the container resembles an ordinary serving pitcher with spout and handle. The body 1 of the container is cylindrical, and preferably provided with a slightly flaring rim 1*a* surrounding its top and forming a seat for a cover or lid 2 also having a flaring marginal rim 2*a* which seats tightly against the rim 1*a* of the container, and a lip 2*b* about its top seating about said rim. At two or more points about the edge of the rim 1*a* are upwardly projecting lugs or ears 1*b*, and about the upper edge of the cover are notches 2*c* cut in the lip 2*b*, these notches being adapted to register with the ears to permit the cover to be removed for filling the container, but when applied and then turned by means of the handle 2*d* at the center of the cover, the same is secured in liquid-tight contact with the body so that there will be no leakage when the container is tilted.

The spout 3 of the container forms a part of a U-shaped tube 4 soldered or otherwise fixed to the inside of the container so that it stands in upright position with its lower end spaced a short distance above the bottom of the container. The spout 3 is inclined at an angle to pass through the container wall substantially midway its height and just above the point where it joins the portion 4*a* of the U-tube 4 extending downwardly along the inner wall of the container. If desired, the mouth of the spout may be provided with a hinged lid 3*a*.

Telescoping into the end of the inner portion 4*b* of the U-tube is a funnel-shaped vessel 5 which constitutes the measuring element of the dispenser. This measuring vessel 5 is open at its top which lies just below the cover 2, gradually tapering to a tubular extension 5*a* at its lower end which fits into the portion 4*b* of the U-tube 4. The greater part of the vessel 5 lies above the base of the spout 3, and its walls are shaped so that it hugs the wall of the container throughout its upper portion.

At the base of the measuring vessel 5, and just above the extension 5*a* at its lower end, is a partition wall 6 extending generally across the passage, but having an upwardly inclined portion on the side adjacent the spout in which a round port 6*a* is provided. Mounted within the space just above the partition wall 6 is a steel ball 7 adapted to roll to and from the port 6*a* so as to cover and seal the same when the container is tilted in pouring position, and to uncover the port when the container is standing upright, the ball rolling back and forth by gravity on the inclined partition wall 6 on which it rests.

To form a cage for the ball, a retainer 8 is used, consisting of a flat strip of metal having a U-shaped clip 8*a* at its upper end for securing it to the edge of the funnel member 6, and an L-shaped arm 8*b* at its lower end bent to extend crosswise of the funnel passage just above the ball 7. This retainer is removable for sanitary reasons.

Assuming that the container is filled with a liquid, such as cream, to a level below the top edge of the funnel member 5, it would first be primed, so to speak, by tilting it in a direction to depress the spout thus allowing the cream in the container to overflow the rim of the funnel. As the tilting of the container causes the ball valve 7 to close the port 6*a* the funnel is filled, but when the container is lev-

eled, the ball rolls away from the port allowing the contents of the funnel to flow into the U-shaped tube below the port. Now with the tilting of the container in the act of pouring, the liquid standing in the U-shaped tube is discharged from the spout, while the funnel is simultaneously filled from the supply in the container, but since the ball seals the port while the container is tilted, the fresh supply does not pass through the port until the container has been righted after the preceding charge has been poured. Manifestly the capacity of the funnel is limited to the quantity required for a single serving, so that no more is obtainable without again righting and tilting the container.

In practice, the amount dispensed with each tilting of the container would be ample for a single serving, so that there would be no necessity for more, in spite of the fact that the user is able to obtain a second serving. The real purpose of the container is, therefore, to guard against waste as the result of carelessness in taking more than is sufficient, by dispensing a uniform but adequate amount, and not with the idea of profiting by the dispensing of less than the user is entitled to.

Having set forth a preferred embodiment of my invention, I claim:

1. A liquid dispenser having a pouring spout, an open measuring vessel mounted in said container with its open end adjacent the top thereof, a U-shaped tube connecting the lower end of said vessel with the lower end of said spout, a valve adjacent the lower end of said vessel and comprising a wall traversing the passage to the U-tube below, and having a port therein, a ball valve member supported on said wall and adapted to roll with the tilting of said container into and out of pouring position to open and close said port, and a ball retainer detachably secured to the upper edge of said vessel and extending downwardly with its lower portion spaced above said ball valve member.

2. A liquid dispenser having a pouring spout, a vertical tube mounted in said container with its upper end opening adjacent the top thereof, and having its lower end turned upwardly and connected with the base of said spout, said tube having a wall extending transversely thereof below its open end and a port in said wall, and a ball valve supported for rolling contact on said wall and adapted to seat over said port in the tilting of said container into pouring position.

3. A liquid dispenser having a measuring vessel mounted therein, consisting of a vertically arranged U-tube open at one end adjacent the top of said container and its opposite end extending from said container to form a spout, said tube being provided with a transverse partition wall below its interior open end having a port therein, a ball valve member supported on said wall and adapted to rest over said port when said container is tilted into pouring position, and to uncover said port when said container is in upright position, and a removable retainer for said ball valve.

Signed at Fort Worth this 26th day of June, 1929.

WILLIAM O. YANCEY.