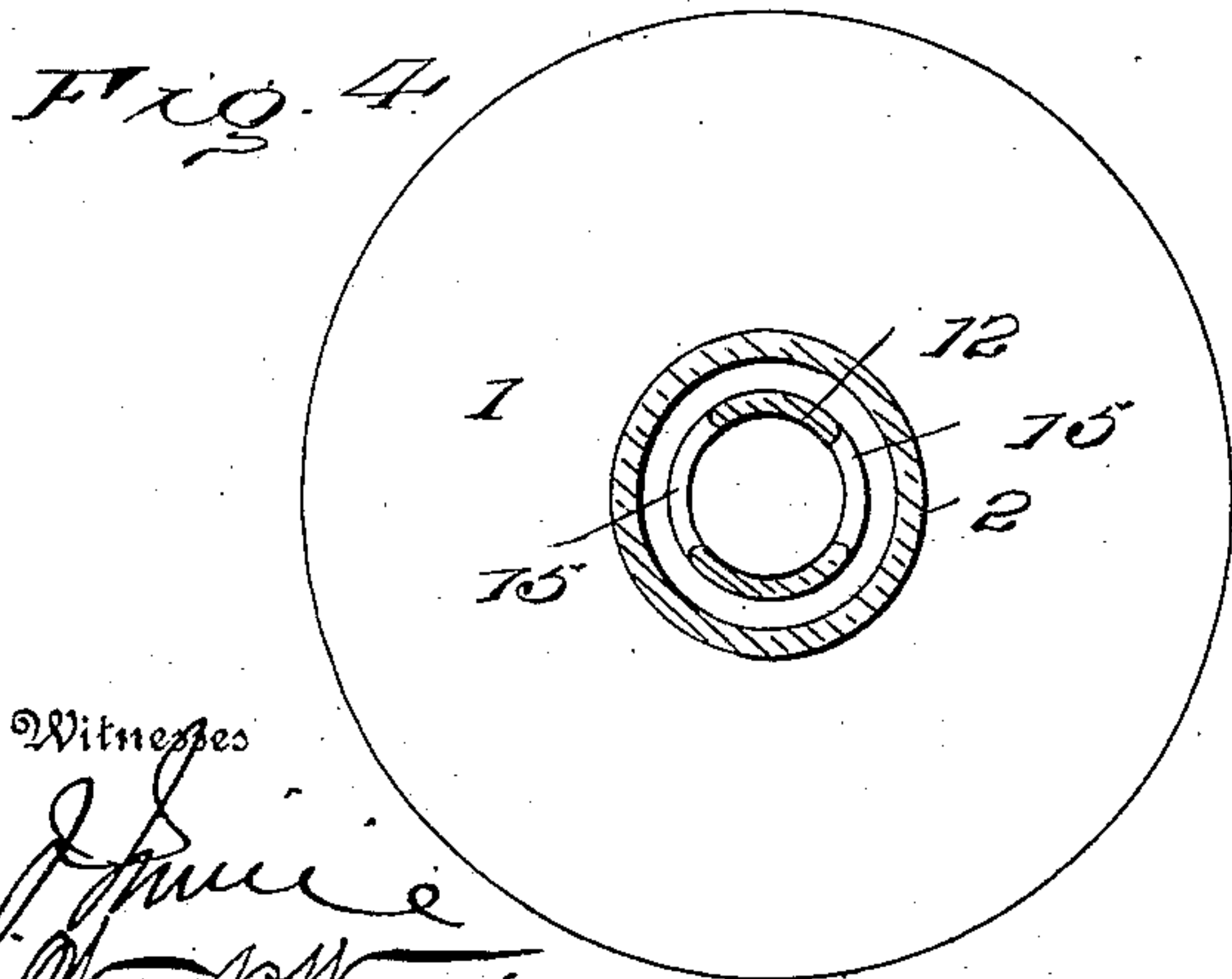
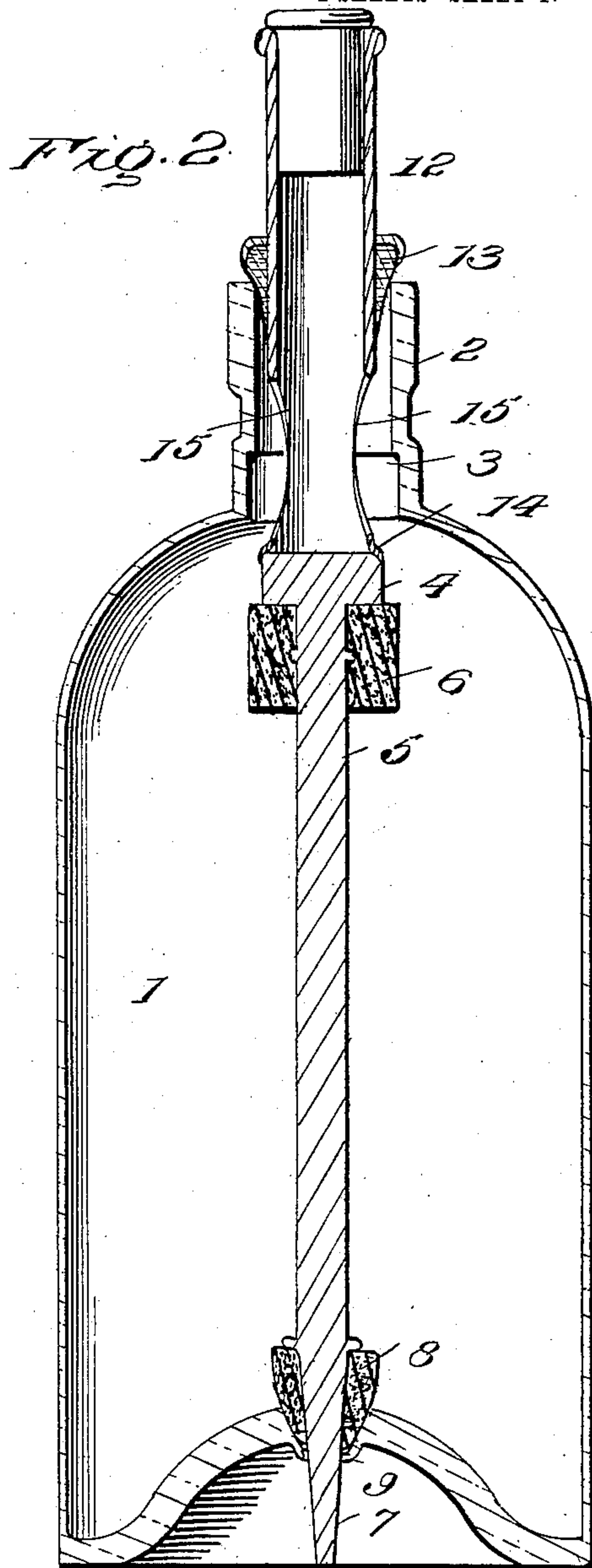
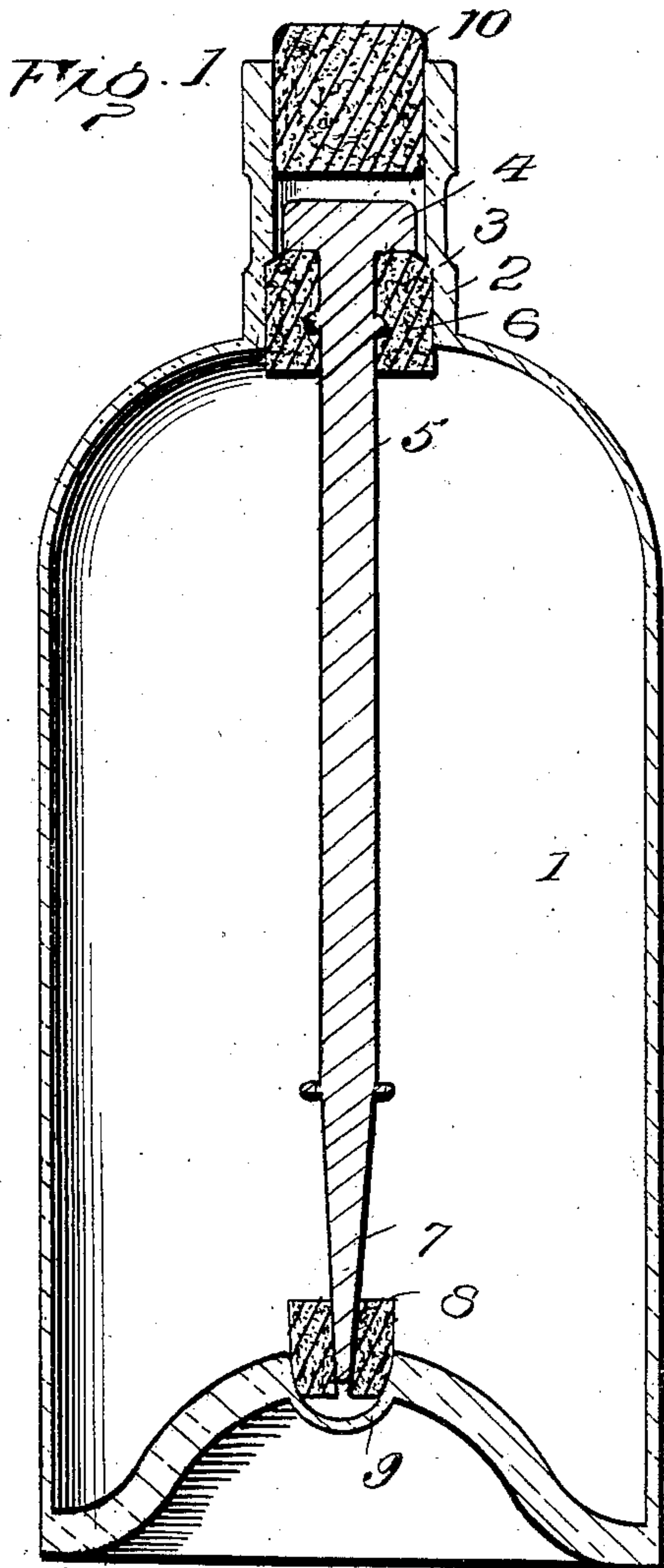


No. 863,476.

PATENTED AUG. 13, 1907.

J. B. VAUGHN.  
ANTIREFILLING BOTTLE.  
APPLICATION FILED JULY 9, 1906.

2 SHEETS—SHEET 1.



Witnesses

*J. B. Vaughn*  
*W. H. Woodson*

By

*R. A. M. Cary*

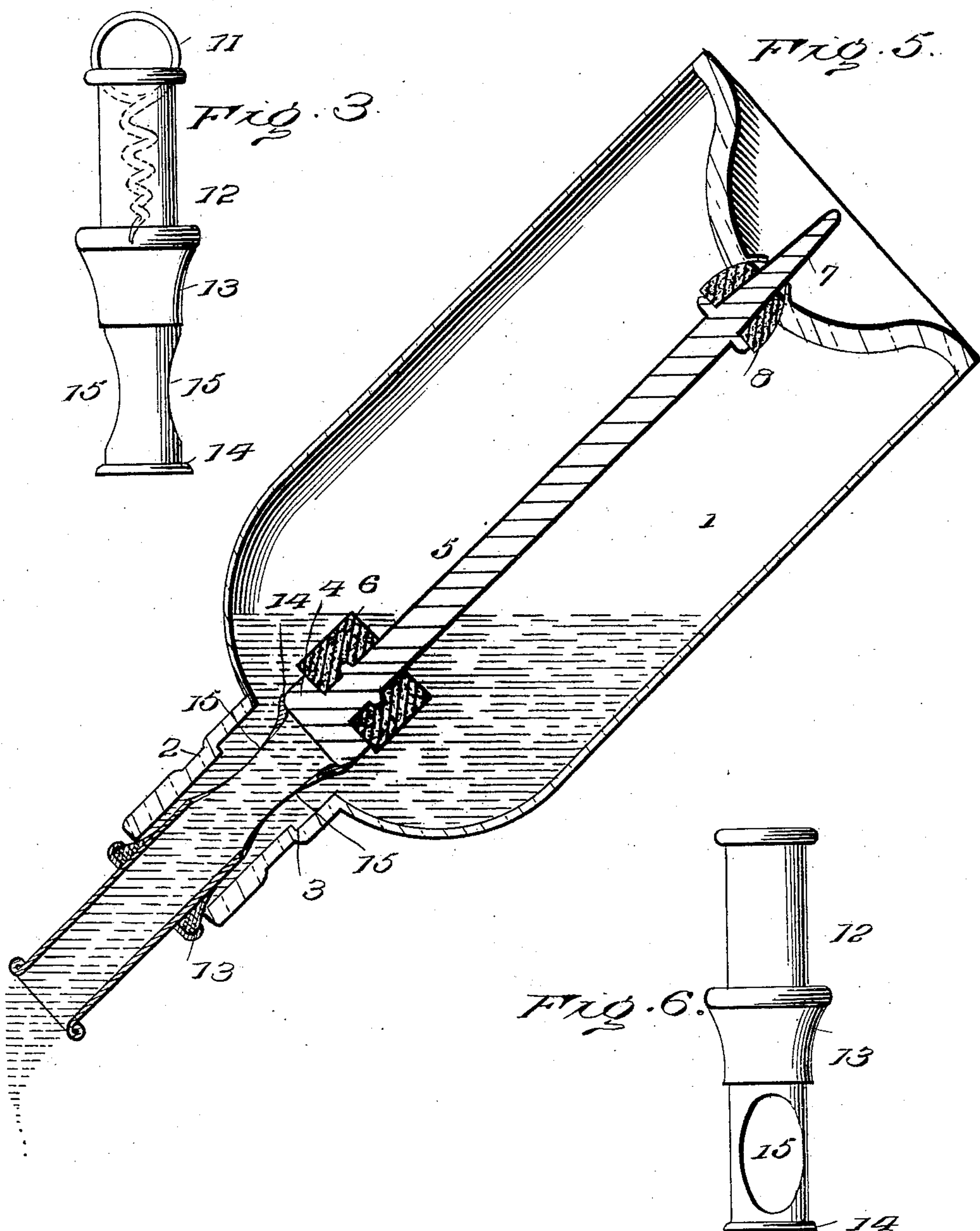
Attorneys

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2 SHEETS—SHEET 2.



Witnesses  
*J. B. Vaughn*  
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# UNITED STATES PATENT OFFICE.

JAMES B. VAUGHN, OF BOULDER, COLORADO.

## ANTIREFILLING-BOTTLE.

No. 863,476.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed July 9, 1906. Serial No. 325,352.

To all whom it may concern:

Be it known that I, JAMES B. VAUGHN, a citizen of the United States, residing at Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Antirefilling-Bottles, of which the following is a specification.

The object of this invention is to provide an improved bottle or like receptacle of that type designed to prevent fraudulent refilling thereof after the original contents have been once withdrawn.

The invention consists primarily in the provision of a novel form of closure for the bottle, said closure being adapted, when opened to permit of emptying the receptacle to so mutilate the bottle as to obviate all likelihood of same being again used in order to pawn off goods of a class inferior to those originally contained in the receptacle.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical sectional view of a bottle showing the position of the parts comprising the invention, when the receptacle is filled and ready for vendition. Fig. 2 is a view similar to Fig. 1, except that the bottle is open, the means for opening the same being shown in operative position thereon. Fig. 3 is a side elevation of the opener especially designed for use in connection with the bottle and constituting a pouring nozzle or spout therefor. Fig. 4 is a transverse sectional view through the neck of the bottle with the opener applied thereto. Fig. 5 is a longitudinal sectional view through the bottle when in an inverted position and with the opener applied thereto. Fig. 6 is a side elevation of the opener.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the practical embodiment of the invention the bottle 1 may be of any suitable form and is preferably made as much like those commonly in use as possible. This bottle is provided with the usual neck 2 formed with an internal annular shoulder 3 near the point of jointure of the neck with the body of the receptacle. The means for closing the bottle is peculiar and consists of a main closure 4 comprising a head from which projects downwardly a stem or plunger 5. Fitted about the stem or plunger 5 and in contact with the closure 4, is a cork 6 adapted to fit tightly in the neck 2 and coöperating with the head or closure 4 to effectively close the bottle 1. The closure 4 with its stem 5 are of integral formation and are preferably made of glass or analogous substance. The lower end portion of the stem 5 is tapered as shown at 7, and is formed with an annular rib 8 at the upper terminal of the tapered portion.

The purpose of the stem 5 is to carry an auxiliary closure 8 located at its lower end, and to effect breaking of a frangible portion 9 in the bottom of the bottle 1, in its preferred location.

In the practical use of the invention, the frangible portion 9 at the bottom of the bottle 1, is of course integral, being preferably formed in the operation of manufacturing the receptacle and the bottle will readily contain the goods placed therein. To prevent likelihood of breakage of the frangible portion 9, in the ordinary handling of the bottle, the bottom of the latter is preferably bulged upwardly or of concave form so that the frangible portion 9 is not located in a position in which it is likely to be accidentally broken.

After the bottle has been filled with the goods to be vended therein, the closure 4 and its stem 5 are placed in position, the auxiliary closure 8, which consists of a cork, having first been placed on the lower extremity of the stem 5. The closure 4 is forced downwardly in the neck 2 until the auxiliary closure or cork 8 is seated against the upper side of the frangible portion 9 and the cork 6 is expanded and occupies a position just below the annular shoulder 3. Removal of the closure 4 is of course impractical for the reason that the cork 6 is interlocked with the neck 2 and no effective hold upon the closure 4 is admitted of by reason of its peculiar construction. The only way to displace the closure 4 and the cork 6, therefore, is to force the same downwardly. When the closure 4 is in position it is preferred to use a supplemental cork 10 at the upper extremity of the neck 2, in the usual way. However, the last mentioned cork 10 might be readily dispensed with if desired.

In order to open the bottle, the cork 10 is removed and this is done preferably by a corkscrew 11 which is carried in an opener 12, which latter preferably constitutes the means for opening the bottle. The opener 12 consists of a tube transversely enlarged between its ends as shown at 13, and formed at its lower extremity with a flange 14. The tube 12 is formed with lateral openings 15 at its lower extremity and the enlargement 13 thereof is preferably made of cork, the upper portion of which is seated against a flange 15 on the intermediate portion of the tube 12. The cork 10 having been removed by the corkscrew 11 of the opener or tube 12, which opener is preferably vended with the bottle or supplied to the one using the bottles, the next step is to place the lower end or flange 14 of the tube 12 against the top of the closure 4 and by exerting a pressure down upon the tube or opener 12, the closure 4 and stem 5 will be forced downwardly until the former is fully within the body of the receptacle 1 and displaced from the neck 2. This action forces the lower extremity of the stem 5 through the frangible portion 9 and mutilates the latter though the opening formed by mutilating the frangible portion 9 is closed effectively by the



auxiliary closure 8, note Fig. 2 of the drawing. The contents of the receptacle can therefore not pass therefrom through the bottom when the latter is opened at the frangible portion 9. When the opener 12 has been used to force the closure 4 downwardly, the downward movement of the opener is limited by the enlargement 13 which enlargement also forms an air tight connection with the neck 2. Inversion of the bottle will cause the contents to pass through the enlargement 13 of the opener and pour readily through the tube or opener 12, the latter constituting a spout or pouring member of great advantage.

After the contents of the receptacle have been removed, it will be observed that the bottle is mutilated and that the parts 4 and 5 in the bottle, comprise an indicator not removable without breaking the bottle to pieces and readily indicating to anyone that the bottle has had the original contents thereof withdrawn. The opener 12 may of course be used over and over again on various bottles, but it is understood that this opener is a member cooperating with the bottle in the actual use thereof and representing an ancillary feature of the invention.

The formation of the tapering lower end of the stem 5 is advantageous in that when the stem is forced downwardly to break the frangible portion 9, the lower extremity of the stem will not only compress the auxiliary closure 8 to force the same into position shown in Fig. 2, but will expand said closure so that there will be ab-

solutely no likelihood of leakage of the contents of the bottle between the stem portion 7 and said closure 8. The above action is due to the tapering construction of the portion 7 and the advantages of such construction will be obvious from the foregoing.

Having thus described the invention, what is claimed as new is:

In a non-refillable bottle, the combination of a bottle having the neck portion thereof formed with an annular shoulder facing the interior of the bottle, and the bottom thereof formed with an interior recess terminating in a frangible portion, a closure fitting within the neck of the bottle, a stem pendent from the said closure and having the lower end thereof tapered and extending within the before mentioned interior recess in the bottom of the bottle, a main stopper surrounding the stem and fitting against the closure, the said main stopper normally bearing against the annular shoulder in the neck of the bottle, an auxiliary stopper surrounding the tapered extremity of the stem and fitting within the interior recess, and an annular rib at the junction of the tapered end of the stem with the body portion thereof, the said rib cooperating with the tapered portion of the stem to expand the auxiliary stopper and force the same tightly within the interior recess when the stem is forced inwardly so as to break the frangible portion of the bottle and remove the main stopper from the neck of the bottle.

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

JAMES B. VAUGHN. [L. S.]

Witnesses:

I. N. CRAWFORD,  
EUGENE CHRISTEN.