

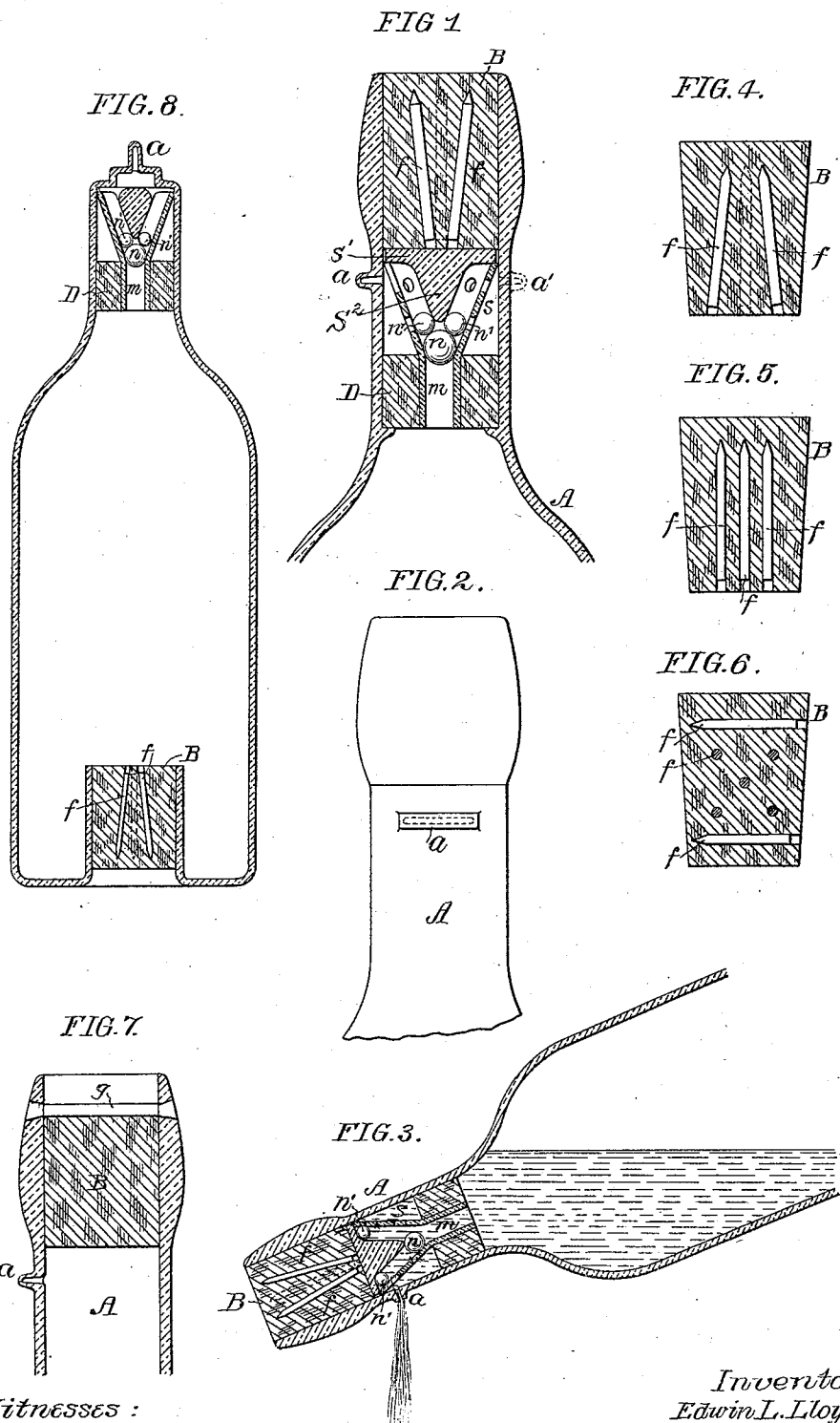
(No Model.)

E. L. LLOYD.

BOTTLE FOR PREVENTING FRAUDULENT REFILLING.

No. 544,675.

Patented Aug. 20, 1895.



Witnesses:
R. Schlichter
Hauk & Bechtold

Inventor:
Edwin L. Lloyd
by his Attorneys
Howen & Howen

UNITED STATES PATENT OFFICE.

EDWIN L. LLOYD, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE FOR PREVENTING FRAUDULENT REFILLING.

SPECIFICATION forming part of Letters Patent No. 544,675, dated August 20, 1895.

Application filed September 15, 1894. Serial No. 523,089. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. LLOYD, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Bottles for Preventing Fraudulent Refilling, of which the following is a specification.

The object of my invention is to so construct a bottle and a stopper therefor as to
10 prevent the fraudulent refilling of the bottle after its original contents have been used, and this object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

15 Figure 1 is a sectional view of the neck of a bottle and of a stopper therefor constructed in accordance with my invention. Fig. 2 is a side view of part of the neck of the bottle. Fig. 3 is a sectional view of part of the bottle,
20 showing the manner of use; and Figs. 4 to 8 are views illustrating modifications of the invention.

A represents a bottle-neck having on one side of the same, some distance below the
25 mouth, a projecting rib or teat *a* of such character that it can be readily broken off when desired, so as to provide an opening into the bottle independent of that through the mouth, this lug or teat being, by preference, of ob-
30 long shape, as shown in Fig. 2, so that it will be contracted in one direction in order to prevent the introduction of a funnel or other implement into the opening for the purpose of refilling the bottle. The bottle being closed
35 by means of a cork B, the original buyer, instead of removing the cork, breaks off the lug or teat *a* and thus provides an opening through which the contents of the bottle can be dis-
40 charged, the breaking off of the lug rendering the bottle useless for further sale.

In order to prevent the fraudulent reuse of the bottle with the connivance of the original purchaser, I prefer to render the cork B non-removable. Such removability may be ef-
45 fected in various ways, the plan which I prefer being to embed in the cork one or more rigid obstructions to the entrance of a corkscrew. Thus the cork shown in Fig. 1 has embedded therein a series of metal pins or nails
50 *f*, which flare outwardly from the bottom toward the top of the cork and are preferably

sharpened at the upper ends to facilitate their introduction. These metallic pins constitute a rigid cage, which will prevent the introduction of a corkscrew large enough to permit of
55 the removal of the cork, since any attempt to force the corkscrew into the cork will cause such a forcing apart of said pins as will result in spreading the cork sufficiently to rupture the neck of the bottle.

In the cork shown in Fig. 4, a reverse construction is adopted—that is to say, the pins are inclined toward each other from the bottom toward the top of the cork, so as to form a rigid wedge, which will engage the cork-
65 screw and prevent the introduction of the same into the cork.

In Fig. 5 I have shown a cork provided with a series of straight vertical pins, which may be so disposed as to prevent the turning of
70 the corkscrew, and in Fig. 6 I have shown a cork provided with a series of transverse pins for the same purpose.

My invention in its broad embodiment, however, is not limited to the use of a cork
75 provided with obstructions such as described. For instance, in Fig. 7 I have shown a bottle in which the cork is retained by means of a transverse pin *g* above the cork, the ends of the pin being contained in countersunk open-
80 ings formed in the sides of the neck of the bottle, and said ends after the insertion of the pin being expanded by means of a suitable tool, so as to fill these openings and thus prevent the withdrawal of the pin. Neither
85 is it necessary to my invention that the bottle shall have the usual stoppered neck or that the lug *a* shall be formed below the mouth of the bottle. For instance, in Fig. 8 I have
90 shown a bottle having a stoppered filling-tube at the bottom, the neck of the bottle being closed at the top and the lug *a* projecting from said closed top.

A bottle constructed in accordance with my invention is, as before stated, difficult to re-
95 fill, owing to the shape of the pouring-opening in the neck, and even if it was refilled no purchaser could be deceived into buying the refilled bottle as an original package, since such original package must always have the un-
100 broken lug or teat upon the neck or top.

As a further safeguard against refilling I

provide the bottle with a secondary internal cork or stopper D below the lug *a*, and I provide this cork with a pouring-tube *m* of glass or other material which will not be affected by the contents of the bottle, this tube being normally closed by a light ball-valve *n*, held to its seat by heavier balls *n'*, contained in a perforated cage *s*, which is of inverted conical form and has a cap *s'* with inwardly-projecting conical finger *s*², thus forming a flaring annular chamber in which the balls *n'* can roll, the outward movement of said balls *n'* permitting the ball *n* to roll away from the mouth of the tube *m* when the bottle is held so as to pour out its contents, as shown in Fig. 3, but one or other of the balls serving to press the ball *n* against the mouth of said tube *m* when the bottle is held so as to permit liquid to flow into the same through the opening *a*.

In order to expedite the pouring of the liquid from the bottle the latter may have a lug *a'*, as shown by dotted lines in Fig. 1, which can be broken away so as to form a vent-opening to permit inflow of air when pouring.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of a bottle having a portion adapted to be broken away to provide a special pouring opening, with a stopper for closing the filling mouth of the bottle, said stopper having embedded therein pins for

engaging with a cork screw, substantially as specified.

2. The combination of a bottle having a portion adapted to be broken away to provide a special pouring opening, with a stopper for the filling mouth of the bottle, said stopper having embedded therein pins inclined so as to form a wedge-shaped obstruction for engaging with a cork screw, substantially as specified.

3. A bottle having a filling mouth, a portion adapted to be broken away to form a pouring opening when the filling mouth is closed, a non-removable stopper for said filling mouth and a valved stopper within the bottle neck, access to said valved stopper being prevented when the non-removable stopper is inserted substantially as specified.

4. A bottle having its mouth closed by a non-removable stopper, and having at one side of the neck below the mouth a portion adapted to be broken away to form a pouring opening, and in the neck, below said pouring opening a supplementary valved stopper, substantially as specified.

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

EDWIN L. LLOYD.

Witnesses:

FRANK E. BECHTOLD,
JOSEPH H. KLEIN.