

No. 884,257.

PATENTED APR. 7, 1908.

A. ADELSON.
BOTTLE CLOSURE.

APPLICATION FILED JUNE 13, 1907.

Fig. 1.

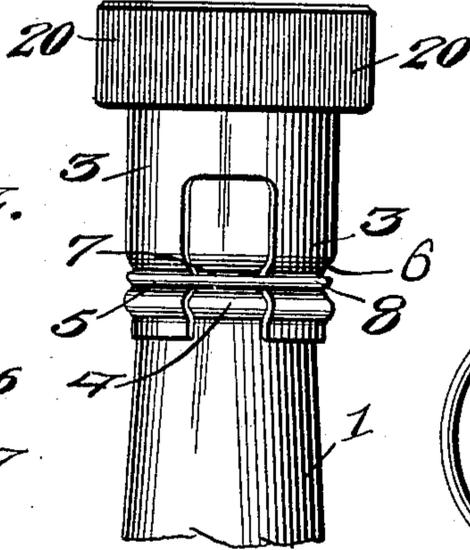


Fig. 4.

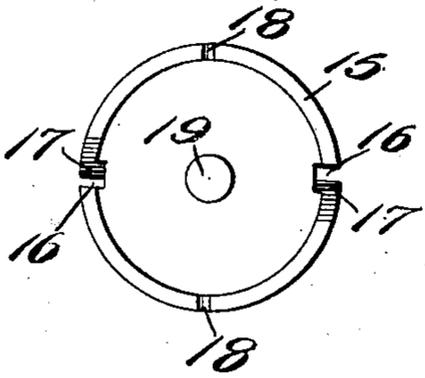


Fig. 5.

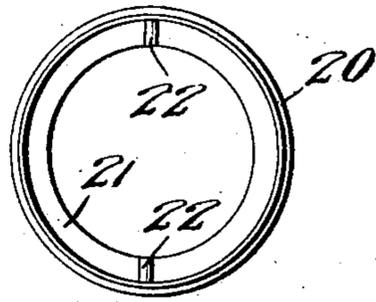


Fig. 2.

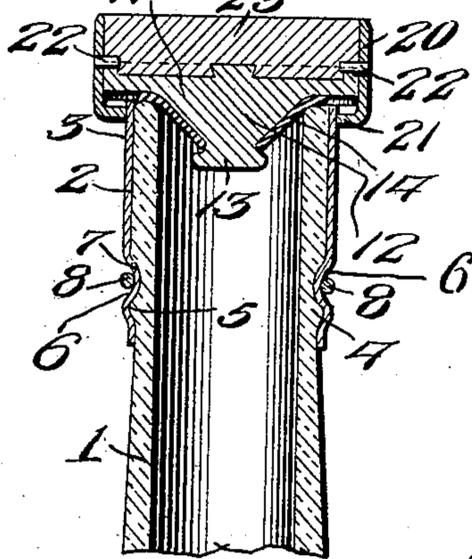


Fig. 7.

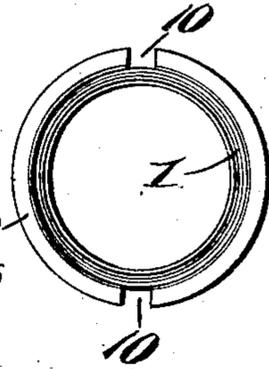


Fig. 6.

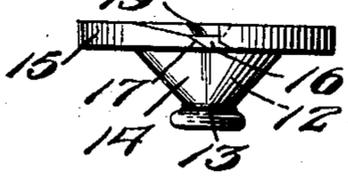
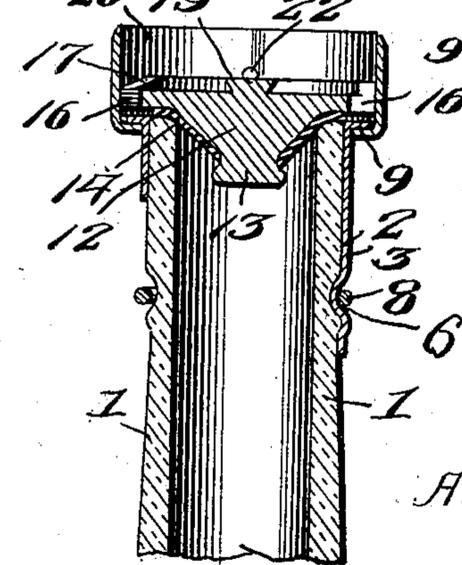


Fig. 3.



Witnesses

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BOTTLE-CLOSURE.

No. 884,257.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT ADELSON, a citizen of the United States of America, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention relates to bottle or jar closures, and has for its object to provide a closure which is adapted for general use, which will tightly seal the mouth of the bottle, which may be used for an indefinite period, which is adapted to hold the label and seal of the bottler or manufacturer, and which may be easily and conveniently operated to open or close the bottle mouth.

In the drawing hereto annexed, and forming a part of this specification: Figure 1 is a view in elevation of the neck of a bottle sealed by my improved closure. Figs. 2 and 3 are vertical sections thereof taken at right angles to each other. Figs. 4 and 5 are top plan views of the stopper and locking ring. Fig. 6 is a side view of the stopper. Fig. 7 is a top plan view of the bottle neck and retaining sleeve.

The numeral 1 in the drawing designates the neck of a bottle or jar of any approved form, surrounding the upper portion of which neck is a retaining collar or sleeve 2, the lower portion of which is slotted to reduce weight and provide a series of wings 3 adapted to be brought into close contact with the neck, the lower ends of said wings being grooved to engage a rib or shoulder 4 formed on the bottle neck and provided with grooves or indentations 6 to fit within an annular groove 7 in the neck and to receive an angular band or wrapping 8 of wire or other suitable material to lock it to the neck. The upper end of the collar or sleeve is provided with an outwardly projecting annular flange 9 disposed flush with the rim edge of the neck and provided at diametrically opposite sides with slots 10.

A stopper 11 is provided to close the mouth of the bottle, and comprises a disk of metal or other suitable material and provided with a depending frusto-conical portion 12 to project into the mouth of the bottle, said portion 12 terminating at its apex in an undercut knob or head 13. The stopper disk is of somewhat greater diameter than the mouth of the bottle to project annularly beyond the

same, and the depending portion 12 thereof carries an elastic gasket 14 corresponding in form thereto and retained in position by the head 13 and adapted to seat at its edge against the rim edge of the bottle neck to form a liquid and gas-tight closure when the stopper is clamped or locked in position. The disk shaped body of the stopper is formed with an upwardly projecting flange or rim 15 divided by vertical peripheral slots 16 located at diametrically opposite sides of the stopper and adapted to be brought into alignment with the slots 10 in the rim of the retaining collar or sleeve 2. The flange 15 has inclined or cam surfaces 17 leading from the slot 16 in opposite directions, and is formed with seat grooves or recesses 18 located opposite each other and at right angles to the said slots 16. Projecting from the upper face of the stopper is a central boss or key 19 having an undercut retaining edge to retain a seal, as shown in Fig. 2 and hereinafter described.

Slidably and rotatably encompassing the collar or sleeve 2 is a locking rim 20 of sufficient diameter to snugly receive the flange 9 of said collar and the stopper 11. This ring is provided at its lower end with an inturned flange 21 surrounding the collar 2 and adapted to abut against the flange 9 to limit the upward movement of the ring, the body portion of which latter is provided about centrally of its depth with diametrically disposed inwardly extending pins or projections 22. The stopper 11 is adapted to occupy the ring below these pins 22, so that the upper portion of the ring will form a cup to receive a seal 23 composed of wax or any suitable substance which may bear the trade mark or carry the label of the bottler or manufacturer and will be retained in position by the undercut boss or key 23. The seal may be primarily applied to the stopper or formed by pouring the wax or a suitable liquefiable substance or composition into the cup and allowing it to solidify therein and then trimming off the upper surface thereof and applying the label or impressing the trade mark therein.

To seal the bottle, the locking ring, which normally lies below the flange 9 of the collar 2, is moved upwardly until the flange 21 abuts against the flange 9, the pins 22 in such upward movement passing through the slots 10.

The ring is then held in such position in one hand while the other hand is used to insert the stopper 11, which is brought to such position that the slots 16 therein will aline with the pins 22 and permit the stopper to pass below the same and be seated upon the rim edge of the bottle neck. The ring 20 is then turned to cause the pins 22 to ride up the inclined surfaces or cam faces 11 while the stopper is being held down against the resiliency of the gasket 14, and the ring turned until the pins ride upon the rim flange 15 and are seated in the notches 18, the upward pressure of the gasket due to its expansive tendency serving to hold the pins in said seats to thereby lock the ring from rotation. The seal and trade mark or label are then applied, thus completing a closure which will securely seal the bottle against the escape of its contents. Cork may be substituted for the rubber gasket 14 when the seal is used upon wine bottles. To open the bottle, the seal 23 is first removed, the ring 20 forcibly turned until the pins 22 again aline with the slots 16 when the ring may be allowed to drop down upon the collar and the stopper removed. By this means the seal will be destroyed at the time the bottle is initially opened, but the stopper may be employed to close the bottle until the contents are entirely discharged, and the bottle and stopper reused for an indefinite period. It will of course be understood that the seal may be so disposed that it will be left intact at all times to show the label or trade mark of the bottler or manufacturer. Where the seal is destroyed when the bottle is opened, a new seal may be provided when the bottle is again filled in the manner previously described. A new gasket may be conveniently substituted for that in use whenever required by simply stripping the gasket from portion 12 and applying a new gasket thereto in lieu thereof.

A closure embodying my invention will securely seal the bottle and as it constitutes a permanent fixture thereof and may be used for an indefinite period will be found less expensive in the long run than seals of that character which are discarded whenever the bottle is opened.

Having thus described the invention, what I claim is:

1. The combination with a bottle neck, of a closure therefor comprising a retaining member fixed to the neck, a stopper having an elastic gasket to seat upon the neck, and a locking ring carried by the collar and movable thereon to engage and clamp the stopper in applied position.

2. The combination with a bottle neck, of a closure therefor comprising a retaining member fixed to the bottle neck, a stopper having an elastic gasket to seat upon the

neck and formed with a seat rim having vertical slots and cam surfaces adjacent thereto, and a locking ring longitudinally and rotatably mounted upon the retaining member and provided with projections to cooperate with said slots and cam surfaces and engage the rim to clamp the stopper in applied position.

3. The combination with a bottle neck, of a closure therefor comprising a retaining element fixed to the neck, a stopper having an elastic gasket to seat upon the neck and provided with a seat rim having cam surfaces and vertical slots leading thereto and seat notches disposed at an angle to said slot, and a locking ring longitudinally and rotatably mounted upon the retaining element and provided with projections to cooperate with said slots and cam surfaces and engage the seat notches in the rim to hold the stopper in applied position, the ring being adapted to extend above the stopper to form a seal receptacle.

4. The combination with a bottle neck, of a closure therefor comprising a retaining member fixed to the bottle neck, a stopper comprising a disk having a conical portion to project into the neck and carrying a gasket to seat upon the rim edge thereof, a locking ring slidably and rotatably mounted upon the retaining element, said stopper and ring being provided with interlocking means connected and disconnected by reverse sliding and rotary movements of the ring to adapt the latter to clamp the stopper in applied position and to release the same.

5. The combination with a bottle neck, of a closure therefor comprising a collar fixed to the neck and having a stop flange provided with diametrically opposite slots, a stopper comprising a disk having a conical portion to fit within the neck and carrying a gasket to seat thereon, said disk being provided with diametrically opposite slots and a rim having cam surfaces adjacent thereto and seat notches, and a locking ring slidably and rotatably mounted upon the collar, said ring having a bottom stop flange and pins or projections to cooperate with the slots, cam surfaces and seats in the rim of the stopper to clamp the latter in applied position.

6. A bottle closure comprising a retaining member adapted to be fixed to the bottle neck, a stopper for closing the bottle neck, and a locking ring carried by the retaining member and adapted to clamp the stopper in applied position, said ring being adapted to project above the stopper to form a seal receiving receptacle.

7. A bottle closure comprising a retaining member adapted to be fixed to the bottle neck, a stopper for closing the bottle neck,

and a locking ring carried by the retaining member and adapted to clamp the stopper in applied position, said ring being adapted to project above the stopper to form a seal receiving receptacle, said stopper being provided with retaining means to hold the seal therein.

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

ALBERT ADELSON.

Witnesses:

O. WIDDING,
H. A. THOMAS.