No. 810,481. PATENTED JAN. 23, 1906.

W. H. GARNETT.

NON-REFILLABLE BOTTLE.

APPLICATION FILED AUG. 31, 1905.

Fig. 1.

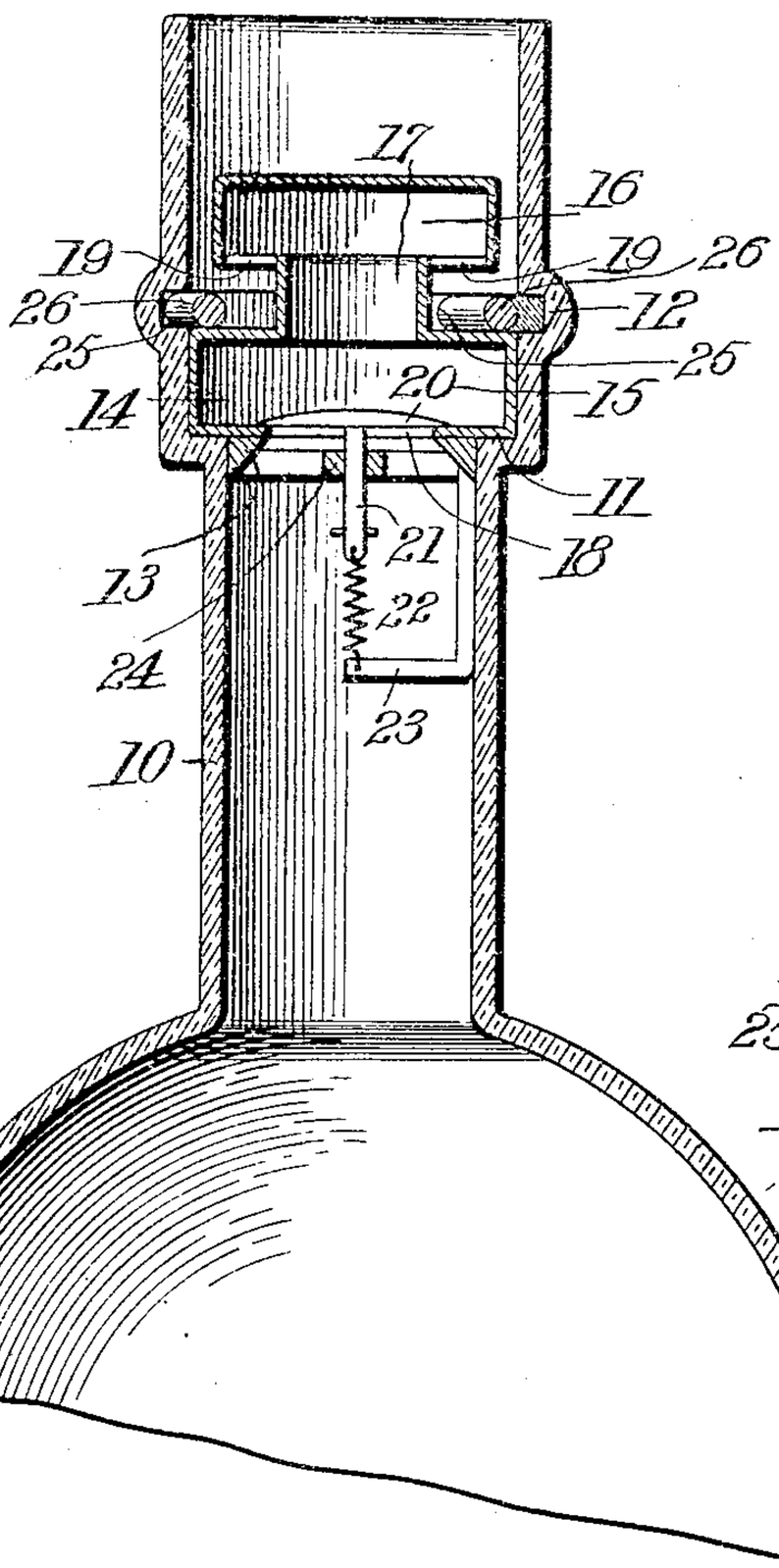


Fig. 2.

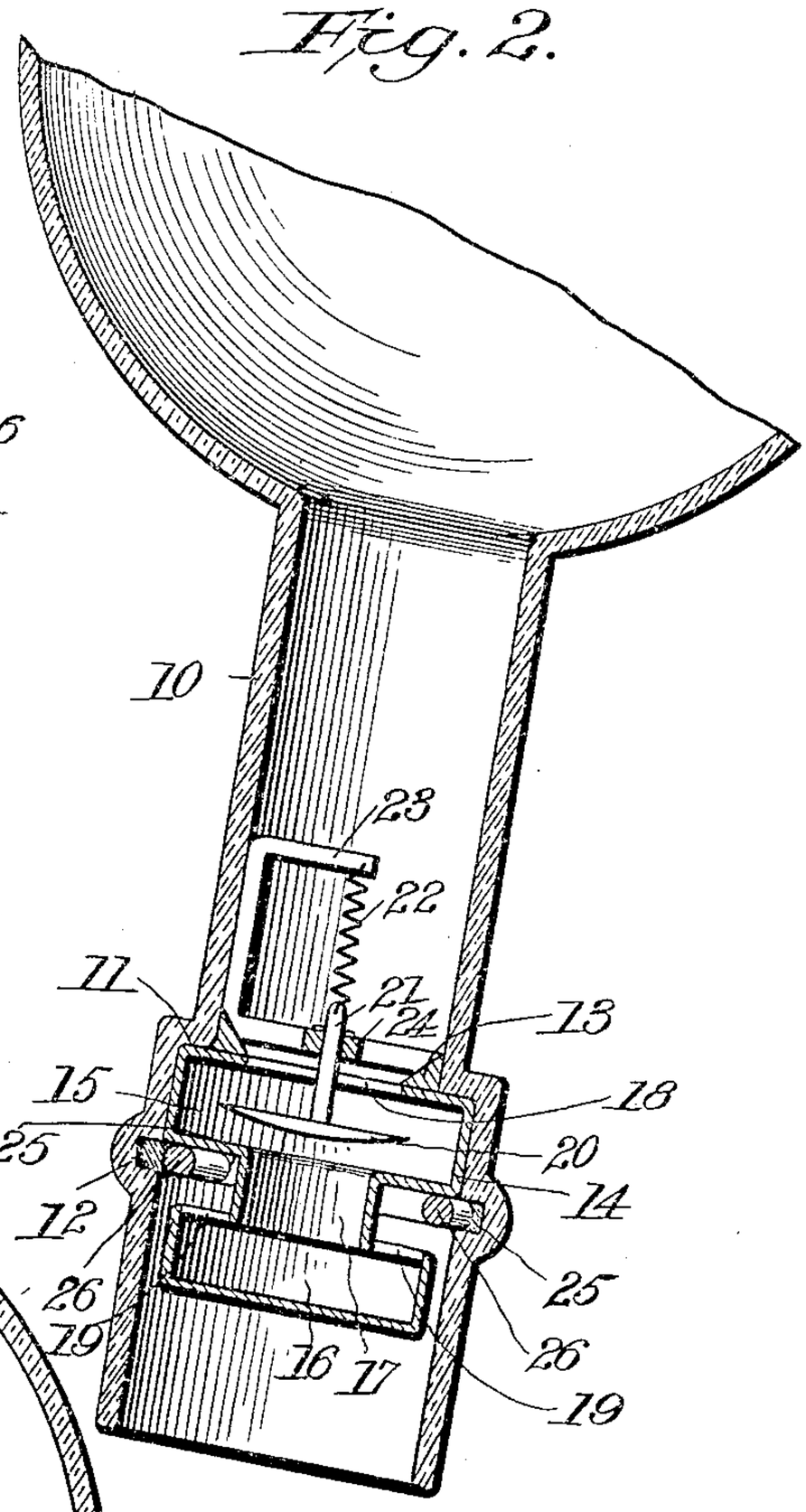
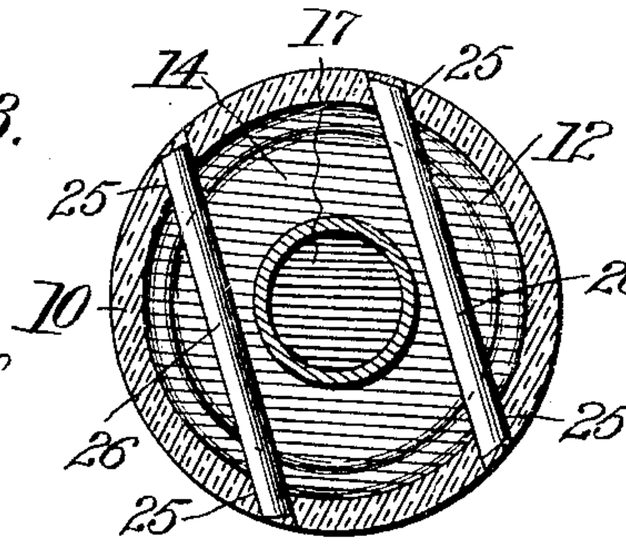


Fig. 3.



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NON-REFILLABLE BOTTLE.

No. 810,481. Specification of Letters Patent. Patented Jan. 23, 1906.

Application filed August 31, 1905. Serial No. 276,580.

To all whom it may concern:

Be it known that I, WILLIAM H. GARNETT, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to certain new and useful improvements in non-refillable bottles.

The object of the invention is to produce a bottle of this character so constructed that when once emptied of its contents it cannot be refilled without being destroyed.

A further object is to provide means whereby the valve mechanism can be readily placed in position and permanently locked against removal.

A further object is to provide means for preventing surreptitious tampering with the valve mechanism.

With these objects in view the invention will be hereinafter fully described, and particularly set forth in the claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of the neck portion of a bottle with my improved attachment applied thereto. Fig. 2 is a similar view with the bottle inverted. Fig. 3 is a transverse sectional view illustrating the locking means.

Referring to the drawings, 10 designates the neck of a bottle, the same being provided with an annular shoulder 11 and an annular offset or groove 12. Fitted within said neck and level with the shoulder thereof is an annular collar 13. The valve mechanism comprises a casing 14, provided with an annular chamber 15, adapted to fit the bore of the neck 10 and communicating with a smaller elevated annular chamber 16 by means of a centrally-located neck or passage-way 17. The bottom wall of chamber 15 is provided with an opening 18, forming a valve-seat, and openings 19 are formed in the bottom wall of the chamber 16 adjacent to and exterior of the neck or passage-way 17, whereby any liquid passing into the casing 14 may find a ready outlet when the bottle is inverted. A disk valve 20 serves to close the opening 18, said valve being provided with a depending stem 21, which is connected by a spring 22 with an arm or member 23, supported by collar 13, said spring serving to hold said valve normally seated. The valve-stem 21 is guided in its movement by means of a rod 24, spanning the bore of collar 13. The annular offset or groove 12 is provided with a plurality of holes 25, through which glass rods or pins are inserted to engage the top wall of chamber 15, said rods being cemented into position, whereby removal of the casing 14 is prevented.

In practice the bottle to which my non-refillable attachment is to be applied is first filled with the desired liquid, and then said attachment is inserted in the neck of the bottle, as shown in the drawings. It will be observed that the bottom of the casing 14 rests upon the shoulder 11 and the collar 13 and is thereby supported. The rods or pins 26 are then inserted through the openings 25 and the groove or offset 12 filled with cement. In this manner said rods or pins project over the top wall of the chamber 15 and being embedded in cement securely lock the said casing 14 in position. When it is desired to empty the bottle, the same is inverted in the usual manner, the weight of valve 20 being sufficient to overcome the tension of spring 22, whereby said valve unseats itself and allows the contents of the bottle to flow into casing 14 through the opening 18, said contents finding an exit through the openings 19. Upon reassuming the normal position the spring 22 assists valve 20 to its seat, thus preventing the entrance of any foreign substances.

The advantages of my improved non-refillable attachment are apparent. It will be particularly observed that the valve can be unseated only when the bottle assumes an inverted subtantially vertical position, thereby positively precluding the introduction of foreign liquids. It will be further noted that the top of casing 14 presents a solid unbroken surface, and by reason of the overhanging feature of the same the parts are protected from any surreptitious interference or derangement. It will also be observed that my attachment can be readily placed in position and that by cementing the locking-rods in place the attachment cannot be readily removed without destroying the bottle itself.

I claim as my invention—

1. A device of the character described comprising a casing provided with two chambers connected by a neck or contracted passage-way, the inlet for said casing being formed in one of said chambers, one of said chambers being provided with an overhanging bottom wall adjacent said neck, the outlet for said casing being formed in said bottom wall, a

valve for the inlet, and means for holding said valve normally to its seat.

2. A device of the character described comprising a casing provided with two circular chambers of different diameters, connected by a neck or contracted passage-way, the smaller chamber being provided with an overhanging bottom wall, the inlet for said casing being formed in the larger chamber, the outlet therefor being formed in the bottom wall of the small chamber adjacent said neck, a valve for said inlet, and means for holding said valve normally to its seat.

3. A device of the character described comprising a casing formed of two chambers connected by an integral neck, the inlet for said casing being formed in one of said chambers in line with said neck, the other casing being provided with an overhanging bottom wall surrounding said neck and in which the outlet for said casing is formed, a valve for said inlet, and means for holding said valve normally to its seat.

4. The combination with a bottle the neck of which is provided with an annular shoulder, of a casing formed of two chambers of different diameters united by a neck or contracted portion, the larger chamber resting upon said shoulder, the inlet for said casing being formed in the larger chamber and the outlet being formed in the smaller chamber, a valve for said inlet, and means for holding said valve normally to its seat.

5. The combination with a bottle the neck of which is provided with a plurality of holes or openings, of a casing located in said neck and formed of upper and lower communicating chambers, said casing being provided with an inlet and an outlet, rods or pins inserted through said openings and engaging the top wall of said lower chamber, a valve for said inlet, and means for holding said valve normally to its seat.

6. The combination with a bottle the neck of which is provided with an annular shoulder and an annular groove or offset the outer wall of which is provided with a plurality of holes or openings, of a casing resting upon said shoulder and formed of upper and lower communicating chambers, said casing being provided with an inlet and an outlet, rods or pins passed through said holes or openings and engaging the top wall of said lower chamber, a cement filling for said groove or offset, a valve for said inlet, and means for holding said valve normally to its seat.

7. The combination with a bottle the neck of which is provided with an annular shoulder, of a collar arranged adjacent said shoulder, a casing resting upon said shoulder and collar and formed of upper and lower communicating chambers, said casing being provided with an inlet and an outlet, means for locking said casing in position, a valve for said inlet provided with a depending stem, an arm or member depending from said collar, and a spring connecting said arm or member and said valve-stem.

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

WILLIAM H. GARNETT.

Witnesses:

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E. C. WAYMAN.