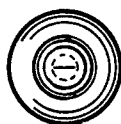
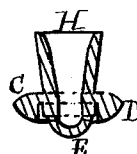
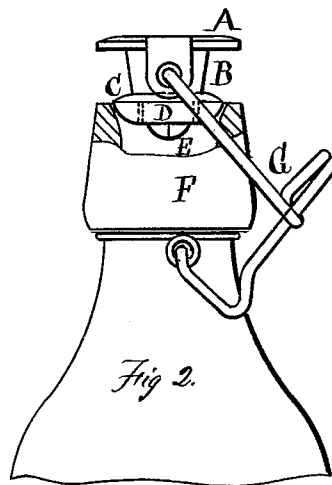
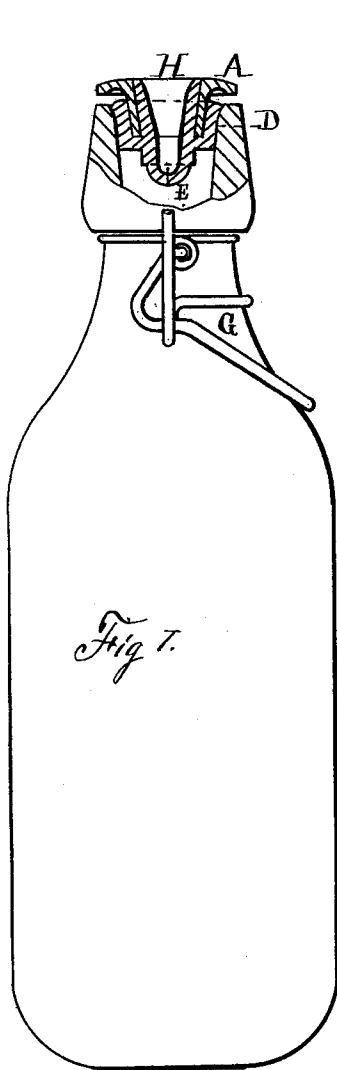


W. H. HICKS.
Bottle-Stopper.

No. 201,011.

Patented March 5, 1878.



Witnesses
James M. Hicks
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UNITED STATES PATENT OFFICE.

WILLIAM H. HICKS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **201,011**, dated March 5, 1878; application filed October 29, 1877.

To all whom it may concern:

Be it known that I, WILLIAM H. HICKS, of Brooklyn, county of Kings, and State of New York, have invented new and useful Improvements in Stoppers for Bottles and other similar vessels, of which the following is a specification, reference being had to the drawings, which form part of this specification.

My invention belongs to that class of stoppers in which a cap-piece is combined with an elastic or compressible packing-piece provided with a flange, which is compressed between the depending flange of the cap-piece and the inner walls of the mouth of a bottle, and not over the upper edges of the mouth, so that the joint is not affected by irregularities or breakage of the said upper edges occasioned by careless handling in bottling and packing.

My invention consists in the following elements (which are more fully set forth and definitely pointed out in the claims): A cap-piece arranged to connect with a closing mechanism, and provided with a flange projecting from its under surface near its central portion; an elastic or compressible packing-piece, arranged at its upper portion to be held by the cap-piece, surrounded by a flange thickened on the under side near its larger diameter, (which is not larger than the mouth of the bottle to which it is applied,) so that when rolled up its diameter is increased by stretching, and when released it will return to its original diameter and shape; and a closing mechanism.

In order that persons skilled in the arts may make and use my invention, I will proceed to describe it, referring to the drawings, in which like parts are indicated by similar letters of reference.

Figure 1 is an upright part section of my device, showing the stopper drawn into the bottle to close it, with the packing-flange rolled up and compressed between the depending flange of the cap-piece and the inner walls of the mouth of the bottle. Fig. 2 is an upright view of same, showing the stopper above the mouth of the bottle ready to be forced down into it, and the packing-flange

in its natural position before compression. Fig. 3 is a sectional view of the packing-piece on a vertical center line. Fig. 4 is a top view, and Fig. 5 a bottom view, of the packing-piece.

A is the cap-piece; B, the depending flange surrounding the opening in the cap-piece. G is a closing mechanism connected to the cap-piece and the bottle. H is the upper part of the packing by which it is held to the cap-piece. E is the bottom portion of the packing-piece. D is the surrounding packing-flange, thickened at its larger diameter, preferably on its under side only, but may be thickened on both sides, or on only one.

The operation of my invention is as follows: The compressible packing-piece is fitted to the cap-piece, and the stopper connected to the closing mechanism, and adjusted so that the packing-flange is central over the mouth, as shown in Fig. 2. The stopper is then forced into the bottle-mouth by the closing mechanism, as shown in Fig. 1. Thus by the depression of the central part of the cap-piece the packing-flange is compressed between it and the inner walls of the mouth of the bottle, making a tight joint independent of the upper edges of the mouth of the bottle, which often are broken or injured by careless handling. When the bottle is being opened the elasticity of the thickened part of the packing-flange contracts to its original shape and size, and throws the stopper up above the mouth of the bottle.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A compressible packing-piece for a bottle-stopping device, provided with a projection to attach it to a cap-piece, and surrounded by a flange of no greater diameter than the mouth of the bottle, and thickened near its circumference to supply material for making the joint entirely within the walls of the bottle-mouth, and arranged to operate substantially as described.

2. The combination, in a bottle-closing device, of a cap-piece, a compressible packing-piece, surrounded by a flange of no greater diameter than the mouth of the bottle, and

thickened at its circumference to supply the material for the joint, arranged to operate entirely within the bottle-mouth, substantially in the manner and for the purposes set forth.

3. The combination, in a bottle-closing device, of a closing mechanism, a rigid cap-piece, a compressible packing-piece surrounded by a flange of no greater diameter than the mouth of the bottle, and thickened near its circum-

ference to supply material for packing the joint entirely within the walls of the bottle-mouth, with a bottle, all arranged to operate substantially in the manner and for the purposes set forth.

W. H. HICKS.

Witnesses:

JAMES M. HICKS,
HENRY PFEIFFER.