(No Model.)

L. KALLING.

BOTTLE STOPPER.

No. 523,475. Patented July 24, 1894.

Fig 1.

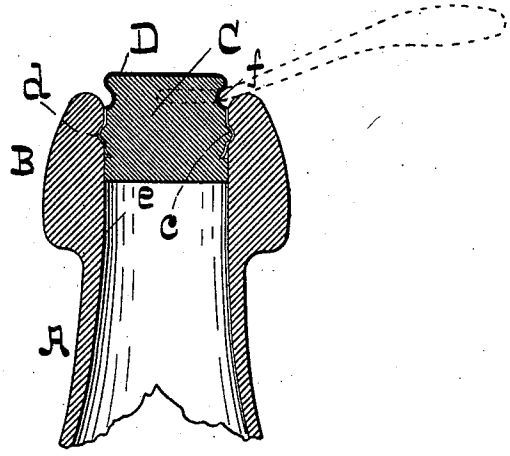


Fig 2.

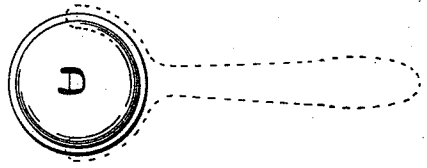


Fig 3.

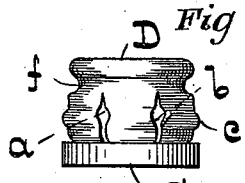
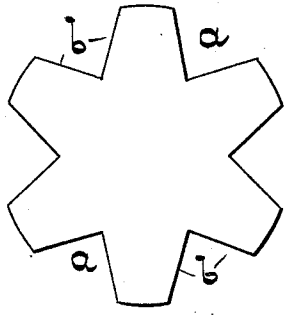


Fig 4.



-WITNESSES-

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UNITED STATES PATENT OFFICE.

LEWIS KALLING, OF BALTIMORE, MARYLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 523,475, dated July 24, 1894.

Application filed May 3, 1894. Serial No. 509,973. (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 part 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.

In my application for Letters Patent, Serial No. 497,241, filed on the 18th day of January, 1894, I show and describe a bottle stopper which consists of a cylindrical piece of cork having its upper end and a part of the body, inclosed by an elastic cap. This cap is preferably made from a notched sheet metal disk which is stamped or drawn into a practically cylindrical shape around the cork, and provided with an annular groove near its upper end adapted to receive a forked extractor. Below this groove is another which, in the insertion of the stopper in the bottle mouth or throat, receives an annular bead situated on the inner surface of the throat, and the cork is thereby held firmly in place. The bead does not, however, prevent the withdrawal of the stopper by means of the extractor before referred to. The projecting bead in the bottle mouth reduces its effective size, and to some extent interferes with emptying the bottle of its contents; and to increase the size of the mouth or throat, would also call for an increase in the under surface of the cork which is subjected to pressure when the contents of the bottle consist of carbonated liquids, I propose now to place the bead in the elastic cap, and the groove in the bottle mouth, but in other respects to maintain the construction shown in the said application.

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

The stopper consists of an elastic cylinder C, preferably of cork, and an elastic metallic cap D which incloses the upper end of the cork cylinder and a part of its body. This cap is stamped, drawn or otherwise formed from a notched disk shown in Fig. 4, and the notches *a* are of such character that their edges *b* stand slightly apart in the finished cap, and thereby admit of the contraction in diameter of the cap as it is inserted in the bottle mouth. The cap has an annular bead *c* adapted to fit into a similarly shaped groove *d* in the throat *e* of the bottle. It has also an annular groove *f* to receive a forked extracting device, the general construction of which is shown in Figs. 1 and 2, in dotted lines. The ends of the prongs of the cap are turned inward into the cork cylinder, to complete the attachment of the two elements of the stopper, and a portion of the cork below the cap is made slightly larger than the inclosed portion to form a joint by its expansion when brought into contact with the liquid contents of the bottle or the gas arising therefrom.

The stopper constructed as described is forced into the mouth of the bottle until the bead *c* of the cap enters the annular groove *d* in the bottle mouth.

I claim as my invention—

In combination with a bottle having in its throat an annular groove, a stopper formed of a piece of flexible material and a slitted grooved cap having a bead adapted to enter the groove in the bottle mouth, substantially as specified.

LEWIS KALLING.

Witnesses:
WM. T. HOWARD,
DANL. FISHER.