

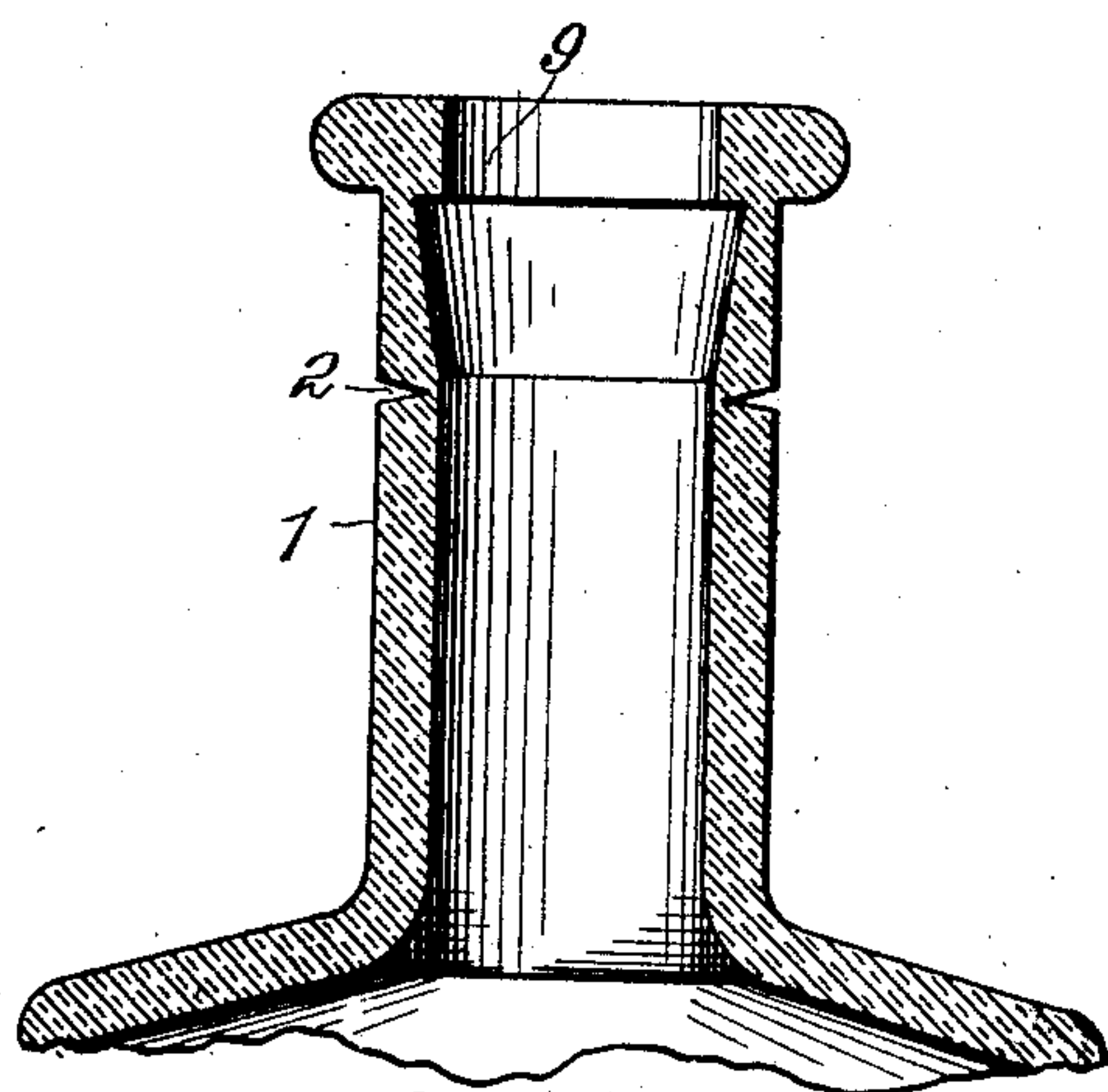
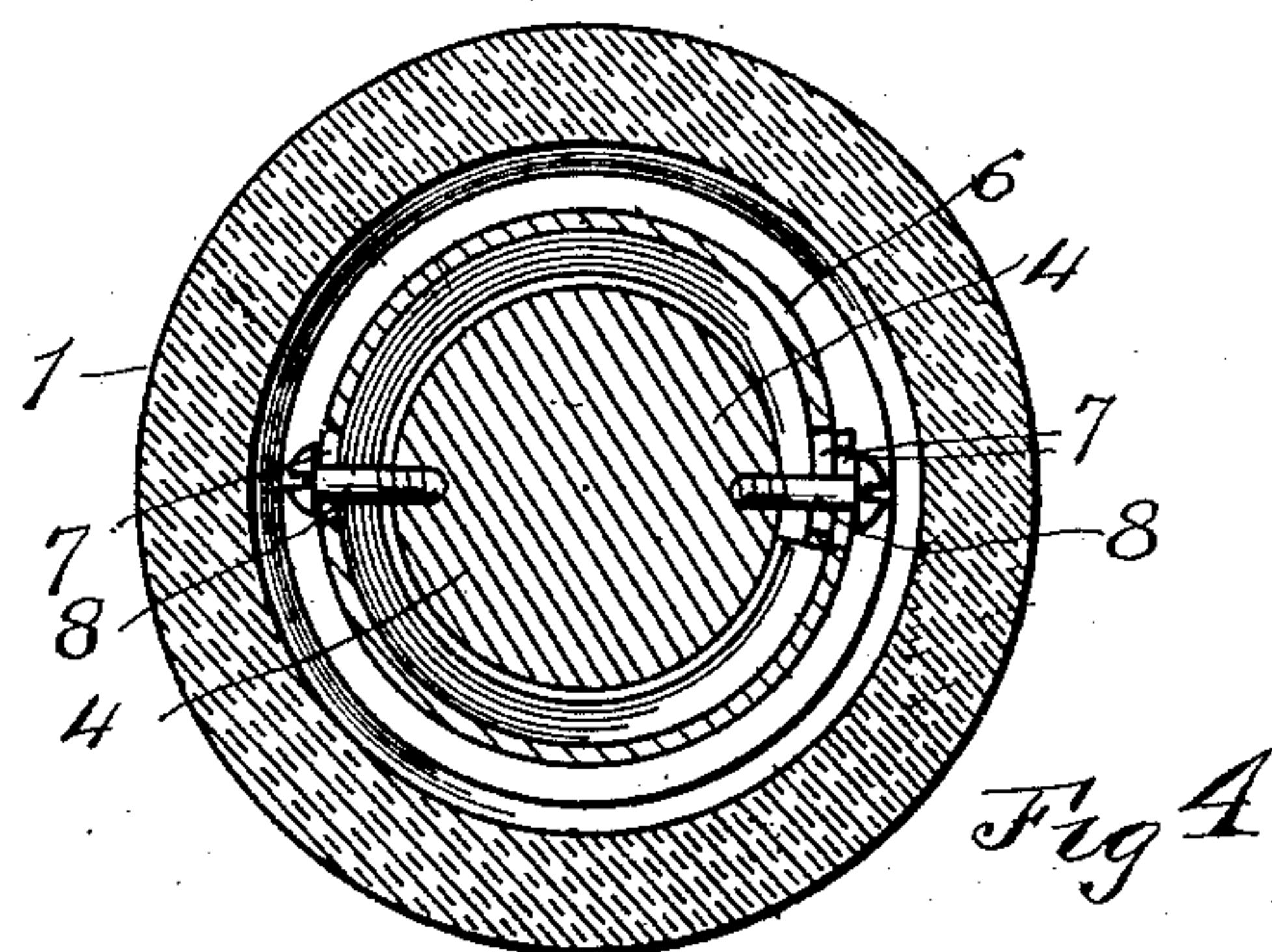
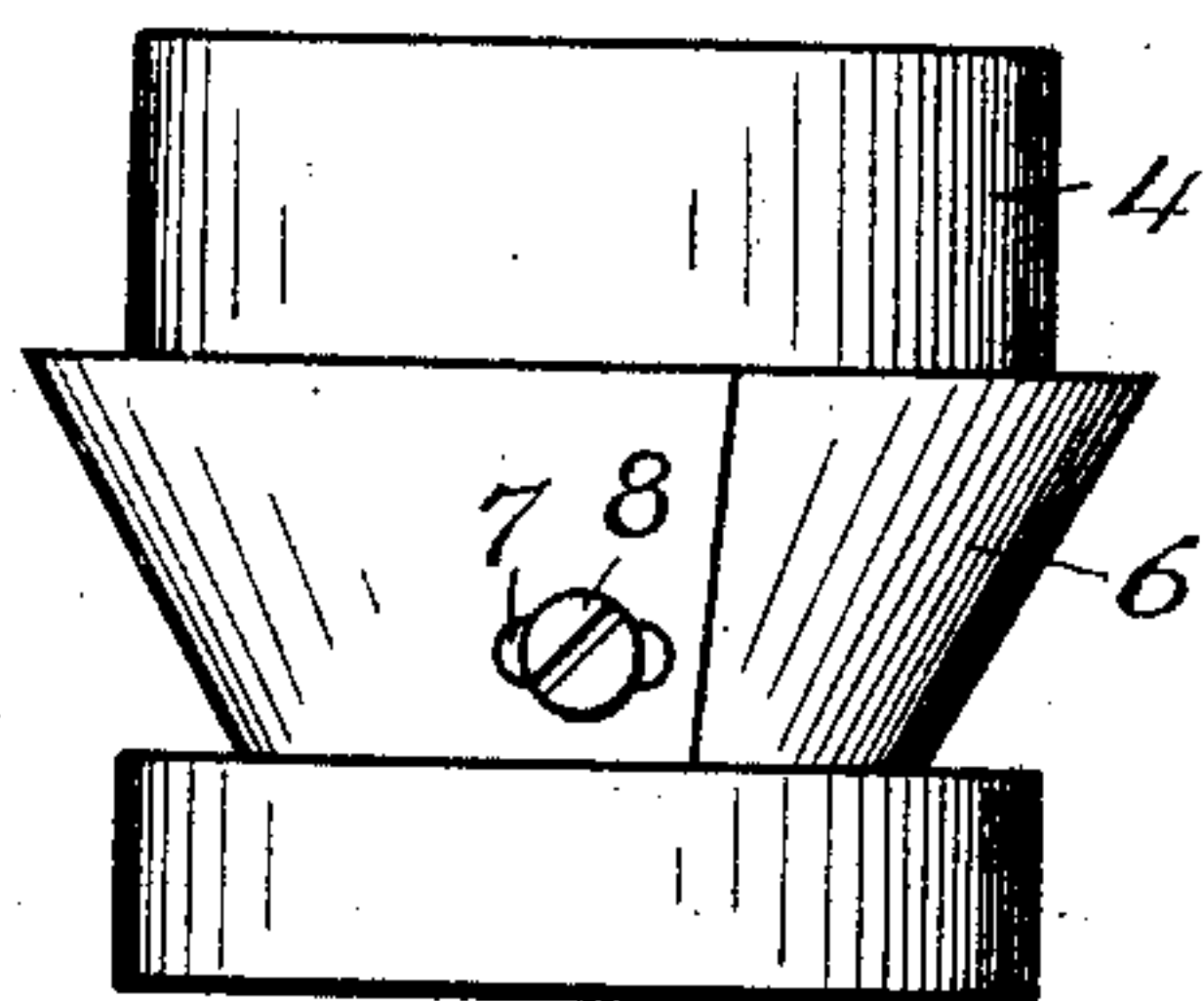
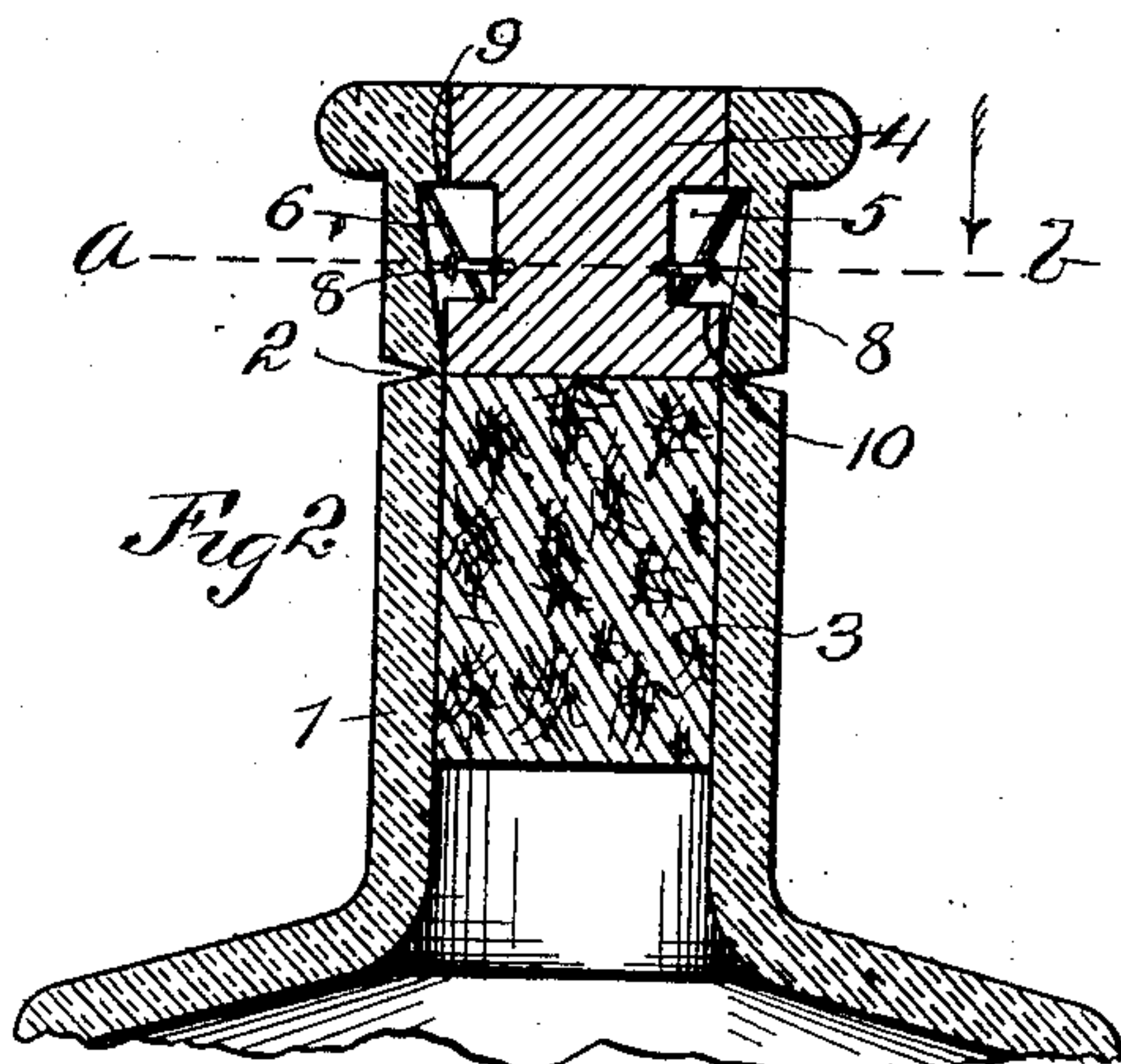
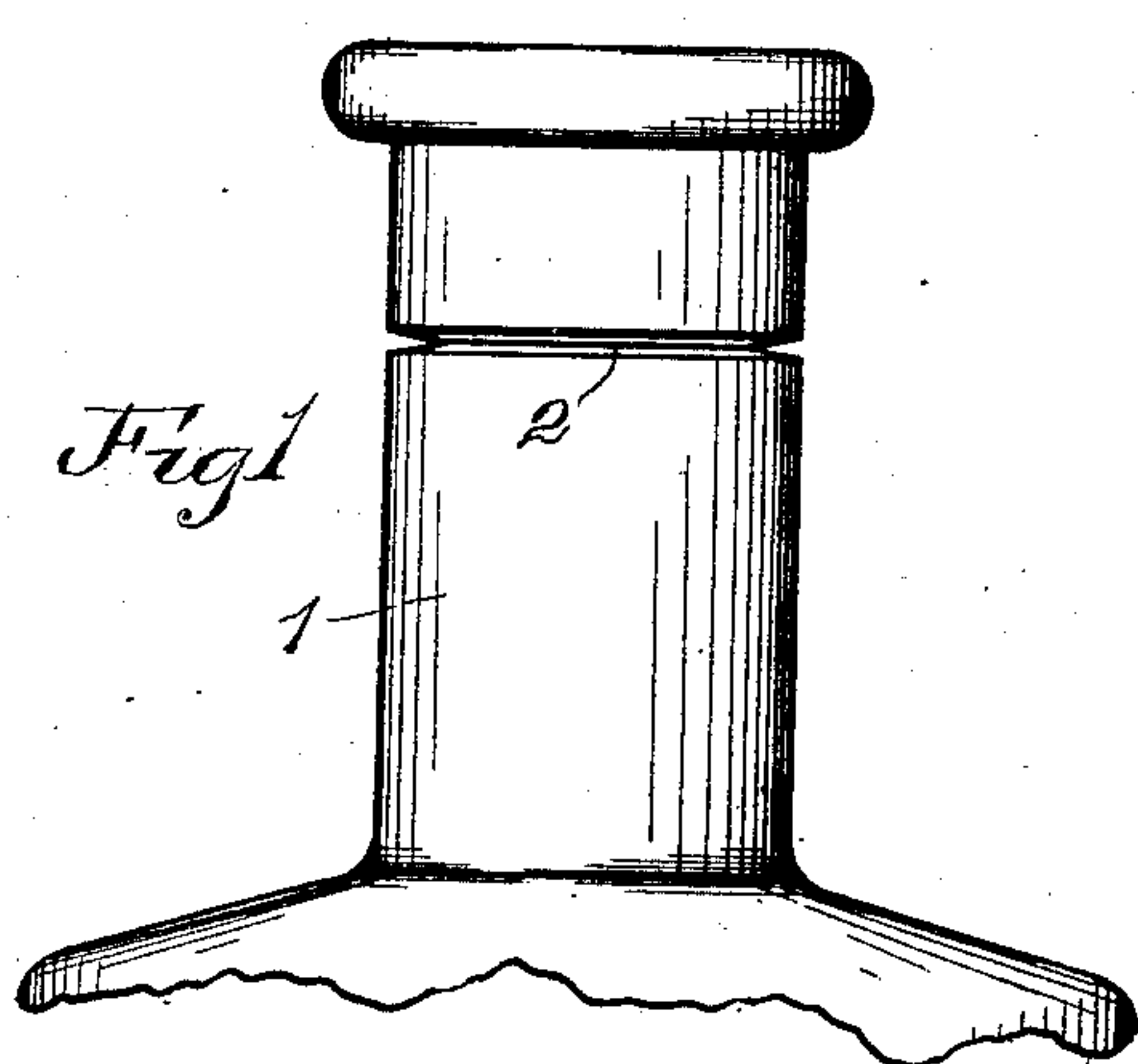
No. 866,682.

PATENTED SEPT. 24, 1907.

G. H. POWELL.

BOTTLE.

APPLICATION FILED FEB. 28, 1907.



Witnesses:

E. E. Seidelman.
R. Hamilton

Fig 5.

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By His

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UNITED STATES PATENT OFFICE.

GEORGE H. POWELL, OF GARDNER, KANSAS.

BOTTLE.

No. 866,682.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed February 28, 1907. Serial No. 359,800.

To all whom it may concern:

Be it known that I, GEORGE H. POWELL, a citizen of the United States, residing at Gardner, in the county of Johnson and State of Kansas, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

My invention relates to improvements in bottles.

The object of my invention is to provide a bottle with means by which it cannot be fraudulently refilled without detection.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings illustrative of my invention—Figure 1 is an elevation view of the neck and the upper part of the bottle. Fig. 2 is a vertical central sectional view. Fig. 3 is an elevation view of the upper stopper having mounted thereon the expansible collar. Fig. 4 is a cross section taken on the dotted line *a—b* of Fig. 2. Fig. 5 is a central vertical sectional view of the bottle neck, the stoppers being removed.

Similar characters of reference denote similar parts.

1 denotes the bottle neck having a transverse weakened portion formed preferably by having in the neck an outer annular peripheral groove 2.

3 denotes an ordinary cork stopper mounted in the neck below the groove 2.

4 denotes the upper stopper, preferably of metal, and disposed above the groove 2, said stopper being of cylindrical form and provided with an annular peripheral groove 5, in which is mounted an expansible, resilient, upwardly flaring collar 6, said collar being preferably in the form of a transversely divided metal ring having in opposite sides transverse holes 7, through which extend screws 8, the ends of which are secured in diametrically opposite screw threaded openings in the stopper 4. The ends of the ring 6 preferably overlap, as shown in Fig. 4.

When the stopper 4 is inserted in the neck, the collar 6 is compressed at its upper end so that the collar may enter the neck. When the stopper 4 is fully inserted, the collar 6 automatically expands and has its upper end engage the under side of an inner, annular peripheral flange or projection 9, provided in the neck adjacent the upper end of the neck. The lower end of the collar 6 will at this time rest upon the upper side of the annular shoulder 10, formed by the groove 5 in the stopper 4.

In operating my invention, the cork stopper 3 is first inserted, after the bottle has been filled, after which the stopper 4 is inserted and the collar 6 compressed as hereinbefore described. After the upper stopper has been inserted in position and the collar 6 has expanded,

the stopper 4 cannot be removed without fracturing the neck of the bottle.

To remove the stoppers 3 and 4, it is first necessary to sharply strike the upper end of the neck 1, thus causing it to be fractured in the plane of the groove 2. After the upper end of the neck has been broken off, the stopper 3 may be removed in the ordinary manner.

My invention may be modified in many ways within the scope of the appended claims without departing from its spirit.

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

1. In a bottle, the combination with the bottle neck having a transverse weakened portion, of a stopper located in said neck above said weakened portion, a resilient, expansible, transversely divided, upwardly flaring ring encircling said stopper and, when the stopper is inserted in the neck, having its lower and upper ends engage respectively the stopper and the neck to prevent the withdrawal of the stopper, and a securing device mounted in the stopper and extending through said ring.

2. In a bottle, the combination with the bottle neck, having an inner peripheral projection, of a stopper located in said neck, and provided with a peripheral annular groove, an expansible resilient, transversely divided, upwardly flaring ring mounted in said groove and provided with oppositely disposed holes, said ring, when the stopper is inserted in the neck, expanding so that its upper edge engages the under side of said projection, and securing devices mounted in said stopper and extending through the holes in said divided ring.

3. In a bottle, the combination with the bottle neck having a transverse weakened portion, of a stopper located in said neck below said weakened portion, an upper stopper located in said neck above said weakened portion, an expansible resilient, upwardly flaring collar encircling the second stopper and which, when the second stopper is inserted in the neck, expands and engages at its upper and lower ends respectively the second stopper and the neck to prevent the withdrawal of the second stopper from the neck, and a securing device mounted in the upper stopper and extending through the collar.

4. In a bottle, the combination with the bottle neck having a transverse weakened portion, a stopper located in the neck below said weakened portion, an upper stopper located in the neck above said weakened portion, the upper stopper having an annular peripheral groove and the neck having an annular inner peripheral flange, an expansible, upwardly flaring, resilient collar encircling the upper stopper in said groove and which, when the upper stopper is inserted in the neck, expands and has its lower and upper edges engage respectively the upper stopper and the lower side of said annular flange, and a securing device mounted in the upper stopper and extending through the collar.

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

GEORGE H. POWELL.

Witnesses:

F. W. SPINDLER,
G. C. HAYDEN.