(No Model.)

L. S. HOYT.

BOTTLE STOPPER.

No. 383,812. Patented May 29, 1888.

Fig. 1.

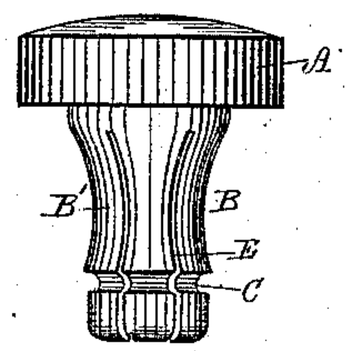


Fig. 2.

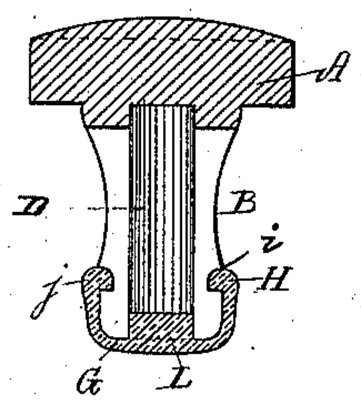
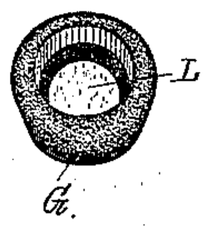


Fig. 3.



Witnesses.
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Inventor.
by his attorney.
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UNITED STATES PATENT OFFICE.

LEWIS S. HOYT, OF BOSTON, MASSACHUSETTS.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 383,812, dated May 29, 1888.

Application filed November 14, 1887. Serial No. 255,061. (No model.)

To all whom it may concern:

Be it known that I, LEWIS S. HOYT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Stopples for Bottles, of which the following is a specification.

In Letters Patent of the United States, No 311,431, granted to me January 27, 1885, I have described an improvement in flexible bottle-stopples, which comprises a stopple constructed of any suitable material, preferably wood, in which, by the co-operation of slotted exterior walls, an interior chamber, an expansive spring, and a partial base covering of rubber, I attain permanently and inexpensively the compressibility of cork with the elasticity of rubber.

In the device described in the patent referred to the elastic walls of the wooden body of the stopple are forced outwardly by means of an overlapping expansion-spring of metal, which is placed within the body of the stopple above the rubber cap, over the end of the same.

My present invention is an improvement upon this device; and it consists in the substitution for the expansion-spring of a short cylinder of rubber, forming part of the rubber cap, which cylinder fits tightly into the chamber in the tapered body of the stopple, and which acts to force outwardly the slotted walls of the tapered body and to resist the pressure of the same inwardly when compressed within the neck of the bottle. By constructing the rubber cap in this manner the use of the expansion-spring is avoided, simplicity of construction is obtained, and the number of parts is reduced.

The accompanying drawings represent my improved stopple, and in the drawings, Figure 1 is a view in elevation. Fig. 2 is a longitudinal sectional view, and Fig. 3 is a view of the rubber cap.

Referring to the drawings, A is the milled projecting head of my improved stopple.

B is the body, which is made slightly conical and provided with a circumferential groove, C, on the outside near its base, for the purpose of securing the rubber inclosing-cap, G. This tapering body B is bored or centrally cored out to form a chamber, D, the compressibility of the walls B′ of which is insured by the several uniform openings E E, cut longitudinally with the body and at equal distances around its circumference, extending quite through the walls radially from the center. Over the mouth of the chamber D is fitted the circular concaved inclosing rubber cap G, the edge or rim of which terminates in a shoulder, H, the greater proportion of which projects inwardly, as at *i*, and is designed to fill closely the circumferential groove C around the base of the stopple-body B. The smaller proportion of said shoulder H, projecting outwardly, as at *j*, presses closely against the interior wall of the bottle-neck, and by its contact hermetically closes the vessel's mouth. The slight projection of the shoulder J also protects the concaved thinner parts of the cap from contact and possible attrition against the walls inclosing it.

The conformation of the stopple-bottom, as shown at K, further exhances the protection of the rubber cap, as it presents no angular projection which would be conducive to wear.

The short cylinder or projection, of rubber, L, which forms part of the cap G and is molded with it, projects into the lower part of the chamber D and fits tightly within the same, acting to force outwardly the walls B′, and to resist the pressure of the same inwardly when the stopper is inserted into the neck of the bottle.

The length of the tapering body of the stopple may be varied as may be required.

I do not claim a slotted tapering body having an exterior groove and partially covered at its extremity with a rubber cap formed with an annular ring having an inwardly-projecting part, as this is described in the patent before referred to; but

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The combination, substantially as and for the purpose set forth, with the compressible body B, having a chamber, D, within the same, of the rubber cap G, provided with a central projection, L, which fits into the chamber G.

In witness whereof I have hereunto set my name in the presence of two subscribing witnesses.

LEWIS S. HOYT.

Witnesses:
ALEX. L. HAYES,
JAS. W. BRIGGS.