

No. 698,716.

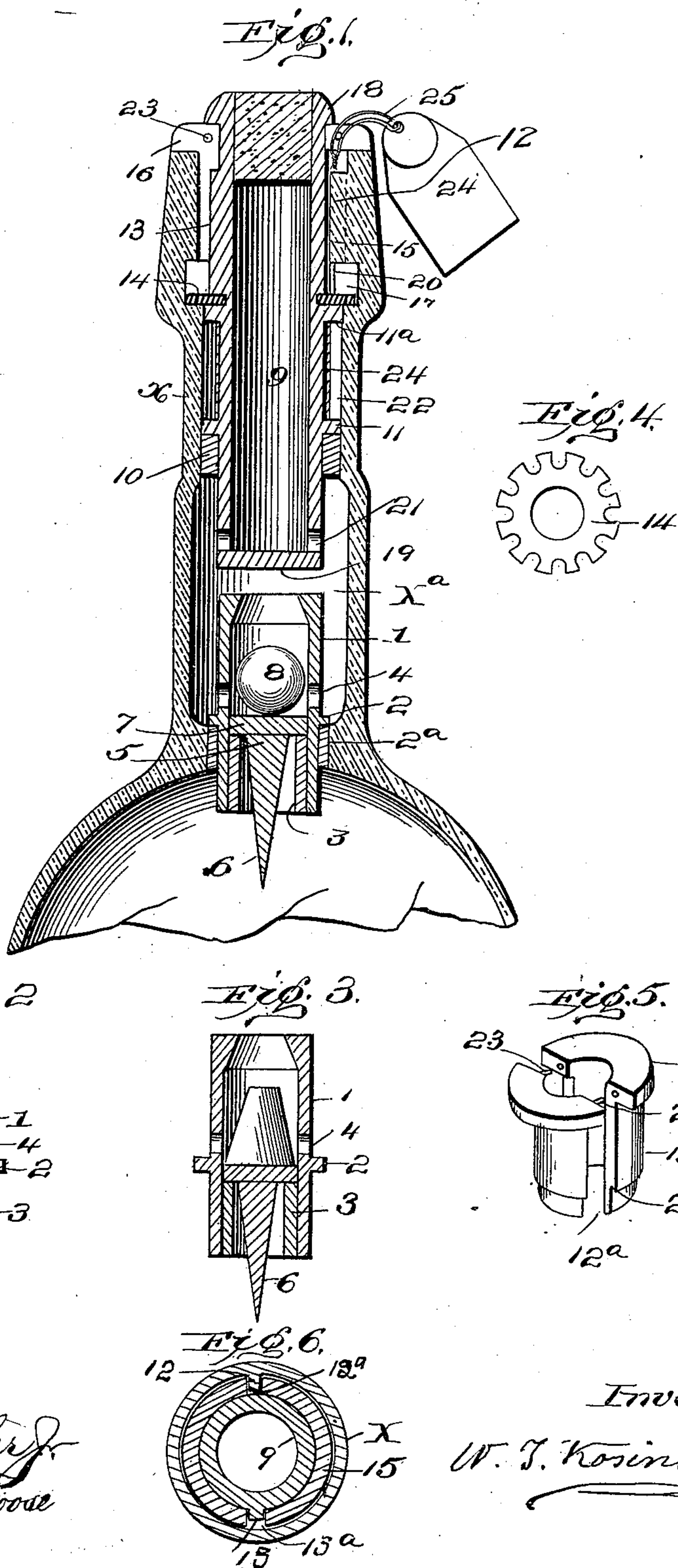
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Patented Apr. 29, 1902.

NON-REFILLABLE AND LOCK SEAL BOTTLE.

(Application filed Mar. 2, 1901.)

(No Model.)





# UNITED STATES PATENT OFFICE.

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## NON-REFILLABLE AND LOCK-SEAL BOTTLE.

SPECIFICATION forming part of Letters Patent No. 698,716, dated April 29, 1902.

Application filed March 2, 1901. Serial No. 49,511. (No model.)

*To all whom it may concern:*

Be it known that I, WLADYSLAW THEODORE KOSINSKI, a citizen of the United States, residing at Brooklyn borough, in the county of Kings and State of New York, have invented certain new and useful Improvements in Non-Refillable and Lock-Seal Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to non-refillable and lock-seal bottles; and it consists in the construction and novel combination of parts, as hereinafter described and claimed, in which no metal springs or ground-in valves are used.

In the accompanying drawings, Figure 1 represents a vertical sectional view of the whole device—viz., the bulge or chamber in the neck of the bottle, the pyramidal valve-cage with all its parts, and the tubular throat-pieces with its diaphragm, the liquor and air orifices or passages, the shoulder-flange rings, the serrated lock-sealing ring disk, the diametrically-enlarged groove and open encircling space between the bottle-neck and tubular throat-piece, the bisected or split collar-cap, partly in sectional view, with the tag or tablet attached thereto, and reinforced top flange. Fig. 2 represents a vertical sectional detail view of the separate pyramidal valve-cage, showing the float-valve having the depending tapered guide-stem and disk head, the ball-weight resting over the annular diametrically-reduced valve-tube and the external resting-flange. Fig. 3 is a modification of Fig. 2. Instead of a ball-weight a truncated pyramid can be used. Fig. 4 represents a plan view of the serrated lock-sealing ring disk. Fig. 5 represents a perspective of the bisected flange collar-cap having the vertical longitudinal bead-openings, coupling-pins, tag, and annular depressed shoulder-flange. Fig. 6 represents a cross-sectional view of Fig. 5, showing the flange-beads, the bead-openings, and bisected or open split with its coupling-pins.

Referring by letters and numerals to the accompanying drawings, X represents the neck of the bottle, having in its inside the bulge or chamber X<sup>a</sup>, the diametrically-en-

larged annular groove 17, and the vertical longitudinal flange-bead 12 below the rim of the mouth of the bottle-neck X.

Into the aperture of the bottle proper, below the base of the bulge or chamber X<sup>a</sup>, is inserted a valve-cage 1, which is hollow and of pyramidal shape in its inside and is provided with an external resting-flange 2 and packing 2<sup>a</sup>. Above the said resting-flange 2 the surrounding wall of said pyramidal valve-cage 1 is provided with radial oblong liquor and air orifices or passages 4, and from its lower end or bottom is inserted the annular valve-tube 3, held within by a packing. Above said annular valve-tube 3 is housed the float-valve 5, made of cork and wood or other light material suitable for the purpose, having a depending tapered guiding-stem 6, and a disk head 7. Immediately above and loosely resting upon said disk head 7 is a weighted ball 8, which serves to close said float-valve 5 when the bottle is in a vertical upright or horizontal position and prevents any liquid from passing the valve 5 and entering the body of the bottle.

Immediately above the separate pyramidal valve-cage 1 is placed the separated tubular throat-piece 9 of a reduced size in its diameter and is provided in its bottom part with a closed diaphragm 19 and horizontal radial oblong liquor and air orifices or passages 21, thereby preventing tampering with the separate pyramidal valve-cage 1, with its housed-in mechanical parts, having the two surrounding shoulder-flange rings 11 and 11<sup>a</sup> and the reinforcing-flange 18 at its top.

Above the upper annular shoulder-flange ring 11<sup>a</sup> is placed the flexible or elastic lock-sealing ring disk 14, serrated on its periphery, encircling the tubular throat-piece 9 and housed within the diametrically-enlarged groove 17 when slid in and held in place by means of the bisected or split collar-cap 15 with its flange 16 and having at its bottom rim the annular recess or depressed shoulder-flange 20, thereby having its outer diameter reduced. When slid in or inserted into the bottle-neck X, it becomes housed in the diametrically-enlarged annular groove 17 by having the peripheral serrated part of the flexible or elastic lock-sealing ring disk 14 bend and depress into the annular recess or depressed



shoulder-flange 20, thereby reducing its diameter and reexpanding as soon as entered within the annular enlarged groove 17.

To prevent the turning around of the bisected or split collar-cap 15, located in the mouth of the bottle-neck X, and the turning around of the tubular throat-piece 9, located inside the bisected or split collar-cap 15, when using a corkscrew, it is provided with the two short vertical longitudinal flange-beads 12 and 13—12 on the inside of the bottle-neck X, 13 on the periphery of the tubular throat-piece 9—to be housed and held in the corresponding vertical longitudinal bead-openings 12<sup>a</sup> and 13<sup>a</sup> of the bisected or split collar-cap 15.

The bisected or split collar-cap 15 is provided with two coupling-pins 23 in the flange 16 in the face of the split in order to hold the two halves uniformly together when placed around and immediately beneath the reinforced flange 18. To the said bisected collar-cap 15 is attached a tag or tablet 24 instead of a bottle-label for printed or embossed publication matter by means of a wire or cord loop 25, of which the knotted ends, being held by either of the coupling-pins 23 and housed and concealed within the bisected or split collar-cap 15, is effectually secured from displacement or removal. The bisected or split collar-cap 15, having the depressed or shouldered flange 20, pressing and holding the lock-sealing ring disk 14 against shoulder-flange ring 11<sup>a</sup> while sliding in, reducing its diameter and becoming housed, reexpands in the diametrically-enlarged annular groove 17.

The reinforced top flange 18 being of a larger diameter than the annular opening in the bisected collar-cap surrounding the tubular throat-piece 9 protects and prevents tampering with it.

The withdrawal of the tubular throat-piece 9, with the encircling flexible or elastic lock-sealing ring disk 14, is prevented by the shoulder-flange ring 11<sup>a</sup>, surrounding the tubular throat-piece 9, having the lock-sealing ring disk 14 immediately resting on it or abutting against it and being of a larger diameter, thereby preventing the bending back and withdrawing of the tubular throat-piece 9.

The glass or rubber ball-weight 8 is made hollow and is only partly filled with mercury to render it quite heavy in order that it may hold the float-valve 5 in a closed position. Being only partially filled, it will seek its own level, and thereby assist in rolling down the pyramidal incline against the disk head 7 of the float-valve 5. Thereby it is impossible to refill the bottle without removing the lock-sealing device within the bottle-neck.

Instead of the hollow partly-filled ball-weight 8 a solid ball made of glass, agate, or porcelain can be used.

Should an attempt be made to refill the bottle through the tubular throat-piece 9 by means of vacuum or a siphon when in an inverted position, the liquid will pass through the orifices 21 into the bulge or chamber X<sup>a</sup>

and entering the separate pyramidal valve-cage 1 will lift and float by force the float-valve 5, stopping the passage thereby and effectually prevent the refilling of the bottle.

Between the annular shoulder-flange rings 11 and 11<sup>a</sup> the encircling open space 22 is formed within the bottle-neck X and the tubular throat-piece 9, into which circular open space so formed is placed any suitable or desired advertising matter or trade-mark 24, which may be read through the glass neck of the bottle and cannot become wet nor discolored by contact with the contents of the bottle while being poured therefrom by means of the annular packing 10, preventing the ingress of liquids into the open space 22.

The withdrawal or tampering of the advertising matter or trade-mark located in the annular open space 22 and the tag or tablet 24, attached to the bisected collar-cap 15, is also protected by the lock-sealing device, as shown in figures.

To fill the bottle, pour in the liquid, then place the pyramidal valve-cage 1, with all its parts contained, over it, the tubular throat-piece 9, with its annular packing 10, the advertising matter or trade-mark surrounding the tubular throat-piece 9, with all its lock-sealing parts, as described.

The tubular throat-piece 9, centrally located in the neck of the bottle X, projects above the bisected collar-cap 15, placed over the mouth of the bottle-neck, and is normally closed at its upper end by a cork or stopper, which may be withdrawn in the usual manner to permit of pouring the contents from the bottle without disturbing or removing or displacing any part of the non-refillable and lock-sealing device.

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

1. In a non-refillable and lock-sealing bottle, the combination of a bottle-neck, X, having a bulge or chamber, X<sup>a</sup>, formed therein, with the separate pyramidal valve-cage, 1, seated in the lower part of said bulge or chamber, X<sup>a</sup>, the external resting-flange, 2, and packing, 2<sup>a</sup>, having radial, oblong orifices or passages, 4, the annular valve-tube, 3, inserted at the bottom end and housed within the separate pyramidal valve-cage, 1, a float-valve, 5, having a pending tapered guiding-stem, 6, and disk head, 7, and resting over it the hollow ball-weight, 8, partially filled with mercury, placed within the pyramidal valve-cage, 1, substantially as shown and specified.

2. In a non-refillable and lock-sealing bottle, the combination of a bottle-neck, X, having a bulge or chamber, X<sup>a</sup>, formed therein with the separate pyramidal valve-cage, 1, with all its mechanical parts within and the separated tubular throat-piece, 9, slid within the bottle-neck, X, and placed over the pyramidal cage, 1, making no contact between the two, said separated tubular throat-piece, 9, having the closed diaphragm, 19, and liquor and



air orifices or passages, 21, the annular flange shoulder-ring, 11, and packing, 10, below the said flange shoulder-ring, to prevent the ingress of liquids into the annular space, 22, 5 formed between the tubular throat-piece, 9, and bottle-neck, X, the serrated flexible or elastic lock-sealing ring disk, 14, encircling said tubular throat-piece and abutting against the flange shoulder-ring, 11<sup>a</sup>, and housed with- 10 in the diametrically-enlarged annular groove, 17, with its expanded, serrated rim, by means of the bisected or split flange collar-cap, 15, having the flange, 16, and annular recess or depressed shoulder-flange, 20, the 15 coupling-pins, 23, and the vertical longitudinal bead-openings, 12<sup>a</sup> and 13<sup>a</sup>, for the vertical longitudinal flange-beads, 12 and 13, to be housed in surrounding the tubular throat-piece below the reinforced top flange, 18, sub- 20 stantially as shown and specified.

3. In a non-refillable and lock-sealing bottle, the combination of the tubular throat-piece, 9, surrounded with the compressing and re- 25 expanding, flexible or elastic serrated lock-sealing ring disk, 14, permanently housed within the diametrically-enlarged annular groove, 17, when expanded, with the bisected collar-cap, 15, surrounding the tubular throat-piece below the reinforced top flange, 18, 30 provided with coupling-pins, 23, holding the knotted loop ends, 25, of the tag, 24, concealed and effectually secure from displacement or removal, substantially as described.

4. In a non-refillable and lock-sealing bottle, 35 having in its neck, X, the bulge or chamber, X<sup>a</sup>, in its base, the inserted separate non-refillable pyramidical valve-cage; with all its me-

chanical parts held within inserted in its neck, X, the tubular throat-piece, 9, encircled by the flexible or elastic lock-sealing ring disk, 40 14, housed and expanded within the diametrically-enlarged groove, and the reinforced top flange, in combination with the bisected or split collar-cap, 15, provided with the annular recess or depressed flange, 20, having 45 the vertical longitudinal flange-openings, 12<sup>a</sup> and 13<sup>a</sup>, housing the vertical longitudinal flange-beads, 12 and 13, the coupling-pins, 23, and the securely-looped tag or tablet, 24, held within, thereby not disturbing, removing or 50 destroying any of the non-refillable and lock-sealing integral parts of this device when uncorking or opening the bottle for the pouring out of the liquid, substantially as shown and 55 described.

5. In a non-refillable and lock-sealing bottle, the combination of a bottle-neck, X, having the diametrically-enlarged annular groove, 17, with the tubular throat-piece, 9, provided with a closed diaphragm, 19, and liquor and 60 air orifices, 21, the shoulder-flange ring, 11, with the annular packing, 10, and the shoulder-flange ring, 11<sup>a</sup>, encircled with the compressing and reexpanding flexible or elastic serrated lock-sealing ring disk, 14, perma- 65 nently housed within the said annular groove, 17, when expanded, substantially as specified and shown.

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

WLADYSLAW THEODORE KOSINSKI.

Witnesses:

J. M. FOWLER, Jr.,  
ALLAN W. FOOSE.