

F. A. ANTHONY & J. P. CREGG.

BOTTLE CLOSURE.

APPLICATION FILED AUG. 19, 1909.

956,923.

Patented May 3, 1910.

Fig 1

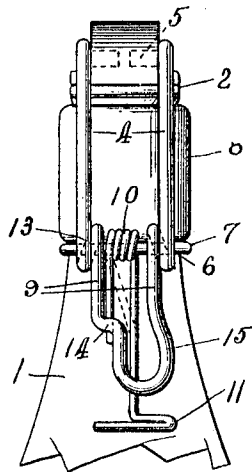


Fig 2

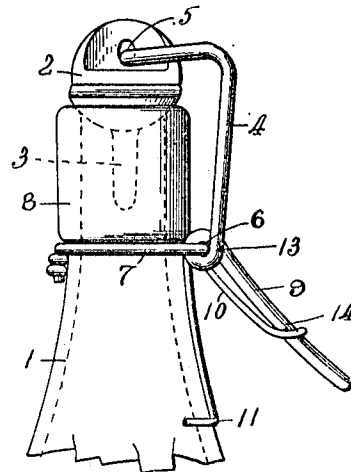
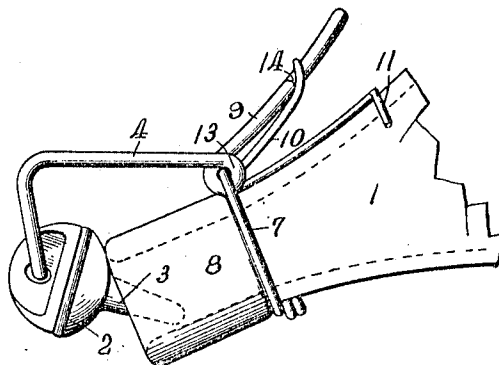


Fig 3



Witnesses

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FRANK A. ANTHONY AND JAMES P. CREGG, OF AMSTERDAM, NEW YORK.

BOTTLE-CLOSURE.

956,923.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, FRANK A. ANTHONY and JAMES P. CREGG, each a citizen of the United States, residing at Amsterdam, 5 county of Montgomery, and State of New York, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters 15 marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of a partly broken-away bottle 20 provided with our improved closure. Fig. 2 is a view in side elevation of the same, as viewed from the lefthand side of Fig. 1. Fig. 3 is a similar view with the bottle partly inverted and opened by partial withdrawal 25 of the stopper.

The principal object of the invention is to facilitate the handling and opening and closing of a bottle for beverages by the use of a single hand of the operator or user.

30 Other objects will appear in connection with the following description.

Referring to the drawings wherein the invention is shown in preferred form, 1, represents the neck of a bottle, which may be of 35 any ordinary form suitable for containing beverages, and having its mouth adapted to be closed at certain times by a stopper, 2, and to be opened by withdrawal or partial withdrawal of the stopper.

40 For certain purposes of the invention the stopper may be of any known form. The preferred form shown has a convex seating surface, and, projecting axially therefrom a stud, 3, considerably smaller than the 45 interior of the neck of the bottle, and adapted to be contained therewithin.

A stopper-controlling-and-actuating lever, 4, is pivotally connected at its upper end at, 5, with the stopper, and, intermediately of its 50 ends, is pivoted or fulcrumed at, 6, upon a wire, 7, which encircles the neck of the bottle just below a shoulder formed thereon by an enlargement or head, 8, adjacent to the mouth of the bottle. The fulcrum or pivotal-connection, 6, is in close proximity to 55 the bottle-neck. The lower end of the lever,

4, projects outwardly in the form of a handle, 9, adapted to receive the thumb of the same hand which grasps the bottle-neck in lifting and pouring from the bottle. A 60 spring, 10, is coiled around the pivot-wire, 7, with one end bearing against the handle, 9, and the other end at, 11, against the neck of the bottle, whereby said spring is caused to yieldingly force the handle, 9, outward or 65 away from the neck of the bottle. The upper end of the lever, 4, is preferably offset as shown in Figs. 2 and 3, and the whole lever is preferably made of a single piece of wire having its middle portion bent to U- 70 shape to form the handle, 9, and the legs so formed bent to form pivot-loops, 13, adapted to receive the pivot-wire, 7, said legs extending substantially vertically upward from said loops to approximately the level of the 75 point of connection with the stopper, and then extending substantially horizontally to the point of pivotal-connection with the stopper, which pivotal-connection is formed by inturned end-portions of said wire legs. 80 The spring, 10, acts to hold the lever, 4, in a position to retain the stopper, 2, closed upon its seat surrounding the mouth of the bottle, but by forcing the handle, 9, inward or toward the neck of the bottle against the 85 force of the spring, 10, the swinging movement thus imparted to the lever, 4, will withdraw the stopper from the position shown in Figs. 1 and 2 to that shown in Fig. 3, 90 leaving the mouth of the bottle open, so that the liquid contents can be poured out there-through. This can readily be accomplished by the user grasping the neck of the bottle with one hand, with the thumb of that hand upon the handle, 9, leaving his other hand 95 free to hold a glass to receive the poured-out liquid.

The arrangement of the parts is such that the stopper is withdrawn by a substantially horizontal movement, the fulcrum, 6, being 100 so near the axis of the bottle and of the stopper, 2, that the force of the spring, 10, is transmitted with favorable leverage to retain the stopper closed against the internal pressure of a charged bottle. 105

The stud, 3, is preferably of such length that it will not be wholly withdrawn from the mouth of the bottle by the movement necessary to open the bottle to the desired extent, and said stud serves as a guide to the 110 stopper in returning to its seat when the handle, 9, is released. For certain purposes

of the invention the stud, 3, can be omitted.

We have shown the handle, 9, formed with an offset, 14, to receive the end of the spring, 10, but with the main loop, 15, of the handle
 5 extending some distance beyond said end of the spring. By shifting the end of the spring from the position shown by solid lines to that indicated by dotted lines in Fig. 1, it is permitted to pass up through the
 10 loop, 15, so as to leave the lever, 4, free from spring-control, thus permitting the stopper to be left open, if desired, in filling the bottle. For certain purposes of the invention the spring, 10, may be of any known form.
 15 The lever, 4, may be formed in any known manner, and of any desired material adapted for accomplishing the object of the invention.

What we claim as new and desire to secure
 20 by Letters Patent is—

1. The combination with the neck of a bottle having a mouth-opening; of a stopper adapted to close said opening; a pivot-wire encircling the neck of the bottle; a lever
 25 having loops embracing said pivot-wire and extending upwardly substantially vertically therefrom to a point opposite said stopper, and then inwardly substantially horizontally, and pivotally connected at its inner
 30 end with said stopper; said lever having a downwardly and outwardly extending handle; and a spring coiled around said pivot-wire, and having its ends engageable, respectively, with said handle and with the
 35 body of the bottle.

2. The combination with the neck of a bottle having a mouth-opening; of a stopper adapted to close said opening and having a stopper-guiding stud projecting from said
 40 stopper within the mouth of the bottle; a pivot-wire encircling the neck of the bottle; a lever having loops embracing said pivot-wire and extending upwardly substantially vertically therefrom to a point opposite said
 45 stopper, and then inwardly substantially horizontally, and pivotally connected at its

inner end with said stopper, said lever having a downwardly and outwardly extending handle; and a spring coiled around said pivot-wire, and having its ends engageable, 50 respectively, with said handle and with the body of the bottle.

3. The combination with the neck of a bottle having a mouth-opening; of a stopper adapted to close said opening; a pivot-wire 55 embracing the neck of the bottle; a lever comprising a piece of wire having its middle portion bent to form a handle-loop and intermediate portions bent to form loops embracing said pivot-wire, and having legs ex- 60 tending upwardly therefrom to a point opposite said stopper, and then inwardly, and pivotally connected with said stopper; and a coil-spring embracing said pivot-wire, and having its ends engageable, respectively, 65 with said handle-loop and the body of the bottle.

4. The combination with the neck of a bottle having a mouth-opening; of a stopper adapted to close said opening; a lever com- 70 prising a piece of wire having its middle portion bent to form a handle-loop, one of the branches of which is formed with an offset and intermediate portions bent to form loops embracing said pivot-wire, and having 75 legs extending upwardly therefrom to a point opposite said stopper, and then inwardly, and pivotally connected with said stopper; and a coil-spring embracing said pivot-wire, and having one of its ends in engagement with the body of the bottle, and its other end engageable with said offset and movable freely through said handle-loop when displaced from said offset to a point midway between the branches of the loop. 85

In testimony whereof, we have hereunto set our hands this 12th day of August, 1909.

FRANK A. ANTHONY.
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Witnesses:

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 J. A. BOSWELL.