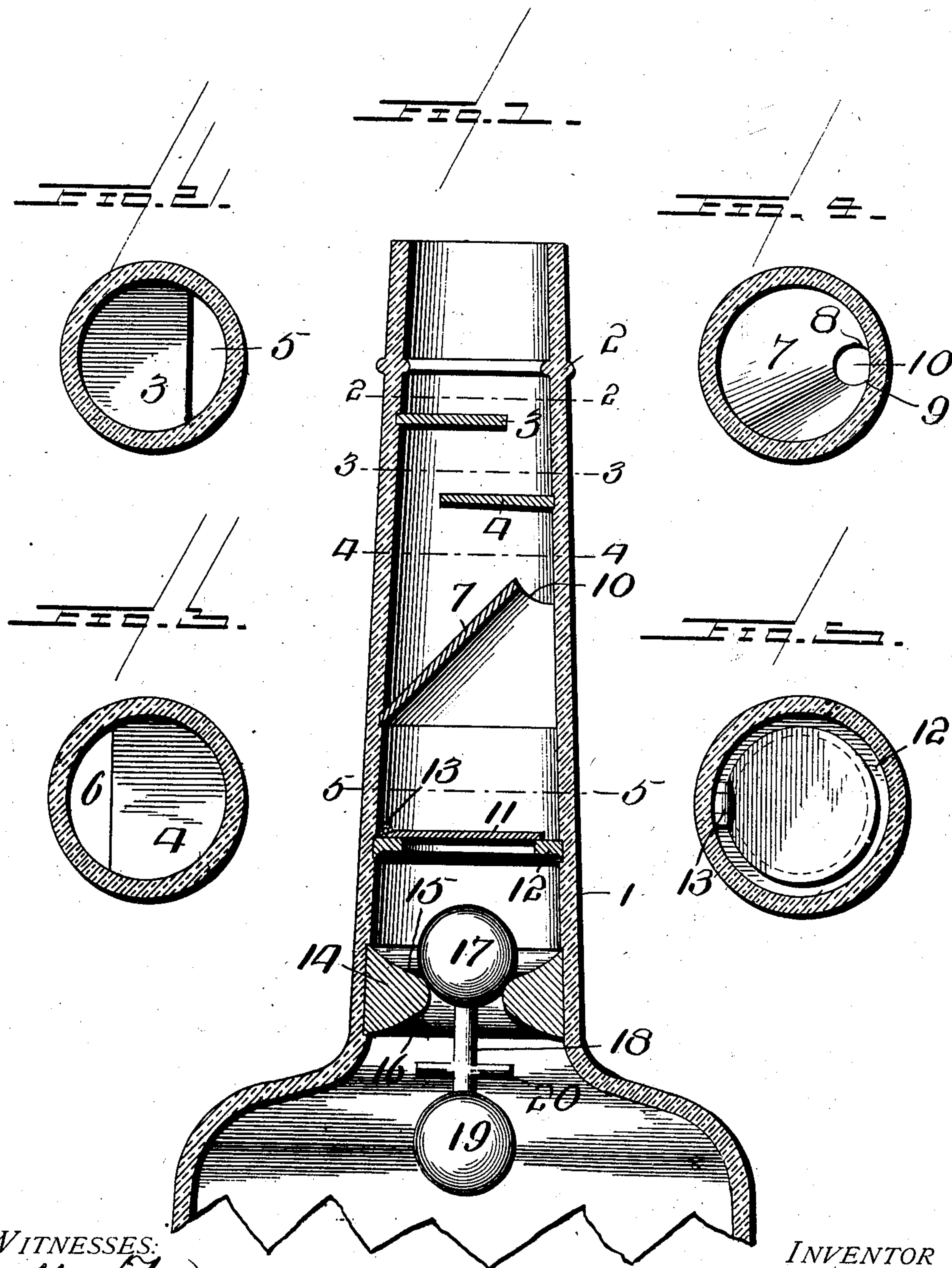


No. 754,365.

PATENTED MAR. 8, 1904.

M. G. DELANEY.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAR. 18, 1903.

NO MODEL.



WITNESSES:

Wm. F. Doyle

Henry H. Chapman

INVENTOR

Michael G. Delaney.

BY

George B. Shepard Attorney

UNITED STATES PATENT OFFICE.

MICHAEL G. DELANEY, OF OGDENSBURG, NEW YORK, ASSIGNOR TO
EDGAR A. NEWELL, SIDNEY W. SMITH, AND RICHARD E. FITZ
GERALD, OF OGDENSBURG, NEW YORK.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 754,365, dated March 8, 1904.

Application filed March 16, 1903. Serial No. 148,111. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL G. DELANEY, a citizen of the United States, residing at Ogdensburg, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to bottles, and in particular to the non-refillable type, having for its object means whereby refilling of the bottle will be prevented, which will be of simple and economical construction.

The accompanying drawings illustrate an embodiment of the invention wherein the several elements constituting the invention are shown as molded or blown into the bottle-neck.

Figure 1 is a central sectional view through the bottle-neck. Fig. 2 is cross-section on line 22, Fig. 1. Fig. 3 is a cross-section on line 33, Fig. 1. Fig. 4 is a cross-section on line 44, Fig. 1. Fig. 5 is a cross-section on line 55, Fig. 1.

1 designates the bottle-neck, formed at its upper portion with the ordinary bead 2.

3 and 4 are fixed projections, which may be either inclined or horizontal, extending inwardly in opposing directions and arranged above one another with an intervening space.

By forming these projections segmental, as shown, the chords of the arcs described provide spaces 5 6, respectively, for the passage of the fluid. At a distance below projection 4 is located a shield 7 of somewhat conoidal

form, the base of which is open and molded into the bottle-neck similar to projections 3 and 4. This shield is open at its lower portion and has its vertical sides 8 9 molded into the bottle-neck. The apex of the shield is located beneath projection 4 and is provided with an opening 10 to permit of the exhaust of the fluid. By means of this staggered arrangement of the projections and the shield a tortuous passage is formed, effectually preventing any instrument being inserted to dis-

place the valve mechanism, shortly to be referred to. Further, by reason of the inclined face of the shield, should it be possible to pass

the projections with an instrument or tool it will be deflected by the shield, and access to opening 10 will be practically impossible, owing to said opening being located beneath the point of the greatest diameter of the segment adjacent its point of securement in the bottle-neck.

The valve mechanism, as shown, embraces two independently-operating valves, either one of which may be dispensed with, it not being essential that both be employed.

The hinge or flap valve 11 seats upon a ring 12, which is molded into the bottle-neck below shield 7, being hinged to the valve-seat, as at 13.

Located below the flap-valve is the ball-valve mechanism, which consists, essentially, of a ring 14, formed with a concavity or depression 15 on its upper face to provide a valve-seat and suitably rounded on its opposing face as at 16, to accelerate exhaust of the fluid. 17 designates the ball-valve formed with a stem 18, suitably weighted at its lower portion, as at 19, the stem extending through the aperture of ring 14. In order to prevent the weight 19 from closing the aperture of the ring when ball 17 is unseated to permit decanting of the bottle contents, stem 18 is provided with a cross-bar 20, which extends outwardly from the opposing sides thereof and is positioned above weight 19, so as to prevent the latter contacting with the ring.

The functions of the projections 3 and 4 being to prevent the introduction of any mechanical means to oppose the closing of the valve beneath, it is obvious that the upper one 3 may be dispensed with, though I prefer to use both as an additional safeguard.

The function of the valves, as is well known, being to prevent refilling, it will be obvious that one of the valves may be dispensed with, since both are not prerequisite, though if deemed advisable both may be employed.

The invention as illustrated and described is susceptible of variations and alterations, and therefore the right is reserved to alter and vary the device without departing from the spirit and scope thereof—as, for instance,

instead of having the partitions, shield, and valve molded into the neck of the bottle when the latter is blown these several devices may be attached to a tube or skeleton support in
5 their relative positions to each other and such support subsequently cemented into the neck of the bottle.

Having fully described my invention, what I claim as new, and desire to secure by Letters
10 Patent, is—

1. A bottle of the type set forth, consisting of projections, a valve mechanism, and an open conoidal shield, having its upper end located adjacent the point of securement of the
15 lowermost projection.

2. A bottle of the type set forth, having an open conoidal shield located in its neck, oppositely-extending means forming a guard arranged in the neck above the upper end of the
20 shield and a controlling-valve below said shield, substantially as described.

3. A bottle of the type set forth comprising a projection crosswise of the interior of the neck of said bottle, an open conoidal shield
25 having its upper end located adjacent the point of securement of such projection, and a valve mechanism below such conoidal shield.

4. In a bottle of the type set forth, a plurality of projections formed on opposite sides of the neck thereof, and being arranged one
30 above the other, an open conoidal shield having its upper end adjacent the base of the lower of said projections, and valve mechanisms mounted below the said shield, substantially as described.

5. In a bottle of the character described, a ball-valve mounted within the neck thereof, an upwardly-opening valve mounted above the same, said neck having seats therein for the
40 said valves, an open conoidal shield secured in the neck above the last-named valve, and projections extending oppositely from the sides of the bottle-neck, the lower of said projections being secured adjacent the upper end of said shield whereby said valves are further
45 shielded, substantially as described.

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

MICHAEL G. DELANEY

Witnesses:

HENRY H. CHAPMAN,
GEORGE B. SHEPARD.