

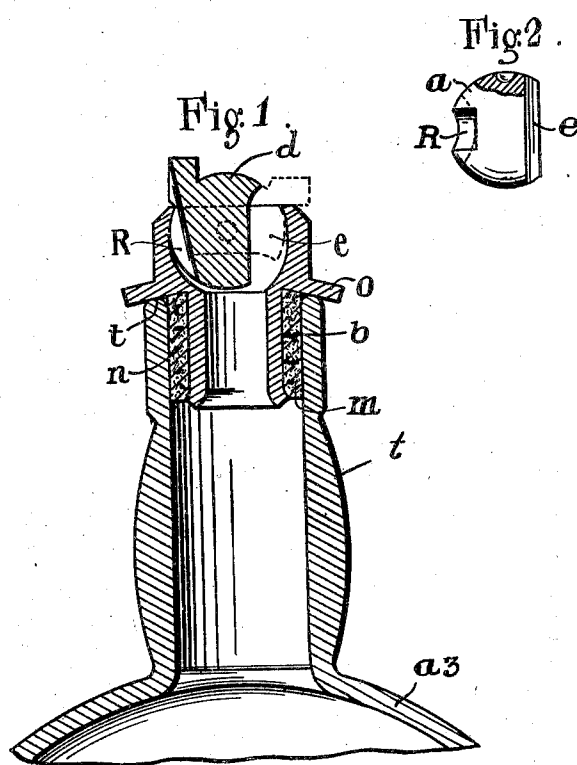
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CONTAINER FOR FLOWABLE MATERIAL

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2,127,308

CONTAINER FOR FLOWABLE MATERIAL

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Original application June 29, 1933, Serial No. 678,133. Divided and this application April 5, 1937, Serial No. 135,275. In Great Britain July 5, 1932

6 Claims. (Cl. 215—76)

The present invention is a divisional application of my application for Method and apparatus for making containers, Ser. No. 678,133, filed June 29, 1933, which is a continuation in part of my co-pending patent application, Ser. No. 629,007, filed August 16, 1932.

The present invention has for its object improvements in containers and more particularly in containers or tubes deformable by compression and containing fluid, viscous or pasty material.

According to the present invention, a container of the kind referred to comprises a movable closure member or stopper fixed at the extremity of the container, of which the material is pressed or extruded around it, and provided with an exterior finger or member for manipulative purposes allowing of its being displaced and for example of making it turn to open or close the container.

According to one way of carrying out the invention, the closure member has an open dispensing portion which may be brought into register with the prolongation of the neck or orifice of the container, when this latter is to be opened, or be angularly displaced so that the body of the closure member covers the said neck or orifice and ensures the closure.

Further features of my invention relate to a novel type of closure means adapted to serve as a stopper in connection with a cork or otherwise for any container, such as a bottle, etc., being provided with two vents for the free and rapid discharge of fluid therefrom.

The following description, with reference to the accompanying drawing, given by way of example, will make the improvements easily understood.

Fig. 1 is a vertical sectional view of an embodiment of my invention having an air inlet vent to secure a rapid delivery of liquid from the mouth of the bottle thereof.

Fig. 2 is a side elevation of the closure means employed in Fig. 1.

I provide a nozzle closure means for necks or nozzles of liquid containers having a movable closure member oscillatable within said nozzle from an open position to a closed position to dispense the fluid therein, which is formerly retained in the nozzle, the metal of the nozzle itself being pressed around the outer end of the closure member.

As shown in Figs. 1 and 2 my invention may be applied to a bottle, in which case the stopper *d* is inserted as usual in the neck *b*, the lower

portion *m* of which may be suitably mounted within a suitable cork *n* forming the stopper for the bottle *a*. If desired the neck or nozzle *b* may be provided with the supplemental outwardly flaring flange *o* adapted to rest on the upper end of the bottle neck *t*. In addition to the fluid discharge vent *e* a supplemental air inlet *R* is provided to admit air within the bottle therethrough as the liquid is being withdrawn out through the outlet *e*, thereby providing a closure member which will permit a rapid discharge of liquid from within the container.

It is evident that modifications may be made in the devices above described, without departing from the scope of the invention.

What I claim and desire to secure by Letters Patent is:—

1. Closure means for containers comprising, a nozzle having a partially spherical recess therein and an inlet and outlet, a hollow, at least partially spherical closure member contained within said recess and having outlet vent means and a separate inlet vent means of a size to admit sufficient air for rapid discharge of liquid through said outlet vent means and a projection projecting outwardly through the end of said nozzle from said closure member to move the outlet and inlet vent means thereof from a position in alignment with said inlet and said outlet to a closed position, said closure member having diametrically opposite single axis of oscillation forming means thereon, the wall of said nozzle being integrally complementally shaped adjacent said diametric axis forming means to cooperate to form therewith cooperating male and female single rigid axis forming means.

2. Closure means for containers comprising, a nozzle having a partially spherical recess therein and an inlet and outlet, an at least partially spherical closure member contained within said recess and having outlet vent means and a separate inlet vent means of a size to admit sufficient air for rapid discharge of liquid through said outlet vent means and a projection projecting outwardly through the end of said nozzle from said closure member to move the outlet and inlet vent means thereof from a position in alignment with said inlet and said outlet to a closed position, said closure member having diametrically opposite single axis of oscillation forming means thereon, the wall of said nozzle being integrally complementally shaped adjacent said diametric axis forming means to cooperate to form therewith cooperating male and female single rigid axis forming means, and to extend over a portion of

the outer end of said closure member to retain it in position within said nozzle so as to form an air and liquid-tight seal for said closure member.

3. Closure means for containers comprising, a
5 nozzle having a partially spherical recess therein and an inlet and outlet, an at least partially spherical closure member contained within said recess and having outlet vent means and a separate inlet vent means of a size to admit sufficient
10 air for rapid discharge of liquid through said outlet vent means and a projection projecting outwardly through the end of said nozzle from said closure member to move the outlet and inlet vent means thereof from a position in alignment
15 with said inlet to a position in alignment with said outlet, said closure member having diametrically opposite dimples therein, the wall of said nozzle being integrally complementally shaped adjacent said dimples to form integral projections fitting in said dimples to form single rigid axes.
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4. Closure means for containers comprising, a
25 nozzle having a partially spherical recess therein and an inlet and outlet, an at least partially spherical closure member contained within said recess and having outlet vent means and a separate inlet vent means of a size to admit sufficient air for rapid discharge of liquid through said outlet vent means and a projection projecting outwardly through the end of said nozzle from

said closure member to move the outlet and inlet vent means thereof from a position in alignment with said inlet to a position in alignment with said outlet, said closure member having diametrically opposite dimples therein, the wall of said nozzle being integrally complementally shaped adjacent said dimples to form integral projections fitting in said dimples to form single rigid axis of oscillation forming means and extending closely over a portion of the outer end of said closure member to retain it in position within said nozzle.

5. An at least partially spherical closure valve member having axis of oscillation forming means diametrically thereof, a turning lug at the upper end thereof, discharge vent means substantially at right angles to the diametric axis of said axis of oscillation forming means and spaced from said turning lug, and supplemental separate air inlet vent means extending therethrough.
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6. An at least partially spherical closure valve member having pivot dimples diametrically thereof, a turning lug at the upper end thereof, discharge vent means substantially at right angles to the diametric axis of said pivot dimples and spaced from said turning lug, and supplemental separate air inlet vent means extending there-through.
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