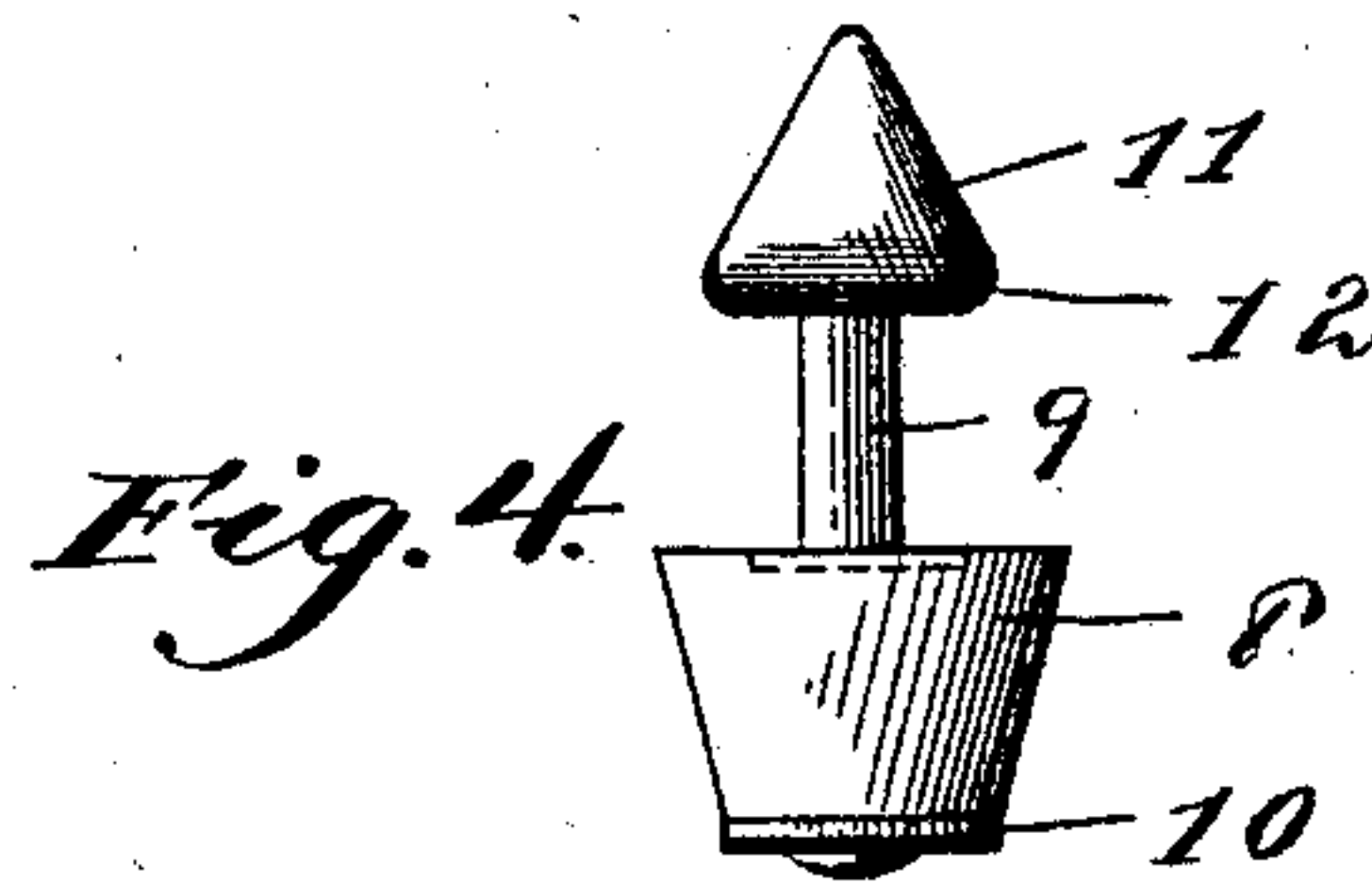
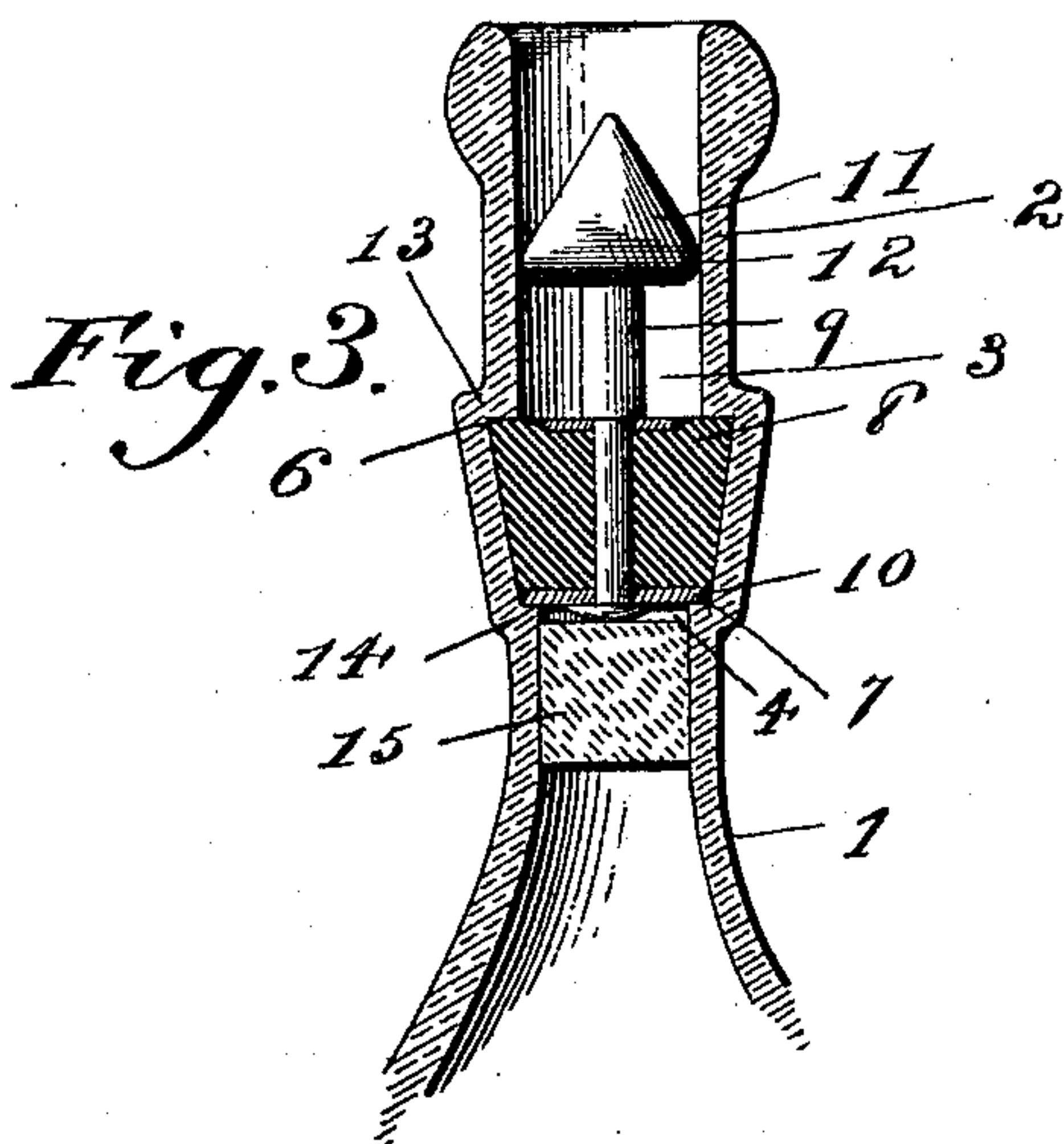
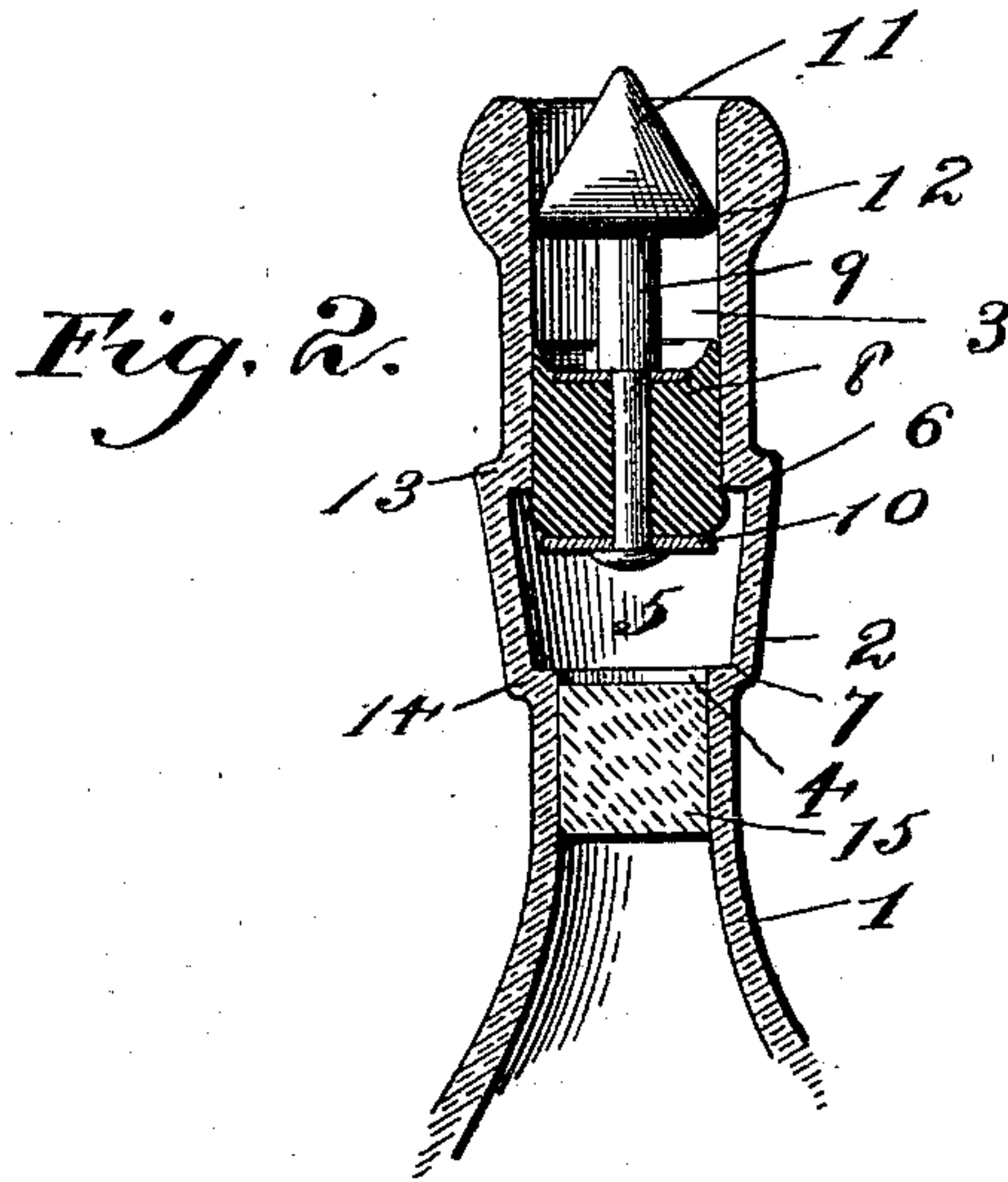
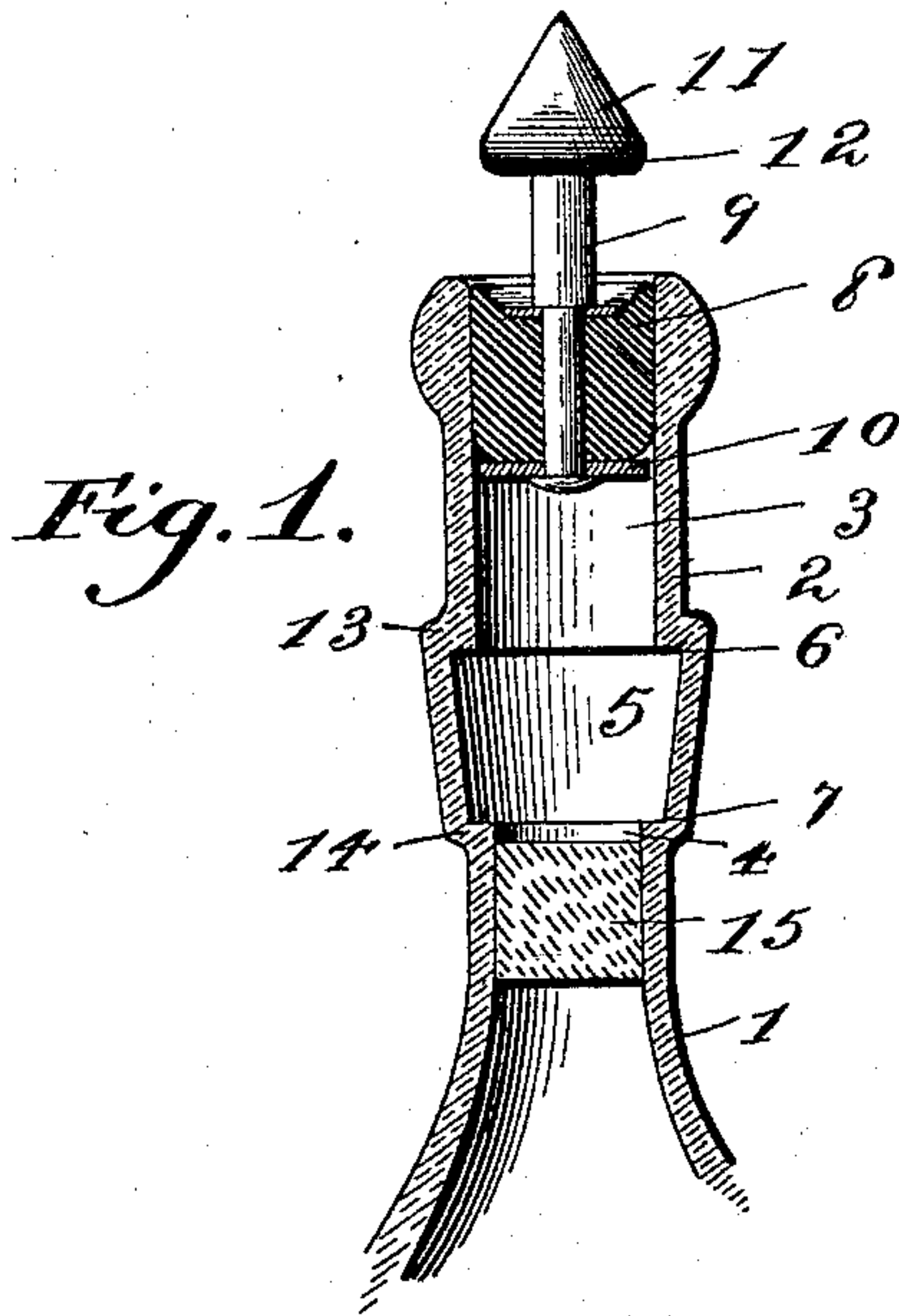


(No Model.)

S. S. MILLER.
BOTTLE AND BOTTLE STOPPER.

No. 580,878.

Patented Apr. 20, 1897.



Witnesses:

J. B. McGirr.
David V. Chadwick.

Inventor:
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per F. J. Gappurman
att'y

UNITED STATES PATENT OFFICE.

SAMUEL S. MILLER, OF BRIDGEWATER, VIRGINIA, ASSIGNOR OF ONE-HALF TO EDWARD PURCELL, JR., AND WILLIAM H. RICKARD, OF HARRISONBURG, VIRGINIA.

BOTTLE AND BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 580,878, dated April 20, 1897.

Application filed February 20, 1896. Serial No. 580,040. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL S. MILLER, a citizen of the United States of America, residing at Bridgewater, in the county of Rockingham and State of Virginia, have invented certain new and useful Improvements in Bottles and Bottle-Stoppers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of this invention is the provision of novel means to prevent the use of a bottle after it has been emptied of its contents, thus obviating a fraudulent use of such a bottle as the original package.

15 A further object of the invention is to produce a bottle and in combination therewith a stopper which is so arranged in the bottle as to make access to the interior thereof impossible without disfiguring the bottle by breaking the neck, after which a fraudulent use of the same would be readily detected by a prospective purchaser.

20 A further object of the invention is the production of a bottle and stopper which will accomplish the results above enumerated and which will be simple, highly efficient, and comparatively inexpensive to produce, as it is a well-known fact that devices of this character heretofore used have been found too expensive to warrant their adoption and use to any considerable extent.

25 With the above and other objects in view the invention consists in the novel details of construction, as well as the arrangement and combination of parts, to be hereinafter more fully set forth, and specifically pointed out in the annexed claims following the specification.

30 In describing the invention in detail reference will be had to the accompanying drawings, forming a part of the specification, wherein like characters of reference denote corresponding parts in the several views, in which—

35 Figure 1 is a vertical sectional view of my improved bottle and stopper, showing the stopper at the mouth of the neck. Fig. 2 is a similar view of the bottle and stopper, showing the position taken by the stopper as it ap-

proaches the recess in the neck. Fig. 3 is a similar view showing the stopper resting in its proper position, and Fig. 4 is a detail view in elevation of the stopper.

40 In the drawings, 1 denotes the bottle, and 2 the neck, the passage 3 of which is of greater diameter than the lower portion of the passage, as shown at 4. Between the large and contracted portions an annular recess forms shoulders 6 and 7, which limit the movement of the supplemental stopper after it has been driven in place, as will be understood by reference to the drawings.

45 The supplemental stopper consists of a body 8, having a shank 9 passing therethrough and attached to a plate or washer 10, said plate or washer being about the size of the body, and is designed to prevent the passage of the body below the shoulder 7, as the said washer or plate will abut the shoulder, thus arresting its downward movement and allowing the body to expand into the recess. The shank is provided with a conical head 11 of any desired substance which will resist the action of a boring-tool, and the edge 12 of the head is rounded to prevent a hold being had by a tool that might be pressed between the head and the wall of the neck, although it is my purpose to make the diameter of the head equal to the bore of the upper end of the bottle-neck, so that a snug fit of the head therein will result. After the supplemental stopper is in place the shoulders 6 and 7 hold it therein, and it can be withdrawn only by breaking the bottle at the angles 13 or 14, formed by the recess 5 when the bottle is made.

50 The stopper proper (shown at 15) is placed in the contracted portion just below the recess 5, and the supplemental stopper is then driven in place and acts as a safety-lock to prevent the withdrawal of the cork until the supplemental stopper is removed, which can be done only as heretofore explained.

55 The advantages, as well as the construction and operation, will be apparent from the foregoing description, it being understood that various changes may be made in the proportions and other details of construction without departing from the spirit of my invention.

Furthermore, it is noted that when desired the so-called "supplemental" stopper may be employed as a stopper proper.

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

1. In a device of the character described a bottle having a neck provided with a recess forming shoulders, in combination with a stopper consisting of a body and a shank having a conical head lying entirely within the neck with the periphery of the head lying against the inner wall of the neck substantially as described.

2. In a device of the character described, a bottle provided with a neck having a recess forming shoulders, in combination with a stopper consisting of a body, a plate on the bottom of the stopper, a shank rigidly secured to the stopper and a conical head carried by the shank, said head lying entirely within the neck flush with the inner wall, as and for the purpose described.

3. In a device of the character described a bottle having a neck provided with a recess forming shoulders, in combination with a stopper consisting of a body and a shank hav-

ing a conical head lying within the neck, with the periphery of the head lying against the inner wall of the neck, as and for the purpose described.

4. In combination with the neck of a bottle, a stopper consisting of a body having a conical head adapted to lie entirely within the neck-passage and fit flush with the inner wall as and for the purpose described.

5. In combination with the neck of a bottle, a stopper consisting of a body having a conical head adapted to lie within the neck-passage and fit flush with its inner wall as and for the purpose described.

6. A bottle-stopper consisting of a body, a shank having a conical head, a plate on the bottom of the stopper to which the shank is fastened and in combination a bottle having a neck with shoulders against which the plate of the stopper abuts, as and for the purpose described.

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

SAMUEL S. MILLER.

Witnesses:

FRANK S. APPLEMAN,
R. CALDWELL.