

C. SEIDLER.
NON-REFILLABLE BOTTLE.
APPLICATION FILED APR. 24, 1911.

999,886.

Patented Aug. 8, 1911.

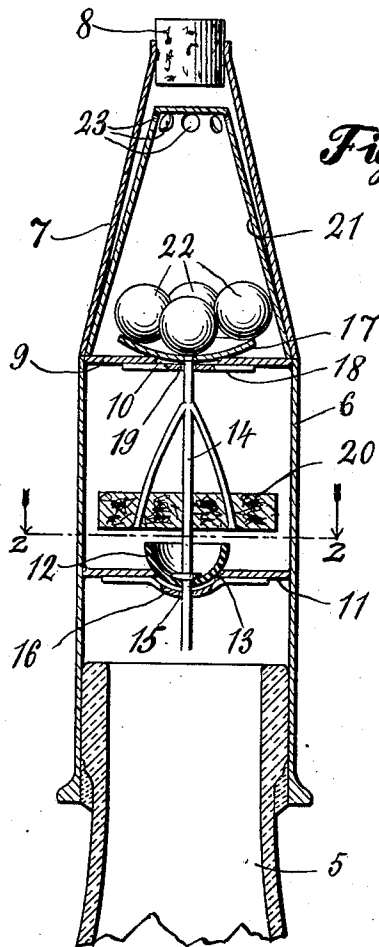


Fig. 1.

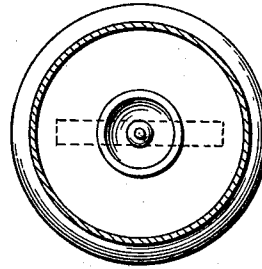


Fig. 2.

Witnesses

E. Larson
Matthews

Inventor

Christopher Seidler

By *Wm. H. Thompson* Esq.

Attorney.

UNITED STATES PATENT OFFICE.

CHRISTOPHER SEIDLER, OF STAUNTON, ILLINOIS.

NON-REFILLABLE BOTTLE.

999,886.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed April 24, 1911. Serial No. 622,955.

To all whom it may concern:

Be it known that I, CHRISTOPHER SEIDLER, a citizen of the United States, residing at Staunton, in the county of Macoupin and State of Illinois, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to that class of non-refillable bottles in which the bottle neck is provided with a valve mechanism which prevents filling of the bottle after said mechanism is applied to the bottle neck, but which permits the contents of the bottle to be freely poured out.

It is the object of the present invention to provide an improved mechanism of the kind stated which will effectually prevent refilling of the bottle even though it should be inverted and submerged in the liquid.

A further aim of the invention is to provide an improved form of valve guard to prevent access to the valve, and thereby prevent the same from being held off its seat.

Further objects and advantages will be pointed out in the detailed description appearing hereinafter.

In the accompanying drawing forming a part of this specification—Figure 1 is a vertical section showing the application of the invention. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

Referring specifically to the drawing, 5 denotes the neck of an ordinary bottle.

The casing of the valve mechanism which forms the subject of the present invention is a cylindrical cap 6 which is slipped over the mouth of the bottle neck and cemented or otherwise fastened thereto. The upper portion of this cap is made conical, as indicated at 7, and left open to permit the escape of the contents of the bottle, a cork or other stopper 8 being provided to close the opening.

On the inside of the cap, at the base of the conical portion, is a horizontal partition 9 having a central opening 10. The cap also contains a partition 11 which is located below the partition 9, between the latter and the mouth of the bottle neck, which latter is left open.

Above the partition 11 is located a valve 12 which is adapted to seat downwardly into a central opening 13 located in the center of said partition. This valve is formed of

rubber and is cup-shaped so that it may seat snugly in the opening. The valve is carried by a stem 14 passing downwardly through the opening 13 and through a guide opening 15 made in a cross bar 16 located below said opening 13. The valve stem also extends upwardly a sufficient distance to pass through the opening 10, and above said opening it carries a valve disk 17 adapted to seat thereover. Below the opening 10 is located a cross bar 18 having a guide opening 19 through which the valve stem extends.

Between the valves 12 and 17 the stem 14 thereof carries a float 20 which may be a cork disk as shown.

From the partition 9 rises a conical hood 21, said hood extending into the conical portion 7 of the valve casing, and inclosing the valve 17. The hood also incloses a number of spheres 22 which serve as weights to hold the valve 17 closed.

The side walls of the hood 21 are spaced from the walls of the conical portion 7 of the valve casing, and in said side walls, near the top thereof, are apertures 23 to permit the escape of the liquid contents of the bottle when the same is inverted.

The operation of the herein described valve mechanism is as follows: The bottle will be filled before the valve casing and the parts carried thereby are applied. The valve casing is cemented or otherwise rigidly fastened to the bottle neck as already described. When the bottle is in upright position the spheres 22 lie on the valve disk 17 and hold the same in closed position. The valve 12 is also held closed. To pour out the contents of the bottle, the latter is inverted as usual, whereupon the spheres 22 roll off the valve 17 and the latter, as well as the valve 12, is permitted to open, whereupon the liquid flows out of the bottle through the openings 15 and 10 and the apertures 23. When the bottle is returned to upright position the spheres 22 roll back on the valve 17 and close the same as well as the valve 12. If an attempt is made to refill the same by inverting the same and submerging it in liquid, the float 20 will rise and close the valves. The hood 21 and the location of the apertures 23 therein effectually prevent access to the spheres 22 and they are therefore not accessible for the purpose of holding them off the valve 17.

I claim:

The combination with a bottle; of a cylindrical cap fixed to the neck of the bottle over the mouth thereof, and having an upper
5 conical portion provided with an outlet, a partition in the cap at the base of the conical portion, a second partition in the cap below the first-mentioned partition and above the mouth of the bottle, said partitions having
10 valve openings, valves seating over said openings, a stem connecting the valves, a float carried by the valve stem between the partitions, a conical hood rising from the

first-mentioned partition and inclosing the valve thereof, said hood having outlets and
15 terminating below the outlet of the conical portion of the cap, and weights loosely mounted in the hood and adapted to engage the last-mentioned valve to hold the same
20 and the other valve closed.

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

CHRISTOPHER SEIDLER.

Witnesses:

CHARLES R. WALL,
ADOLF WEISS.

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