

L. ANDERSON.
NON-REFILLABLE BOTTLE.
APPLICATION FILED AUG. 17, 1909.

954,244.

Patented Apr. 5, 1910.

Fig. 1.

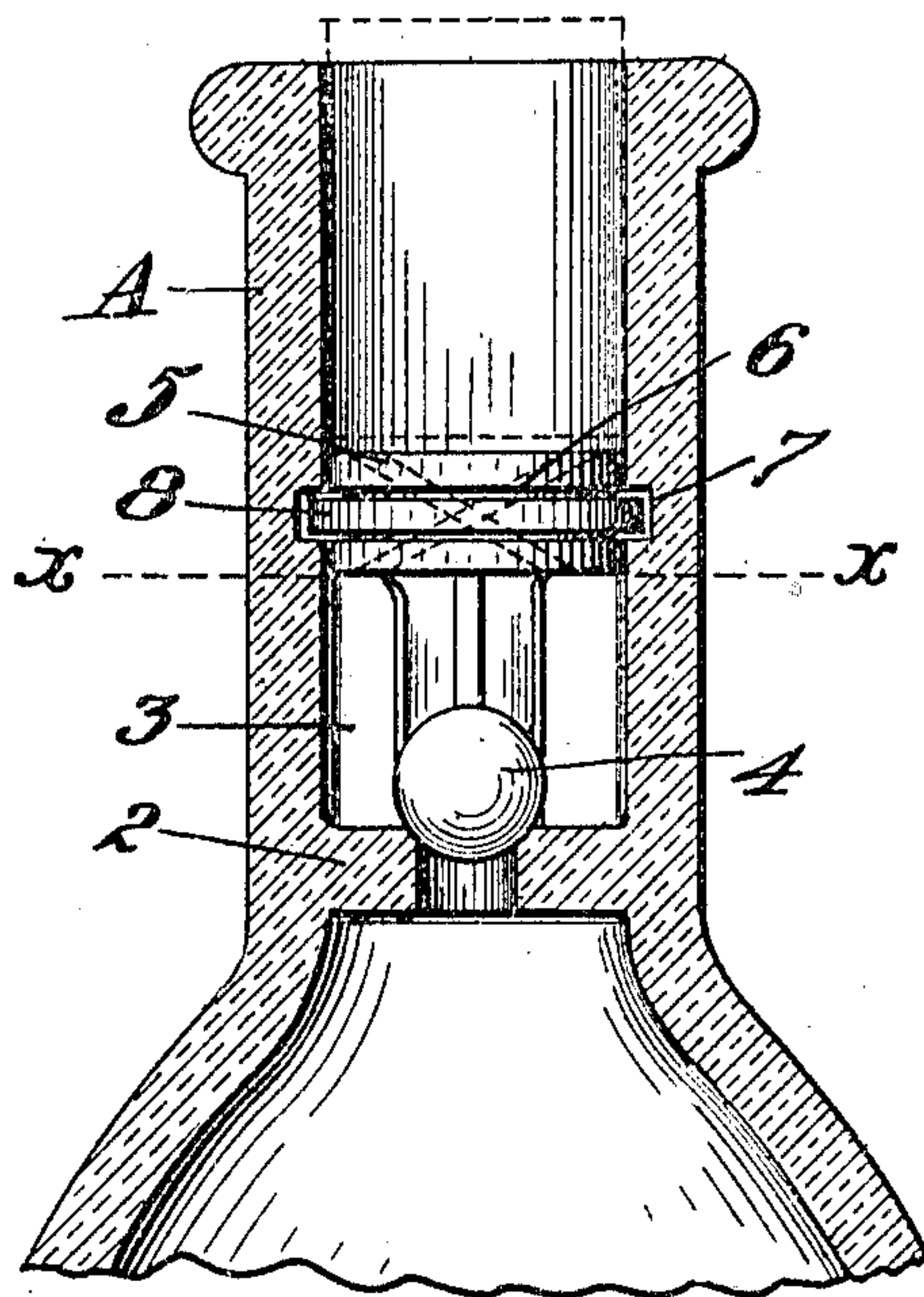


Fig. 2.

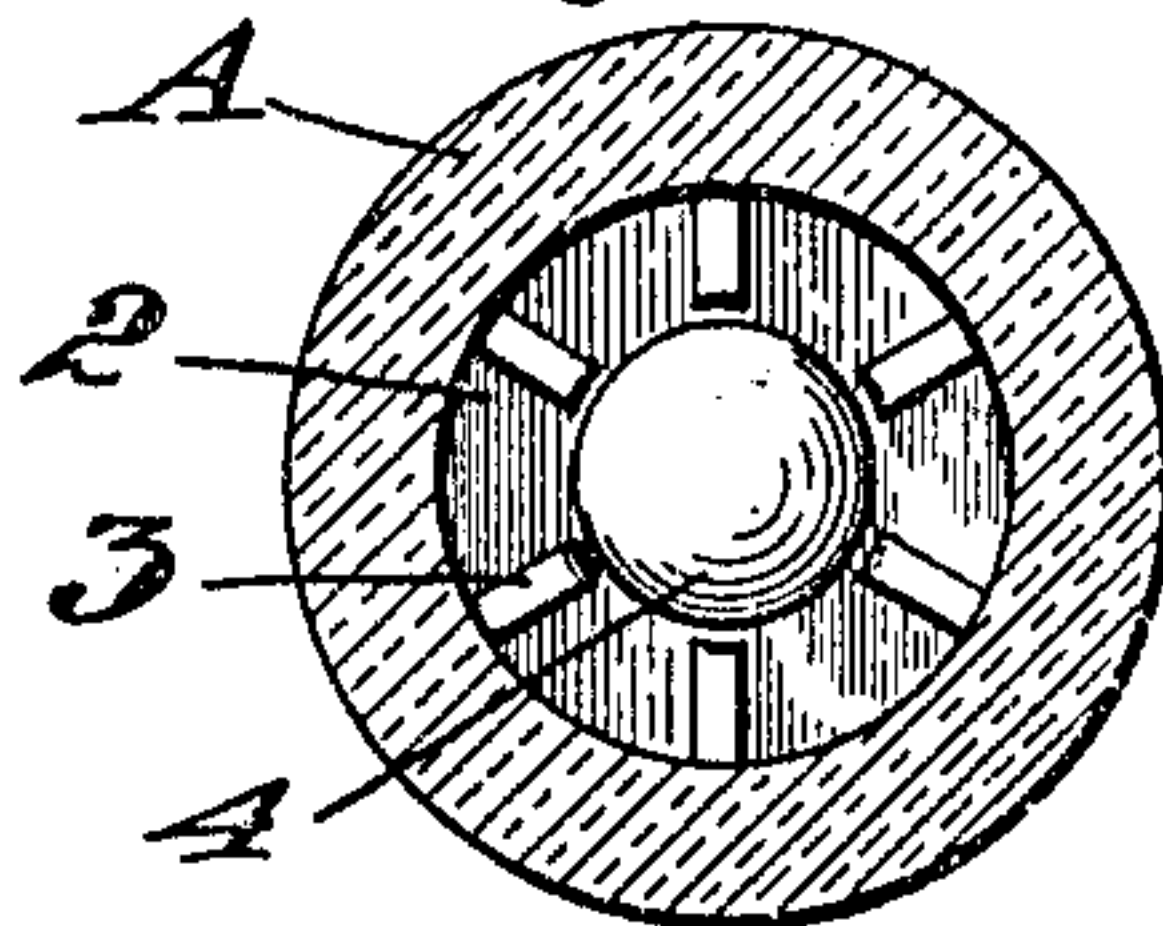
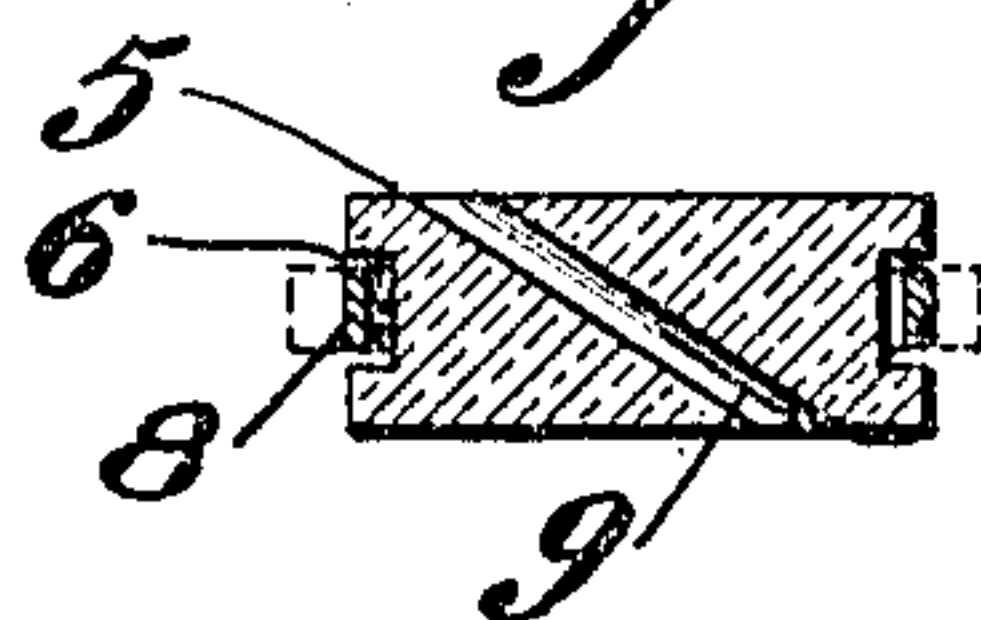


Fig. 3.



WITNESSES;

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NON-REFILLABLE BOTTLE.

954,244.

Specification of Letters Patent.

Patented Apr. 5, 1910.

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To all whom it may concern:

Be it known that I, LOUIS ANDERSON, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to non-refillable bottles. Its object is to provide a simple, cheap, practical bottle of the non-refillable type, having few parts, and which parts, when assembled, will safeguard against the refilling of the emptied bottle.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section of the invention. Fig. 2 is a cross-section on the line X—X, Fig. 1. Fig. 3 is a vertical section of the stop plate.

A represents the neck of the bottle in which the valve seat 2 and the vertical guide flanges 3 are integrally molded adjacent to the shoulder of the bottle.

4 is a ball valve having a free movement between the guides 3 and normally resting, when the bottle is upright, on the valve seat 2.

5 is a stop plate and closure for the valve chamber, here shown in the form of a circumferentially grooved disk; this circumferential groove 6 in the disk cooperating with a corresponding annular groove 7 in the interior bore of the bottle neck to house a circular locking spring 8. This spring 8 is of suitable construction and is adapted to fit in the groove 6 and to be compressed therein so that the stop plate 5 can be crowded down into the neck; the spring acting expansively against the walls of the neck, so that as the stop plate 5 is pushed down to bring the grooves 6 and 7 into register, the spring will interlock with the walls of these two grooves and firmly hold the stop plate 5 in a fixed position, being supported on the upper ends of the guide flanges 3.

The space inclosed by the valve seat, stop plate and guides constitutes a valve chamber in which a suitable limited movement of the ball valve 4 is permitted.

9 are diagonally arranged discharge ports in plate 5, through which the liquid can flow when the bottle is inverted. These ports are arranged crosswise, as shown, and open into the valve chamber adjacent to the flanges 3 in such fashion that they will not be closed by the ball valve 4 when the bottle is inverted. The diagonal arrangement of the ports also operates against the insertion of a wire or other instrument to tamper with the valve.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

An improved non-refillable bottle having a neck with a cylindrical throat, said neck having integrally formed flanges of substantial transverse width extending radially into the throat and having their inner vertical edges forming the walls of a valve chamber; a ball-valve within said chamber and guided in its movements by the vertical edges of said flanges; a stop plate fitting in the neck of the bottle and resting on the upper horizontal edges of said flanges, said plate having an annular groove with a loose circular spring expansively engaging in the grooves in the bottle neck and plate to hold the stop plate in position, and said stop plate having outlet ports made at an angle through its body and opening into the bottle neck at points between adjacent flanges and between the inner vertical edges thereof and the inner wall of said neck.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LOUIS ANDERSON.

Witnesses:

E. G. BLASDEL,
C. HALLAM COLE.