

No. 615,348.

Patented Dec. 6, 1898.

M. FARDY.
BOTTLE.

(Application filed Feb. 10, 1898.)

(No Model.)

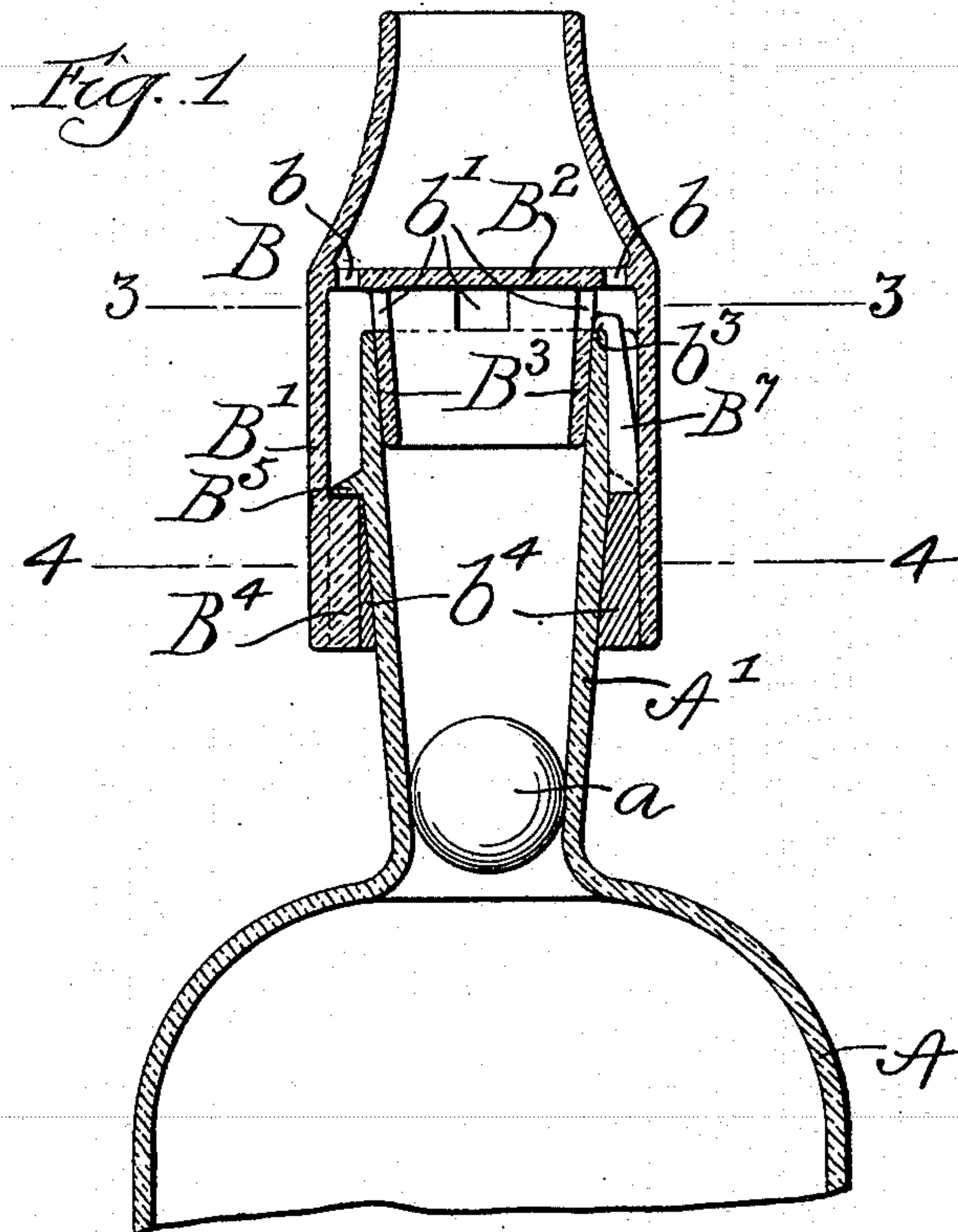


Fig. 2

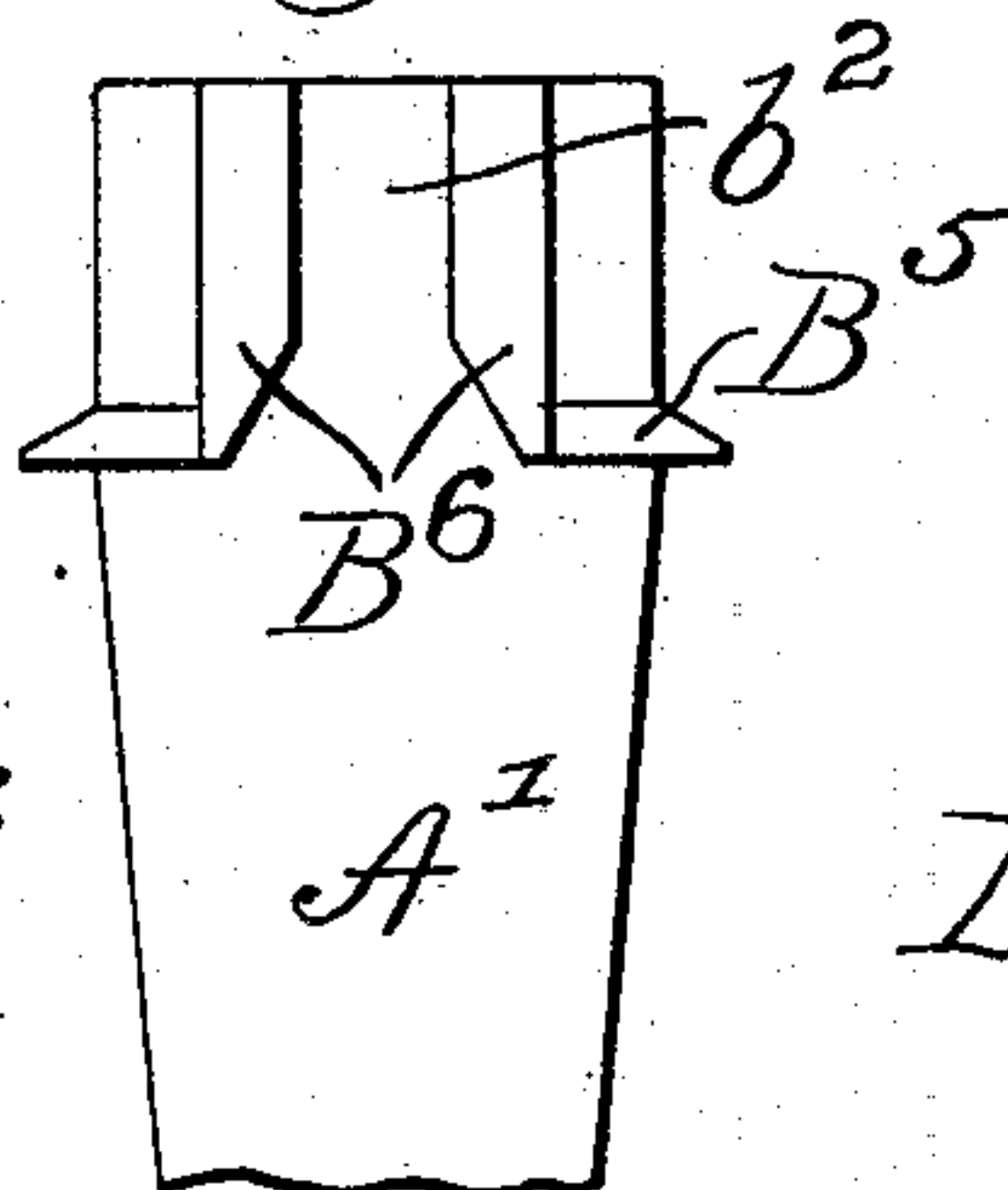


Fig. 3

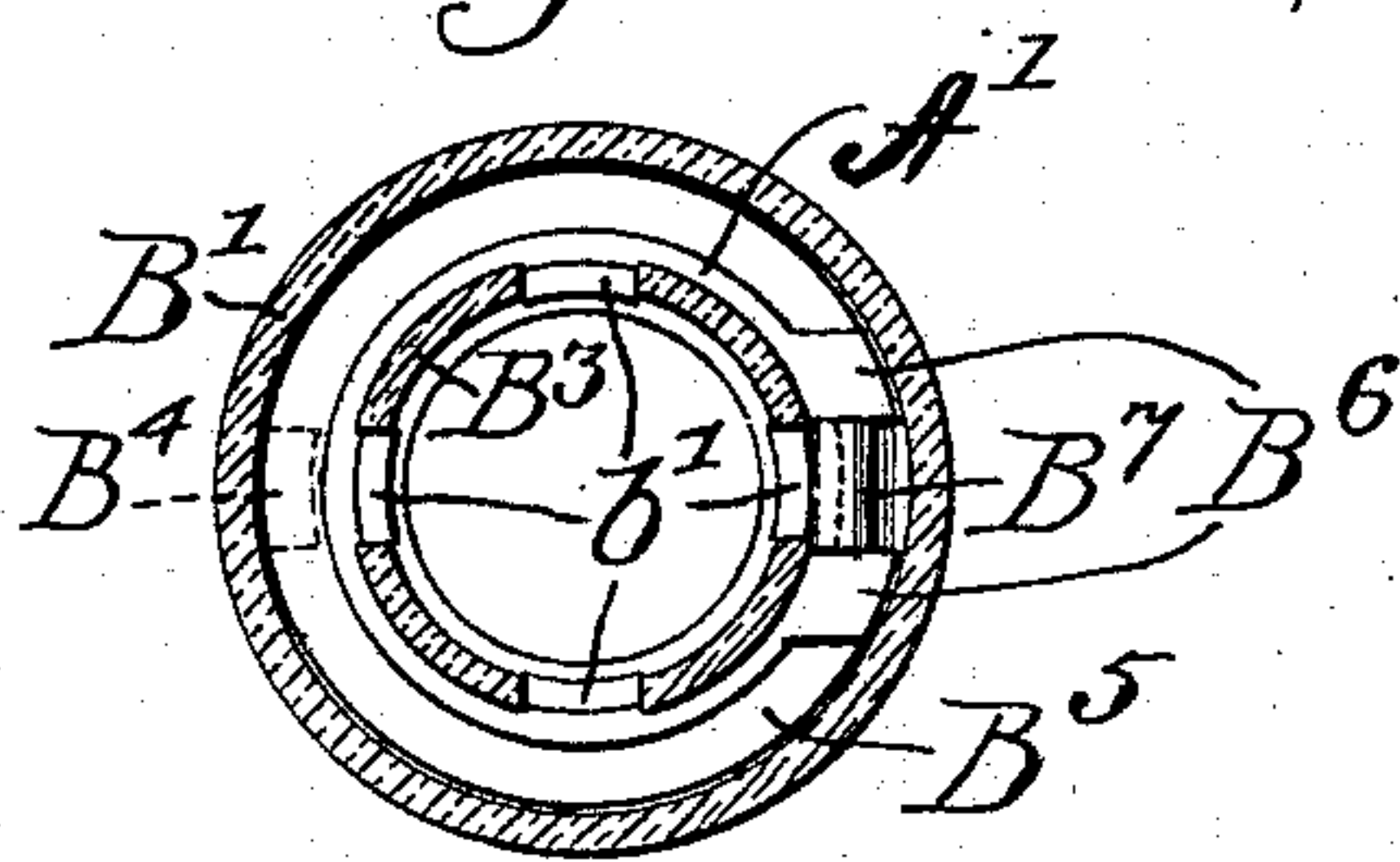


Fig. 4

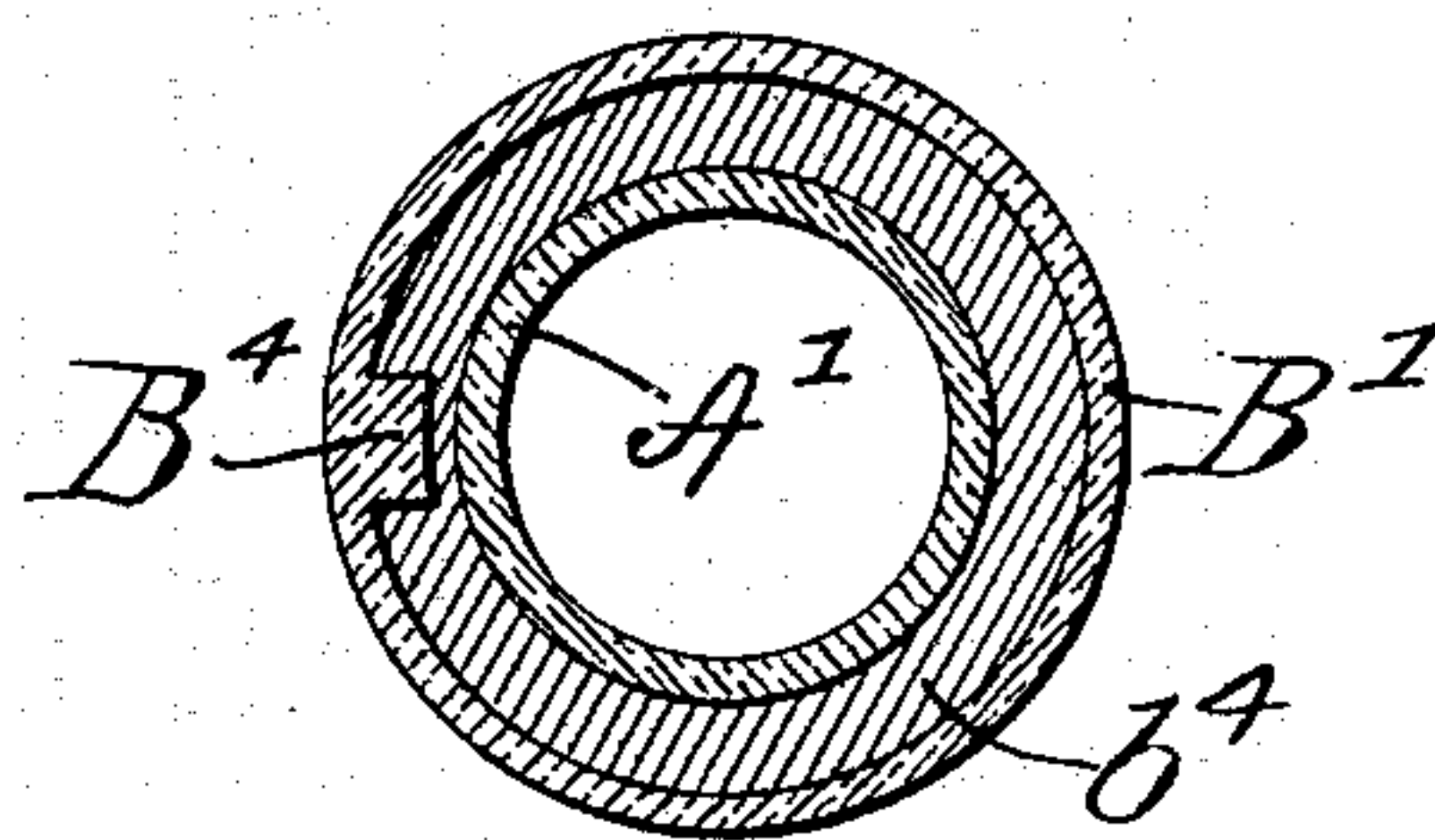
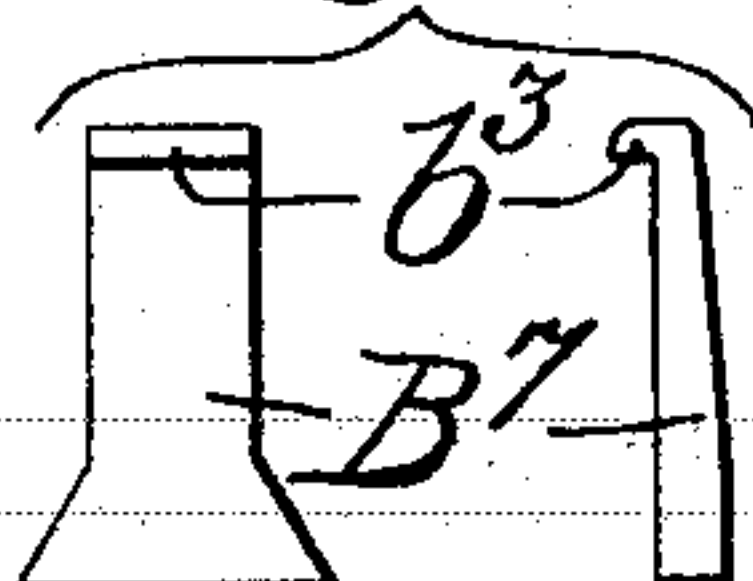


Fig. 5



Witnesses
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UNITED STATES PATENT OFFICE.

MATTHEW FARDY, OF CHICAGO, ILLINOIS.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 615,348, dated December 6, 1898.

Application filed February 10, 1898. Serial No. 669,761. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW FARDY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Bottle, of which the following is a specification.

This invention relates to non-refillable bottles.

A primary object of the invention is to provide a non-refillable bottle of simple and cheap construction, the controlling-valve of which is inclosed and inaccessible, thus preventing its manipulation by means of a wire or other instrumentality.

A bottle embodying my invention consists of the various features, combinations of features, and details of construction hereinafter described and claimed.

In the accompanying drawings a bottle embodying my invention is fully illustrated.

Figure 1 is a vertical sectional view of a bottle and cap embodying my invention. Fig. 2 is a side view of the neck of the bottle. Fig. 3 is a plan section on the line 3 3 of Fig. 1. Fig. 4 is a sectional view on the line 4 4 of Fig. 1, and Fig. 5 is a detail of the key for closing the slot or groove shown in Fig. 2.

Referring now to the drawings, A designates the body of the bottle, A' the neck thereof, and B, as a whole, a cap secured to the neck of said bottle and adapted to prevent the insertion into the mouth of said bottle of a wire or other instrumentality.

The controlling-valve of my improved bottle is preferably located in the neck of the bottle. In the preferable construction shown the neck A' of the bottle is made slightly tapering or funnel-shaped and is controlled by means of a ball or sphere a, which operates by gravity to open and close the bottle in a familiar manner, thus forming a simple and efficient form of valve or closure.

The cap B comprises an exterior casing B', which is provided with a partition B², located at about the middle thereof longitudinally. Below the partition B² the casing B' is of a diameter somewhat larger than the exterior of the neck of the bottle, and above said partition said casing is preferably contracted to about the size of the mouth of the bottle. The cap B also comprises an interior tubular portion or flange B³, which is secured to the par-

tion B² substantially concentric with the outer casing B'. The tubular flange B³ is adapted to enter the mouth of the bottle and is preferably fitted thereto, the relation being such that when the lower end of said flange is seated in the neck of the bottle its upper end will project a short distance above the same, a desirable distance being about one-quarter ($\frac{1}{4}$) of an inch. The neck of the bottle being funnel-shaped the flange B³ will operate to support the cap B in desired adjustment upon the same.

Formed in the partition B², adjacent to the sides of the casing B', are holes b, which connect the space between the casing B' and the flange B³ below the partition B² with the space above said partition. Preferably the sides of the contracted upper end of the casing B' extend inwardly over the holes b.

Formed in the flange B³, immediately below the partition B², are holes or openings b', which connect the space within the flange B³ with the space between the casing B' and said flange B³.

The cap B is secured in position upon the neck of the bottle in the following manner: A lug B⁴ is formed on the interior of the casing B' at its lower edge, which is adapted to take under a flange B⁵, formed on the neck of the bottle. The flange B⁵ is loosely fitted to the interior of the casing B' and is discontinuous at one side, forming a passage-way for the lug B⁴. In the construction shown longitudinal ribs B⁶ extend from the ends of the flange B⁵ at opposite sides of the opening therein to the top of the neck of the bottle. The adjacent sides of the ribs B⁶ form a groove b², which will receive the lug B⁴. As shown, also, the sides of the groove b² are parallel at the upper end and are divergent at the lower end. Fitted to said groove or keyway b² is a key B⁷, which is designed to be permanently secured in said groove or keyway by means of suitable cement. Preferably, also, said key B⁷ has a hook b³ formed on its inner end, which is adapted to catch over the top of the neck of the bottle, said key being relieved on the outside to allow it to be inserted in position. The cap B having been adjusted to the top of the neck of the bottle and the key B⁷ inserted, the space between the casing B' and the neck of the bottle and below the flange B⁵

is filled with wax or other sealing agent to prevent leakage, as indicated at b^4 .

In practice the bottle A is first filled. Next the ball or sphere a is placed in the neck of the bottle. The cap B is then adjusted to the neck of the bottle and turned to bring the lug B^4 into engagement with the flange B^5 . The key B^7 having been first coated with cement is inserted into the keyway or groove b^2 , so that the hook b^3 will catch over the top of the neck of the bottle. Melted wax is then poured into the opening b^4 , and the bottle is completely sealed.

It is obvious that the contents of the bottle may be decanted through the holes b' and b and that the ball or sphere a will effectually prevent liquid being poured into said bottle. It is also obvious that it will be impossible to remove the cap B from the neck of the bottle except by breaking it and also that it will be impossible to insert a wire or the like into the neck of said bottle to manipulate the ball or sphere a to raise it from its seat.

The cap B is preferably made from an integral piece of glass; but my invention contemplates the use of other material, if desired. Preferably, also, the key B^7 is made of glass.

I claim—

1. The combination with a bottle and a cap adapted to inclose the mouth thereof, of means to secure said cap to the neck of said bottle, said means comprising a flange formed on the neck of the bottle, a lug on the inner surface of said cap adapted to take under said flange, an opening in said flange to allow the passage of said lug below said flange and a key adapted to close said passage-way or opening, substantially as described.

2. The combination with a bottle and a cap adapted to inclose the mouth thereof, of means to secure said cap to the neck of said bottle, said means comprising a flange formed on the neck of the bottle, a lug on the inner surface of said cap adapted to take under said flange, said flange being discontinuous at one side to form an opening for the passage of said lug and a key adapted to close said passage-way or opening, said key being provided with a hook adapted to catch over the top of the neck of the bottle, substantially as described.

3. The combination with a bottle, of a cap which incloses the mouth thereof, an interior flange secured to the end of said cap which extends into the mouth of said bottle, holes formed in the end of said cap outside of said tubular flange, holes formed in said tubular flange outside of the neck of the bottle and means to secure said cap to the neck of said

bottle, said means comprising a flange formed on the neck of the bottle, a lug on the interior of the cap which takes under said flange, said flange being discontinuous in part, to form an opening for the passage of said lug and a key which closes said opening, said key being provided with a hook which takes over the top of the neck of the bottle, substantially as described.

4. The combination with a bottle, of a controlling-valve located in the neck thereof, a cap which incloses the mouth of said bottle, said cap comprising an outer casing, a partition which divides said casing between its ends, a tubular flange secured to said partition which enters the mouth of the bottle, holes formed in said partition outside of said tubular flange, holes in said tubular flange above the neck of the bottle and means to secure said cap to the neck of said bottle, said means comprising a flange or shoulder formed on the neck of the bottle, a lug on the interior of said casing which takes under said flange or shoulder, a groove in the side of the neck of the bottle to allow the passage of said lug and a key secured in said groove or keyway, said key being provided with a hook which takes over the top of the neck of the bottle, substantially as described.

5. In a non-refillable bottle, the combination of a tapered or funnel-shaped surface formed in the neck thereof, a ball or sphere seated therein, a cap which closes the mouth of said bottle, said cap comprising an outer casing, a partition which divides said casing between its ends, said casing being contracted above said partition, a tubular flange secured to said partition which enters the mouth of the bottle, holes formed in said partition outside of said tubular flange, holes formed in said tubular flange without the neck of the bottle and means to secure said cap to the neck of the bottle, said means comprising a flange or shoulder formed on the neck of the bottle, a lug on the inner surface of said casing which takes under said flange or shoulder, a groove in the side of the neck of the bottle which will allow the passage of said lug and a key secured in said groove, said key being provided with a hook which catches over the top of the neck of the bottle, substantially as described.

In testimony that I claim the foregoing as my invention I have hereunto set my hand this 4th day of February, 1898.

MATTHEW FARDY.

Witnesses:

F. C. CRITTENDEN,
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