

M. FORST & J. ARMBAND.
NON-REFILLABLE BOTTLE.

APPLICATION FILED OCT. 20, 1904.

Fig. 1.

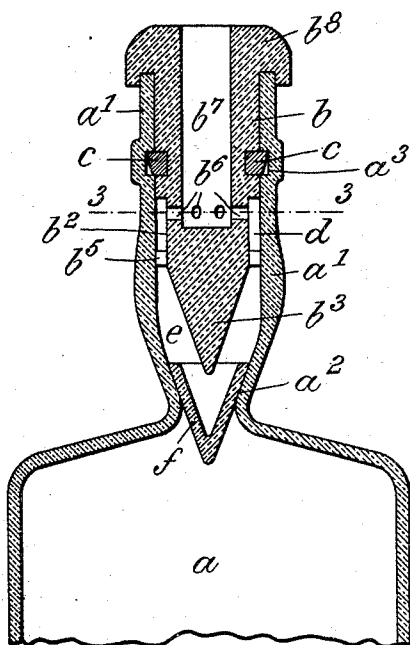


Fig. 2.

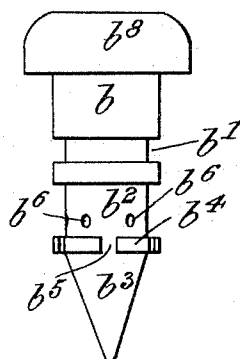


Fig. 3.

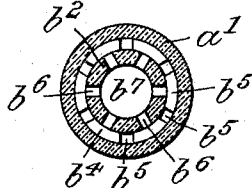
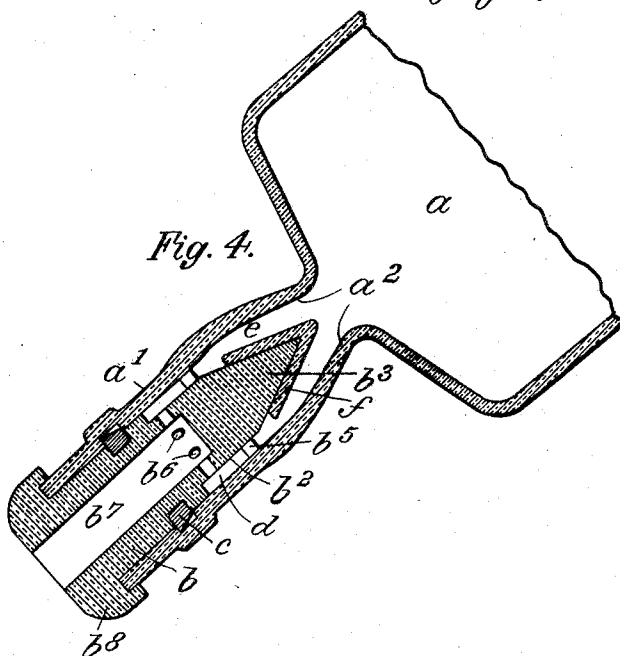


Fig. 4.



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UNITED STATES PATENT OFFICE.

MORITZ FORST AND JACOB ARMBAND, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 788,639, dated May 2, 1905.

Application filed October 20, 1904. Serial No. 229,221.

To all whom it may concern:

Be it known that we, MORITZ FORST, a citizen of Austria, and JACOB ARMBAND, a citizen of the United States, both residents of New York city, Manhattan, county and State of New York, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to a bottle or similar receptacle which while preventing spurious refilling permits the ready discharge of the liquid.

In the accompanying drawings, Figure 1 is a vertical section through the upper part of a non-refillable bottle embodying our invention and showing the valve closed. Fig. 2 is a side view of the cylindrical plug; Fig. 3, a cross-section on line 3 3, Fig. 1, and Fig. 4 a section similar to Fig. 1 and showing the valve open.

The letter *a* represents a bottle the neck *a'* of which is contracted at its bottom to form a valve-seat *a''*. Within the neck *a'* is permanently secured a cylindrical plug *b* by means of a rubber or cork gasket *c*, that enters grooves *a'' b'* of the neck *a'* and plug *b*, respectively. The upper end of plug *b* is of a diameter to completely fill the neck, while the plug is reduced at its lower end, as at *b''*, to form a surrounding annular chamber *d*. This reduced lower end *b''* of plug *b* terminates in a conical tip *b'''*, surrounded by a chamber *e*. From the bottom of reduced section *b''* extends an annular flange *b'''*, having slots *b''''*, that establish communication between the chambers *e* and *d*. The chamber *d* in turn communicates with the outwardly-open-

ing bore *b'''* of plug *b* by lateral perforations *b''''*, arranged out of vertical alinement with slots *b''''*. At its top the plug *b* terminates in a head *b''*, having a lower groove which receives the edge of neck *a'*. Within the chamber *e* there is free to play a hollow conical valve *f*, which closes against seat *a''* when the bottle is righted, Fig. 1, and projects over conical tip *b'''* when the bottle is tilted, Fig. 4. In the latter position the liquid is free to flow through chamber *e*, slots *b''''*, chamber *d*, and perforations *b''''* into the bore *b'''* of plug *b* to be thence discharged.

It will be seen that by our invention a ready flow of the liquid is insured, while spurious refilling of the bottle is prevented.

What we claim is—

1. In a non-refillable bottle, a cylindrical plug having a bore, a reduced lower section, a conical tip, a slotted flange, and a series of lateral perforations entering the bore, combined with a hollow conical valve adapted to engage the tip, substantially as specified.

2. In a non-refillable bottle, a cylindrical plug having a bore, a reduced lower section, a conical tip, a slotted flange, a series of lateral perforations entering the bore, and a grooved head engaging the bottle-neck, combined with a hollow conical valve adapted to engage the tip, substantially as specified.

Signed by us at New York city, Manhattan, New York, this 18th day of October, 1904.

MORITZ FORST.
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Witnesses:

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