(No Model.)

C. A. STAHLIN.

BOTTLE STOPPER.

No. 279,455. Patented June 12, 1883.

Fig: 1.

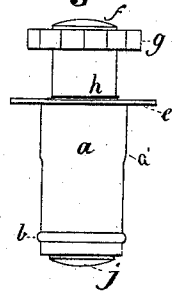


Fig: 3.

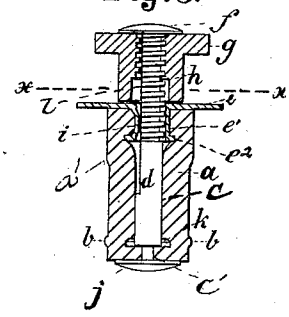


Fig: 2.

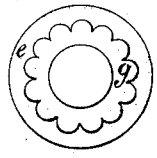


Fig: 4.

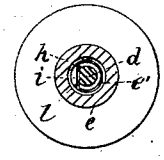


Fig: 5.

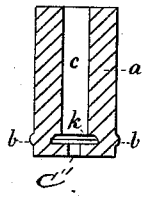
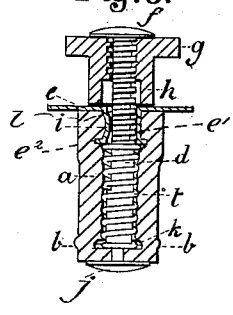


Fig: 6.



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UNITED STATES PATENT OFFICE.

CARL A. STAHLIN, OF STOCKHOLM, SWEDEN.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 279,455, dated June 12, 1883.

Application filed November 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, CARL ANTON STAHLIN, a subject of the King of Sweden, residing at Stockholm, in the Kingdom of Sweden, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby 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, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side view of my improved bottle-stopper. Fig. 2 is a top view. Fig. 3 is a vertical section. Fig. 4 is a cross-section. Fig. 5 is a detail view, and Fig. 6 is a vertical section of a modification of the same.

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

My invention has relation to that class of bottle-stoppers in which a rubber tube inserted into the mouth of the bottle is compressed by means of a screw having a plate at its lower end and a nut at its upper end bearing against a plate upon the upper end of the rubber tube, and being kept from turning by having a flat side bearing against a flat side in the ring; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter *a* indicates a rubber tube, having a swell, *a'*, at its upper part and an annular projection, *b*, around its lower end.

c is a central longitudinal recess, which has at its lower end a widened recess, *k*, corresponding to the projection *b*, and which opens at the end of the tube through an aperture, *c'*.

Upon the upper end of the tube *a* is an annular disk, *e*, having a downward-projecting sleeve, *e'*, having an outward-turned flange, e^2, which serves to hold the sleeve and disk in position upon the tube. The one side, *i*, of the sleeve *e'* is bulged inward, bearing against the flat side, *l*, of the stem *d*. This stem passes through the tube from top to bottom, and is provided with buttons *f* and *j* at top and bottom. The lower part of stem *d* is smooth, while its upper part is screw-threaded, excepting upon the one side, *l*, which bears against the bulged side of the sleeve *e'*, thereby being prevented from turning. A screw-threaded nut, *h*, turns upon the upper screw-threaded part of stem *d*, and has a scalloped or milled flange, *g*, forming means for clasping it when it is to be turned. A spiral spring, *t*, is placed around the lower smooth part of stem *d*, bearing with its lower end against the bottom of recess *k* and with its upper end against flange e^2 of the sleeve. When the nut *h* is screwed down upon the stem *d*, the lower button will draw the lower end of tube *a* upward, compressing it longitudinally and causing it to swell out toward the sides, the recess *k* and projection *b* causing it to swell more in the lower portion than in the upper, thus holding the stopper firmly in the neck of the bottle. When the nut is unscrewed the spring *t* will serve to bring the tube back again into its normal state, allowing it to be withdrawn, the spring retaining its elasticity even if the rubber in the tube has by use grown less elastic.

I do not claim a bottle-stopper having a rubber tube compressed by means of a screw and thumb-nut; but

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

A bottle-stopper of the described class, consisting of a rubber tube, *a*, swelled at *a'*, having annular projection *b* around its lower end, and central recess, *c k c'*, plate *e*, having sleeve *e'*, bulged inward at *i* and provided with outward-bent flange e^2, stem *d*, having another lower part, screw-threaded upper part, flat on one side, *l*, and having spiral spring *t*, and buttons *f* and *j* at top and bottom, and screw-threaded nut *h*, having milled or scalloped flange *g*, and adapted to turn upon and operate stem *d*, the whole constructed and combined to operate substantially as and for the purpose shown and set forth.

In testimony whereof I have hereto affixed my signature in presence of two witnesses.

CARL ANTON STAHLIN.

Witnesses:

FREDRIK L. ENQUIST,

N. LJUNGBERG.