(No Model.)

J. B. CRAWFORD.

BOTTLE STOPPER.

No. 262,008. Patented Aug. 1, 1882.

Fig. 1.

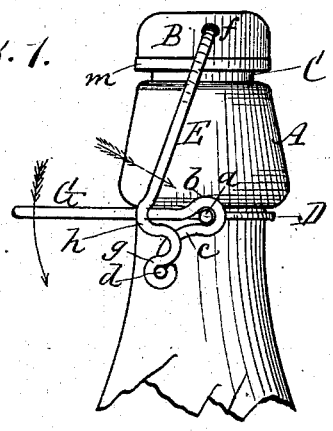


Fig. 4.

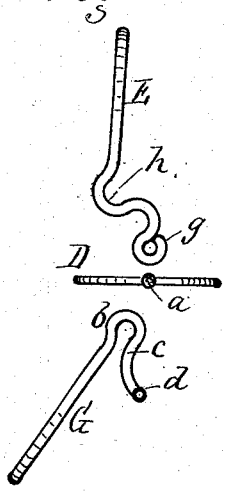


Fig. 2.

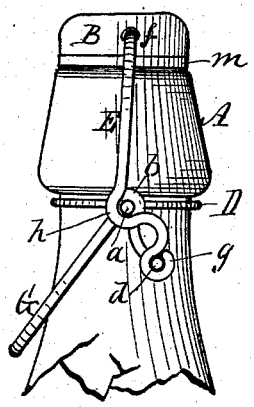


Fig. 5.

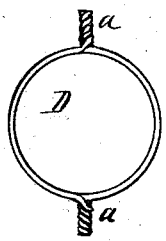
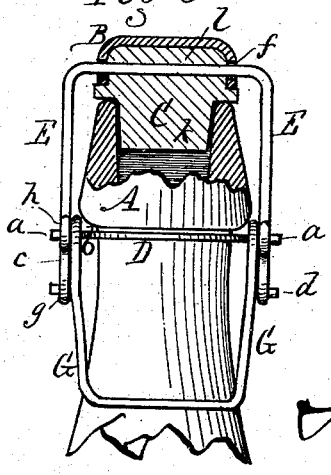


Fig. 3.



Attest.
R. F. Osgood.
E. P. Follett

Inventor.
J. B. Crawford

UNITED STATES PATENT OFFICE.

JETHRO B. CRAWFORD, OF ROCHESTER, NEW YORK.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 262,008, dated August 1, 1882.

Application filed June 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, JETHRO B. CRAWFORD, of Rochester, Monroe county, New York, have invented a certain new and useful Improvement in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improvement applied to a bottle, the fastening being partially open. Fig. 2 is a similar view with the fastening closed. Fig. 3 is an elevation, partially in section at right angles to Figs. 1 and 2. Fig. 4 is a side elevation of the fastening devices detached from the bottle and separated from each other. Fig. 5 is a plan of the neck-wire.

My improvement relates to that class of bottle-stoppers in which a lever is connected with the bail-wire to force the stopper into the mouth of the bottle by pressing the lever downward.

The invention consists in the construction and arrangement of the fastening devices, as hereinafter more fully described.

In the drawings, A shows the top of an ordinary bottle. B is the stopper-cap; C, the stopper; D, the neck-wire; E, the bail or yoke, and G the lever. These parts are constructed and arranged as follows: The neck-wire D is made of two halves of wire, which are twisted together at the ends and form the two projecting pivots *a a* on opposite sides, as shown in the plan view, Fig. 5. In preparing the neck-wire for use the ends on one side are twisted together and on the other side they are left open, so that the device can be placed upon the bottle. When placed around the bottle the other ends are twisted together, and it is then ready for the application of the other parts of the fastening.

The lever G is in the form of a loop, and it has two eyes or bends, *b b*, which fit around the pivots *a a*. Below these eyes are ends *c c*, extending downward in either curved or straight form, and having at the extremities laterally-projecting pins *d d*, which also form pivots.

The bail E passes bodily through the stopper-cap and stopper, as shown at *f*, and at its lower ends it has two eyes or bearings, *g g*, which fit upon the pins *d d* of the lever. Above these eyes are reverse bends *h h*, of the form shown, and so arranged that when the lever is thrown down, as shown in Fig. 2, the upper concave bends strike under and embrace the pivots *a a* of the neck-wire, which stop further throw of the bail, and consequently limit the down movement of the lever.

The novelty of my invention consists in the peculiar construction and arrangement of the neck-wire, bail, and lever, as above described—viz., the neck-wire having the projecting pivots *a a*, the lever jointed to the neck-wire, the ends projecting below and provided with the pins *d d*, and the bail pivoted at its lower ends to the pins of the lever, and provided with the bends above, which strike under the pivots of the neck-wire when the lever is thrown down. By this means when the bends *h h* are thrown up to the pivots *a a* they hook or fasten onto the pivots, and thus hold the bail down and fasten the stopper in place in the bottle, and substantially take the strain away from the lever. When the bail is thus engaged with the pivots it acts as hooks to hold the stopper down, leaving the lever free. In addition to this, the bail, striking the pivots, acts as a stop to the further throw of the lever, and the parts are so connected and arranged that when the parts strike together the lower end of the lever will not be thrown quite up to the side of the bottle, but will stand a little off therefrom, as shown in Fig. 2. This allows room for a finger-hold in opening the fastening, and facilitates the opening and obviates the difficulties that arise in common stoppers where the lever strikes close up against the side of the bottle.

If desired, the pins *d d* may be formed on the ends of the bail E and project inward, and the eyes *g g* be formed on the ends of the lever G and engage with the pins, as the action would be the same as above described.

So far as the action of the fastening devices is concerned, they may be used in connection with the stopper shown in the drawings, or with the common stopper, or with any other stopper adapted to the purpose.

The stopper-cap consists of a dish-shaped inverted plate of metal, B, either struck up or cast, and provided with holes through two op-

posite sides, through which the bail passes. The stopper or elastic portion of the device has, in addition to the packing part *k*, which fits into the bottle, a thick upper portion, *l*, which extends up into and fills the concave part of the stopper-cap, as shown in Fig. 3, and the bail passes through this upper part and holds the packing and the cap fast together, at the same time allowing the proper turning action of the stopper on the bail.

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

The combination of the neck-wire D, provided with pivots *a a*, the lever G, pivoted to the neck-wire, and provided with projecting ends having pins *d d*, and the bail E, attached to the stopper-cap, pivoted at its lower ends to the pins *d d*, and having bends *h h*, forming hooks, which catch under the pivots of the neck-wire when the fastening is closed, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

J. B. CRAWFORD.

Witnesses:
R. F. OSGOOD,
Z. L. DAVIS.