

N. J. FORTUNESCO.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JAN. 3, 1911.

1,027,413.

Patented May 28, 1912.

Fig. 1.

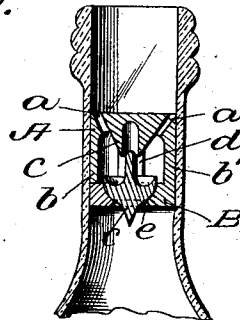


Fig. 2.

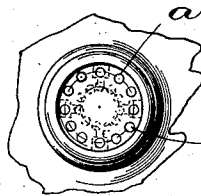
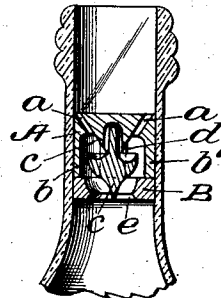


Fig. 3.

Fig. 4.

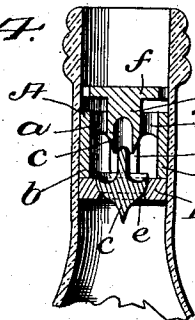


Fig. 5.

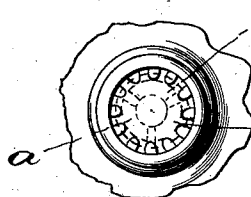
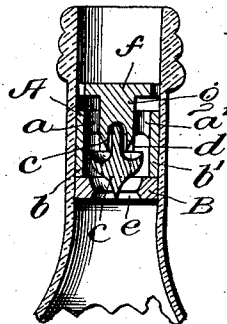


Fig. 6.

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UNITED STATES PATENT OFFICE.

NICOLAS JEAN FORTUNESCO, OF PARIS, FRANCE.

NON-REFILLABLE BOTTLE.

1,027,413.

Specification of Letters Patent.

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Application filed January 3, 1911. Serial No. 600,467.

To all whom it may concern:

Be it known that I, NICOLAS JEAN FORTUNESCO, engineer, subject of the Roumanian Kingdom, residing at 62 Chaussée d'Antin, Paris, Republic of France, 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.

These drawings show two constructional forms of the improved plug.

Figure 1 shows a vertical section of the plug inserted in a bottle neck. Fig. 2 shows a corresponding vertical section, the plug being in that position wherein it permits of the liquid contained in the bottle being emptied. Fig. 3 shows a plan. Figs. 4 to 6 show a second constructional form of the plug corresponding to Figs. 1 to 3.

The plug shown in Figs. 1 to 3 consists of a cylindrical piece A provided at its lower part with two lugs or feet b and b^1 and a projection c with a recess in the center and radial holes a , a near its periphery; a second piece C having the shape of a top with an extension in the upward direction of its axis and a pointed extension in a downward direction; of a third piece B consisting of a cylindrical piece like A but provided with lugs d , d at its upper part, the said piece B being provided in the middle with a spherical hole e in which the top C is so located as to form a valve resting on the part B as its seat. The piece or top C could be replaced by a ball.

When the bottle is filled up, pieces B, C, A are inserted into the neck which parts practically form a whole and are driven far enough to leave in the neck of the bottle room for a proper cork. The parts B and A being emery ground into the neck of the bottle, it is impossible to remove the plug, for if it be driven in the bottle will burst and if an attempt be made to withdraw it through the neck, it would offer no hold to any extracting tool because it is made of a hard material such as glass, porcelain and the like and presents a plane surface.

When the bottle is slanted to pour out the liquid, the top or ball C leaves its seat B and permits of the liquid issuing through the opening e and then through the openings a , a .

The bottle being emptied, it is impossible to fill it again for, as already stated, it is neither possible to drive in or withdraw the

plug and if it is tried to introduce the liquid under pressure this liquid forms small jets which are directed into the upper part of the top C and press the latter against its seat B so that it closes the opening e leading to the interior of the bottle.

In the modification illustrated by Figs. 4 to 6 the piece B acting as a seat and the top or ball C acting as a valve are the same as in the hereinbefore described arrangement while the part A is modified. This part of cylindrical shape is provided with three feet b , b^1 , d at the lower part and a projection c having a hole in the center. Between the three feet there are provided around the center three openings a , a^1 , a^2 these outlets being covered by a cap f provided with indentations or notches all around its edge, which cap is kept at a certain distance from the openings a by a central downwardly projecting part or stem g forming part of the part c . This plug is introduced into the bottle in the same way as the one previously described. When the bottle is slanted the pressure or thrust of the liquid displaces the part O and the liquid issues through the opening e , the openings a and the indentations of the cap f . The least movement to bring back the bottle into the vertical position returns the valve C to its position and closes the opening e against the inflow of a liquid coming from the outside either under pressure or gravity alone.

As regards tampering with the bottle both plugs offer the same security, but the second arrangement presents some advantages as regards manufacture with regard to the molding of the plug out of glass, porcelain or the like.

Compared with most of the arrangements hitherto proposed to render empty bottles non-refillable, the new plug does not require any particular form of bottle because it can be introduced into any kind of existing bottle, it being only necessary to grind with emery the part of the bottle neck into which the plug enters.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

A non-refillable bottle valve comprising a disk having a centrally disposed opening therein forming a valve seat, a cylindrical member resting with its lower edge against the upper surface of said disk, a second disk

provided with angularly shaped ports in its periphery resting upon said cylindrical portion, a projection on said second disk extending centrally from the same toward the
5 valve seat but spaced therefrom, said projection being provided with a cavity extending upwardly into the body portion of the same, a valve formed of a conical portion adapted to rest in the valve seat, the upper
10 portion of the valve having a stem adapted to loosely enter the said cavity, the body of the valve around its stem being cut away to form a depression into which the lower edge

of the first mentioned projection is adapted to extend when the valve is in normal position, whereby the valve may freely move when liquid is to be poured from the bottle and its seating insured when the bottle is returned to upright position. 15

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses. 20

NICOLAS JEAN FORTUNESCO.

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."