June 6, 1939. C. O. NELSON 2,161,230

CONTAINER CLOSURE

Filed July 29, 1938

Fig. 1.

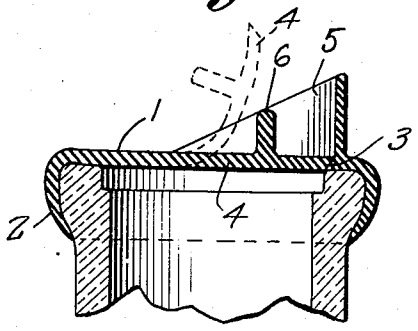


Fig. 2.

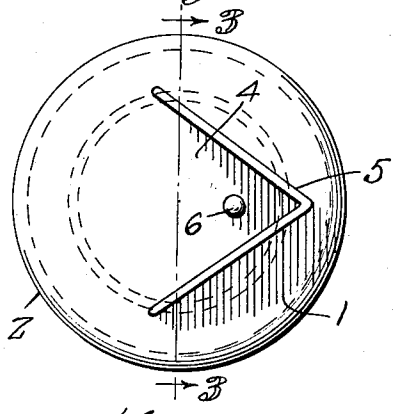
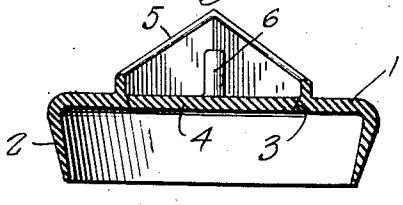


Fig. 3.



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2,161,230

CONTAINER CLOSURE

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3 Claims. (Cl. 215—100)

This invention relates to closures for containers, and its general object is to provide a closure in the form of a cap for use with all types of open top containers, such as milk bottles, jars, drinking cups and glasses, etc., the cap being formed from elastic material to be stretched about the open top of the container to provide a leakproof connection therewith, and the cap has a normally closed valved controlled opening therein for dispensing the contents of the container therefrom, the valve being moved to open position manually or by the contents, when the container is tilted for pouring the contents therefrom.

A further object is to provide a container closure or cap of the character set forth, that includes a pouring spout integral therewith, and the cap is simple in construction, inexpensive to manufacture and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a fragmentary vertical sectional view illustrating my cap applied to a milk bottle, with the flap valve for the pouring opening, in closed position in full lines and open in dotted lines.

Figure 2 is a top plan view of the cap per se.

Figure 3 is a vertical sectional view taken through the cap, at right angles with respect to the showing of Figure 1.

Referring to the drawing in detail, it will be noted that I have illustrated my closure or cap as being applied to a milk bottle, but as previously indicated, it is to be made in all sizes for use with all types of open top containers, including jars, drinking cups and glasses, etc.

The cap is molded or otherwise formed from elastic material such as rubber, to provide a relatively thick disklike wall 1 having an annular flange formed on and depending from the periphery thereof to provide a skirt 2 which is shown as being directed inwardly from its juncture with the wall 1 to its lower edge, and is beveled accordingly, so as to set up a gripping engagement with the lip of a milk bottle or upper edge portion of other containers, as will be apparent.

The top wall 1 is provided with a V-shaped slit 3 having its apex terminating adjacent the edge of the wall, and the slit 3 not only provides a pouring opening but a lip or flap valve 4 for closing the opening. It will be noted that the walls of the slit are arranged at an inward angle of approximately sixty degrees which tends to form a seal between the valve 4 and its opening, as well as to prevent the valve from dropping below its seat into the container, as will be apparent upon inspection of Figure 3.

Formed on and rising from the top wall 1 is a pouring spout 5 of substantially V-shaped formation to follow the shape of the opening in the wall 1, and is made up of converging walls for that purpose which increase in height from their rear ends to their forward or apex ends, so that their upper edges are arranged at an upward inclination toward their apex ends, and with their rear ends merging into the top wall, while the forward ends are joined, with the result it will be seen that the outlet of the spout is pointed and that feature coupled with the converging walls will cause the contents of the container to be poured in a thin stream, when the container is tilted for that purpose.

The lip or flap valve 4 has formed thereon and rising therefrom a knob 6 providing a handle therefor, so that the valve can be manually opened if desired or found necessary to do so. However, when the container is tilted, for pouring the contents therefrom, in most instances the action of gravity combined with the weight of the contents will cause the valve 4 to automatically open, and due to the elastic nature of the valve, it will be automatically closed when the knob is released or when the container is restored to its upright position.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A closure for a container and being formed from elastic material to provide a disklike top wall, a flange formed on and depending from the periphery of the top wall and providing a skirt for securing the closure to the container, said top wall being split in V-shaped formation

to provide a pouring opening and a valve normally closing the opening and held accordingly by the inherent nature of the elastic material, said valve being movable to open position by the contents of the container when the latter is tilted for pouring the contents therefrom and a pouring spout formed on and rising from the top wall and following the shape of the opening.

2. A closure for a container and being formed from elastic material to provide a disklike top wall, a flange formed on and depending from the periphery of the top wall and providing a skirt for securing the closure to the container, said skirt being tapered toward its lower end and beveled accordingly to set up a gripping engagement with the container, said top wall being split to provide a pouring opening and a valve normally closing the opening and held accordingly by the inherent nature of the elastic material, the walls of the split being disposed at an inward angle to set up a sealing action between the valve and its opening and to prevent the valve from dropping into the container, said valve being movable to open position by the contents of the container when the latter is tilted for pouring the contents therefrom, a pouring spout formed on and rising from the top wall and following the shape of the opening, and said pouring spout being made up of converging walls having inclined upper edges to provide a pointed outer end for the spout.

3. A closure for a container and being formed from elastic material to provide a top wall, a flange formed on and depending from the outer edges of the top wall and providing a skirt for securing the closure to the container, said top wall being split in V-shaped formation to provide a pouring opening and a valve normally closing the opening and held accordingly by the inherent nature of the elastic material, the walls of the slit being disposed at an inward angle to set up a sealing action between the valve and its opening and to prevent the valve from dropping into the container, said valve being movable to open position by the contents of the container when the latter is tilted for pouring the contents therefrom, a pouring spout formed on and rising from the top wall from the edges of the opening to follow the shape thereof, said pouring spout being made up of converging walls having inclined upper edges to provide a pointed outer end for the spout, and a knob formed on and rising from the valve to provide a handle for manually moving the valve to open position.

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