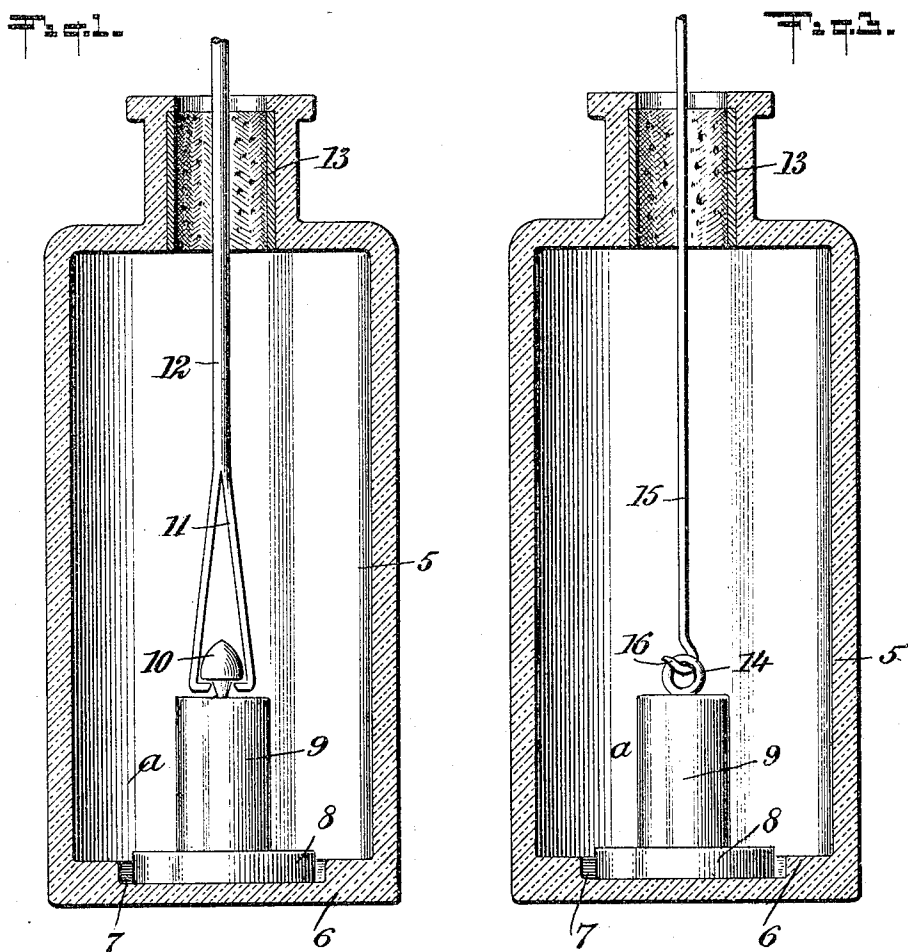
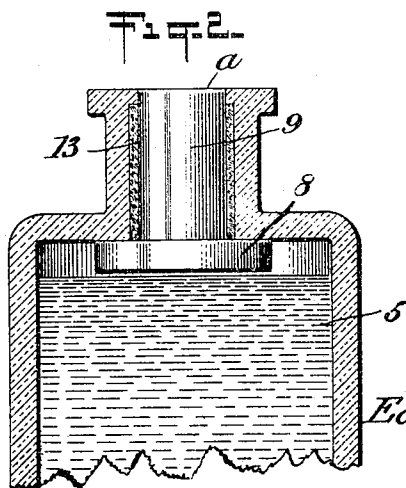


No. 784,469.

PATENTED MAR. 7, 1905.

E. CAMPBELL.
BOTTLE STOPPER.

APPLICATION FILED DEC. 26, 1903.



WITNESSES:

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EDWARD CAMPBELL, OF ROSSLAND, CANADA.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 784,469, dated March 7, 1905.

Application filed December 26, 1903. Serial No. 186,578.

To all whom it may concern:

Be it known that I, EDWARD CAMPBELL, a subject of the King of Great Britain, and a resident of Rossland, in the Province of British Columbia and Dominion of Canada, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

My invention appertains to certain novel and useful improvements in bottle stoppers or closures.

The principal object of the present invention is to provide an improved stopper designed to be inserted within a bottle or similar vessel, which stopper after it has been securely sealed in the neck of the bottle is so fractured or marked that it will be impossible to refill the bottle after the original contents have been removed and without insuring detection of the fraud.

A further object is to provide means used in conjunction with the stopper for lifting the same from its resting-place at the bottom of the bottle and placing the stopper in position in the neck.

Still another object of my invention is to provide an improved stopper which will embody the essential and desirable features of economy, simplicity, and security.

With these objects and others of a like nature in view my invention consists in the construction, combination, and arrangement of parts, as is described in this specification, delineated in the accompanying drawings, and set forth in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal sectional view taken through a bottle, showing my improved stopper and the means employed for raising the same to its normally operative position in the neck. Fig. 2 is a vertical sectional view taken through the upper portion of a bottle, showing the stopper in position in the neck; and Fig. 3 is a vertical longitudinal sectional view taken through a bottle, showing a slightly-modified form of stopper and means for raising the same.

Referring now to the accompanying drawings in detail, the numeral 5 designates a bottle of any ordinary character, having formed upon the interior bottom face 6 thereof a recess or cavity 7, designed to receive my improved stopper, which is indicated by *a*. This stopper, as will be observed, comprises a widened flange base portion 8 and a cylindrical stud portion 9 of relatively less diameter in cross-section than the flanged base portion, said stud being provided at its top with a frangible projecting knob 10 of any suitable form or construction, designed to be engaged by a rod of such character as will enable the stopper to be pulled upward into position in the neck of the bottle. The stopper is formed of porcelain or other suitable material.

In Fig. 1 I have shown the knob 10 as of approximately conical shape and form, engaged by the split or bifurcated end portion 11 of a rod 12, which latter is adapted to be inserted in the bottle so that the bifurcated or split portion of the rod forming tongues may grasp the knob of the stud. Within the neck of the bottle I have placed a washer or sleeve 13, composed of cork, rubber, or the like, which is adapted to cause the stud portion of the stopper to make a tight fit, so that when the bottle is tilted accidentally there will be no danger of the contents thereof flowing or leaking out through the neck. When the stopper is in position, the upper end portion of the stud is designed to lie flush with the top of the bottle-neck, the flange 8 and the stopper abutting against the under side of the body of the bottle adjacent to the neck. The frangible knob which projects beyond the plane of the top of the neck of the bottle may be then broken off and thrown aside.

In Fig. 3 I have shown a slightly-modified form of stopper and means for moving the same into position in the neck, the stud 9 in this case being provided with a frangible ring or loop 14, which is designed to be engaged by a rod 15, having a hook 16 at the lower end thereof, the hook being designed to pass through the ring of the stopper so that the latter may be pulled up into position in the neck of the bottle.

It will be observed that with a construction such as herein shown and described it will be possible to detect fraud in refilling a bottle, for in order to remove the original contents of a bottle it is necessary to push the stopper in so that it will drop to the bottom. As the ring or loop is broken from the stud after the bottle has been filled, it will be impossible to again lift the stopper into position when it has been pushed from the neck, and should a new stopper be inserted in the neck the appearance of the old one within the bottle will be evidence of the fact that the bottle has been refilled.

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

1. The combination of a bottle having a central recess in the bottom thereof extending outwardly near the side walls of the bottle, the bottom of said recess being flat, said bottle having a neck of even internal diameter surrounded at its lower end within the bottle by a flat surface, a stopper for the bottle, comprising a stud portion of even diameter designed to tightly fit within the neck of the bottle and of approximately the same length as said neck, a flanged portion at the lower end of the stopper of a size to be easily received into the recess at the bottom of the bottle, the upper and lower sides of said flanged portion being flat, to engage respectively with the flat surface at the top of the bottle when the stopper is in operative position and to rest within the recess at the bottom of the bottle when the stopper is in inoperative position, and a frangible projection at the upper end of the stopper for drawing the stopper into the neck of the bottle, said projection comprising an upper portion diverging down-

wardly and provided with a shoulder around its lower end, and a reduced neck connecting the diverging portion with the stopper.

2. The combination of a bottle having a central recess in the bottom thereof, the bottom of said recess being flat, said bottle having a neck of even internal diameter, a stopper for the bottle, comprising a stud portion of even diameter designed to tightly fit within the neck of the bottle, a flanged portion at the lower end of the stopper of a size to be easily received into the recess at the bottom of the bottle, the lower side of said flanged portion being flat to hold the stopper in a vertical position within the recess of the bottom of the bottle when the stopper is in inoperative position, and a frangible projection at the upper end of the stopper adapted to be engaged by a tool to draw the stopper into the neck of the bottle.

3. The combination of a bottle having a flat bottom and a neck of even internal diameter, a stopper for the bottle, comprising a stud portion of even diameter designed to tightly fit within said neck, a flanged portion at the lower end of the stopper the under side of said flanged portion being flat to hold the stopper in a vertical position when resting upon the bottom of the bottle, and a frangible projection at the upper end of the stopper adapted to be engaged by a tool to draw the stopper into the neck of the bottle.

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

EDWARD CAMPBELL.

Witnesses:

JOHN J. CAMPBELL,
JOHN L. D. NICHOLS.