

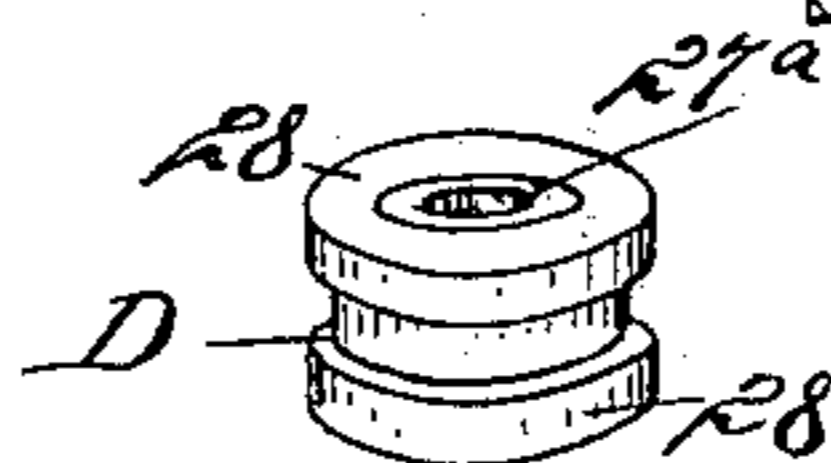
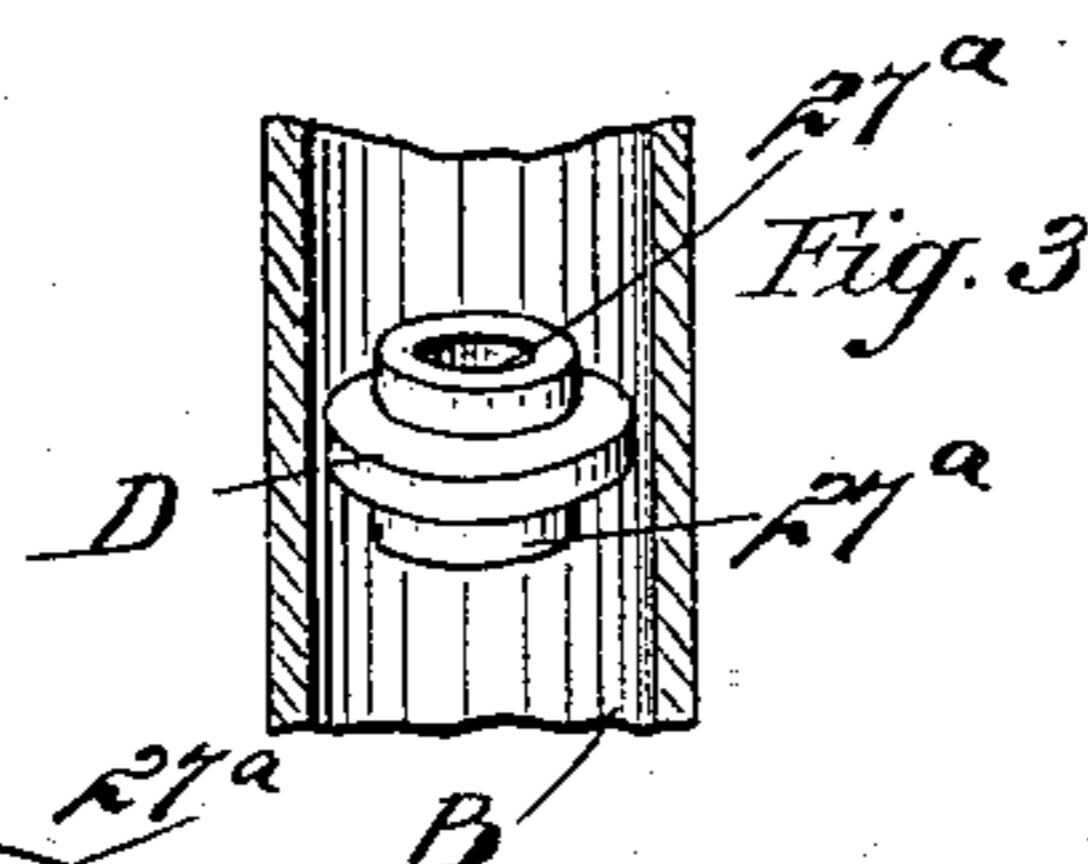
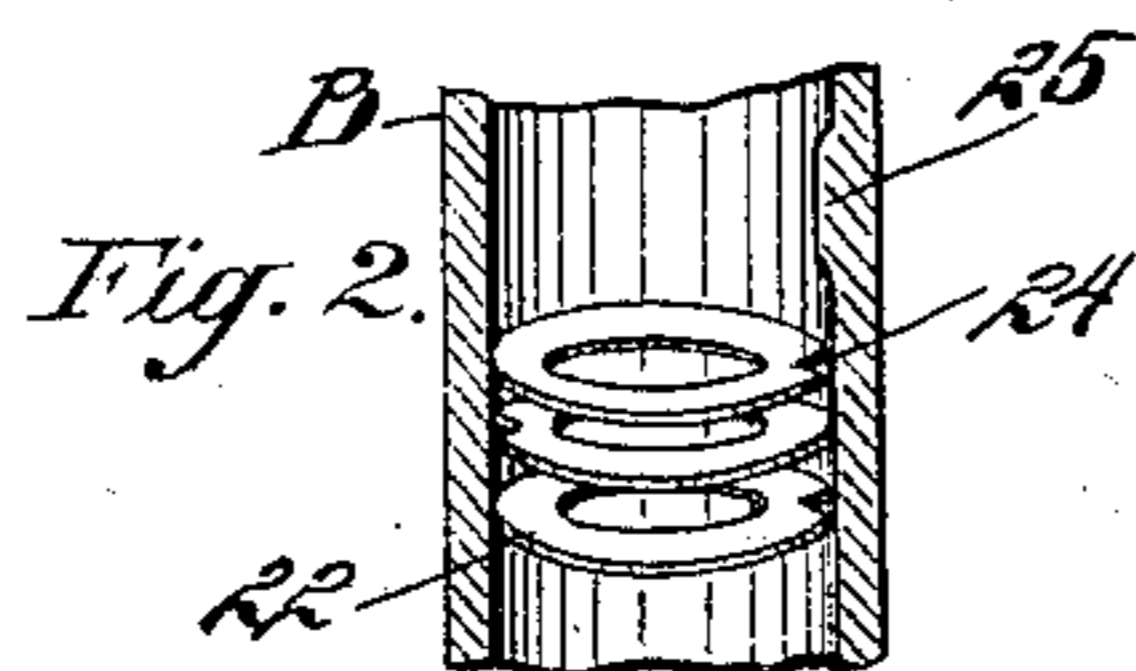
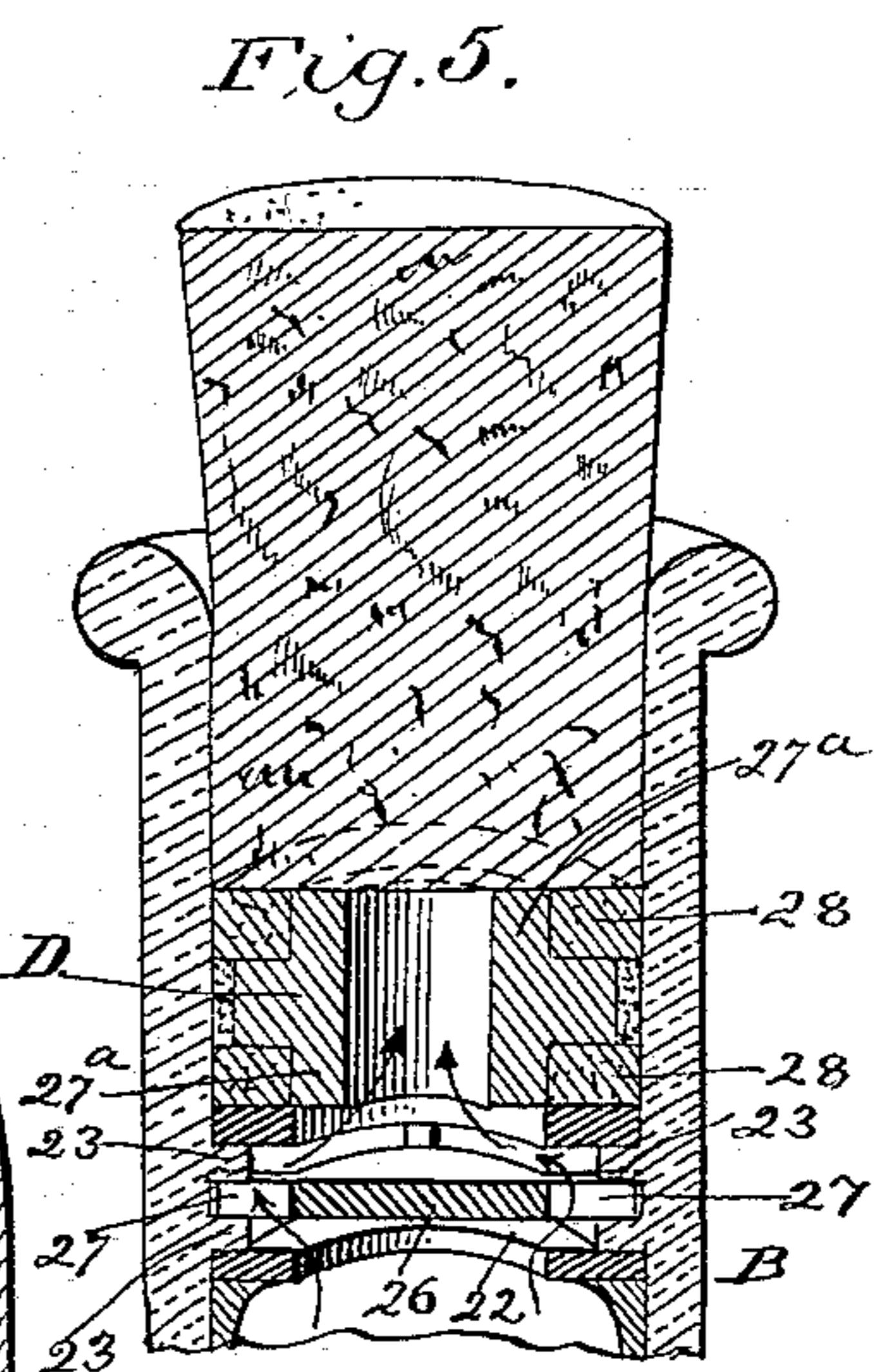
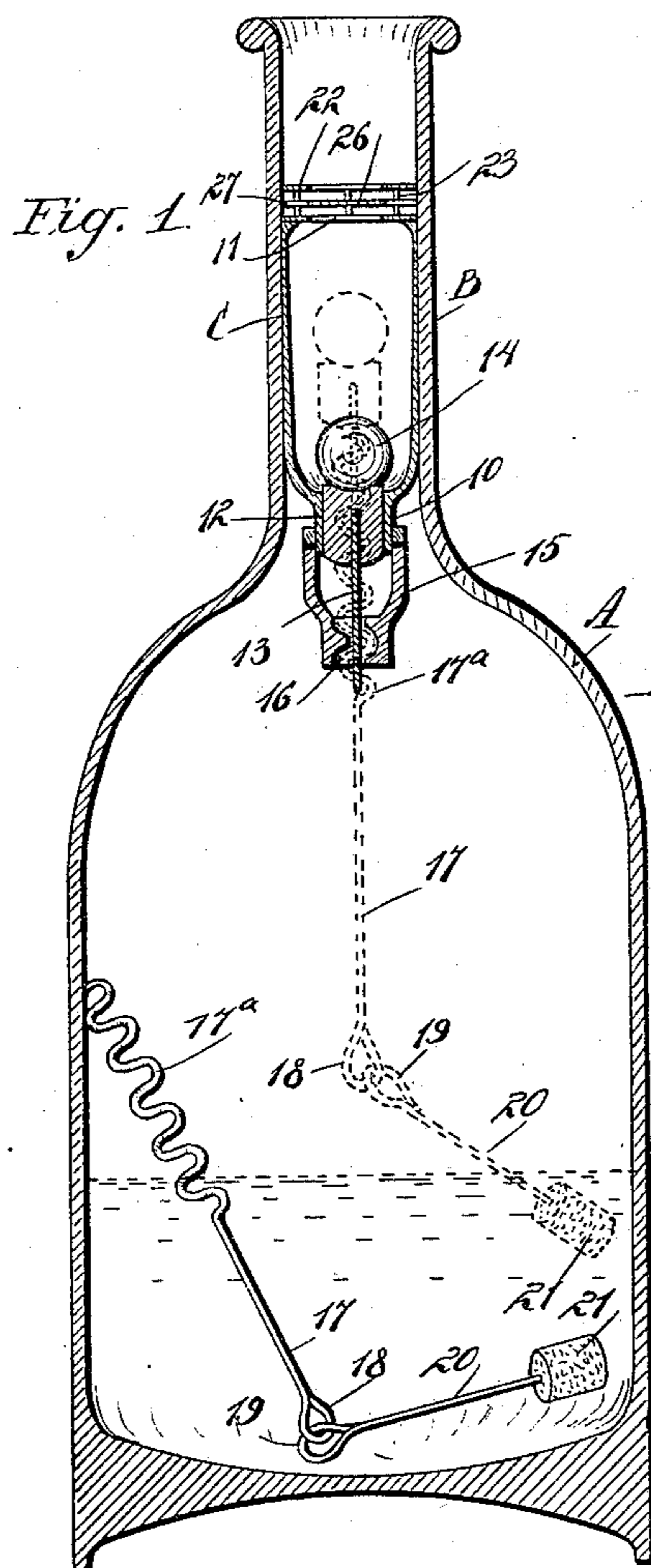
No. 624,416.

Patented May 2, 1899.

E. WEST.
NON-REFILLABLE BOTTLE.

(Application filed Aug. 9, 1898.)

(No Model.)



WITNESSES :

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EDMUND WEST, OF VALLEJO, CALIFORNIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 624,416, dated May 2, 1899.

Application filed August 9, 1898. Serial No. 688,227. (No model.)

To all whom it may concern:

Be it known that I, EDMUND WEST, of Vallejo, in the county of Solano and State of California, have invented a new and Improved
5 Non-Refillable Bottle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a non-refillable bottle or a bottle which after
10 having been once filled with a liquid cannot again be filled and presented as an original package without the certainty of detection.

The invention consists in the novel construction and combination of the several
15 parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

20 Figure 1 is a vertical section through a bottle having the improvement applied thereto. Fig. 2 is a section through the neck of the bottle and a perspective view of barriers placed in the said neck. Fig. 3 is a section through
25 the neck of the bottle and a perspective view of a wedge adapted to be secured therein. Fig. 4 is a perspective view of the complete wedge, which is designed to prevent the valve and its accompanying parts from being taken
30 out of the bottle, the wedge being shown incomplete in Fig. 3; and Fig. 5 is an enlarged vertical section of a portion of the neck of the bottle, showing the wedge and cork in place.

35 The bottle A may be of any desired form and is provided with the usual neck B. Within the neck of the bottle a cylinder C is firmly secured, the lower end of the cylinder being contracted to form a neck 10, which neck is
40 located near that point where the neck B joins the body of the bottle. The cylinder C fits tightly in the neck and may be cemented thereto or otherwise secured or held simply by frictional engagement or wedged by a ring
45 of cork, as in practice may be found most desirable.

An opening 11 is made in the top of the cylinder C, and in the bottom of the said cylinder, at the neck 10, a plug 12 is adapted to be
50 seated. The plug is provided with a pin or post 13, which extends downward from the central portion of its bottom, and a marble 14

or other spherical weight is normally seated on the top of said plug. A cage 15 is securely fastened at the exterior portion of the neck
55 of the cylinder C, and in the bottom of this cage a serpentine opening or aperture 16 is produced, the cross-section of the said opening having the appearance of a screw-thread. A glass strip 17 or a wire or slender strip of
60 suitable material is used in connection with the devices in the neck of the bottle, and the said strip of glass or other material is provided with a spiral upper end 17^a, adapted to travel in the serpentine opening 16 in the cage
65 15. At the bottom of the wire or glass strip 17 an eye 18 is made, and this eye is interlocked with an eye 19, formed upon a second glass strip 20, carrying at its opposite end a
70 cork 21 or other form of float.

In the neck of the bottle, above the cylinder C, preferably three rings 22 are secured, one above the other, a space intervening each, and the lower rings rest usually upon the top
75 of the cylinder C. The rings may be spaced by means of lugs 23 or their equivalents, or other means for spacing may be employed, as shown in Fig. 1. In Fig. 2 the rings are shown as provided with recesses 24 in their edges, adapted to slip over an offset 25 in the
80 neck of the bottle; but such construction is not essential. In the form shown in Fig. 1 but two rings are employed, and between these rings a disk 26 is placed, having arms
85 27, which extend to an engagement with the neck, so as to prevent the marble or ball 14 from leaving the cylinder C and preventing access being gained to the ball or the plug 12.

In Fig. 3 I have shown a wedge D, which is made of stone or other hard material and
90 is provided at top and bottom with a projection 27^a, around which projections rings 28, of cork, are placed, (see Figs. 4 and 5,) and between the rings cement may be placed, so that when the wedge is forced into the neck
95 of the bottle, as shown in Fig. 5, it will be securely fastened therein. The wedge is provided with an opening extending through from top to bottom and is designed to be placed between the rings 22 and an ordinary cork,
100 which in transportation is placed in the mouth of the bottle. The object of the wedge is to prevent the rings and valve being tampered with.

When the bottle is filled, the spiral portion 17^a of the wire or glass connected with the float is carried upward in the spiral or serpentine opening of the cage, and the pin or post 13 of the plug is passed downward through the said spiral, and, as shown in dotted lines in Fig. 1, the plug will be held within the cylinder, uncovering the bottom thereof and enabling the liquid to be poured out. When all the liquid is exhausted from the bottle, the float will no longer sustain the rod 17 in its upper position and the said rod will gravitate down until it falls into the bottom portion of the bottle, and the plug will then enter the opening in the bottom of the cylinder, thus closing the same, and the marble or weight 14 will serve to force the plug to place and retain it in position. The wedge D does not interfere with the exit of the liquid, as the liquid will pass through the opening in the wedge.

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

1. The combination, with a bottle, of a cylinder secured in the neck thereof, the cylinder being open at the top and at the bottom, a plug adapted to close the bottom of the said cylinder, a weight for the plug, a cage secured to the cylinder, and a float-supported rod passed through the said cage, serving to normally hold the plug from the bottom opening in the cylinder, for the purpose set forth.

2. The combination, with the neck of a bottle and a cylinder secured in the said neck, open at the top and at the bottom, of a plug capable of closing the bottom of the cylinder, a weight for the plug, and a pin extending downward from the plug, a cage pendent from the cylinder, having a spiral opening therein, a float, and a rod connected with the float, having one of its ends spirally formed to enter the spiral opening in the cage, and to receive the pin of the said plug, for the purpose set forth.

3. The combination, with the neck of a bottle, a cylinder secured therein open at top and at bottom, a plug arranged to close the bottom of the cylinder, a weight for the plug and a pin attached to the plug, of a cage pendent from the said cylinder, having a spiral opening, a rod provided with a float, having a spi-

ral section arranged to enter the spiral opening of the cage, and receive the said pin, and a barrier located above the said cylinder, as and for the purpose specified.

4. The combination, with the neck of a bottle, a cylinder secured therein, open at the top and at the bottom, a plug arranged to close the bottom of the cylinder, a weight for the plug, and a pin attached to the plug, of a cage pendent from the said cylinder, having a spiral opening, a rod provided with a float having a spiral section arranged to enter the spiral opening of the cage and receive the said pin, and a barrier located above the cylinder, the said barrier consisting of an upper and a lower ring, and a disk between the said rings, having arms projected from its periphery and engaging with the sides of the neck, a space intervening the rings and the said disk, for the purpose set forth.

5. The combination with a bottle, of a cage held therein and formed with a spiral opening establishing communication between the interior of the bottle and the mouth of the same, a plug above said cage and arranged to seat itself to close the passage through the neck of the bottle, and a float-supported rod formed at one end with a spiral adapted to be placed in the spiral opening in the cage whereby to hold the plug off its seat, as set forth.

6. A bottle provided with a spiral opening establishing communication between its interior and mouth, a plug arranged to be seated in the bottle-neck above said opening to cut off such communication, and a float-supported rod having one end formed with a spiral adapted to be inserted in the said spiral opening to hold said plug off its seat, as set forth.

7. In a non-refillable bottle, a plug arranged to open and close the neck of the bottle for the passage of liquid and a float-supported rod held in engagement with said plug to hold it in its open position when liquid is in the bottle, the said rod becoming separated from said plug when the liquid has been poured out, whereby to permit the plug to close the passages as set forth.

EDMUND WEST.

Witnesses:

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