

T. A. McFARLAND.
Bottle-Stopper Fastener.

No. 214,511.

Patented April 22, 1879.

Fig. 1.

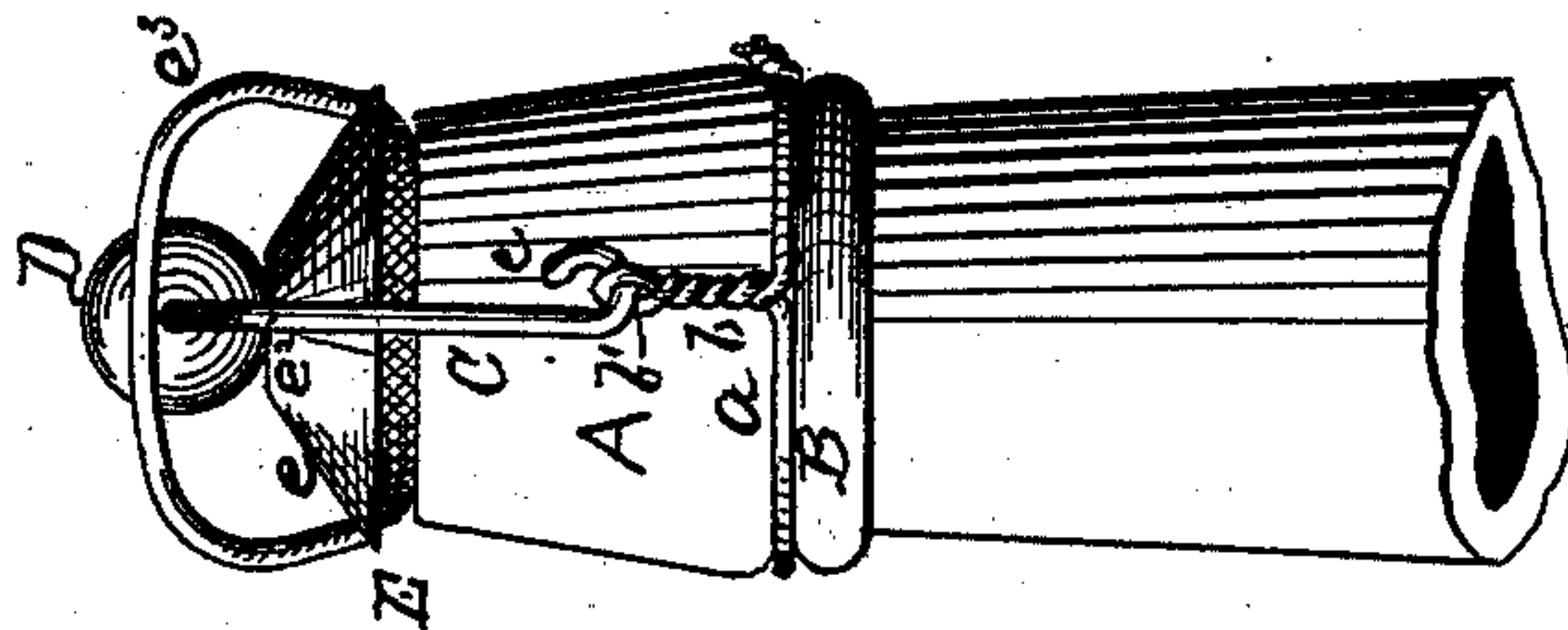


Fig. 2.

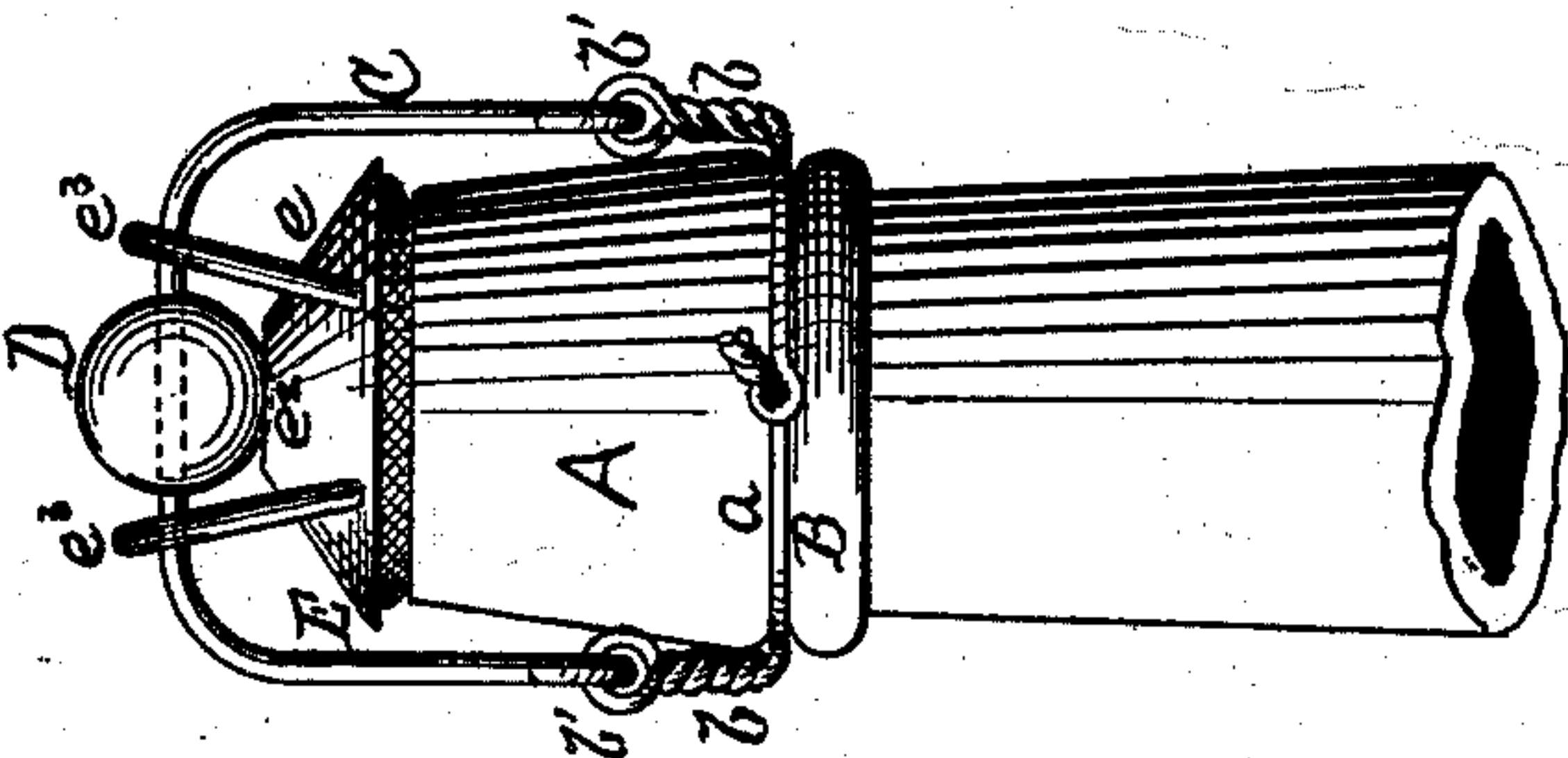
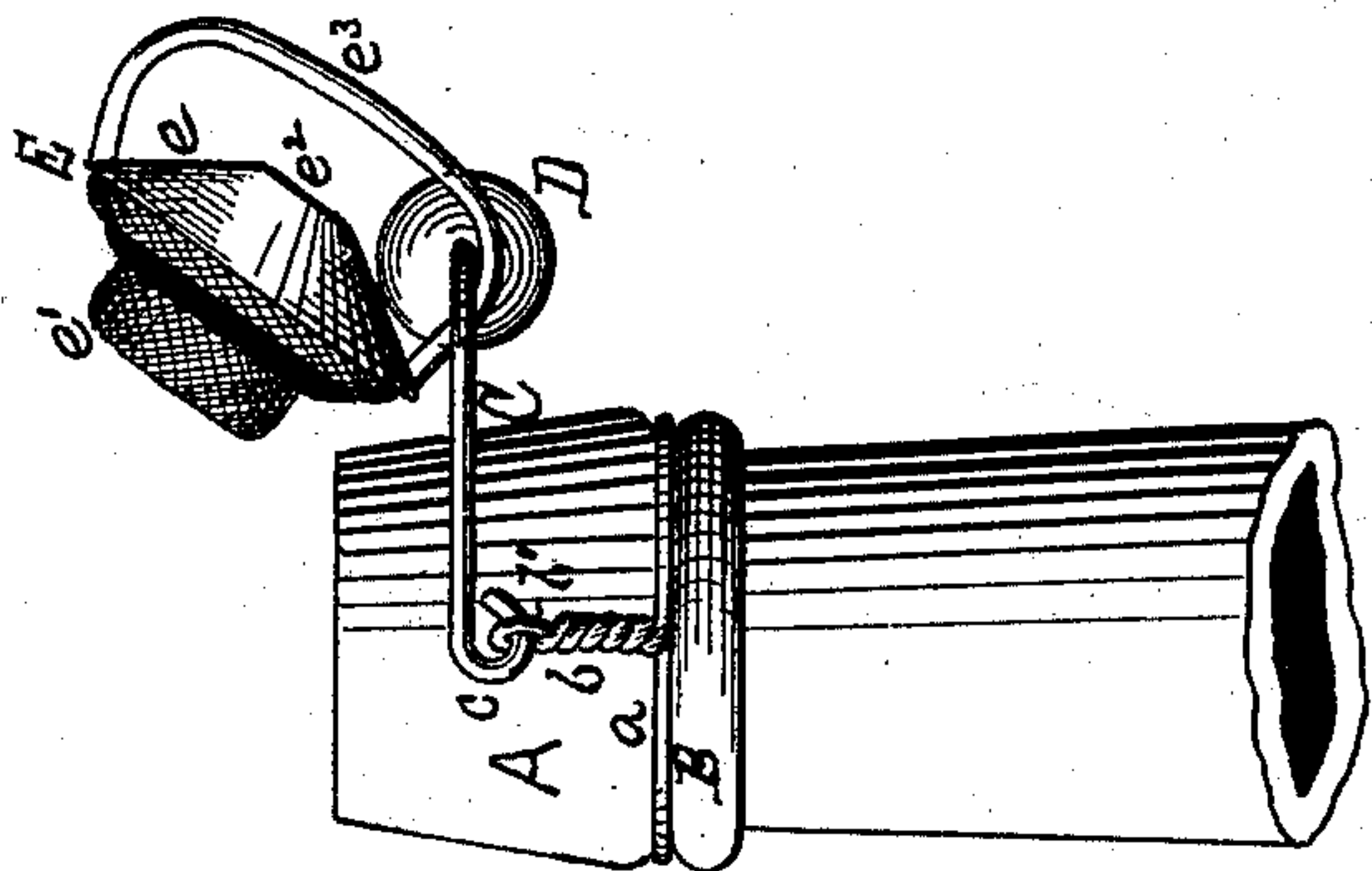


Fig. 3.



Witnesses:

T. C. Brecht.
John Denny

Inventor:

Thomas A. McFarland.

By Edwin James

Attorney

UNITED STATES PATENT OFFICE.

THOMAS A. MCFARLAND, OF MEADVILLE, PENNSYLVANIA.

IMPROVEMENT IN BOTTLE-STOPPER FASTENERS.

Specification forming part of Letters Patent No. 214,511, dated April 22, 1879; application filed September 24, 1878.

To all whom it may concern:

Be it known that I, THOMAS A. MCFARLAND, of Meadville, in the county of Crawford and State of Pennsylvania, have invented certain Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a side view, the mouth of the bottle being closed. Fig. 2 is a front view, the mouth of the bottle being closed. Fig. 3 is a side view, the mouth of the bottle being opened.

The nature of my invention consists in so constructing and arranging the mechanism in a bottle-stopper that the opening and closing of the mouth of the bottle shall be regulated by means of the action of a ball, as will be more fully hereinafter described.

The construction and operation of my invention are as follows:

A is the neck of the bottle, provided with the usual annular shoulder *a*. B is a continuous wire, extending around the neck of the bottle and immediately under the shoulder *a*. A section, *b*, of this wire, on each side of the neck of the bottle, is twisted and extends a short distance up the neck of the bottle, terminating in loops *b' b'*. C is a bail, which extends over the top of the bottle, and is provided with hooks *c c* at each end. By means of these hooks *c c* and the loops *b' b'* the bail is pivoted to the wire E.

D is a ball, made of glass, porcelain, metal, or any other suitable material, and is constructed with a hole extending through its center, through which passes the bail C.

E is the bottle-stopper, and consists of a conical-shaped plate, *e*, and a covered plug, *e¹*, the covering being rubber or any other suitable

material. The conical-shaped plate *e* has a flattened apex, *e²*, slightly hollowed out, in which rests the ball when in position to close the mouth of the bottle. *e³ e³* are bent guide-wires, secured to the plate *e* on each side of the ball D, and between which it travels in its movements. These guide-wires also inclose the bail C.

The operation is as follows: When the bottle is open, as shown in Fig. 3, the stopper hangs by means of the guide-wires *e³ e³*. When it is desired to stop the bottle the stopper E is brought over, and the covered plug *e¹* is inserted in the mouth of the bottle. The ball D is then revolved up the face of the conical-shaped plate *e* until it rests in the hollow of the apex *e²*, which effectually holds the stopper in position.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a bottle-stopper, the conical-shaped plate *e*, having hollow apex *e²*, covered plug *e¹*, and guide-wires *e³ e³*, the whole constructed and arranged to operate substantially as described.

2. In a bottle-stopper, the wire B, having loops *b' b'*, bail C, having hooks *c c*, and ball D, the whole constructed and arranged to operate substantially as described.

3. In a bottle-stopper, the wire B, having loops *b' b'*, bail C, having hooks *c c*, ball D, conical-shaped plate *e*, having hollow apex *e²*, covered plug *e¹*, and guide-wires *e³ e³*, the whole constructed, combined, and arranged to operate substantially as described.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

THOMAS ATKINSON MCFARLAND.

Witnesses:

GEO. S. CALLUM,
J. E. MYERS.