No. 826,255. PATENTED JULY 17, 1906.

R. E. KING.

CLOSURE FOR BOTTLES, JARS, AND THE LIKE.

APPLICATION FILED SEPT. 9, 1905.

Fig. 1.

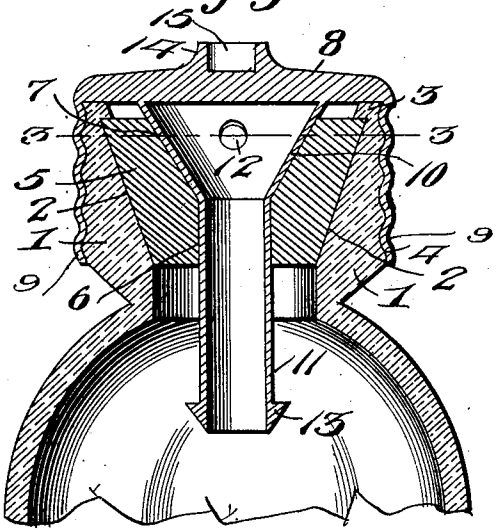


Fig. 2.

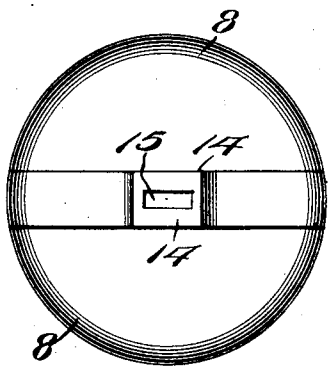


Fig. 3.

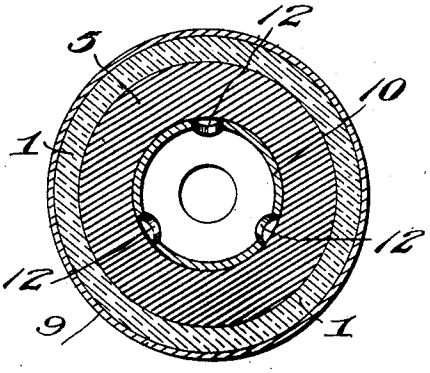


Fig. 4.

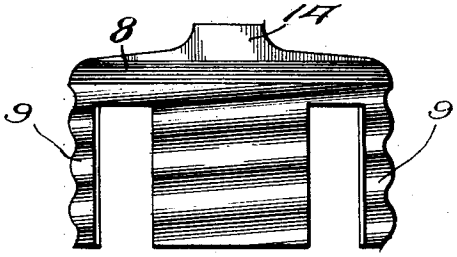
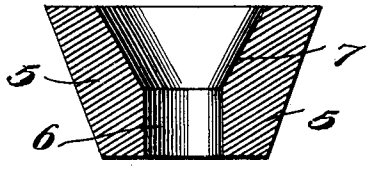


Fig. 5.



Witnesses

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CLOSURE FOR BOTTLES, JARS, AND THE LIKE.

No. 826,255. Specification of Letters Patent. Patented July 17, 1906.

Application filed September 9, 1905. Serial No. 277,727.

To all whom it may concern:

Be it known that I, ROBERT E. KING, a citizen of the United States, residing at Beaufort, in the county of Carteret and State of North Carolina, have invented new and useful Improvements in Closures for Bottles, Jars, and the Like, of which the following is a specification.

My invention relates to closures for bottles, jars, and the like, the primary object thereof being to provide a novel and highly-useful device of this character designed to prevent unscrupulous persons from selling a spurious article in a receptacle as a substitute for its original contents.

The invention consists, broadly, in the combination of a cap fitting over the end of a receptacle, a member or body secured within the neck of the receptacle, and a combined locking member and valve secured to the cap, said locking member and valve coöperating.

The invention further consists in the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a central vertical sectional view of the upper portion of the receptacle's neck, illustrating the application of my improved bottle-closure. Fig. 2 is a detail top plan view of the cap. Fig. 3 is a sectional view on the line 3 3 of Fig. 1. Fig. 4 is a view in side elevation of the cap, and Fig. 5 is a vertical central sectional view of the member or body.

Referring to the drawings by reference-numerals, 1 designates the neck of a receptacle, the same having its inner wall inclined upwardly and outwardly to provide a frusto-conical seat 2 and provided with an annular or sectional locking-shoulder 3. The outer portion of the neck may be formed with or without screw-threads 4. A member or body 5, also of frusto-conical formation, is mounted upon the seat 2, and in view of the formation of the seat and member or body the latter is prevented from moving downward within the neck 1 and is held against removal by means of the locking-shoulder 3. The member or body may be constructed of rubber, cork, or any other suitable material and has a diameter a little greater than the diameter of the seat 2, whereby it will be compressed within the neck and caused to exert a lateral pressure upon the seat 2, and thereby prevent the contents of the receptacle from leaking out between the member or body and seat. The guard is provided with an annular passage 6 and a frusto-conical shaped valve-seat 7, said passage and valve-seat communicating and extending vertically through the member or body.

The cap 8 is fitted over the neck of the receptacle and may have its flange 9 provided with screw-threads for engagement with the screw-threaded portion 4 of the neck, or it may be made plain and have frictional engagement with the neck 1. Secured to the inner side of the head of the cap 8 and depending therefrom is a hollow member having a frusto-conical valve portion 10 and a tubular stem 11. The stem 11 fits snugly within the passage 6, and the valve 10 sits tightly upon the seat 7, and in this position of the valve the bottle is sealed. The valve 10 is provided with a plurality of openings 12, through which the contents of the receptacle is poured when the valve is moved upward out of engagement with the seat 7. This upward movement of the valve is limited by a tapered stop 13, which engages the under edge of the member or body 5. The stop 13 is tapered so as to facilitate the application of the member or body 5 to the stem 11, the member or body being preferably applied to the stem 11 prior to the application of the closure to a receptacle. It is apparent that as the member or body 5 is secured within the neck 1 against removal the cap 8 is secured to the neck for a limited vertical movement, said movement being sufficient to permit of the openings 12 being carried above the member or body, whereby to permit of the removal of the contents of the receptacle.

The flange 9 of the cap 8 is preferably made in sections, as illustrated in Fig. 4 of the drawings, and each of these sections depends in front of one of the openings 12, so as to prevent an instrument, such as a funnel or the like, being inserted in the openings during an attempt to refill the receptacle. It is sometimes found difficult to remove the cap 8 so as to position the openings 12 above the member or body 5, and in view thereof I have provided the head of the cap with an enlargement 14, provided with an opening 15, into which may be inserted a tool for removing the cap. If the cap should have screw-threaded engagement with the neck 1, the turning thereof will move the cap upward or downward, while the turning thereof will, should the cap have frictional engagement

with the neck 1, loosen the same, so that it may be readily moved upward.

The operation of the device may be stated in the following manner: The member or body 5 is applied to the stem 11, and then the device is applied to the neck of a receptacle by inserting the member or body therein behind the locking-shoulder 3. In order to remove the contents of a receptacle, the cap is moved upward so as to position the openings 12 above the member or body 5, and when it is desired to seal the receptacle the cap is moved downward, so as to seat the valve 10 upon the portion 7 of the member or body. Inasmuch as the cap cannot be removed and inasmuch as the flange or flanges prevent insertion of a funnel or other instrument into one of the openings 12, it is apparent that I provide a closure by means of which the contents of a receptacle may be easily and freely withdrawn and which effectually prevents the receptacle from being refilled. It is further apparent that the cap, without the valve and stem, may be used in connection with any construction of bottle and that the provision of the enlargement 14, having the recess 15, will permit of the cap being easily removed and applied by means of a suitable tool.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is—

1. The combination with a receptacle provided with a neck portion, of a cap or other closure movably and permanently connected to said neck portion, a member or body mounted within the neck portion and provided with a valve-seat, and a valve carried by said cap, said member or body serving to prevent the cap from being removed from the neck portion.

2. The combination with a receptacle provided with a neck portion, of a cap or other closure movably and permanently connected to said portion, a member or body mounted within the neck portion and provided with a valve-seat, and a valve secured to the cap and provided with a pendent stem, said stem engaging the member or body to prevent the removal of the cap.

3. The combination with a receptacle provided with a neck having a frusto-conical seat, of a cap movably and permanently connected to the neck, a frusto-conical member or body secured within the neck, said member or body being provided with a valve-seat, and a valve secured to the cap.

4. The combination with a receptacle provided with a neck, of a member or body secured within said neck and provided with a frusto-conical valve-seat, a cap movably and permanently connected to said neck, and a frustro-conical valve secured to the cap.

5. The combination with a receptacle provided with a neck, of a member or body secured within the neck, a cap, a valve secured to the cap, a stem pendent from the valve, and a head secured to the stem.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT E. KING.

Witnesses:
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L. A. GARNER.