C. W. MALONE.

NON-REFILLABLE BOTTLE.

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1,040,714.

Patented Oct. 8, 1912.

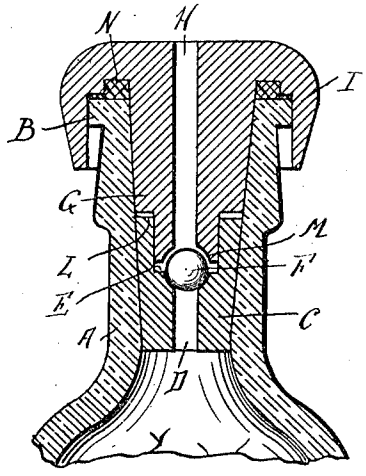

Fig. 1.

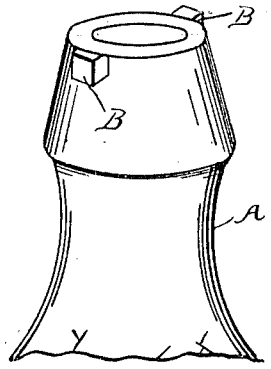

Fig. 2.

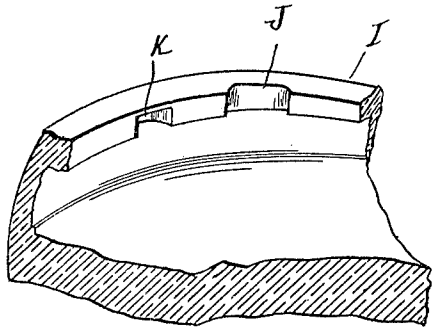

Fig. 3.

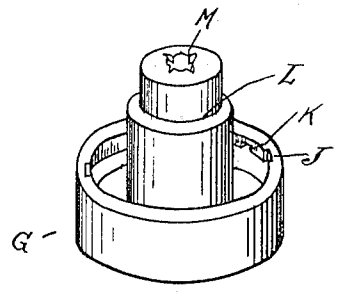

Fig. 4.

Witnesses

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NON-REFILLABLE BOTTLE.

1,040,714. Specification of Letters Patent. Patented Oct. 8, 1912.

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To all whom it may concern:

Be it known that I, CHARLES W. MALONE, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to non-refillable bottles and consists in the construction as hereinafter set forth.

In the drawings,—Figure 1 is a vertical central section through a bottle; Fig. 2 is a perspective view of the neck of the bottle, with the stopper detached; Fig. 3 is a fragmentary view of the stopper; and Fig. 4 is a perspective view thereof.

A is the neck of the bottle which is provided at its upper end with a locking lug B, there being preferably two of said lugs on diametrically opposite sides of the bottle, C is a tapering member fitting into the tapering neck of the bottle and having the axle channel D therethrough and at its upper end a seat E for a ball valve F.

G is a stopper member which fits into the tapering neck of the bottle above the member C having a central channel H therethrough and the lower end being adapted to fit in close proximity to the ball F.

I is a flange upon the stopper member which surrounds the neck of the bottle and which has the entering slots J therein for engagement with the lugs B and the locking notches K with which said lugs may be engaged by a slight rotation of the stopper.

With the construction as described, after the bottle is filled the member C is placed in position with the ball F in engagement therewith, the stopper G is then engaged with the bottle by entering the lugs B in the slots J and rotating the stopper until the lugs B aline with the notches K. The stopper is then slightly raised to lock the lug B within the notch K. Before this operation the surface of the stopper is coated with a glass cement which when hardened will effectually prevent its removal. Inasmuch as the clearance between the bottle valve and the bearing on the stopper G is very slight, said valve is only permitted to move a slight distance from its seat in the member C. This will be sufficient to permit the liquid to slowly pour out of the bottle but any attempt to refill the bottle will be ineffectual.

The stopper G is preferably provided with a shoulder engagement with the member C as indicated at L and on the inner end of the stopper there are formed notches M distributed around the channel H and which facilitates the pouring of the liquid. There is also preferably a gasket N for fitting against the end of the bottle neck forming a liquid seal and preventing the liquid contents from contacting with the cement joint.

What I claim as my invention is:

In a non-refillable bottle, the combination with an inwardly tapering bottle neck, of a tapering member arranged completely within and having all portions of the sides thereof forming a tight joint with the sides of the neck, said member having a recess in the upper end thereof provided with imperforate walls and having a seat in the base thereof, there being a channel leading downwardly from said seat through said member, a ball valve engaging said seat and normally closing the channel, a stopper having a portion projecting within and fitting the neck, said projection being provided with a contracted extension arranged within said recess and extending in immediate proximity to the ball valve whereby the latter has a very limited movement, said stopper having a channel extending from the exterior thereof downward through said projection and the inner end of said projection having a notch or restricted passage communicating with the last mentioned channel, interlocking portions upon the stopper and neck, and means for permanently cementing the interlocking portions together.

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

CHARLES W. MALONE.

Witnesses:
W. J. BELKNAP,
JAMES P. BARRY.