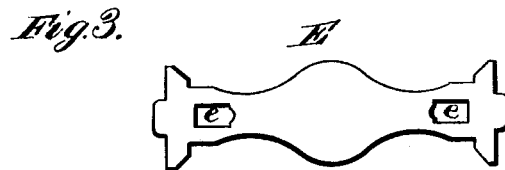
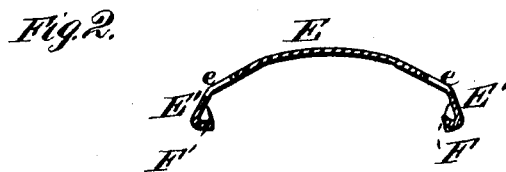
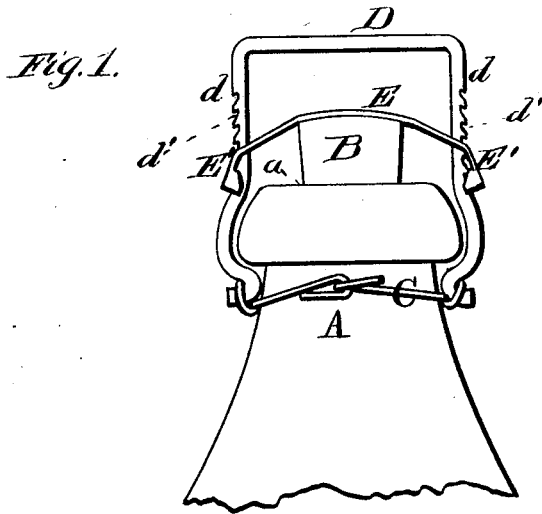


D. G. SMITH.
BOTTLE CORK-FASTENER.

No. 185,793.

Patented Dec. 26, 1876.



WITNESSES
Robert Emmett
George C. Upham.

INVENTOR.
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UNITED STATES PATENT OFFICE

DAVID G. SMITH, OF CARBONDALE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JAMES KILPATRICK, OF SAME PLACE.

IMPROVEMENT IN BOTTLE-CORK FASTENERS.

Specification forming part of Letters Patent No. **185,793**, dated December 26, 1876; application filed October 28, 1876.

To all whom it may concern:

Be it known that I, DAVID G. SMITH, of Carbondale, in the county of Luzerne and State of Pennsylvania, have invented a new and valuable Improvement in Bottle-Cork Fasteners; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front elevation of my bottle-cork fasteners, and Fig. 2 is a central vertical sectional view of the flat locking-plate. Fig. 3 is a plan view of the locking-plate as cut by the die.

This invention relates to devices for locking corks or stoppers into the necks of bottles; and it consists chiefly in the combination of a notched pivoted bail, with a perforated locking-plate, which is provided with a catch that engages with the notches in said bail, substantially as hereinafter particularly described.

In the annexed drawings, A designates the neck of a bottle, and B an ordinary bottle-cork inserted therein through mouth *a*. C designates a wire ring, encircling said neck, and D a high bail or bent rod, which is pivoted, by both its ends, to wire rings C, at opposite points on the circumference thereof, and in such a manner that it may be turned up directly over cork B, or turned down at right angles thereto, as desired. The side bars or standards *d d'* of bail D are notched on the outside, and pass up through elongated perforations or slots *e e* in a flat locking-plate, E, near the ends thereof. Said slots *e e* are longitudinal, and at or about the middle of them the ends of said plate E are bent obliquely downward, forming extensions E' E', each of which carries on its end a hook or catch, F. The notches *d' d'* on the outside of side bars or standards *d* of bail D are inclined downward, so that said hooks F, (which incline upward,) when brought into engagement with said notches cannot be displaced by an upward-pushing force. Said extensions E' E' are also provided with downward-extending side flanges *e' e'*.

The operation of the above-described devices is as follows: Cork B being inserted

into neck A through mouth *b*, bail D is turned upward until plate E is immediately over said cork. The upward pressure of the gases in said bottle against the lower end of said cork causes the upper end of said cork to press against the middle of locking-plate E, slightly elevating the same and drawing hooks or catches F F inward and upward into firm engagement with notches *d' d'* on bail D. Thus the greater the upward pressure the more secure will be the fastening of said cork.

To release said cork the said bail is turned sidewise, so as to free the said locking-plate from the top of said cork. If preferred, this may be facilitated by making slots *e e* extend crosswise, instead of longitudinally. The turning of the said bail then first disengages notched bars *d d'* from hooks or catches F F, when plate E can be readily lifted from said cork.

The locking devices hereinbefore described may be applied to any form of stopper other than cork, and to a demijohn, jug, or other receptacle of suitable shape, as well as to a bottle. If preferred, small ratchet-teeth may be substituted for the notches *d' d'*.

Locking-plate E should have some flexibility, but may be made rigid, or nearly so, without being inoperative. Its elasticity adds to the security of the fastening.

Plates E, formed as above described, constitute independent articles of manufacture and sale.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of notched pivoted bail D, with locking-plate E and catches F F, substantially as set forth.

2. In a cork or stopper fastener, a notched bail, in combination with a spring-plate having catches which engage with said bail, for the purpose set forth.

3. As an article of manufacture, locking-plate E, provided with extensions E' E' and hooked catches F F', substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DAVID G. SMITH.

Witnesses:

S. S. BENEDICT,
E. A. BENEDICT.