C. WILCOVITZ.

NON-REFILLABLE BOTTLE.

APPLICATION FILED SEPT. 25, 1912.

1,074,148.

Patented Sept. 30, 1913.

Fig. 1.

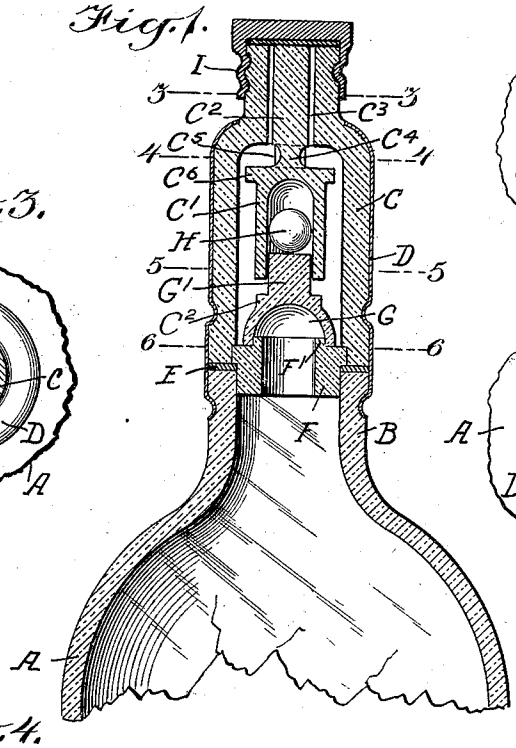


Fig. 5.

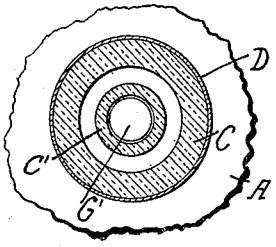
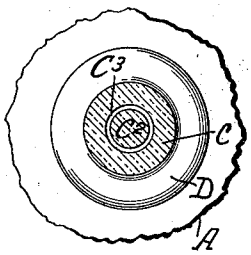


Fig. 3.



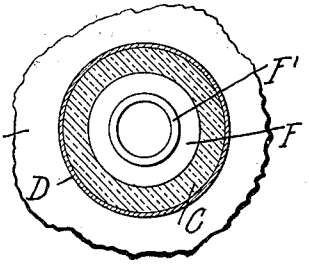


Fig. 6.

Fig. 4.

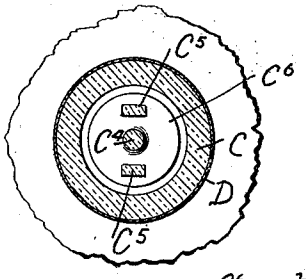
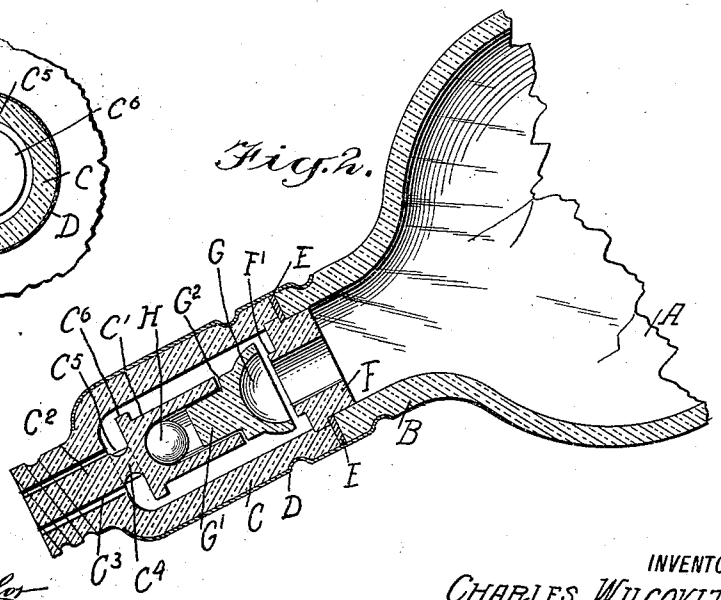


Fig. 2.



WITNESSES

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NON-REFILLABLE BOTTLE.

1,074,148. Specification of Letters Patent. Patented Sept. 30, 1913.

Application filed September 25, 1912. Serial No. 722,229.

To all whom it may concern:

Be it known that I, CHARLES WILCOVITZ, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Non-Refillable Bottle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved non-refillable bottle which is simple in construction and arranged to allow convenient pouring of the liquid contents of the bottle into a glass or other receptacle and to prevent unauthorized persons from refilling the bottle with spurious goods.

For the purpose mentioned use is made of a bearing centrally suspended in the neck of the bottle, a valve seat in the lower portion of the neck, a valve adapted to be seated on the said seat and having a valve stem slidingly engaging the lower end of the said bearing, and a weight movable within the upper portion of the said bearing and confined therein by the said valve stem, the said weight controlling the movement of the said valve.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the non-refillable bottle in upright position; Fig. 2 is a similar view of the same in tilted position; Fig. 3 is a sectional plan view of the same on the line 3—3 of Fig. 1; Fig. 4 is a similar view of the same on the line 4—4 of Fig. 1; Fig. 5 is a like view of the same on the line 5—5 of Fig. 1; and Fig. 6 is a similar view of the same on the line 6—6 of Fig. 1.

The body A of the non-refillable bottle is provided with an integral short neck B on which is held a main neck C by the use of a sleeve D of metal, enamel or other material, and surrounding portions of the neck B and the main neck C as plainly indicated in Figs. 1 and 2. A washer E is preferably interposed between the adjacent terminals of the short neck B and the main neck C, and on this washer is held a valve seat F extending partly into the short neck B and partly into the main neck C. The top of the valve seat F is provided with an annular flange F′ onto which is adapted to fit the open end of an inverted cup-shaped valve G provided on the top with a valve stem G′ slidingly engaging the lower open end of a hollow bearing C′ depending within the main neck C and forming an integral part thereof. The top of the valve G is provided with an annular shoulder G^2 adapted to engage the lower end of the bearing C′ at the time that the bottle is tilted, and the valve G slides into open position, as shown in Fig. 2, it being understood that the said shoulder G^2 limits the sliding movement of the valve G when the latter moves into open position. Within the hollow bearing C′ is arranged a weight H, preferably in the form of a ball free to run in the said bearing but confined in the said bearing by the upper end of the valve stem G′. When the bottle A is in an upright position, as shown in Fig. 1, then the ball H rests on the top of the valve stem G′ thus holding the valve G in closed position on the valve seat F, and when the bottle is tilted into the position shown in Fig. 2, the weight H rolls to the upper end of the bearing C′ and thus moves out of contact with the stem G′ to allow the valve G to slide from the closed position shown in Fig. 1 into the open position shown in Fig. 2. When the bottle A is again moved back into upright position the weight H rolls down in the bearing C′ and exerts sufficient pressure on the stem G′ to force the valve G to its seat and to hold it thereon.

The bearing C′ has an extension C^2 projecting concentrically into the upper reduced portion of the neck C so as to form with the said reduced portion the annular opening C^3 for the passage of the liquid from the lower portion of the neck C into the upper or pouring end thereof. The extension C^2 is integrally connected by a neck C^4 with the top of the bearing C′, and the top of the latter is integrally connected by two or more bars C^5 with the neck C at the reduced upper end, as will be readily understood by reference to Figs. 1, 2 and 4. The upper end of the bearing C′ is further provided with an annular flange C^6 projecting within close proximity of the inner surface of the main neck C so as to form a passage for the liquid at the time the bottle is tilted and the valve G is in open position. The upper reduced end of the main neck C of the

bottle is preferably threaded exteriorly for engagement by a threaded stopper I to close the bottle when not in use. When using the bottle, the stopper I is unscrewed and the bottle is then tilted so that the liquid contained in the body A passes through the seat F against the under side of the valve G, which is thus forced into position, especially as the said valve is now relieved of the weight H. The liquid passing through the seat F flows through the neck C and the passage C^3 into the pouring end of the neck to then pass into a glass or other receptacle to be filled. When the bottle is again returned to upright position the valve G closes by its own weight and by the action of the weight H, as previously explained.

By constructing the bearing C', neck C^4, flange C^6 and extension C^2 in the manner described and shown, unauthorized persons are prevented from introducing a wire into the neck C with a view to reach the valve G and to hold the same forcibly open for refilling the bottle with spurious goods.

It will also be noticed that by constructing the valve seat F, valve G, stem G', bearing C' and weight H, as set forth, the valve G will move to closed position on forcing liquid into the neck C through the passage C^3 at the time the bottle is held say in an approximately horizontal position, and the moment the bottle is tilted upward the rolling weight H forces the valve to closed position thus preventing refilling.

The non-refillable bottle shown and described is composed of comparatively few parts, not liable easily to get out of order, and the neck C, the seat F, the valve G and the weight H may be made of glass, porcelain or other suitable material, not liable to corrode when the bottle is filled with certain liquids.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination, a bottle having a short neck, a main neck, means for fastening the said necks together, a bearing depending within the main neck and integral therewith, the bearing having a central recess open at the lower end of the bearing, the said main neck having a reduced upper end and the said bearing having an extension extending concentrically within the said reduced end of the main neck, the extension being connected with the bearing by an integral neck, and the bearing being integrally connected with the main neck by bars on opposite sides of the said integral bearing neck, a valve seat held at the junction of the said necks, an inverted cup-shaped valve adapted to be seated on the said valve seat and having an integral valve stem slidingly engaging the said recess, and a ball free to roll within the said recess and adapted to rest on top of the said stem at the time the bottle is in upright position to hold the valve to its seat, the said ball rolling out of engagement with said stem on tilting the bottle to allow the valve to slide into open position.

2. The combination with a bottle having a short neck, of a main neck secured to the short neck and having a reduced upper portion provided with an annular pouring opening, a bearing in the main neck and connected therewith by bars, said bearing having an outwardly projecting annular flange at its upper end extending to within a short distance of the inner surface of the neck and a recess in its lower end, a valve seat at the junction of said necks and having a reduced upper end, an inverted cup-shaped valve adapted to fit on the reduced upper end of the seat, said valve having an annular shoulder and a stem slidable in the recess of the bearing, and a ball in the recess of the said bearing and held therein by the stem of the valve.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES WILCOVITZ.

Witnesses:
ABRAHAM GORDON,
LESTER FRIEDMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."