A. E. RICH.

BOTTLE-STOPPLE.

No. 183,512. Patented Oct. 24, 1876.

Fig. 1.

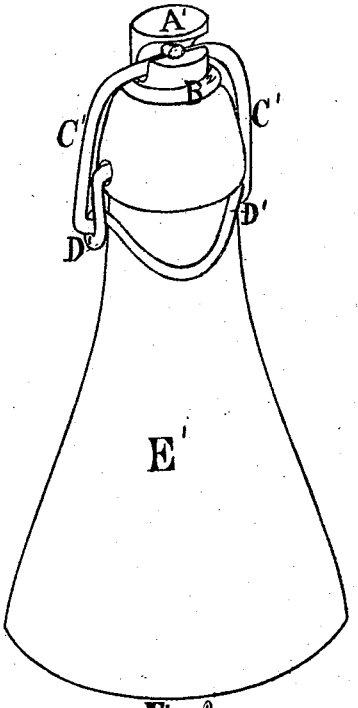
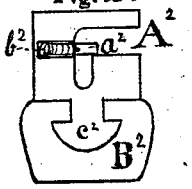


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUSTUS E. RICH, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD HIS RIGHT TO JAMES H. CRITTENDEN, OF SAME PLACE.

IMPROVEMENT IN BOTTLE-STOPPLES.

Specification forming part of Letters Patent No. **183,512**, dated October 24, 1876; application filed May 29, 1876.

To all whom it may concern:

Be it known that I, AUGUSTUS E. RICH, of Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Stopples for Soda and other Liquors put up in Bottles with Gas, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in a metallic stopple tipped at the lower end, which is inserted in the nose of the bottle with a rubber ring, and is grooved with horizontal and perpendicular grooves, and has transverse pin and spiral spring.

The object of my invention is to stopple soda and all liquors when gas is used.

Figure 1 is a view of a bottle with my improved metallic stopple secured in it. Fig. 2 is a section of metallic stopple and rubber stopple affixed to it.

Fig. 1—A^1 is the metallic stopple; B^2, the rubber ring affixed to it. C′ C′ are perpendicular wires; D′ D′, the lever-wires; E′, the bottle.

Fig. 2—A^2, the metallic stopple; B^2, rubber stopple or ring. This rubber stopple or ring is about three-quarters of an inch in thickness, and has a hole sunken in it about three-eighths of an inch deep, into which the end of the metallic stopple c^2 is forced, and on which the rubber is held by its elasticity. a^2 is a metallic pin about three-fourths of an inch long, which pin is surrounded by a spiral spring, b^2.

Operation: The metallic stopple being constructed with transverse and horizontal grooves, with pin and spiral spring tipped with rubber, as herein specified, the operation of bottling with it may be described: The metallic stopper or top A^1 is made a trifle smaller than the hole in the tube in bottling-machines, through which the cork is pushed in the old way, so as to allow it to pass through freely. The button on bottom of the metallic stopper is of a size to allow it to have a rubber covering, and still pass through the machine freely, and likewise be sufficiently tight to retain the gas in bottle while being pushed through the machine. The groove or slot is made in the side of the metallic stopper or top, in order that the wire bail may be connected to it, while the plunger, which pushes it through the machine against the gas, holds the stopper in the bottle when it is turned into the groove or slot. The little pin a^2, having a spring, b^2, behind it, flies back and allows the bail to drop into the bottom of the perpendicular slot or groove; then it springs out over the top of the wire bail, securing it to the stopper. By pushing the little pin back it allows the bail to come out of the groove or slot, thereby disconnecting the stopple from the bail, likewise from the bottle, so that it can be again pushed through the machine as long as it may last.

In this invention I do not confine myself to the lever-wires for depressing and securing the stopple. The bail C′ C′ may be turned into the groove on top of the pin a^2, and rest on it, and thus hold the stopple into the bottle. By forcing the pin a^2 back from under the bail the elasticity of the rubber will raise the stopple out of the nose of the bottle.

What I claim is—

In combination, metallic stopple A^1, rubber ring B^2, wires C′ C′ D′ D′, metallic pin A^2, and spiral spring b^2, as set forth and described, for the purpose specified.

AUGUSTUS E. RICH. [L. S.]

Witnesses:

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