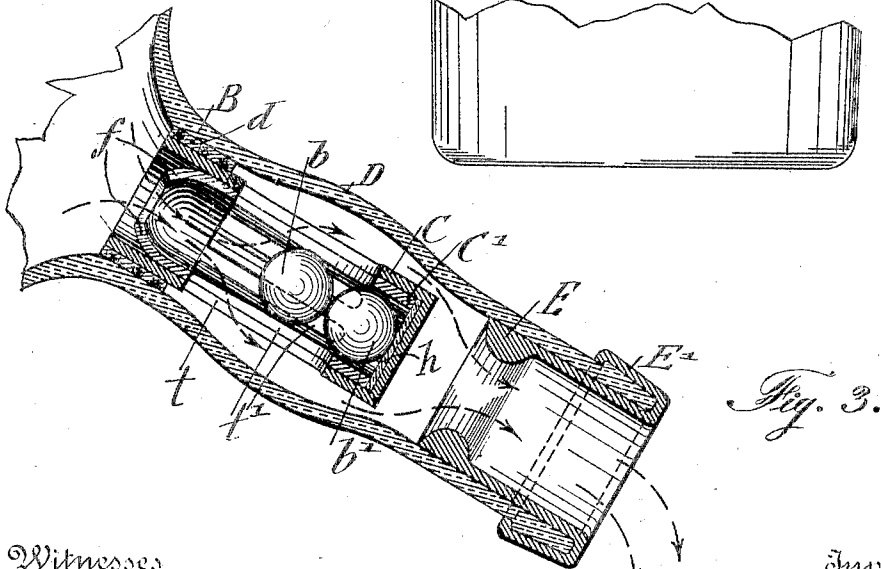
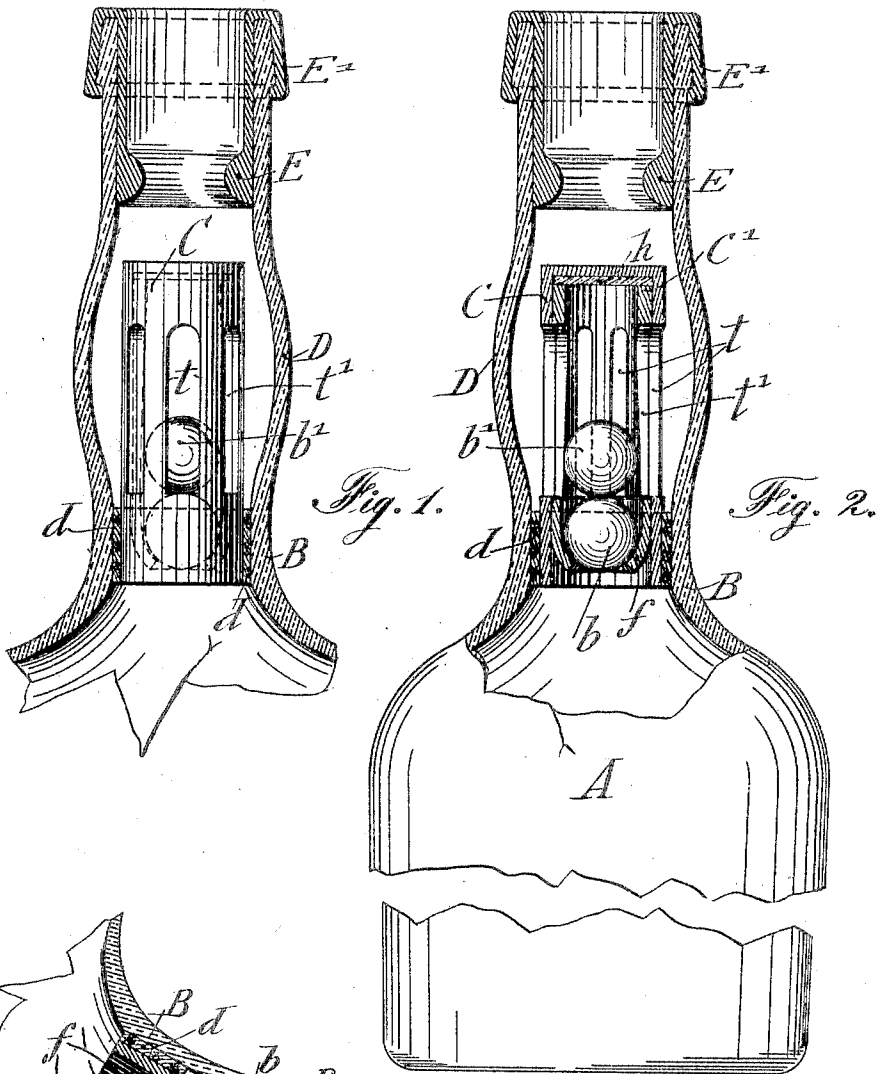


G. ROMMEL.
NON-REFILLABLE BOTTLE.
APPLICATION FILED DEC. 10, 1904.



Witnesses
W. J. Bergman
[Signature]

Inventor
George Rommel
By *his* Attorney *Genex Miles*

UNITED STATES PATENT OFFICE.

GEORGE ROMMEL, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
EDMUND R. NEBELING, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

No. 797,375.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed December 10, 1904. Serial No. 236,286.

To all whom it may concern:

Be it known that I, GEORGE ROMMEL, a citizen of the United States, residing in New York, borough of the Bronx, in the State of New York, have invented certain new and useful improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to a non-refillable bottle of that class in which the contents of the bottle can be conveniently poured out, but in which the bottle cannot be refilled after the same has been emptied; and the object of the invention is the provision of a bottle of this type embodying an improved valve which readily permits the outpouring of the liquid, but which cannot be opened from the exterior of the bottle in order to allow liquid to be poured into the latter.

With these ends in view the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings, illustrative of one embodiment of the invention, Figures 1 and 2 are vertical transverse sections through the neck of a bottle provided with my improved non-refillable attachment; and Fig. 3 is a vertical longitudinal section of the bottle, showing it in inclined position for showing the second position of the valve when pouring the contents of the bottle.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A denotes a bottle in connection with which my improved non-refillable attachment is used.

B is the neck of the bottle, which is provided with a bulge D between the connection of the neck of the bottle with the body thereof and the mouth of the same. In the bulged portion of the neck is inserted a cylindrical valve-casing C by means of a suitable layer of cork *z*, said valve-casing being open at the lower end, closed at the upper end, and provided with longitudinal slots *t* in its side. The valve-seat *f*, which is arranged in the lower portion of the casing C, is provided with an upwardly-extending cylindrical cage C', which is retained by cement in the casing C and provided with slots or openings *t'*, registering with the slots or openings thereof.

The valve-casing C as well as the interior cage C' and valve-seat *f* are preferably made of porcelain or glass or of aluminium or other suitable light non-corrosive metal. The inte-

rior of the cage is tapered, being thicker at the closed end and thinner toward the valve-seat, as shown.

In the valve-casing are arranged two balls *b* and *b'*, the former acting as a valve in connection with the valve-seat, the other, of greater weight, resting on the lower ball-valve in the cage of the same, said upper heavier ball serving for tightly closing the bottle when the lower ball is in position in the valve-seat, so as to prevent the refilling of the bottle after the same is emptied. The tapering interior of the cage facilitates the return of the balls as soon as the bottle is held in horizontal position and prevents thereby tampering and refilling of the bottle when held in horizontal position. A layer $\frac{1}{2}$ of felt or other suitable material interposed between the top of the valve-casing and the upper edge of the valve-cage serves to deaden the noise caused by the striking of the upper ball against the top of the valve-casing.

Between the upper end of the valve-casing and the upper end of the bulged portion of the neck is formed an annular space which permits the free course of the liquid from the bottle when the same is placed in inclined position, as shown in Fig. 3, in which case the balls move forward to the closed end of the valve-casing and ball-cage, so that the liquid can pass freely through the valve to the lower end of the valve-casing, the slots in the side wall of the same, and the annular space between the bulged neck and the upper end of the valve-casing to the mouth of the bottle.

In the mouth of the bottle is arranged an interior collar E, which is made integral with a sleeve E', that is attached by its upper outwardly and downwardly folded portion to the exterior rim of the bottle-mouth and which may be made of aluminium or other suitable light metal and cemented to the bottle-mouth. The sleeve at the top of the collar forms a seat for the cork, while the collar itself serves for preventing the forcible removal of the valve-casing from the bottle, so as to effect the refilling of the same.

The attachment can be readily applied to the bottle-neck, the valve-casing by cementing it into the lower contracted portion of the bottle-neck and the collar in the manner described.

The parts can be manufactured at a small expense and attached to the bottle-neck be-

fore the same is filled with the liquid and corked.

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

In a non-refillable bottle, the combination, with the bottle proper, of a valve-casing supported in the neck thereof and provided with openings in its side wall, said casing being closed at the top, a cage within said casing provided with openings registering with said first-named openings, said cage being open at its upper end, a layer of sound-deadening ma-

terial interposed between the top of said casing and the top edge of said cage, a valve-seat carried by said cage, and a ball within said cage adapted to cooperate with said valve-seat.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GEORGE ROMMEL.

Witnesses:

PAUL GOEPEL,

HENRY J. SUHRBIER.