L. W. ZAAR.

BOTTLE CLOSURE.

APPLICATION FILED MAR. 25, 1914.

1,129,618. Patented Feb. 23, 1915

Fig. 1.

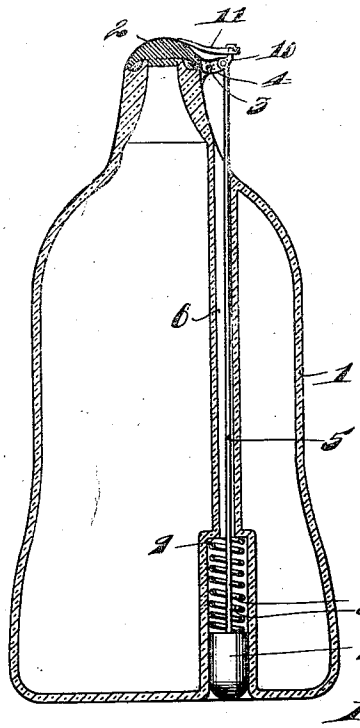


Fig. 2.

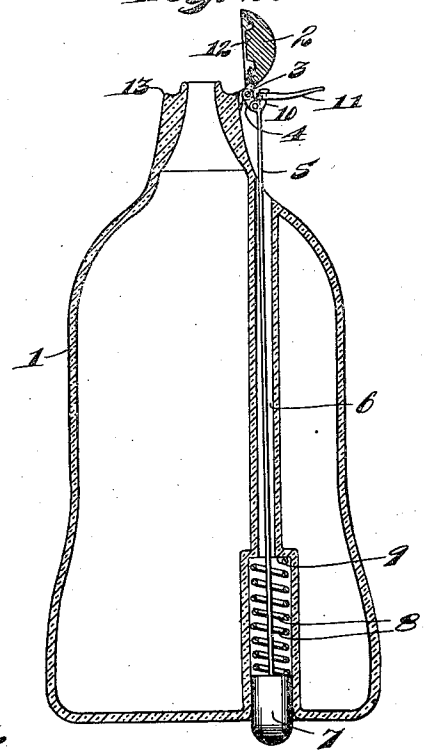
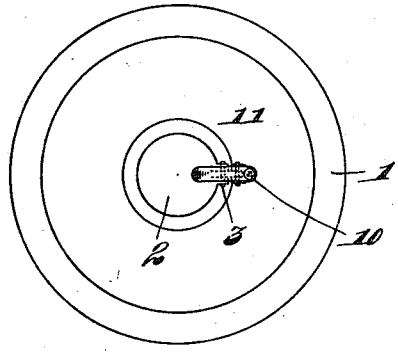


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

LUDWIG W. ZAAR, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-THIRD TO MAX M. MODELL AND ONE-THIRD TO JOSEPH UBELAKER, BOTH OF CHICAGO, ILLINOIS.

BOTTLE-CLOSURE.

1,129,618. Specification of Letters Patent. Patented Feb. 23, 1915.

Application filed March 25, 1914. Serial No. 827,067.

To all whom it may concern:

Be it known that I, LUDWIG W. ZAAR, a former subject of the Emperor of Austria, who have declared my intention of becoming a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

My invention relates to closures for bottles, and like containers, and has for its object the production of a container equipped with a closure adapted, when the container is lifted from position upon the table top or other supporting surface, to automatically move to open position and, when the container is returned to position upon the table top, or other supporting surface, to be automatically moved to closing position.

A further object is the production of a device as mentioned which will be of simple and economical construction and efficient in use.

Other objects will appear hereinafter.

With these objects in view, the invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of this specification, and in which,

Figure 1 is a central vertical section through a bottle equipped with a closure and operating mechanism therefor embodying my invention, the closure being shown locked in closed position, Fig. 2 is a view similar to Fig. 1, showing the closure in open position, and Fig. 3 is a top plan view of Fig. 1.

The preferred form of construction as illustrated in the drawing comprises a bottle or container consisting of a body 1 which may be of any ordinary or preferred design. The upper end or mouth of the body 1 is provided with a closure 2 which is hingedly or pivotally connected with the body 1 at 3. Said closure is provided, at the point of its pivotal connection with the container body, with a laterally extending finger 4. Cooperating with the closure is a vertically disposed rod 5 the upper end of which is pivotally connected with the outer end of finger 4. The lower end of rod 5 projects loosely through a passage 6 formed through the body 1, and is provided at its lower end with a weighted head 7. The weight of said rod 5 and the head 7 thereof is such as to normally hold the closure 2 in open position, the head 7, when said closure is in this position, projecting below the bottom surface of the body 1, as clearly shown in Fig. 2. A helical compression spring 8 interposed between the head 7 and a shoulder 9 formed in the passage 6, assists the rod 5 in normally assuming the position shown in Fig. 2 in order to normally hold the closure 2 in open position, as mentioned. The arrangement is such, however, that when the container is placed upon a table top or other supporting surface, the head 7 will contact with said surface or table top, and be moved upwardly to cause rocking of the closure 2 to closing position, as shown in Fig. 1. With this arrangement then, it will be seen that, in use, when the device is in upright position upon a table top or other supporting surface, the closure thereof will be in closed position, but, upon lifting of the device from the table top or supporting surface for use, said closure will be automatically rocked to open position so as to permit of the contents of the container being discharged.

The upper end of the rod 5 is provided with an extension 10 upon which is mounted a finger 11 adapted for rotary adjustment. Said finger 11 is adapted, when in engagement with the closure 2, as shown in Fig. 1, to prevent rocking of the latter to open position, said closure being released for opening movement by adjusting said finger out of engagement therewith, or to the position shown in Fig. 2. With this arrangement, it will be seen that, when desired, the closure of the container may be locked in closed position so as to prevent actuation thereof by the rod 5.

The closure 2 is preferably of the form shown, being formed at its under side with a central plug portion 12 which is adapted to snugly fit the mouth end of the body 1, the periphery of said closure being adapted at the same time to engage with the shoulder 13 of said body. Said closure engaging with the mouth of the container body at two points, insures an absolutely tight connection when said closure is in closed position.

While I have illustrated and described

the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A device of the class described comprising a container; a hinged closure for said container; a vertically movable rod connected at its upper end with said closure, said rod being adapted, when at its lower terminal of movement, to hold said closure in open position, said rod passing loosely through a passage formed in said container, the lower end of said rod, when at its lower terminal of movement projecting below the bottom surface of said container; and a helical compression spring arranged in said passage and coöperating with said rod to normally hold the latter at its lower terminal of movement, substantially as described.

2. A device of the class described comprising a container; a hinged closure for said container; a vertically movable member connected with said closure for moving said closure to closing position, when said container is placed upon a supporting surface, and for moving said closure to open position, when the container is lifted from position upon the supporting surface; and a manually adjustable finger mounted for rotary adjustment at the upper end of said member, adapted for releasable engagement with said closure for locking the same in closed position, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LUDWIG W. ZAAR.

Witnesses:
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