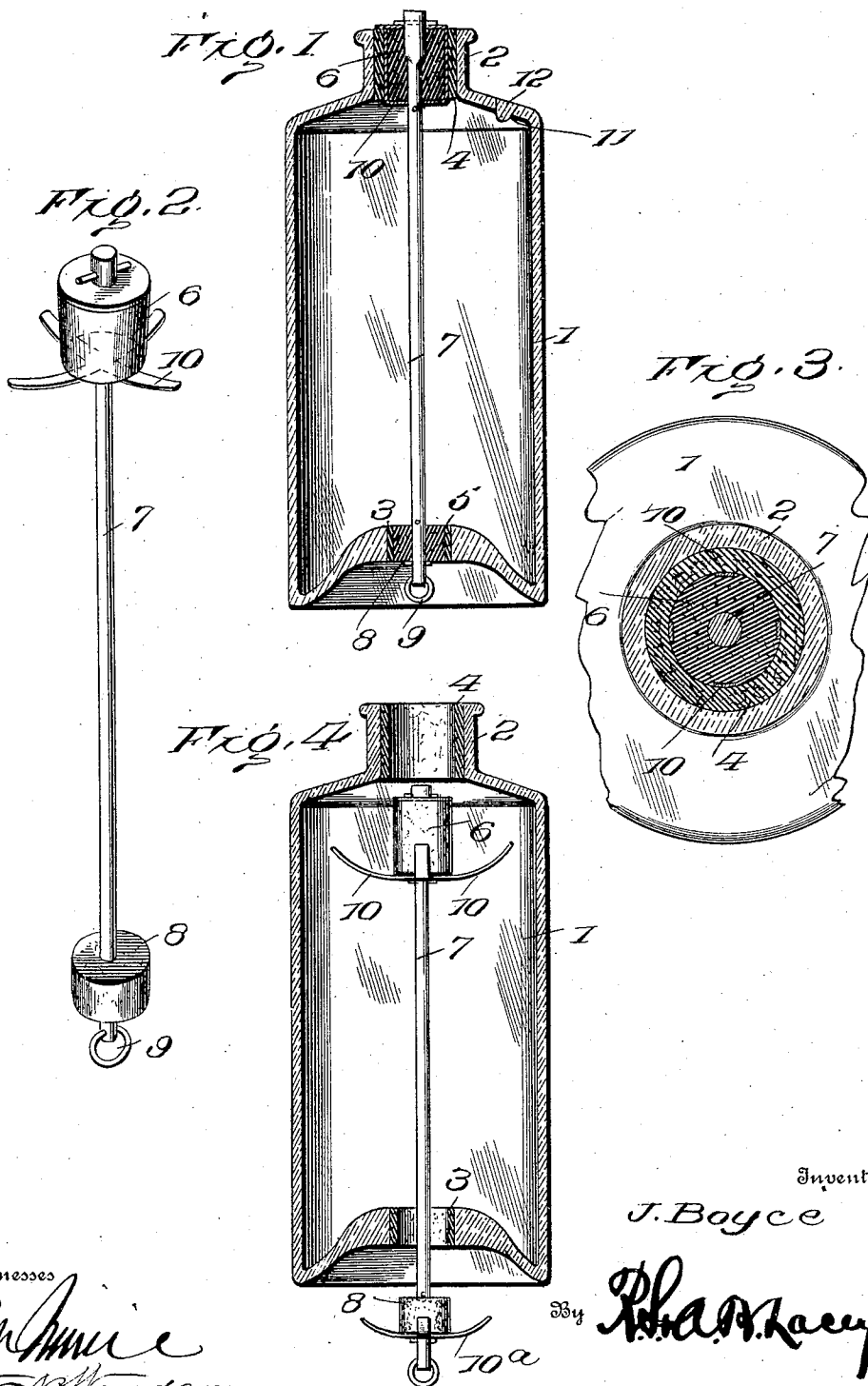


No. 872,606.

PATENTED DEC. 3, 1907.

J. BOYCE.
BOTTLE.

APPLICATION FILED MAY 3, 1907.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPHINE BOYCE, OF BIGBATTLE, WEST VIRGINIA.

BOTTLE.

No. 872,606.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPHINE BOYCE, a citizen of the United States, residing at Bigbattle, in the county of Doddridge and State of West Virginia, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

The present invention relates to certain new and useful improvements in bottles, and resides principally in the provision of novel means for preventing the stopper from being replaced after being once moved out of position, without clearly indicating that it had been previously tampered with.

The object of the invention is to design a bottle of this character which is simple in its construction and which when employed in connection with bottled goods will form a means whereby the purchaser can be absolutely assured that the original contents of the bottle have not been removed and others of an inferior quality substituted therefor.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical sectional view through a bottle constructed in accordance with the invention. Fig. 2 is a detail view of the stoppers and the stem connecting the same. Fig. 3 is a transverse sectional view through the bottle neck. Fig. 4 is a vertical sectional view showing a modification, the stoppers being withdrawn.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is shown as applied to a bottle 1 provided with a pair of openings located on opposite sides thereof and arranged in alinement with each other. In the present instance one of the openings is formed within the neck 2 while the opposite opening 3 is located in the bottom of the bottle, the said bottom preferably being pressed upwardly as indicated in the drawings so as to form a small space between the bottom of the bottle and the support when the bottle is in an upright position. A sleeve 4 of cork or other slightly compressible material is applied to the neck 2 while a similar sleeve 5 is arranged within the opening 3 in the bottom of the bottle. The closure for the neck 2 is in the

nature of a stopper 6 which fits within the sleeve 4 and is mounted upon a stem 7 which extends through the body portion of the bottle and passes through the opening 3 in the bottom thereof. The lower portion of the stem 7 carries a lower stopper 8 which is designed to close the bottom opening 3 when the stopper 6 is in position within the neck 2.

It may here be noted that the lower opening 3 is somewhat smaller than the opening through the neck of the bottle so that when the stopper 6 is drawn into the body portion of the bottle it can not be pulled through the opening 3.

A finger-piece or ring 9 is attached to the lower extremity of the stem 7 and constitutes a convenient means for moving the stem for the purpose of withdrawing the stoppers from their respective openings. This ring 9 is normally received within the space formed by the upwardly pressed bottom of the bottle, and does not therefore prevent the bottle from standing in an upright position in the usual manner. Spring arms 10 are utilized to prevent the stoppers from being replaced within their respective openings after being once withdrawn, without clearly indicating that they had been previously tampered with.

In the preferred embodiment of the invention shown in Fig. 1 the spring arms 10 are carried by the stem 7 immediately below the stopper 6 and when the said stopper is inserted in position from the exterior of the bottle are deflected upwardly so as to fit between the stopper and the sleeve 4. When the stem 7 is pulled downwardly however and the stopper 6 moved within the body portion of the bottle the spring arms 10 expand and project laterally so that even should the stopper 6 be again forced within the neck the said spring arms will project within the interior of the bottle and clearly indicate that the stopper has been previously withdrawn. In the present instance the spring arms 10 are formed by spring strips passed through transverse openings in the stem 7 and projecting laterally upon opposite sides thereof.

A slight modification is shown in Fig. 4 in which a second set of spring arms 10^a are also employed in connection with the lower stopper 8, thereby providing an extra precaution against tampering with the original contents of the bottle.

For the purpose of filling the bottle an inlet

opening 11 is formed in the upper portion thereof, the said inlet opening being designed to receive a plug 12 which is fused in position after the bottle has been filled, so that the only way of removing the contents is through the medium of the stoppers 6 and 8. It may also be mentioned that when the lower cork is drawn through the bottom of the bottle, the upper cork is also drawn into the interior of the bottle so that should they be again moved into position after the bottle has been emptied the spring arms would serve as heretofore mentioned to indicate tampering, and owing to the simultaneous movement of the two corks there would be no means for again filling the bottle.

Having thus described the invention, what is claimed as new is:

1. The combination of a bottle, a stopper applied to the mouth of the bottle, means for moving the stopper within the bottle, and a spring arm for preventing the stopper from being replaced within the neck of the bottle without indicating previous removal.

2. The combination of a bottle having a pair of openings formed therein, stoppers fitting within the openings, connecting means between the stoppers, and means carried by the stoppers to prevent the same from being replaced after being once withdrawn without indicating previous removal.

3. The combination of a bottle formed with a pair of openings in alinement with each other, stoppers fitted within the openings, connecting means between the stoppers, and a spring arm carried by one of the stoppers and designed to expand when the stopper is withdrawn into the interior of the bottle.

4. The combination of a bottle having a pair of openings in alinement with each other, one of said openings being smaller

than the other, stoppers fitted within the openings, a stem connecting the stoppers, and spring arms cooperating with the larger stopper to prevent the same from being replaced after being withdrawn into the interior of the bottle without indicating previous removal.

5. The combination of a bottle formed with a pair of openings in alinement with each other, one of said openings being smaller than the remaining opening, stoppers fitted within the openings, a stem connecting the stoppers, and laterally projecting spring arms carried by the stem and normally deflected and fitting between the larger stopper and the walls of the opening, the said spring arms being designed to expand when the said stopper is withdrawn into the interior of the bottle and prevent said stopper from being replaced without indicating previous removal.

6. The combination of a bottle formed with a pair of openings in alinement with each other, one of said openings being larger than the other, sleeves applied to the openings, stoppers fitted within the sleeves, a stem connecting the stoppers, and spring arms projecting laterally from the stem and normally deflected to fit between one of the stoppers and the walls of the opening, the said spring arms being designed to expand when the said stopper is withdrawn into the body portion of the bottle and prevent said stopper from being replaced without indicating previous tampering.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPHINE BOYCE. [L. s.]

Witnesses:

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JEFFERSON D. BOYCE.