

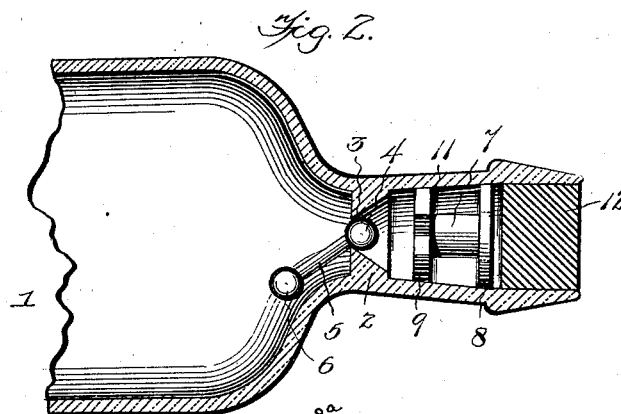
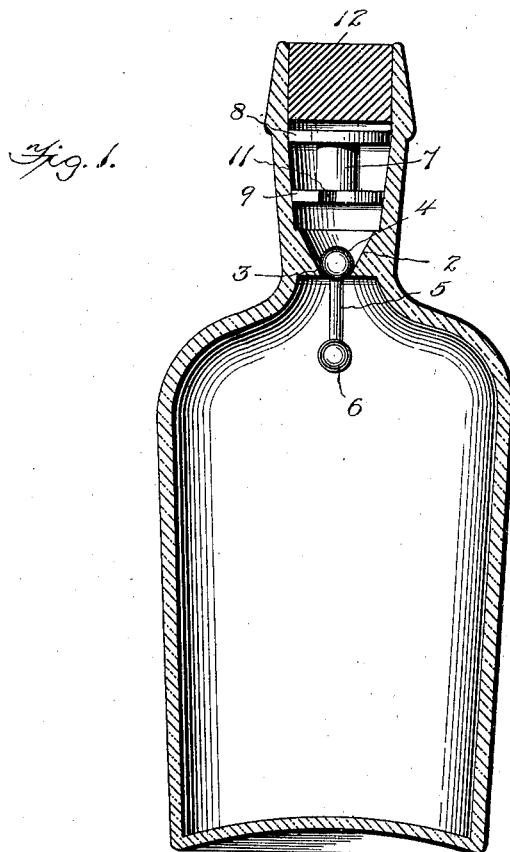
No. 647,330

Patented Apr. 10, 1900.

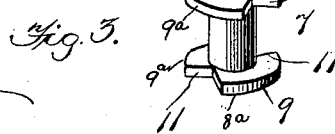
H. SEELINGER.
NON-REFILLABLE BOTTLE.

(Application filed Oct. 12, 1899.)

(No Model.)



Witnesses
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Ed Bradford.



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UNITED STATES PATENT OFFICE.

HENRY SEELINGER, OF NORFOLK, VIRGINIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 647,330, dated April 10, 1900.

Application filed October 12, 1899. Serial No. 733,389. (No model.)

To all whom it may concern:

Be it known that I, HENRY SEELINGER, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to non-refillable bottles, the object being to provide simple and inexpensive means for effectively preventing the introduction of liquid into a bottle, but permitting the ready discharge of liquid therefrom.

The invention consists of the combination, with a bottle, of a weighted valve and a plug of novel construction located in the bottle-neck.

A characteristic of the present invention is that I avoid the employment of springs or other elements of construction which are liable to corrode or to render the valve devices complicated or cumbersome.

The construction of the invention will be fully described hereinafter in connection with the accompanying drawings, which form a part of this specification, and its novel features will be defined in the appended claim.

In the drawings, Figure 1 is a central vertical section of a bottle constructed in accordance with my invention and provided with my improved means for preventing refilling. Fig. 2 is a central sectional view of a portion of a bottle provided with my improvements and tilted to illustrate the operation of the weighted valve, and Fig. 3 is a view in perspective of the improved plug detached.

The reference-numeral 1 designates a bottle provided at or adjacent to the lower end of its neck with an annular flange 2, preferably formed integral with the bottle-neck and having its upper surface hollowed out or concaved to form a seat 3 for a spherical valve 4. This valve 4 is connected by a rigid rod or stem 5, which depends through the bottle-neck, with a weight 6, which tends to main-

tain the valve 4 upon its seat when the bottle is in its normal vertical position and also when the bottle is tilted, as shown in Fig. 2.

I preferably construct the valve 4, weight 6, and their connection 5 of glass in a single piece, thus avoiding the employment of metal or other corrosive material.

7 designates a plug of cylindrical form adapted to be supported within the bottle-neck above the flange 2, the inner surface of the neck being slightly tapered, so that the plug will be supported therein by the frictional contact therewith of the peripheries of its flanges. This plug is also preferably made of glass, and it is provided at both its top and bottom with an annular horizontal flange, (designated by the reference-numerals 8 and 9, respectively.) Each of these flanges is formed with diametrically-opposite slots or recesses 10 and 11, the slots 10 of the upper flange 8 being out of vertical alinement with the slots or openings 11 of the lower flange 9. The result of this construction and disposition of the slots is that it is impossible to raise the valve 4 from its seat by the introduction of a wire or implement through the slots or openings 10 of the upper flange, as the wire or implement so introduced would strike the solid imperforate part of the lower flange, the openings 11 in the latter not being alined with those of the upper flange 8. Each of the flanges 8 and 9 is formed with diametrically-opposite bearing-surfaces 8^a and 9^a, adapted to frictionally engage the inner surface of the bottle-neck, thus avoiding the employment of auxiliary means for sustaining the plug in position. The peripheral edges of the flanges 8 and 9 are roughened or ground to insure a tight frictional contact between them and the inner surface of the bottle-neck, and the flanged glass plug 7 is located within the bottle-neck a sufficient distance below the upper end thereof to leave room for the insertion of the usual cork stopper 12 in the mouth of the bottle.

The operation of the devices when constructed as above described is as follows: When the bottle is tilted sufficiently to raise the valve 4 from its seat, the contents of the bottle may be readily decanted, the liquid finding its way through the openings 11 and 10. As soon as the bottle is turned back to

its vertical position or even to an inclined position the valve automatically seats itself, thus preventing the introduction of liquid into the bottle.

5 I claim—

The combination with a bottle-neck tapered on its inner surface, and provided near its lower end with a valve-seat; of a spherical valve fitting said seat: a rod or stem depend-
10 ing from said valve, a weight at the lower end of said rod or stem, and a glass plug located above said valve-seat and provided with integral horizontal flanges each having diamet-

rically-opposite ground or roughened peripheral bearing-surfaces which frictionally en- 15
gage the inner surface of the bottle-neck and peripheral recesses between said bearing-surfaces, the recesses of one flange being out of vertical alinement with those of the other.

In testimony whereof I affix my signature 20
in presence of two witnesses.

HENRY SEELINGER.

Witnesses:

FLORIAN S. THOLL,
J. WM. WOLF.