

No. 839,114.

PATENTED DEC. 25, 1906.

A. E. CLAR.
NON-REFILLABLE BOTTLE.
APPLICATION FILED NOV. 24, 1905.

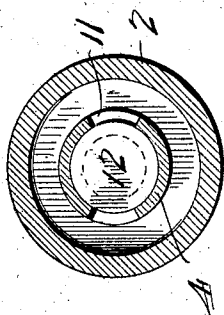


Fig. 2.

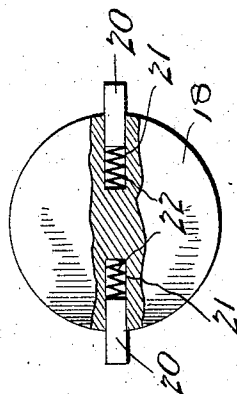


Fig. 3.

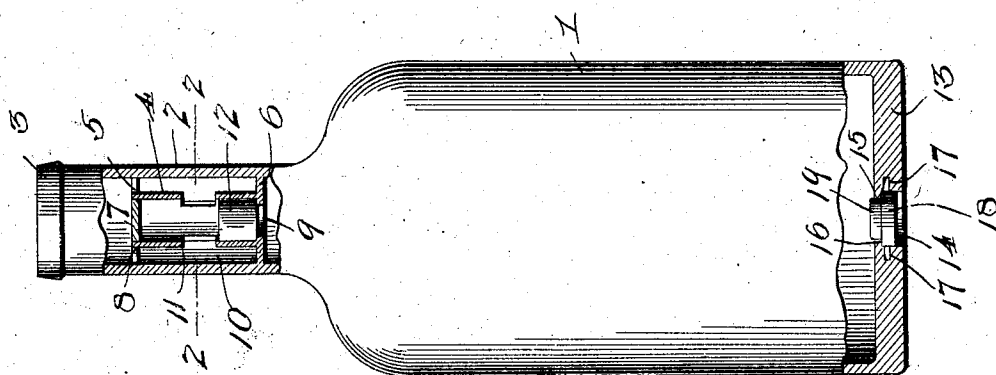


Fig. 1.

Witnesses
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AUGUST E. CLAR, OF ST. LOUIS, MISSOURI.

NON-REFILLABLE BOTTLE.

No. 839,114.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed November 24, 1905. Serial No. 288,925.

To all whom it may concern:

Be it known that I, AUGUST E. CLAR, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to that type of bottles or similar vessels for holding liquids which are provided with valve structures in their necks and operative to permit a ready discharge of the contents of the bottle when the latter is properly canted, but which cannot be refilled through the neck.

The improved bottle is primarily filled through the bottom, and after its original contents has been dispensed it is unfit for further use, thus protecting particular brands of liquids or other analogous materials, with benefit to proprietary interests. The valve structure within the neck of the improved bottle is of such nature that it will effectually close the bottle during shipment and when disposed in upright position and will also prevent unlicensed picking or opening of the controlling-valve for the purpose of refilling the bottle with a spurious article, and by this means surreptitious refillings and fraudulent adulterations are obviated.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter set forth.

In the drawings, Figure 1 is a sectional elevation of a bottle embodying the features of the invention. Fig. 2 is a horizontal section on the line 2 2, Fig. 1. Fig. 3 is a bottom plan view of the closure for the bottom of the bottle, shown on an enlarged scale and partially in section.

Similar numerals of reference are employed to indicate corresponding parts throughout the several views.

The numeral 1 designates a bottle-body of any preferred form, having a neck 2, with the usual outlet or mouth 3. Within the neck 2 a glass tube 4 is centrally disposed and has upper and lower flanges 5 and 6, which are formed as integral parts of the neck 2, the tube and its accessories as thus far described being blown into the said neck 2. The tube 4 has an upper closed extremity 7, and the upper flange 5 is formed with outlet slots or openings 8 between the end 7 and the wall of the neck 2. The lower flange 6 has an opening 9 formed in the center thereof in line with the center of the tube,

the remaining part of this flange being imperforate. The tube 4 is of materially less diameter than the inner portion of the neck, and by this means an annular chamber 10 is formed around said tube between the flanges 5 and 6, the said chamber having a closed bottom owing to the imperforate nature of the flange 6 and upper outlets through the medium of the openings 8 in the flange 5. At an intermediate point the tube 4 has oppositely-disposed slots or outlet-openings 11 formed therein and communicating with the chamber 10. Slidably disposed in the tube 4 and of cylindrical form is a glass plug 12, which is free to move longitudinally of the said tube and controls the open and closed condition of the openings 9 and 11, in accordance with the position of the bottle. When the bottle is canted to dispense the contents thereof, the plug 12 moves toward and in close proximity to the closed end 7, thus clearing the openings 9 and 11 and permitting the contents of the bottle to pass into the tube and from the latter into the annular chamber 10 and out through the openings 8. The flange 5 is located inwardly far enough from the rim of the bottle-neck to permit the use of a temporary stopper above the valve structure just explained, and thus seal the bottle more fully for the purposes of transportation and storage. It will be understood that this stopper will be of any of the approved forms and will be removed when it is desired to dispense the contents of the bottle.

The valve structure in the neck of the bottle is of such nature that it will obstruct any attempt to nefariously move the plug by the introduction of wires or other implements and also prevent filling the bottle through the neck. The improved bottle is equipped with means for filling it through its bottom 13, so that after the liquid has been disposed therein and the bottom sealed it will be impossible to again reuse the same with a view or intent to defraud a purchaser or dispense any liquid from the bottle other than that originally placed therein. In the center of the bottom 13 an opening 14 is formed which communicates with an upper opening 15 of smaller diameter and which establishes communication with the interior of the bottle-body. In other words, the opening through the center of the bottom 13 of the bottle has a differentiation in diameter to provide an annular shoulder 16, and just below the shoulder are radial openings or holes 17. A

closure 18 is fitted in the openings, as set forth, in the bottom 13 and provided with an upper reduced member 19, the lower enlarged portion of said closure or bottom plug having automatically - expanding locking - pins 20 diametrically disposed therein to engage the openings 17. The pins 20 are slidably mounted in oppositely-arranged sockets 21, and between the inner ends thereof and the inner terminal walls of said sockets springs 22 are interposed, as clearly shown by Fig. 3. The sockets 21 are deep enough to permit the pins to be fully compressed therinto, and said pins are fully forced into the bottom-closure before the latter is inserted in the opening in the bottom 13, and after said closure has become properly seated the pins will aline and automatically move outwardly into the openings 17, and thereby immovably lock the closure in the bottom of the bottle.

The closure 18 is of less thickness than the depth of the opening 14, and the reduced member 19 of said closure has a greater vertical extent than the upper opening 15. This difference in thickness and vertical extent of the two parts of the closure relative to the openings 14 and 15 insures a snug fitting and a tight joint between the closure and the bottom of the bottle. Moreover, by the arrangement set forth the lower side of the closure 18 is when applied held at a considerable elevation above the plane of the bottom of the bottle, and by this means any attempt to reach the fastening devices for the closure is rendered very difficult, and, furthermore, the bottom of said closure will not have the least tendency to interference with the stable support of the bottle on its bottom 13, which might be the case if the closure 18 had its lower side flush with the bottom of the bottle. Hence if the under side of the closure 18 is not regularly formed it will not

in the least interfere with its practical use, as any irregularity or projection that might be produced thereon during the manufacture thereof will be above the plane of the bottom of the bottle.

The improved bottle is comparatively inexpensive in its manufacture and will be found exceptionally beneficial to proprietors of different kinds of liquors desired to be protected against imitations and adulterations.

Changes in the proportions and dimensions and minor details of the several parts may be resorted to without departing from the spirit of the invention.

What I claim is—

A bottle having an automatic-operating closing valve structure in the neck thereof, and an opening through the center of the bottom of the same, said opening having an upper portion of materially less diameter than the lower portion to provide an intersecting shoulder, diametrically-opposed sockets being formed in the bottle-bottom in line with the said shoulder, and a closure for the said bottom having a lower portion of less vertical extent than the corresponding portion of the opening in which it is inserted, and an upper reduced portion of greater vertical extent than the reduced diametrical upper part of the said opening, so that the lower surface of the closure, when applied, is above the plane of the bottom of the bottle and fully located within the opening in said bottle - bottom, and outwardly - projecting spring-actuated pins carried by the closure to automatically engage the sockets when the closure is inserted in operative position.

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

AUGUST E. CLAR.

Witnesses:

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