

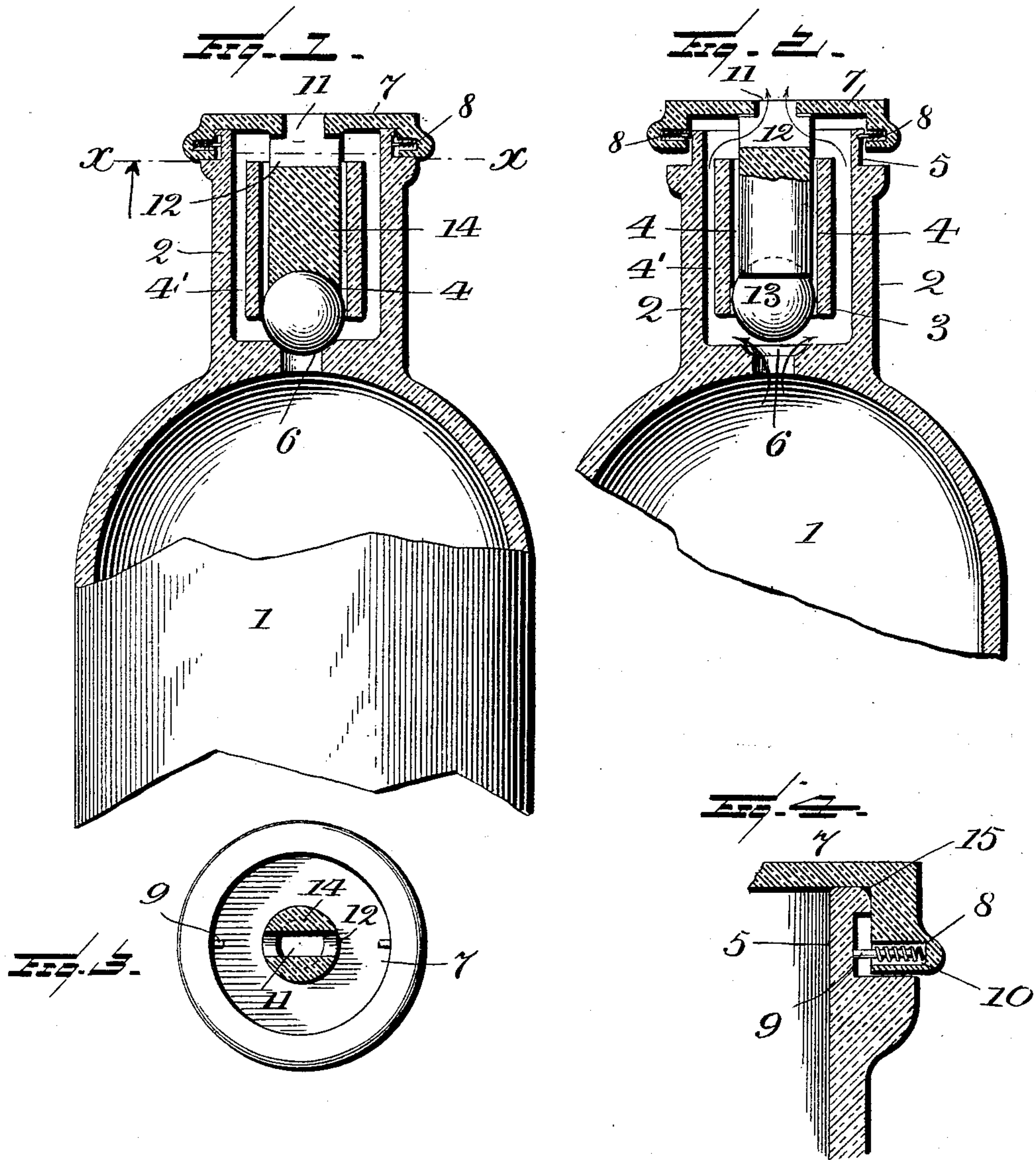
No. 632,751.

Patented Sept. 12, 1899.

S. P. B. ROBINS.  
NON-REFILLABLE BOTTLE.

(Application filed Jan. 20, 1899.)

No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL PRESCOTT B. ROBINS, OF PITTSBURG, PENNSYLVANIA.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 632,751, dated September 12, 1899.

Application filed January 20, 1899. Serial No. 702,806. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL PRESCOTT B. ROBINS, a citizen of the United States of America, residing at Pittsburg, (Wilkinsburg,) in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Non-Refillable Bottles; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved non-refillable bottle and stopper; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a central sectional elevation of the neck of a bottle provided with my improved device, showing the same in position to seal the contents of the bottle. Fig. 2 is a similar view showing the parts in position ready to remove the liquid from the bottle. Fig. 3 is an enlarged side sectional elevation of a portion of the cap and neck of the bottle, showing one of the locking-pins to prevent the removal of the cap when once placed in position. Fig. 4 is an inverted sectional plan view of the cap, said section taken through the line X X of Fig. 1.

To construct a non-refillable bottle and stopper in accordance with my invention, I form within the neck 2 of the bottle 1 several ports 4', separated from an inner annular space 4 by walls 3. These ports 4' lead from an opening 6, communicating with the interior of the bottle 1 and lead upward and open into the annular space 4. Formed about the top of the neck 2 of the bottle is a portion 5 of less exterior diameter, over which a cap 7 is fitted. This cap consists of a top portion 7, having a downwardly-extending flange about its periphery and a downwardly-projecting cylindrical stem 14 integral therewith, the said stem being formed with a concaved base and a port 12, leading to an opening 11 at the center of the top plate 7. Arranged in pockets 8, formed in the flange of the cap 7, are a series of pins 9, each provided with a spring 10, the tension of which keeps the said pins projecting beyond the inner face

of the flange. These pins 9 are for the purpose of engaging with the annular flange or bud 15, formed about the upper periphery of the neck of the bottle and prevent the removal of the cap 7 when once placed in position. Placed beneath the stem 14 is a sphere or ball 13, which acts as a valve to close the orifice 6 to seal the contents of the bottle.

In operation the bottle 1 is filled before the ball or valve 13 and cap 7 are placed in position. After the bottle is filled the valve 13 is dropped into position and the cap 7 forced into position. The pins move backward when brought in contact with the inclined surface of the flange 15 (see Fig. 3) and will spring outward as soon as the same are beyond the shoulder. This shoulder of the flange 15 is formed at the base at right angles with the neck of the bottle, thereby giving a straight bearing-surface to the pins 9 and affording no means by which they may be forced inward. By this construction a perfect lock between the cap 7 and neck of the bottle is formed. To remove the contents of the bottle, the cap 7 is pressed upward until stopped by the pins 9 coming in contact with flange 15, and by inverting or tipping the bottle the liquor will flow through the opening 6, thence to the ports 4' and 12 and opening 11, as indicated by arrows at Fig. 2 of the drawings.

Having thus described my invention, I claim—

1. The combination with the bottle comprising the body formed with an orifice 6, the neck formed with a reduced peripheral portion 5, near the upper end, the cylindrical stem 14 located in said neck provided with a port at the upper end, the walls 3 in said neck forming a space 4 and ports 4', and the ball or sphere, of the cap movable on the upper part of the neck, but non-detachable therefrom, and means for preventing said cap from being detached, substantially as described.

2. The combination with the bottle comprising the body formed with an orifice 6, the neck formed with a reduced peripheral portion 5, near the upper end, the cylindrical stem 14, located in said neck provided with a port at the upper end, the walls 3 in said neck forming a space 4 and ports 4', and the ball or sphere, of the cap movable on the up-

per part of the neck, but non-detachable therefrom, and formed with pockets 8, the pins seated in said pockets and engaging with the reduced portion 5, and the springs also  
5 seated in said pockets, substantially as described.

In testimony whereof I have hereunto af-

fixed my signature in the presence of two subscribing witnesses.

SAMUEL PRESCOTT B. ROBINS.

Witnesses:

JOHN GROETZINGER,  
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