L. W. ALEXANDER & J. W. HALL.
NON-REFILLABLE BOTTLE.
APPLICATION FILED APR. 10, 1911.

1,017,490. Patented Feb. 13, 1912.

Fig. 1

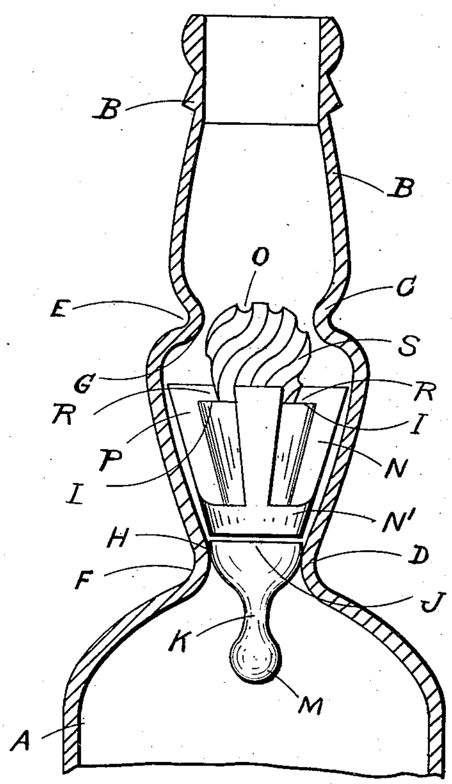
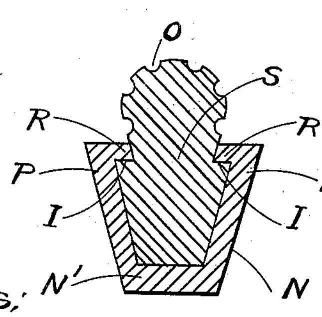


Fig. 2



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LEWIS WALLACE ALEXANDER AND JOHN WILLIAM HALL, OF AUCKLAND, NEW ZEALAND.

NON-REFILLABLE BOTTLE.

1,017,490. Specification of Letters Patent. Patented Feb. 13, 1912.

Application filed April 10, 1911. Serial No. 620,153.

To all whom it may concern:

Be it known that we, LEWIS WALLACE ALEXANDER and JOHN WILLIAM HALL, subjects of His Majesty the King of the United Kingdom of Great Britain and Ireland, residents of Auckland, in the Provincial District of Auckland and Dominion of New Zealand, gentleman and merchant, respectively, have invented a Non-Refillable Bottle, of which the following is a specification.

The purpose of this invention is to provide a bottle, which, when emptied, or partly emptied, cannot again be filled, with fluid of any kind.

In the retail sale of spirits and wines it is known that bottles which have carried spirits or wines of well known brands, after being emptied of the same, are again filled with spirits or wine of an inferior quality, which are sold per the medium of the bottle as the brand which is asked for by the consumer.

This non-refillable bottle is projected to prevent such fraudulent practices and to insure that the consumer shall have perforce the brand supplied to him which he asks for or demands.

The improvement lies in the neck of the bottle, which is contracted about midway its length, and again where it joins the body of the bottle, and between the two contractions a baffle given a turreted formation is placed in the manner hereunder indicated, but before this baffle is introduced into the neck, an inverted cone shaped valve formed somewhat like a top is let down into the neck, so that it will seat itself on the slope of the lower contraction. The under part of the valve is shaped somewhat like a peg, but is longer and broader and is provided with a bulb and it projects down into the bottle. The baffle itself is internally fitted with a hard substance, preferably glass and corrugated, the object of this fitting and the construction of the neck and parts above referred to being fully detailed and their purpose explained in the description which follows hereunder.

The drawing comprises two figures, of which—

Figure 1 is a vertical sectional view of part of a bottle and its neck, showing the improved valve and stopper in place; and Fig. 2 is a vertical sectional view of the baffle.

The bottle A is shown broken and in section, its neck B being contracted at C about halfway down its length, and being again contracted at D where it joins the body of the bottle. The effect of the top contraction is to create an external groove or annular formation E and an internal shoulder G, and with the lower contraction an external groove or annular formation F and an internal seating H. An inverted cone shaped valve J is provided to be placed within the neck B, so that said valve will fall to and rest on the seating H. Valve J is given a formation somewhat like a top, and it has its under or lower part K shaped like a peg but longer and broader, with a bulb shaped end M.

In the neck B between the upper contraction C and the lower contraction D, there is placed a baffle, whose outer member or shell N is constructed of vulcanite or rubber or wood or any other suitable material that will permit a degree of compression and is given a turreted formation, the upper ends of its arms P being projected inwardly, so as to form catches R. The inner member or body S of the baffle is formed of a hard substance, preferably glass, and is provided with corrugations O and with an external shoulder I. Said body is adapted to be forced into the outer member, so that the shoulder I will engage the catches R, whereby the said body S will be held firmly embedded.

To give effect to the invention, the bottle A is first filled with the liquid it is to carry; then the valve J is let into the neck B until it rests on the seating H, when the bulb end will project down into the bottle A and the fluid therein, if the bottle be filled to that extent. After this the shell member N of the baffle will be passed into said neck until its lower end N′ comes near to the top of the valve J, but does not necessarily touch it. The construction of the said shell allows for compression, so that the arms P will be squeezed inwardly as the shell is being passed in and down the neck, until said arms pass below the shoulder G, when they will be relieved from the compression and will open out to contact with the inside of the neck, below the shoulders G. The shell N having been thus placed in position, the glass body S will be let down into the shell until the shoulder I passes below the catches

R which will engage said body and hold the same firmly in position within the shell, the purpose of so fixing the part S being to prevent the possibility of the baffle being withdrawn from the neck B by any means whatsoever. The top of the body S is made with the corrugations O to assist the outward flow of fluid. When the operation thus detailed is completed, the bottle is corked and kept so until its contents are required for use.

To put the bottle A into use, the cork is withdrawn in the usual way, and the liquid poured out as wanted; this is done by tilting the bottle up so as to point the neck opening down below the horizontal, whereupon the valve J will move from the seating H sufficiently to let the fluid in the bottle flow therethrough, and on through the openings between the arms P and between the corrugations O, and then out through the opening of the neck B; when sufficient fluid has been poured out, the neck opening of the bottle A is lifted up above the horizontal and the valve J at once engages the seating H which prevents any further outflow of fluid from the bottle. The bulb M being thickened and weighted prevents the valve J from tipping while the opening of the neck B is kept above the horizontal line.

So long as the valve J fits to the seating H, no fluid can escape or pass from the bottle or be let into it, and the valve cannot be unseated except at the above named angle, at which no fluid can be passed into the bottle; neither can the valve be withdrawn, because the baffle overlying it prevents its being reached, and especially so as the fitting of the body S internally of the baffle in the manner above described prevents the passage of any form of implement in the neck B beyond said body and thus the valve J is kept intact in the position assigned because it cannot be tampered with.

The body S may be made plain and without corrugations, but preferably the corrugated form will be used. No substance is used in the manufacture of any portion of the apparatus which is corrodible or will in any way be detrimental to the flavor of the contents of the bottle.

Having fully described our invention, what we desire to claim is:—

1. In a non-refillable bottle, the combination, with a neck having upper and lower constricted portions, of a baffle movable in the space between said portions and comprising an outer shell of yieldable material provided with a series of catches, and an inner body of rigid material disposed within said shell and formed with a shoulder engaged by said catches, said body being adapted for insertion into said shell after the latter has been introduced into said space.

2. In a non-refillable bottle, the combination, with a neck having upper and lower constricted portions, of a baffle movable in the space between said portions and comprising an outer shell provided with a series of catches, and an inner body of rigid material disposed within said shell and formed with a shoulder engaged by said catches.

3. A non-refillable bottle, the combination, with a neck having upper and lower constricted portions, of a baffle movable in the space between said portions and comprising an outer shell provided with a series of upstanding arms having their free ends turned inwardly to produce catches, and an inner body of rigid material disposed within said shell between said arms and formed with a shoulder engaged by said catches.

4. In a non-refillable bottle, the combination, with a neck, of a baffle movable therein and comprising an outer shell provided with a series of spaced yielding arms having terminal catches, and a vitreous body disposed within said shell between said arms, said body being formed with an external shoulder engaged by said catches and with an outwardly-projecting corrugated portion.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."