

H. W. PUTNAM.  
Bottle-Stopper and Fastener.

No. 212,623.

Patented Feb. 25, 1879.

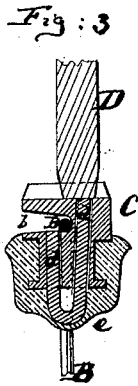
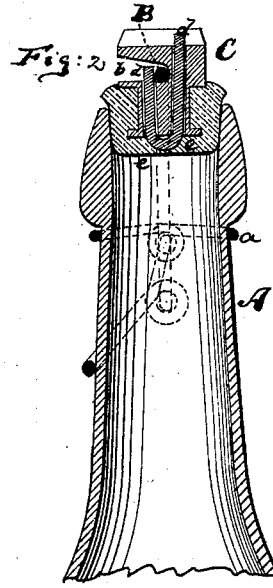
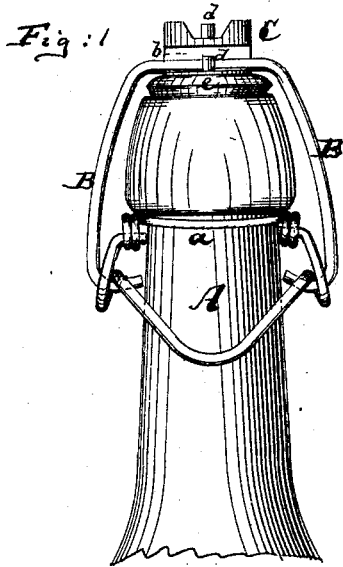


Fig: 4

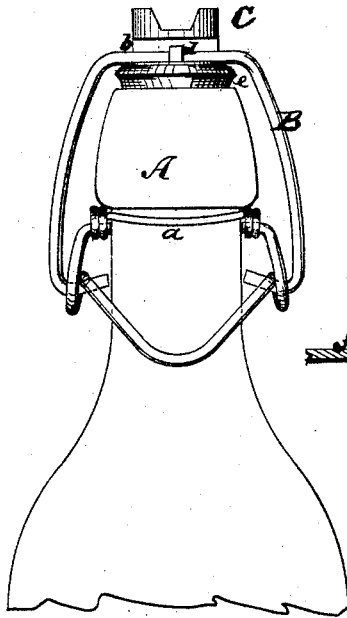


Fig: 5

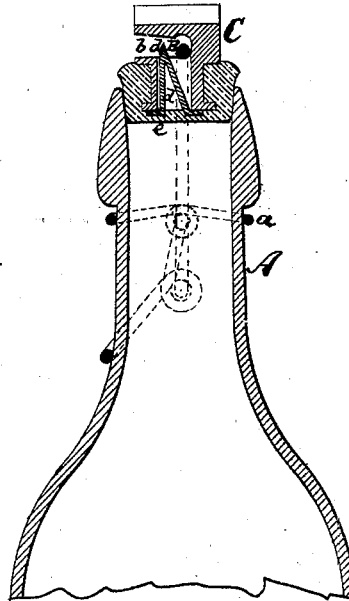
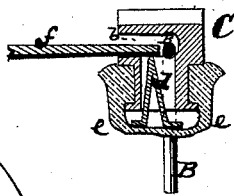


Fig: 6



Witnesses:

John C. Tumbidge  
D. F. Friesen

Inventor:

Henry W. Putnam  
by his attorney  
D. F. Friesen

# UNITED STATES PATENT OFFICE.

HENRY W. PUTNAM, OF BENNINGTON, VERMONT.

## IMPROVEMENT IN BOTTLE STOPPERS AND FASTENERS.

Specification forming part of Letters Patent No. **212,623**, dated February 25, 1879; application filed May 31, 1878.

*To all whom it may concern:*

Be it known that I, HENRY W. PUTNAM, of Bennington, in the county of Bennington and State of Vermont, have invented an Improvement in Bottle-Stoppers, of which the following is a specification:

Figure 1 is a side view of my improved bottle-stopper; Fig. 2, a vertical section of the same; Fig. 3, a detail transverse section of part thereof, showing the yoke or bail unlocked from the stopper. Fig. 4 is a side view of a modification of the invention; Fig. 5, a transverse section thereof, showing the stopper fastened to the bottle; Fig. 6, a transverse section, showing the stopper unlocked from the yoke or bail.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to a new bottle-stopper, which may be driven into a bottle containing aerated liquids by means of the usual bottling-machine, and which, when forced into the bottle, may be properly locked to a yoke or bail vibrating on said bottle, so that afterward the bottle may be opened or closed at will without necessarily disengaging the stopper from the bail. When desired, however, the stopper is readily detached from the bottle.

The invention consists, principally, in providing the stopper-cap with a vertically-sliding pin, which serves as a lock for the bail, and which, when depressed, will permit the disengagement of the stopper from the bail, and will, in this case, bear against the rubber, which constitutes the lower part of the stopper and the spring for holding the pin in its normal position.

In the accompanying drawings, the letter A represents the bottle. B is the yoke or bail, connected directly or indirectly to a neck-ring, a, that embraces the neck of the bottle. This yoke or bail serves to hold the stopper C in place in the mouth of the bottle, and permits the same also to be swung aside when it is desired to open the bottle. The upper part of the bail enters a notch, b, which is formed in the side of the stopper, and in this notch the bail is locked to the stopper by means of an upright pin, d, which pin extends downwardly

into contact with the rubber e, that covers the lower part of the stopper, and also constitutes the means for causing an air-tight closing of the bottle. The rubber holds the pin in the elevated position shown in Figs. 2 and 5, and serves, therefore, to prevent the disengagement of the stopper from the yoke or bail. When, however, the pin is depressed, as in Figs. 3 and 6, the bail may be swung off the stopper.

The pin shown in Figs. 2 and 3 is U-shaped, one arm being longer than the other. The shorter of the two arms enters the notch. The longer extends through the upper part of the stopper. The plunger D of the bottling-machine, when applied against the stopper, will, on arriving in contact with the longer arm of the U-shaped pin, force said pin downward, thereby distending the rubber e, as in Fig. 3, and opening the notch b, so that the yoke or bail may be swung into said notch for securing the stopper; and when afterward the plunger D is elevated from off the stopper, the rubber e will throw the pin d upward into the position shown in Fig. 2, and thereby lock the stopper and yoke together. The bottle may now be readily opened or closed by swinging the stopper and bail off or toward the mouth of the bottle in the usual manner.

The modification which is shown in Figs. 4, 5, and 6 consists merely in the use of a differently-shaped upright pin, d, in which the longer arm (shown in Figs. 2 and 3) is dispensed with, so that the plunger, which forces the stopper downward into the bottle, will have no special effect upon the position of the pin d; but the upper end of the pin (shown in Fig. 5) is somewhat inclined or rounded, so that the bail, when pressed against the pin, will throw the same downward, pass it, and afterward release it, so that said pin will be thrown up again by the rubber.

For detaching the bail thus locked to the stopper a suitable instrument, f, (shown in Fig. 6,) is used to depress the pin d, thereby permitting the bail to be swung out of the notch.

The body of the stopper C is made of metal or other suitable hard material, and is perforated lengthwise below the notch b, the perforation extending vertically through the lower

end of the stopper for the accommodation of the pin *d*, and so as to permit said pin to reach contact with the rubber covering *e*.

I claim—

1. The combination of the detachable stopper C, having the notch *b* and upright slide-pin *d*, with the yoke or bail B, substantially as herein shown and described.

2. The combination of the yoke or bail B with the notched detachable stopper C, having a vertically-sliding pin, *d*, and rubber covering along the lower face, substantially as herein shown and described.

3. The stopper C, provided with the notch *b*, and perforated lengthwise below the said notch, the perforation extending vertically through the lower end of the stopper for ac-

commodating the pin *d*, substantially as specified.

4. The U-shaped pin *d*, extending with the short arm into the notch *b*, and with the long arm above the stopper C, in combination with said stopper, substantially as specified.

5. In a bottle-stopper, the rubber covering *e*, arranged on a notched and perforated stopper C, and placed in contact with the pin *d*, which serves to connect the stopper to the bail and neck-wire, all substantially as specified.

HENRY W. PUTNAM.

Witnesses:

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F. v. BRIESEN.