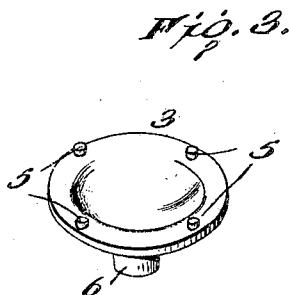
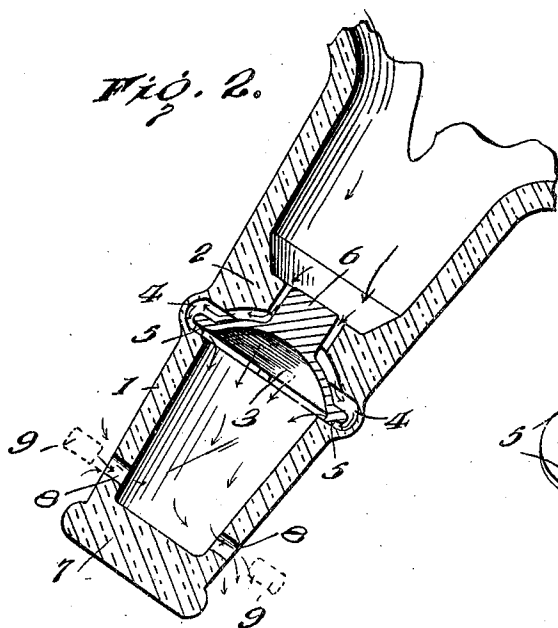
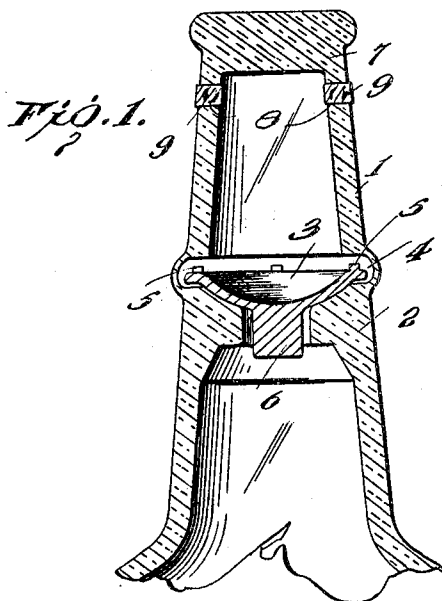


No. 820,548.

PATENTED MAY 15, 1906.

J. BURKE.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JUNE 23, 1905.



Inventor

J. Burke

Witnesses

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By

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UNITED STATES PATENT OFFICE.

JOSEPH BURKE, OF VICTORIA, TEXAS.

NON-REFILLABLE BOTTLE.

No. 820,548.

Specification of Letters Patent.

Patented May 15, 1906.

Application filed June 23, 1905. Serial No. 266,600.

To all whom it may concern:

Be it known that I, JOSEPH BURKE, a citizen of the United States, residing at Victoria, in the county of Victoria and State of Texas, have invented certain new and useful Improvements in Non - Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles, and more particularly to that type which comprises a peculiarly - constructed valve mechanism located in the neck thereof.

It has for its object to produce a device of this character which will effectively prevent anything from being forced into the bottle after the initial filling thereof and which is at the same time so simple and durable in construction as to render its general adoption a practical question.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view showing the bottle in an upright position with the valve seated. Fig. 2 is a similar view showing the bottle in an inverted position. Fig. 3 is a perspective view of the valve.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the neck of the bottle, which is provided with a contracted portion 2 to form a valve-seat for the valve 3, and an annular groove 4 is also located within the neck of the bottle immediately above the contracted portion 2. The valve 3 comprises a disk which operates within the groove 4 and is provided around the edge of its upper face with a series of spaced projections or lugs 5, which engage with the upper side of said groove 4. It will be discovered that the contracted portion 2 has its upper side curved downward to form a concave surface and that the valve 3 is formed with a corresponding convex surface on its lower side, owing to a depression therein. A stem 6 is attached to the valve 3 and operates in the opening formed by the contracted portion 2. This serves to prevent the valve from tilting or being shaken out of operative position. Owing to its peculiar construction, it will be seen that this valve will be very effective in

operation, since it possesses large bearing-surface and is thereby enabled to form a tight seal, and since its upper surface is concave it will serve as a trap to catch any liquid which any one may attempt to force into the bottle, and thereby insure a tight seating of the valve. The mouth of the bottle is permanently sealed by fusing or other suitable means, as seen at 7, to prevent any tampering with the valve, and two approximately diametrical opposite openings are provided in the neck thereof to serve, respectively, as an exit for the liquid and as an inlet for air. These openings may be sealed in any suitable manner, as by corks 9.

In operation the valve is normally seated, as seen in Fig. 1, when the bottle is in an upright position, and hence prevents any substance from being forced in, as has been heretofore described. When the bottle is inverted, the valve falls back until the lugs 6 engage the top of the groove 4. The liquid then flows around the valve between the spaced lugs 6 and out of one of the openings 8.

It will be readily seen that owing to the sealing of the mouth of the bottle and the position of the exits it will be impossible for any one to tamper with the valve mechanism.

Having thus described the invention, what is claimed as new is—

1. The combination of a bottle-neck provided with a contracted portion the upper side of which is curved downward to form a concave surface, and also provided with an annular groove immediately above the contracted portion, said annular groove forming square and approximately horizontal shoulders when the bottle is in an upright position, a valve comprising a disk having a convex lower surface corresponding to the concave surface of the contracted portion, the outer edge of said disk having a guide and stop-flange projecting therefrom which operates within the annular groove, and a series of lugs projecting upwardly from the guide and stop-flange to engage with the upper side of the before-mentioned annular groove and holding the valve spaced therefrom when the bottle is inverted.

2. The combination of a bottle-neck provided with a contracted portion the upper side of which is curved downward to form a concave surface, and also provided with an annular groove immediately above the contracted portion, said annular groove forming square and approximately horizontal should-

ders when the bottle is in an upright position,
a valve comprising a disk having a convex
lower surface corresponding to the concave
surface of the contracted portion and also
5 having a guide-stem pendent therefrom, said
disk being provided around its edge with an
outwardly-projecting guide and stop-flange
which operates within the annular groove,
and a series of lugs projecting upwardly from
10 the guide and stop-flange to engage with the

upper side of the before-mentioned annular
groove and holding the valve spaced there-
from when the bottle is inverted.

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

JOSEPH BURKE. [L. s.]

Witnesses:

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CHAS. C. ZIRJACKS.