

No. 863,918.

PATENTED AUG. 20, 1907.

J. R. HALL.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED SEPT. 24, 1906.

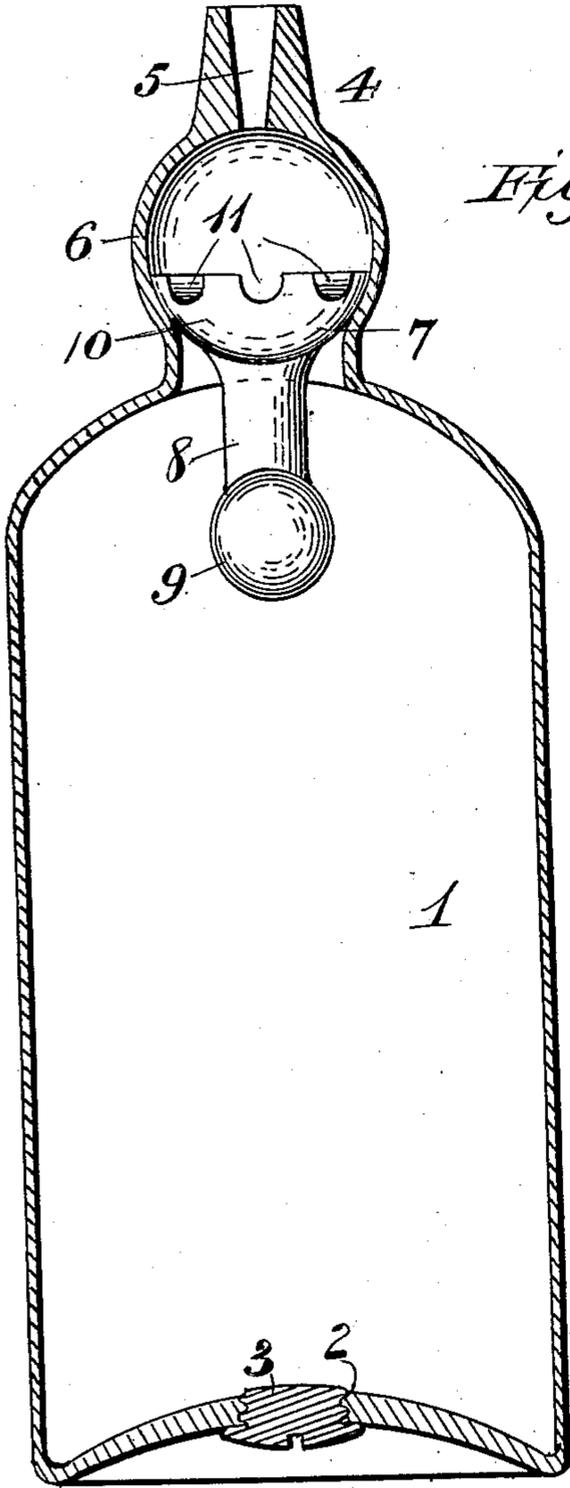


Fig. 1.

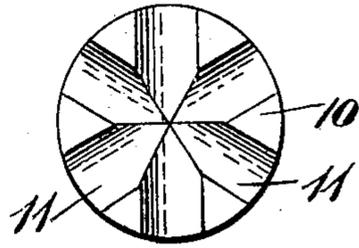


Fig. 3.



Fig. 4.

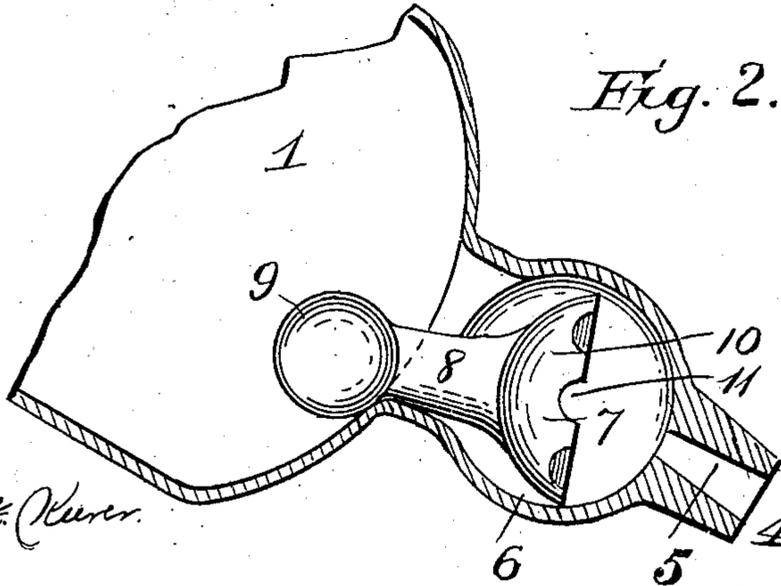


Fig. 2.

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# UNITED STATES PATENT OFFICE.

JOHN R. HALL, OF FOREST GROVE, OREGON, ASSIGNOR OF ONE-HALF TO ROBERT J. GINN, OF  
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## NON-REFILLABLE BOTTLE.

No. 863,918.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed September 24, 1906. Serial No. 335,971.

To all whom it may concern:

Be it known that I, JOHN R. HALL, a citizen of the United States, residing at Forest Grove, in the county of Washington and State of Oregon, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to improvements in bottle-valves, more commonly what are styled as non-refillable bottles. Its object is, primarily, to prevent the unauthorized refilling of the bottle and yet permit the unobstructed or ready out-pouring or discharge of its contents, and to carry out these ends in a simple, economic and effective manner.

Said invention consists of certain structural features substantially as hereinafter fully disclosed and specifically claimed.

In the accompanying drawing illustrating the preferred embodiment of my invention—Figure 1 is a sectional elevation thereof. Fig. 2 is a broken detailed sectional view of the device, as in the act of pouring or discharging its contents. Fig. 3 is a plan view of the valve or float removed from the bottle-neck. Fig. 4 is a disassembled view of the plug insertible in the bottle-bottom.

In the practice of my invention I employ a bottle or vessel 1 preferably adapted to be filled through an orifice 2 in its bottom, which is closed by a screw-threaded plug 3 having a flange fitting flat upon the bottle-bottom and which is liquid-tight sealed or cemented after the filling of the bottle, as presently disclosed. Said bottle or vessel has its neck-portion 4 produced with a preferably narrow slender pouring passage 5 tapering inward to a contracted inner end, to guard against tampering, by the insertion therein of a piece of wire, with the float or valve hereinafter described. Also, said neck portion is blown or produced below said passage with a practically globular or spherical chamber 6 which is designed in connection with its preferably spherical outline, to permit the liquid or contents of the bottle, in pouring the same, to freely pass or flow by the valve or float as will be readily seen by reference to Fig. 2.

A float or valve 7, having an inward-extended stem-portion 8 depending or extending within the bottle proper and terminating at its inner end in an enlargement or weight 9 has its outer end formed into a practically hemispherical or flared enlargement 10 constituting the valve proper and adapted to be seated within the lower or inner portion of the chamber 6 for closing

that end of the bottle-neck passage not only when the bottle is in upright position but also when canted or tilted. This results by reason of the superficial area of the hemispherical or flared portion 10 of the valve 7 accommodating itself to the bottom of the chamber 6 and by its overlying the lower end opening of the bottle-neck passage as said valve relatively shifts its position to the latter when the bottle is thus tilted and by the poisoning action which takes place at that time of the weighted stem-portion of said valve, pivoting upon the angle formed at the juncture of the bottle-neck and its body-portion as will be readily appreciated. The valve 7 also has its enlargement 10, forming the valve proper as before stated, provided in its upper edge with recesses or notches 11 opening laterally and out through the upper end thereof and thus adapted to form passages, when the bottle is inverted as in emptying the same, and the upper notched surface of the valve is in contact with the inner end of the bottle-neck passage to permit the complete removal or draining of the bottle-contents.

In filling the bottle, it is inverted, suitable means being provided as a wire, or the like, extending up into the bottle-neck passage so as to jam or hold the valve to its seat over said passage, the outer or lower end of the wire resting upon a work-bench or board, say, the screw-plug 3 removed, and the liquid poured through the hole 2 and the bottle thus suitably filled. The screw-plug 3 is replaced and suitably sealed or cemented around its laterally extended flange, the cemented surface thus being wholly isolated or out of contact with the bottle-contents.

I claim—

A non-refillable bottle, comprising a body-portion, an integral upper end spherical portion having a flared mouth with a contracted inner end passage and a short neck-portion relatively enlarged in cross-section, and a semi-spherical valve-head seated in said upper end spherical portion of the bottle, and having a stem provided with an inner end globular enlargement serving as a weight, said stem being adapted to fulcrum upon said neck portion, with its globular portion or weight resting within said body-portion when the bottle is tilted or resting upon its side, said semi-spherical valve-head also having lateral passages for the passage therethrough of the flowing liquid bottle-contents outward.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses:

GEO. C. CLARK,  
J. L. VAN KIRK.

JOHN R. HALL.