J. CONNER.

BOTTLE-STOPPER.

No. 180,551. Patented Aug. 1, 1876.

Fig. 1.

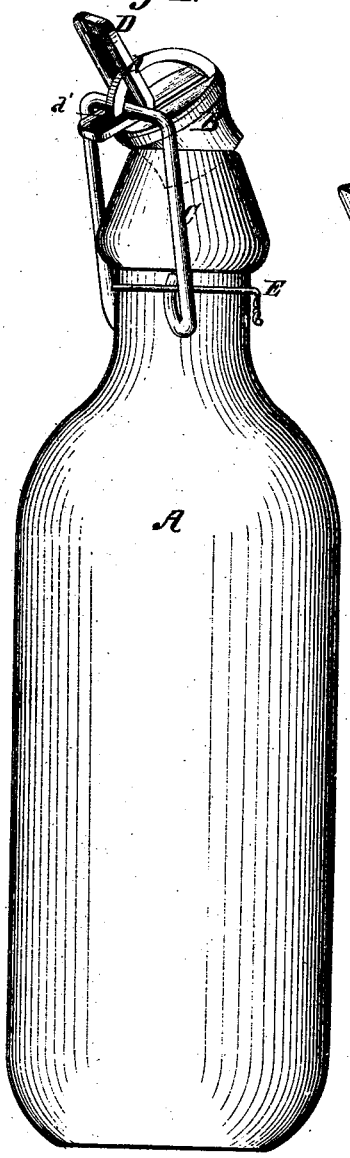


Fig. 3.

Fig. 4.

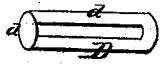
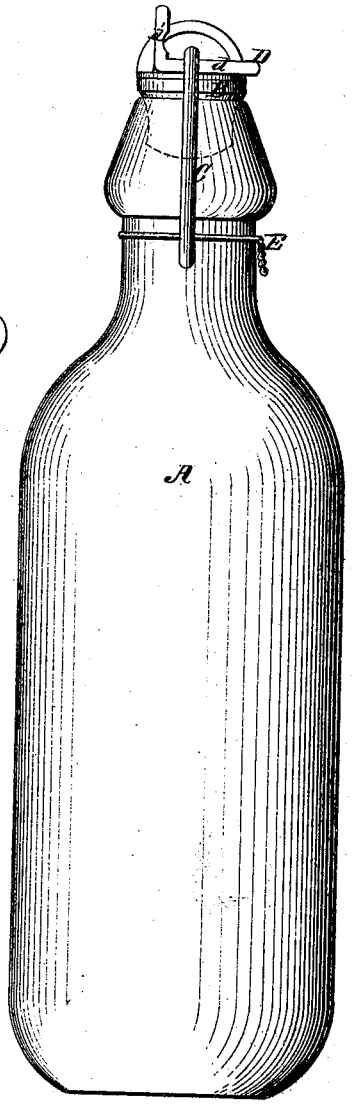


Fig. 2



Witnesses.

O. M'Griffin

W. H. Lyon

Inventor

Joseph Conner

UNITED STATES PATENT OFFICE.

JOSEPH CONNER, OF NEW YORK, N. Y.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **180,551**, dated August 1, 1876; application filed November 24, 1875.

To all whom it may concern:

Be it known that I, JOSEPH CONNER, of the city, county, and State of New York, have invented a new and useful Improvement in Stoppers for Bottles; and I do declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figures 1 and 2 are views of a bottle having the stopper applied after my improved method. Figs. 3 and 4 are views of the key to the stopper.

In Fig. 1 the several parts show their position with the stopper not compressed into the bottle, Fig. 2 being a different view, showing the position of the several parts with the stopper compressed into the bottle.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has for its object the improvement in securing stoppers in bottles for the better preservation of bottled beverages. To this end the nature of my invention consists of a key forced between a yoke secured to a bottle, and a stopper, in such a manner as to bring pressure on the stopper, thereby pressing the stopper into the mouth of the bottle, in a manner hereinafter explained. The slot in the key affords means of attachment, and the angular shape given the key affords an easy means of operating, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, Figs. 1 and 2, A represents an ordinary bottle, having the common finish, and shown with the ordinary method of attaching the stopper around the neck of the bottle. B represents the stopper. C represents the yoke. D represents the key. E represents the neck-wire.

The method of attachment, as herein shown, represents the stopper B having an extended top, of a bridge-like formation, over which the key D is passed, the bridge-like part of the stopper B passing up through the slot in the key D, exposing a part of the bridge above the key D, enabling the yoke C to be passed through the opening between the bridge and the key D, the neck-wire E attaching the yoke C to the bottle A.

In Fig. 1 the stopper is represented resting on the mouth of the bottle A, and showing the thicker part *d* of the key D resting on the stopper B. By placing the stopper B in the mouth of the bottle A by ordinary pressure, then turning the thicker part *d* of the key D down on the stopper B, the yoke C will slide onto the thicker part *d* of the key D, firmly compressing the stopper B into the mouth of the bottle A, and leaving the yoke C free to be placed as desired.

By Fig. 2 we are enabled to view a representation of the stopper B under full pressure from the key D. The thicker part *d* of the key D is represented resting on the stopper B, and the yoke C as resting on the thicker part *d* of the key D. By sliding the yoke C along the key D the yoke C is brought to the angle of the key D. Then by elevating the thicker part *d* of the key D the yoke C is forced from the thicker part *d* to the thinner part *d'* of the key D, and the stopper B is released from the rigid pressure, in which position of the several parts the stopper B may be easily withdrawn from the mouth of the bottle A.

The key represented in the drawing annexed is shown to be of unequal thickness. This difference in thickness has for its object the purpose of an increase of pressure when used in one way, or a release of pressure when used in another way, as herein described. It is here represented as being constructed with the thinner part *d'* at an angle with the thicker part *d;* but, if desired, the same difference in thickness can be arranged in a key not having the angular shape. A wedge or pieces of metal, or other hard substance, so fitted or inserted between the yoke and the stopper might accomplish pressure sufficient for the purpose. I prefer, however, to adopt the plan shown in the drawing.

With the stopper attached as herein shown and described, the operation is as follows: When the bottle is filled, and the stopper B inserted in the mouth of the bottle A, with the yoke C resting on the part *d d* of the key D, place the part *d* of the key D down on the stopper B. Then slide the yoke C on the key D, and slide the key D on the stopper B to a

position where the pressure bears equal on the stopper B, in which position of the several parts the stopper B is secured in the mouth of the bottle.

I am aware that bottles having stoppers attached are in common use; also, that many devices of stoppers exist, and many means of attachments are used for the purpose of securing stoppers in the mouths of bottles. These devices, separately considered, I do not claim as my invention. My object is to combine these features in such a manner and by such addition as to greatly facilitate the stoppling and unstoppling of bottles.

I do claim, however, and desire to secure by Letters Patent—

1. A yoke, C, with stopper B attached thereto, in combination with a sliding key, D, substantially as and for the purpose described.

2. The bottle-stopper key D, constructed with a slot in it, substantially as and for the purpose described.

3. A bottle-stopper key constructed with unequal thicknesses, as at d and d', substantially as and for the purpose described.

4. The bottle-stopper key D, constructed with an angular form, substantially as and for the purpose described.

5. The bottle-stopper key D, constructed to turn and slide, in combination with a yoke and stopper, substantially as and for the purpose herein described.

JOSEPH CONNER.

Witnesses:
D. M. GRIFFIN,
W. H. LYON.