No. 773,345. PATENTED OCT. 25, 1904.

F. SCHEIDT.

BOTTLE STOPPER.

APPLICATION FILED JUNE 13, 1904.

NO MODEL.

Fig. 1.

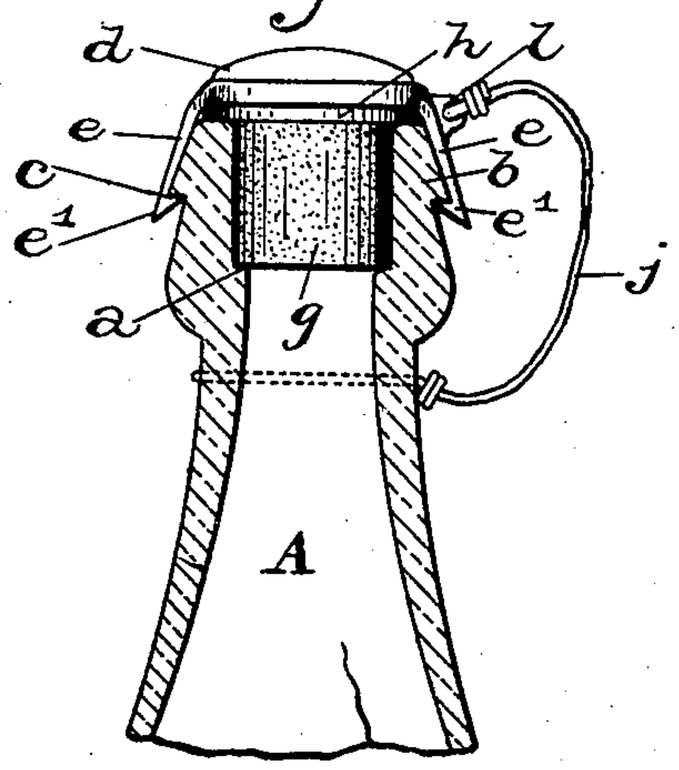


Fig. 2.

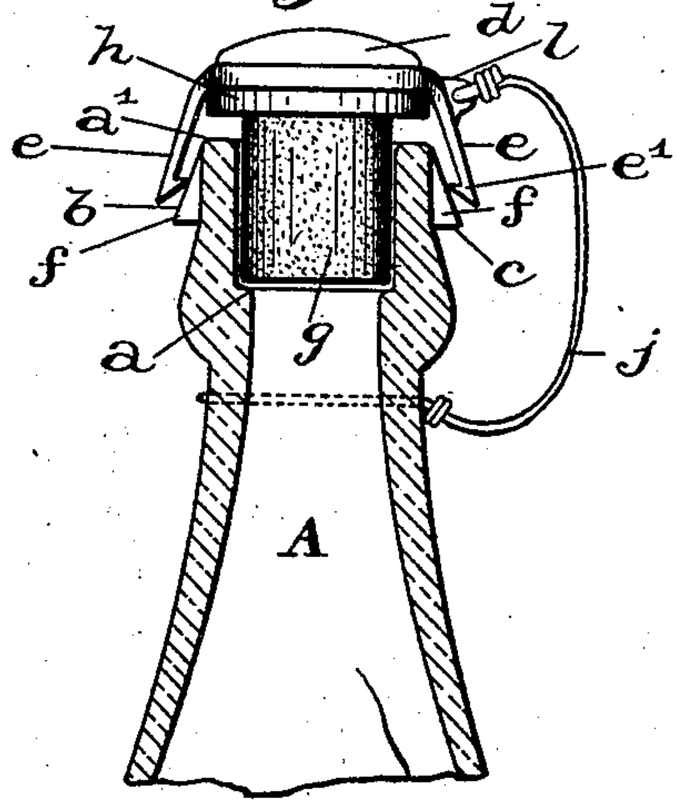


Fig. 3.

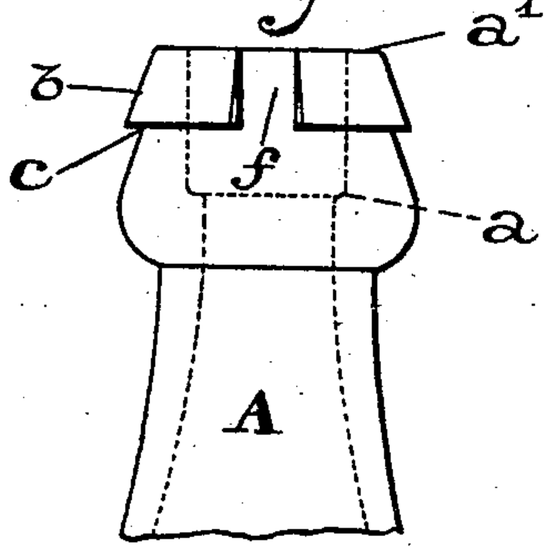
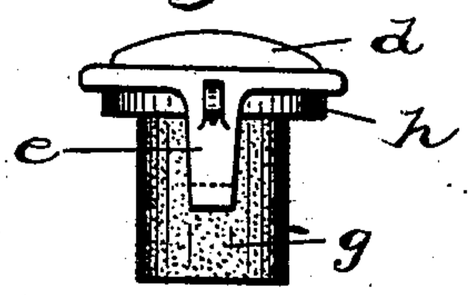


Fig. 4.



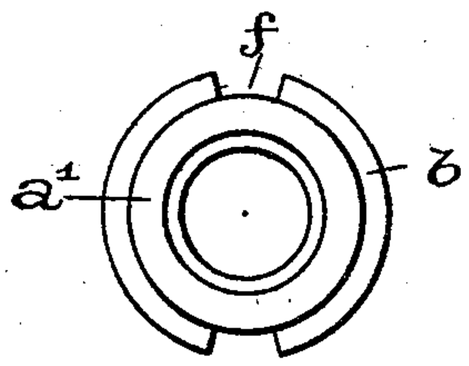


Fig. 5.

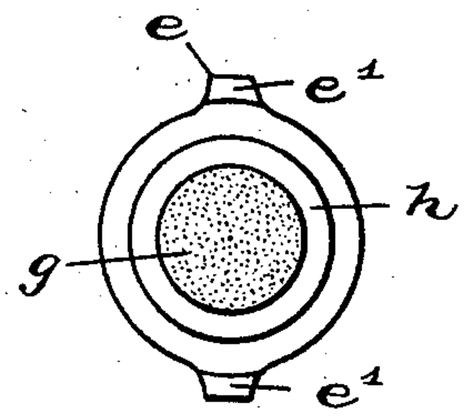


Fig. 6.

Witnesses.
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No. 773,345. Patented October 25, 1904.

UNITED STATES PATENT OFFICE.

FREDERICK SCHEIDT, OF BALTIMORE, MARYLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 773,345, dated October 25, 1904.

Application filed June 13, 1904. Serial No. 212,270. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SCHEIDT, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention relates to certain new and useful improvements in bottle-stoppers adapted for reuse in bottling beer, ginger-ale, and the like, which improvements will be hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of the upper portion of a bottle provided with my improved stopper, the latter being shown in its fastened position. Fig. 2 is a similar view with the stopper loose in the bottle-mouth. Fig. 3 is a side view of the bottle-neck. Fig. 4 is a side view of the stopper at right angles to the position seen in Fig. 2. Fig. 5 is a top plan view of the bottle-mouth and neck. Fig. 6 is an inverted or bottom plan view of the stopper.

Referring to the drawings, the letter A designates the neck of a bottle whose mouth is provided with an internal enlargement forming an annular upwardly-facing seat or shoulder *a* and a rim edge or seat *a'* at the mouth. The neck is provided with an external circumferential bead *b*, forming a downwardly-facing shoulder *c*.

Two notches *f* are on the side of the bottle-head at the bead *b*, and these notches cut the bead away. One notch is diametrically opposite the other.

My improved stopper comprises a preferably metal cap *d* of a diameter sufficient to entirely cover the mouth of the bottle, rigidly-secured arms *e*, in this instance two in number, depending from the said cap *d* at diametrically opposite points and provided at their lower ends with inturned hooks *e'*, whose extremities or edges are slightly concave with a curvature preferably equal to the transverse curvature of the bottle-neck.

A plug *g*, of cork or similar compressible material, is attached to the metal cap *d* in any suitable manner, and a washer *h*, of leather, rubber, cork, or any compressible composition, surrounds the plug *g* and abuts against the lower face of the cap.

The cork plug *g* in its normal uncompressed condition, as shown in Fig. 2, is of a length greater than the distance between the internal seat or shoulder *a* and the rim edge *a'* of the bottle-mouth, whereby when inserting the stopper the lower end will first seat at *a* before the washer *h* seats at *a'*. The spring-arms *e* are slightly shorter than the distance from said rim edge to the external shoulder *c* plus the thickness of the washer *h*.

In the operation of stoppering the bottle the plug *g* is inserted in the bottle-mouth and downward pressure is exerted on the cap by the hand or a suitable tool or machine until the hooks *e'* on arms *e* pass down the notches *f* and are in position to take underneath the shoulder *c*. At this stage a slight rotary movement of the stopper will cause it to be fastened to the bottle, and, as is obvious, the cork plug *g* will be compressed against the internal seat or shoulder *a* to form a seal at that point and also expanded to fill the mouth, while at the same time the upper washer or disk *h* will be compressed between the cap *d* and the rim edge *a'* of the bottle-mouth, thereby forming another seal at such point. Hence this construction of stopper forms a double seal, and if the cork plug *g* should be porous the washer *h* will prevent any escape of the carbonated air which would otherwise occur, and, on the other hand, the washer *h* does not come into contact with the beer or other liquid. These are features of my invention which make it especially applicable for use in bottling beer for export use, which is steamed or "processed," and which must be kept a long time before being used, and the construction of arms makes a very strong fastening, doing away with the wire fasteners commonly employed.

To prevent the stopper from being lost, I preferably connect it permanently to the bottle-neck by means of a chain or wire *j*, encircling the neck and passing through an eye *l*, formed on the cap.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. A bottle-stopper, comprising a cap provided with depending hooked arms; a plug of cork or similar compressible material secured on said cap; and a washer also in contact with the cap and projecting around and beyond the circumference of the plug.

2. The combination with a bottle whose mouth is provided with an internal annular upwardly-facing seat or shoulder and an external downwardly-facing shoulder surrounding the head, of a stopper comprising a cap adapted to cover the mouth of the bottle, and provided with depending arms having at their lower ends inturned hooks adapted to take under said external shoulder; a compressible plug secured to said cap and normally of a length greater than the distance from said internal seat or shoulder to the rim edge of the bottle-mouth, whereby it may be compressed vertically by abutting against said shoulder; and a washer also secured to the cap and surrounding said plug and adapted to be compressed against the rim edge of the bottle-mouth, as and for the purpose set forth.

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

FREDERICK SCHEIDT.

Witnesses:
FELIX R. SULLIVAN,
R. CONTEE ROSE.