

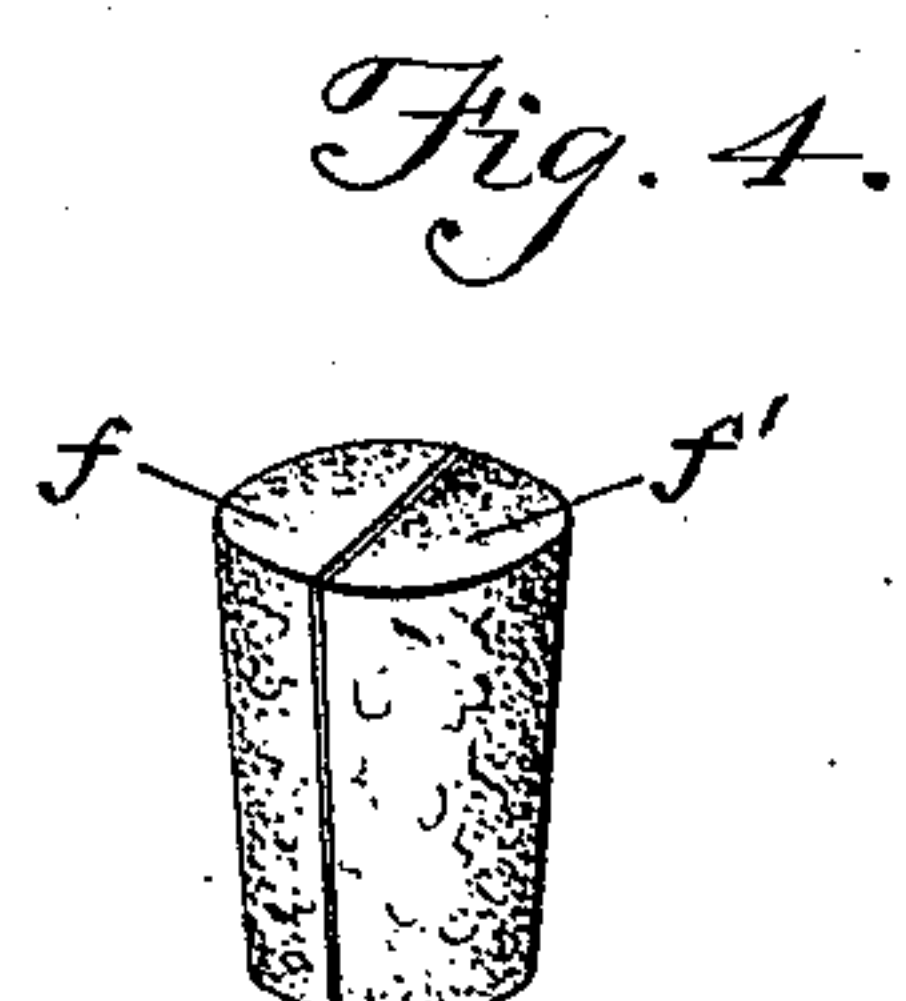
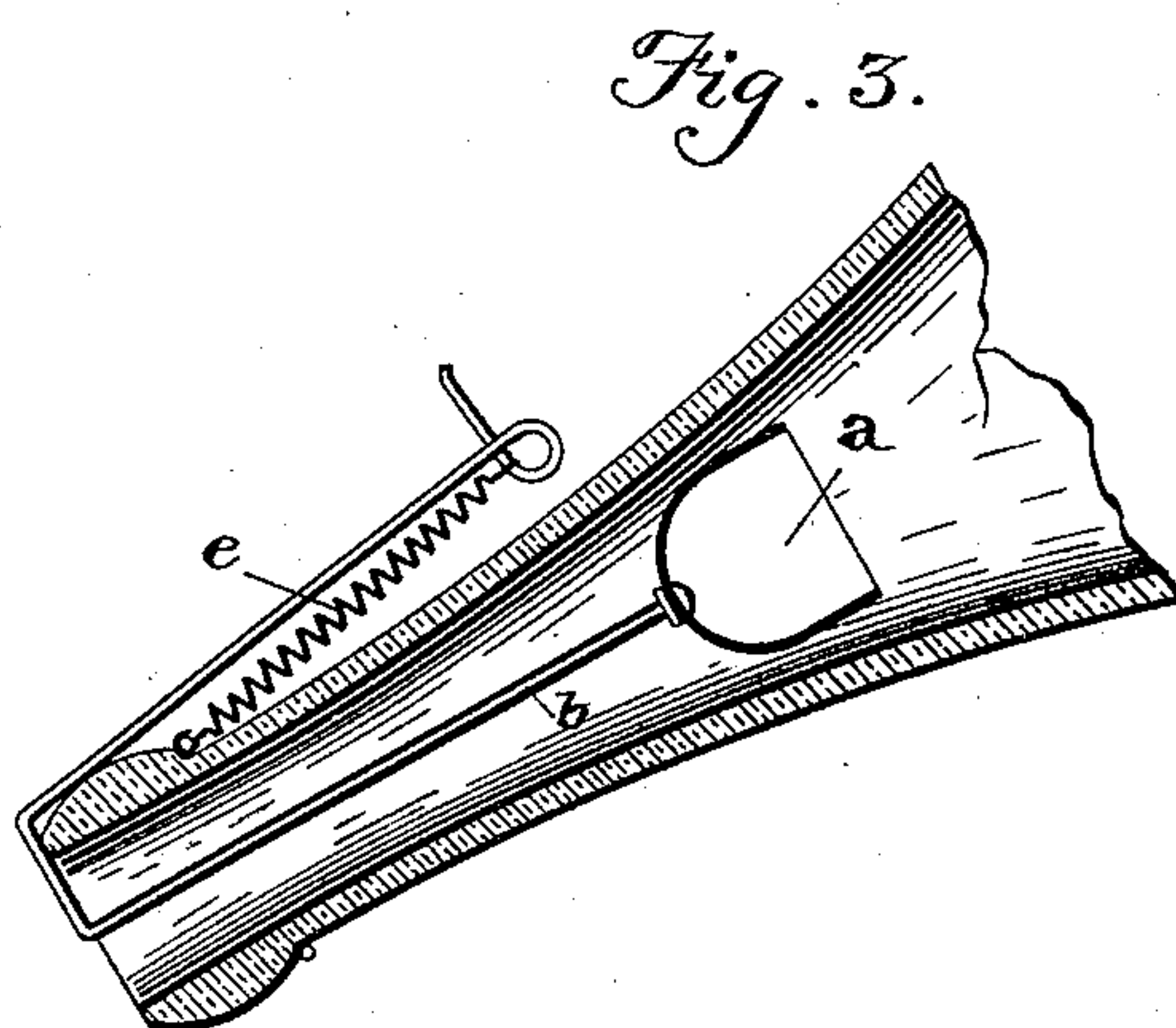
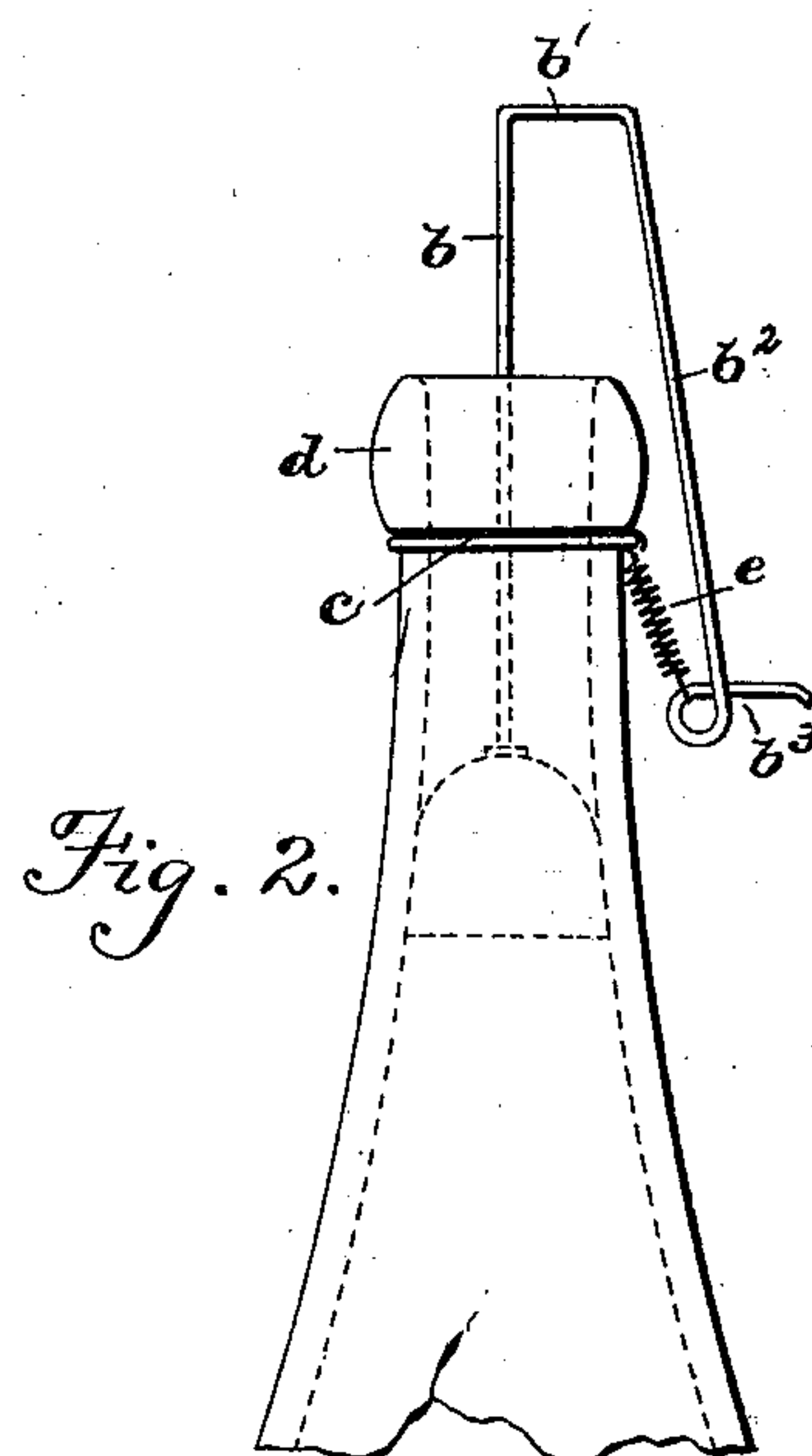
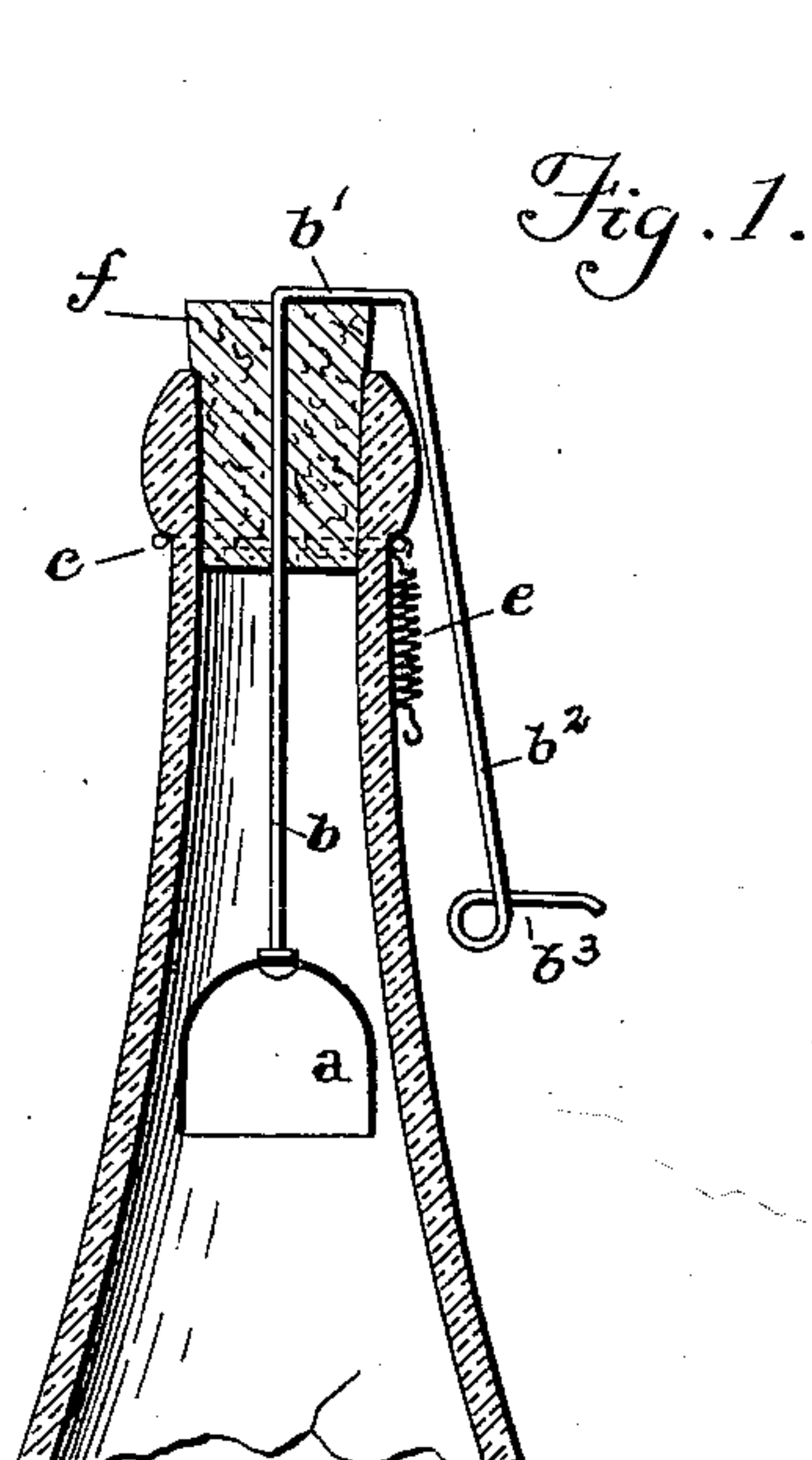
No. 610,362.

Patented Sept. 6, 1898.

C. J. MOORE.  
BOTTLE.

(Application filed Nov. 26, 1897. Renewed Aug. 10, 1898.)

(No Model.)



Witnesses:-  
Lee J. Van Horn.  
Charles B. Mann Jr.

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Caleb J. Moore  
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# UNITED STATES PATENT OFFICE.

CALEB J. MOORE, OF BALTIMORE, MARYLAND.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 610,362, dated September 6, 1898.

Application filed November 26, 1897. Renewed August 10, 1898. Serial No. 688,315. (No model.)

*To all whom it may concern:*

Be it known that I, CALEB J. MOORE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to new and improved means for preventing the escape of gas when opening bottles containing aerated waters or beverages.

The object of the invention is to provide a gas-valve device for use in bottles that are sealed with a cork in order, first, that when the cork is removed the said valve will prevent the escape of gas from the bottle, and, second, to enable a portion of the contents to be used and the remainder to be preserved for future use in the charged or aerated condition.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the neck of a bottle sealed with a cork and provided with the gas-valve device of my invention. Fig. 2 is a side view of the neck of a bottle the cork of which has just been removed and showing the position of the parts of my gas-valve device when stopping the escape of gas. Fig. 3 is a section of the neck of a bottle in inclined or turned-down position, as when pouring liquid out, and showing the position of the parts of my gas-valve device. Fig. 4 is a perspective view of the split cork employed to seal a bottle in connection with my gas-valve device.

Any bottle of ordinary shape may have my improvement applied to it.

The gas-valve device comprises a flexible cup-shaped valve *a* of any suitable material attached by its crown to the end of a wire *b*, the cup being thus inverted. The portion *b* of the wire intended to be within the bottle-neck is straight. A lateral projecting part *b'* unites an arm or prong *b<sup>2</sup>*, intended for the outer side of the neck and which projects backward nearly parallel with the said portion *b*. At the extremity of the outer arm is a suitable ring, bend, or lateral end *b<sup>3</sup>* for grasping by the thumb and finger. A ring or collar *c* surrounds the bottle-neck below the head *d*, and a suitable retracting spring *e* has one end connected with the said ring or collar

and the other end may be free, as in Fig. 1, or may be hooked to the ring *b<sup>3</sup>*, as in Figs. 2 and 3.

The cork which is to seal the bottle-mouth is split diametrically into two equal parts *f f'*, the two flat surfaces of the split parts being in contact, and when the cork is in position in the mouth of the bottle the straight portion *b* of the valve-wire has position down the center between said flat surfaces.

When the bottle and contents are sealed by the cork for shipment or storage, the parts have the position shown in Fig. 1. The lateral part *b'* of the wire at this time rests in contact with the top of the cork, in which position it is not in the way. While the bottle is in course of shipment or is in storage, it is preferable to have the retracting spring *e* free or unconnected with the ring *b<sup>3</sup>*, as in Fig. 1; but when the cork *f f'* is about to be withdrawn from the bottle-mouth this spring should first be hooked to the ring *b<sup>3</sup>*, as in Fig. 2. After the spring *e* has been connected the cork may be withdrawn by means of an ordinary corkscrew, pulling first one and then the other of the two parts *f f'*. The moment one part of the cork is extracted the spring *e*, acting on the wire, will automatically draw the cup-shaped valve *a* up into the contracted or small part of the neck, as shown in Fig. 2, and thus prevent the escape of gas from the bottle. In this position the pressure of the gas will tend to expand the cup-shaped valve and produce a tight fit in the neck.

When it is desired to pour out a portion of the liquid in the bottle, the latter may be inclined, as in Fig. 3, and by pushing the finger on the wire end *b<sup>3</sup>* the cup-shaped valve will be moved farther back into the bottle-neck, where the latter is larger, and thereupon as much of the liquid may be discharged as desired. By releasing the finger from the wire end *b<sup>3</sup>* the spring *e* will at once restore the valve *a* to the closed position, and then the bottle may be stood upright and the remainder of the liquid contained in the bottle preserved for future use without the gas escaping.

Having thus described my invention, what I claim is—

1. A gas-valve device for bottles comprising two united wire prongs projecting in the

same direction; a flexible cup-shaped valve  
attached to the end of one prong; a ring or  
collar; and a retracting spring to connect the  
said ring or collar with the end of the other  
5 prong.

2. The combination of a bottle having a  
ring or collar around its neck; a cork closing  
the bottle-mouth; two united wire prongs,  
one having position through the cork and  
10 within the bottle-neck and the other on the  
outer side of the neck; a flexible cup-shaped

valve within the bottle-neck and attached to  
the prong therein; and a spring having one  
end attached to the said ring or collar and  
adapted to have its other end connected with 15  
the said outer prong.

In testimony whereof I affix my signature  
in the presence of two witnesses.

CALEB J. MOORE.

Witnesses:

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CHAPIN A. FERGUSON.