

Feb. 8, 1955

H. C. ZAYAN

2,701,668

AUTOMATIC TAP APPLICABLE IN ALL CLASSES OF CONTAINERS
AND RECIPIENTS OR CONDUCTS FOR RUNNING LIQUIDS
Filed June 21, 1950

Fig. 1

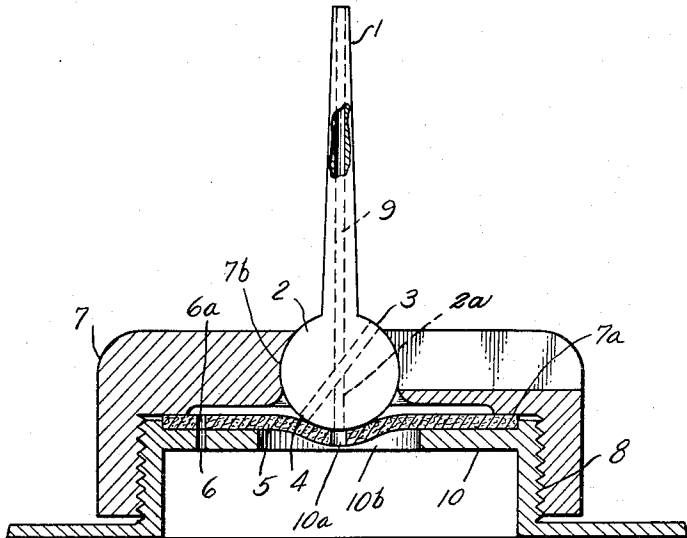
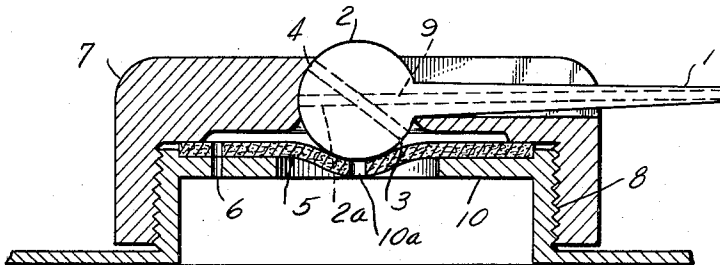


Fig. 2



INVENTOR

HENRI CHARLES ZAYAN

BY *Leon M. Strauss*
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AUTOMATIC TAP APPLICABLE IN ALL CLASSES OF CONTAINERS AND RECIPIENTS OR CONDUCTS FOR RUNNING LIQUIDS

Henri Charles Zayan, Montevideo, Uruguay

Application June 21, 1950, Serial No. 169,347

Claims priority, application Uruguay June 21, 1949

2 Claims. (Cl. 222—484)

This invention relates to dispensing devices for receptacles or similar containers having a neck with outer screw threads and with a central dispensing opening.

It is one of the objects of the present invention to provide means for effectively and fluid-tightly connecting a dispensing device with a container, whereby in one position of the spout of the dispensing device communication with the interior of the container will be had, while in another position of said spout tight closure between the dispenser device and said container is effected.

It is another object of the present invention to provide means conducive to a simple construction of a dispenser device equipped with a spout which may be readily adjusted without leakage relative to the dispensing opening of the neck of the container.

Yet a further object of the invention is to provide means affording swinging movement of the spout in one direction to establish communication from the container to the spout and in another direction to tightly obstruct the passage of said communication and whereby the spout proper may be swung substantially into the plane in which the cap of the dispenser device extends, whereby a substantially compact structure for the container and dispenser device is attained.

Still another object of the present invention is to provide a cap threadedly engageable with the threads of the neck of a container and having an inner top surface, a resilient washer provided with a first outlet aperture located for registry with the central dispensing opening and with the second air inlet aperture adjacent said first aperture.

It is a further object of the present invention to provide a washer having a peripheral edge against which the inner top surface of the cap, which is provided with an annular projection is positioned, whereby the washer is held in position at its peripheral edge between the upper neck end of the container and said projection of the cap.

The structure made in accordance with this invention is further characterized in that the cap is further provided with a central cavity defined by a spherically-shaped wall in which a spout equipped and ball-shaped valve is seated and movable relative to said wall so as to be retained between the latter and the portion of a washer located adjacent the first mentioned aperture, said valve being further provided with a first passageway extending from one end of the valve through the same to the end of said spout and the said valve being also provided with a second passageway passing through said valve and communicating with said second aperture of said washer to establish air admission from without the container thereto, when said first passageway of said valve is in registry with the first aperture of the washer and of said central opening for discharging the contents of the container through the spout.

These and other objects of the invention will appear from the following description thereof, reference being had to the attached drawing forming part of the disclosure of the invention.

In the drawing:

Fig. 1 is a sectional view through the upper end of the neck of a container having applied thereto the dispensing device made in accordance with the invention.

Fig. 2 is a sectional view similar to that of Fig. 1 with a part of the dispensing device shown in a position different from that shown in Fig. 1.

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Referring now more particularly to the drawing, there is shown in Fig. 1 a section through the end of a container neck having a transverse partition 10 with an air inlet opening 6. On recessed partition 6 of the threaded neck 8 there is located a washer 5 of suitable resilient material having an opening 6a in registry with opening 6 and further an opening 10a overlying the central opening 10b provided in partition 10.

Screw threaded cap 7 is in engagement with said threaded neck 8 and has an inner annular projecting ledge 7a which presses the peripheral edge of washer 5 onto the recessed partition 10, as may be readily realized from Fig. 1.

Hollow screw cap 7 has an arcuate-shaped wall 7b adapted to receive therein and retain thereon a ball-shaped valve 2 provided with spout 1. Spout 1 has a bore 9 communicating with a passageway 2a which is adapted when in registry with opening 10a to establish communication from the interior of the container through opening 10a with the spout bore 9 for dispensing purposes.

Angularly to passageway 2a and passing through ball-shaped valve body 2 is a second passageway 3 which is so disposed that it will establish communication from the atmosphere without the container through the opening end 4 of the passageway 3 and opening 6a of the washer and of the partition 10, whereby ready dispensing of the contents within the container may be had through the bore 9 of spout 1, as clearly shown in Fig. 1.

In this position through sufficient deformation of the central part of washer 5 opening 6a of the washer will be enlarged in order to facilitate the aforesaid air communication.

Fig. 2 shows the dispensing device of Fig. 1 in inoperative position whereby the spout is moved sidewardly and substantially into the plane of the screw cap 7, whereby the ball-shaped valve body 2 is moved relative to the arcuate-shaped wall 7b, whereby the passageways 2a and 3—4 are obstructed and cut off, respectively, from the contents within the container and from the atmosphere, as may be readily understood from the disclosure of Fig. 2.

It can thus be seen that there has been provided in accordance with this invention an effective dispensing device having the advantages and characteristic features as hereinabove pointed out.

It is well understood that the invention is not limited to the particular embodiment shown which is illustrative only and without being limitative.

The material for the washer may be chosen to suit the purpose to which this invention is directed.

Having thus described the present invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a dispensing device for a container having a neck with a central dispensing opening and with outer screw threads; a cap threadedly engageable with said threads of said neck and having an inner top surface, a resilient washer provided with a first outlet aperture located for registry with said central dispensing opening and with a second air inlet aperture adjacent said first aperture, said washer having a peripheral edge, the inner top surface of said cap being provided with an annular projection positioned opposite the upper end of said neck and defining a recess in said top surface whereby said washer is held in position at its peripheral edge between said upper neck end and said annular projection, said cap being further provided with a central cavity defined by a spherically-shaped wall, and a ball-shaped valve terminating in a spout arranged for movement in said cavity relative to said spherically-shaped wall and retained between the latter and a portion of said washer located adjacent said first aperture, said valve being provided with a first passageway extending from one end of said valve through the same to the end of said spout, said valve being further provided with a second passageway passing through said valve and communicating through said recess with said second aperture of said washer for admission of air from without said container into the latter, when said first passageway of said valve is in registry with said first aperture of said washer and

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said central opening through which contents of said container may then be discharged through said spout.

2. In a device according to claim 1, wherein said neck is provided with an end partition extending below said upper neck end, said central dispensing opening being located in said partition, said partition being provided with a further opening arranged for registry with said second aperture of said washer.

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