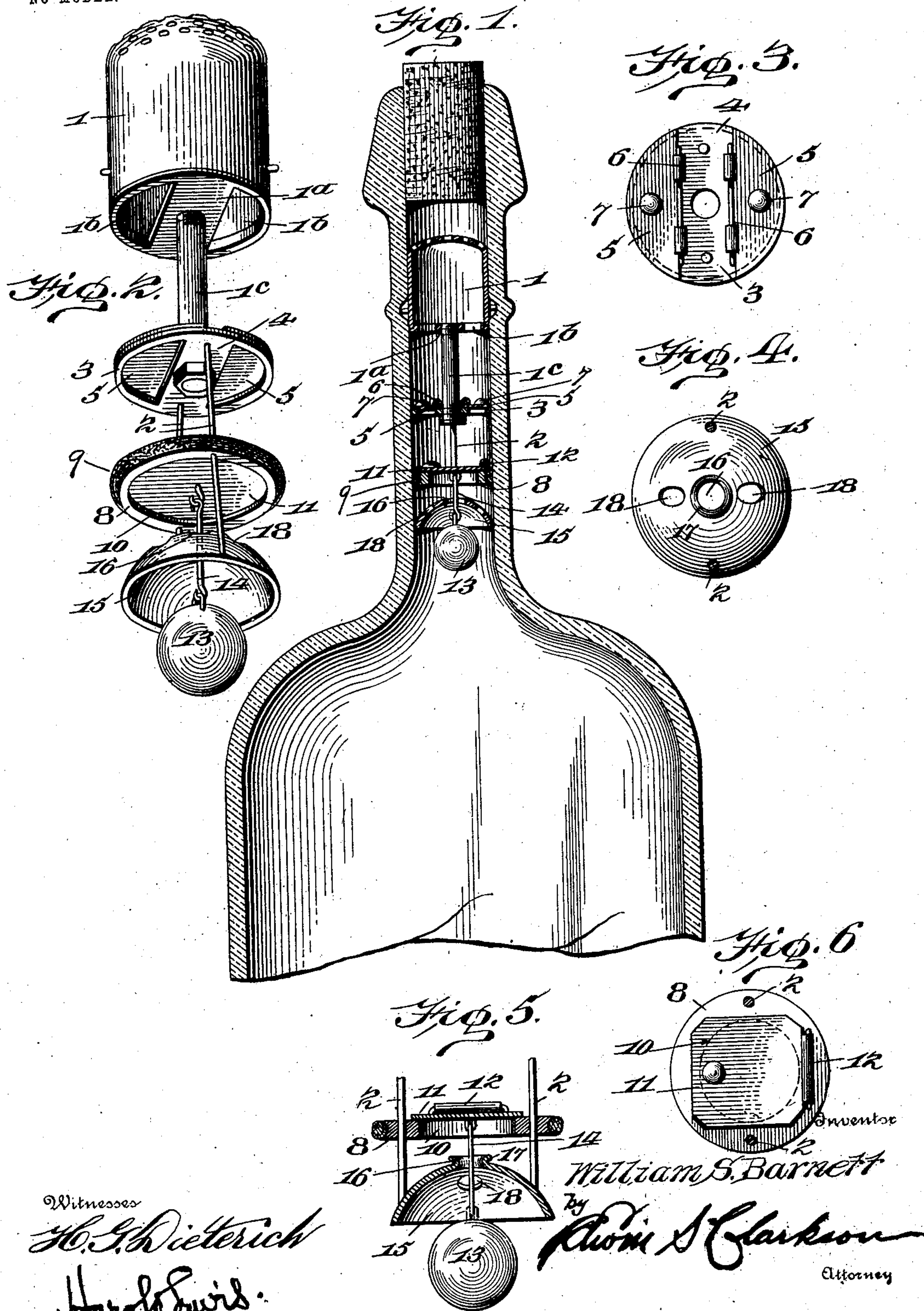


No. 744,675.

PATENTED NOV. 17, 1903.

W. S. BARNETT.
NON-REFILLABLE BOTTLE.
APPLICATION FILED NOV. 19, 1902.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM S. BARNETT, OF JACKSONVILLE, FLORIDA, ASSIGNOR TO NON-REFILLABLE BOTTLE AND CORK COMPANY, OF JACKSONVILLE, FLORIDA, A CORPORATION OF FLORIDA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 744,675, dated November 17, 1903.

Application filed November 19, 1902. Serial No. 131,956. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. BARNETT, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to non-refillable bottles of the type shown in my application Serial No. 126,333; and it consists of certain improvements in the construction therein shown, the object of which is to simplify the construction and add to its effectiveness; and with these objects in view my invention consists of the parts and combinations of parts, as will be hereinafter more fully pointed out.

In the drawings, Figure 1 is a central vertical sectional view of a bottle with my invention applied. Fig. 2 is a perspective view of my invention detached. Fig. 3 is a top plan view of the upper valves detached. Fig. 4 is a similar view of the guide. Fig. 5 is an enlarged detail section of the lower valve, and Fig. 6 is a top plan view of the lower valve.

1 represents a cap perforated at its top and suitably secured in the neck of the bottle. This cap is provided with transverse piece 1^a at its bottom, on each side of which are liquid-openings 1^b.

1^c is a standard depending from the cross-piece 1^a.

3 is a disk secured to the depending standard 1^c and constructed with suitable openings which are separated by a cross-piece 4, the standard 1^c being secured in an opening formed in said cross-piece 4.

2 represents standards depending from the disk 3, as shown in the drawings.

5 represents flap-valves hinged at 6 to cross-piece 4, said valves being provided with weights 7 to insure their closing when the bottle in which they are inserted is standing erect.

8 is a second or lower disk secured to the standards 2, the periphery of which is concaved, in which is secured a piece of cork or other suitable material 9 to insure an air and liquid tight joint between the disk and the neck of the bottle in which it is inserted.

This disk 8 is provided with an enlarged opening 10.

11 is a trap or flap valve hinged at 12 to the disk 8, entirely closing the opening 10 when in closed position.

13 is a ball or suitable weight suspended by means of a wire 14 from the valve 10 at a point that will insure the closure of the valve.

15 is a semispherical or cup-shaped guide suspended from the ends of the standards 2, having a central opening 16, around which may be formed an annular outwardly-flaring flange 17, the object of which will be hereinafter set out. This guide is also provided with openings 18, through which liquid may flow. The guide may be of a diameter equal to or less than that of the neck of the bottle, as preferred.

The parts being assembled as shown in Fig. 1, all valves are closed. As soon as the bottle is held in pouring position the valves immediately open to permit of the free passage of the liquid; but the instant the flow is discontinued, by reason of the contents of the bottle being exhausted, the valve 11, under the influence of the weight 13, will instantly close, from which it will be seen that liquid cannot enter into the bottle no matter in what position it is held. This has been demonstrated in a working valve constructed according to this invention. The weight is at all times in contact with the inclined sides of the cup-shaped guide except when the bottle is standing upright, and consequently has no support to hold it against the influence of gravity, and as the opening 16, with its flange, provides a very smooth bearing-face for the wire 14 the movements of the weight are not retarded in any manner. The cork secured around the periphery of the disk 8 prevents the ingress of air or liquid into the bottle.

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

1. In a non-refillable bottle, the combination with a cap secured in the neck of the bottle, flap-valves in said neck, and a weighted trap-valve secured in the said neck below the flap-valves.

2. In a non-refillable bottle, the combination with a cap secured in the neck of the bot-

tle, flap-valves in said neck, a trap-valve secured below the flap-valves and a weight suspended from the trap-valve.

3. A valve for a non-refillable bottle, comprising a cap, flap-valves below the cap, a trap-valve below the flap-valves, a weight suspended from the trap-valve, and a guide for said weight.

4. A valve for a non-refillable bottle, comprising a cap, flap-valves below the cap, a trap-valve below the flap-valves, a weight suspended from the trap-valve, and a cup-shaped guide for said weight.

5. A valve for a non-refillable bottle, comprising a cap, flap-valves below the cap, a trap-valve below the flap-valves, a weight suspended from the trap-valve, a cup-shaped guide having an opening for said weight.

6. A valve for a non-refillable bottle, comprising a cap, flap-valves below the cap, a trap-valve below the flap-valves, a weight suspended from the trap-valve by means of a wire, a cup-shaped guide for said weight, hav-

ing an opening through which the wire extends and a flaring annular flange secured around said opening.

7. A valve for a non-refillable bottle comprising a cap, a standard depending from the cap, a disk secured to the standards below the cap, flap-valves hinged to said disk, a second disk, secured to the standards below the first-named disk, having a concaved periphery, a cork filling in said concave, a trap-valve hinged to said disk, a weight suspended from the trap-valve by means of a wire, and a cup-shaped guide for said weight secured to the lower ends of the standard, and provided with an opening through which said cord passes, and liquid-openings in said guide.

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

WILLIAM S. BARNETT.

Witnesses:

W. G. BOWDEN,
C. E. SMITH.