(No Model.)

A. A. BHISE.

NON-REFILLABLE BOTTLE.

No. 590,875. Patented Sept. 28, 1897.

Fig. 2.

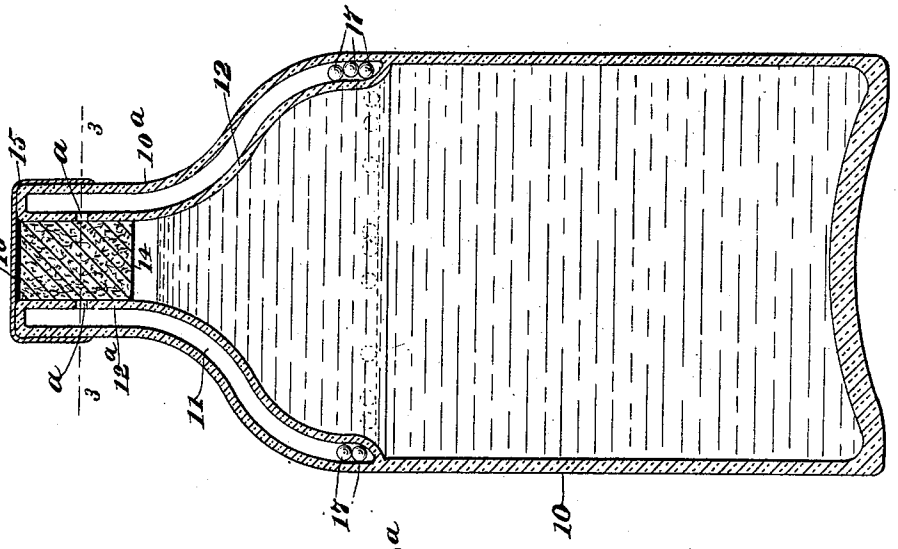


Fig. 3.

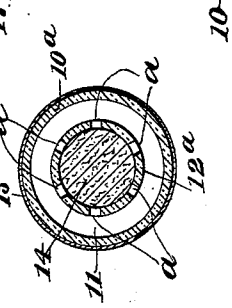
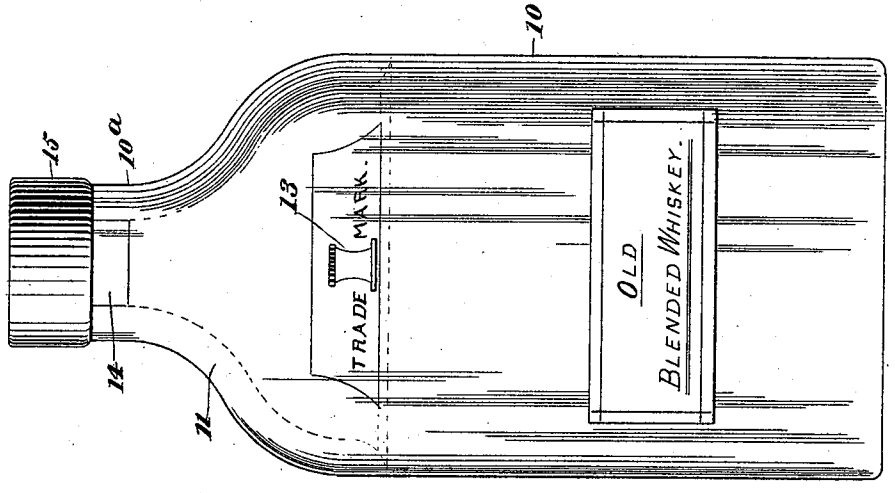


Fig. 1.



WITNESSES:

H. Hellyer.

F. W. Hanaford

INVENTOR

A. A. Bhise

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ATMARAM A. BHISE, OF BOMBAY, INDIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 590,875, dated September 28, 1897.

Application filed July 23, 1896. Serial No. 600,224. (No model.)

To all whom it may concern:

Be it known that I, ATMARAM A. BHISE, of Bombay, India, have invented a new and Improved Non-Refillable Bottle, of which the following is a full, clear, and exact description.

This invention relates to a class of bottles used for trade purposes to hold in a sealed condition liquid goods, such as alcohol or malt liquors or proprietary medicines, and has for its objects to provide a receptacle of the indicated character which will be of novel, simple, and practical construction, be adapted for convenient filling, be readily closed to seal its contents by ordinary means, and be capable of certainly and plainly exposing any attempt to refill the bottle after its contents have been unsealed and partially or entirely decanted therefrom.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the 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 side view of a bottle having the improvements. Fig. 2 is a sectional side view showing the interior construction of the improved bottle, and Fig. 3 is a transverse sectional view of the upper portion of the bottle on the line 3 3 in Fig. 2.

The improved liquid-holding device may be constructed of various shapes and dimensions to suit the character of the liquid goods it is to hold as a merchantable package.

In the drawings the features of the invention are shown applied to a bottle for holding whisky as an original package, and said bottle may be protected by a trade-mark that will be completely obliterated when the sealed vessel is opened and liquor poured therefrom, or there may be other means based on the same principle employed in connection with the novel mechanical construction of the bottle to indicate the abstraction of contents of the original package or the substitution of inferior liquor for that first placed in the bottle, as will now be specifically described.

The body 10 of the bottle is of the usual form, and, if desired, may be of a capacity to hold a quart of liquor, as is usual for such liquor-bottles.

At a proper distance from the bottom of the bottle, preferably commencing at the point where the body is initially contracted to produce the neck 10^a thereon, there is an annular chamber 11, produced by the formation of an inner wall 12 on the body 10.

The wall 12, that is suitably spaced from the outer wall of the bottle that forms the exterior neck 10^a, is preferably made to substantially conform in shape with that of the external wall, as is clearly shown in Fig. 2, and said inner wall is integrally united with the outer wall by fusion or other means.

The neck 12^a—that is, the upper portion of the wall 12—is to be joined with the upper edge of the outer wall 10^a after certain novel detective features are introduced within the annular chamber 11, and at a correct distance from the upper edge of the neck-wall 12^a a series of perforations *a*, of comparatively small diameter, are produced, thereby affording a plurality of communicating passages between the pouring-neck of the bottle and the annular chamber 11 near the top of the latter.

One means for detecting the abstraction of the liquid contents of the bottle that has been filled—say with a superior brand of whisky—consists in the provision of a trade-mark or other printed or written matter, such as a label or the like, contained on a strip of paper or cardboard and placed in the annular chamber 11, with its imprinted surface outermost, so that the printed or written matter will be plainly visible through the outer wall of the bottle.

The trade-mark or label 13 should be imprinted or written with ink that is fugitive and that will be washed out with alcoholic liquor or, if there is no alcohol in the stored contents of the bottle then the trade-mark or label should be removable by exposure to water or a liquid composition of which water is a constituent element.

There are numerous organic substances, mineral and vegetable, or compositions of the same, that may be utilized to print the fugitive trade-mark or label with—as, for instance, printing-ink formed with starch as a base and colored with saffron will afford a

yellow color that is fugitive in alcohol. Any common shoe-blacking will imprint black and be removable with water.

Again, other well-known substances and compositions of matter may be utilized to print the trade-mark or label in one distinctive color and by saturation with the contents of the bottle be changed to another strikingly different color.

It will be seen that if a trade-mark or label 13 is first placed in the chamber 11 and the top of the chamber then hermetically sealed by fusion or other means and the imprinted legend is produced in color that will change or be obliterated by exposure to the action of alcoholic liquor the act of pouring the liquor out of the bottle after its cork has been removed will cause a certain proportion of the liquor to pass into the chamber 11 through the perforations *a* and saturate the trade-mark, so as to alter its color or completely obliterate its imprint. The neck 11^a is of such a diameter as will adapt it to receive a cork 14 of the usual dimensions, and when introduced it will be evident that said cork will effectually seal the small perforations *a*, so as to prevent entrance of the liquor within the chamber 11, while the cork remains firmly inserted within the neck. A lead or other metal cap 15 may be placed over the top of the bottle-neck and a filling of wax 16 be introduced between the embedded end of the cork 14 and said cap, which renders the appearance of the sealed bottle neat and will indicate that the bottle has been tampered with if the cap and wax are removed.

Another means for exposing the removal of contents originally packed in the bottle consists in the provision of a suitable number of small capsules or balls of sugar or other material that are readily dissolved by water. These balls 17 are to be placed in the chamber 11 previous to the hermetic sealing of its upper end, and said balls have greater diameter than the perforations *a*, so that others cannot be substituted therefor. The removal of the cork 14 and an attempt to pour liquor from the bottle will cause some of the liquor to pass into the chamber 11 and instantly melt the capsules or balls 17, as the reversed position of the bottle will fill with liquor the space in the annular chamber above said balls, and this liquor will descend to melt them when the bottle is again reversed.

The trade-mark device and the dissolvable balls may be used separately or together as a means for disclosing the removal of the contents originally packed in the bottle or the substitution of a counterfeit liquor or medicinal preparation therefor, as the case may be.

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

1. A bottle having its upper end formed with an outer and an inner wall integrally united with each other and spaced apart forming an annular chamber, the upper portion of said inner and outer walls constituting the neck of the bottle, the said inner wall near its upper end being perforated, whereby when liquid is poured from the bottle a portion of the liquid will pass into the said annular chamber through the said perforations, the said annular chamber being adapted to contain a medium which by its changed condition when acted upon by liquid passing from the bottle into the said annular chamber will indicate abstraction of some of the liquid from the bottle, substantially as described.

2. A bottle having an annular chamber extending from the upper end a predetermined distance downward, the said chamber being adapted to receive a fugitive medium, the inner wall of the said chamber being perforated near the upper end, a cork or the like adapted to fit in the neck of the bottle and to close said perforations when in position, the said perforations establishing communication between the interior of the bottle and the said chamber, whereby when the cork is removed and the liquid is poured from said bottle, a portion of the liquid contents will pass through the perforations into the said annular chamber to act on the fugitive material contained therein, substantially as described.

3. The combination with a bottle having its upper or neck portion formed with a double wall constituting an annular chamber, the inner wall of said chamber being provided with a series of perforations adapted to establish communication between the interior of the bottle and the said chamber, and a cork or the like held in the neck of the bottle and adapted to close said perforations, of a written or imprinted medium in the said chamber which will change color or be obliterated when acted on by the liquid contained in the bottle, a portion of the contents of the bottle passing into the said chamber through the perforations when the contents is poured from the bottle, substantially as described.

4. The combination with a bottle having its upper or neck portion formed with a double wall constituting an annular chamber, the inner wall of said chamber being provided with a series of perforations, and a cork or the like held in the neck of the bottle and adapted to close said perforations, the said perforations when the cork is removed establishing communication between the interior of the bottle and the said chamber, whereby when the liquid contents of the bottle is decanted a portion of said contents will pass through said perforations into the said annular chamber, of a written or imprinted medium and a dissolvable medium placed in the said annular chamber, and respectively changed in condition when saturated by the liquid passing from the bottle into the said chamber, substantially as described.

ATMARAM A. BHISE.

Witnesses:
BABAJEE CASSINATHIEE,
KASHINETH R. KORGAWHARS.