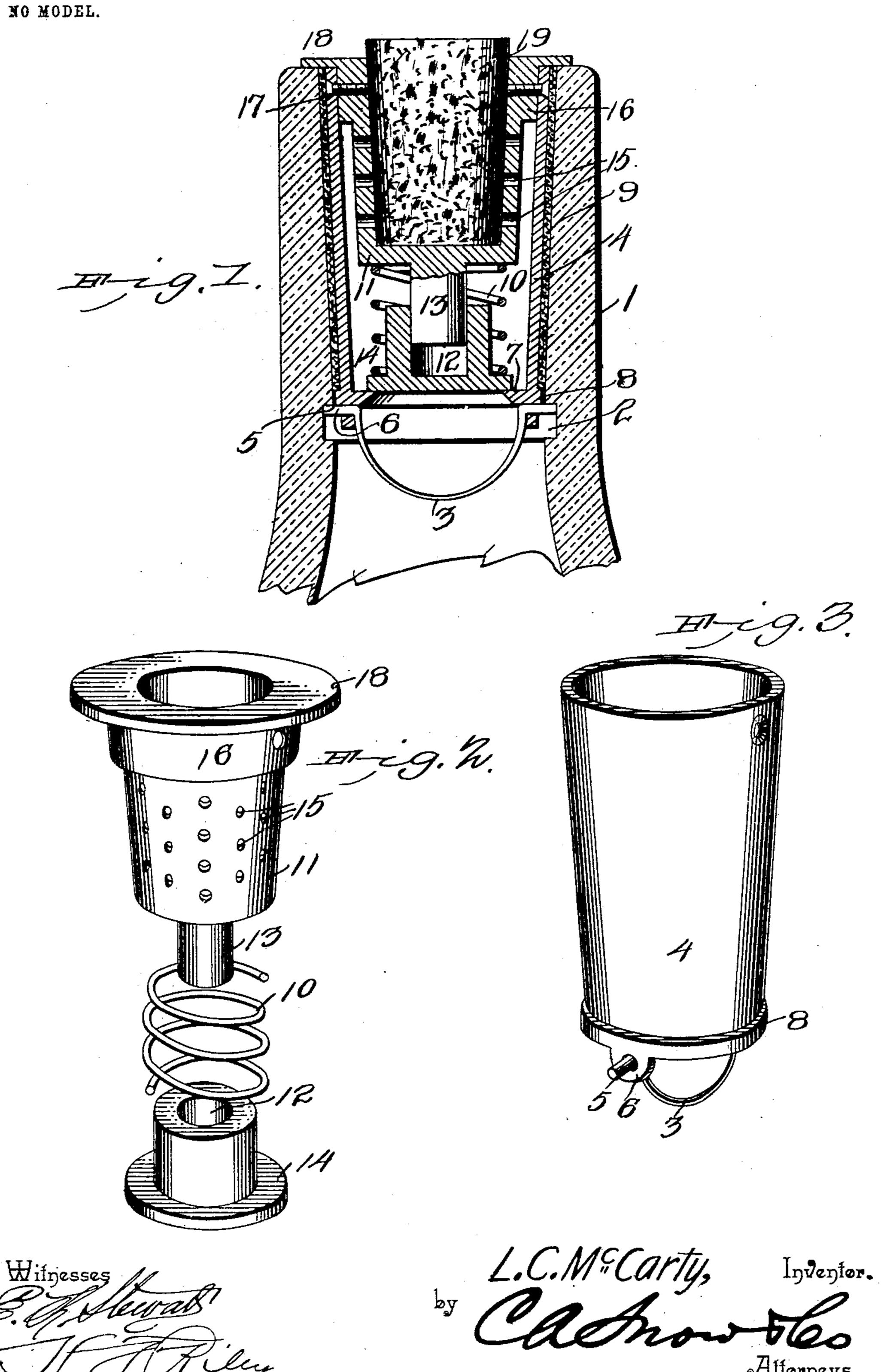
L. C. McCARTY. NON-REFILLABLE BOTTLE. APPLICATION FILED JULY 18, 1902.



UNITED STATES PATENT OFFICE.

LEWIS C. McCarty, of Portland, Arkansas, assignor of one-half to WILLIAM S. DALTON, OF PORTLAND, ARKANSAS.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 735,130, dated August 4, 1903.

Application filed July 18, 1902. Serial No. 116,093. (No model.)

To all whom it may concern:

Be it known that I, Lewis C. McCarty, a citizen of the United States, residing at Portland, in the county of Ashley and State of 5 Arkansas, have invented a new and useful. Non-Refillable Bottle, of which the following is a specification.

The invention relates to improvements in non-refillable bottles.

The object of the present invention is to improve the construction of non-refillable bottles and to provide a simple and comparatively inexpensive device adapted to be readily applied to a bottle or analogous receptacle 15 after the same has received its original contents and capable of effectually preventing a liquid from being introduced into the bottle, whereby adulterations and fraudulent refillings are rendered impossible.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a portion of a bottle constructed in accordance with this invention. Fig. 2 is a detail view of the inner perforated casing and the spring-actuated valve, the parts 30 being separated. Fig. 3 is a similar view of the outer casing and the catch for engaging the neck of the bottle.

Like numerals of reference designate corresponding parts in all the figures of the draw-35 ings.

1 designates the neck of a bottle, provided with an interior annular groove 2, forming a shoulder which is adapted to be engaged by a resilient catch 3 of an outer approximately 40 cylindrical shell or casing 4. The catch for locking the device in the neck of the bottle consists of an approximately semicircular spring provided with rounded end portions 5, forming laterally-extending locking-arms and 45 arranged in perforated ears 6 of the outer casing 4. The ears depend from the outer casing, and the locking-arms also serve as pivots or pintles for hinging the catch to the casing to permit the catch to swing against the end 50 of the casing to enable the device to be com-

also to prevent the catch from being injured after assembling the parts and before the device is applied to the neck of a bottle.

The outer casing is provided with inner and 55 outer annular flanges 7 and 8, arranged at the bottom of the casing, as clearly shown in Fig. 1, and forming a valve-seat and a shoulder for supporting an exterior sleeve 9. The exterior sleeve 9, which is constructed of 60 cork or other suitable material, is yielding or elastic and enables the device to be forced tightly into the neck of a bottle or other receptacle, similar to an ordinary cork or stopper. The inwardly-extending annular 65 flange which forms the valve-seat is beveled at the lower face and receives a valve, which is held against the seat by a coiled spring 10, interposed between the valve and an inner casing or shell 11. The valve is provided 70 with a tubular portion forming a socket 12 to receive a depending stem 13 of the inner shell or casing, whereby the valve is guided in its inward and outward movements and it is prevented from becoming displaced. The 75 spring is disposed on the tubular portion of the valve and extends around the stem 13, and it engages a flange 14 of the lower end of the valve, and in practice the spring will preferably be of sufficient strength to hold 80 the valve against the seat when there is no internal pressure, whereby the bottle will be effectually prevented from being refilled after its original contents have been decanted. The weight of the valve and the liquid con- 85 tents of the bottle are sufficient to cause the valve to open when the bottle is inverted; but after the contents of the bottle have been decanted the spring will operate to hold the valve closed, so that a liquid cannot be forced go into the bottle when the latter is inverted.

The inner casing is provided at its sides with perforations 15 to permit the liquid to flow readily through it, and the bottom of the inner casing is imperforate, whereby the in- 95 ner casing forms an efficient guard or shield and effectually prevents the valve from being tampered with. The upper portion 16 of the inner casing is enlarged and extended outward beyond the perforated sides to space 100 the latter from the outer shell or casing, which pactly arranged for shipping and storing and is secured to the enlarged portion 16 by

screws 17 or other suitable fastening devices when the parts of the device are constructed of aluminium or other metal; but the parts, with the exception of the springs, may be 5 constructed of glass, porcelain, or any other suitable material. The inner casing is provided at its outer end with a horizontally-projecting flange 18 extending outward over the upper edge of the neck of the bottle and en-10 gaging the same and forming a guard or shield to prevent access to the space between the outer casing and the neck of the bottle, so that the catch cannot be tampered with. The perforated inner shell or casing also 15 forms a socket for the reception of an ordinary stopper 19 to permit the bottle to be corked and sealed in the usual manner.

After a bottle or analogous receptacle has received its original contents the device is 20 placed in the neck and the catch will automatically engage the annular groove and effectually prevent the device from being removed. The cork or stopper is adapted to be drawn in the usual manner by a corkscrew, and 25 after it has been removed the contents of the bottle may be readily decanted. The bottle may also be recorked, and the inner casing is tapered, as shown, to enable a cork to fit tightly within it.

What I claim is—

1. In a device of the class described, the combination of a casing having perforated ears, a valve, and a resilient catch consisting of a bowed or bent spring having its termi-35 nals extended outward to form locking-arms and arranged in the perforated ears and capable of partial rotation therein, whereby the catch is pivoted to the casing and is adapted to be swung against the same to prevent it 40 from being injured before the device is placed in the neck of a receptacle, substantially as and for the purpose described.

2. In a device of the class described the combination of an outer casing having an in-45 terior valve-seat and provided at its lower end with an exterior annular flange forming a shoulder, an inner stopper-receiving casing secured to the outer casing and provided at its top with an outwardly-extending flange

50 arranged to rest upon the neck of a receptacle

and forming a shoulder, a valve arranged within the outer casing, and an exterior flexible sleeve located between the said shoulders and interposed between the outer casing and the neck of the receptacle, substantially as 55 described.

3. A device of the class described comprising an outer casing having an exterior shoulder, a locking device arranged at the bottom of the outer casing and adapted to engage the 60 neck of a receptacle, an exterior sleeve interposed between the casing and the neck of the receptacle and supported by the exterior shoulder, an inner stopper-receiving casing secured within the outer casing and provided 65 at its top with an outwardly-extending flange arranged to engage the upper edge of the neck and forming a shield to prevent access to the sleeve and to the locking device, substantially as described.

4. A device of the class described comprising an outer casing having a valve-seat, an inner stopper-receiving casing secured within the outer casing and provided with a depending stem, a tubular valve arranged on the 75 valve-seat and receiving the same and provided with an exterior flange, and a coiled spring surrounding the same and the valve and engaging the flange of the valve and the bottom of the inner casing, substantially as 80

described.

5. An appliance for bottle-necks, comprising a guard-sleeve held liquid-tight in the bottle-neck, a nozzle-cup secured concentrically within the guard-sleeve and spaced there-85 from, said cup having its side wall foraminated, the guard-sleeve having an opening formed as a valve-seat in its lower end, and a spring-pressed valve held loosely by the lower end of the nozzle-cup so as to play be- 9c tween said nozzle-cup and the valve-seat it normally rests on.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in

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the presence of two witnesses.

LEWIS C. McCARTY.

Witnesses:

S. A. HERREN,

J. D. BEARLEY.