P. HARTMANN.

NON-REFILLABLE BOTTLE.

APPLICATION FILED AUG. 16, 1912.

1,044,173. Patented Nov. 12, 1912.

Fig: 1.

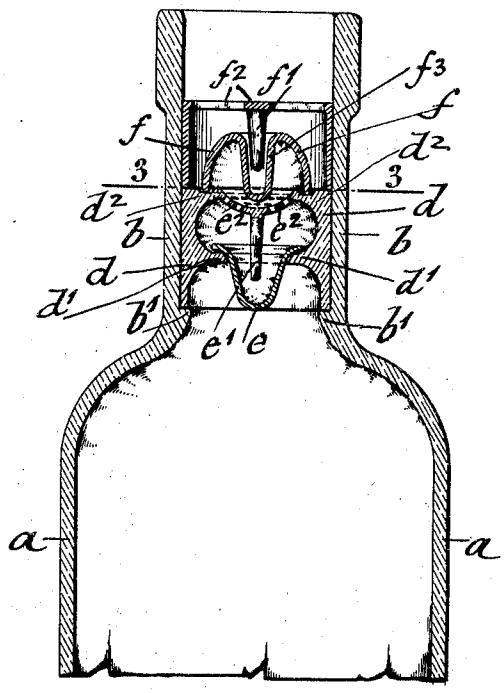


Fig: 2.

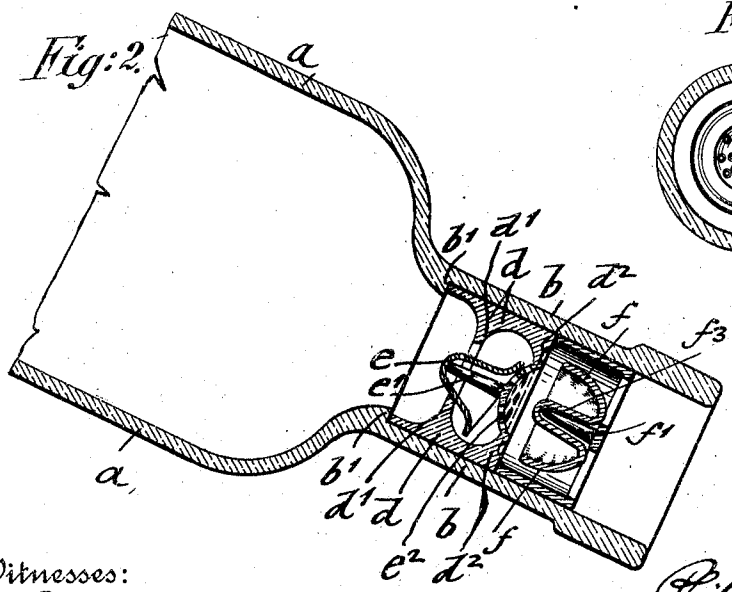
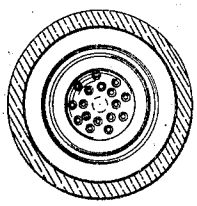


Fig: 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

PHILIPP HARTMANN, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

1,044,173. Specification of Letters Patent. Patented Nov. 12, 1912.

Application filed August 16, 1912. Serial No. 715,430.

To all whom it may concern:

Be it known that I, PHILIPP HARTMANN, a citizen of the United States of America, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to an improved non-refillable bottle by which the refilling of the bottle with spurious liquid is effectively prevented, while the liquid can be discharged in a steady and uniform manner; and for this purpose the invention consists of a non-refillable bottle which is provided in its neck-portion with an inwardly-projecting shoulder, a cylindrical valve-containing body seated thereon, said valve-containing body being provided with a lower seat and an upper seat, a cup-shaped valve for the lower seat, and an inverted cup-shaped valve for the upper seat, said valves being guided on central stems in the valve-containing body, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawing, Figure 1 represents a vertical central section of my improved non-refillable bottle, Fig. 2 is a similar section, showing the bottle in inclined position for pouring out the contents, the valves being in open position for permitting the free discharge of the liquid from the bottle, and Fig. 3 is a horizontal section on line 3, 3, Fig. 1.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

Referring to the drawing, *a* represents a bottle and *b* the cylindrical neck of the same. In the neck of the bottle *a* is arranged an inwardly-projecting shoulder b^1 on which is seated a cylindrical valve-containing body *d*, which corresponds in size with the interior of the neck and which is cemented into the same after the bottle has been filled with the medicinal or alcoholic liquid for which it is intended. The valve-containing body *d* is preferably made of glass, but can also be made of aluminum, hard rubber or other suitable material. The cylindrical body *d* rests by its lower end on the shoulder b^1 and is provided with two inwardly-projecting annular seats d^1, d^2, of which the lower seat d^1 serves for supporting a cup-shaped valve *e*, while the upper seat d^2 serves for supporting a second valve *f* of inverted cup-shape. The valves *e*, *f* are likewise made of glass, aluminum or other suitable material. They are retained in position, especially when tilting the bottle, by means of stems e^1, f^1, of which the former is made integral with a concave perforated diaphragm e^2, which is connected by melting, soldering or otherwise with the inner edge of the upper annular seat, while the second or upper stem f^1 is formed integral with a cross-bar f^2 at the upper end of the valve-containing body *d* and extended into a central cavity f^3 of the valve *f*, as shown clearly in Fig. 1. When the bottle is in upright position, the valves *e*, *f* rest on their seats d^1, d^2 and prevent thereby the ingress of any liquid or the introduction of any instrument or tool by which the valves may be held in open position for refilling the bottle; while when the contents of the bottle are to be poured and the bottle is tilted, the valves are supported on their stems e^1, f^1, leaving a sufficient space around the same for permitting the free exit of the liquid in the bottle through the perforated diaphragm e^2 and around the valves *e* and *f*. As soon as the bottle is replaced in upright position, the valves seat themselves instantly in a reliable manner on their seats without being in contact with their respective stems.

By means of the non-refillable attachment, the bottle cannot be refilled as the valves cannot be tampered with, the upper inverted cup-shaped valve forming a guard for the lower cup-shaped valve; while by the simplicity of the construction the non-refillable attachment can be supplied for bottles at a comparatively low price, so as to be capable of introduction for various purposes in the trade.

I claim:

1. A non-refillable bottle provided with an inwardly-projecting shoulder in its neck, a valve-containing body inserted into the neck and provided with inwardly-projecting seats and a lower and an upper stem, a lower cup-shaped valve on the lower seat, an upper inverted cup-shaped valve seated on the upper seat, and a perforated diaphragm connecting the inner edge of the upper valve-seat.

2. A non-refillable bottle, comprising a bottle-neck having an inwardly-projecting shoulder, a cylindrical valve-containing

body inserted into the neck and seated on said shoulder and having a lower and an upper inwardly-projecting seat, a cup-shaped valve seated on the lower seat, an inverted cup-shaped valve having a central hollow portion seated on the upper seat, a perforated diaphragm connecting the inner edge of the upper seat, a diametrical bar at the upper end of the valve-containing body, and centrally-located downwardly-extending central stems extending respectively from the center of the diaphragm and diametrical bar into the cavities of the valves.

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

PHILIPP HARTMANN.

Witnesses:

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JOHN MURTAGH.