

C. SAVINO.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JULY 2, 1909.

980,841.

Patented Jan. 3, 1911.

Fig. 1.

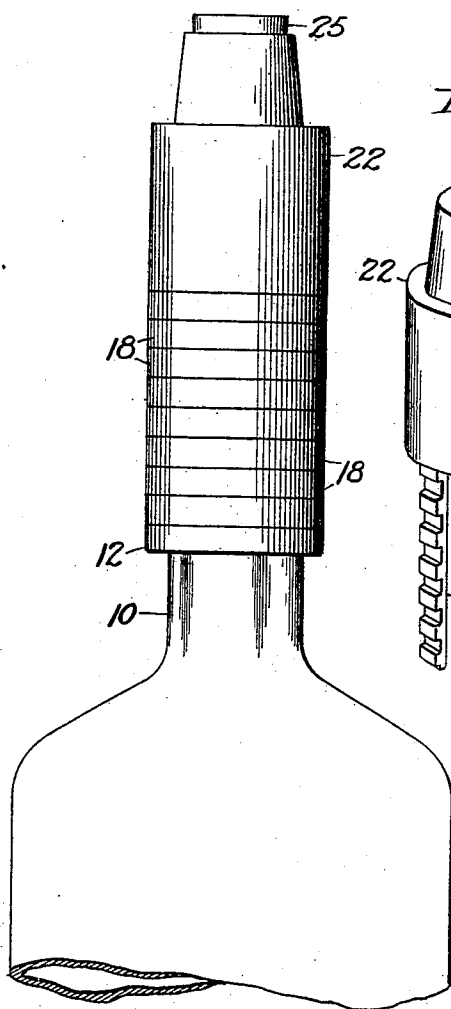


Fig. 2.

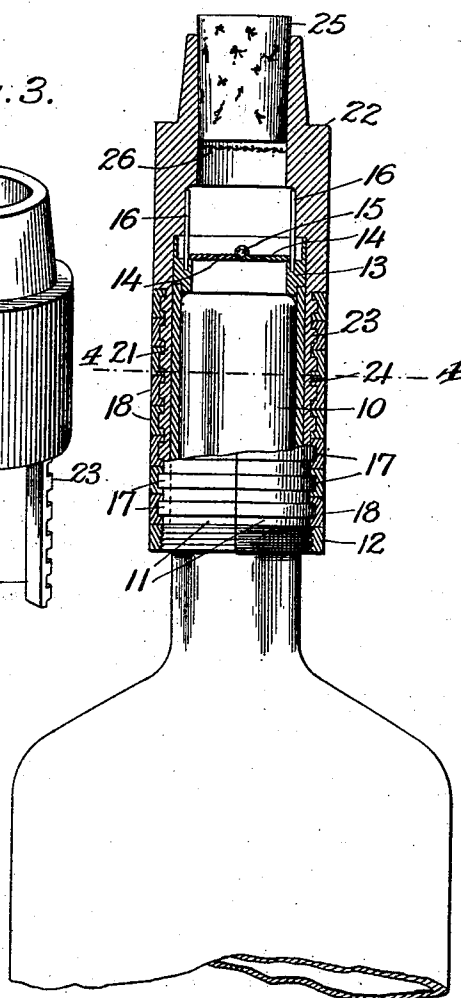


Fig. 3.

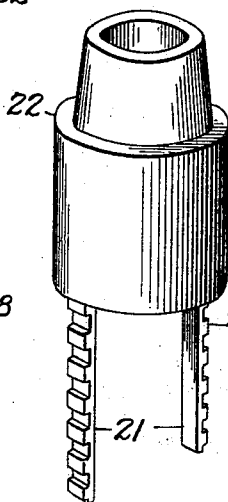


Fig. 4.

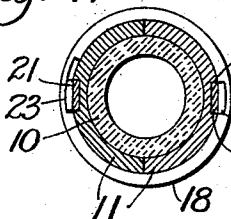


Fig. 5.

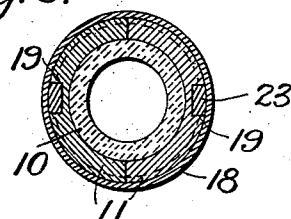
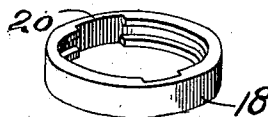


Fig. 6.



WITNESSES

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NON-REFILLABLE BOTTLE.

980,841.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed July 2, 1909. Serial No. 505,671.

To all whom it may concern:

Be it known that I, CAMILLO SAVINO, a subject of the King of Italy, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to bottles and more particularly to that type which when once filled and emptied cannot again be filled except by a person acquainted with certain combinations of characters carried by locking means which ordinarily prevent the removal of certain non-refilling valves but which when placed in certain predetermined relations permit the removal of the valves which close the mouth of the bottle against the entrance of liquid as will be more fully explained in the following specification, set forth in the claim and illustrated in the drawings, where:

Figure 1 is an elevation of the neck of a bottle with the improved stopper thereon. Fig. 2 is a similar view with the stopper in section. Fig. 3 is a perspective view of one of the parts of the device. Fig. 4 is a cross sectional view on the line 4-4 of Fig. 2. Fig. 5 is a cross sectional view on the line 5-5. Fig. 6 is a perspective view of one of the permuting rings.

The object of this invention is to provide the mouth of the bottle with an outwardly opening valve inclosed within a casing that is locked upon the neck of the bottle by a series of permuting rings which when turned so as to effect a certain combination of characters will allow the removal of the casing and give access to the valve for its removal or so that it may be held open so that the bottle may again be filled.

The neck 10 of the bottle is preferably without a head or bead and perfectly plain to receive a two part sleeve 11 threaded at its lower end to receive a ring 12 which is screwed thereon to hold the two parts together and to clamp the sleeve to the bottle neck while the upper part of the sleeve has attached to it a valve seat 13 carrying any type of valve to prevent liquid from being poured in at the mouth. The valve shown however, consists of two ordinary doors 14

hinged on a common pivot but a simple ball fitting in the seat would answer the purpose and be guided by the pins 16 extending upward from the valve seat.

The sleeve 11 is provided on its outer face with a series of ribs 17 to carry an equal number of internally grooved rings 18 that freely turn on the ribs of the sleeve and at one or more sides of the sleeve are cut channels 19 and corresponding channels 20 are also cut into the rings. When the channels 19 and 20 register they permit the entrance of depending stems 21 from the casing 22 that surrounds and protects the valve, the stems having ribs 23 similar to those on the sleeve and likewise engaged by the grooves of the rings 18. When the casing 22 is shoved down in its place on the valve seat the ribs 23 are alined with those of the sleeve and fill the gap in same that is caused by the channel 19 so that the rings turn freely. The stems 21 may be disengaged from the rings under the particular relation of the parts, as when the rings with their recesses 24 are all so turned that the recesses are opposite the channels and the stems the latter may be withdrawn and the casing 22 removed so that access may be had to the valve. The casing carries the cork 25 and beneath same is located a screen 26 so that the valve may not be tampered with or it may not be dislocated.

It is not absolutely necessary that the ribs 17 extend entirely around the sleeve as a very small section will suffice to retain the ring in its place and serve to connect the sleeve, the ring and the stem so that the latter cannot be moved, and it is obvious that other minor alterations may be resorted to and the construction of the parts modified so that the essential features above described will not be departed from.

What I claim as new and desire to secure by Letters Patent is:

In a stopper for bottles, the combination with a metallic head made in sections adapted to encircle the neck of a bottle and having screw threads at its lower end and vertical grooves, of a ring to be fitted about the screw threads to hold the head together, ribs around the head, closely fitting permuting

rings with internal grooves to fit the ribs
and having recesses to correspond with the
vertical grooves of the head, an outwardly
opening valve at the upper end of the head,
5 an auxiliary head carrying a stopper and a
strainer, and toothed stems depending from
the auxiliary head and adapted to fit in the
vertical grooves and have their teeth play

in the inner grooves of the permuting rings
and to pass out of their recesses. 10

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

CAMILLO SAVINO.

Witnesses:

JAMES F. DUHAMEL,
MAE W. CLINTON.