W. H. HICKS.

Bottle-Stopper Fastener.

No. 196,527 Patented Oct. 30, 1877.

Fig 1

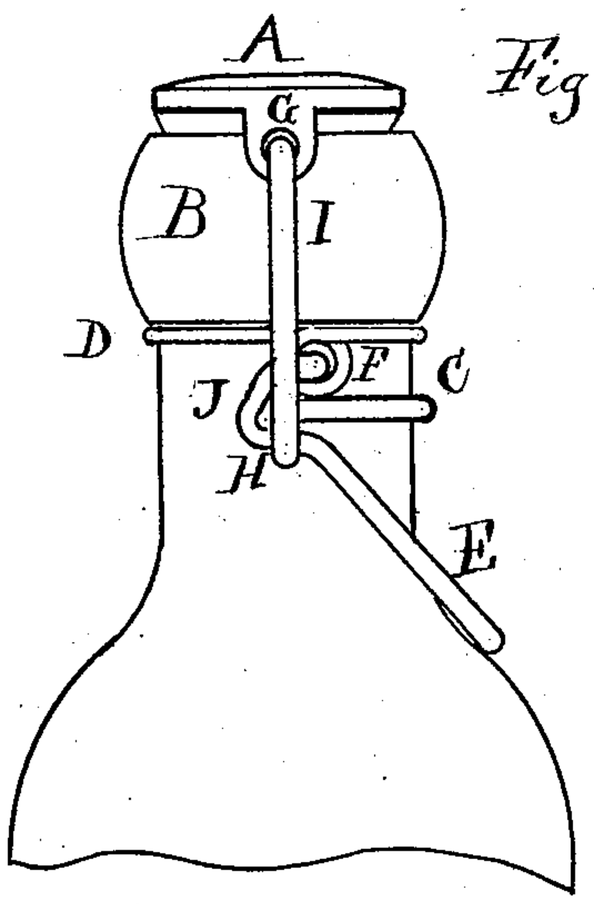
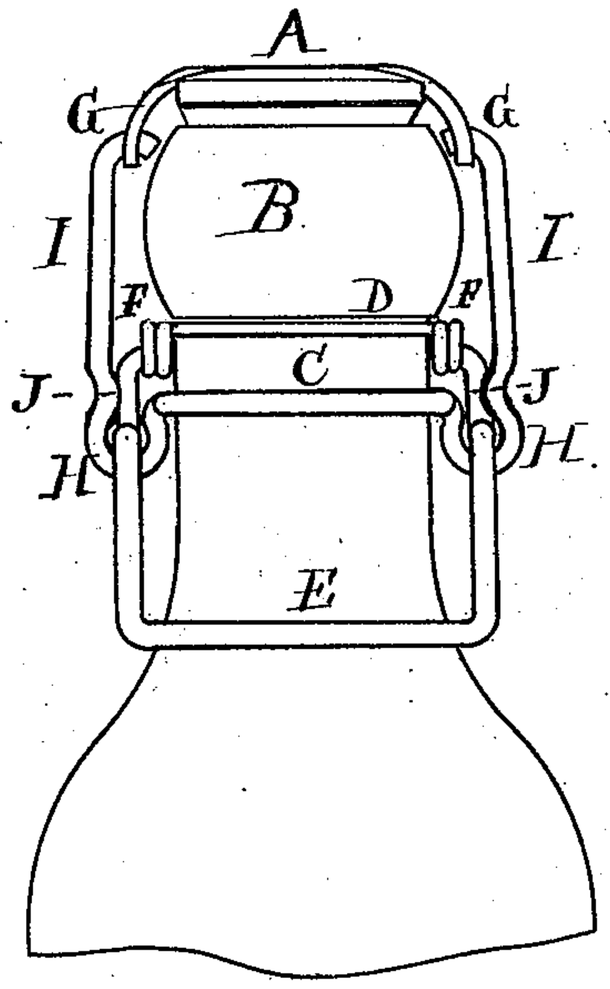


Fig 2



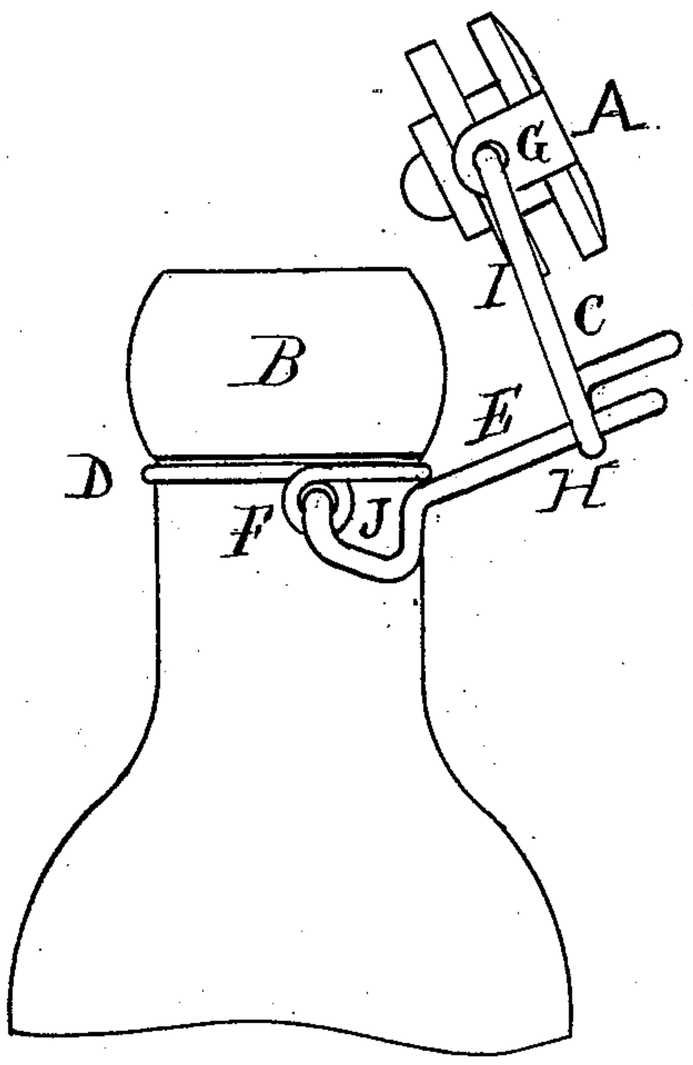


Fig 3.

Witnesses,
James M. Hicks.
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UNITED STATES PATENT OFFICE.

WILLIAM H. HICKS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BOTTLE-STOPPER FASTENERS.

Specification forming part of Letters Patent No. **196,527,** dated October 30, 1877; application filed October 8, 1877.

To all whom it may concern:

Be it known that I, WILLIAM H. HICKS, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Bottle-Stopper Fasteners, of which the following is a specification, reference being had to the drawings which form part of this specification.

My invention relates to that class of stopper-fasteners in which a vibrating arm joins the bottle in bearings upon two sides, and in which the stopper is operatively connected to said vibrating arm by a link or links; and consists of certain combinations of the following elements: a neck-wire provided with bearings and attached to the bottle; a stopper provided with means to connect with a link; a link arranged to operatively connect with a stopper and with a vibrating arm; an arm provided at its ends with means to connect with and vibrate on a bottle, and formed or arranged to allow the loops of the link to slide past the vibrating point in both directions.

In order that persons skilled in the art may make and use my invention, I will proceed to describe it, referring to the drawings, in which the same letters of reference indicate similar parts.

Figure 1 is a side view of my invention, showing the stopper closed down upon the mouth of a bottle. Fig. 2 is a front view of the same. Fig. 3 is a side view, showing the stopper off the bottle-mouth, and the vibrating arm in its upward position, and the link moved outwardly toward the end of the vibrating arm to release the stopper.

A is the stopper. B is the nose of a bottle. C is the central portion of the link, connecting the loops of the link together to cause them to slide on the vibrating arm simultaneously. D is the neck-wire, having eyes F F in it. E is the vibrating arm. G G are ears in the stopper. H H are loops in the link, formed to hold and slide on the parallel portion or sides of the vibrating arm. I I are the hooked ends of the link, joining it to the stopper. J J are the portions of the vibrating arm formed to allow the loops of the link to pass the vibrating point, and to regulate the motion of the stopper to and from the mouth of the bottle, or to regulate the lifting and closing movement.

The operation of my invention is as follows: The vibrating arm is inserted in the loops of the link and in the bearings on the bottle, the hooked ends of the link are entered in the eyes of the stopper, and the stopper placed over the bottle-mouth, with the vibrating arm in its upward position. The loops of the link will then be near the outer end of the vibrating arm. The vibrating arm is then thrown down until it touches the bottle. This draws the stopper tightly down upon the bottle, and slides the loops of the link past the vibrating point of the arm and locks it, so that no strain can dislodge it unless the arm is thrown up.

To release the stopper and open the bottle, the vibrating arm is thrown up, so that the strain under the stopper will slide the loops of the link upward on the arm and throw the stopper off the bottle, so that it can fall down against the outside of the bottle and be held there by the hand while emptying the contents.

The two sides of the vibrating arm are kept parallel by making the central portion at about right angles to said sides; but stiff and larger wire will answer in some cases.

The link can be joined solidly to the cap-piece or stopper, instead of joining the two sides between the loops; but I prefer the style shown, as to its general features.

Having now described my invention, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a stopper-fastener, of an arm joined to a bottle at vibrating points, a link provided with means to connect with a stopper, and to connect with and slide on said vibrating arm, to raise and lower a stopper toward and away from the mouth of a bottle, with said stopper and bottle, all arranged to operate substantially in the manner and for the purposes set forth.

2. The combination, substantially as hereinbefore described, of an arm provided with projections near its vibrating points, and arranged to vibrate on a bottle to raise and lower a stopper, with a link or links connecting with said stopper, and arranged to connect with and slide on said vibrating arm, in the manner and for the purposes set forth.

W. H. HICKS.

Witnesses:
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