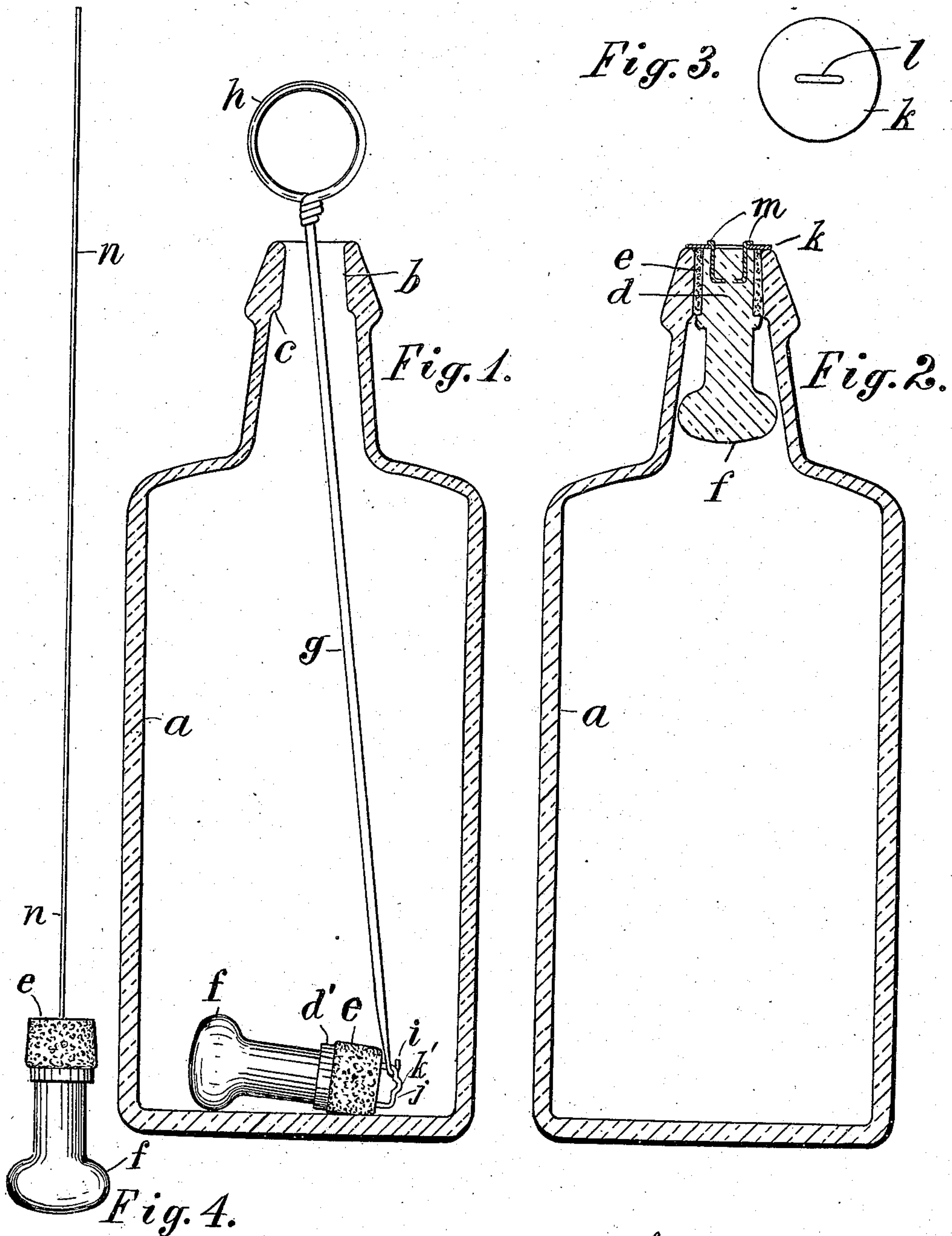


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C. M. BERRY.
BOTTLE FOR CASE GOODS.
APPLICATION FILED SEPT. 16, 1907.



Witnesses:
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UNITED STATES PATENT OFFICE.

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BOTTLE FOR CASE GOODS.

No. 881,293.

Specification of Letters Patent.

Patented March 10, 1908.

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To all whom it may concern:

Be it known that I, CHARLES M. BERRY, a citizen of the United States, residing at 985 Amsterdam avenue, New York, county of New York, and State of New York, have invented certain new and useful Improvements in Bottles for Case Goods, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The present invention relates to that class of bottle-stoppers in which the stopper is constructed to remain permanently within the bottle, and the improvements consist partly, in providing the stopper with a cork-collar upon its body at the point, to make the desired closure when raising the bottle-neck, partly, in the provision of a metallic projection from the point of the stopper by which it may be lifted to close the bottle and then cut off to prevent a repetition of the lifting operation after the bottle has been opened; and partly, in the connection with the stopper, when closed, of a metal washer held upon the top of the bottle-neck by the metallic projection and serving to carry a brand or trademark, and also to show that the bottle has never been opened. In such a bottle stopping device, the stopper has sometimes been provided with a frangible eye or knob upon the small end, which could be broken from the stopper when the bottle was closed; but the metallic projection which I employ is less likely to be broken accidentally in handling the bottles before they are filled, and less likely to be broken by the force employed in forcing the stopper into the bottle-neck. A bottle with such a stopper is particularly adapted for the handling of case goods, by securing the delivery to the purchaser of unadulterated goods, as the bottle cannot be opened and a portion of the original liquid extracted and replaced with other fluid, without detection. The metallic projection upon the point of the stopper is made in the form of a loop or staple, the legs of which are embedded in the stopper when molding or forming the same, and the central portion of such wire loop is preferably formed with an outward projection or apex which serves to center the stopper when engaged by the hook upon the end of a lifting-rod. When the stopper is tightly drawn into the neck of the bottle, such wire loop is cut off by a wire nippers, which deprive the

stopper of any lifting means after the bottle has been opened by forcing the stopper inwardly. If desired, the stopper may have a single wire anchored in its substance and extended from the smaller end of the stopper far enough to project from the neck of the bottle to use in raising the stopper to close the bottle. The stopper can be held in place during transportation by a metal washer fitted upon the top of the bottle-neck and locked to the stopper by a small portion of the original wire or loop extended through the washer and bent over the same; and such washer is useful to carry a brand or trademark, but it is not essential to the operation of the stopper.

The stopper is preferably made of porcelain, as the legs of a wire loop or staple, can be readily molded into the porcelain before it is baked, and such staple or loop used by engagement with a suitable lifter inserted through the bottle-neck when filled, to pull the stopper upwardly into the seat *b* to close or stopper the bottle. The stopper and cork-collar are so proportioned that when the cork upon the stopper is seated in the bottle-neck the point of the stopper is nearly even with the top of the bottle-neck, and the washer perforated for the passage of the metallic projection may then be placed over the same to rest upon the top of the bottle-neck, and the wire, by which the stopper was lifted, is cut off in such manner that the remnants may be clenched or bent over the metal of the washer; by which the washer and stopper hold one another mutually in place, until it is desired to open the bottle.

When the bottle is to be opened, the washer, if one is used, is pried off of the fastening and the bottle-stopper pushed into the bottle, when the bottle can be emptied, but the stopper cannot again be lifted to the neck of the bottle, as the wire by which it was originally lifted has been cut off, so as to practically prevent the re-lifting of the stopper.

The invention will be understood by reference to the annexed drawing, in which

Figure 1 is a vertical section of a bottle provided with the improvements; the stopper being shown in the bottom of the bottle and a pull-rod engaged with the loop of the stopper to lift it for corking the bottle. Fig. 2 shows the bottle in similar section, with the stopper in place, the parts in these figures

being shown in section only where hatched; Fig. 3 is a plan of a washer with a slot to receive the metal projection shown upon the stopper in Fig. 1; and Fig. 4 shows a stopper
5 provided with a long wire to lift the same.

a designates the bottle having a slightly tapering seat *b* within the top of the neck and expanded slightly beneath such seat, the bottom end of which forms a shoulder *c*. The
10 stopper is formed with a cylindrical nozzle or point *d* to receive a cork-collar *e* which is fitted to close the neck of the bottle. The stopper has a projecting ring *d'* upon the lower part of the nozzle *d* which forms a
15 shoulder to sustain the cork-collar during the closing of the bottle, and has an enlarged head *f* which is made larger than the cork-collar and larger than the passage through the seat *b* so as to absolutely prevent the
20 withdrawal of the stopper from the bottle.

Fig. 1 shows a pull-rod *g* having a handle *h* at the upper end and a hook *i* at the lower end to engage a loop or staple *j* attached to the point of the stopper. The center of this
25 loop is shown with a projection *k'* to lead the hook *i* to the center of the loop when lifting the stopper, and thus draw the stopper centrally into the cork-collar. The central apex *k'* of the loop is formed by a bend in the wire.

30 Fig. 3 shows a washer *k* with a slot *l* adapted to fit over the loop *j*.

Fig. 2 shows the stopper drawn up into the cork-collar and the bottle closed thereby, and the washer *k* laid upon the top of the bottle-
35 neck, with the outer part of the loop cut off and the legs *m* forming the remaining portions of the loop bent outwardly over the metal of the washer. Such portions are cut off very closely, so that a very small projection of these legs extends over the washer,
40 and when it is desired to open the bottle the washer is readily pried off of the bottle-neck, bending the legs sufficiently to withdraw them from the slot *l*. The stopper is then
45 pushed into the bottle, and the staple or wire projection having been almost wholly removed, no convenient means remains for grappling the stopper in a practical manner so as to draw it centrally up into the collar
50 to re-cork the bottle. A wire *n* can be secured in the point of the stopper of sufficient length to extend beyond the neck of the bottle, as indicated in Fig. 4, to lift the stopper in place when closing the bottle, and then
55 cut off; but such a wire is undesirable if it would interfere with the filling of the bottle.

In operating my invention, the bottle is filled with its charge of liquid, the stopper then lifted by suitable means into engagement with the bottle-neck, and the metallic
60 projection employed for lifting it is then cut off by pliers, so that when the stopper is forced into the bottle it cannot be conveniently lifted again. It is, of course, possible, by fishing with a flexible wire or cord, to

grasp such a stopper, but the operation is not practical commercially.

It is immaterial what substance be used in the stopper; but it is obvious that a stopper made of porcelain or earthenware
70 can be used to form a tight joint with the cork-collar, and such material possesses the following advantages: that it can be made more cheaply than of glass; that the wire loop or attachment can be more readily
75 molded therein than it can be molded of glass; and that the stopper can be colored or inscribed with any name or ornamentation with great facility if made of porcelain. Any
80 vitrified material can be used, as such material would not affect the fluid contents of the bottle any more than cork.

The metallic projection is employed upon the stopper, and formed of wire, because any
85 part made of wire forms a very durable attachment to the stopper until the bottle is filled and closed, and permits the combination with a portion of such wire, of a washer having an aperture through which the stump
90 of the wire can be extended, and bent over the surface of the washer to hold the stopper and washer mutually in place.

Having thus set forth the nature of the invention what is claimed herein is:

1. The combination, with a bottle having
95 a neck contracted toward the top, of a loose stopper within the bottle having a point *d* fitted with a cork-collar *e* to close the bottle-neck and having a shoulder to sustain the cork-collar when pressing it into the
100 bottle-neck, and the stopper having a head to prevent its withdrawal through the bottle-neck, and means whereby the stopper may be lifted into engagement with the bottle-neck.

2. The combination, with a bottle having
105 a neck contracted toward the top, of a loose stopper within the bottle having a point fitted with a cork-collar to close the bottle-neck and having an enlarged head to prevent the withdrawal of the stopper through the
110 bottle-neck, and a metallic projection upon the top of the stopper adapted for use in lifting the stopper into the bottle-neck.

3. The combination, with a bottle having
115 a neck contracted toward the top, of a loose stopper within the bottle having a point fitted with a cork-collar to close the bottle-neck and having an enlarged head to prevent the withdrawal of the stopper through the
120 bottle-neck, a metallic projection upon the top of the stopper, a washer fitted upon the top of the bottle-neck with an aperture to receive the metallic projection, and the metal of such projection bent over the top of the
125 washer to hold the washer and stopper mutually in place.

4. The combination, with a bottle having
a neck contracted toward the top, of a loose stopper within the bottle having a point
130 fitted with a cork-collar to close the bottle-

neck and having an enlarged head to prevent
the withdrawal of the stopper through the
bottle-neck, and a wire staple having its legs
secured in the substance of the stopper and
5 its exterior loop formed with a central pro-
jection or apex k' , to center the loop upon a
hook when lifting the stopper.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

CHARLES M. BERRY.

Witnesses:

L. LEE,

THOMAS S. CRANE.