C. COUNCELL.

NON-REFILLABLE BOTTLE.

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959,201. Patented May 24, 1910.

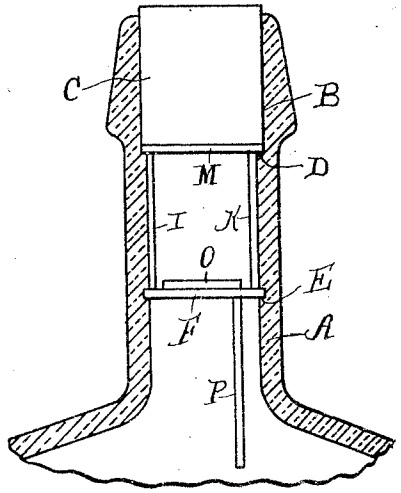


Fig. 1.

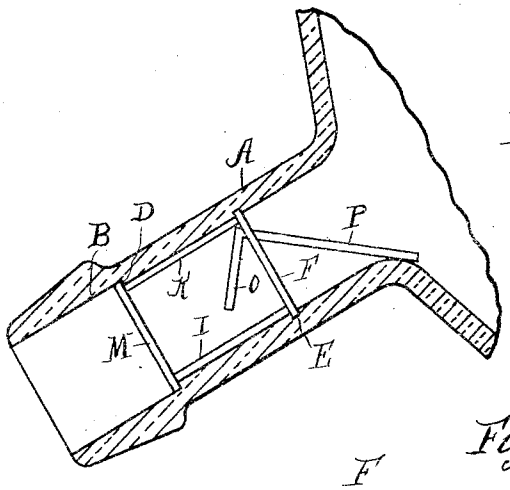


Fig. 2.

Fig. 3.

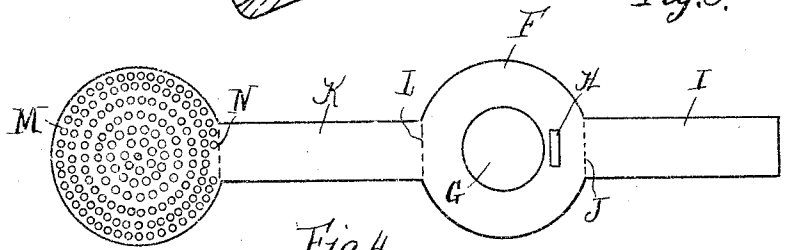
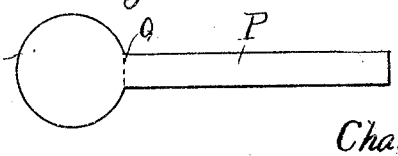


Fig. 4.



WITNESSES

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NON-REFILLABLE BOTTLE.

959,201. Specification of Letters Patent. Patented May 24, 1910.

Application filed June 24, 1909. Serial No. 503,986.

To all whom it may concern:

Be it known that I, CHARLES COUNCELL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Non-Refillable Bottles, of which the following is a specification.

My invention relates to a new and useful improvement in non-refillable bottles, and has for its object to provide an exceedingly simple and effective device of this character, in which the bottle is rendered non-refillable by a swinging valve located in the bottle neck which opens to prevent the discharge of the contents of the bottle and closes to prevent the entering of liquid into the same.

Another object of the invention is to provide a valve and seat for a bottle which will be inexpensive in construction, as it may be made of heavy paper if so desired.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a vertical sectional view of a bottle neck showing the application of the invention. Fig. 2, a similar view showing the bottle neck tilted. Fig. 3, a face view of the valve seat, guard and other connecting members, and Fig. 4, a face view of the valve.

In carrying out my invention as here embodied, A represents the neck of a bottle, the upper portion of which has an off-set B for the reception of the stopper C, said off-set forming a shoulder D. Below this shoulder in the neck of the bottle is formed an annular groove E.

F denotes the valve seat which is circular in shape and slightly larger than the lower portion of the bottle neck, and in this is formed the central opening G through which the liquid is adapted to pass when being discharged. In proximity to this opening G is formed a slot H for a purpose to be hereinafter described.

From one edge of the valve seat F extends a strip I which is folded on the dotted line indicated by J. From the opposite side of the valve seat F is formed another strip K which is bent upward from the valve seat on the dotted line L. With the opposite end of the strip K is formed the perforated guard M, which is circular in shape and fits snugly within the upper portion of the bottle neck. This guard is bent at right angles to the strip K on the dotted line N, so that when these parts are bent the guard M is directly above the valve seat F and rests upon the strips I and K.

O is a swinging valve with which is formed the stem P adapted to be bent at some angle to the valve O on the dotted line Q, said angle being here shown as ninety degrees. The stem P of the valve O passes through the slot H until the valve rests upon the valve seat, the material forming one of the side walls of the slot H acting as a fulcrum for the movements of the valve. The width of the stem P along the greater portion thereof from its lower end upward will be such that it will be necessary to force it through the slot H, but its upper portion or that part which rests within the slot H will be slightly smaller to allow for the free action of the valve.

It will be noticed that where the strips I and K bend on the valve seat and guard is a short distance inside of the periphery of said valve seat and guard so that when these parts rest within the grooves formed for them, the strips will rest against the inner side walls of the bottle neck.

If heavy paper or card board is employed in making the parts they may be coated with paraffin or other suitable material to prevent any deteriority action upon the same.

In practice the parts will be stamped out of two pieces of material, as shown in Figs. 3 and 4 and bent to their respective positions, at which time the stem P of the valve O will be inserted in the slot H until the valve O rests upon the valve seat F.

After the bottle has been filled the device is placed in the neck thereof and forced downward until the valve seat springs into the annular groove E, at which time the guard M will rest upon the shoulder D. To discharge the contents of the bottle, which is inclined, as shown in Fig. 2, at which time the weight of the stem P will cause it to move downward until it comes in contact with the side of the bottle, the opening G in the valve seat F is then opened so that

the liquid may pass through the same and out of the bottle. The bottle cannot be refilled for the pressure of the liquid and the suction at once closes the valve; the guard M is used to prevent tampering with the valve.

Of course I do not wish to be limited to the exact details of construction here shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. In combination with a bottle, the neck of which has an off-set and an annular groove, a valve seat having a central opening and a slot therein, strips formed with said valve seat at opposite sides thereof adapted to be bent at right angles to said valve seat, a perforated guard formed with one of said strips adapted to be bent at right angles thereto, the valve seat adapted to rest within the annular groove and the guard against the shoulder formed by the off-set, a valve and a valve stem adapted to be inserted in the slot in the valve seat.

2. The combination with a bottle, of a valve seat having a central opening and a slot formed therein, said valve seat having strips formed therewith bent at right angles thereto, one of said strips having a perforated guard formed therewith bent at right angles thereto, and a valve having a stem formed therewith bent at an angle thereto, said stem adapted to be inserted in the slot, as specified.

3. In combination with a bottle, a valve seat having a central opening and a slot formed therein, strips, a perforated guard, said valve seat, strips and perforated guard being formed integral and inserted in the neck of the bottle, a valve and a stem formed therewith bent at an angle thereto, said stem passing through the slot in the valve seat, for the purpose set forth.

4. In combination with a bottle, a valve seat having a central opening and a slot formed therein, a perforated guard, and strips, one of which connects said guard and seat, all formed of one piece of material, and a valve and stem formed of one piece bent at right angles to one another, said stem passing through the slot in the valve seat for operating the valve by gravity.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

CHARLES COUNCELL.

Witnesses:
M. GETZ,
IRENE MATTHEWS.