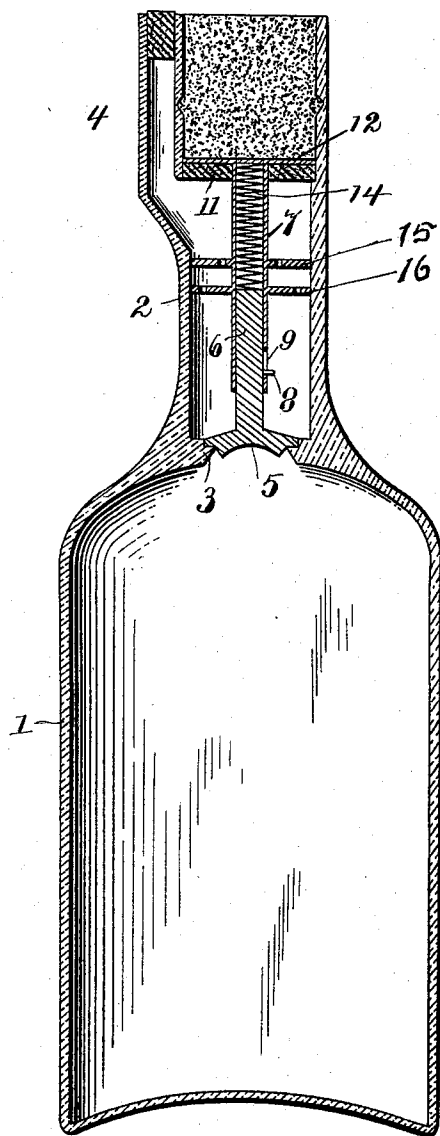


(No Model.)

A. N. WOODARD.
NON-REFILLABLE BOTTLE.

No. 604,104.

Patented May 17, 1898.



Witnesses

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UNITED STATES PATENT OFFICE.

ALVIN N. WOODARD, OF MANSFIELD, OHIO.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 604,104, dated May 17, 1898.

Application filed July 21, 1897. Serial No. 645,438. (No model.)

To all whom it may concern:

Be it known that I, ALVIN N. WOODARD, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Non-Refillable Bottles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention has relation to non-refillable bottles; and the object is to provide a simple and inexpensive bottle which cannot possibly be refilled after its contents have once been removed.

With this object in view the invention consists of certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawing I have illustrated my invention in vertical section.

1 represents the body of a bottle or other vessel, provided with a neck 2, having a valve-seat 3. One side of this neck has a by-pass 4 for a purpose to be hereinafter described.

5 denotes a valve the stem 6 of which has a sliding engagement in a tube 7, and the movement of this stem is limited by a pin 8, projecting through a slot 9 in said tube.

Mounted upon the upper end of the tube is a cork 11, and secured fixedly or integral with the extreme upper end of the tube is a metallic disk 12. The tube, with its attached valve and cork, is placed in the neck of the bottle, as shown in the drawing, and a seal of some impenetrable material, such as cement, is placed above the metallic disk and prevents the removal of the valve and connected parts.

The neck is preferably provided with an interior annular groove into which the cement will flow, thus practically forming a lock against the withdrawal of the cement in bulk.

The operation of the device is as follows: When it is desired to pour out the contents of the bottle, it is canted to one side, and the pressure of the liquid upon the spring-controlled valve will force said valve from its seat and allow the liquid to flow through the by-pass. When the bottle is righted or when the liquid has entirely escaped, the spring 14

will force the valve back to its seat, and thus prevent the refilling of the bottle.

It is of course understood that the mouth of the by-pass is provided with a stopper, which may be removed when it is desired to pour out the contents.

In order to prevent the insertion of a wire or tool through the by-pass for the purpose of removing the valve from its seat to allow of the bottle being refilled, I provide the tube with two or more disks 15 and 16, which have unalined apertures, thus rendering it impossible for a person to insert a tool or wire and tampering with the valve.

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

1. A vessel having a valve-seat in its neck, and a by-pass, a plate corresponding to the opening in the mouth of the vessel, a tube secured to said plate and projecting downwardly into the neck, a valve adapted to seat in the neck of the vessel, and provided with a guide-stem projecting upwardly within the tube, and an impenetrable packing placed in the neck of the bottle above the plate to prevent the withdrawal of the plate and valve, substantially as set forth.

2. A vessel having a valve-seat in its neck, and a by-pass, a plate corresponding to the opening in the mouth of the vessel, a tube secured to said plate and projecting downwardly into the neck, and provided with a longitudinal slot, a valve adapted to seat in the neck of the vessel and provided with a guide-stem projecting upwardly within the tube, and having a pin to engage the slot, a spring inclosed within the tube and confined between the upper end of the valve-stem and the plate, disks secured to said tube and having unalined apertures, and a packing of impenetrable material placed in the neck of the vessel above the plate to prevent the withdrawal of the tube and its connected or associated parts, substantially as set forth.

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

ALVIN N. WOODARD.

Witnesses:

BENJ. G. COWL,
CLARENCE H. MAYER.