

No. 793,426.

PATENTED JUNE 27, 1905.

C. E. DUCK.
BOTTLE CLOSURE.
APPLICATION FILED AUG. 8, 1904.

Fig. 1.

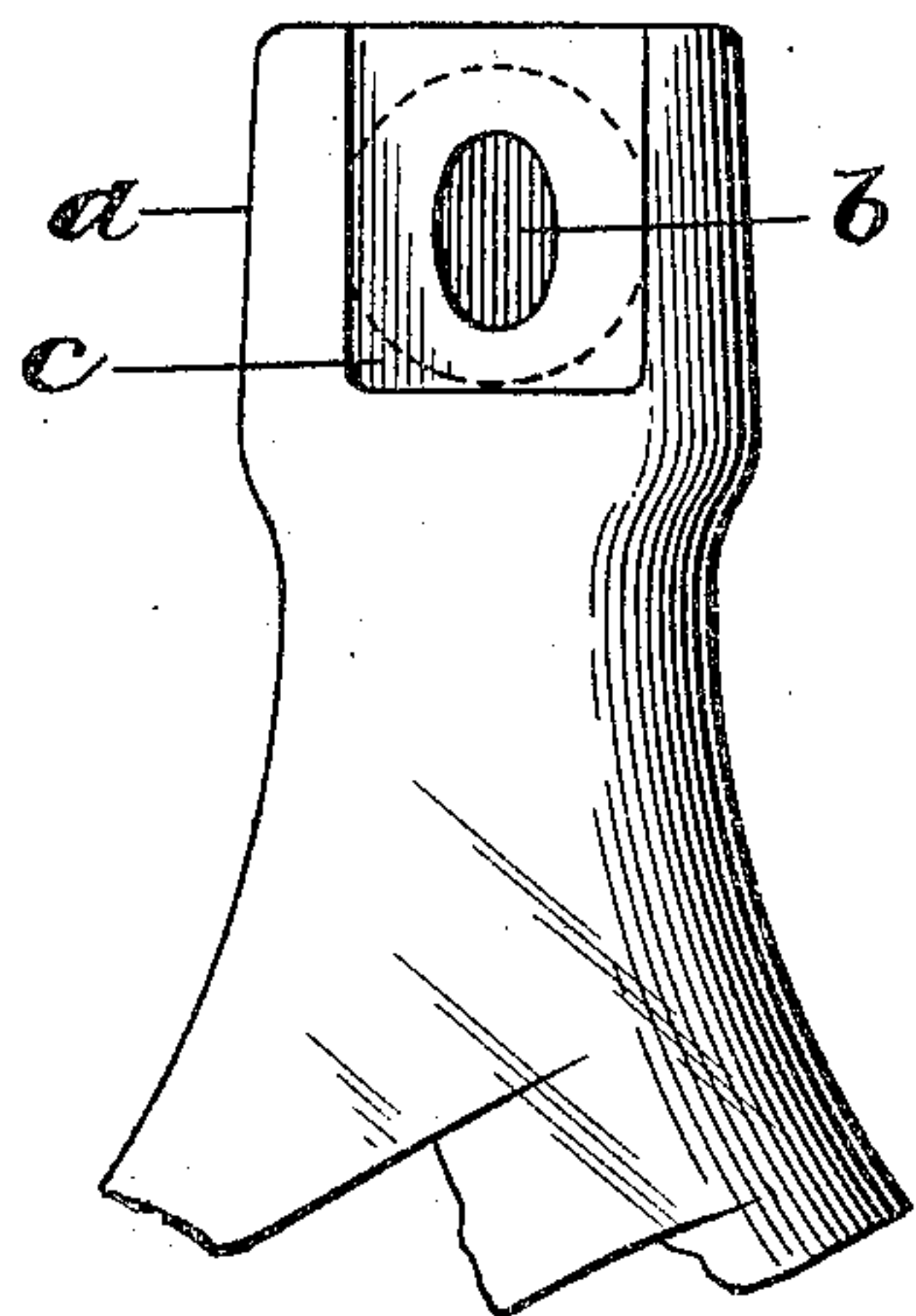


Fig. 2.

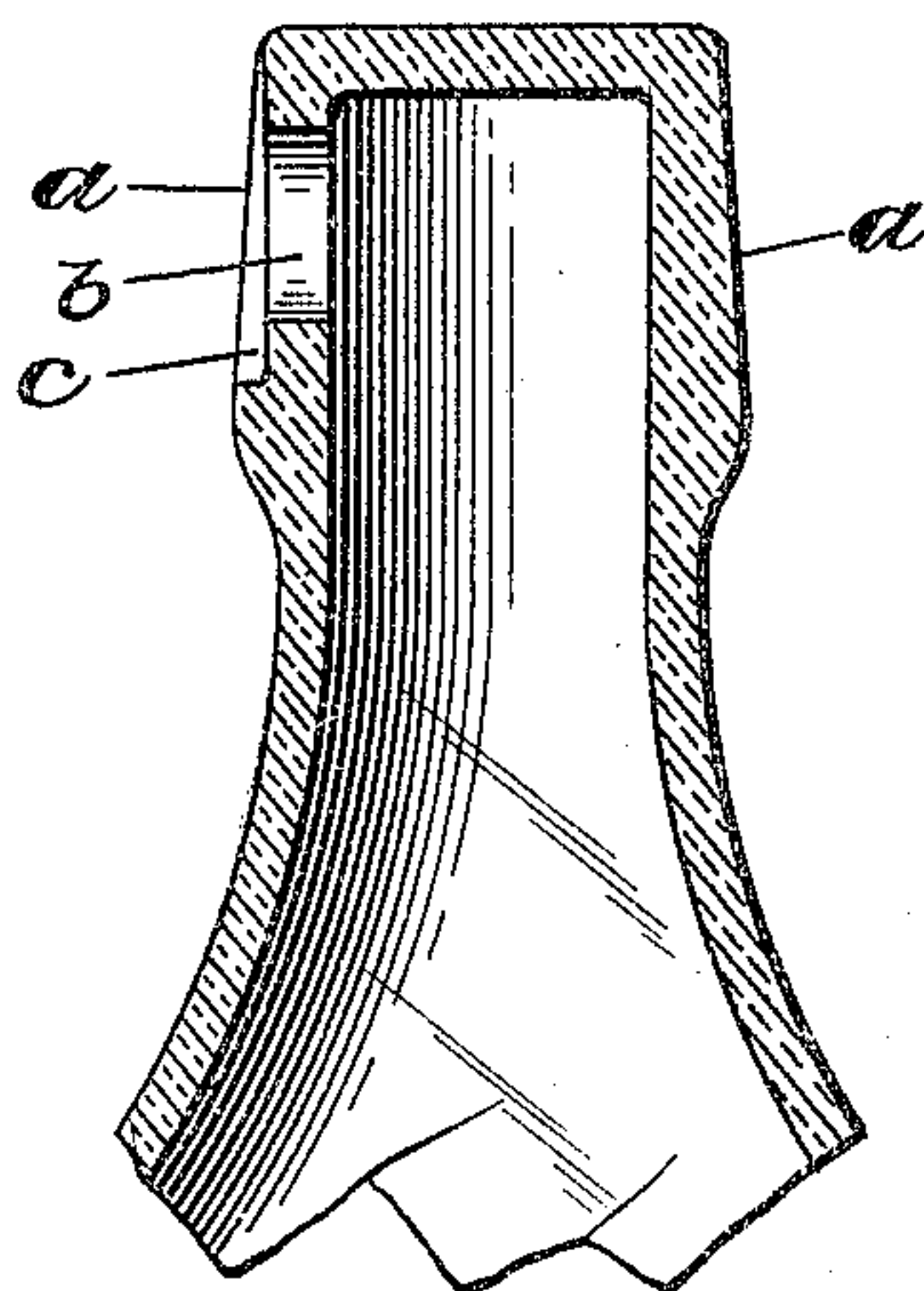


Fig. 3.

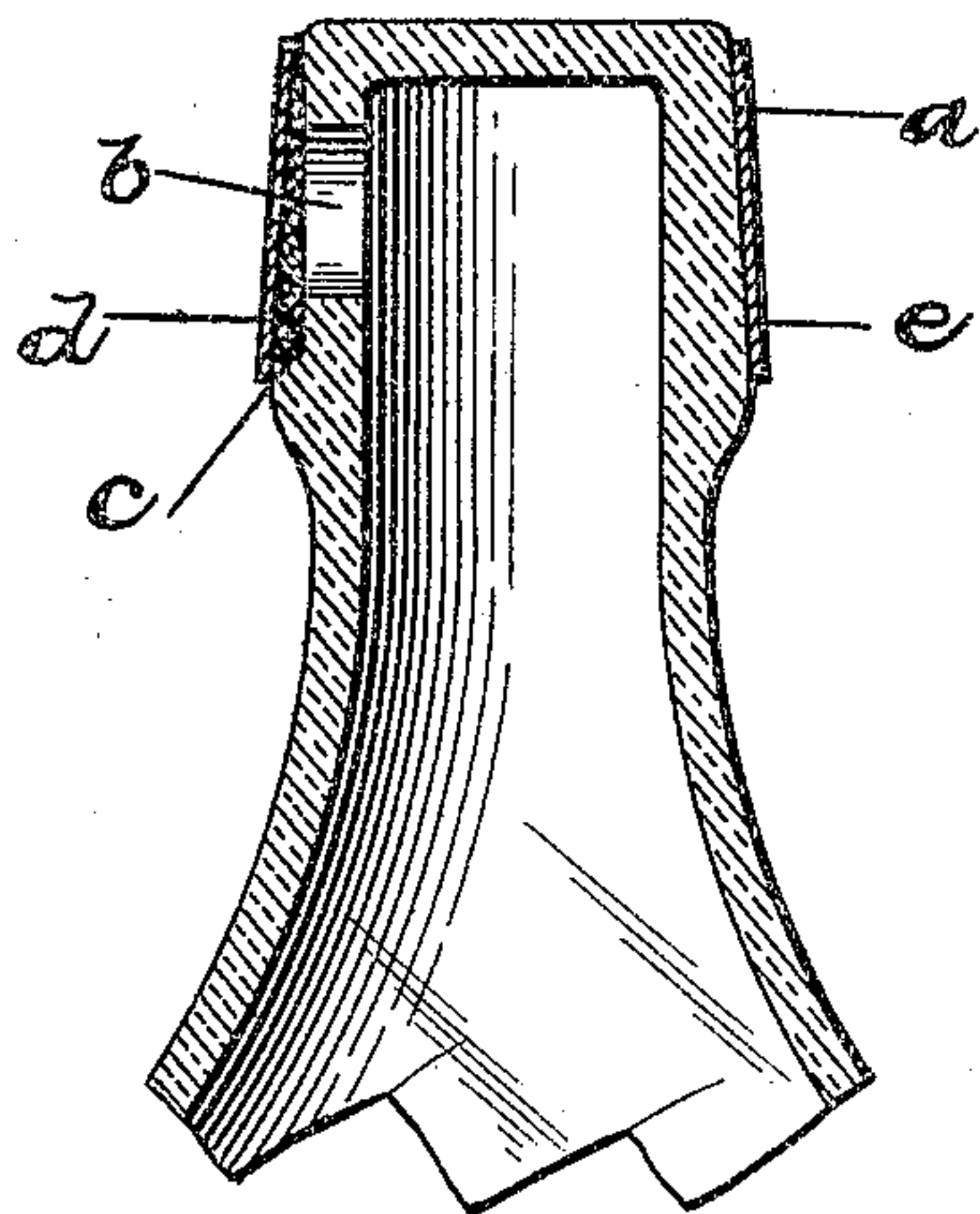


Fig. 4.

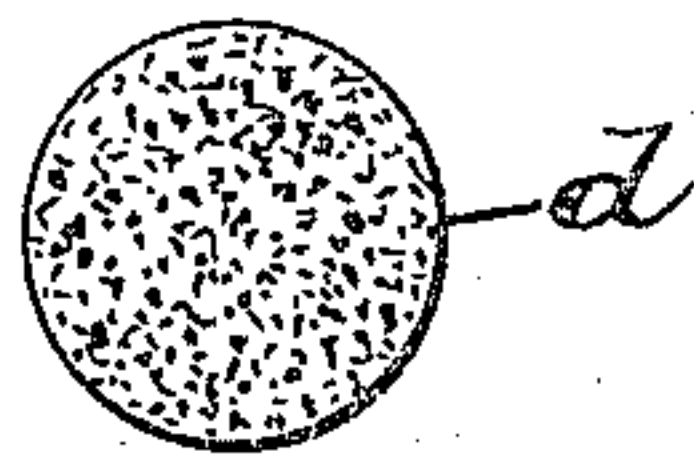
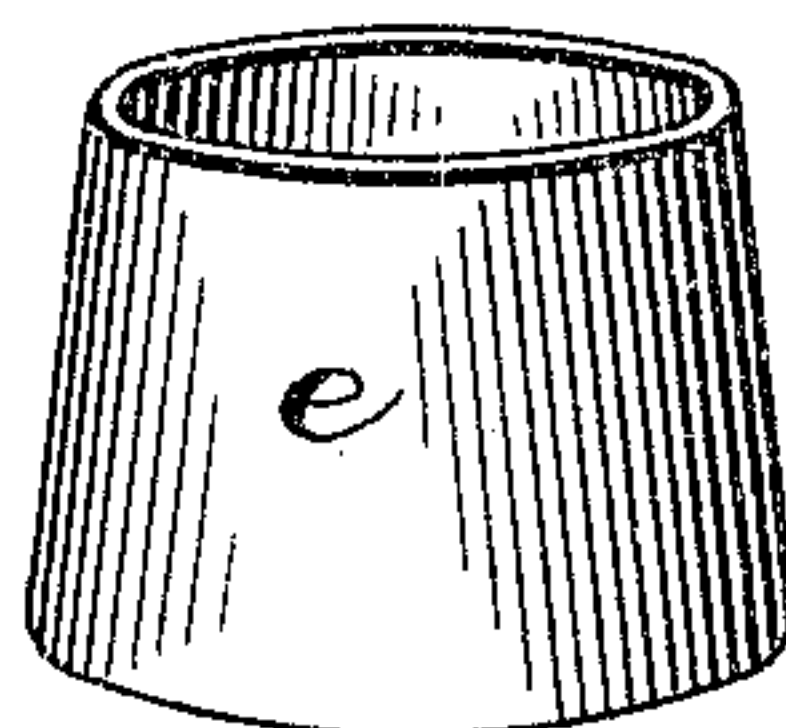


Fig. 5.



Inventor

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CHARLES E. DUCK, OF BALTIMORE, MARYLAND.

BOTTLE-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 793,426, dated June 27, 1905.

Application filed August 8, 1904. Serial No. 219,816.

To all whom it may concern:

Be it known that I, CHARLES E. DUCK, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention relates to a new and improved bottle-closure.

The object of the invention is to provide for the market a bottle having a side discharge-opening in its neck instead of an opening at the top or end of the neck, a seal to close said side opening, and a device to seat the seal tightly around said side opening. One of the advantages gained by having the discharge-opening in the side of the neck instead of at the end is that in the ordinary handling the seat around the opening and which is relied upon to a great extent to insure a tight closure has position on the bottle where it has the greatest protection, and therefore less liable to become chipped. Another advantage gained by placing the discharge-opening in the side is that because of its protection a variety of sealing devices may be employed to seal the opening.

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

Figure 1 is a side view of a bottle-neck, showing the side opening. Fig. 2 is a vertical section of a bottle-neck, the section being taken through the side opening. Fig. 3 is a vertical section showing a sealing device in position to close the discharge-opening. Fig. 4 is a view of a seal. Fig. 5 is a view of the ring or collar.

The body of the bottle may have any shape desired, and the neck also may vary in shape; but it is deemed preferable that the portion of the neck *a* where the side opening *b* is located shall have an exterior that is round and slightly tapered. The side opening *b* may be either round or oval in shape and at the exterior surrounding the said side opening is preferably provided with a slight depression, recess, or seat *c* to receive a suitable compressible seal *d*. The top end of the bottle-neck is entirely closed. The seal may be circular in shape or may be square, if preferred, and may be of any suitable material—such, for

example, as cork, wood, or paper. The ring or collar *e* must of course have a size adapted for the particular bottle-neck with which it is to be used, and preferably the ring will taper slightly to correspond with the exterior taper of the bottle-neck. It is obvious that a cap to fit over the end of the neck and having a downturned flange may also be utilized to hold the seal in place.

When it is desired to close the bottle, a seal *d* is first placed in position in the depression or recess *c* to cover the side opening *b*. It is preferable that the thickness of the seal should be in excess of the depth of the depression *c* in order that the seal will be compressed against the surface of the seat by the ring or other device. The retaining device *e* is then slipped over the top end of the bottle and over the seal, and as the bottle-neck and retaining device are preferably slightly tapered the retaining device may be slightly rotated and at the same time forced downward on the bottle-neck until it has sufficiently compressed the seal *d* to insure a tight closure.

When the taper is but slight, there is no liability of the retaining device slipping off, as the disk has a frictional effect to prevent it from easily moving. To remove the retaining device, it is only necessary to grasp it with the thumb and fingers and give it repeated slight back-and-forth rotary movements. On removing the seal from the recess the contents of the bottle may be poured out.

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

1. A bottle having a body and a neck extending in a direction lengthwise with respect to the body with an opening in its vertical side wall and the exterior diameter of said neck being smaller above the side opening than below the latter, and a removable sealing device having one end larger than the other, said larger end embracing the neck below the side opening and the smaller end embracing the neck above said side opening.

2. A glass bottle having a body whose wall gradually tapers inwardly at one end to form a tapering neck which latter is perpendicular with respect to said body, said neck being

closed at its end and having an opening in its side wall, and a detachable exterior seal seated around the vertical exterior wall of said side opening.

5 3. A bottle having a body with a neck provided with a side opening and an exterior seat around said opening in combination with a seal in contact with said exterior seat around said opening, and a removable device for hold-
10 ing said seal to the exterior seat.

4. A bottle provided in its neck with a discharge side opening and having a seat around said opening, in combination with a packing or seal on said seat, and a tapered band or col-
15 lar covering said packing and surrounding said neck and compressing the packing against said seat.

5. A bottle provided with a neck closed at the top and having a side opening and a cir-
20 cumferential depression around said side opening in combination with a packing or seal covering said side opening and projecting from

said depression, and a band encircling the neck and compressing said packing in the depression.

25 6. A bottle provided with a body and having a neck with a side opening, said neck also having a stop-shoulder adjacent said side opening, in combination with a packing or seal held by said stop-shoulder and covering said
30 side opening and means for pressing said packing against the neck over said opening.

7. A glass bottle having a body and a neck extending lengthwise with respect to said
35 body, said neck having an opening in its side and an exterior depression adjacent said opening, and a sealing device held in said exterior depression over said side opening.

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

CHARLES E. DUCK.

Witnesses:

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CHARLES B. MANN, Jr.