W. H. HICKS.

BOTTLE-CLOSING DEVICES.

No. 193,870. Patented Aug. 7, 1877.

Fig 1

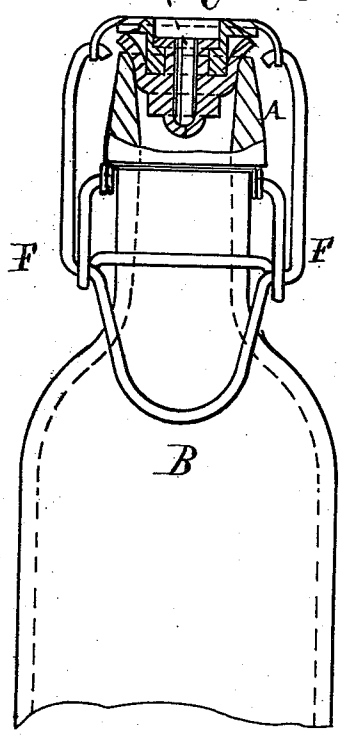
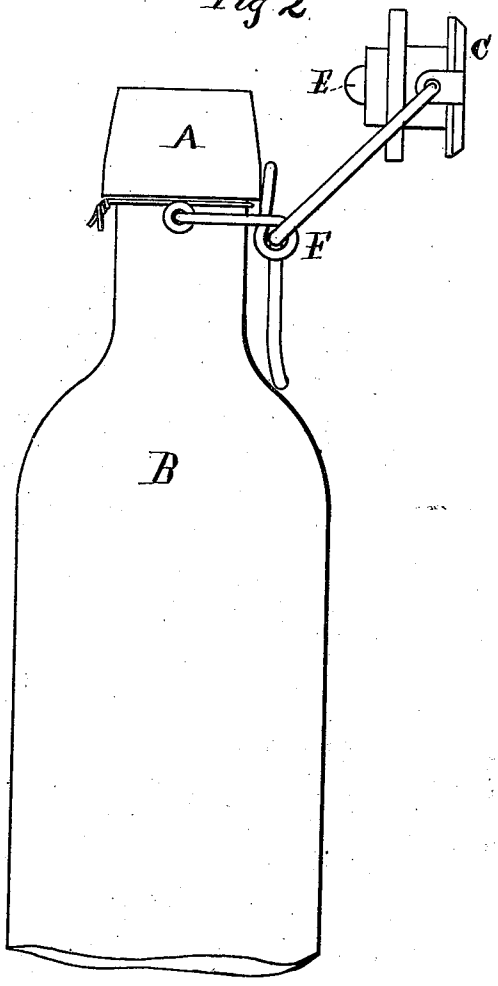


Fig 2



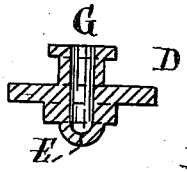
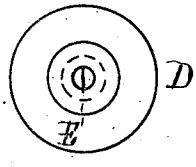


Fig 3.



Witnesses
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IMPROVEMENT IN BOTTLE-CLOSING DEVICES.

Specification forming part of Letters Patent No. **193,870**, dated August 7, 1877; application filed June 11, 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 Improvements in Bottle-Closing Devices, of which the following is a specification, referring to the accompanying drawings, which form part of this specification.

My invention relates to closing devices through which the bottle can be filled with liquid under pressure, while the cap-piece is held over the mouth of the bottle by a closing mechanism; and consists of certain combinations of the following elements: a closing mechanism and a cap-piece, carrying a compressible packing-piece, provided with one or more preforations or slits closed by the elasticity of the material which surrounds it.

To enable others skilled in the arts to make and use my invention, I will proceed to describe it, referring to the drawings, in which the same letters indicate like parts.

Figure 1 is a vertical side view of my device, partly in section. Fig. 2 is a vertical view of the same, with the cap thrown off the bottle. Figs. 3 and 4 represent different views of a compressible packing-piece, with a curved teat at its base, curving downward, and provided with a slit or perforation through it, which is kept closed by the elasticity of the material which surrounds it.

A is the nose of a bottle; B, its body; C, a cap-piece, carrying compressible packing-piece D. E is a slit or perforation through the curved depending teat on the packing-piece D. F is the closing mechanism attached to the cap-piece and the bottle.

The operation of my invention is as follows: The cap-piece C is held down upon the bottle by the mechanism F. The bottle is then placed upon a bottling-table and filled with liquid under pressure through the perforation in the compressible packing-piece, which is forced open by the pressure of the inflowing liquid. When this pressure is removed, after the bottle is filled, the elasticity of the material closes the slit or perforation, and the pressure within the bottle, by acting against the convex surface of the depending teat, tends to firmly hold the slit closed, and the more tightly as the pressure is increased.

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

1. The combination, substantially as hereinbefore described, of a closing mechanism, a cap-piece, carrying a compressible packing-piece, provided with an opening or perforation through it closed by the elasticity of the surrounding material independent of the cap-piece, all arranged to operate substantially in the manner and for the purposes set forth.

2. A compressible packing-piece, substantially as hereinbefore described, provided with one or more perforations or slits through the convex or tapering surface at its base, closed by its own elasticity independently of the cap-piece, substantially as and for the purposes set forth.

W. H. HICKS.

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