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2,641,376

DISPENSING CAP FOR BOTTLES

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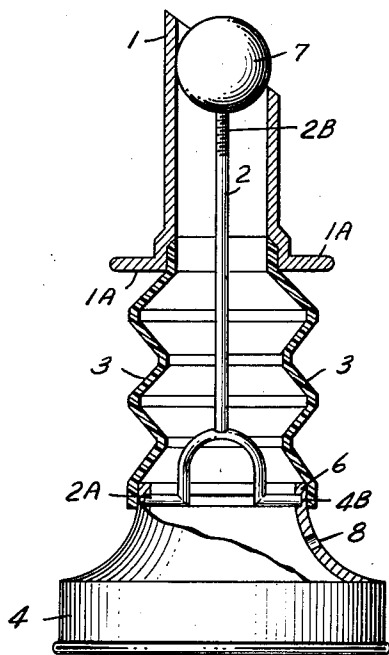


Fig. 1

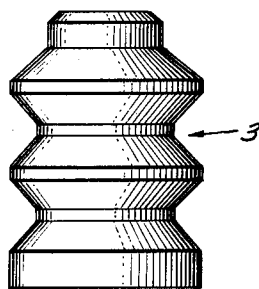


Fig. 2

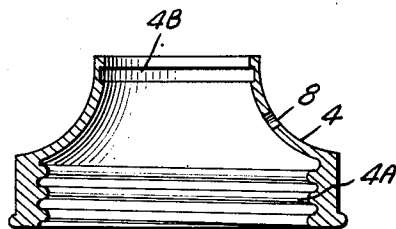


Fig. 3

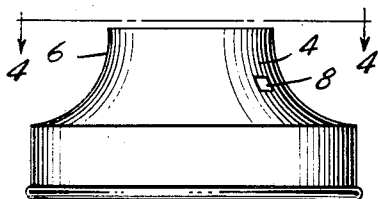


Fig. 4

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DISPENSING CAPS FOR BOTTLES

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2 Claims. (Cl. 215—78)

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This invention relates to new and useful improvements, and design, in dispensing caps for bottles or the like, from which liquids are to be poured.

One of the objects of the invention is to provide a device in the form of a cap to fit over the mouth of a bottle or other similar container so as to permit the pouring of the liquid from same without spilling or wasting any of such liquid.

Another object of the invention is to provide a dispensing medium or cap for bottles or the like which will enable the user of same to regulate the rate of flow of the liquid from such container, said regulation being available without any loss of the liquid "dripping" or leakage.

A further object of the invention is the provision of a cap as described that is convenient and easy to attach to liquid containers and likewise convenient and easy to detach therefrom when desired.

The foregoing stated objects and others attained in the use of the invention will be apparent from a reading of the description in conjunction with the drawing accompanying and a part of this application.

In the accompanying drawing:

Fig. 1 is a view of the invention, showing the device for the greater part in cross-section and the base in perspective.

Fig. 2 is an elevation view in perspective of the "neoprene" bellows.

Fig. 3 is a view in perspective of the base part of the device which serves as the cap part.

Fig. 4 is a cross sectional view of the base taken on line 4—4 as shown in Figure 3.

Describing the drawing more in detail: The numeral 1 refers to the spout of rigid material which is movably joined to the upper portion of the neck 3 at the extending lower portion 1A, the neck 3 being in bellows form and of a material known as "neoprene" which is used because of its low permeability to gas as compared to rubber, the lower end portion of such neck being joined with the base or cap part 4 on the exterior surface of the cap at 6. A stem member 2 having threads 2B on its upper end surface and having its lower end portion in the form of a yoke with an outwardly extending lower edge 2A and is fixed upright within the upper end portion 6 of the base or cap 4 by means of the extending edge 2A engaging in the recesses 4B formed in the inner surface of the portion 6 of the cap.

A ball 7 is mounted on the upper end of the stem 2 by means of the threads 2B, such ball forming a valve means in the mouth of the spout

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and said spout having a slanting outer edge to form a pouring edge. The upper portion of the base has concave walls which reduces the circumference of the upper edge in relation to the lower edge of the base or cap. The lower portion of the base is provided with circumferential threads 4A in its inner surface as a means to engage over the threads on the neck of a bottle or like liquid container and is provided with an air vent 8 as a means for equalizing the air pressure within such bottle or container during the pouring out process so as to facilitate the flow of the said liquid out of the container.

In the operation of the device, it is first securely attached over the neck of a bottle or the like by means of the threads in the cap engaging the threads on the neck of such bottle, or in the event such neck is not provided with threads the cap is pressed down over the neck to hold same securely on the neck by means of friction exerted on the neck of the bottle. The container is then grasped with one hand and the spout is directed into a pipe such as the oil pipe on a motor vehicle, then by exerting downward pressure on the container the neck will shorten by reason of its bellows form and the contact of the extending part of the spout with the top of such pipe. As the bellows shortens the mouth of the spout is drawn away from the ball 7, or valve, permitting the liquid from the said bottle to flow out past the ball and into the pipe in which the spout is inserted. When the pressure on the container is released the neck by reason of its resilient quality will automatically return to its normal position and the spout to its normal position around the ball, thus shutting off the flow of the liquid from the bottle, and any quantity of the liquid remaining in the space within the spout, neck and base will flow back into the container without any leakage or loss of same. The opening 8 in the wall of the base or cap permits an equalizing of the air pressure within the device so as to permit an even flow of the liquid from the bottle or container.

From the foregoing description and operation as stated, it will be observed that we have invented a highly efficient and useful device for the purposes specified and, while we have shown the device in a desirable structure and form, the use of the device may require modifications without departing from the basic features or the spirit of the invention.

Having described my invention and its manner of operation, I claim:

1. A device of the class described comprising a

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spout member of rigid material and having projections extending outwardly from opposite sides of its lower portion, a neck in bellows form with its upper end portion affixed to the inside surface of the lower end portion of said spout, a hollow cap formed base having the lower end portion of the said neck attached to the outer circumference surface of the upper end portion of the said base, a yoke-shaped member affixed on the inside surface of the upper portion of the said base by means of its prong ends, a valve in the form of a ball fixed on the upper extremity of the upward or vertically extending stem of the said yoke member, the said valve sealing the orifice in the spout when the spout is in its unactivated position, said valve adapted to unseal such orifice by reason of the shortening of said bellows neck by means of a pressure exerted on the said

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spout projections, such pressure being applied in the direction toward the said base, and the said valve adapted to return to its unsealing position when the said pressure on the said projections is released.

2. A device as described in claim 1, said base member provided with circumferential threads in the inside surface of its lower portion, and said threads adapted to engage the threads on the exterior surface of the neck of a bottle or the like.

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