

G. R. LEHMAN.
NON-REFILLABLE BOTTLE.
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1,039,969.

Patented Oct. 1, 1912.

Fig. 1.

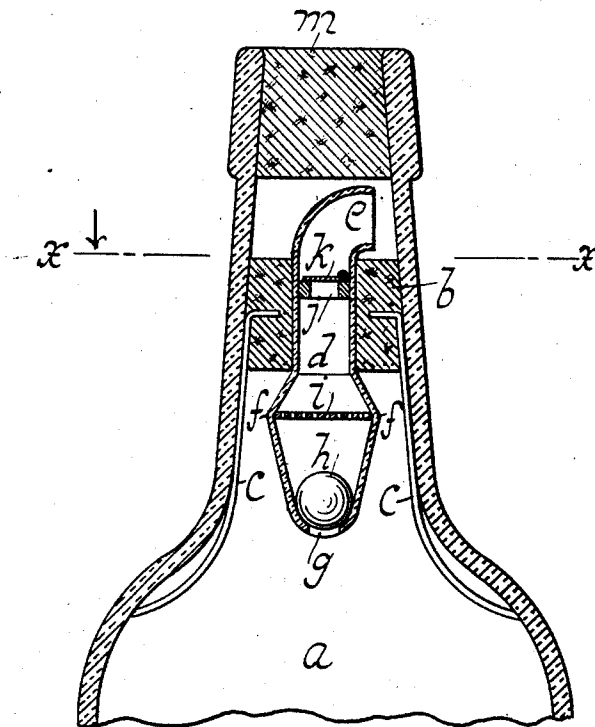
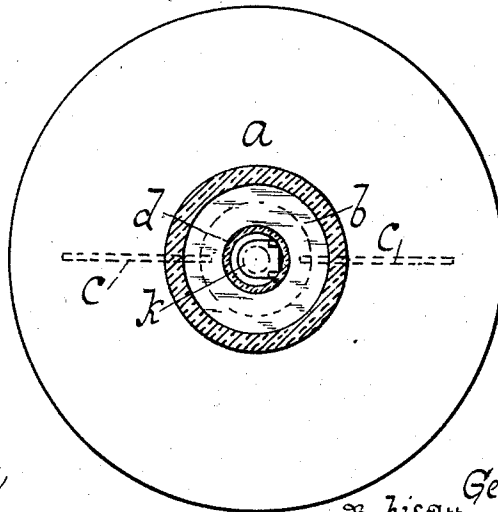


Fig. 2.



Witnesses:
William Miller
Chris. F. Almstaedt

Inventor
George R. Lehman
By his Attorneys
Hauff & Harland

UNITED STATES PATENT OFFICE.

GEORGE R. LEHMAN, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE R. LEHMAN, a citizen of the United States, residing at New York, in the city of New York and State of New York, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to a non-refillable bottle, the operating parts of which are inexpensive and can be readily inserted into the neck of an ordinary bottle without altering the construction or shape of the bottle.

The object of the invention is to provide the interior of the neck of the bottle with a tubular outlet having a flaring tapered lower portion to form a seat for a spherical valve adapted to close the outlet and prevent fraudulent refilling of the bottle. The outlet tube is carried by a cork of suitable construction to fit into the neck of the bottle below the sealing cork. The cork carrying the outlet tube is equipped with devices to coact with the wall of the bottle whereby the cork is prevented from being drawn out of the bottle. The upper portion of the interior of the outlet tube has an auxiliary flap valve, which in conjunction with the lower valve effectively prevents any liquid from entering by way of the tube into the body of the bottle.

The novel features of the invention are more fully described in the following specification and claim and illustrated in the accompanying drawings in which:

Figure 1 represents a vertical section of a portion of a bottle embodying this invention. Fig. 2 is a horizontal section taken along the line *x x* of Fig. 1.

In this drawing the letter *a* designates a bottle which is of ordinary construction and shape. A cork *b* is inserted into the neck of the bottle and it has wire members *c* hooked into the cork. The shank portions of these members are curved outwardly so that when the cork *b* is pushed into the neck the wire members will engage the curved inner walls of the bottle and thus prevent the cork from being pulled out. The cork *b* carries a glass outlet tube *d* which is fused to the peculiar shape shown. The upper portion of the tube projects from the cork and is curved to form a spout *e* with its mouth pointing toward the wall of the bottle. The lower portion of the tube *d* projects from the cork

and it has a flaring part *f* so that after the tube is inserted into the cork and fused the flare prevents the tube from being pulled upwardly. The lower end of the flaring portion *f* of the tube is tapered and has an opening *g* located at the terminal of the tube. A spherical ball valve *h* preferably made of porcelain or any other non-corrosive material is normally seated on top of and effectively closes the opening *g*. Fastened to the interior of the tube and located above the valve is a perforated baffle plate *i*. The baffle plate *i* prevents tampering with the lower valve and it constitutes a stop for limiting the upward movement of the valve. In the upper portion of the tube *d* is secured a cork having an opening *j* on top of which is pivoted a flap valve *k*. This valve normally closes the opening and prevents any liquid from being forced into the tube.

When the bottle with its contents is shipped or not in use it is sealed by means of an ordinary cork *m*. When the bottle is tilted or inverted the liquid will force the valve *h* toward the baffle plate or into the widest part of the tube thus allowing the liquid to pass into the opening *g* and up the tube to the auxiliary flap valve which is opened by the force of the liquid, and the tilting of the bottle, the liquid then flows out of the spout and out of the mouth of the bottle. When the bottle is again placed in its vertical position both valves will gravitate to their normal positions and thus close the bottle.

It will be readily understood that the glass outlet tube is shaped and fused after the tube is inserted into the cork and the parts of the tube such as the valves and the baffle plate are positioned in the tube before the tube is heated and shaped to the peculiar form shown. In fact all the parts such as the cork *b* with its hooked members form a component part of the tube so that the device can be easily fitted into the bottle and forms practically a single element when in place.

I claim:

A non-refillable bottle comprising a tube located in the neck of the bottle, a cork secured to the body of the tube and fitted in the neck, devices for preventing withdrawal of the cork, said tube including a spout with its mouth facing the wall of the bottle and having a tapered tubular lower end with a

contiguous flare upward, a valve to normally close the tapered portion of the tube, a perforated plate secured at the top of the flare to limit the movement of the valve, and a
5 flap valve pivoted within the upper portion of the tube.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing witnesses.

GEORGE R. LEHMAN.

Witnesses:

CHRIS. H. ALMSTAEDT,
H. V. McELROY.

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