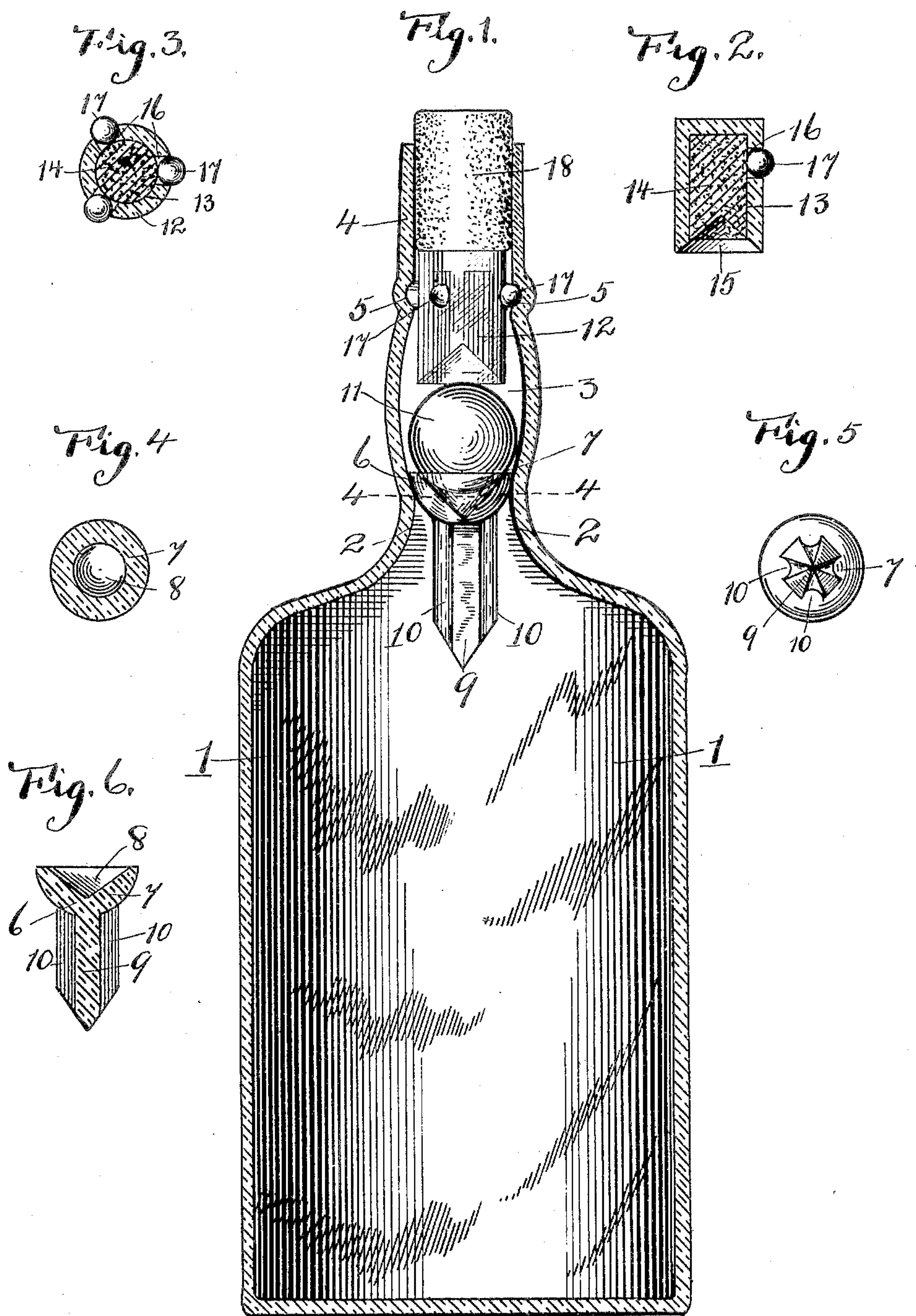


No. 793,805.

PATENTED JULY 4, 1905.

A. SCHENCK.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED OCT. 8, 1904.



Witnesses:  
William P. Bond  
Cyrus H. Banning.

Inventor.  
August Schenck  
By Banning & Banning.  
Attys



# UNITED STATES PATENT OFFICE.

AUGUST SCHENCK, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
CONRAD FREITAG, OF CHICAGO, ILLINOIS.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 793,805, dated July 4, 1905.

Application filed October 8, 1904. Serial No. 227,718.

*To all whom it may concern:*

Be it known that I, AUGUST SCHENCK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

The object of this invention is to produce a bottle which it will be impossible to fill after it has been once sealed, but which at the same time will allow the liquor therein contained to be poured out, thereby allowing the bottle to be filled but once and preventing the substitution of inferior liquor in place of the genuine liquor originally filled into the bottle.

Another object of the invention is to so arrange the parts that the entire bottle and valve members may be formed from glass, which is a substance which will not corrode or deteriorate and which will not in any way impair the quality of the liquor contained.

Another object of the invention is to so arrange the parts that it will be impossible to tamper with or remove the valve without destroying the bottle.

Another object of the invention is to so arrange the valve members that they may be easily slipped into the bottle and permanently positioned therein after the bottle has been filled; and a final object of the invention is to so construct and arrange the bottle as a whole that its operation will be perfect and at the same time enable the parts to be easily constructed and assembled.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating the invention, Figure 1 is a sectional view of the bottle, showing the valve members in elevation; Fig. 2, a longitudinal section of the inner stopper; Fig. 3, a cross-section of the inner stopper; Fig. 4, a cross-sectional view of the movable valve member taken on line 4 4 of Fig. 1; Fig. 5, an end view of the movable valve member, and Fig. 6 a longitudinal sectional view of the same.

The bottle 1 is blown to have a contracted throat 2 and an enlarged neck 3, which neck terminates in a mouth 4, and between the neck and the mouth is an annular groove 5 on the inside of the glass. Within the contracted throat is a movable valve member 6, having a rounded cup-shaped head 7, provided on its upper face with a conical recess 8, and the valve member terminates in a depending stem 9, provided with a series of grooves or channels 10, which stem serves as a weight or balance to hold the movable valve member in place and hold the rounded cup-shaped head seated against the contracted walls of the throat when the bottle is standing right side up, as shown in Fig. 1. Within the conical recess 8 is a ball 11, preferably of glass, and above the ball is an inner plug 12, which is provided with a chamber 13 on its interior, within which chamber is located a filling-plug 14, preferably of cork, although rubber or other elastic material may be used. The plug 12 is open at its lower or inner end for the insertion of the filling, and the end of the plug and filling are provided with a conical recess 15 in alinement and coöperating with the recess 8 in the movable valve member. Within the rounded exterior wall of the plug are a series of three holes 16, within which are located balls 17, preferably formed of glass, which balls abut against the elastic filling for the plug and normally outwardly project from the plug and are adapted to be driven in or compressed against the elastic filling when pressure is brought to bear on the balls, and said balls when the plug is inserted in place extend into the annular groove or channel 5 in the inner wall of the bottle-neck, locking the plug in place and preventing its removal when once inserted. The closure of the bottle is completed by an exterior cork 18, which fits into the mouth of the bottle-neck.

In use the liquor, patent medicine, or other fluid is filled into the bottle before the insertion of any of the valve members, and after the filling operation the movable valve member is first inserted into the bottle and falls



down to its seat against the contracted throat, in which position it is maintained by the weight of the stem, after which the ball is inserted into the bottle to rest within the recess 8 in the movable valve member, so that the weight of the ball will serve and hold the valve firmly seated when in upright position, as shown in Fig. 1. After the ball has been inserted the closing-plug is entered into the mouth of the bottle and presses down through the mouth, which pressure causes the balls 17 to be compressed into the elastic filling for the plug by the contact with the wall of the mouth until the plug has been forced into the position shown in Fig. 1, in which the balls come into line with the groove or channel 5 and spring outwardly by the pressure from within, locking the plug in place within the neck of the bottle and at a sufficient distance from the movable valve member to allow the ball to have a considerable play between the two members. The inner plug is of a size to leave a slight annular space around its exterior for the passage of liquor from the bottle, and when constructed as herein shown to have the filling entered into the plug from the inner or lower end it will be impossible to remove the elastic filling to obtain access to the balls which lock the plug in place.

When it is desirable to pour out the liquor, the bottle is unsealed by the removal of the exterior cork 18 and then tilted up sufficiently to cause the ball to roll from the movable valve member to the plug, which allows the movable member to be unseated and the liquor to flow around the movable valve, around the walls of the plug, and out of the mouth of the bottle. As soon, however, as the bottle is brought back to upright position or even when the bottle approaches an upright position the movable member will seat itself by the action of the depending stem and the ball will roll back into place to exert pressure against the movable member, holding it in position and preventing the inflow of liquor into the bottle.

It will be seen from the foregoing description that the bottle of the present invention is of a construction which enables the parts to be readily assembled after the filling of the bottle, and when assembled it will be impossible to refill the bottle with spurious or inferior liquor.

The parts are so arranged that the bottle will be entirely open for the admission of liquor prior to the sealing operation, since none of the members herein described are permanent features of the bottle itself, but are all of them introduced into the bottle after the filling operation, and that the bottle itself does not differ materially from the bottles heretofore constructed, so that it will not be necessary to depart to any appreciable extent from the methods heretofore employed for the

manufacturing of bottles. This is a feature of importance, since it enables the same bottle to be used with or without the features of the present invention, so that it will be possible to use a uniform grade of bottles and to apply the sealing means of the present invention to only such bottles as it is desirable to prevent from being refilled.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a non-refillable bottle, the combination of a bottle having a contracted throat and a neck having a recess in its inner wall, a movable valve member adapted to seat against the throat, a ball adapted to bear against the movable valve member, a closing-plug provided on its interior with a compressible substance and having in its wall a series of openings and provided with a plurality of members normally outwardly projecting from the plug and in contact with the compressible substance and adapted to be compressed during the insertion of the plug into the bottle-mouth and to be forced outwardly to enter the recess in the neck, substantially as described.

2. In a non-refillable bottle, the combination of a bottle having a contracted throat terminating in a neck having an annular recess in its inner wall, a valve member within the throat, a closing-plug of less diameter than the neck and hollow on its interior and provided with a series of openings through its wall, a compressible substance on the interior of the plug, and a series of balls entered into the holes in the wall to bear against the compressible substance and enter the annular recess in the neck when the plug has been inserted into place, substantially as described.

3. In a non-refillable bottle, the combination of a bottle having a contracted throat terminating in a neck having an annular recess in its inner wall, a valve member within the throat, a closing-plug of less diameter than the neck and hollow on its interior and provided with a series of openings through its wall, a compressible substance on the interior of the plug, a series of balls entered into the holes in the wall to bear against the compressible substance and enter the annular recess in the neck when the plug has been inserted into place, and a movable ball between the movable valve member and the plug and adapted normally to bear against the valve member, substantially as described.

4. In a non-refillable bottle, the combination of a bottle having a throat forming a seating-face and terminating in a neck having in its inner wall an annular groove or channel, a movable valve member provided with an enlarged seating-head and a depending stem, a ball adapted normally to bear against the seating-head, a closing-plug hollow on its interior and provided with a solid outer end wall and

provided also with a series of holes or openings through its side wall, a plug of compressible substance entered into the interior of the closing-plug, and a series of members entered  
5 into the holes to bear against the compressible plug, and be forced inwardly during the insertion of the plug into the bottle-neck and be outwardly projected into the annular re-

cess to permanently lock the plug in place in a position to allow a slight movement to the ball, substantially as described.

AUGUST SCHENCK.

Witnesses:

SAMUEL W. BANNING,  
PAULINE BECKMAN.