

March 30, 1937.

R. W. WILSON
CLOSURE FOR CONTAINERS
Filed Nov. 23, 1935

2,075,249

Fig. 1

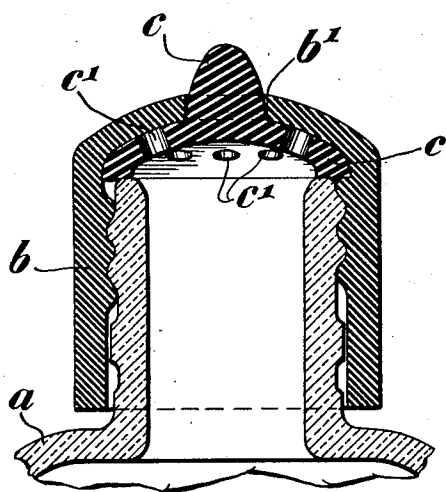


Fig. 3

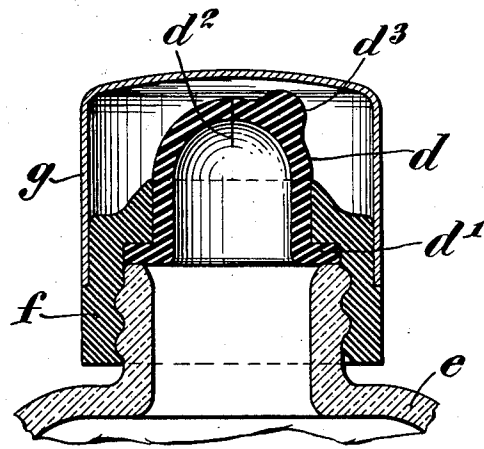


Fig. 2

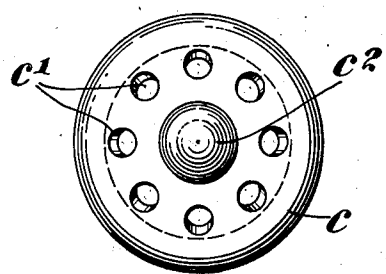
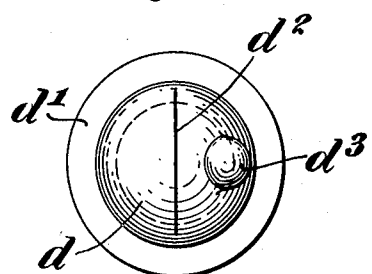


Fig. 4



INVENTOR.
Ralph W. Wilson,
BY *Hoguet, Henry & Campbell,*
HIS ATTORNEYS

UNITED STATES PATENT OFFICE

2,075,249

CLOSURE FOR CONTAINERS

Ralph W. Wilson, New York, N. Y.

Application November 23, 1935, Serial No. 51,209

1 Claim. (Cl. 221—16)

This invention relates to an improved closure adapted particularly for use on containers for liquid or emulsified preparations in the cosmetic field where so-called one-hand operation for the dispensing of the preparation is convenient and desirable. By one-hand operation is meant such operation as may be obtained by holding the container in one hand and operating the closure element by pressure against the palm of the other hand thus permitting the preparation to be dispensed into the last named hand so long as the pressure is maintained. Accordingly, it is the object of the invention to provide a closure which is operated by pressure on the palm of the hand when the container is inverted and which will automatically close the container when such pressure is released. In the preferred form of the invention a yielding closure member of rubber or the like is provided and this member is maintained in such relation to the container that while it normally seals the container it is exposed for engagement by the palm of the hand and deformable under pressure to permit the escape of the fluid within the container.

Reference is to be had to the accompanying drawing which shows two embodiments of the invention and in which:

Figure 1 is a view in vertical section showing the improved closure and a fragment of the neck of the container to which it is applied.

Figure 2 is a view in plan of the improved deformable closure element.

Figure 3 is a view similar generally to Figure 1 but showing a modified form of closure embodying the invention.

Figure 4 is a view in plan of the deformable closure element illustrated in Figure 3.

A container *a* is shown as having secured thereto a cap *b* in the end of which is formed a central opening *b'* through which the contents of the container may pass. This opening is normally closed by the improved deformable closure element. As illustrated in Figure 2 this element *c* may be circular in form and provided with several openings *c'* which are spaced. Centrally of the member *c* is carried or moulded a plug *c²* which is preferably tapered and of such size as to seat within the opening *b'* in the cap *b*. The deformable closure member *c* is clamped between the cap *b* and the closure *a* in such relation as to constitute a sealing gasket. Further, the interior of the cap *b* is of such configuration as to assure the intimate seating thereon of the upper surface of the deformable closure member *c*. The resiliency of the member *c* is such, when the parts are assembled, as to maintain the upper surface

of the member in intimate engagement with the inner surface of the cap *b* and also seat the plug *c* tightly within the opening *b'*. With the parts in such relationship the contents of the container cannot escape. By pressing the protruding plug *c* against the palm of the hand it will be unseated from the opening *b'* and the deformable member *c* carried away from engagement with the cap *b* thereby permitting the liquid contents of the container to pass through the openings *c'* and the opening *b'* into the palm of the hand when the container is inverted.

In the embodiment illustrated in Figure 3 a deformable closure member is illustrated at *d*. At its edge is moulded a flange *d'* which is clamped between the container *e* and the neck member *f*, so as to constitute a sealing gasket. The neck member *f* has a central opening therein through which the yielding closure member *d* extends. This closure member is of yielding non-metallic material such as rubber and has formed at its end a dispensing opening *d²* which is normally closed by the stress created within the resilient material *d*. At one side of the opening *d²* is moulded a protuberance *d³* for convenient engagement by the palm of the hand when the preparation is to be dispensed. If desired, a cap member *g* may engage the neck member *f* when the closure is not in use. After removal of the cap member *g* the liquid can be dispensed by merely pressing the protuberance *d³* against the palm of the hand with the container inverted. Such pressure will draw the resilient material at the dispensing opening *d²* where the material is normally in abutment. Upon release of the pressure the resiliency of the material will close the opening *d²*.

Other embodiments of the invention in which one hand operation is accomplished in accordance with the principle disclosed may be made without departing from the invention as defined by the appended claim.

I claim as my invention:

A closure for liquid containers comprising a cap member carried by the container and having an opening therein, a deformable closure member of yielding non-metallic material seated within the cap and having openings staggered with respect to the opening in said cap and having a protuberance normally seated in the opening in the cap but extending therethrough whereby pressure on the protuberance will displace the deformable member with respect to the cap and permit the escape of liquid through the aforesaid openings.

RALPH W. WILSON.