

J. PILLIG.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAR. 4, 1912.

1,035,900.

Patented Aug. 20, 1912.

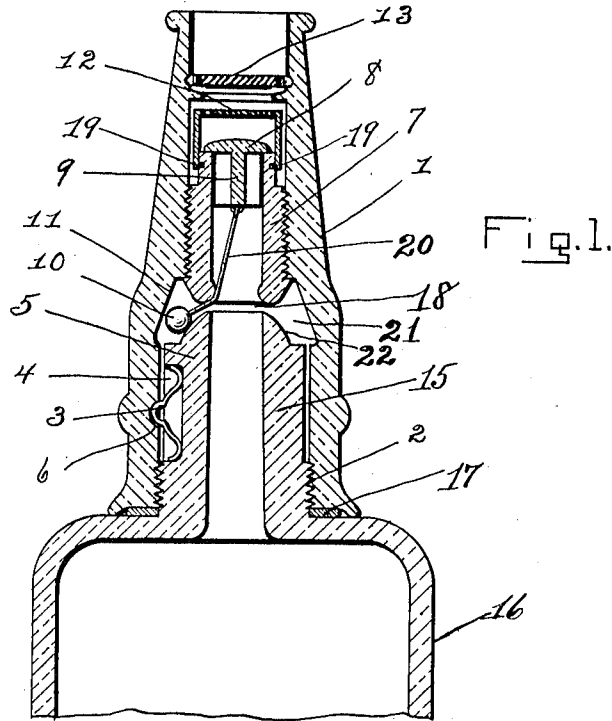


Fig. 2.

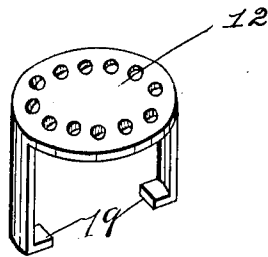
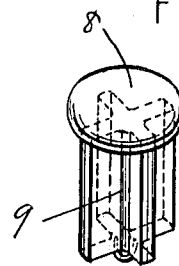


Fig. 3.



WITNESSES:

J. E. Donobach.
J. R. A. Leauc.

INVENTOR

John Pillig,

BY

Frank C. Curtis,

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN PILLIG, OF AMSTERDAM, NEW YORK.

NON-REFILLABLE BOTTLE.

1,035,900.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed March 4, 1912. Serial No. 681,345.

To all whom it may concern:

Be it known that I, JOHN PILLIG, a citizen of the United States, residing at Amsterdam, county of Montgomery, and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a central vertical section of the neck-end of a non-refillable bottle embodying my invention. Fig. 2 is a view in perspective of the perforated inner guard for the valve. Fig. 3 is a view in perspective of the valve detached.

The principal object of the invention is to prevent or render impracticable the refilling of a bottle.

Referring to the drawing wherein the invention is shown in preferred form, 1, represents a cap screwed at, 2, upon the neck, 15, of a bottle 16. A spring-catch, 3, is located in a niche, 4, in the outside of the neck of the bottle, and is adapted to spring into a niche, 6, in the inner wall of the cap when the cap has been screwed down to its proper position in engagement with the packing-ring 17. The springing of the catch, 3, into the niche, 6, locks the cap and neck of the bottle to prevent relative rotative movement thereof. A valve-case, 7, is screwed into the cap, 1, leaving a narrow space, 18, between the outer end of the neck of the bottle and the inner end of the valve-case. The valve, 8, seats upon the outer end of the valve-case, and has a skeleton stem, 9, adapted to play within a central opening in the valve-case. The valve is protected by an inner perforated guard, 12, having hook-shaped arms, 19, seated in niches in the outside of the valve-case, and an outer apertured guard, 13, sealed or molded in the outer end of the cap. The valve is normally held to its seat

by means of a weighted ball, 10, connected with the valve-stem by means of a flexible link or cord, 20, which passes through the narrow opening, 18, between the neck of the bottle and the valve-case. The ball, 10, thus connected with the valve, plays in an annular chamber, 21, between similarly inclined substantially parallel walls, 11 and 22, respectively on the interior of the cap and exterior of the neck of the bottle. The ball, 10, is thus confined within the chamber, 21, outside of the path of flow of the liquid from the bottle; and, by reason of its flexible connection, 20, with the valve-stem, said ball will always engage the inclined surface, 22, on the neck of the bottle to hold the valve to its seat until the bottle has been tipped sufficiently for the ball to rest against the inclined surface, 11, on the cap. When the inclined surface, 11, on the lower side of the cap of the tipped bottle assumes a downwardly inclined position, the ball will roll or slide down the same to permit the valve to open for the escape of the contents of the bottle.

Each of the walls, 11 and 22, converges toward the outer end of the bottle, the ball being thus retained between two similarly convergent walls or surfaces.

The flexible connection, 20, being free to play in the opening, 18, the ball, 10, is free to gravitate to the lowest part of the chamber, 21, whenever the bottle is tipped.

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

1. A non-refillable bottle having a valve controlling its outlet-passage, and provided with an annular chamber surrounding said passage and communicating therewith, said chamber having inner and outer walls similarly convergent toward the outer end of the bottle; a weight confined within said annular chamber; and a flexible connection between said weight and said valve adapted to play freely in the space through which said chamber communicates with said outlet passage.

2. The combination with a bottle having a neck formed with a convergent surface on its outer end; a cap secured upon the neck of the bottle, and having an interior surface

convergent toward the outer end of the bottle; a valve-case secured within the cap, with a free space between said valve-case and the outer end of the neck of the bottle; a valve;
5 a weight confined in the space between said convergent surfaces; a flexible connection between said weight and said valve adapted to play in said free space between the valve-case and outer end of the neck of the bottle;

and a guard located within said cap outside 10 of said valve.

In testimony whereof, I have hereunto set my hand this 28th day of February, 1912.

JOHN PILLIG.

Witnesses:

JOHN P. FITZGIBBON,
WILLIAM H. POTTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
