J. CLARK.

BOTTLE-STOPPER.

No. 182,357. Patented Sept. 19, 1876.

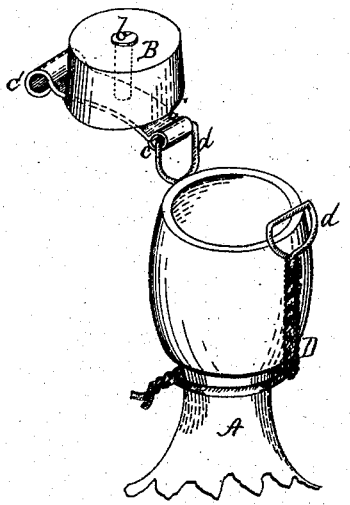

Fig. 1.

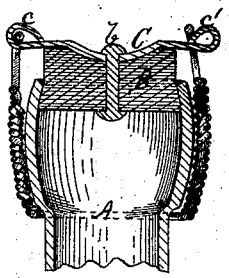

Fig. 2.

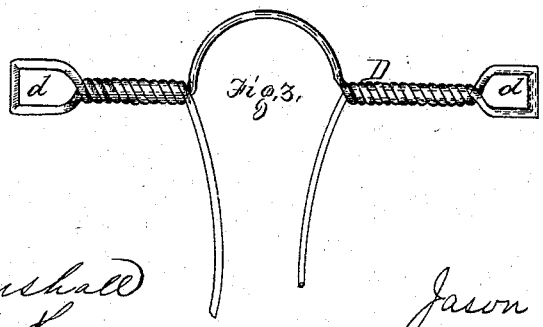

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

JASON CLARK, OF ALLEGHENY, PA., ASSIGNOR TO ANGELINA K. CLARK.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **182,357**, dated September 19, 1876; application filed May 5, 1876.

To all whom it may concern:

Be it known that I, JASON CLARK, of Allegheny city, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement of Bottle-Stoppers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a perspective view of a bottle-stopper and means for attaching the same to a bottle. Fig. 2 is a sectional view of the same, and Fig. 3 is a view of the bail.

Like letters refer to like parts wherever they occur.

My invention relates to the means for and manner of securing stoppers in and to bottles; and has for its object to simplify, cheapen, and render effective that class of bottle-stoppers wherein the stopper is hinged on one side, and secured at the other side by a catch.

I will now proceed to describe my invention, so that others skilled in the art to which it appertains may apply the same.

A indicates the neck of a bottle, and B a stopper, of any suitable material, preferably rubber. This stopper B is fastened to a strip or plate, C, of stiff metal by means of the rivet *b*, the head of which, or a metal washer, supports the under surface of said stopper.

In order to insure the stopper engaging evenly with the lip and entering fairly the neck of the bottle, I curve or bend the metal plate C substantially as shown. If desired, this plate may be of elastic material, such as spring-steel; but, in general, where the stopper is of rubber, it is not necessarily so, but is preferably of metal which will retain the bend or curve given to it, so that by the stroke of a hammer or like device the convexity of C may be increased to take up any slack occasioned by wear or compression of the stopper.

Both ends of plate C are turned over, or like means taken, to form a hinge with the bail, as at *c*, and a lug, *c'*, to engage with the opposite stirrup of the bail.

D represents the bail, which is readily formed of a single piece of wire, bent as at *d d*, to form stirrups, one of which acts as a pintle for the hinge-joint, and the other as a catch, the wire being then wound upon itself, as shown, and the free ends used to secure said bail to the neck of the bottle.

The devices may be applied as follows: The metal plate C having been struck up to the desired curve, and provided with the loop and lug *c c'*, or equivalent devices, in any suitable manner, a piece of wire, of sufficient length to form bail D, is passed through one loop of the plate, then bent to form a stirrup, and twisted upon itself for about one-third of its length. The opposite end of the wire is also bent to form a loop or stirrup, and wound upon itself toward the middle, making, when complete, the bail shown in Fig. 3. The single thickness of wire (at the middle) is applied to the neck of the bottle, and the free ends are then brought together and twisted, after which the stirrups may be turned up against the neck of the bottle, as shown in Figs. 1 and 3.

The advantages arising from my improved construction of stopper and attachment are, the cheapness of manufacture, the facility with which they may be applied, and the readiness with which adjustments can be made to compensate for wear or compression of the stopper.

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

1. In combination with a bottle-stopper of the class specified, and the bail for securing the same, the curved or convex spring-plate, to which the stopper is secured, substantially as and for the purpose specified.

2. In combination with a bottle-stopper, the curved spring-plate C, having the loop and lug *c c'* and the double-looped wire, forming both pintle and catch, substantially as and for the purpose specified.

In testimony whereof I, the said JASON CLARK, have hereunto set my hand.

JASON CLARK.

Witnesses:

F. W. RITTER, Jr.,

JAMES I. KAY.