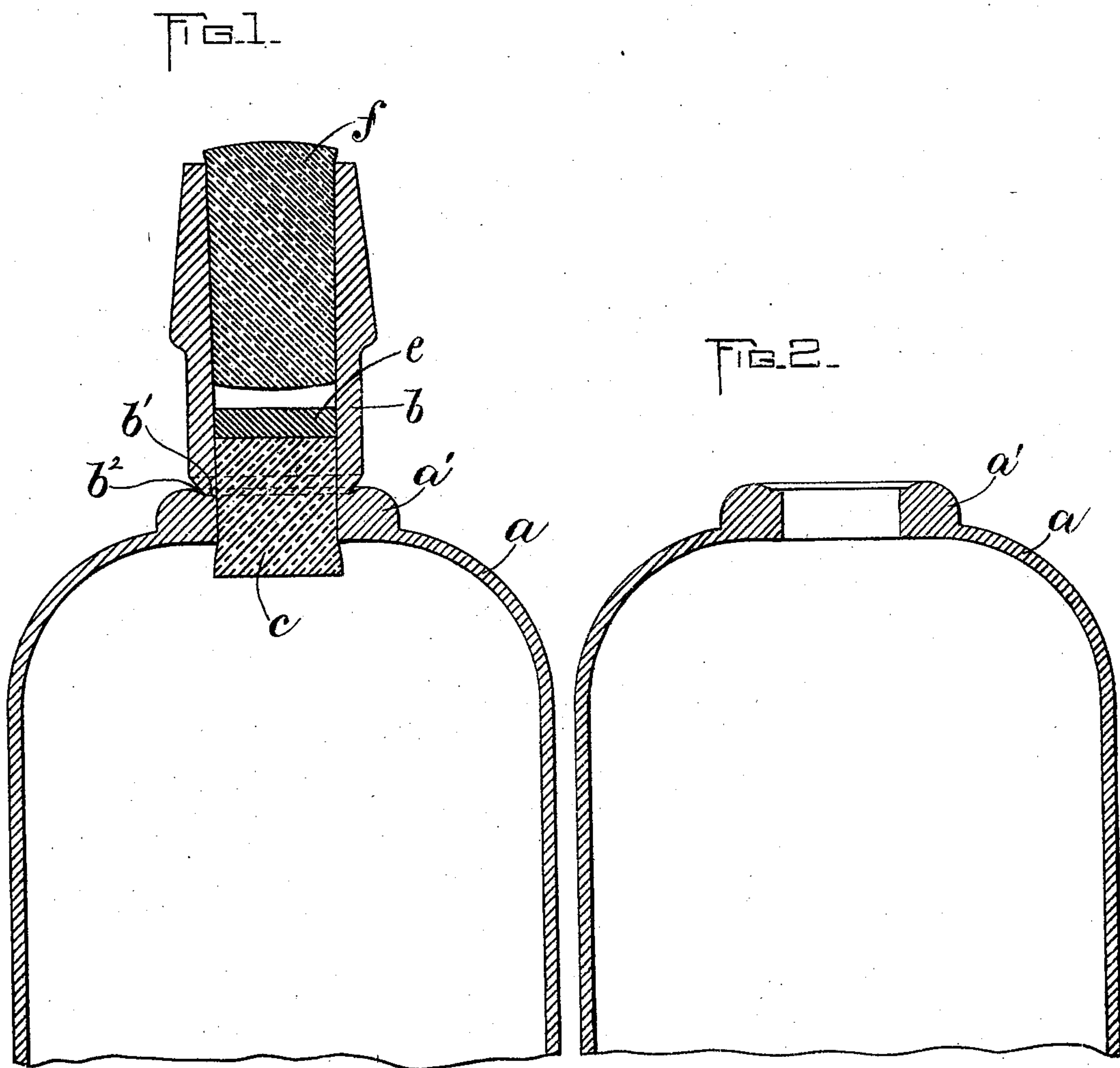


(No Model.)

J. H. POOLE.
BOTTLE.

No. 581,134.

Patented Apr. 20, 1897.



WITNESSES:
A. D. Harrison.
P. W. Perzpetti

INVENTOR:
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attys.

UNITED STATES PATENT OFFICE.

JOHN H. POOLE, OF RANDOLPH, MASSACHUSETTS, ASSIGNOR OF TWO-THIRDS
TO CHARLES PRESCOTT AND HENRY A. BELCHER, OF SAME PLACE.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 581,134, dated April 20, 1897.

Application filed June 11, 1896. Serial No. 595,160. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. POOLE, of Randolph, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to bottles which are not intended to be refilled; and it has for its object to provide such a construction of a bottle of this type as shall require the entire removal of the neck of the bottle before the bottle can be opened, thus preventing the bottle from being refilled and again put upon the market as an original package.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a sectional view of a bottle embodying my invention. Fig. 2 represents a similar view, the neck being broken away.

The same letters of reference indicate the same parts in both figures.

In the drawings, *a* represents the body of a bottle having the usual outlet-opening at its upper portion.

a' represents a bead which projects outwardly from the body of the bottle and surrounds the outlet-opening.

b represents the neck of the bottle, which is connected with the bead *a'* by a connecting portion *b'*, which is weaker than the neck and the bead and is integral therewith. The weakened portion *b'* is formed by grooving or indenting the material of the bottle to form an annular groove or depression *b²* between the bead and neck. The sides of the said groove are formed so that when the neck is broken off there will be no ragged edges left on the bead in position to cut the hand of a person using the bottle, this result being effected by imparting a slight downward curvature to the lower side of the groove at the bottom or inner portion of the groove, as shown in the drawings, so that when the neck is broken off the line of cleavage will be inclined downwardly from the outer to the inner edge of the broken surface.

The bead *a'* projects sufficiently from the body of the bottle to hold a stopper *c*, which

may be of cork or any other suitable material and may be guarded by a disk *e*, of glass or other comparatively impenetrable material, forced tightly into the neck *b* above the groove *b²*, the said guard being held so tightly in the neck by friction that it cannot be removed from the upper end of the neck, nor can it be forced downwardly into the bottle, because the neck is slightly tapering.

When the bottle is put upon the market, it is in the condition shown in Fig. 1, the stopper *c* being in place and guarded by the impenetrable disk *e*, which may be covered, if desired, by a supplemental stopper *f*, inserted in the outer portion of the neck. When the contents of the bottle are to be used, the neck is broken off, a slight blow upon the neck being sufficient to break the relatively weak connection between it and the bead *a'*. The bottle is thus mutilated to such an extent that it cannot be again put upon the market as an original package. At the same time it can be corked and uncorked and otherwise used like an ordinary bottle until its contents have been consumed, the bead *a'* serving to hold the stopper *c* and to permit the pouring of the liquid from the bottle.

While the outlet-opening, after the breaking off of the neck, is of sufficient length to enable the stopper *c* to be used in the ordinary manner when the bottle is subjected to the ordinary household usage, it would be practically impossible for any one to refill the bottle and cork it up or seal it with sufficient security to enable the bottle to stand the customary treatment of transportation. This is due to the fact that the bead *a'* is close to the top of the body portion, resulting in forming such a short outlet-opening when the neck is broken off that a stopper cannot be secured therein so as to constitute more than a temporary closure.

I am aware that it has been heretofore proposed to weaken the neck of a bottle at a point considerably above the body of the bottle, in order that the outer portion of the neck may be broken off, but I am the first, so far as I am aware, to provide a bead around the outlet of the bottle and connect the neck of the bottle by a fragile connecting portion with said bead, so that practically the entire

neck can be removed, thus radically changing the appearance of the bottle.

The groove b^2 may be made by indenting the material while it is softened by heat, and
 5 then deepening the indentation by a cutting-tool after the material has hardened.

I claim—

1. A bottle having an outlet-opening surrounded by an annular outwardly-projecting
 10 bead close to the body of the bottle, a neck extending entirely above the bead, and integral therewith, said neck being partially separated from said bead by a weakening-groove, the lower side of which is curved or
 15 inclined downwardly from its outer portion, whereby when the entire neck is removed the bead constitutes a pouring-nose which presents a smooth outer portion above and outside of the line of fracture, and also whereby
 20 the removal of the neck leaves an opening too short to permit a stopper to be firmly secured therein.

2. A bottle having a neck and a bead at the point of juncture of the neck with the
 25 body, said bead being of greater thickness

than the neck, said neck being partially separated from said bead by a weakening-groove the lower side of which is curved or inclined downwardly from the top of the bead, a stopper c fitting the lower portion of the neck and
 30 the opening in the body of the bottle, and guard e of impenetrable material and consisting of a disk fitting tightly in the neck by friction above the stopper c , and the stopper
 35 f above said guard, the construction being such that when the entire neck is removed the bead presents a smooth outer portion above and outside the line of fracture, and the opening for the stopper c is left too short
 40 to permit the stopper to be firmly secured or sealed in said opening.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 4th day of June, A. D. 1896.

JOHN H. POOLE.

Witnesses:

A. D. HARRISON,
 P. W. PEZZETTI.