

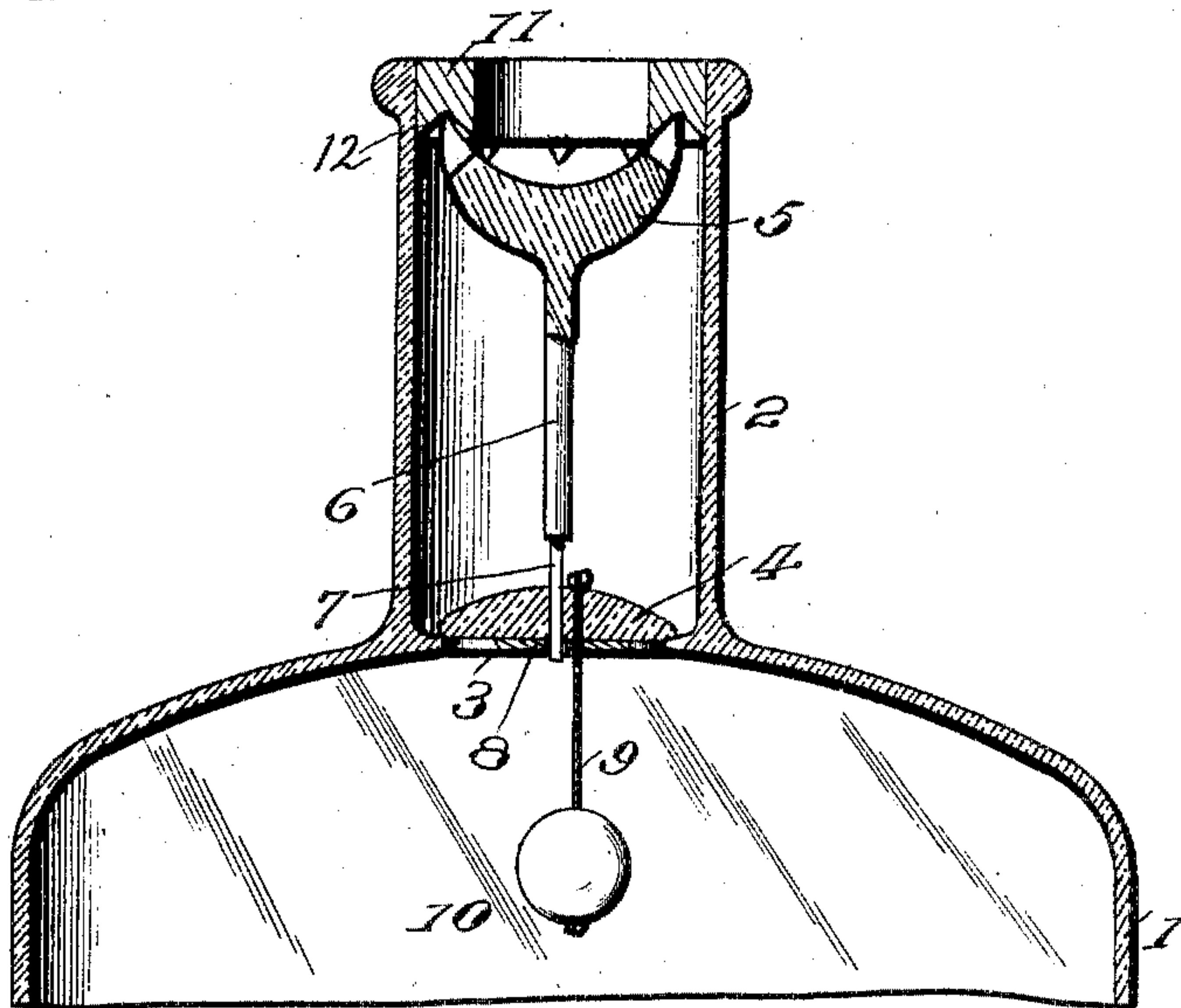
No. 776,808.

PATENTED DEC. 6, 1904.

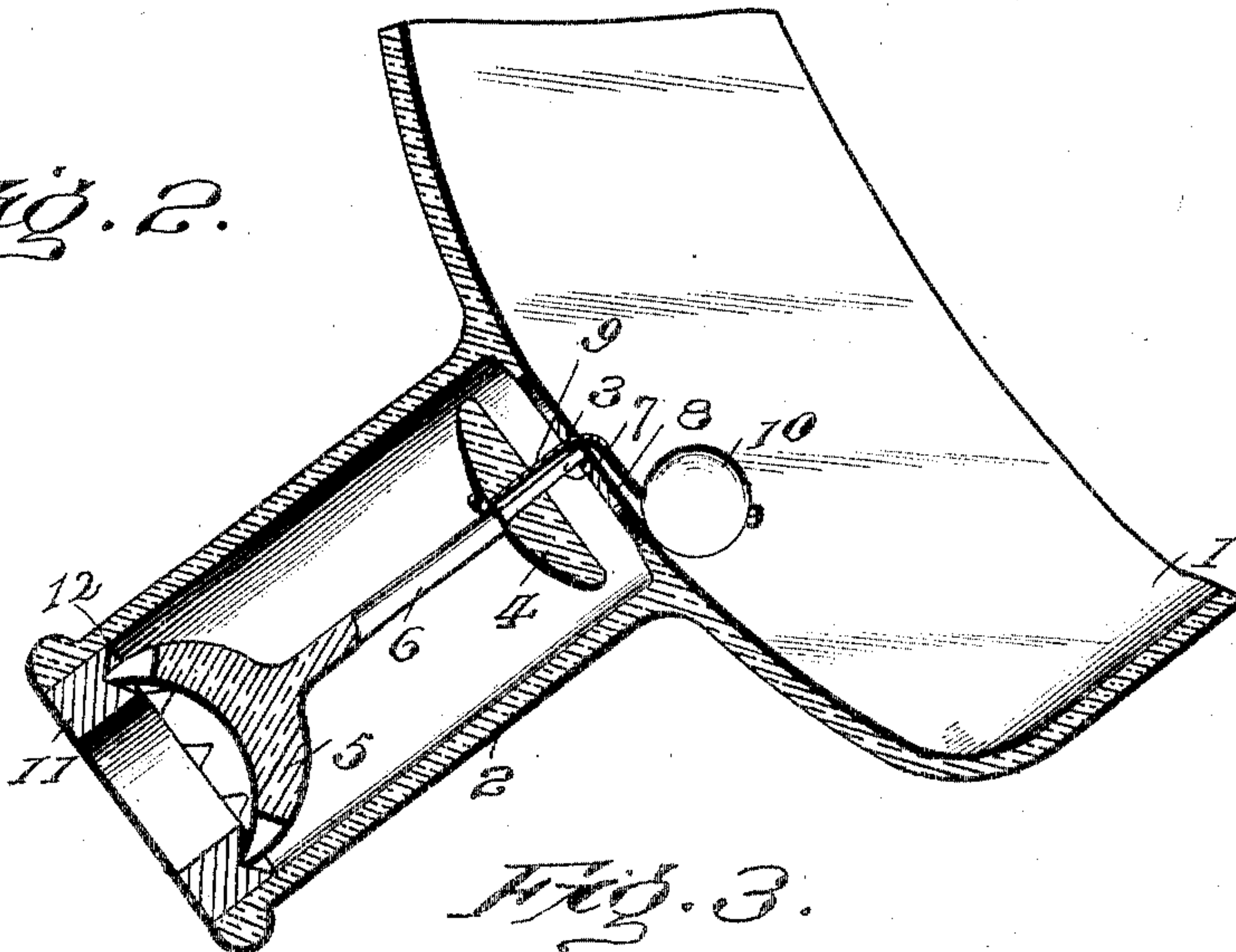
A. F. SHAW.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED MAR. 28, 1904.

NO MODEL.

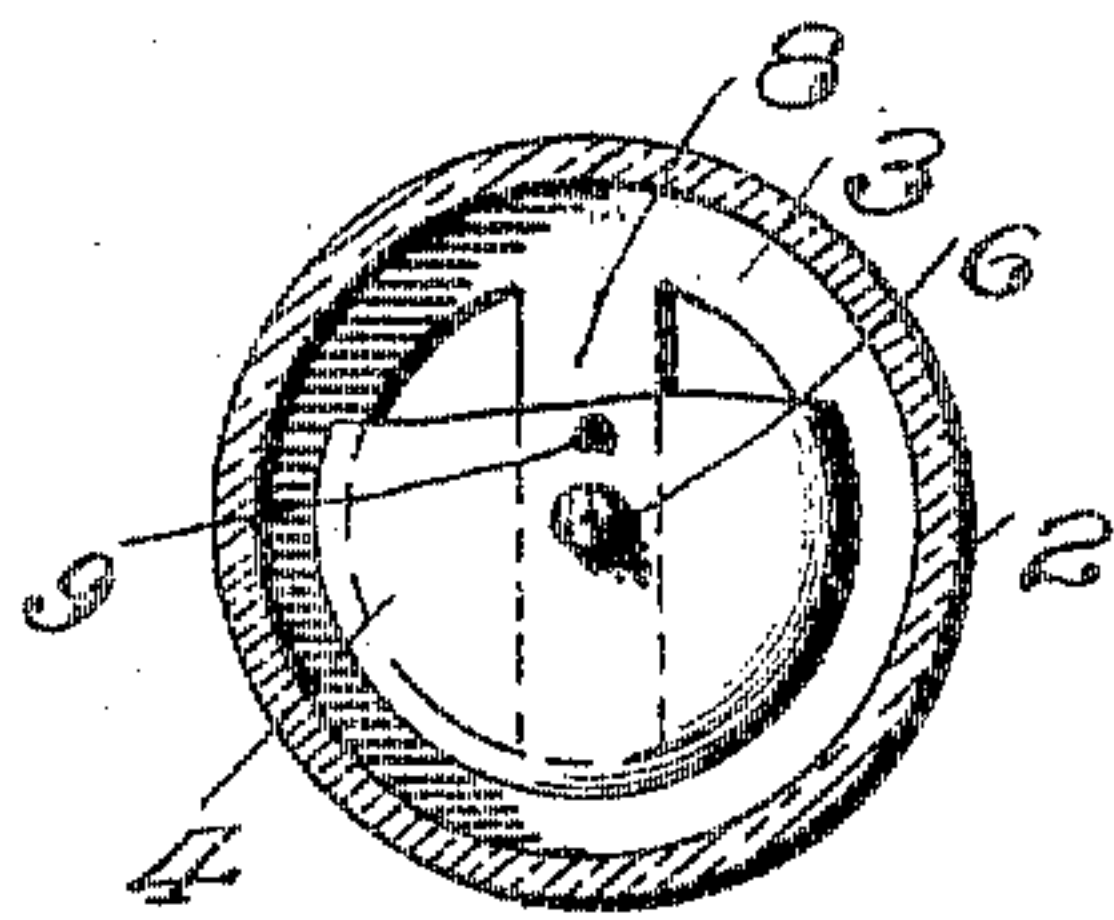
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Inventor

A. F. Shaw.

Witnesses

*Wm. J. ...*  
*W. A. Woodson.*

*John P. Racy,* Attorneys



# UNITED STATES PATENT OFFICE.

ALLAN F. SHAW, OF PULASKI, TENNESSEE, ASSIGNOR OF ONE-EIGHTH  
TO CARL O. SCHNEIDER, OF CHICAGO, ILLINOIS.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 776,808, dated December 6, 1904.

Application filed March 28, 1904. Serial No. 200,389. (No model.)

*To all whom it may concern:*

Be it known that I, ALLAN F. SHAW, a citizen of the United States, residing at Pulaski, in the county of Giles and State of Tennessee, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to that class of devices commonly known as "non-refillable bottles," and aims to provide a receptacle of this class provided with means for effectually preventing refilling thereof after the original contents of the receptacle have once been withdrawn.

The invention relates particularly to the provision of peculiar valve and guard means secured within the neck of the bottle, whereby the desired object, as above indicated, is attained.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view showing the embodiment of the invention in practical use. Fig. 2 is a sectional view illustrating the positions assumed by the parts in the operation of withdrawing the contents of the receptacle. Fig. 3 is a horizontal sectional view through the neck of the bottle, the valve being partially broken away.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is adapted for application particularly to bottles of the necked type, and that shown in the drawings consists of the body 1 and the neck 2 as the essential parts thereof. The neck 2 of the receptacle is molded so as to form a valve-seat 3 at a point adjacent the jointure of the neck with the bot-

tle-body 1. A valve 4 constitutes the means for closing the receptacle, and this valve is of a peculiar structure relative to the manner of mounting thereof, as will be more clearly described hereinafter. The valve 4 cannot be tampered with owing to the provision of a guard 5, disposed above the same within the neck 2 of the receptacle. The guard 5 is of approximately cup form in cross-section, as shown, being provided with a concave upper side. The peripheral portion of the guard 5 is cut away at intervals to afford means of egress of the contents of the receptacle. Projected from the under side of the guard 5 is a supporting member 6 in the form of a guide-stem, and the lower end portion of this guide-stem is reduced, as shown at 7. The reduced portion 7 of the guard-stem 6 passes through the opening in the valve 4, and thereby the valve is adapted for a slidable movement upon the guard-stem 6 toward and from the seat 3. Secured to the neck of the bottle and virtually spanning the valve-seat 3 is a supporting-bar 8, to which the lower end of the guard-stem 6 is rigidly secured either by being fused or otherwise connected therewith. The supporting-bar 8 reinforces the stem 6 and is itself reinforced by the rigidity of this stem, said parts 6 and 8 thus mutually cooperating. The valve 4 is provided with a second opening, which receives a suspending-cord or flexible connection 9, which latter passes through an opening in the supporting-bar 8. The flexible connection 9 constitutes a means of suspending a weight 10 in the form of a ball or like part suitably secured thereto. The connection 9 may be of suitable material found most desirable. The guard 5 is held in position rigidly by means of an annular collar 11, which is provided upon its under side with an annular groove 12, which latter receives the peripheral portions of the guard. The annular collar 11 is rigidly secured within the neck 2 after all the other parts of the mechanism have been disposed in position, and this collar is held in place by fusing same in the neck 2, while the latter is yet heated from the molding operation. The shape of the groove 12 in the collar 11 is such as to properly cen-



ter the guard with the neck, being advantageous for this reason.

In the practical operation of the invention inversion of the bottle will relieve the valve of the weight 10, and same by a slidable movement will move from its seat 3. The contents of the receptacle may thus readily pass therefrom through the neck past the guard 5. Should the bottle be disposed upon its side or in a vertical position, the weight 10 holds the valve normally closed. Any attempt to force liquid or the like into the neck of the bottle to refill the same will be thwarted by closing of the valve 4 under the pressure of said liquid. It will be understood that, if desirable, the neck 2 may be extended so as to admit of disposal of a cork or like closure within the same, this being non-essential within the contemplation of my invention.

Having thus described the invention, what is claimed as new is—

1. In combination, a bottle or like necked receptacle, a guard disposed within the neck, a supporting member projected from said guard, a valve movably mounted upon the supporting member, and means for normally holding said valve closed.

2. The combination of a bottle or like necked receptacle provided with a valve-seat in its neck, a guard secured within the neck afore-

said, a supporting-bar secured in the neck, a guide-stem projected from the guard and connected with the supporting-bar, a valve movably mounted upon the guide-stem.

3. The combination of a bottle provided with a valve-seat in the neck thereof, a guard disposed above said seat, a guide-stem projected from the under side of the guard and provided with a reduced end portion, a valve slidably mounted upon the reduced end portion of the guide-stem aforesaid and movable toward and from the seat aforesaid, and means for normally holding the valve closed.

4. The combination of a bottle provided with a seat in the neck thereof, a supporting-bar spanning said seat, a guard disposed above said seat, a guide-stem projected from the under side of the guard and having its lower end reduced and secured to the supporting-bar aforesaid, a valve provided with an opening receiving the reduced portion of the guide-stem and slidably mounted thereon, and means for holding the valve normally closed.

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

ALLAN F. SHAW. [L. s.]

Witnesses:

GEO. B. McCALLUM,  
EDGAR B. BRALY.