

No. 891,052.

PATENTED JUNE 16, 1908.

H. F. ERFMAN, SR.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JAN. 24, 1908.

Fig 1.

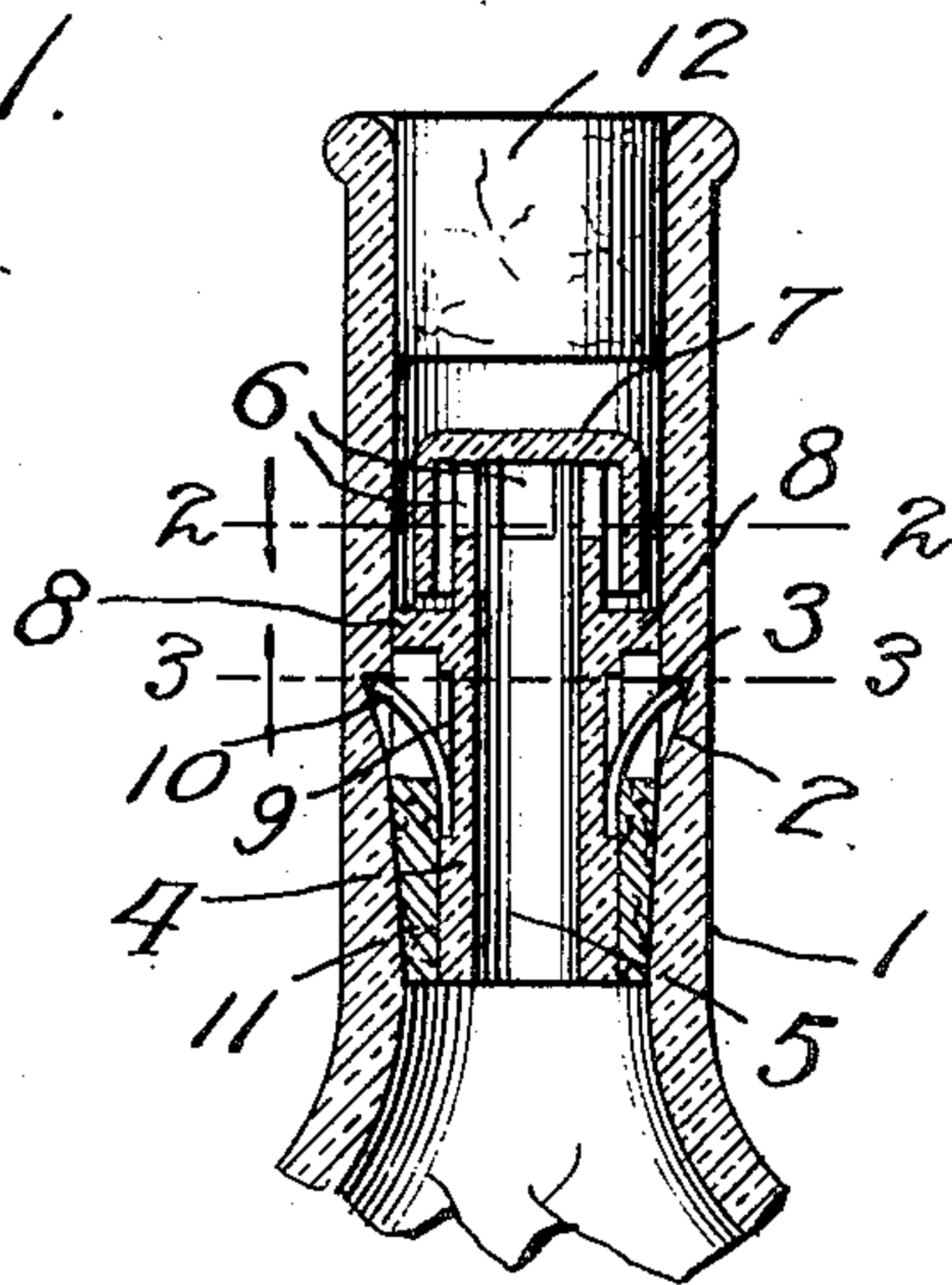


Fig 2

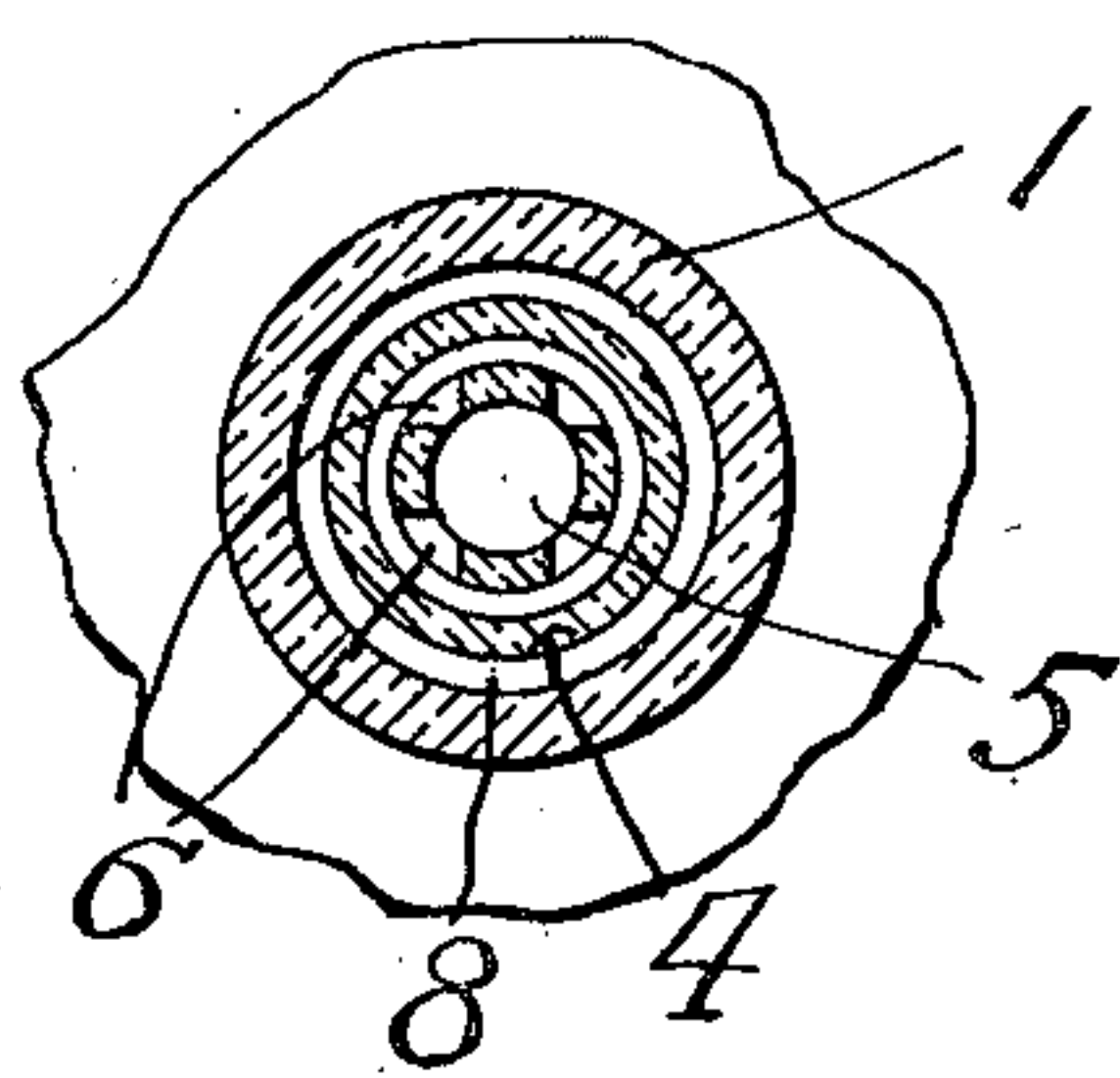
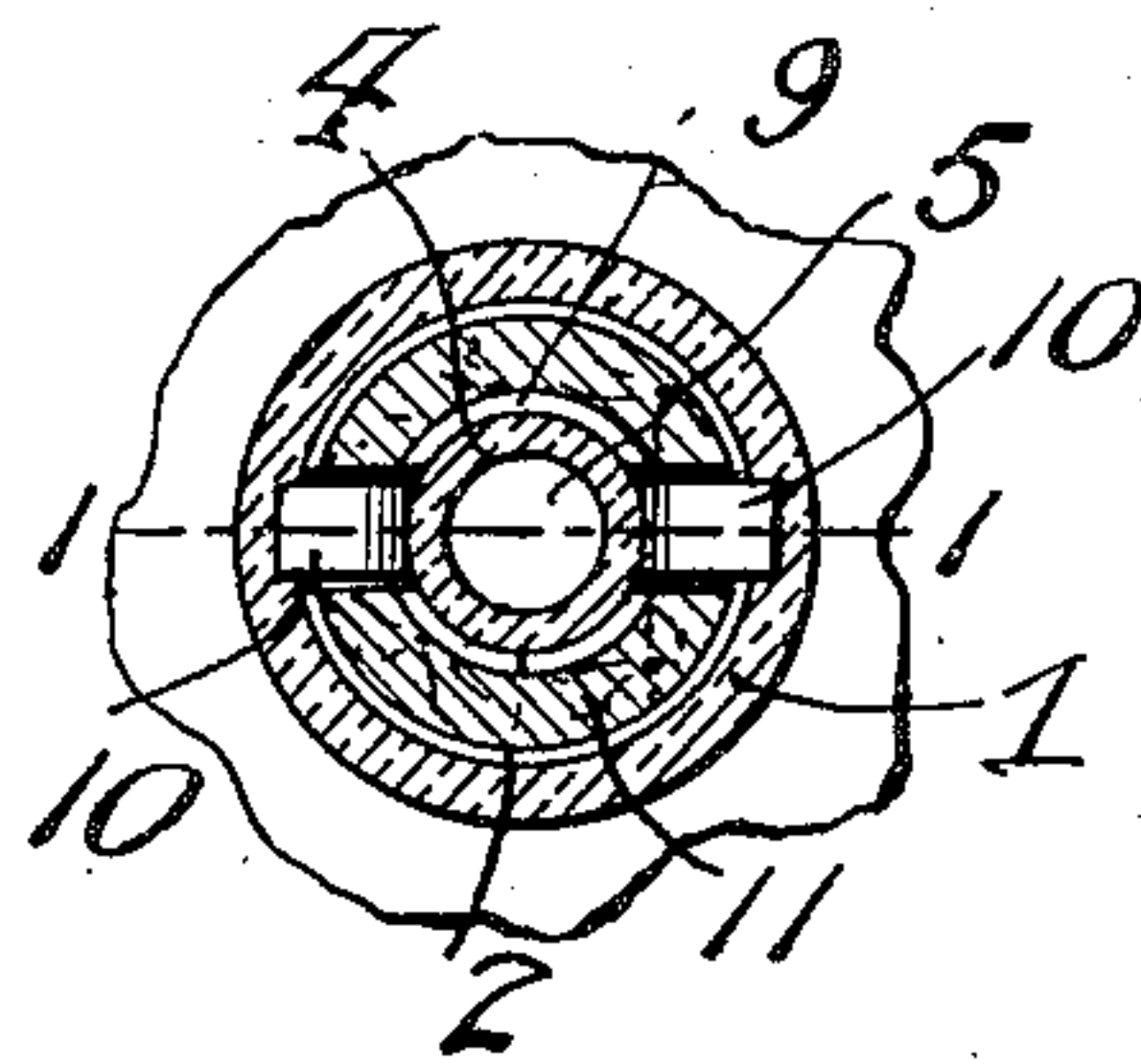


Fig 3.



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NON-REFILLABLE BOTTLE.

No. 891,052.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed January 24, 1908. Serial No. 412,521.

To all whom it may concern:

Be it known that I, HENRY F. ERFMAN, Sr., a citizen of the United States, residing at Miamisburg, in the county of Montgomery and State of Ohio, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles, and the object of the invention is to provide a stopper for the neck of an ordinary bottle, which will act as an effective seal for the contents of the bottle, and render it difficult if not impossible to refill the bottle.

With these objects in view the invention resides in the novel construction of elements and their arrangement in operative combination, hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of the neck of a bottle having my improved stopper applied therein. Fig. 2 is a horizontal section upon the line 2—2 of Fig. 1. Fig. 3 is a similar section upon the line 3—3 of Fig. 1.

In the accompanying drawings, the numeral 1 designates the neck of a bottle, of any ordinary construction, and being provided upon its inner surface with recesses or indentations 2, having upper horizontal walls 3.

My improved stopper comprises a tubular member 4 constructed preferably of glass, and provided with a central channel 5. The upper portion of the tube 4 is provided with a plurality of openings 6, and the top of the tube is provided with an integrally formed hood 7, having its downwardly projecting wall extending below the openings 6, and in close proximity to the outer surface of the tube. Directly below the wall of the hood 7, the tube is provided with an annular flange 8, of a size coinciding with that of the opening provided within the neck of the bottle. The outer surface of the tube below the flange 8, is provided with pockets 9, adapted for the reception of leaf springs 10. The lower ends of these springs 10 are held in position within the recesses by a collar 11, composed of cork, pulp, or other suitable material, and adapted to engage the lower portion of the tube 4 and the ends of the springs 10.

In placing my improved stopper in position within the neck of a bottle, the stopper is simply forced downwardly within the neck until the springs 10 contact with the recesses 2 and the shoulders 3 of the bottle neck. It is to be understood that the collar 11 fits tightly within the neck of the bottle, and is adapted to swell when saturated by the liquid within the bottle so as to act as an effective holding means in connection with the springs 11 of the stopper.

The action of my device is as follows: The liquid is first fed into the bottle, the stopper then applied in the manner previously described, and a cork or other similar closure may be applied to the extreme neck of the bottle. When liquid is to be withdrawn from the bottle, the cork is pulled, and the bottle tilted so that the contents will flow through the central passage of the stopper and through the openings 6 down the inner walls of the hood and out through the neck of the bottle upon the sides of the outer surface of the hood. When the bottle is straightened a portion of the liquid will remain between the flange 8 and the hood, thus presenting an effective seal for the liquid within the bottle. It is understood that the walls of the hood are in close proximity to the outer wall of the tube 4 and the inner surface of the neck of the bottle, so as to form a depressed passage between the hood and the neck of the bottle and the inner surface of the hood and the outer surface of the tube, so should a fraudulent attempt at refilling the bottle be made the inflow of the spurious liquid will be repelled by the compressed air within the body of the bottle.

From the above description it will be noted that I have provided a simple, cheap and effective stopper for bottles, one which effectively forms a seal for the contents of a bottle, and is so constructed as to render the refilling of the bottle difficult if not impossible.

Having thus fully described the invention what is claimed as new is:

The combination with a bottle having internally arranged shoulders within its neck, of a stopper comprising a tube having a central opening provided with slits or cut-away portions at its upper end and being provided with a hood having its apron extending below the cut-away portions, a flange upon the

tube below the apron and engaging the inner
surface of the bottle neck, spring arms upon
the tube engaging the shoulders of the bottle
neck and an expansible collar engaging the
5 lower portion of the tube and the spring
arms, the said collar adapted to contact with
the inner portion of the neck of the bottle.

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

HENRY F. ERFMAN, Sr.

Witnesses:

DAVID F. BERGER,
W. A. REITER.