J. KOSIENSKI & A. KAMINSKI.

NON-REFILLABLE BOTTLE.

APPLICATION FILED SEPT. 2, 1914.

1,136,880.

Patented Apr. 20, 1915.

Fig. 1.

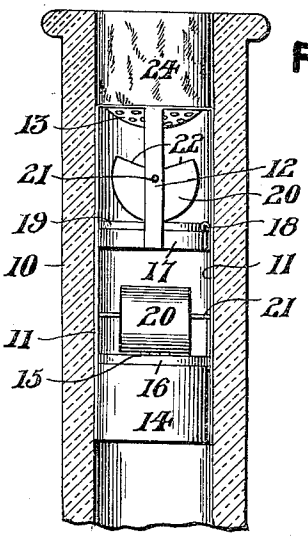


Fig. 2.

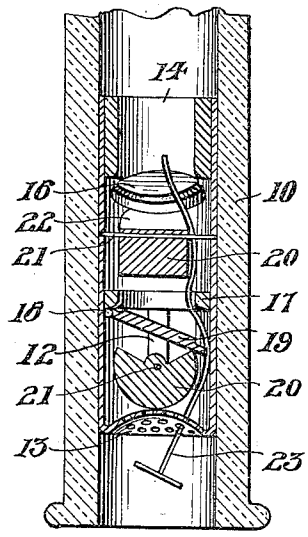


Fig. 3.

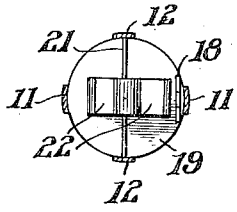


Fig. 4.

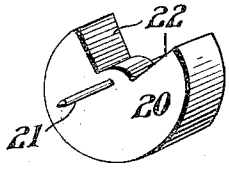
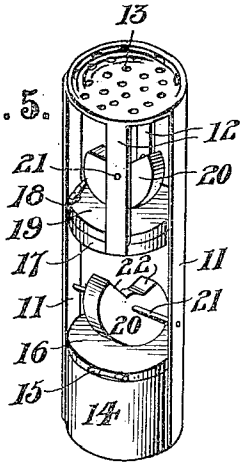


Fig. 5.



Witnesses

S. Z. Torosiewicz

W. E. Lowry.

By

Inventors

J. Kosienski

A. Kaminski

Attorney.

UNITED STATES PATENT OFFICE.

JACOB KOSIENSKI AND ALBERT KAMINSKI, OF AMSTERDAM, NEW YORK, ASSIGNORS OF ONE-THIRD TO BENJAMIN H. LICHTMAN, OF AMSTERDAM, NEW YORK.

NON-REFILLABLE BOTTLE.

1,136,880. Specification of Letters Patent. Patented Apr. 20, 1915.

Application filed September 2, 1914. Serial No. 859,832.

To all whom it may concern:

Be it known that we, (1) JACOB KOSIENSKI and (2) ALBERT KAMINSKI, (1) a citizen of the United States of America and (2) a subject of the Emperor of Austria-Hungary, residing at Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to certain new and useful improvements in non-refillable bottles.

An object of the invention is to provide a non-refillable bottle with valve mechanism arranged in the neck portion thereof and which will prevent the bottle from being refilled when the original contents thereof has been emptied.

A further object of the invention is to provide a non-refillable bottle with a valve mechanism in the neck portion thereof, embodying a pair of flap valves adapted to be closed by suspended weights when the bottle is in upright position and which weights are moved to inoperative position when the bottle is inverted to permit the flap valves to be unseated.

With the above general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter more fully described and then claimed.

In the accompanying drawing which shows the preferred embodiment of the present invention and to which reference is had herein by like characters designating corresponding parts throughout the several views:—Figure 1 is a sectional view of a portion of a bottle neck with our invention applied thereto. Fig. 2 is a longitudinal sectional view of the same in inverted position. Fig. 3 is a horizontal sectional view, taken through the cage and showing one of the flap valves engaged by the closure member. Fig. 4 is an enlarged detail perspective view of the valve closing member, and Fig. 5 is a detail perspective view of the valve mechanism removed from the bottle neck.

Referring more in detail to the accompanying drawing, the reference numeral 10 designates the neck portion of a bottle which may be of any suitable shape or form and by changing the minor details of construction of the present invention, the same is readily adaptable to any form of bottle.

The valve mechanism arranged within the bottle neck 10 consists of a cage embodying a pair of relatively long side bars 11 and a pair of diametrically opposite shorter side bars 12. The side bars 11 are connected at their upper ends to a perforated disk 13 that is adapted to be positioned adjacent the mouth of the bottle when the valve mechanism is in operative position. A collar or short tubular section 14 is connected to the lower ends of the side bars 11 and has hinged as at 15 thereto a flap valve 16 closing the upper end thereof.

A valve seat ring 17 is secured to the lower ends of the short arms 12 and has hinged thereto as at 18 a second flap valve 19. Means are provided to hold the flap valves 16 and 19 closed on their respective seats and consists of a weighted cam member 20 provided with an axial pin 21 extending from each side thereof and journaled in the arms 11 and 12, as clearly shown in Fig. 5 and so positioned with respect to the flap valves 16 and 19 as to engage the same to hold the said valves in closed position when the bottle is in upright position. One side of the cam member 20 is cut away as at 22 and provides a clearance for the swinging end of the valves 16 and 19 so that the said valves may be opened as shown in Fig. 2.

In Fig. 2, we have shown a key 23 formed of a wire with suitable angular bends that is introduced through the perforated cap 13 of the cage to the position shown in the said figure to hold the valves 16 and 19 in opened position to enable the bottle to be filled. The bottle 10 is closed by any suitable form of cork as indicated at 24.

The liquid within the bottle 10 may be poured therefrom at will by inverting the bottle, in which position the cam members 20 will be moved to inoperative position so that the flap valves 16 and 19 will be permitted to swing on their hinges 15 and 18 and permit the swinging edges thereof to pass into the cut out portions 22 of the cams.

What we claim is:—

In a device of the class described, a cage, embodying a pair of long arms and a pair of short arms, a valve seat and flap valve carried by the lower ends of the longer arms,

and a second valve seat and flap valve carried by the lower ends of the shorter arms, said flap valves being hinged to their seats in different vertical planes, cam members pivotally mounted in each of said long and short arms above said flap valves to engage the same and hold the valves in closed position when the bottle is in upright position and adapted to be moved to disengaging position when the bottle is inverted to permit the flap valves to unseat and allow the contents of the bottle to be poured therefrom.

In testimony whereof we affix our signatures in presence of two witnesses.

JACOB KOSIENSKI.
ALBERT KAMINSKI.

Witnesses:
JOSEPH ZITWAR,
FRANK CZELURMIAK.