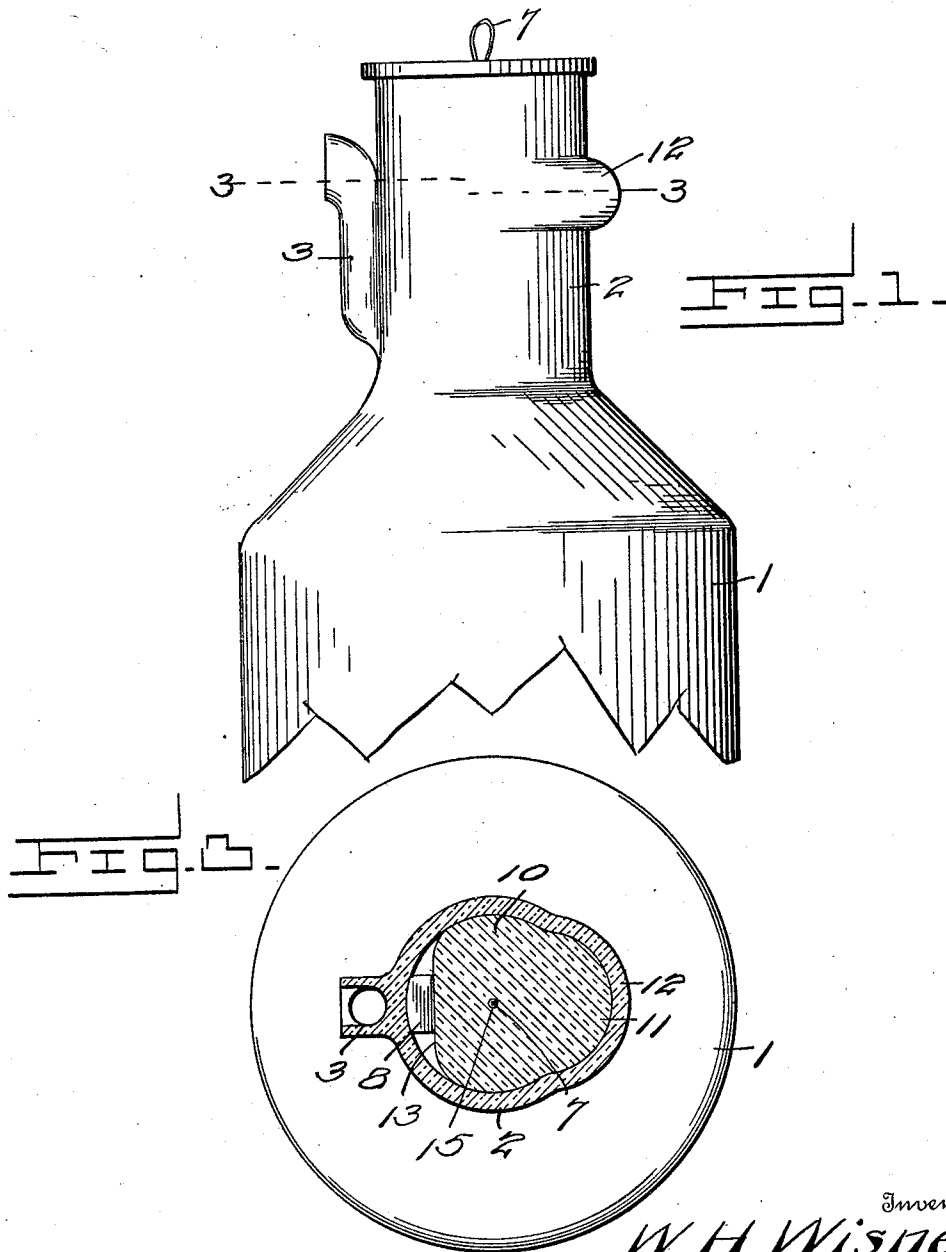


W. H. WISNER.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JAN. 24, 1912.

1,047,473.

Patented Dec. 17, 1912.
2 SHEETS—SHEET 1.



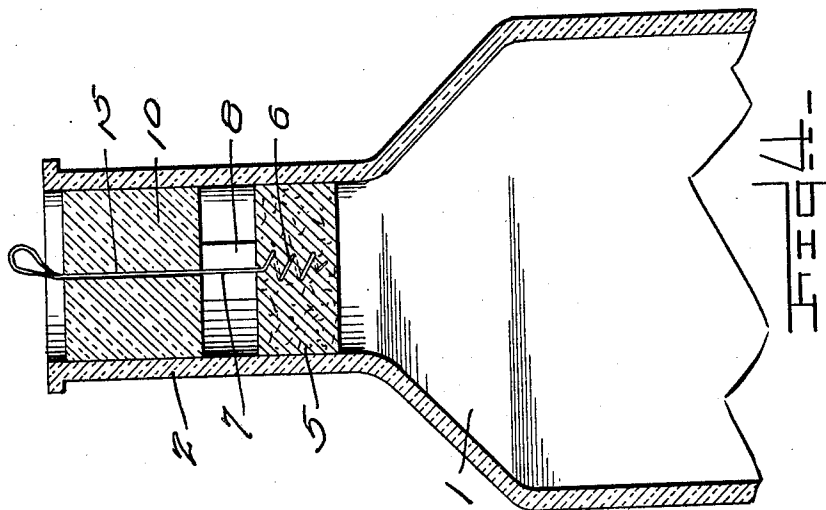
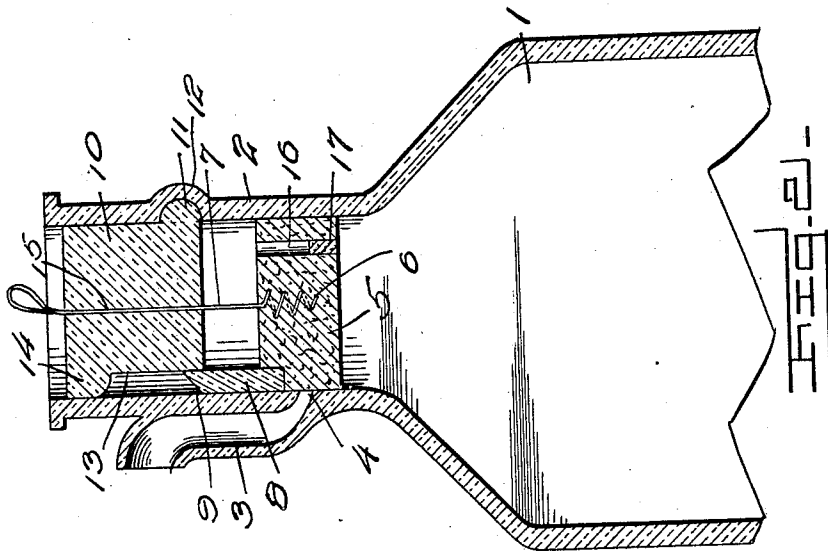
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UNITED STATES PATENT OFFICE.

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NON-REFILLABLE BOTTLE.

1,047,473.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed January 24, 1912. Serial No. 673,202.

To all whom it may concern:

Be it known that I, WILLIAM H. WISNER, a subject of the King of England, residing at Brandon, in the Province of Manitoba and Dominion of Canada, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to improvements in non-refillable bottles, and has for its leading object the provision of an improved form of closure for said bottles which will be of such construction as to absolutely prevent the main cork of the bottle from being so shifted as to close the bottle after the same has once been drawn to allow the contents of the bottle to be poured out.

The further object of my invention is the provision of an improved bottle stopper of such construction that this stopper may be quickly and readily inserted in the neck of my improved non-refillable bottle without the necessity of cementing or otherwise securing the said stopper in position, which stopper, however, will be so constructed as to automatically lock itself within the neck of the bottle and absolutely prevent the forcing of the cork into closed position after the said cork has once been drawn to allow the contents of the bottle to be emptied therefrom.

Other objects and advantages of my improved non-refillable bottle and stopper therefor will be readily apparent by reference to the following description taken in connection with the accompanying drawings, and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of the invention.

Figure 1 represents a side elevation of my improved bottle. Fig. 2 represents a vertical section thereof. Fig. 3 represents a cross sectional view on the line 3—3 of Fig. 1, and Fig. 4 represents a vertical sectional view taken on a plane at right angles to Fig. 2.

In the drawings, the numeral 1 designates the body of a bottle having the customary reduced neck 2, said neck however, having the upwardly extending outlet spout 3 formed on one side thereof and substantially Z shaped in form, the lower end of the said spout being considerably reduced at the port 4 affording communication be-

tween the spout and the interior of the bottle neck 2.

Fitting within the neck 2 of the bottle and disposed in the bottom of the said neck is the cork 5 of ordinary construction which serves as a closure for the said bottle, said cork being normally disposed with its intermediate or central portion on a line with a port 4, whereby the cork serves both as a closure for the neck and also as a closure for the port 4. Inserted centrally into the cork 5 is the cork screw 6 having secured to its upper end the wire 7 which is preferably of very flexible material but has sufficient tensional strength to permit of the drawing up of the cork by a pull on the upper end of the said wire, said upper end projecting sufficiently above the top of the neck 2 of the bottle to permit of ready grasping thereof.

Embedded in and projecting upward from one side of the cork 5 is the glass locking wedge or key 8 which has the pointed or sharpened upper edge 9.

In the use of my improved stopper, I first fill the bottle 1 through the neck 2 thereof, and I then force the cork downward to the bottom of the neck 2. The parts being in this position, I then place in the upper end of the neck of the bottle the glass stopper portion 10 having a laterally projecting basal lug 11 adapted to be fitted into the outwardly bossed portion 12 of the neck 2, said stopper 10 having the recess 13 formed in the opposite side from that bearing the lug 11, said recess being surmounted at the top by the outwardly projecting flange or shoulder portion 14 of the stopper. To introduce the stopper 10 into the neck of the bottle it is necessary to slightly rock or tip the same so that the lug may be engaged in the boss 12 and after the lug is so engaged, I then press on the stopper 10 to straighten the same until the shoulder 14 rests against the neck of the bottle, the recess 13 permitting of the said rocking of the stopper. It will be observed that the stopper 10 has the longitudinally extending passage 15 formed therein, the wire 7 extending upward through the said passage and projecting above the stopper, and when the stopper has been secured in position as above described, I then draw upward on the wire 7 sufficiently to cause the key-member 8 to ride upward into the lower portion of the recess 13, the upper end of the key-member thus locking the stop-

per 10 in position and absolutely preventing such rocking of the said stopper as to disengage the lug 11 from the boss 12 to permit of the removal of the stopper.

5 From the foregoing description taken in connection with the accompanying drawings, the construction of my improved non-refillable bottle and of the stopper therefor will be readily understood and it will be
10 seen that the wire 15 may be drawn upward and will move the cork 5 upward therewith until the lower edge of the cork is above the outlet port 4 whereby the contents of the bottle may be poured out through the spout
15 3, the key 8 riding upward into and filling the recess 13. While the cork may be thus readily raised, however, the wire 15 is not stiff enough to permit of the forcing downward of the cork by pressing on the said
20 wire, while the stopper 10 with the shoulder 14 engaging the neck of the bottle absolutely prevents the insertion of an instrument which will serve to force the cork downward. This result is also aided by the
25 pointed upper end 9 of the key 8, any instrument which it is attempted to insert between the edge of the shoulder 14 and the neck of the bottle merely striking the inclined upper end 9 of the key and becoming
30 wedged between the key and the neck of the bottle without serving to force the cork downward.

In order to prevent the cork from being forced downward by compressed air introduced at the upper end of the neck, I form
35 in the cork the longitudinally extending passage 16 normally closed at the lower end by the supplemental plug or cork 17. Any compressed air passing downward
40 around the stopper 10 into the neck of the bottle will consequently tend to press against the cork 5 and will enter the passage 16 and will serve to blow the cork or plug 17
45 downward out of said passage before the pressure is great enough to move the main cork downward and this air pressure entering the bottle 1 through the passage 5
50 will serve in its reflex or retrograde movement to bear against the under face of the cork 5 and thus to equalize the pressure on both sides of the cork, whence the cork will
55 in no wise be moved by the said air pressure. It will consequently be readily apparent to all that I have provided an improved form of non-refillable bottle in which it is absolutely impossible in any manner to force the cork 5 into closed position after the said cork has once been raised and that my bot-

tle will consequently commend itself to various manufacturers who wish to absolutely prevent any possibility of adulteration of their goods.

I claim:

1. The combination with a bottle neck, having an outlet port near the lower portion thereof, and having an outwardly extending boss formed intermediate the height thereof, of a glass stopper fitted in the upper portion of the neck and having a lug engaged in the recess provided by the boss, said stopper having a recess formed in one side thereof, and having a vertically extending passage formed centrally therein, a cork mounted in the neck below the stopper, a draw wire secured to the cork and extending upward through the passage in the stopper, and a wedge moved upward by upward movement of the cork to fit into the recess in the side of the stopper to wedge the stopper into position and absolutely prevent removal thereof.

2. The combination with a bottle neck having an outlet port near the lower end thereof and having a recess formed in one side thereof, of a cork engaged in the lower portion of the bottle neck for closing the port, said cork having a longitudinally extending passage formed therein normally closed by a downwardly opening cork, a draw wire engaged in the cork and projecting upward therefrom, a glass stopper in the upper end of the neck having a laterally projecting lug engaged in the recess in the neck, said stopper having a passage formed therein through which the wire projects and having a recess formed in one side thereof, a shoulder formed on the upper portion of the stopper and extending outward over the said recess, and a wedge key embedded in the top of the cork and projecting upward therefrom, whereby when the cork is placed in position in the neck of the bottle and the stopper is inserted the slight upward drawing of the cork will engage the wedge member in the recess of the stopper to securely lock the stopper in position, while further upward movement of the cork caused by drawing on the wire will raise the cork to open the outlet port.

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

WILLIAM H. WISNER.

Witnesses:

ANDREW SMITH,
GEORGE CLARKE.