No. 860,995. PATENTED JULY 23, 1907.

M. RYAN.

BOTTLE STOPPER.

APPLICATION FILED DEC. 29, 1906.

Fig. 1.

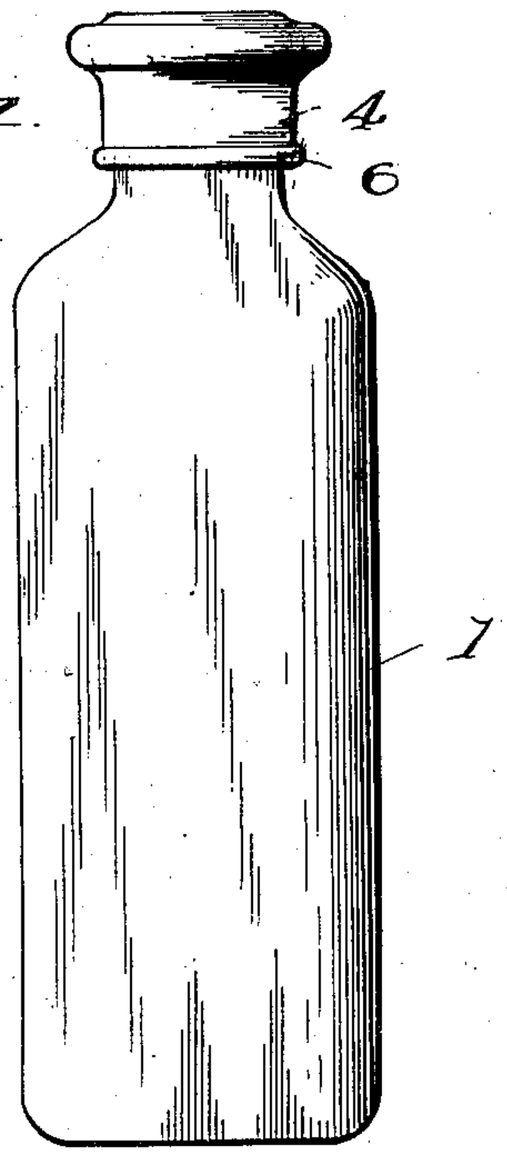


Fig. 2.

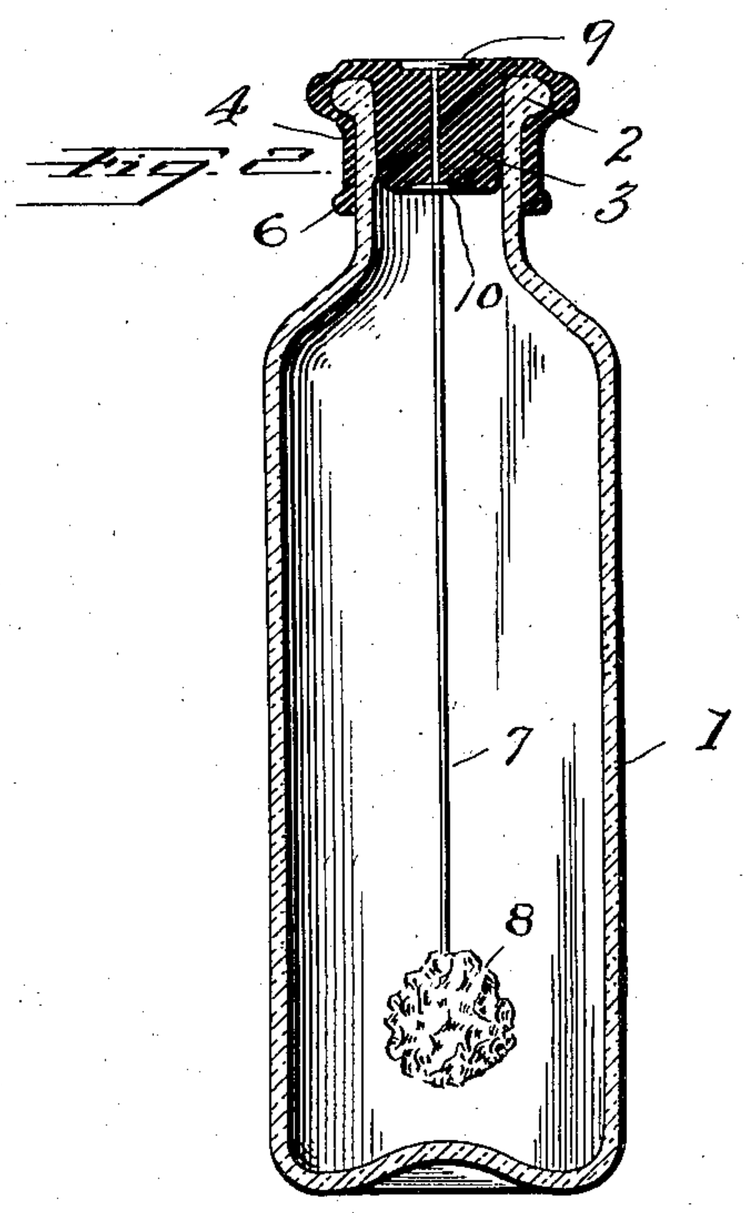


Fig. 3.

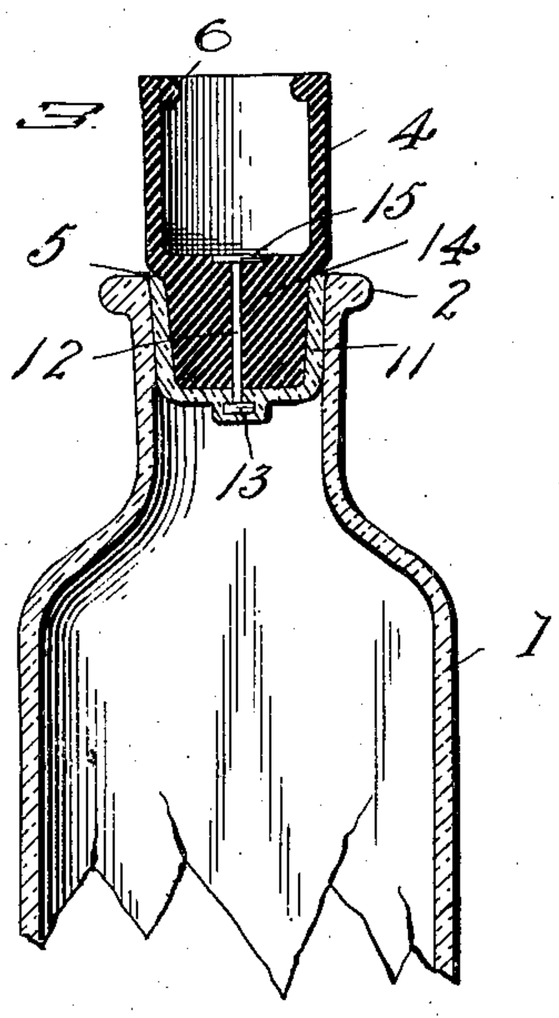
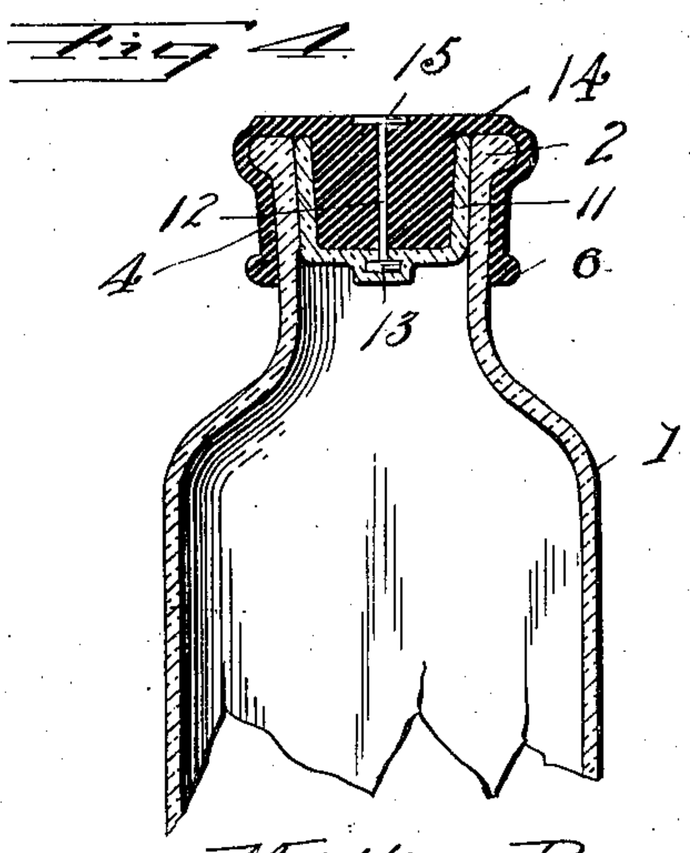


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

MILLIE RYAN, OF OMAHA, NEBRASKA.

BOTTLE-STOPPER.

No. 860,995. Specification of Letters Patent. Patented July 23, 1907.

Application filed December 29, 1905. Serial No. 293,843.

To all whom it may concern:

Be it known that I, MILLIE RYAN, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

My invention relates to improvements in bottle stoppers, and the primary object of the invention, is to provide a closure for bottles which will make an air tight joint with the bottle and which may be readily inserted or removed without the use of any tools.

Another object of the invention is to provide a device of the character stated, which may be used as an air-tight stopper on bottles containing acids and will not be affected by or become deteriorated from the action of the acids.

Other objects of the invention are to provide a bottle stopper of convenient form for handling, and which will prevent the entrance of dirt into the bottle and will protect the neck of the bottle from injury.

With these and other objects in view, my invention consists of a stopper comprising a hollow glass thimble or casing, a rubber plug secured in said casing, and a cup or cap formed integral with the plug and adapted to turn down over the mouth of the bottle and inclose the neck thereof.

My invention further consists in a tapered rubber plug adapted to fit in the mouth of a bottle and a flexible cap formed integral with the plug and adapted to turn down over the neck of the bottle, said cap formed with an annular rim or rib, and also certain other novel features of construction and combination of parts substantially as disclosed herein.

Figure 1, is a side elevation of a bottle with my improved stopper applied thereto. Fig. 2, is a central vertical sectional view of the same. Fig. 3, is a central sectional view of a modified form of the invention applied to a bottle, the cap or cover being open preparatory to removing the stopper. Fig. 4, is a similar view of the modified form of stopper, the cover being turned down in the sealed position.

In the drawings: The numeral 1, designates a bottle of ordinary construction having an annular rim 2, formed at the mouth thereof. Adapted to fit within the mouth of the bottle, is a solid rubber plug or closure 3. This plug is preferably tapered so that it may be fitted to bottles of various sizes. Formed integral with the plug, is a cap or cover 4. This cap when open in the normal position, is of substantially tubular form and of larger diameter than the plug or stopper proper, it being offset from the plug, by the annular shouldered portion 5. As shown in the sectional view, Fig. 2, an annular rib or rim 6, is formed on the edge of the cap and serves to strengthen the same as well as forming means for grasping the stopper for handling purposes. If the cork is intended for use on a blacking bottle or for similar purposes, a rod 7, carrying a brush 8, may be inserted in the cork and be secured thereto by having the cap 9, fastened on the outer extended end of the rod. A shoulder 10, is formed on the rod to prevent it from working loose in the plug.

For use in bottles containing acids or other materials that might affect the rubber, I employ a modified construction as shown in Figs. 3 and 4. A hollow glass thimble or casing 11, of slightly tapered construction, is adapted to close the mouth of the bottle, and an upwardly-extending pin 12, has its head 13, embedded in the base of the casing. The rubber plug 14, fits in the thimble, and the pin 12, passes through the plug and has the cap 15, secured on the outer end thereof, so that the plug is securely fastened in the casing. The plug is provided with the cap, as before described, which incloses the neck of the bottle forming air-tight connection therewith.

When it is desired to remove the stopper, the cap is pushed upward as shown in Fig. 3, and it then forms a convenient means for handling.

From this description taken in connection with the drawings, it will be evident that I have provided a bottle stopper which seals the bottle air-tight and protects the contents thereof, and which is convenient to handle for removal and insertion. The stopper also forms a perfect closure for acid bottles or other vessels containing dangerous or injurious liquids.

I claim:

1. A bottle stopper consisting of a casing or thimble, a plug secured in said casing, said plug having a flexible cap formed integral therewith.

2. A bottle stopper consisting of a casing or thimble, a pin having its head embedded in said casing, a plug fitting in the casing, said pin passing through the plug and having a cap secured on the end thereof, and a tubular flexible cap formed integral with the plug.

3. In combination, a bottle stopper comprising a casing or thimble, a pin having its head embedded in said casing, a plug fitting in the casing, said pin passing through the plug and having a cap secured on its other end, a flexible cap formed integral with the plug, and an annular rim formed on said cap.

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

MILLIE RYAN.

Witnesses:
J. W. MARTIN,
PAUL L. MARTIN.