

(Model.)

J. MORSCHHAUSER.

BOTTLE STOPPER.

No. 254,835.

Patented Mar. 14, 1882.

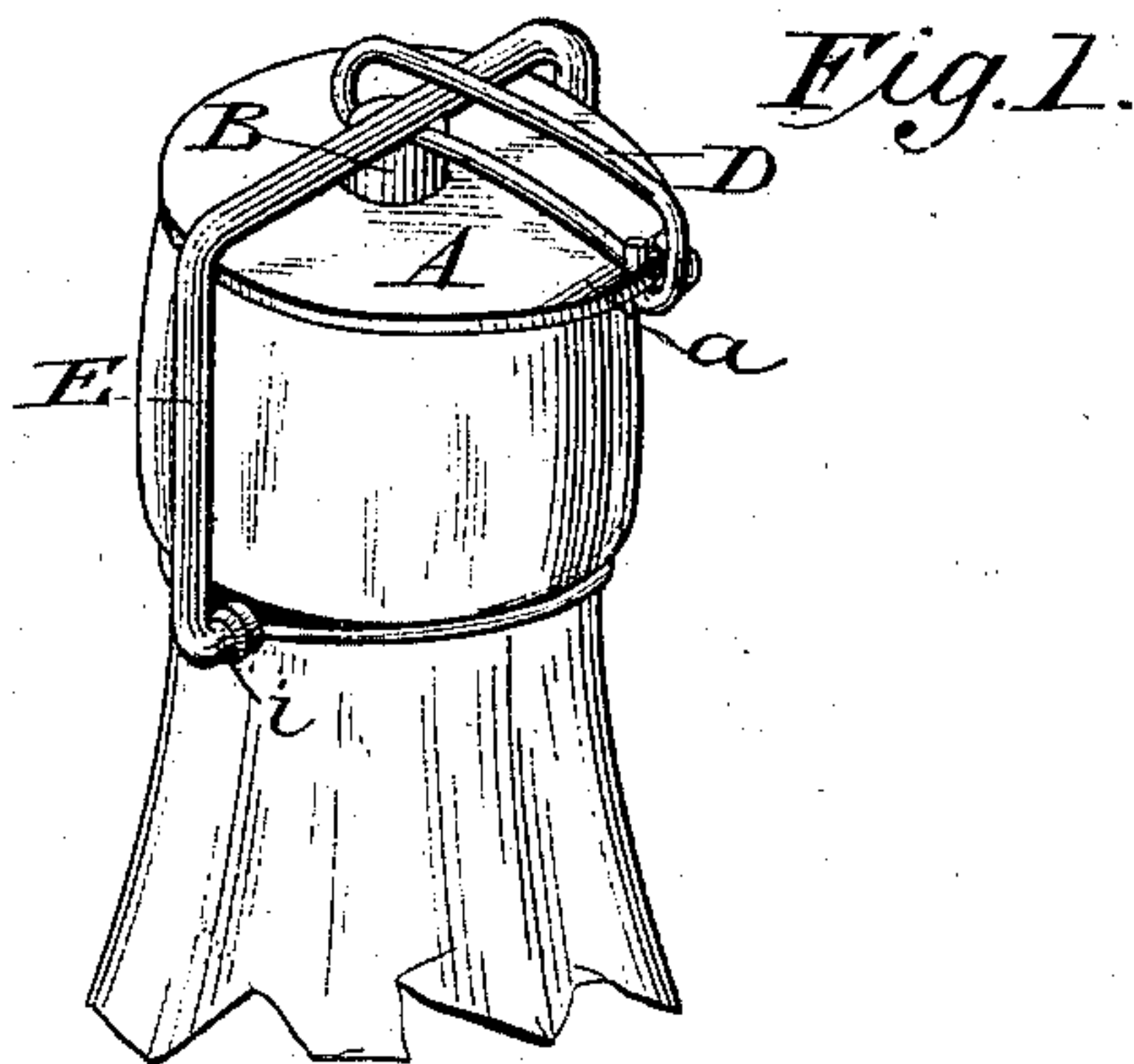


Fig. 2.

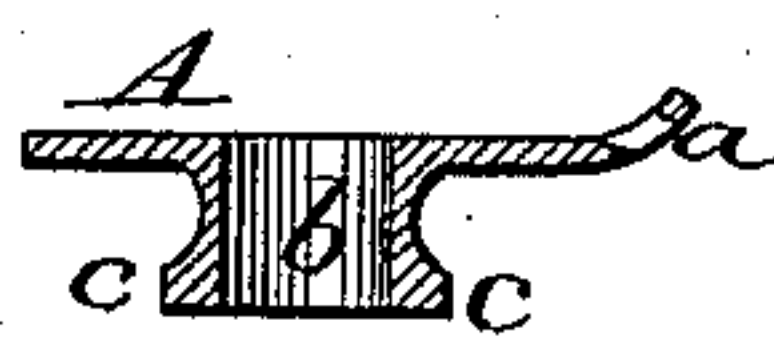
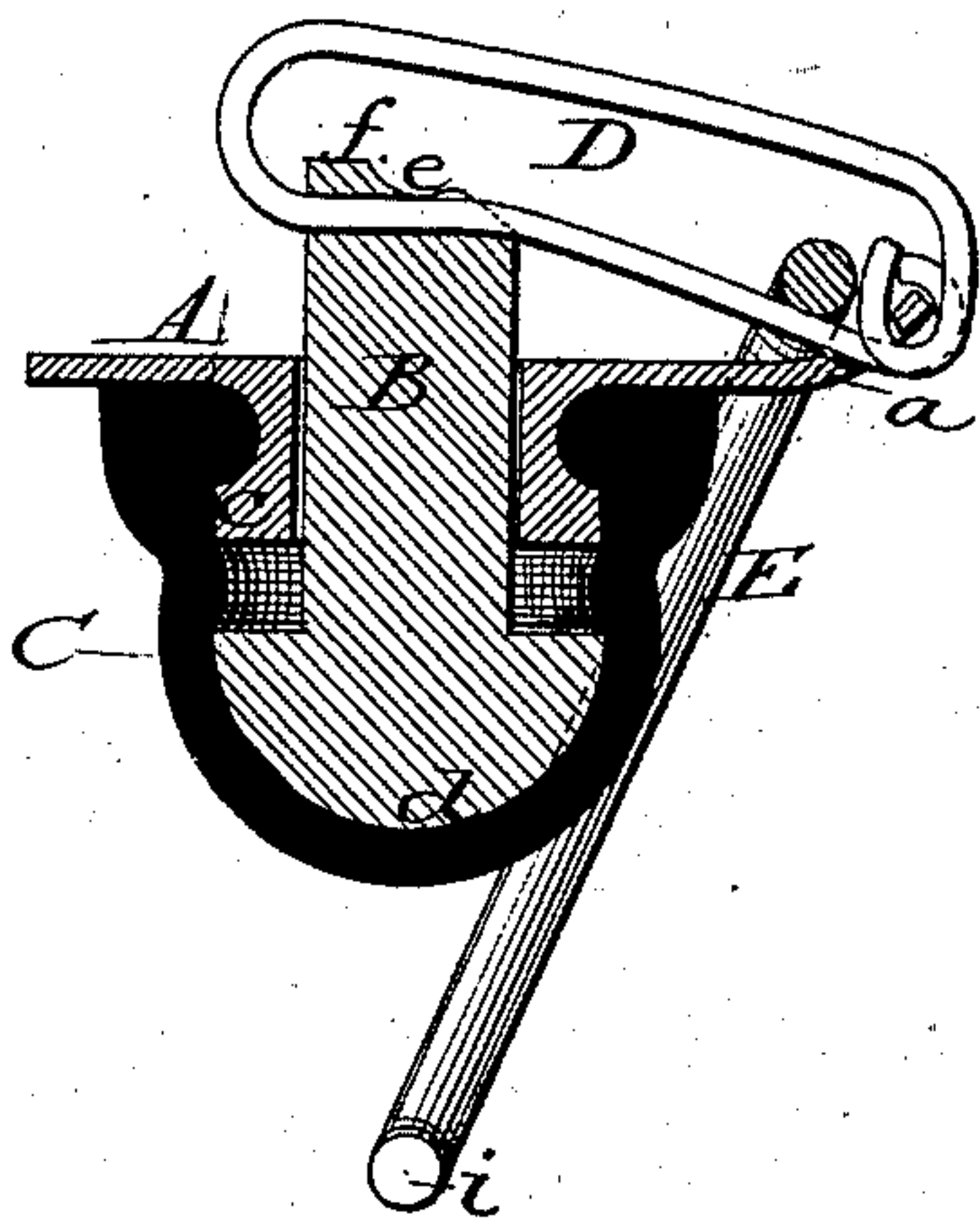
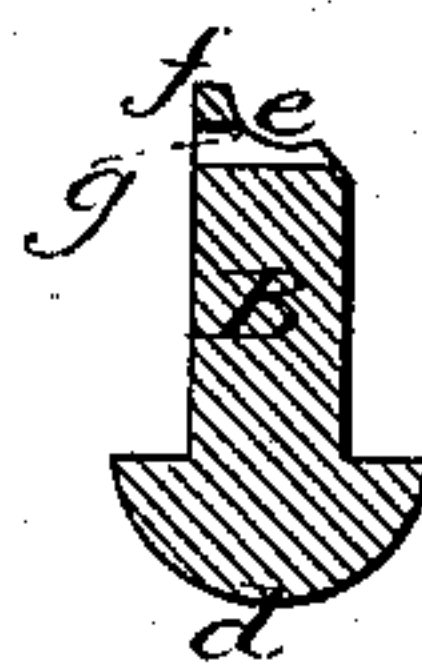


Fig. 3.



Attest.

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JOSEPH MORSCHHAUSER, OF POUGHKEEPSIE, NEW YORK.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 254,835, dated March 14, 1882.

Application filed January 20, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH MORSCHHAUSER, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain
5 Improvements in Bottle-Stoppers, of which the following is a specification.

My invention relates to that class of bottle-closing devices wherein a swinging bail or stirrup pivoted to the bottle acts upon an inclined
10 surface on the upper side of the stopper to force and hold the same to its place.

The invention consists in the improved manner of constructing the device, and particularly in the use of a wire loop serving both as an inclined surface for the bail to act upon and as
15 a spring to retain the parts in their proper relative positions, as hereinafter explained; and it consists more particularly in the combination, with a top plate and an elastic stopper
20 below the same, of a vertical plunger or piston and a wire loop which serves to retain the piston in place with a spring action, and also as the inclined surface for the bail to act upon, as hereinafter more fully explained.

Referring to the accompanying drawings, Figure 1 is a perspective view of my device in use, the stopper being closed. Fig. 2 is a vertical cross-section of the same, the bail being
25 thrown back to release the stopper. Fig. 3 is a view illustrating in vertical section the several parts or members of the stopper disconnected from each other.

Referring to the drawings, A represents a top plate, having one side somewhat elongated
35 and turned upward at *a*. This plate is also provided with a central vertical opening, *b*, and on the under side with an annular flange, *c*, surrounding said opening, the flange being grooved circumferentially, as shown.

B represents a plunger or piston, having a tubular neck designed to enter the hole in the plate, and provided at the lower end with a hemispheric head, *d*. The upper end of the
40 plunger is provided with a transverse curve or notch, *e*, and on one side is beveled or inclined downward from said notch, while toward the opposite side it is extended upward to form an ear, *f*. Through the upper end of the plunger, transversely of the groove *e*, a hole or opening,
45 *g*, is made to receive the wire loop, as hereinafter described.

C represents a rubber or equivalent elastic

packing, forming the stopper proper. This cushion has a peripheral flange upon its upper edge, and is recessed in the interior to receive
55 the piston B and the flange *c* of the plate.

D represents the wire loop, formed by doubling a piece of elastic wire upon itself in the bent or annular form represented and curving the
60 two ends inward.

In assembling the parts the neck of the piston B is inserted through the central opening of plate A and the rubber stopper C applied over and around the piston and the flange *c*
65 in the manner plainly represented in Fig. 2. The wire loop D is next inserted through the opening *g* in the upper end of the piston above the plate, and the two curved ends of the loop inserted through and secured in the eye *a* of
70 the plate, the parts being so adjusted that the end of the loop which engages with the piston is urged upward with a strong spring action. The two ends of the elastic wire forming the loop are formed and closed upon the end of the
75 plate A, in practice, in such manner as to form a rigid connection between the loop and the plate, whereby the plate is caused to sustain the loop firmly in position and render its elasticity available for the purpose of drawing the
80 piston upward. The plate is also preferably made of elastic material to co-operate with the loop in throwing the inner end of the latter upward. It will be observed that when the parts are thus arranged the piston may be pushed down-
85 ward by the application of pressure through the plate to extend and expand the elastic stopper below the same.

E represents an ordinary bail or stirrup straddling the upper end of the bottle, and having the lower end of its arms pivoted at
90 to a band of wire encircling the neck of the bottle. The upper horizontal portion of the bail is passed, as shown, through the wire loop D, encircling the bail. The bail is swung backward and the stopper C inserted in the mouth
95 of the bottle in the manner represented in Fig. 2, after which the bail is swung upward over the lower inclined side of the loop D until it is seated within and retained by the notch *e* of the piston. During the swinging movement
100 of the bail through the inclined loop it forces the latter downward, causing it in turn to force downward the piston and the stopper upon the latter, the top plate, A, being also at the same

time by the action of the spring forced downward on the top of the stopper. In this way the stopper is pressed or held downward with great firmness, both in the top of the mouth
5 and within the neck. The release of the stopper is effected by simply swinging the bail backward.

Having thus described my invention, what I claim is—

10 1. The combination of the plate, the plunger, the elastic stopper, the spring-loop above the plate, and the swinging bail or stirrup.

2. In combination with the plate A, piston B, and elastic stopper C, the inclined spring-loop
15 D and the bail or equivalent pressure device arranged to swing within the loop and seat itself in the upper end of the piston.

3. In a bottle-stopper, the combination of a top plate, a vertical plunger passing through

the same, an elastic stopper upon the lower
20 end of a plunger, and pressure devices, substantially as shown, acting upon the upper end of the piston to force the same downward through the plate.

4. In a stopper, the combination of a perforated plate, a piston passing through the same,
25 an elastic stopper applied to the lower end of the piston, a spring operating to raise the piston, and means, substantially as described, to force both the piston and the plate downward.
30

5. The combination of the plate, the elastic stopper, and the bail with the plunger having its upper end provided with the seat *e*.

JOSEPH MORSCHHAUSER.

Witnesses:

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GEORGE FORSTER.