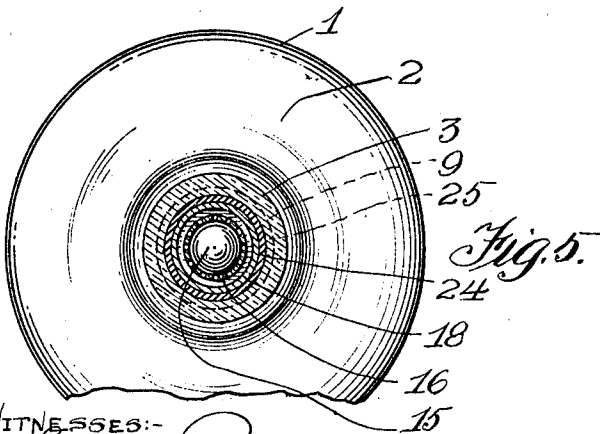
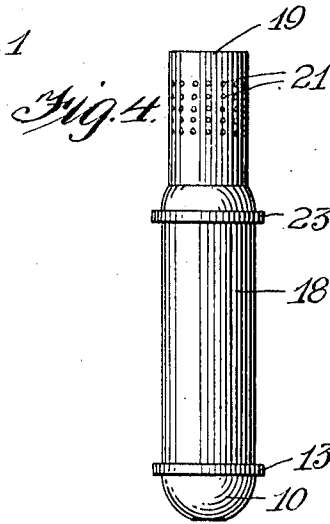
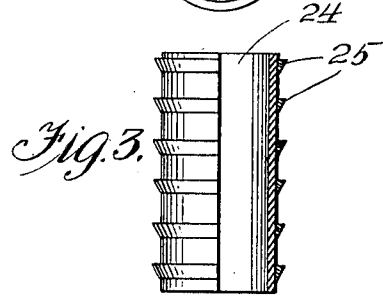
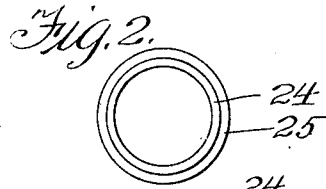
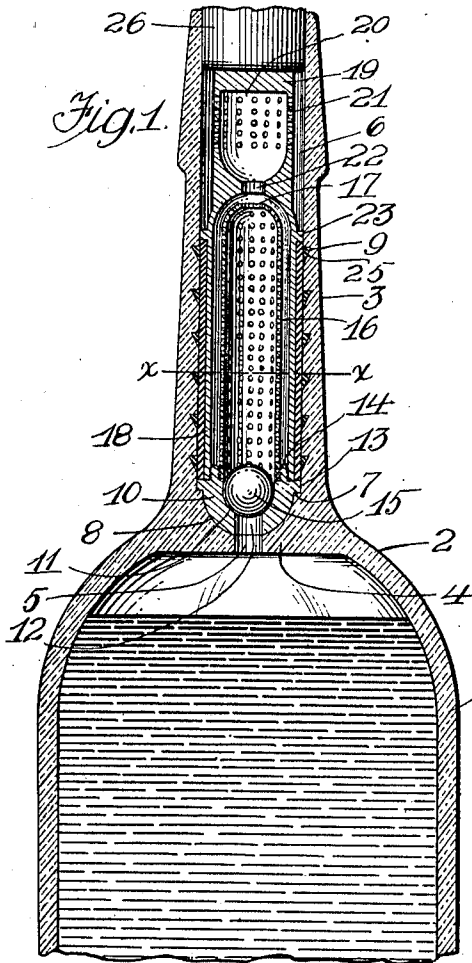


J. H. QUINN.
 ANTIREFILLABLE BOTTLE.
 APPLICATION FILED FEB. 18, 1910.

970,392.

Patented Sept. 13, 1910.



WITNESSES:-
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UNITED STATES PATENT OFFICE.

JAMES HAROLD QUINN, OF STOYESTOWN, PENNSYLVANIA.

ANTIREFILLABLE BOTTLE.

970,392.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed February 18, 1910. Serial No. 544,663.

To all whom it may concern:

Be it known that I, JAMES HAROLD QUINN, a citizen of the United States of America, residing at Stoyestown, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Antirefillable Bottles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to antirefillable bottles, and the object of my invention is to provide a bottle with positive and reliable means for preventing the same from being refilled or the contents thereof tampered with.

My invention aims to eliminate the nefarious practice of unscrupulous merchants in refilling bottles or receptacles that once contained a popular and well known brand with an inferior article. It is in this connection that cheap and low grades of liquors have often been placed and mixed with high grade liquors contained within a bottle that has been partially emptied, and in other instances the empty bottles of high grade goods have been filled with inferior goods and represented as the original contents of the bottle.

The above object is accomplished by an anti-refillable bottle that will be hereinafter described in detail and then claimed, and reference will now be had to the drawing forming a part of this specification, wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements thereof can be varied or changed without departing from the spirit of the invention.

In the drawing:—Figure 1 is a vertical sectional view of a portion of the bottle, Fig. 2 is a plan of a detached and resilient locking sleeve adapted to form part of the bottle, Fig. 3 is an elevation of the same, partly broken away and partly in section, Fig. 4 is an elevation of a valve seat and a casing adapted to form part of the bottle, and Fig. 5 is a horizontal sectional view of a bottle taken on the line X—X of Fig. 1.

In the accompanying drawing the reference numeral 1 denotes the body of a bottle or receptacle, preferably made of glass or other vitreous material, the bottle 1 having a breast 2 terminating in a neck 3, the juncture of the breast 2 and the neck 3 providing an inwardly projecting annular flange 4 adapted to provide a small central opening

5. The outer walls of the neck 3 taper toward the upper end thereof while the inner walls of the neck provide a cylindrical bore 6 of the same diameter throughout, and these walls at the lower end of the bore terminate in an annular shoulder 7 formed by providing the upper face of the inwardly projecting flange 4 with a semi-spherical socket 8. The inner walls of the neck 3 are provided with a plurality of annular grooves 9, the upper edges of the grooves being at right angles to the walls of the neck while the other edge of each groove is inclined.

Mounted in the socket 8 is a semi-spherical valvular member 10 having a central valve seat 11 and a valve opening 12 adapted to register with the opening 5 provided by the flange 4. The upper edge of the member 10 is provided with an annular outwardly extending flange 13 adapted to rest upon the shoulder 7, and with a vertical annular flange 14 adjacent to the flange 13, the flange 14 having the walls thereof threaded.

Movably mounted in the seat 11 of the member 10 is a valve 15 having the form of a sphere and said valve when not seated is held in position to seat by a foraminous cylindrical shell 16 having the upper end thereof provided with an opening 17 of a larger size than the other openings of said shell. The walls of the shell 16 at the lower end thereof are threaded to engage the inner walls of the flange 14, and adapted to screw upon the outer walls of said flange is a cylindrical casing 18. The upper end of this casing is dome-shaped and provided with an extension 19, said extension having a cavity 20 formed therein with the walls thereof provided with circumferentially arranged and radially disposed openings 21 adapted to establish communication between the cavity 20 and the bore 6. The lower end of the cavity 20 communicates with the interior of the casing 18 through the medium of an opening 22 adapted to vertically aline with the opening 17 of the shell 16. The casing 18 adjacent to the dome-shaped end thereof is provided with an annular exterior flange 23 and arranged upon the periphery of said casing between the flange 23 and the flange 13 of the valvular member 10 is a resilient locking sleeve 24, said sleeve having the outer side thereof provided with annular ribs 25. These ribs are of a shape to engage in the grooves 9 of the neck 3 and said ribs are preferably made of hard rub-

ber while the sleeve 24 is made of soft rubber.

The resiliency of the sleeve 24 permits of the casing 18 being mounted in the neck 3, and the casing 18 is of a less length than the neck, whereby an ordinary stopper or cork 26 can be mounted in the upper end of the neck 3.

When the contents of the bottle or receptacle 1 are to be removed, the stopper or cork 26 is removed and by tilting or inverting the bottle or receptacle 1, the valve 15 shifts from the seat 11 and allows the contents of the bottle to pass through the openings 5 and 12 into the foraminous shell 16, through the openings thereof into the casing 15, through the opening 22 into the cavity 20 and then through the openings 21 into the bottle neck. The cavity 20 and the arrangement of the openings 21 prevents the insertion of an implement for holding the valve 15 in an open position while liquid is poured into the neck 3, consequently after the bottle has been emptied, it is practically impossible for the same to be refilled without injury or breaking the bottle.

The various parts of the closure mounted in the bottle neck can be made of a composition or material not susceptible to the action of the contents of the bottle or receptacle 1.

Having now described my invention what I claim as new, is:—

1. The combination of a bottle or receptacle having a neck provided with an inwardly projecting flange, a valvular member mounted upon said flange and having a valve seat formed therein, a spherical valve adapted to engage in said seat and normally close said valvular member, a fo-

raminous shell detachably connected to said member, a cylindrical casing having an imperforate body portion surrounding said shell and connected to said member, an extension carried by said casing, and having a cavity formed therein with the walls thereof provided with openings adapted to establish communication between the interior of said casing and the exterior of said extension, and means mounted upon said casing and adapted to lock said casing within said bottle neck.

2. The combination of a bottle or receptacle having a neck provided with an inwardly projecting flange, a valvular member mounted upon said flange and having a valve seat formed therein, a spherical valve adapted to engage in said seat and normally close said valvular member, a foraminous shell detachably connected to said member, a cylindrical casing surrounding said shell and adapted to connect with said member, an extension carried by said casing, said extension having a cavity formed therein, with the walls of said cavity provided with openings adapted to establish communication between the interior of said casing and the exterior of said extension, means mounted upon said casing and adapted to lock said casing within said bottle neck, said means including a resilient sleeve encircling said casing, and ribs carried by said sleeve and adapted to engage in the walls of said bottle neck.

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

JAMES HAROLD QUINN.

Witnesses:

THOMAS QUINN,
W. K. RAY.