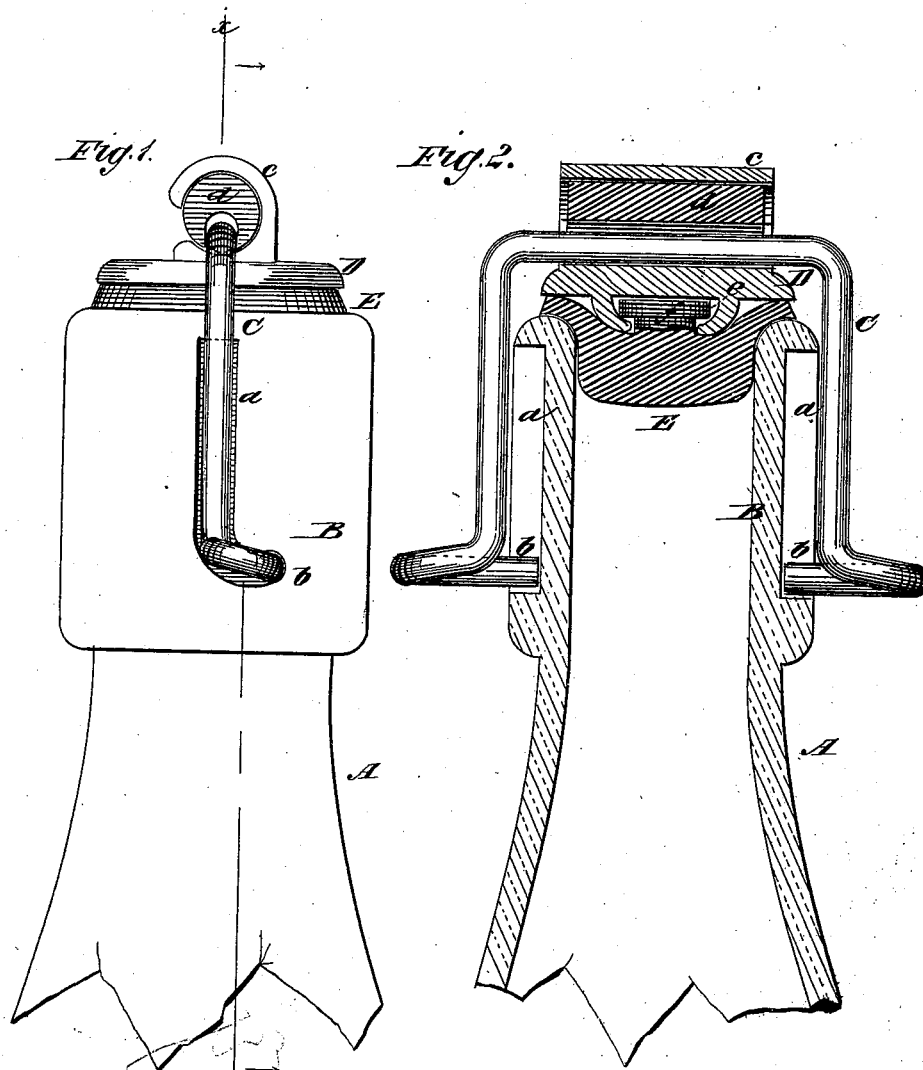


T. MASSEY & W. H. RAWE.
Bottle-Stopper.

No. 204,987.

Patented June 18, 1878.



WITNESSES:
Francis Mc Ardle.
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UNITED STATES PATENT OFFICE.

THOMAS MASSEY AND WILLIAM H. RAWE, OF PAWTUCKET, R. I.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. 204,987, dated June 18, 1878; application filed May 15, 1878.

To all whom it may concern:

Be it known that we, THOMAS MASSEY and WILLIAM H. RAWE, of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and Improved Bottle-Stopper, of which the following is a description:

Figure 1 is a side elevation of a portion of a bottle having our improved stopper applied. Fig. 2 is a vertical section taken on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention relates to stoppers for bottles designed to contain beer or other effervescing drinks or liquids; and it consists in a bottle-nozzle having curved slots in opposite sides, and in a yoke adapted to the slots in the bottle-nozzle, and to a stopper of novel construction.

The object of the invention is to cheapen the manufacture of bottle-stoppers and to provide a stopper that may be rapidly applied to the bottle.

In the drawings, A is the neck of a bottle, having nozzle B, which is of uniform diameter throughout its length. In diametrically-opposite sides of the nozzle B there are slots *a*, which are straight throughout the greater portion of their length, but are both curved at their lower ends in the same direction.

A wire yoke, C, has its ends bent outward at right angles and returned upon themselves at one side of the bail, so that the ends of the wire project inwardly beyond the inner surface of the parallel sides of the yoke, forming pivots *b*, which spring into the grooves or slots *a* in the sides of the bottle-nozzle.

The stopper-casting D has across its top a sleeve, *c*, which is slotted at one side to receive the yoke; and a rubber cylinder, *d*, which is slotted in one side, is placed in the sleeve with the yoke, and turned so as to re-

tain the yoke. In the under surface of the stopper-casting a cavity, *e*, is formed for receiving a head, *f*, formed upon the top of the elastic portion E of the stopper. The stopper is placed in the mouth of the bottle after it is filled, and the yoke C is carried downward by the thumb or fingers of the two hands into the curved portion of the slot *a*, in which there is a slight notch, which retains the pivots *b* formed on the end of the yoke-wire.

By our improvements the usual neck-wires and levers are dispensed with, and the fastening of the stopper is effected by a single wire. It is easily applied to or removed from a bottle, and is operated with the same facility as other stoppers now in market.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A bottle-nozzle having parallel sides, and having formed in opposite sides thereof slots or grooves with a straight upper portion and a curved lower portion, as herein shown and described.

2. The wire yoke C, having its ends bent outward and returned upon themselves to form pivots *b*, in combination with the nozzle B, having slots *a* for holding the yoke, as herein shown and described.

3. The stopper-casting D, having the slotted transverse sleeve *c* and the slotted rubber cylinder *d*, in combination with the yoke C, substantially as herein shown and described.

4. The stopper-casting D, having the cavity *e*, in combination with the elastic stopper E, having the button *f*, substantially as shown and described.

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Witnesses:

JAMES E. McMAHON,
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