(No Model.)

L. KALLING.

BOTTLE STOPPER.

No. 523,474. Patented July 24, 1894.

Fig. 1.

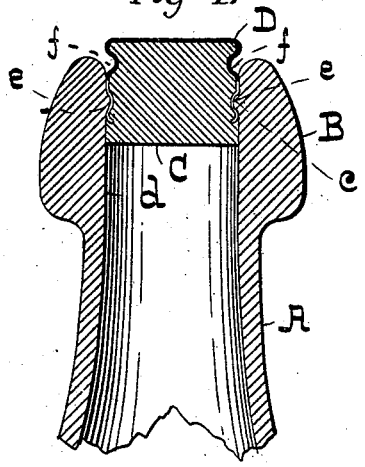


Fig 2.

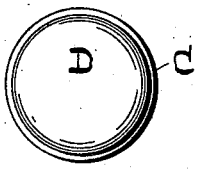


Fig 3.

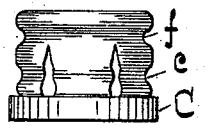
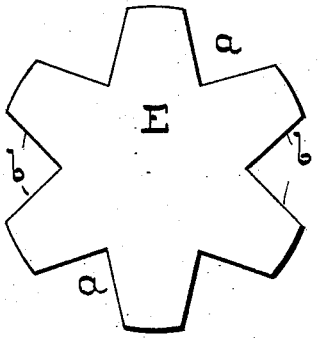


Fig 4.



-WITNESSES-

Dan'l Fisher

George Hemsley

-INVENTOR-

Lewis Kalling.

by Geo. W. T. Wiard, atty.

UNITED STATES PATENT OFFICE.

LEWIS KALLING, OF BALTIMORE, MARYLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 523,474, dated July 24, 1894.

Application filed January 18, 1894. Serial No. 497,241. (No model.)

To all whom it may concern:

Be it known that I, LEWIS KALLING, of the city of Baltimore and State of Maryland, have invented certain Improvements in Bottle-Stoppers, of which the following is a specification.

In the description of the said invention which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a sectional view of the upper end of a bottle provided with the improved stopper. Fig. 2 is a top view of the stopper alone. Fig. 3 is an exterior side view of the stopper. Fig. 4 is a view of the blank from which a cap forming a part of the stopper is formed.

Referring to the drawings, A is the neck of the bottle, and B the head.

The stopper consists of a cylindrical piece of cork C having its upper end and a part of the body inclosed by an elastic cap D. The cap is preferably made from a notched sheet metal blank E, shown in Fig. 4, and the notches *a* are of such shape that when the blank is formed into a cylindrical cap, the edges *b* of the metal stand slightly apart as shown in Fig. 3, and thereby give to the lower part of the device a certain compressibility. The cap is formed around the cork C, and it is provided with an annular groove *c* which in the insertion of the stopper in the bottle throat *d* receives an annular projection or bead *e* on the inner surface of the throat, and the stopper is thereby held in place. The cap D is provided with another annular groove *f* near its upper end to admit of the attachment of a suitable forked uncorking or extracting instrument not shown. The extreme lower end of the cap, or rather the ends of the prongs formed by notching the cylindrical cap are forced inward so as to grip the cork, and thereby assist in preventing its withdrawal from the cap. The portion of the cork projecting below the cap is somewhat larger in diameter than the cap, as shown in Fig. 3.

In closing the bottle, the stopper is compressed in its insertion to the mouth, or until the lower portion below the groove *c* has passed over the bead *e*, when the stopper expands by the inherent elasticity of the cork. The tightening of the joint made by the contact of the cork with the glass, is increased as the inner surface of the cork becomes moistened by the liquid contents of the bottle.

I claim as my invention—

1. In combination with a bottle having in its throat a projection or bead, a stopper formed of a piece of cork and a slitted grooved cap, substantially as specified.

2. In combination with a bottle having in its throat an annular bead, a stopper formed of a cylindrical piece of cork with its upper end and a portion of its body inclosed by a metallic cap having an annular groove adapted to fit over the said bead and slits whereby the cap is made slightly compressible in diameter, substantially as specified.

3. In combination with a bottle having in its throat an annular bead, a stopper formed of a block of cork with its upper end and a portion of its body inclosed by a metallic cap having slits whereby it is made slightly compressible, an annular groove adapted to fit over the said bead, and another annular groove near its upper end adapted to receive a forked extractor, substantially as specified.

LEWIS KALLING.

Witnesses:
DANL. FISHER,
GEO. E. TAYLOR.