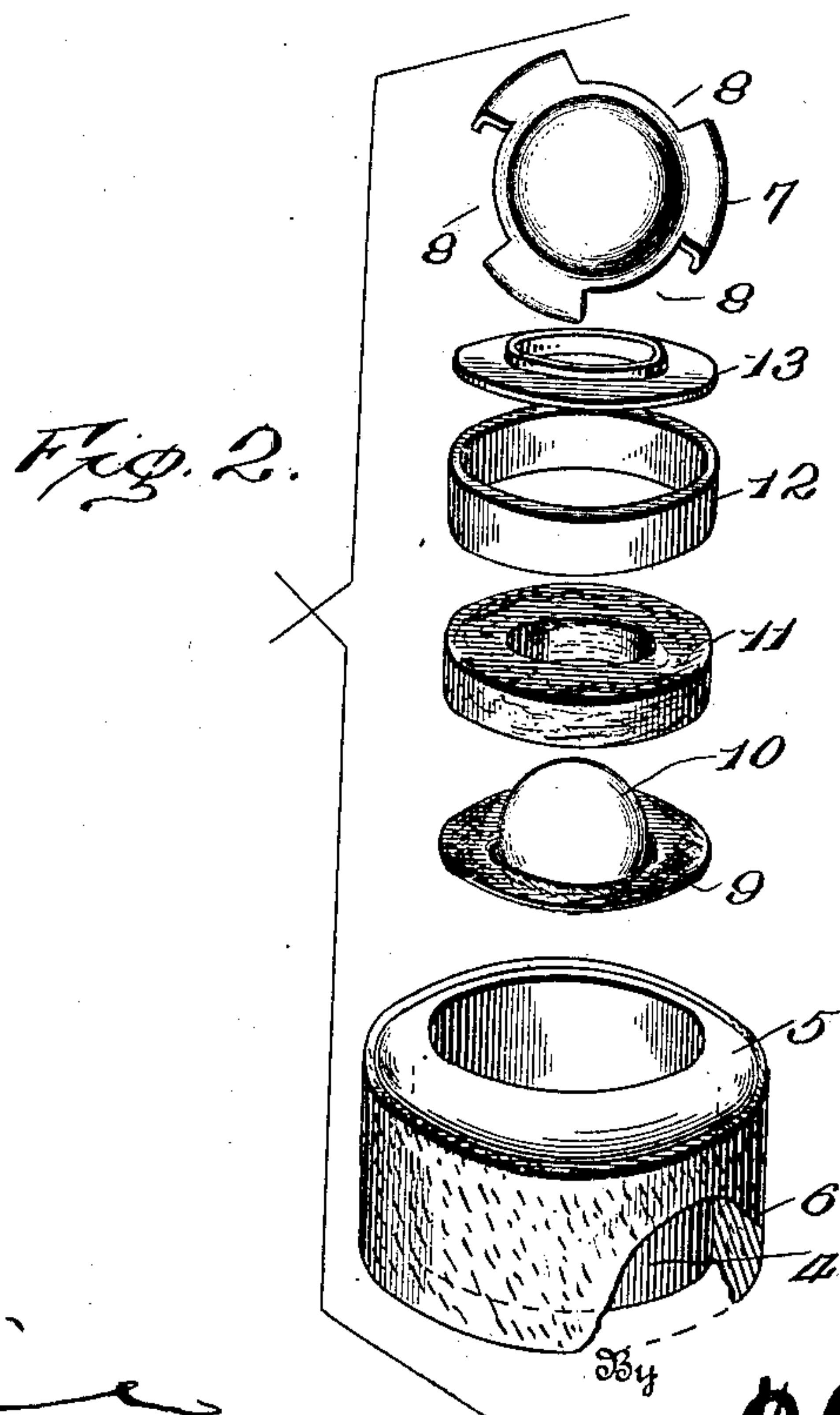
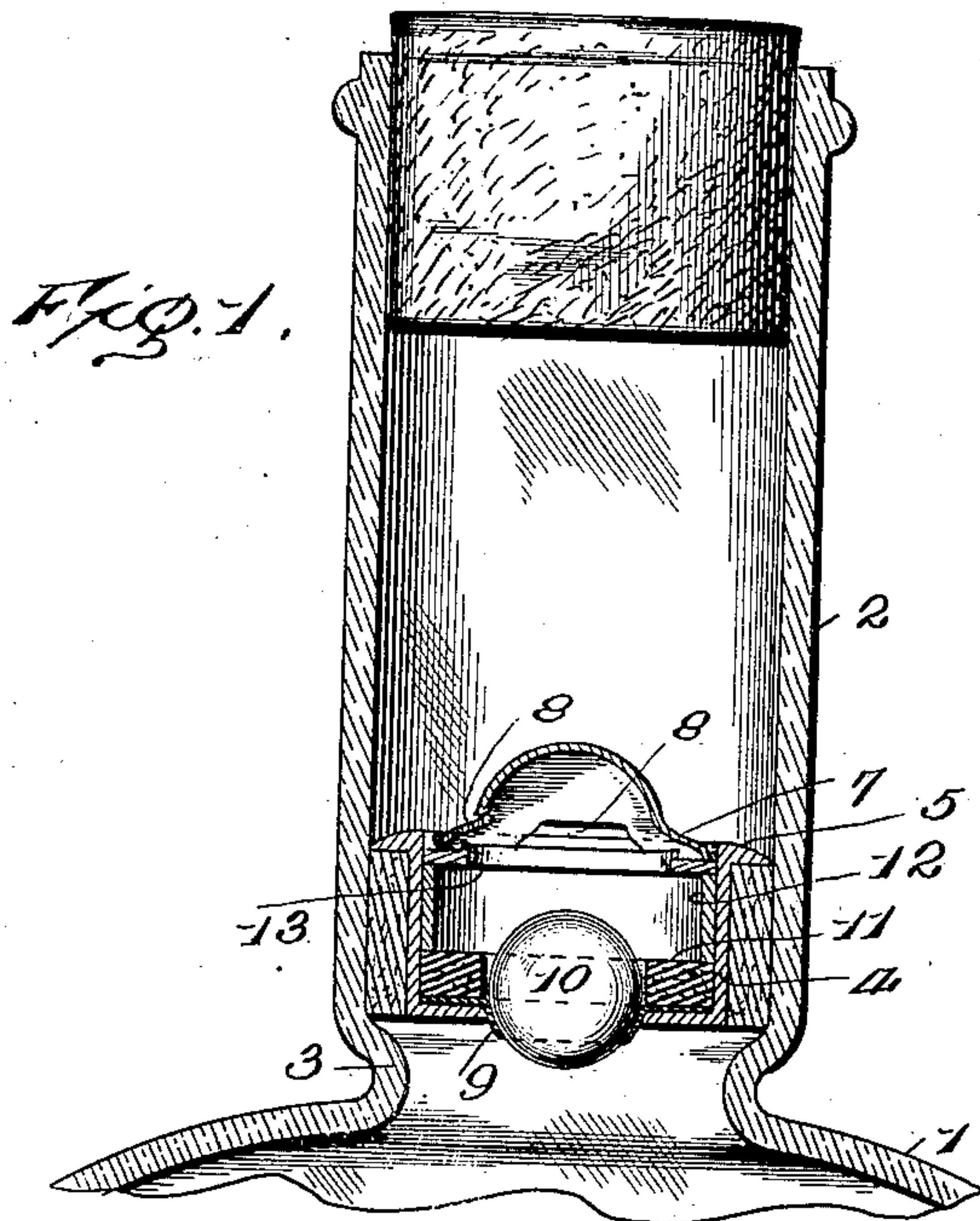


No. 890,610.

PATENTED JUNE 16, 1908.

L. H. CORTRIGHT.
NON-REFILLABLE BOTTLE.
APPLICATION FILED SEPT. 24, 1907.



Witnesses.
[Signature]
[Signature]

Inventor

L. H. Cortright

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UNITED STATES PATENT OFFICE.

LOUIS H. CORTRIGHT, OF ST. JOHN, NEW BRUNSWICK, CANADA.

NON-REFILLABLE BOTTLE.

No. 890,610.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed September 24, 1907. Serial No. 394,406.

To all whom it may concern:

Be it known that I, LOUIS H. CORTRIGHT, citizen of the United States, residing at St. John, New Brunswick, Canada, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

The object of this invention is a simple and efficient non-refillable bottle embodying a valve structure which may be pushed down the neck of a bottle and be held securely in place without the use of cement, springs, or complicated constructions in the neck of the bottle, and which may be cheaply constructed and its parts easily assembled.

The invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and then point out the novel features in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical section of the upper part of my non-refillable bottle showing the improved valve structure with its parts assembled in place in the neck of the bottle; and Fig. 2 is a perspective view of the parts separated and in juxtaposition to each other.

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.

Referring to the drawings, the numeral 1 designates the body of a bottle, 2 the neck and 3 a shoulder formed within said neck preferably at its juncture with the body of the bottle.

4 designates a cylindrical valve casing which is provided at its upper edge with an outwardly projecting flange 5. A collar 6 of cork or other resilient materials or substances is fitted around the casing 4 and held in place tight against the outwardly projecting flange 5 by frictional contact with the casing, said collar when uncompressed extending beyond the flange. Secured to the upper edge of the casing or integral with the same, is the cage 7, which is preferably dome-shaped, as shown, and constructed with the segmental openings 8.

In the bottom of the valve casing 4 is the circular opening 9, the diameter of which is slightly less than that of the ball valve 10, for which said opening, in conjunction with the washer 11 within the casing, forms a

valve seat. A ring 12 holds the washer 11 in place, the upper edge of said ring forming an annular shoulder which supports the preferably metal washer 13, just below the segmental openings 8 of the cage.

In operation the bottle 1 is filled and the valve casing 4 pushed down the neck 2 of the bottle, tight against the annular shoulder 3, said casing being held in place by said shoulder and the frictional engagement effected by the compression of the collar 6. In its compressed condition the flange 5 extends entirely over said collar. When the bottle is in an upright position, the ball valve 10 falls into the seat 9. By means of the washer 11 it closes the opening 9 water tight, thus effectually preventing the bottle from being refilled. The washer 13 prevents any tampering with the valve by wires being inserted in the openings of the cage. When the bottle is inverted to pour out its contents, the valve 10 falls into the top of the cage 7, thereby allowing the inclosed liquid to flow into the casing through the opening 9 and escape through the openings 8 of the cage into the neck of the bottle.

Preferably the washer 13 is provided at its inner edge with the upwardly extending lip 14, so that if wires are inserted in the openings of the cage to tamper with the valve, any wire reaching that far will be turned upward by said lip.

The ball valve 10 is preferably hollow and constructed of glass, or other light material or substance so that if the bottle should be inverted and submerged in a liquid, it would not fill because the ball would rise and float on the liquid and thus close the valve seat 9.

Having thus described the invention, what I claim is:

1. A non-refillable bottle, embodying a valve casing having a valve seat and formed at its upper edge with an outwardly projecting flange, a cage secured to said casing and provided with openings establishing communication between the interior of the cage and the mouth of the bottle, a collar surrounding said valve casing below the flange, and a valve mounted within the casing and retained therein by said cage.

2. A non-refillable bottle, embodying a valve casing provided with a valve seat and formed at its upper edge with an outwardly projecting flange, a cage secured to said casing and provided with openings establishing communication between the interior of the

cage and the mouth of the bottle, a resilient collar surrounding the valve casing below the flange and holding said casing in the neck of the bottle by frictional engagement effected
 5 by the compression of said collar, a valve mounted within the casing and retained therein by said cage, and a washer within the casing used in conjunction with said valve seat.

10 3. A non-refillable bottle, embodying a valve casing having in its bottom a valve seat and formed at its upper edge with an out-
 15 wardly projecting flange, a cage secured to said casing and provided with openings es-
 20 tablishing communication between the interior of the cage and the mouth of the bottle, a resilient collar surrounding the valve casing
 25 below the flange and holding said casing in the neck of the bottle by frictional engage-
 30 ment effected by the compression of said collar, a valve mounted within the casing and retained therein by said cage, a washer
 35 within the casing used in conjunction with the valve seat and a ring within the casing holding the washer in place.

4. A non-refillable bottle, embodying a valve casing having in its bottom a valve
 40 seat and formed at its upper edge with an outwardly projecting flange, a cage secured
 45 to said casing and provided with segmental openings establishing communication be-
 50 tween the interior of the cage and the m uth
 55 of the bottle, a resilient collar surrounding the valve casing below the flange and holding the
 60 casing in the neck of the bottle by frictional

engagement effected by the compression of
 said collar, a ball valve mounted within the
 casing and retained therein by said cage, a
 washer within the casing used in conjunction
 with the valve seat, a ring holding the washer
 40 in place and forming an annular shoulder,
 and a washer below and in registry with the
 segmental openings in the cage, said last-
 named washer being supported on said shoul-
 45 der.

5. A non-refillable bottle, embodying a
 valve casing having in its bottom a valve seat
 and formed at its upper edge with an out-
 wardly projecting flange, a dome-shaped cage
 secured to said casing and provided with open-
 50 ings establishing communication between
 the interior of the cage and the mouth of the
 bottle, a resilient collar surrounding the valve
 casing below the flange and holding the cas-
 55 ing in the neck of the bottle, a valve
 mounted within the casing and retained
 therein by said cage, a washer within the
 casing used in conjunction with the valve
 seat, a ring holding the washer in place and
 60 forming an annular shoulder, a washer below
 and in registry with the segmental openings
 in the cage, said last-named washer being
 supported on said shoulder.

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

LOUIS H. CORTRIGHT. [L. S.]

Witnesses:

LEWIS G. SINCLAIR,
 HENRY O'BRIEN.