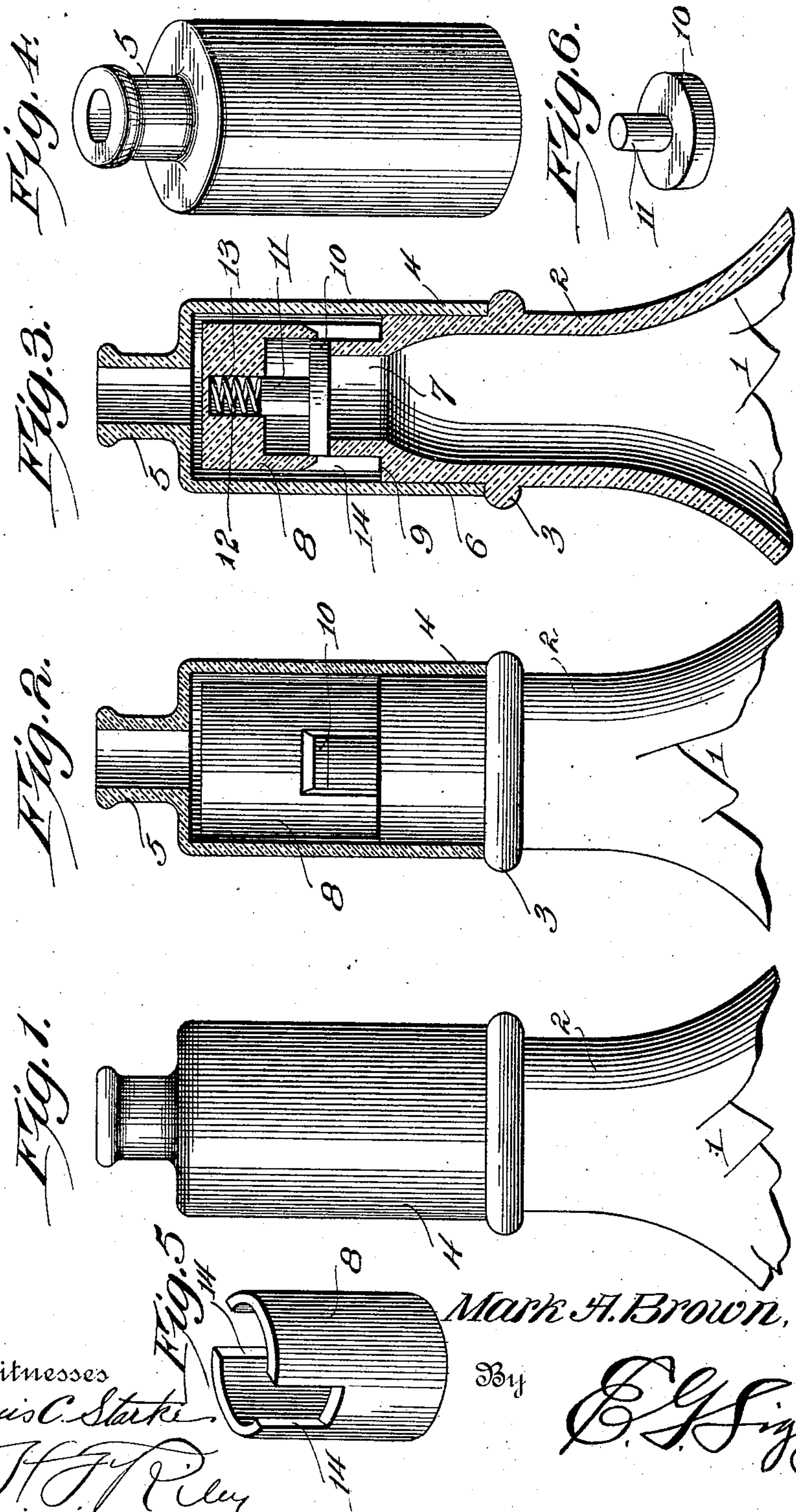


No. 855,690.

PATENTED JUNE 4, 1907.

M. A. BROWN.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JULY 27, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

MARK ANTHONY BROWN, OF SAVANNAH, GEORGIA.

NON-REFILLABLE BOTTLE.

No. 855,690.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed July 27, 1906. Serial No. 328,061.

To all whom it may concern:

Be it known that I, MARK ANTHONY BROWN, a citizen of the United States, residing at Savannah, in the county of Chatham and State of Georgia, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

The invention relates to improvements in non-refillable bottles.

10 The object of the present invention is to improve the construction of non-refillable bottles, and to provide a simple, inexpensive and efficient one, adapted to be easily and cheaply manufactured, and capable of per-
15 mitting its contents to flow freely from it.

A further object of the invention is to provide a bottle of this character, adapted to be readily sealed after it has been filled, and capable of effectually preventing the intro-
20 duction of a liquid in it, after it has received its original contents, so that adulterations and surreptitious refillings will be impossible.

With these and other objects in view, the invention consists in the construction and
25 novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and
30 minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is an elevation
35 of a portion of a non-refillable bottle, constructed in accordance with this invention. Fig. 2 is a vertical sectional view, the neck of the bottle and the inner cap or guard being shown in elevation. Fig. 3 is a similar view,
40 the neck of the bottle and the inner cap or guard being in section. Fig. 4 is a detail perspective view of the outer cap or guard. Fig. 5 is a similar view of the inner cap or guard. Fig. 6 is a detail view of the valve.

45 Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a bottle or analogous receptacle, having a neck 2 provided with an exterior bead 3, forming an annular shoulder
50 for supporting an outer cap 4, which constitutes the upper portion of the neck of the bottle and which is provided at the top with a reduced cylindrical portion 5, adapted to receive an ordinary cork or stopper for sealing
55 the bottle. The interior diameter of the

outer cap is the same as the exterior diameter of the portion 6. The neck and the said outer cap are designed to be cemented together by liquid glass, or other suitable material, which is arranged exteriorly of the neck, and which does not come in contact with the contents of the bottle.

The upper portion 7 of the neck of the bottle is exteriorly reduced to receive an inner
65 cap or guard 8, and to provide an annular exterior horizontal shoulder 9, on which the inner cap or guard is seated. The inner guard or cap is secured to the reduced portion 7 of the neck by liquid glass, or other
70 suitable cement, and it receives a valve 10.

The upper edge of the reduced portion 7 of the neck of the bottle forms a seat for the valve 10, which is provided with a central upwardly projecting stem 11, and which is held
75 against the seat by means of a coiled spring 12. The coiled spring 12 is housed in a socket 13 of the upper portion of the inner cap or guard, and is adapted to be compressed by the weight of the valve and the
80 pressure of the contents of the bottle, when the latter is inverted. The upper end of the stem 11 fits in the lower end of the socket 13, which is formed in a thickened portion of the
85 inner cap or guard, and which extends upwardly from the lower face of the thickened portion. The socket also forms a guide for the stem of the valve, which fits snugly within the chamber of the inner cap or guard.

The inner cap or guard is provided at opposite sides with recesses or openings 14,
90 which extend above the upper edges of the reduced portion 7 of the neck and which provide opposite discharge openings or apertures for the passage of the contents of the bottle.
95 These opposite apertures also provide a vent for permitting the entrance of air, and when the bottle is inverted, its contents may be freely decanted.

The valve, which consists of a disk, is of
100 sufficient thickness to close the apertures of the inner cap or guard, when the bottle is in an upright position, as clearly illustrated in Figs. 2 and 3 of the drawing. The liquid
105 passes around the inner cap or guard, and is discharged through the cylindrical portion of the outer cap. As the valve not only closes the neck of the bottle at the upper edges of the reduced portion 7, but also closes the opposite outlet apertures of
110 the inner cap or guard, it will be apparent that it is impossible for a wire or instrument,

introduced into the outer cap, to affect the operation of the valve. Also this double closing of the inner cap or guard and the neck will effectually prevent a liquid being introduced into the bottle, either to refill the same, or to adulterate its original contents.

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

- 10 1. A device of the class described comprising a receptacle having a neck, the upper edge of which forms a valve seat, a cap or guard secured to the neck and provided with an aperture, which is located contiguous to the valve seat, and a valve operating within the cap or guard and arranged upon the upper edge of the neck when closed, said valve serving to close the neck and being of a size to close the aperture of the cap or guard.
- 20 2. A device of the class described comprising a receptacle having a neck, the upper edge of which forms a valve seat, an inner cap or guard arranged on the neck and provided with apertures, which are located contiguous to the valve seat, a valve operating within the cap or guard and closing the neck and the apertures when arranged on the said seat, and an outer cap receiving the said cap or guard and provided with an outlet.
- 30 3. A device of the class described comprising a receptacle provided with a neck having a reduced upper portion, the upper edge of the neck forming a valve seat, an inner guard or cap fitted on the exterior of the reduced portion or neck and provided with an outlet aperture, a valve operating within the inner cap or guard for closing the neck of the bottle, and an outer cap secured to the exterior of the neck and receiving the inner cap or guard and provided with an outlet.
- 40 4. A device of the class described comprising

ing a receptacle having a neck reduced at the upper portion, an inner cap or guard fitted on the reduced portion of the neck and secured to the same and provided with an outlet aperture, said cap or guard having a thickened upper portion and provided therein with a socket, a valve operating within the cap or guard and having a stem extending into the socket, a spring housed within the socket and engaging the stem, and an outer cap or guard provided with an outlet.

5. A device of the class described comprising a neck provided with a reduced upper portion and having an exterior shoulder at the lower end thereof, an inner cap or guard seated on the exterior shoulder of the neck and receiving the reduced portion thereof within it, a valve operating within the inner guard or cap, and an outer guard or cap fitted on and secured to the exterior of the neck below the reduced portion thereof and receiving the inner cap or guard.

6. In a device of the class described, a receptacle having a neck provided with a valve seat at its upper end, a cap or guard open at the bottom and fitted over the neck, said cap or guard being provided with an aperture contiguous to the valve seat and a central vertical socket, and a spring pressed valve having a stem, the spring and stem being fitted in the socket of the cap or guard, and said valve closing the aperture of said cap or guard when the valve is on its seat.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MARK ANTHONY BROWN.

Witnesses:

DENNIS S. POOSER,
NATHAN COLEMAN.