

(No Model.)

B. PRICE.
BOTTLE STOPPING DEVICE.

No. 539,487.

Patented May 21, 1895.

Fig. 1.

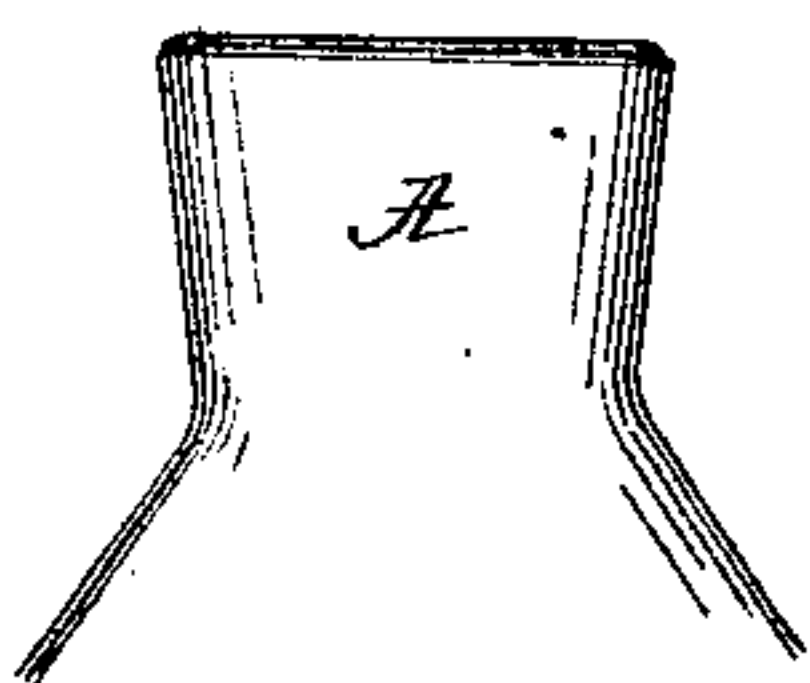


Fig. 2.

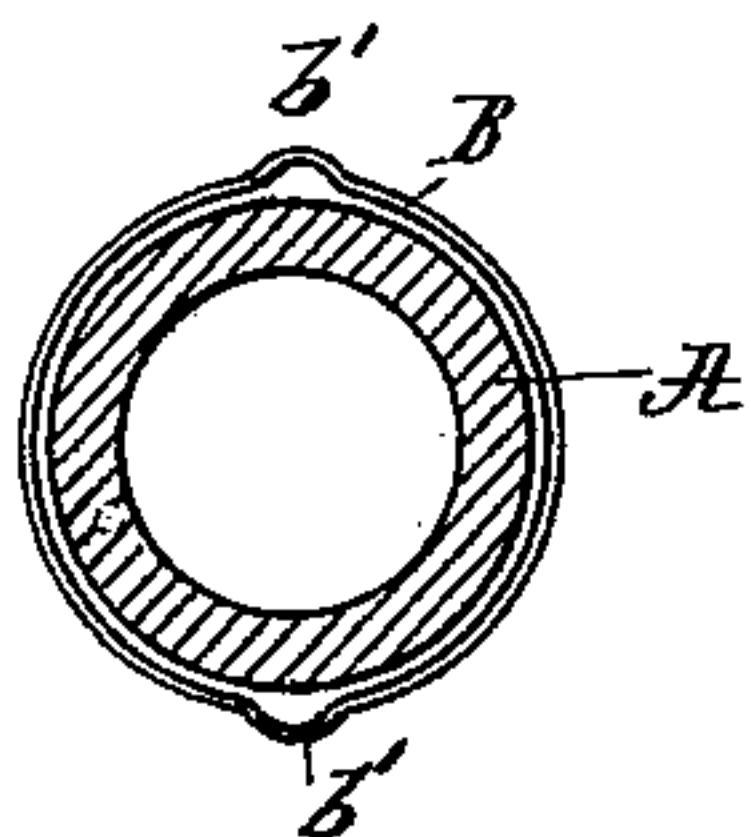


Fig. 3.

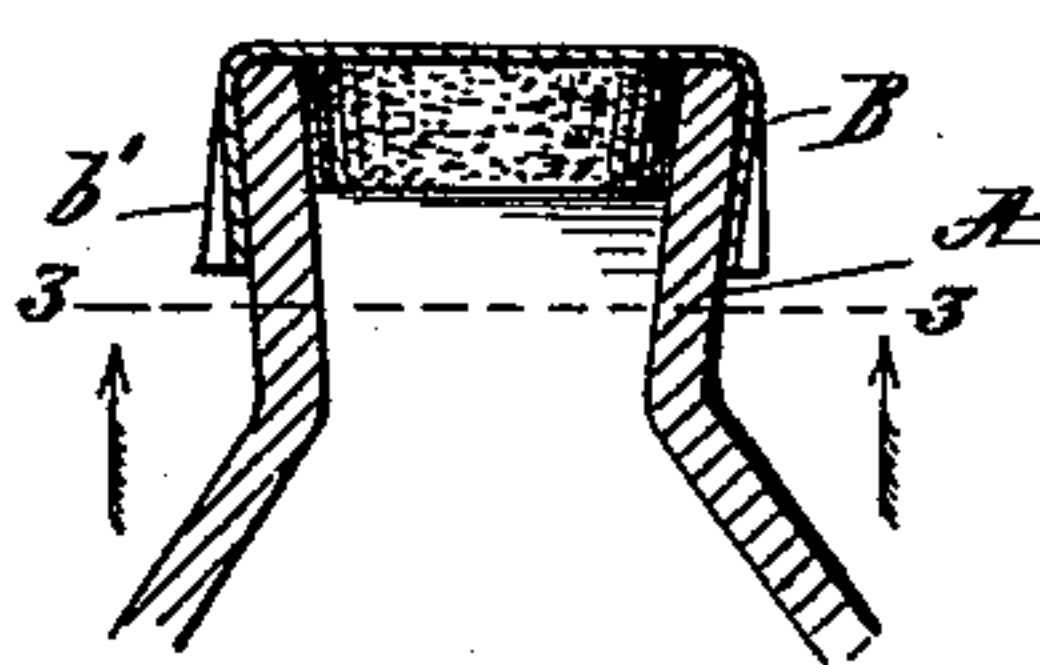


Fig. 4.

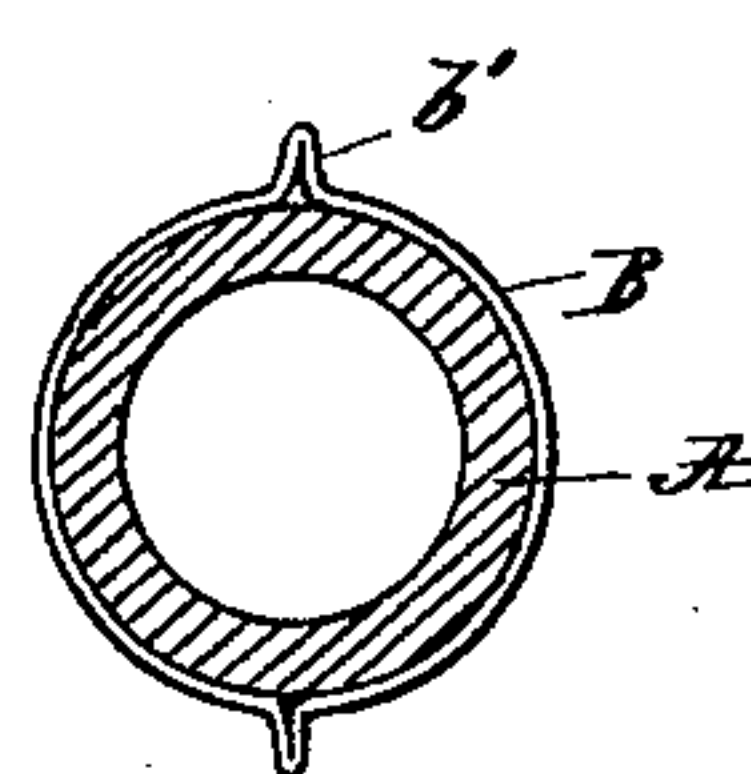


Fig. 5.

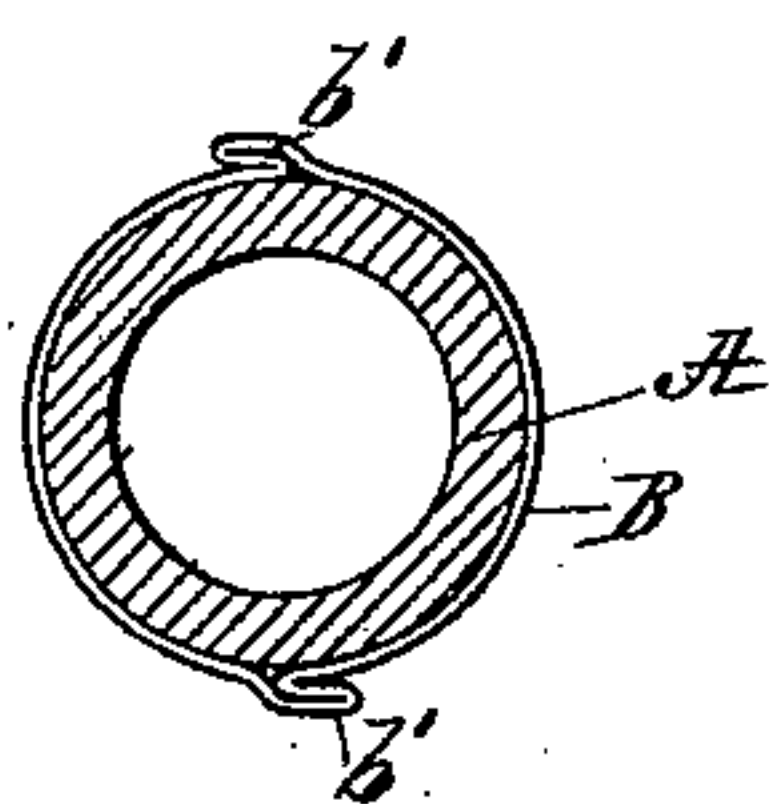


Fig. 6.

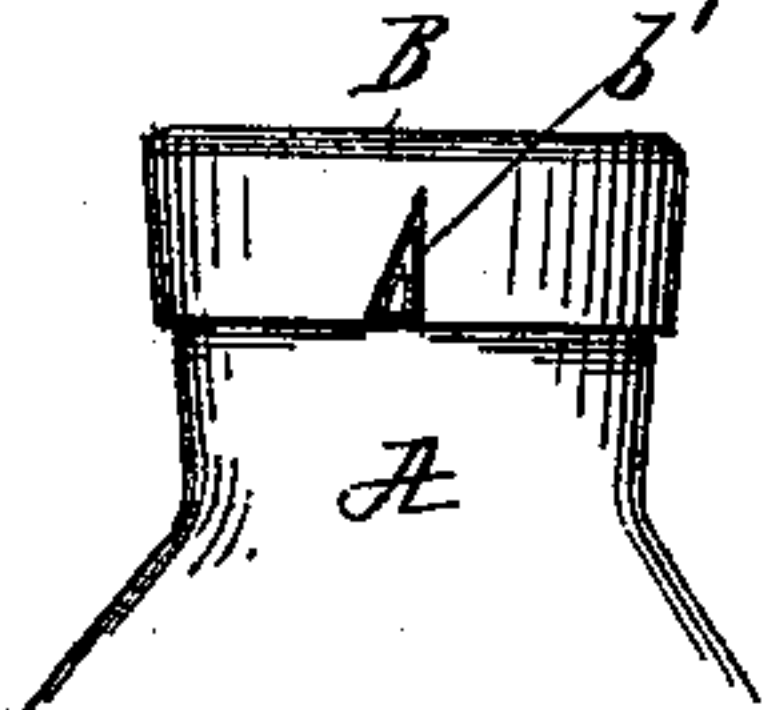


Fig. 7.

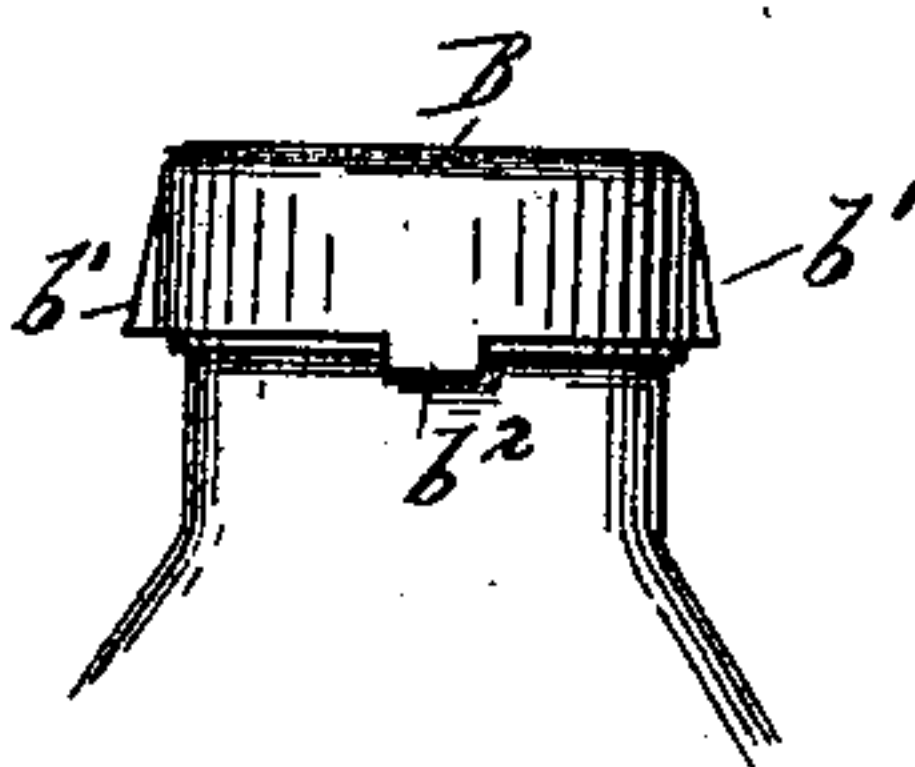


Fig. 8¹.

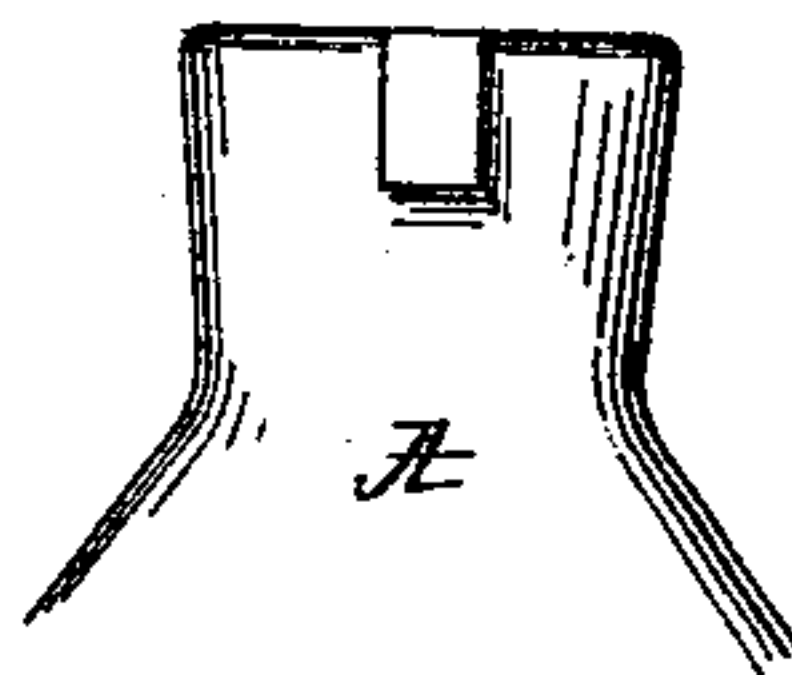


Fig. 12.

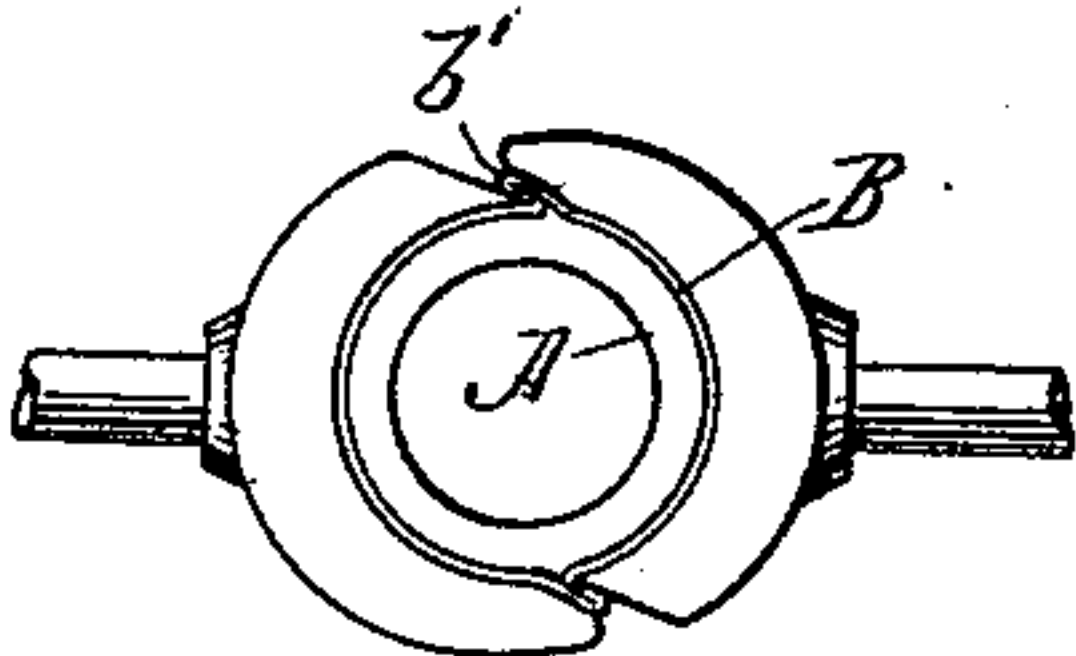


Fig. 10.

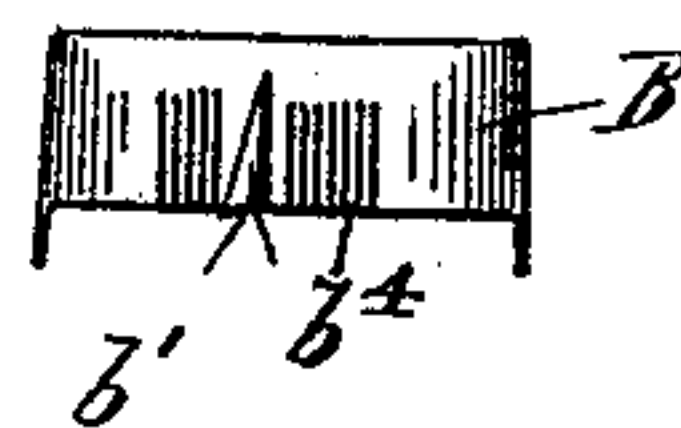


Fig. 8².

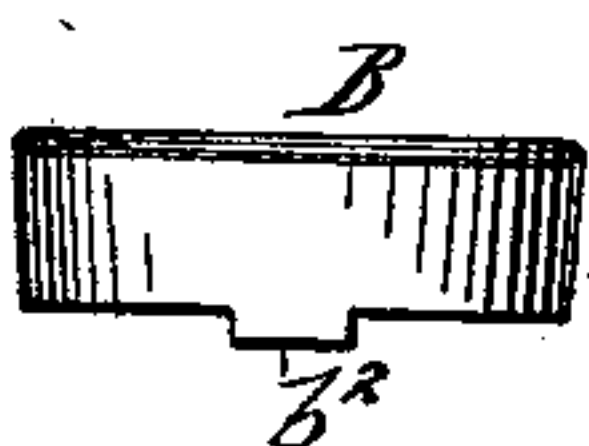


Fig. 8³.

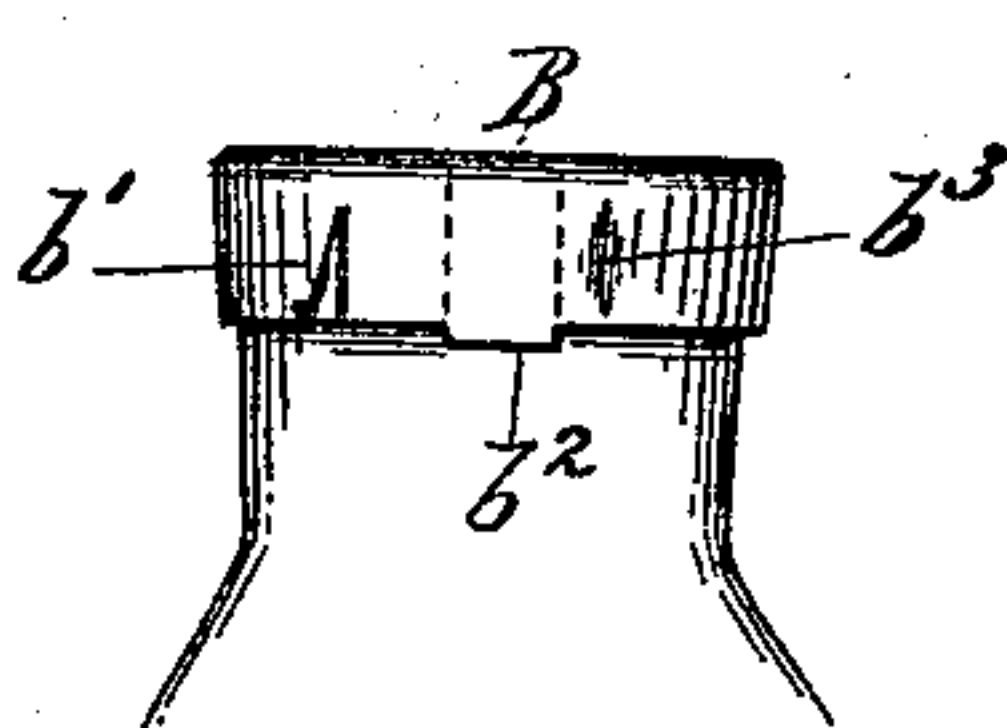


Fig. 11.

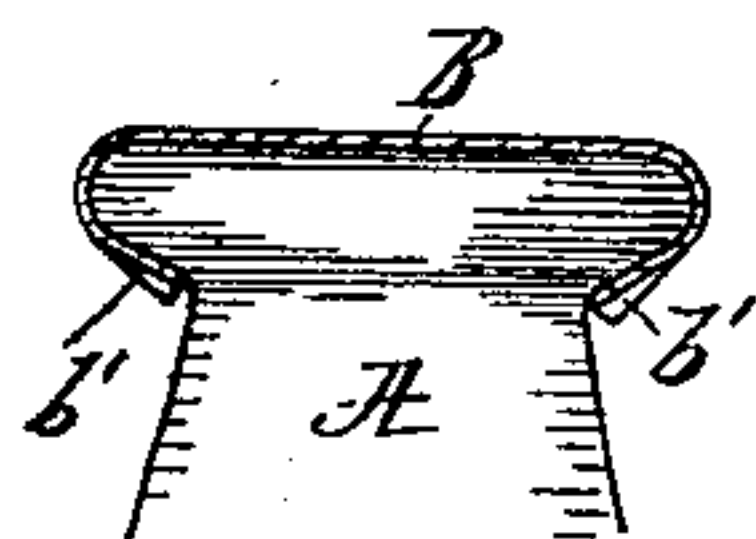
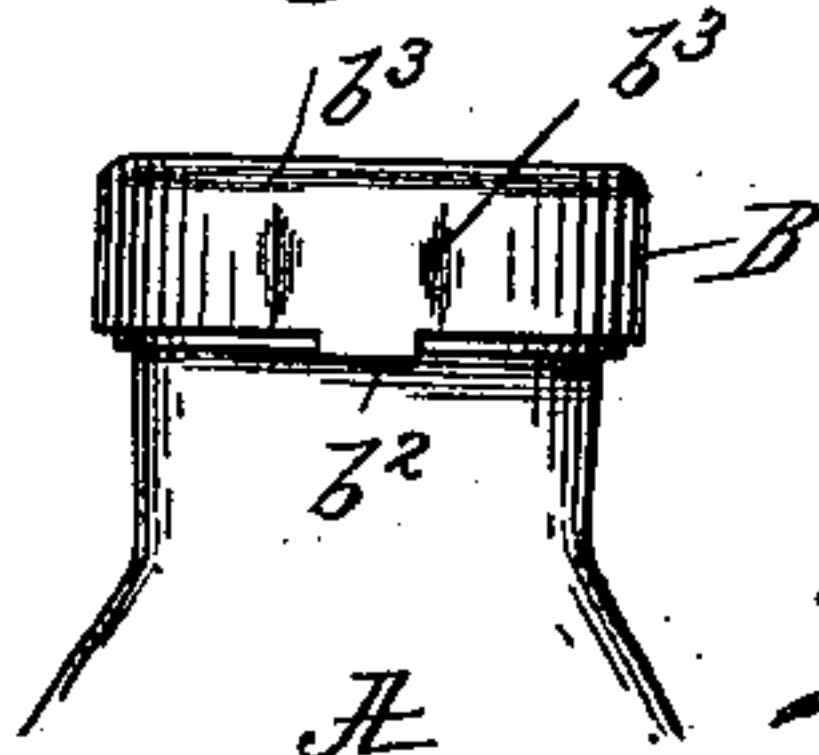


Fig. 9.



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN PRICE, OF BALTIMORE, MARYLAND.

BOTTLE-STOPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 539,487, dated May 21, 1895.

Application filed February 5, 1895. Serial No. 537,327. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN PRICE, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement in Bottle-Stopping Devices, of which the following is a full specification.

The accompanying drawings illustrate the device, of which—

Figure 1 is a view of a bottle having its neck inclined downwardly somewhat in the shape of a truncated cone. Fig. 2 is a view of the under edge of the metallic cap for the bottle and showing the neck of the bottle in section. Fig. 3 is a side sectional view of the bottle-neck with the stopper in place and the metallic cap surrounding the neck of the bottle with the surplus metal pinched up; Fig. 4, a view of the under side of bottle-neck and cap on line 3 3, Fig. 3. Figs. 5 and 6 are views illustrating the pinched-up metal turned or flattened on itself. Fig. 7 illustrates a bottle with an inclined neck and provided with a shoulder and a flap turned under the shoulder. Fig. 8' illustrates part of the inclined neck provided with a strip or strips in the material, with grooves between them; Fig. 8², a cap for this bottle having a pendent solid flange cut out in portions of its under edge to provide a flap to be turned under the shoulder. Fig. 8³ shows a cap in place upon the head of the bottle with the flap turned under shoulder and the surplus material pinched up or indented between the strips on the bottle-head; Fig. 9, a bottle of the same order with cap in place and indented to take up the surplus metal; Fig. 10, a cap provided with indentations near the folding part to aid the pinchers in taking up the metal; Fig. 11, a bottle with rounded lip, showing cap with material pinched up. Fig. 12 shows pinchers for taking up surplus metal on cap.

The bottle stopping device illustrated in the above drawings belongs to that class in which a sheet metal cap is used in conjunction with devices, such as india rubber, cork, paper, textile fabric, or other flexible or elastic material, to close the mouth of the bottle, the cap serving to hold the stopper in place. Such cap is usually made of tin or other stiff metal, and the requirements of the structure are that when the bottle is stopped or plugged the cap should be capable of holding it in

place, present a finished appearance and capable of being removed when required. Whenever in such devices a cap is placed over the stopper of a bottle having a pendent flange surrounding the stopper and neck of the bottle, if such neck should be constructed so that at any part thereof surrounded by the pendent flange of the cap, should be of smaller diameter than the flange, there remains some surplus metal to be taken up in the flange to close it nicely around the neck of the bottle, to hold it in place and also to present a neat appearance and this happens in cases where the bottle neck recedes, and also in cases where a shoulder is made on the bottle where the space is smaller either above or below the shoulder or both.

In the drawings, A represents the neck of a bottle of the class described. As shown in Fig. 1, this neck recedes from the top, and when a flanged cap B is placed over such a neck its lower edge will stand out from the sides of the neck, and the metal at that point should be taken up and adjusted to the material of the bottle. My plan for doing this, is to pinch the metal up, so that it will be doubled together. Fig. 2 shows the metal prepared and ready to be pinched together at b', while Figs. 3 and 4 show them closed together. When a flanged cap is placed over a cork or other stopping device and the flange pinched up, as shown in section in Fig. 3, the metal of the flange would be united closely to the sides of the bottle and be quite strong as a holding device. Should there be a pressure from within against the lower side of the stopper it would require much force to draw away such a cap over the upper surrounding edge of the bottle mouth; while such a structure avoids the necessity of preparing the flange with corrugations to be afterward compressed into shape upon the bottle neck. A cap like this may be used upon a bottle of many different shapes, whether straight, inclined inwardly or outwardly, or with or without a head or shoulder. I prefer, however, the shape shown in the figures, of the downwardly inclined neck. It may also be used with a flexible lining inside of the cap.

The different figures of the drawings show a number of ways in which the invention may be applied. The holding capacity of the

flange may be increased by doubling the metal over on itself, as shown in Figs. 5 and 6, which may also add to the finish of its appearance.

In Fig. 7, there is shown a bottle with a receding neck provided with a shoulder. In this figure the metal of the flange is pinched up and drawn together, and the flange is provided with a flap b^2 , to be bent under shoulder. Thus there is combined with this holding device an additional security.

Figs. 8', 8², and 8³, show respectively a bottle provided with a strip or lug, a cap to be fitted thereto, and the bottle and cap in place. In Fig. 8³ the flange is shown at one side of the strip as pinched up and on the other side indented. The pinched up part is shown at b' , and the compression or indentation at b^3 .

In Fig. 12 is shown a device which may be used to pinch up the metal of the flange and unite it to the material of the bottle. In order to assist in getting the metal together it may be indented or milled near the part to be pinched to enable the pinchers to take better hold, as shown at b^4 , Fig. 10.

A good way to apply the invention is to stamp up the cap into proper shape with or without a lining, press it over the mouth of the bottle and compress it, then pinch up the metal, and turn it over, and, if used with a bottle having a shoulder, compress the flap of the cap under the shoulder. Should there be additional metal to take up then it should be indented.

When a bottle is provided with a cap as above described, it possesses other advantages. The cap having been prepared as shown in Fig. 2 it will go over the neck of any bottle in

a set when the sizes may vary within certain dimensions, as the metal will open or yield where it is bent at b' , and when the metal is compressed and it is desired to release the cap, the insertion of a pointed instrument between the folds, opens the flange, increases its diameter and permits it to be readily taken off.

What I claim, and desire to secure by Letters Patent, is—

1. In a bottle stopping device, the combination with a bottle neck provided with a receding part upon its outer circumference, of a stopper for the mouth of said bottle, a sheet metal holding cap inclosing the stopper, provided with a continuous pendent flange surrounding the bottle neck having its surplus metal folded and pinched together, and then doubled or flattened upon itself.

2. In a bottle stopping device, the combination with a bottle neck having a receding part upon its outer circumference and provided with a ledge or shoulder, of a stopper for the mouth of said bottle, a sheet metal holding cap inclosing the stopper and provided with a continuous pendent flange surrounding the bottle neck and cut out at its lower edge to provide a flap, the surplus metal on said flange pinched or folded together, and the flap bent under the ledge of the bottle.

Signed at New York, in the county of New York and State of New York, this 31st day of January, A. D. 1895.

BENJAMIN PRICE.

Witnesses:

CHAS. W. THOMPSON,
M. G. MILLER.