

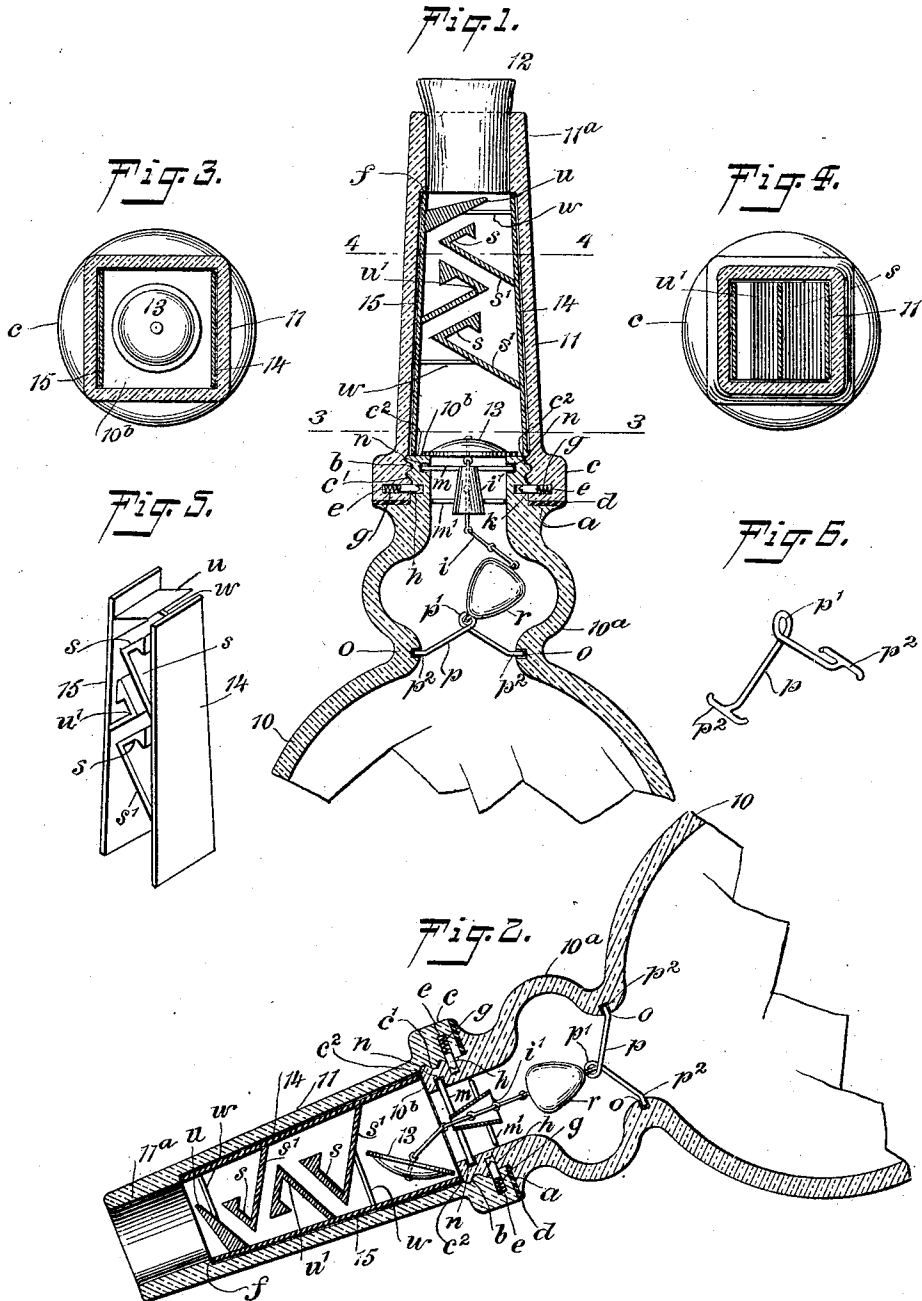
No. 697,352.

Patented Apr. 8, 1902.

J. W. McCracken.
NON-REFILLABLE BOTTLE.

(Application filed Oct. 30, 1901.)

(No Model.)



WITNESSES:

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JOHN W. MCCRACKEN, OF LOGTOWN, MISSISSIPPI.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 697,352, dated April 8, 1902.

Application filed October 30, 1901. Serial No. 80,513. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MCCRACKEN, a citizen of the United States, and a resident of Logtown, in the county of Hancock and State of Mississippi, have invented a new and Improved Non-Refillable Bottle, of which the following is full, clear, and exact description.

This invention relates to a class of packing vessels, such as bottles, in which provision is made to prevent a reuse of the bottle, and thus prevent the vending of spurious liquid goods in place of the genuine that were originally contained therein, and has for its object to provide novel details of construction for a bottle of the character indicated which are simple, easily placed in the neck of the bottle, and are adapted to afford a closure therefor that permits the liquid contents of the bottle to be freely decanted, but prevent it from being filled in the usual manner.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended 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.

Figure 1 is a sectional side view of a bottle-neck of novel construction having other details of the invention non-removably held therein. Fig. 2 is a similar view showing the relative position of the bottle-closure when the bottle is tilted to decant some or all of its contents. Fig. 3 is a transverse sectional view substantially on the line 3 3 in Fig. 1. Fig. 4 is a transverse sectional view substantially on the line 4 4 in Fig. 1. Fig. 5 is a perspective view of a pair of baffle-walls employed that are features of the invention, and Fig. 6 is a perspective view of a shackle-bar employed.

The body 10 of the bottle may be of any preferred form and capacity, having the open end thereof reduced in diameter to afford a short neck 10^a thereon. The neck 10^a is bulbous and at its upper end is sufficiently reduced in diameter to produce an offset or shoulder *a*, from which projects the nipple 10^b, which is cylindrical and formed with a thread *b*.

A discharge-nozzle 11 is provided, the body

of which is preferably tapered somewhat and is square in cross-section, terminating at the smaller end in a cylindric formation 11^a for the accommodation of an ordinary cork 12, forming the closure for the bottle to prevent escape of its contents, as usual. A shoulder *f* is formed where the portion 11^a joins the four sides of the nozzle-body 11. At the other end of the nozzle 11 a circular thickening-bead *c* is formed thereon, a female thread *c'* in said bead being fitted to screw upon the thread *b*. A sealing-washer *d* is seated upon the shoulder *a*, on which washer the true level end of the nozzle 11 may be impinged when the nipple 10^b is screwed into the female thread *c'*. Two small sockets *e* are formed in the wall of the nozzle, opposite each other and extended from the inner surface toward the bead *c* at a short distance from the adjacent end surface of the nozzle that engages with the washer *d*. Two mating sockets are formed in the threaded nipple 10^b and respectively register with the sockets *e* when the true end of the nozzle is screwed closely against the washer *d*, and thus produces a liquid-tight joint between the neck 10^a and the nozzle 11. Springs *g* are seated in the sockets *e*, and locking-pins *h* are introduced therein and seat upon the springs, the pins having short portions of their bodies projected from the inner surface of the nozzle. The inner extremities of the pins *h* may with advantage be tapered slightly, so that said ends may freely enter the sockets in the nipple 10^b when the pins come opposite the sockets, as will presently be explained.

A circular-edged valve 13, preferably dished slightly in its central portion, is fitted liquid-tight upon the level upper end of the nipple 10^b, whereon it normally seats, and from the center of said valve a connection *i*, preferably a metal chain, projects downwardly.

A guide-box *i'*, through which the chain *i* loosely passes, is held centrally in the upper portion of the bulbous neck 10^a by two laterally-projecting braces *m m'*, the brace *m*, which is near the upper end of the guide-box *i'*, having its ends introduced into opposite sockets *n*, formed in the inner surface of the nipple 10^b, the lower brace *m'* loosely contacting with said surface of the neck. It will be seen that as the interior surface of the upper end of the short neck 10^a is cylindric there is

but a slight rocking movement of the guide-box *i* if the bottle-neck is turned sidewise, so that said box is practically held centered in the neck by the braces *m m'*.

5 At or near the junction of the neck 10^a with the body 10 of the bottle two recesses are oppositely formed therein, extending outward from the inner surface, as shown at *o* in Figs. 1 and 2. A shackle-bar *p*, of metal wire or
10 other available material, having a central eye *p'* and two oppositely-extended limbs, is provided, the extremities of the limbs seating in the recesses *o*. A weight-block *r*, that may be of ovate form, as indicated in Figs. 1 and
15 2, is loosely connected at its upper end and center with the pendent lower end of the chain *i*, and at the lower end in a like manner with the eye *p'* of the shackle-bar *p*. As shown at *p''* in Fig. 6, the ends of the shackle-
20 bar *p* are widened at each side thereof to produce short limbs, and for accommodation of these limbs the recesses *o* are correspondingly widened, so that when the slightly-resilient shackle-bar is sprung into place the eye *p'* will
25 be maintained centrally within the neck 10^a.

In the slightly-tapering nozzle 11 two baffle-plates 14 15 are oppositely positioned, each consisting of a wall-plate, from which project a plurality of baffle-wings. The substantially
30 similar wings *s s*, that extend from the plate 14 across the nozzle and toward the opposite plate 15, are essentially V-shaped at their free ends, having longer lower members *s'*, affixed to or formed upon the plate from which
35 they project. The wings *u u*, that extend from the plate 15 toward the plate 14, have different shapes in cross-section, the upper wing *u* being a slightly-tapered but essentially straight projection, spaced from the upper
40 wing *s* on the plate 14. The lower wing *u'* on the plate 15 is similar to the wings *s s* and is positioned between said wings, the shape of the wings *s s* and *u u'* affording a continuous zigzag passage between them, which
45 prevents the introduction of an instrument to engage with and hold the valve 13 raised from its seat. The length of the baffle-plates 14 15 is so proportioned that when in position within the rectangular nozzle-body
50 11 they will engage their upper ends with opposite shoulders *f* and at their lower ends seat on like shoulders *c''*, formed at the junction of the thread *c'* with the rectangular body 11 of the nozzle. To keep the baffle-plates
55 and wings thereon in place, so that the passage between them will not become contracted, a stud *w* is projected from each plate in direction of the opposite plate, one of said studs being near the top and the other near
60 the bottom of the plate from which it projects, said studs having their free ends pressed upon opposite members of the wings on the baffle-plates, as shown in Figs. 1 and 2, which will press the plates against opposite sides of the nozzle-body and hold the ends thereof engaged with the shoulders *f c''*.

In order to connect the nozzle 11 with the

neck 10^a, the pins *h* are pressed upon the sloped upper side of the thread on the nipple 10^b, at the free upper end of the nipple, and at
70 the same time the nozzle is turned in a proper direction to screw said parts together. The screwed engagement of the nozzle with the nipple will press the pins *h* into the sockets *e*
75 and compress the springs *g* until the sockets in the nipple 10^b aline with the sockets *e* in the nozzle, thus permitting the pins to be pressed outward by the springs *g* and by entering the sockets in the nipple hold the nozzle and nipple non-removably secured to-
80 gether.

In operation it will be seen that by removing the cork 12 and inclining the bottle-neck and nozzle thereon, as indicated in Fig. 2, the
85 liquid contents of the bottle 10 may be decanted therefrom as may be desired. When the bottle has been emptied and turned upright, the valve 13, that was rocked into an open position by the inclination of the bottle neck and nozzle, as shown in Fig. 2, will be
90 closed by the weight *r*, and thus be held seated over the open upper end of the nipple 10^b, which will prevent the introduction of liquid into the bottle while the passage into it is closed by the valve 13. As before mentioned,
95 the valve 13 cannot be raised from its seat by a bent wire or other instrument, as the abrupt angles on the wings of the baffle-plates 14 15 will prevent the introduction of such a device.
100

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

1. The combination with a bottle having a short neck and a nozzle mainly rectangular
105 in cross-section screwing on said neck, of a baffle-plate device insertible in the rectangular part of the nozzle, and a locking device comprising opposite sockets in the nozzle and short neck, and pins seated on springs in the
110 sockets in the neck, adapted to enter the sockets in the nozzle when said nozzle is screwed fully on the neck.

2. The combination with a bottle having a short neck, a threaded nipple extended from
115 the neck, and a partly-rectangular nozzle threaded at one end screwing on the nipple, of a pin-and-socket device for holding the nozzle on the nipple when the nozzle is in place, a circular-edged valve adapted to seat
120 on the nipple, a non-removable weight flexibly connected with the valve, said connection passing through a guide-box, and an insertible zigzag-passage-forming device held in the angular portion of the nozzle.
125

3. The combination with a nozzle cylindrically formed at its discharging end, threaded internally at the opposite end and rectangular
130 in cross-section between said ends, of two baffle-plates having angular wings projected in the nozzle-bore so as to provide a zigzag passage therethrough, and means for holding said plates opposite each other and for preventing their displacement.

4. The combination with a bottle, a short
neck thereon having an externally-threaded
nipple at its upper end of reduced diameter,
providing an annular shoulder outside of the
5 nipple, of a nozzle internally threaded to
screw on the nipple, a pliable joint-washer
between the shoulder on the neck and the end
of the nozzle, the nipple and engaged end of
the nozzle having sockets that may be alined
10 with each other, and spring-pressed pins in
the sockets in the nozzle, that will enter the
sockets in the nipple when the nozzle is seat-
ed on the washer.

5. The combination with a bottle, a short
15 neck thereon, and a nipple on the neck, of a
valve seating on the nipple, a guide-box sup-

ported centrally in the nipple, a flexible con-
nection extended from the valve through the
guide-box, a weight-block on the lower end of
the flexible connection, and a shackle-bar 20
loosely secured between its ends to the lower
end of the weight-block, the ends of the
shackle-bar having engagement with recesses
in the bottle-neck.

In testimony whereof I have signed my 25
name to this specification in the presence of
two subscribing witnesses.

JOHN W. McCRACKEN.

Witnesses:

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D. R. WESTON.