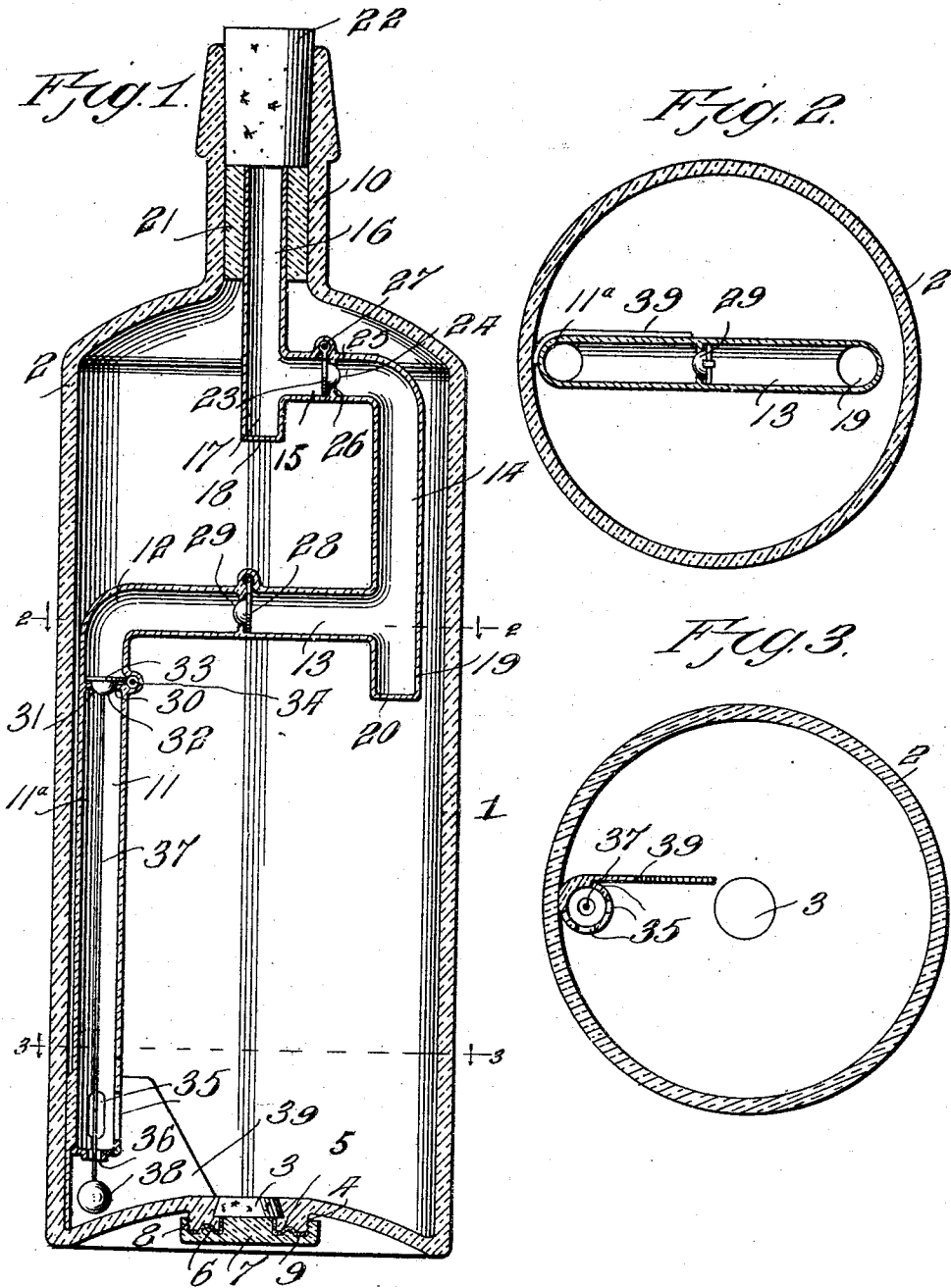


E. FERGUSON.
NON-REFILLABLE BOTTLE.
APPLICATION FILED NOV. 7, 1908.

939,238.

Patented Nov. 9, 1909.



Witnesses
Frank Hough
James A. Koebe

Inventor
Edward Ferguson
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

EDWARD FERGUSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

NON-REFILLABLE BOTTLE.

939,238.

Specification of Letters Patent.

Patented Nov. 9, 1909.

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To all whom it may concern:

Be it known that I, EDWARD FERGUSON, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to the class of bottles and jars, and more particularly of bottles of the non-refillable type, and has for an object to provide a device of this character which will be extremely simple in construction, and which will positively prevent refilling.

A further object of this invention is to provide an element of hollow form within the bottle having a plurality of oppositely movable valves, and means to prevent tampering of the said valves.

Other objects and advantages will be apparent as the nature of the invention is better set forth, and it will be understood that changes within the scope of the claims may be resorted to without departing from the spirit of the invention.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a longitudinal section through the bottle. Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1. Fig. 3 is a similar view taken on the line 3—3 of Fig. 1.

Referring now more particularly to the drawing, there is shown a bottle 1 having at its bottom a centrally located passage 2 adapted to receive a plug 3. Surrounding the said passage is shown a depending threaded boss 4 having a concavity 5 to receive a projection or rib 6 upon a stopper 7. The stopper, as shown, is provided with an internally threaded flange 8 for engaging the threads of the nipple upon the boss 4. Cement or the like is disposed between the boss 4 and portions of the cap as indicated at 9 and prevents removal of the cap after it has been once positioned. The bottle may otherwise be constructed in the ordinary manner and is provided with the usual neck 10. A hollow element is located longitudinally of the bottle and is preferably formed from a single piece of material and may be transparent if desired. The said element is preferably in the form of a tube 11 having a curved upper portion 12 which connects a horizontally disposed portion 13. From the

portion 13, the tube is extended upwardly in a vertical plane as indicated at 14 and is curved into a horizontally disposed portion 15 arranged in parallel spaced relation to the portion 13. A short vertical portion 16 connects the portion 15 and communicates therewith but is extended slightly below the same as shown at 17 and is closed at its bottom as indicated at 18. The portion 14 is extended below the portion 13 as indicated at 19 and is closed at its bottom at 20. The portion 16 is extended partly into the neck 10 and is surrounded by a plug 21 of cement or any suitable material and, as shown, the upper end of the said portion 16 is closed by a cork 22. The portion 15 of the said hollow element is provided with a valve 23 disposed in a vertical plane and has a semi-spherical element 24 engaged normally with a seat 25 formed in a partition 26. The said valve is hinged at 27 and opens in one direction. The portion 13 of the said hollow element is provided with a valve 28 adapted to close against a seat 29 and in other respects the said last named valve is identical in construction to the valve 23. The tube 11 in the portion 11^a thereof is provided with a partition 30 having a valve seat 31 adapted to receive semi-spherical portions 32 of a valve 33 hinged as shown at 34 and is adapted to assume normally a horizontal position to close the same. The portion 11^a of the tube is provided with a plurality of discharge slots 35, and at the bottom the said portion 11^a is provided with a passage 36 to receive the depending rod 37 of the valve 33. The rod 37 carries at its lower end a spherical weight 38 as clearly shown in Fig. 1 of the drawing. It is desirable to provide a liquid deflector 39 connecting the bottom of the bottle with the bottom of the portion 11^a of the hollow element or tube.

It will be seen that by hingedly connecting the valves in the manner herein shown and described they will normally assume a closed position and the said valves open in opposite directions and effectively prevent the entrance of liquid into the bottle by way of the neck 10 but, as will be readily understood when the bottle is inverted the liquid will tend to open the said valve to allow the contents of the bottle to be discharged. By providing the depending portions 17 and 19 it will be seen that should an attempt be made to tamper with the valves by means of a wire or the like the same will not be di-

rected directly into the portions 13 and 26 of the hollow element or tube but will be directed into the said depending portions 17 and 19 respectively.

5 I claim:—

10 A bottle having a hollow tubular element provided with a portion disposed in the neck of the bottle, said element having horizontally disposed portions and also provided
15 with vertical portions connected with said horizontal portions and communicating therewith, a horizontally disposed hingedly connected valve in one of the vertical portions, vertically disposed oppositely swinging valves in the horizontal portions, said
element having inlet passages communicat-

ing with the interior of the bottle adjacent to the bottom thereof, a depending weighted rod carried by the horizontally disposed valve, the horizontal portions of said element being disposed slightly above the lower ends of the vertical portions, and a liquid deflector disposed adjacent to the inlet passages and formed integral with one of the vertical portions of said element. 20

In testimony whereof I affix my signature in presence of two witnesses. 25

EDWARD FERGUSON.

Witnesses:

W. G. MAYER,
WM. FLAMMER.