No. 796,796. PATENTED AUG. 8, 1905.

R. BERNSTEIN.

NON-REFILLABLE BOTTLE.

APPLICATION FILED JAN. 21, 1905.

Fig. 1.

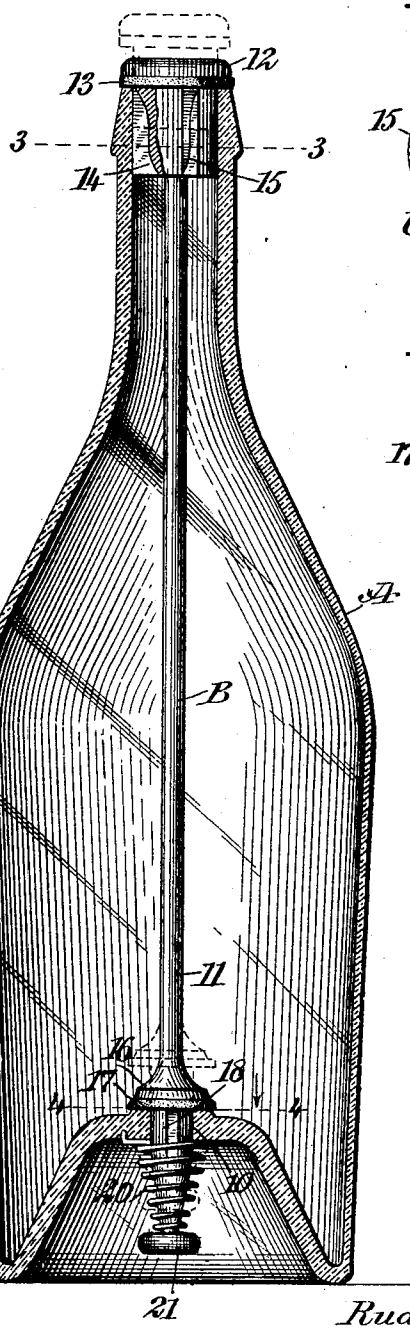


Fig. 2.

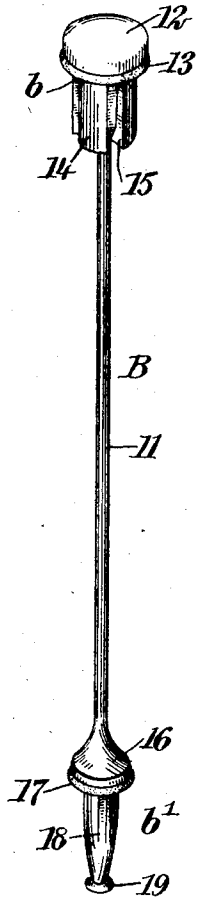


Fig. 3.

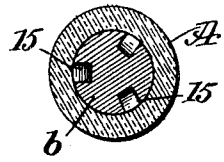


Fig. 4.

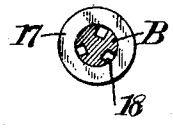
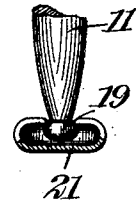


Fig. 5.



WITNESSES:

INVENTOR

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RUDOLPH BERNSTEIN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JACOB SPEKTORSKY, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

No. 796,796. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed January 21, 1905. Serial No. 242,082.

To all whom it may concern:

Be it known that I, RUDOLPH BERNSTEIN, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county 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 purpose of the invention is to provide a simple and economic construction of bottle which after having been once filled and emptied cannot be again filled and presented as an original package.

Another purpose of the invention is to provide a bottle of the character described from which fluid can be conveniently and freely poured and which will require no other stopper than that constituting a portion of the improvement.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through the bottle and a side elevation of the sealing device, which device is illustrated in open and in closed position, and a portion of the stopper is shown broken away. Fig. 2 is a side elevation of the sealing device removed from the bottle. Fig. 3 is a horizontal section taken practically on the line 3 3 of Fig. 1. Fig. 4 is a horizontal section taken substantially on the line 4 4 of Fig. 1; and Fig. 5 is a detail sectional view of the locking-cap of the sealing device, illustrating its attachment thereto.

A represents the bottle, which may be of any desired form; but said bottle is provided with an opening 10 in its bottom, the opening being preferably centrally located. In connection with the bottle I employ a sealing device B. (Shown in detail in Fig. 2.) This sealing device consists of a stem 11 and a stopper *b*, together with a vent-plug *b'*, the vent-plug being located at the lower portion of the stem and the stopper at the top. The stopper is adapted to close the mouth of the bottle, and the vent-plug is adapted to freely pass through the opening 10 in the bottom of the bottle. The stopper *b* comprises a head 12, beneath which a washer 13 is located, and a shank 14, around which the washer is placed, and the said shank is adapted to fit somewhat snugly to the inner face of the neck of the bottle at the mouth, while the head 12 and washer 13 effectually close the mouth of the bottle.

The shank 14 of the stopper *b* is provided with a series of longitudinally-located recesses 15, and these recesses are preferably made deepest at their lower portions. The back walls of the recesses are more or less outwardly curved, although the said recesses 15 may be of any desired character.

Just above the vent-plug *b'* a valve is formed, which consists of a cap 16, integrally formed with the stem B, and a washer 17 below the cap. This valve is just above the top of the vent-plug, and the said vent-plug is provided with series of longitudinal openings 18 therein. In the construction of the said vent-plug it is made to taper, being of least diameter at its lower portion, and at such portion a button 19 is formed.

When the bottle is to be filled, a cork is placed in the bottom opening 10. The bottle is then filled from the top in the customary manner. The stem B is then introduced into the bottle, and the head portion of the stopper is made to engage with the outer edge of the bottle at its mouth, and at such time the vent-plug *b'* will have passed through the opening 10 in the bottom of the bottle, forcing the cork therein out of position, and the valve just above the plug being almost instantly brought in engagement with the bottom at the top portion of the said opening 10 comparatively little of the liquid in the bottle will be spilled. A spring 20 is then placed around the vent-plug *b'*, and the upper end of the spring is secured to the bottom of the bottle in any desired manner. Then a locking-cap 21 is securely clamped upon the button 19, and the lower end of the spring rests upon said cap, as is shown in Fig. 1, the manner in which the cap is secured to the button being illustrated in Fig. 5.

When it is desired to pour liquid from the bottle, it is simply necessary to press forward on the button 21, whereupon the stem 11 will be forced outward, and the stopper *b* will occupy the position shown by dotted lines in Fig. 1, and the opening 10 will be uncovered, the valve portion of the stem moving outward, so that ample air is admitted into the

interior of the bottle to permit the free flow of the liquid therefrom; but should any attempt be made to fill the bottle it is necessary that the stopper *b* be forced outward, as has been described, and consequently if at such time any liquid is poured into the bottle at its mouth it will escape through the opening 10 in the bottom of the bottle, from which opening the valve is removed.

This device is exceedingly simple, economic, and is well adapted for the purpose intended, requiring no other change in the form of the bottle than the opening in its bottom.

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

1. A bottle having an opening in its bottom, and a sealing device for the bottle, comprising a stem having guided end movement in the bottle, a recessed stopper at the upper end of the stem, and a vent-plug and valve at the lower end of the stem.

2. A bottle having an opening in its bottom, and a sealing device for the bottle, comprising a tension-controlled stem, a recessed stopper at the upper portion of the stem, a valve near the lower end of the stem, a vent-plug below the valve and a locking-cap at the lower extremity of the stem.

3. A bottle having an opening in its bottom, and a sealing device for the bottle, comprising a stem having end movement in the bottle, a longitudinally-recessed stopper at the mouth of the stem, fitted to the mouth of the bottle, a vent-plug at the lower end of the stem, which plug is passed through the opening in the bottom of the bottle, a valve above said plug, carried by the said stem, which valve is adapted to normally close the opening in the bottom of the bottle, engaging with the inside face of the bottom at said opening, and a spring carried by the vent-plug, engaging with the outer face of the bottom of the bottle, and a locking-cap secured to the outer extremity of the said stem, all combined for the purposes specified.

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

RUDOLPH BERNSTEIN.

Witnesses:

JACOB SPEKTORSKY,

HORACE A. BERNSTEIN.