

H. & T. MILLER.
Self-Corking Bottles.

No. 150,345.

Patented April 28, 1874.

Fig. 1.

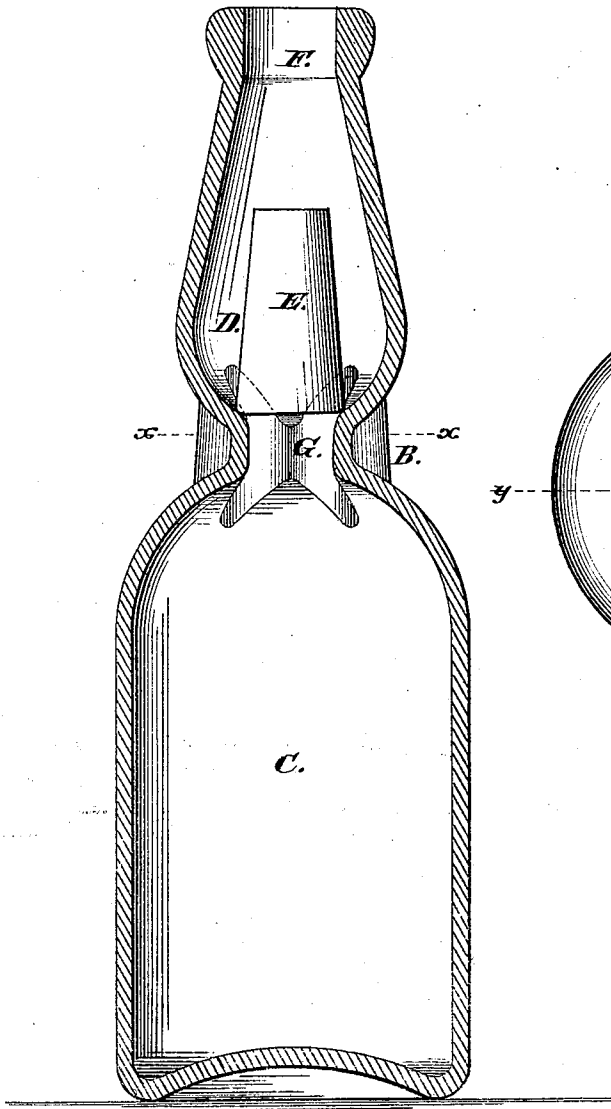
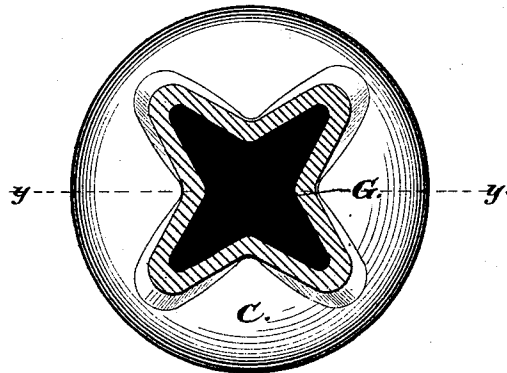


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY MILLER AND THOMAS MILLER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN SELF-CORKING BOTTLES.

Specification forming part of Letters Patent No. **150,345**, dated April 23, 1874; application filed January 5, 1874.

To all whom it may concern:

Be it known that we, HENRY MILLER and THOMAS MILLER, of the city of Pittsburg, State of Pennsylvania, have invented an Improvement in Self-Corking Bottles for Gaseous Liquors, of which the following is a specification:

Figure 1 is a vertical central section of the bottle, and Fig. 2 a cross-section on the line *x x* of Fig. 1.

The invention relates to an improvement in soda and other self-stoppered bottles. Hitherto these have been provided with stoppers of spherical form, and of such specific gravity as to require the bottles to be inverted in order to be filled. In our invention the stopper is of less specific gravity than liquids, which adapts the bottles to be filled without inversion. The neck of the bottle is also constructed in a peculiar manner, conducing to strength, and providing a suitable support for the stopper, when the contents have been discharged.

Referring to the drawing, C indicates the body, D the neck, and F the mouth, of the bottle. The neck is enlarged to contain the tapered cork stopper E, but is sufficiently narrow to prevent the same being reversed in position—*i. e.*, turned end for end.

When the bottle is empty the cork rests on the bottom of the chamber, being supported by projections G. The latter are, preferably, four in number, and are formed by bending the sides of the bottle inward, and there are four corresponding or alternating vertical ribs or projections, B, formed exteriorly of the bottle, so that a cross-section through the contracted part presents the appearance of a quarterfoil, Fig. 2. The bottle is cast in a mold in the usual way.

In filling, the cork E will rise and close the mouth F so soon as the exterior pressure is removed.

To open a bottle thus stopped the cork is pressed downward with a suitable instrument, and the bottle quickly inverted. Unlike those bottles provided with the ordinary spherical stopper, the discharge of its contents will continue unobstructed so long as the bottle is held inverted, since the cork will then occupy the position shown in Fig. 1, owing to the pressure of the heavier liquid as it escapes at F.

The inner and outer projections G B impart great strength to the bottle at that point, and yet allow a free escape of the liquid into the neck, and the latter being enlarged or bulged in its lower part corresponding to the form of the cork, there is little or no perceptible obstruction to the flow.

We do not claim projections for supporting a stopper in the neck of a bottle; but

What we do claim is—

1. The combination of the inverted tapered cork E with the bottle, having a neck, D, of corresponding form, and contracted at its junction with the body C, as shown and described, to operate as specified.

2. The bottle having the inner and outer projections G B formed between the neck and body by depressions in the sides, as shown and described.

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Witnesses:

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