

Feb. 21, 1956

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2,735,592

MEASURING AND DISPENSING DEVICE FOR BOTTLES AND CONTAINERS

Filed March 24, 1953

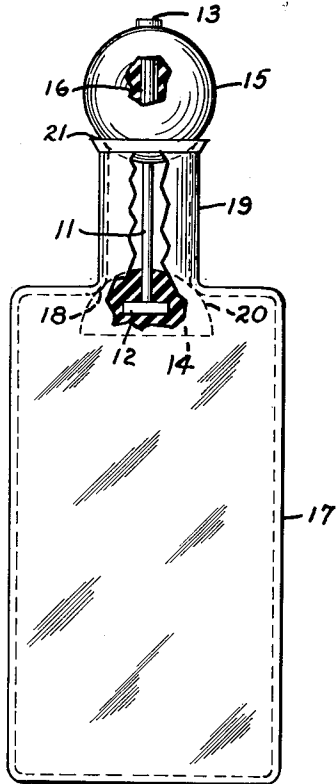


FIG. 2

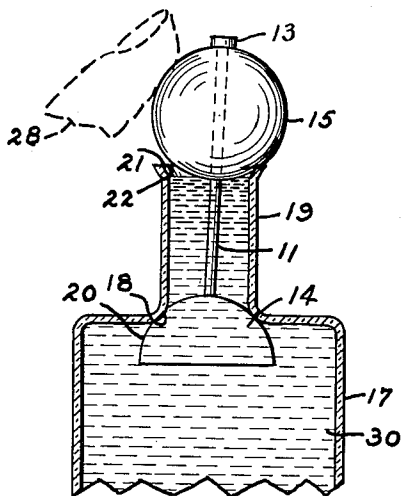


FIG. 4

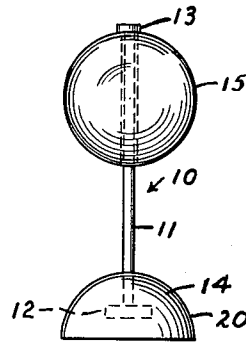


FIG. 1

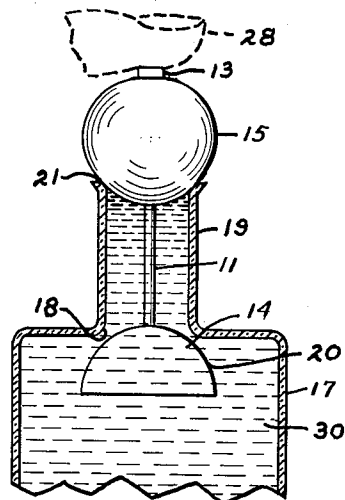


FIG. 3

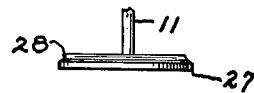


FIG. 5

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1

2,735,592

MEASURING AND DISPENSING DEVICE FOR BOTTLES AND CONTAINERS

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Application March 24, 1953, Serial No. 344,371

1 Claim. (Cl. 222—449)

The present invention relates to a measuring and dispensing device for containers such as bottles and the like, and it has for one of its objects an inexpensive and efficient device.

Another object of the present invention is the provision of a measuring and dispensing device for bottles and containers containing detergents, medicine and the like.

A still further object of the present invention is the provision of a device which is foolproof, easy to operate and practically indestructible.

A still further object of the present invention is the provision of a device having means to permit a predetermined amount of liquid to be dispensed from a bottle or container.

A still further object of the present invention is the provision of a device having means that will retain a predetermined amount of liquid in the neck of a container, bottle or the like, and without spilling the liquid.

A still further object of the present invention is the provision of a closure means under compression.

With these and other objects in view, the drawing of the present invention will become more fully apparent as reference is made to it, wherein

Figure 1 is an elevational view of the device.

Figure 2 is an elevational view of a bottle and showing the device affixed in the neck and mouth thereof, parts being broken away.

Figure 3 is a fragmentary sectional elevational view showing the device in position when pressure is applied to permit liquid to enter the neck of a bottle or container when tilted to a substantially horizontal position.

Figure 4 is a view similar to Figure 3 and showing the device in position when pressure is applied for discharge of liquid trapped in the neck of a bottle or container when tilted to a substantially horizontal position.

Figure 5 is a modified form of one of the closure means, a part of same being shown fragmentarily.

Referring to the drawing the numeral 10 represents the device, and it comprises a rigid or semi-flexible rod 11 that is impervious to liquids, such as glass, plastic or the like, and it is provided at its lower end with a flange 12, and a smaller flange 13 at the top end. The base of the rod is provided with a closure means 14 in which the flange 12 is embedded. Adjacent the flange 13 there is provided a resilient element 15 that may be made of rubber or the like, and likewise the closure means 14 being resilient may be made of rubber or the like. As shown in Figure 1 in dotted lines, and in the broken section Figure 2, the resilient element 15 may be provided with a bore 16 of a diameter slightly larger than the rod 11, or if desired the resilient element 15 may be molded around a section of the rod.

2

As shown in Figure 2, the device 10 is affixed in a bottle 17 and it is to be noted that the bottom wall 18 of the neck 19 is engaged by the surface 20 of the element 14.

The mouth 21 of the neck 19 is snugly engaged by a portion of the element 15, the two elements 14 and 15 sealing the tube openings in the neck, the sealing being accomplished by the compression of the two elements 14 and 15 due to the resiliency of these elements, and due to the fact that the overall length of the device is less than the length of the neck 19.

The inner wall 22 of the mouth 21 may be flanged for a purpose to be later described.

The closure elements 14 and 15 may be of any suitable shape and size, and in the modified form as shown in Figure 5 a flat round element 27 may be provided, having a concave ridge portion 28 for engagement with the rounded inner wall 18 of the neck.

In using the device a bottle or container is equipped with the present invention and in Figure 3 there is shown the device in a bottle. The bottle is tilted to a substantially horizontal position and a downward pressure applied to the element 15 by a thumb or finger 28 shown in dotted lines. This pressure causes the rod 11 to move downwardly, and during movement the element 14 is disengaged from the wall 18, permitting liquid 30 to enter the neck 19 in a predetermined amount. When the predetermined amount of liquid has been received in the neck 19, the finger or thumb 28 is removed from the element 15 and due to the resiliency of the element it will assume its normal shape. The liquid 30 is now trapped between the lower opening of the neck 19 and the mouth 21. To release the liquid trapped in the neck through the mouth, the finger or thumb exerts pressure on the element 15 as shown in Figure 4, the bottle or container is tilted to a substantially horizontal position, the pressure causing the element 15 to deform thus opening a portion of the mouth permitting the liquid trapped in the neck to be dispensed.

If desired the neck of a bottle or container may be graduated so that a teaspoon or a tablespoon of liquid would be trapped in the neck.

With the present device it is impossible for liquid to be spilled from the bottle if casually knocked over, and it is impossible for liquid to be discharged from the bottle unless pressure is applied to the closure elements.

While the present invention has been disclosed in connection with certain specific embodiments thereof, it is to be understood that these are by way of example rather than by way of illustration and that the invention is to be defined by the attendant claim and given a scope as broad as is consistent with the prior art.

What is claimed is:

A device for measuring a predetermined amount of fluid from a container, comprising a neck chamber therefor, said chamber having opposed inner and outer openings, inner and outer resilient valve members for each opening, rigid connecting means between said members of such length that said members seal at each opening, said valve members being vertically and horizontally movable to allow passage of fluid into or out of said chamber.

References Cited in the file of this patent

UNITED STATES PATENTS

564,209	Meins	July 21, 1896
2,017,839	Berendt	Oct. 22, 1935
2,366,343	Ludwig	Jan. 2, 1945