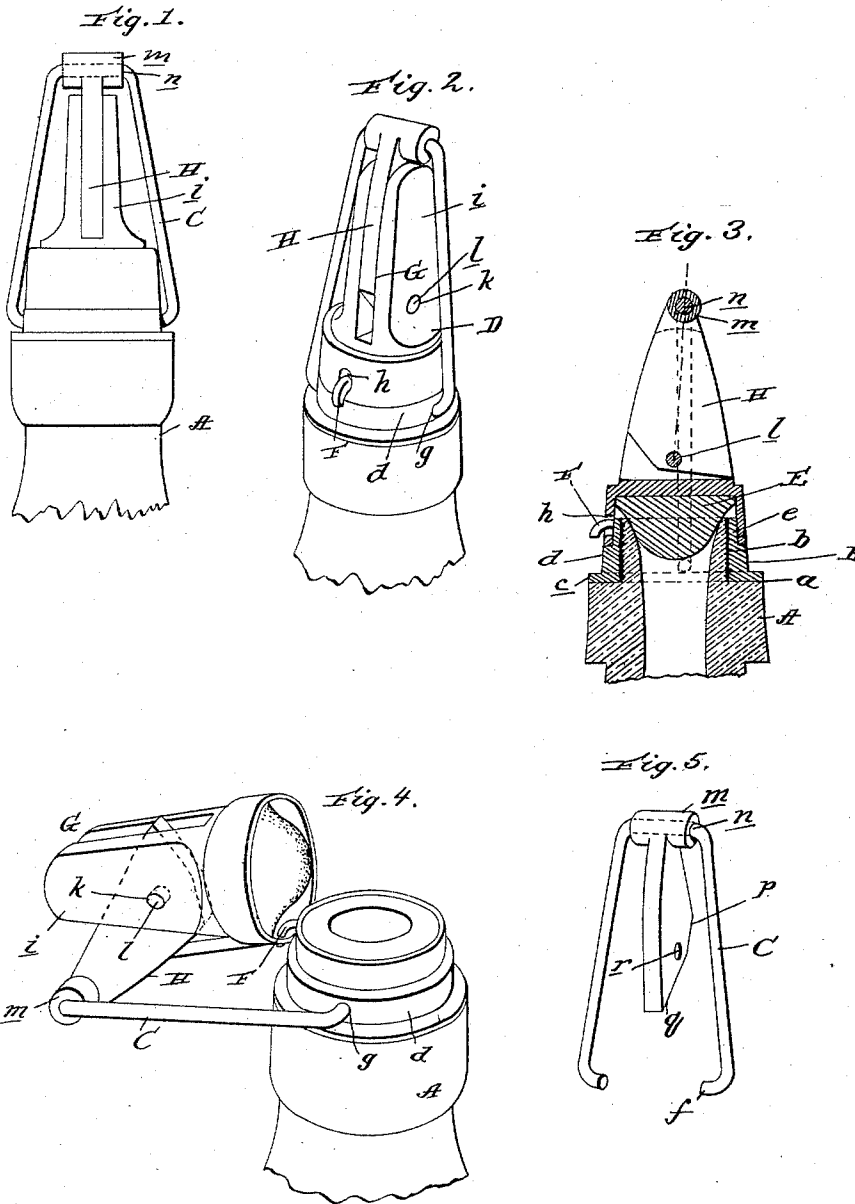


(No Model.)

F. Y. CLARK.
BOTTLE STOPPER FASTENER.

No. 485,173.

Patented Nov. 1, 1892.



Witnesses:
C. J. Kader
H. F. Matthews.

Inventor
Finley Y. Clark
By *James Sheehy*
Attorney

UNITED STATES PATENT OFFICE.

FINLEY Y. CLARK, OF SARATOGA SPRINGS, NEW YORK.

BOTTLE-STOPPER FASTENER.

SPECIFICATION forming part of Letters Patent No. 485,173, dated November 1, 1892.

Application filed February 10, 1892. Serial No. 420,988. (No model.)

To all whom it may concern:

Be it known that I, FINLEY Y. CLARK, a citizen of the United States, residing at Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Bottle-Stopper Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bottle-stoppers and devices for securing and manipulating the same; and among other things it has for its object to provide a safe, secure, and convenient stopper for mineral-water bottles, lager-beer, soda-water, and other bottles designed to contain aerated beverages or liquids of any kind, to adapt the stopper to be readily disconnected from its hinge and thrown out of the way, to adapt the bail to be disconnected from the band on the bottle and the stopper entirely removed, and to connect the parts so that the stopper will be held yieldingly in a locked position and afford elasticity, so as to insure a positive lock and facilitate the unlocking or opening of the stopper.

Other objects and advantages will appear from the following description and claims, when taken in connection with the annexed drawings, in which—

Figure 1 is a view in elevation of a fragment of a bottle with my improvements applied. Fig. 2 is a perspective view of the same, and Fig. 3 is a vertical sectional view taken at one side of the locking-lever. Fig. 4 is a perspective view showing the stopper swung back and the bail resting on the horizontal or base flange of the collar secured to the mouth of the bottle, and Fig. 5 is a perspective view of the locking-lever and bail removed.

Referring by letter to said drawings, A indicates a portion of a bottle, which may be of any ordinary or approved construction, the bottle illustrated having an annular shoulder *a* and a reduced portion *b* above the same.

B indicates a metallic band, which is preferably secured on the reduced portion *b* of the body by means of cement or other adhesive material, the outer surface of said reduced portion of bottle-neck being preferably roughened or corrugated to insure the adhe-

sion of such material, although it is obvious that the connection of these two parts might be effected in many other ways—such, for instance, as a screw-thread—and I do not wish to be understood as limiting myself to any particular way of securing the band to the bottle. This band B is provided with an integral horizontal base-flange *c*, and above this flange with an annular shoulder of less circular area, and above this shoulder a vertically-disposed flange *e*, the objects of all of which will presently appear.

C indicates a bail, which is preferably formed of wire. This bail has its ends terminating in inwardly-directed journals *f*, which are removably inserted in holes *g*, formed in the shouldered portion *d* of the band or collar at diametrically-opposite points, so that said bail may be allowed to swing thereon and be limited in its swinging movement by the base-flange *c* of said collar.

D indicates a cap within which is secured a cork E, although it is obvious that rubber or other suitable material might be used, and while the cork may be of flat contour, yet I prefer to have it of a form as shown, and the mouth of the bottle is preferably beveled, as shown, so as to sufficiently receive the cork, which will be compressed upon the upper edge of the vertical flange *e* and the edge of the bottle-mouth when the fastening has been closed. This stopper is provided with an eye or hole *h* in the wall of its socket, and the vertical flange *e* of the band B carries a hook or downwardly-bent lug F, whereby a detachable hinged connection may be had between the cap and the band. This cap is furthermore provided on its upper side with a bifurcation G, and the branches *i* of this bifurcated portion are provided at a suitable point near their lower ends and slightly out of the vertical centers with aligned apertures *k* to receive a transverse pivot pin or stud *l*.

H indicates a locking-lever. This lever is of a peculiar form having an eye *m* at its upper end, which is preferably expanded laterally, as shown, and is journaled on the transverse branch *n* of the bail C. The opposite or lower end of this lever, which is designed to be pivoted within the fork or bifurcation of the cap, has a beveled heel *p* and a forwardly and slightly downwardly projecting

toe *g*, the pivot-aperture *r* being formed transversely in said lever between the heel and toe and in the vertical center of said lever, care being taken to have the connection of the bail and lever with respect to the cap such that when the parts are in a closed or locked position the bail will exert a pressure on the toe of the lever, making it necessary to apply force to the top of the bail and lever and move the same toward the heel and out of a perpendicular before the cap can be turned off, the pressure being produced by the cork within cap D, and the thicker and more elastic the cork the greater will be the pressure. It will be observed that when the lever has been moved on its pivot to open the mouth of the bottle and the bail consequently turned, said bail will rest approximately horizontal and upon the base-flange *c* of the band or collar, while the heel of the lever will bear on the cap and hold the same in the position shown in Fig. 4 of the drawings. When it is desirable to disconnect the cap from the bottle at the hinge-joint, it is simply necessary to press the outer end of the bail downwardly, which of course will be permitted by the nature of the material, when the cap may be easily drawn away from the hook F, and should it be desirable to remove the bail from the collar or band this may be done by springing out the journal ends *f* from the eyes *g*, while to replace the bail and cap the operation is simply reversed.

While I have shown and described a metallic band or collar as applied to the bottle, yet in some cases the collar might be dispensed with and the connections made directly with the bottle head or neck, thus dispensing with the metallic band B entirely by having the bottle made with a band or shoulder.

Having described my invention, what I claim is—

1. A bottle-stopper fastener comprising a pivoted locking-bail, a cap hinged to the mouth of the bottle, and a lever pivotally connected with both the bail and cap and adapted to lock the cap and bail together, substantially as specified.

2. The combination, with a bottle, of a bail pivoted thereto, a cap detachably hinged to

the mouth of the bottle and having its top forked or bifurcated, and the lever having the beveled heel and pivoted near said bevel within the fork of the cap and pivoted at its outer end on the bail, substantially as specified.

3. The combination, with a bottle, of a cap hinged thereto, a lever pivoted on said cap and having a beveled heel and also a toe adapted to extend forwardly and downwardly beyond the pivoted point, and a bail connecting the outer end of said lever with the bottle-neck, substantially as specified.

4. The combination, with a bottle, of the flanged and shouldered band secured to the mouth thereof, a cap detachably hinged to said band, the lever having the beveled heel and pivoted to the cap, and the bail carrying the pivoted lever and journaled at opposite ends in said band; so that its branches may rest upon the base-flange of the band and the heel of the lever may bear on the cap below the pivotal point therewith, substantially as specified.

5. The combination, with a bottle, of the band secured thereto and having the base-flange, the annular shoulder above the same, and the vertically-disposed flange, and also having diametrically-arranged apertures in the shouldered portion, and a hook on the vertical flange, the cap having a socket to receive a cork and an aperture to receive the hook of the band and also having a bifurcation in its top and aligned apertures in the branches of the bifurcation at a point out of the vertical center of said branches, the bail journaled in the band above the horizontal base-flange, and the lever pivoted in the bifurcation of the cap and having the beveled heel and the forwardly-extending toe and pivoted at its outer end on the bail, so that when the toe of the lever has been brought to bear upon the cap the bail will assume a position out of a perpendicular, so as to lock the lever on the cap, substantially as specified.

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

FINLEY Y. CLARK.

Witnesses:

W. A. McELWAIN,
JOHN H. MILLER.