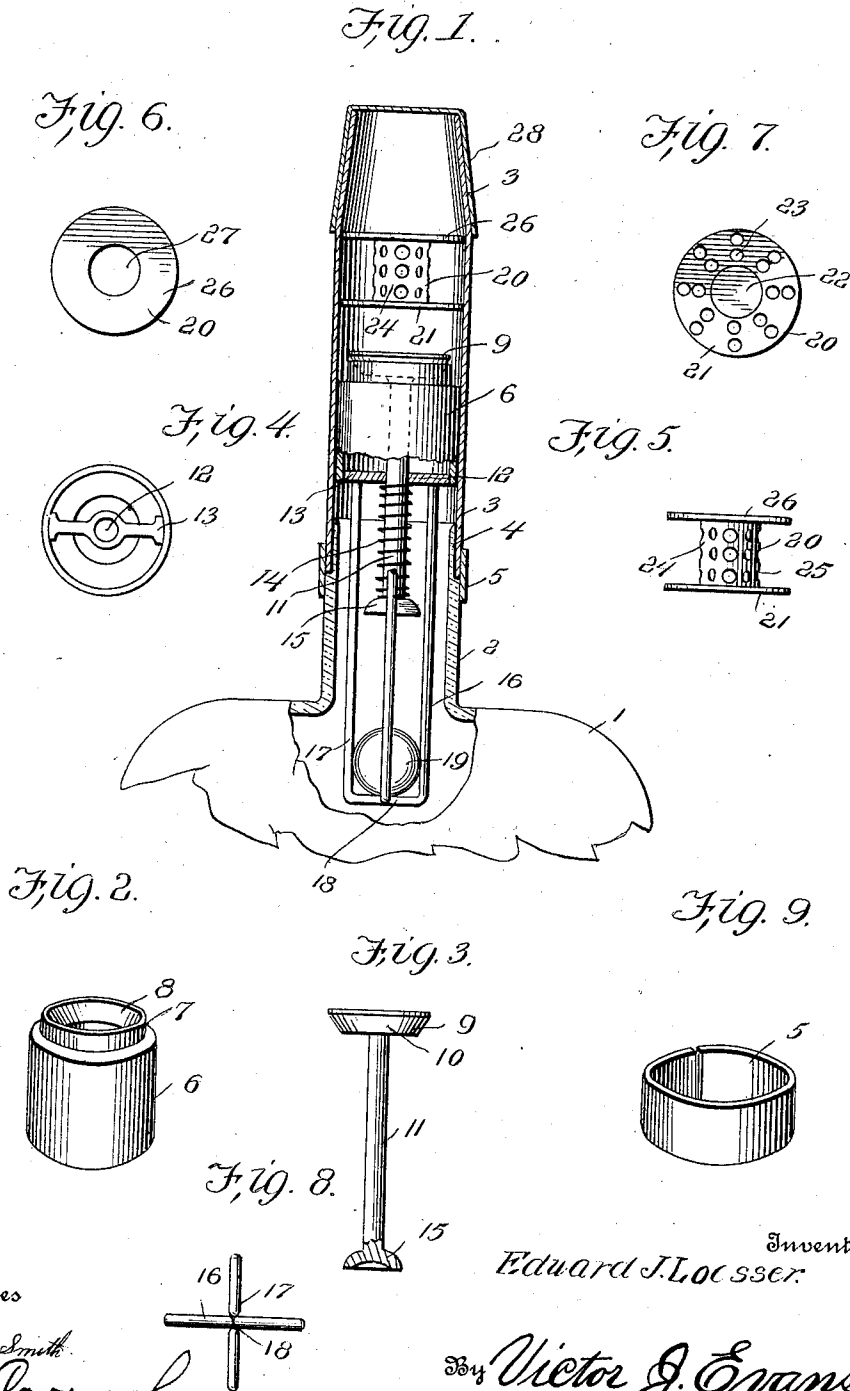


E. J. LOESSER.
NON-REFILLABLE BOTTLE.
APPLICATION FILED OCT. 25, 1911.

1,053,308.

Patented Feb. 18, 1913.



Witnesses
William R. Smith.
R. B. Cavanaugh.

Inventor
Edward J. Loesser.

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

EDWARD J. LOESSER, OF TIFFIN, OHIO.

NON-REFILLABLE BOTTLE.

1,053,308.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed October 25, 1911. Serial No. 656,584.

To all whom it may concern:

Be it known that I, EDWARD J. LOESSER, a citizen of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

The present invention relates to certain novel and useful improvements in non-refillable bottles.

In carrying out my invention, it is my purpose to provide a bottle having the neck thereof provided with means whereby the refilling of the bottle, or the substitution and adulteration of the contents thereof will be prevented.

It is also my purpose to provide a non-refillable bottle which will embody in its construction the desired features of simplicity, durability, cheapness and efficiency.

I also aim to provide a bottle from which the original contents may be readily poured or removed but at the same time the structure of the bottle is such that the refilling of the same by unauthorized persons will be rendered impossible.

With the above-recited objects, and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

In the accompanying drawings:—Figure 1 is a view partly in vertical section and partly in elevation of a bottle embodying my invention. Fig. 2 is a detail perspective view of the valve seating member. Fig. 3 is a view in side elevation of the valve. Fig. 4 is a bottom plan view of the valve seat shown in Fig. 2. Fig. 5 is a detail perspective view of the stopper located above the valve. Fig. 6 is a top plan view of the stopper shown in Fig. 5. Fig. 7 is a bottom plan view of the same. Fig. 8 is a detail view of the cage for the ball. Fig. 9 is a detail perspective view of the neck band.

Referring now to the accompanying drawing in detail, the numeral 1 indicates the body portion of the bottle which is of glass or other suitable material, while 2 designates the neck portion connected therewith and composed of the same material. Carried by the neck portion 2 is a metallic sleeve or tube 3, which forms a continuation or extension of such neck portion, and is connected thereto by cement, plaster of

Paris or other suitable material as indicated at 4. If desired, the point of junction of the metallic portion of the neck with the glass part thereof may be provided with a band 5 of metal or other suitable material which is designed to have impressed or stamped thereon the name of the manufacturer or vender of the goods. Located within the metallic portion of the neck is a tubular member 6 having the upper portion thereof formed with a flange 7 the inner surface of which is beveled as at 8 to form a seat for the valve head 9, the latter of which is correspondingly beveled as at 10. This head 9 is further provided with a stem 11 which projects downward through the opening or aperture 12 carried by the web 13 extending crosswise of the seat member 6 adjacent to the bottom thereof, said web acting as a guide for the standard of the valve.

The numeral 14 designates a coil expansion spring surrounding the lower portion of the valve stem and having its lower end bearing against the enlargement 15, said spring normally tending to hold said valve in closed position, that is to say, the beveled portion 10 of the head makes an air and fluid tight joint with the beveled portion or seat 8 of the valve 7.

Connected to and depending from the bottom of the valve seat member 6 is a cage 16 formed of a plurality of arms 17 connected at their lower ends as at 18 while within said cage is adapted to move a weight or ball 19 which is preferably composed of glass although it may be made of other material such as metal, as desired. When the bottle is inverted to permit the contents to pass therefrom, the ball or weight 19 is adapted to strike against the enlargement 15 and push or force the valve from its seat against the action of the tension spring.

Located in the metal portion of the neck above the valve is a stopper which is indicated as an entirety by the numeral 20 and comprises a bottom disk 21 having a solid or closed central portion 22, said disk being provided with a series of perforations 23.

The numeral 24 designates a tubular cylindrical member or barrel as at 25 and connected at one end to the disk 21, the opposite end of said barrel or tube carrying a disk 26 having a central open portion 27 of the same cross dimensions as the opening or interior of the barrel. This stopper is

adapted to be inserted in the metallic portion of the neck of the bottle, and is designed to prevent unauthorized persons inserting a wire or the like in the neck and tampering with the valve to lift the same from its seat for the purpose of refilling the bottle.

The numeral 28 indicates an ordinary cap which is adapted to cover the metallic end of the bottle.

From the above description, taken in connection with the accompanying drawings, the construction and manner of employing my invention will be readily apparent.

After the bottle has been originally filled with the selected contents, the metallic portion of the neck containing the valve and the stopper is cemented in position upon the glass section of such neck, and the band 5 is preferably also placed around the neck at the point of junction of the two sections thereof. If is, of course, to be understood that the stopper and the valve seating member are cemented or otherwise firmly secured in position. When it is desired to pour out or remove the contents of the portion, the latter is inverted and the ball 19 assists in forcing the valve from its seat as heretofore described. The liquid now flowing past the valve passes through the perforations 21 in the stopper and thence through the perforations 24 in the barrel section thereof to the interior of the stopper and thence outward through the opening 27 of the disk 26. Upon the bottle being restored to its normal upright position, the valve is reseated as the weight of the ball against the tension of the spring is relieved, said ball dropping back into position at the bottom of the cage. It will be noted that I have provided an exceedingly simple yet efficient form of bottle which is so constructed and arranged that the possibility of refilling the same with spurious or inferior goods is obviated.

I wish it to be understood that my im-

provements are not only applicable to bottles of ordinary construction but may be also used in connection with jars, demijohns, casks and other receptacles.

While I have herein shown and described one particular embodiment of my invention, I wish it to be understood that I do not limit myself to all the precise details of construction herein set forth, as modification and variation may be made without departing from the spirit of the invention or exceeding the scope of the appended claim.

I claim:—

In a receptacle of the class described, the combination with the body portion including a neck, of a tubular extension connected to said neck and forming a continuation thereof, a tubular member located within said extension and provided on its upper portion with an inwardly extending annular flange having a beveled inner surface to form a valve seat, a web extending diametrically across the lower part of said member and provided with an aperture coaxial with the member, a valve adapted to cooperate with the seat and provided with a stem extending through the aperture in the web, tension means surrounding the stem below the web, a cage depending from said member and extending beyond the tubular extension and disposed within the neck of the bottle, a movable weight within said cage and adapted to bear against said valve stem to open the valve against the tension of the said means, and a perforated tubular stopper located in the neck and spaced apart from the valve whereby access to the valve is eliminated.

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

EDWARD J. LOESSER.

Witnesses:

CLARK H. CALVERT,
ANNA T. ARNDT.