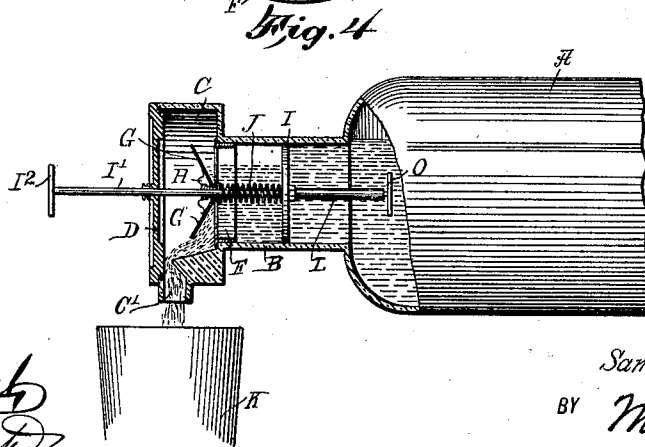
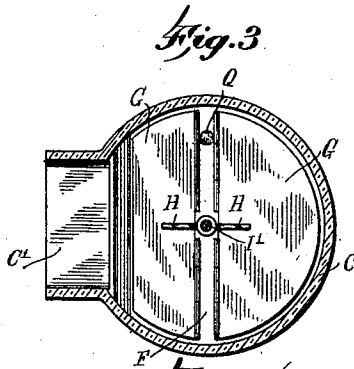
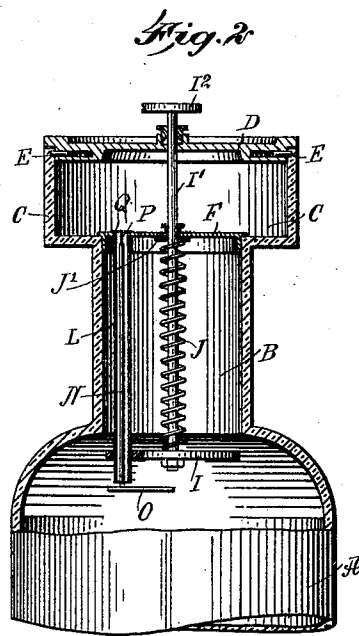
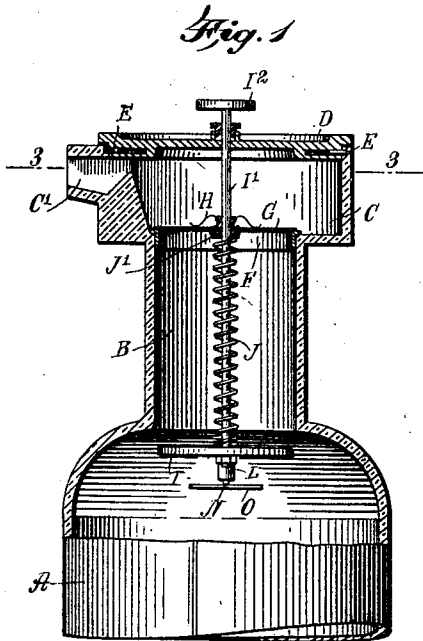


S. B. KULL.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAR. 26, 1910.

999,803.

Patented Aug. 8, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL B. KULL, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

999,803.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed March 26, 1910. Serial No. 551,608.

To all whom it may concern:

Be it known that I, SAMUEL B. KULL, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Non-Refillable Bottle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved non-refillable bottle, arranged to govern the discharge of the liquid from the bottle and to prevent unauthorized persons from refilling the bottle with spurious goods.

For the purpose mentioned, use is made of a valve in the neck of the bottle, and a plunger operating in the neck below the valve thereof, to allow of forcing the liquid through the valve on actuating the plunger.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improved bottle; Fig. 2 is a cross section of the same; Fig. 3 is a sectional plan view of the same on the line 3—3 of Fig. 1; and Fig. 4 is a reduced side elevation of the bottle partly in section and in tilted position, for pouring some of the liquid into a glass.

The body A of the bottle is provided with a cylindrical neck B, terminating at its upper end in an enlargement C, having a pouring spout C' at one side for the discharge of liquid from the body A into a glass or other receptacle. The top of the enlargement C of the neck B is closed by a cover D, after the bottle is filled with the desired liquid, the cover D being for this purpose provided with spring-pressed locking pins E, engaging recesses in the wall of the enlargement C, to permanently lock the cover D in position, to hold the same against removal by unauthorized persons.

On the upper end of the neck B is arranged a valve seat F, on which are hinged or pivoted flap valves G, normally closed by springs H, but adapted to open upwardly into the enlargement C for the passage of the liquid, as hereinafter more fully explained. In the neck B is adapted to move a plunger I, having its stem I' extending through the center of the valve seat F and through the cover D to the outside of the

bottle, the upper outer end of the stem I' being provided with a handle I², adapted to be taken hold of by the operator, for moving the plunger I up or down in the neck B, and also to pass the plunger I within the body A, to permit the liquid to flow from the body A into the neck B, to fill the same. Normally the plunger I is held in this lowermost position by a spring J, coiled on the stem I' and resting with its upper end on a washer J', abutting against the under side of the valve seat F, the lower end of the spring J resting against the plunger I. Now when it is desired to fill a glass K (see Fig. 4) with liquid from the bottle, the operator tilts the bottle so that the neck B fills with liquid, and then the operator pulls on the handle I², so as to move the plunger I into the neck B and outward therein, thereby forcing the liquid in front of the plunger through the valve seat F and passing between the now opening flap valves G, so that the liquid finally flows through the enlargement C and its spout C' into the glass K to be filled. Thus only a predetermined amount of liquid is passed at one operation from the bottle into the glass K, and the plunger I within the neck B prevents further outflow of the liquid contained in the body A at the rear of the plunger I. When the bottle is righted and the handle I² is released, then the spring J returns the plunger I to normal position, and at the same time the flap valves G close.

The flap valves G are preferably made of hard rubber, and in order to prevent tampering with the valves by acids, the following arrangement is made: On the valve seat F, between the flap valves G, is secured a depending tube L, through which extends a rod N, provided at its lower end with a plate O, reaching within the body A. The upper end of the rod N is connected by a thread P with a plate Q, of hard rubber, closing the upper end of the tube L and attached to the valve seat F. Now in case an unauthorized person introduces an acid through the spout C' into the enlargement C, with a view to destroy the valves G to allow of refilling the bottle with spurious goods, then the acid destroys the plate Q sooner than it would the valves G, as said plate Q is made very thin in comparison with the valves G. Thus when the plate Q is destroyed, the rod N is liberated and drops with its indicating plate O, so that

it at once becomes apparent that the bottle has been tampered with. By having the valves G pressed on by the springs H, the valves are not liable to open by the action of the plunger I on the liquid contained in the neck B, as previously explained, and hence unauthorized persons cannot open the valves G with a view to refill the bottle with spurious goods.

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

15 1. A bottle provided with a chamber in the outer portion of its neck, the chamber having a pouring spout, a valve in the said neck and opening into the said chamber, the said valve being of hard rubber, a tube depending from the seat of the said valve, and an indicator, having a plate below the tube,

a rod extending through the tube and carrying the plate, and a disk closing the tube at the top and on which the rod is suspended.

2. A bottle provided with an enlargement in the outer portion of its neck, the enlargement having a pouring spout, a valve in the said neck and opening into the said enlargement, a cover for the enlargement, a plunger fitting the bottle neck, a plunger rod extending through the valve seat and cover of the neck to the outside thereof, and a spring pressing the said plunger.

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

SAMUEL B. KULL.

Witnesses:

THEO. G. HOSTER,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
