

(No Model.)

A. J. ROBINSON.
STOPPER ATTACHMENT FOR BOTTLES.

No. 572,772.

Patented Dec. 8, 1896.

Fig. 1.

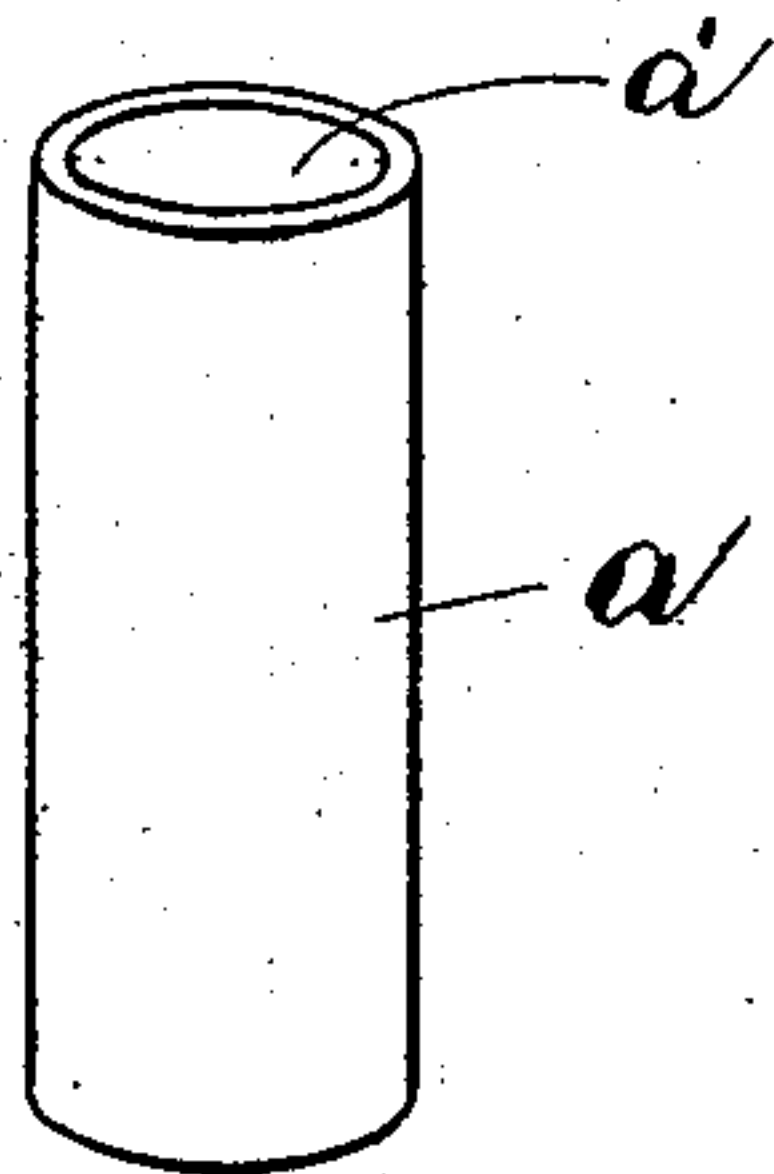


Fig. 2.

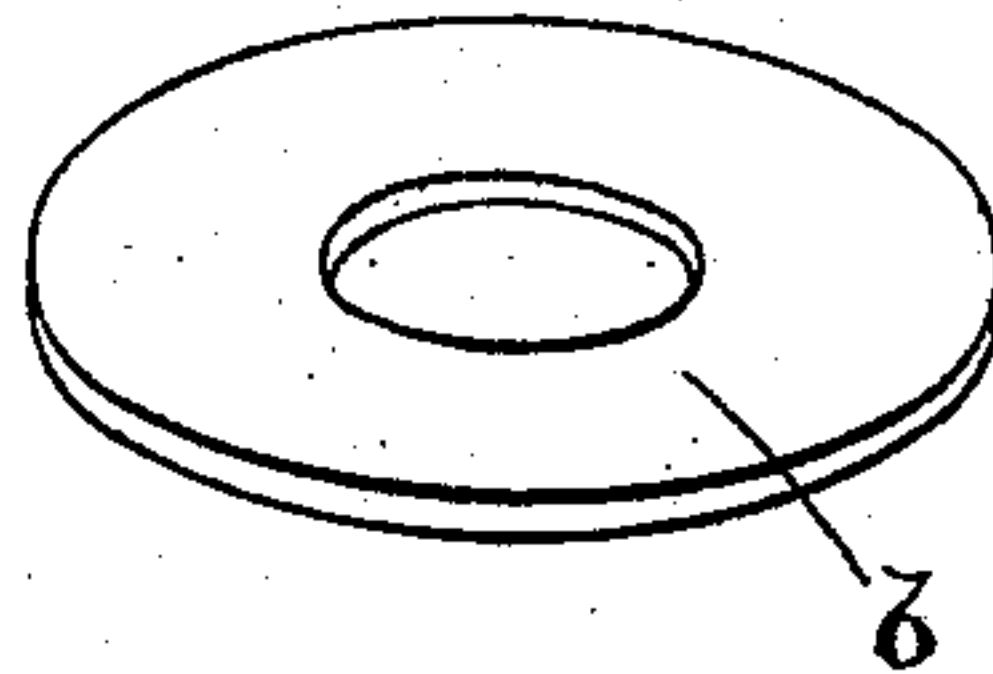


Fig. 3.

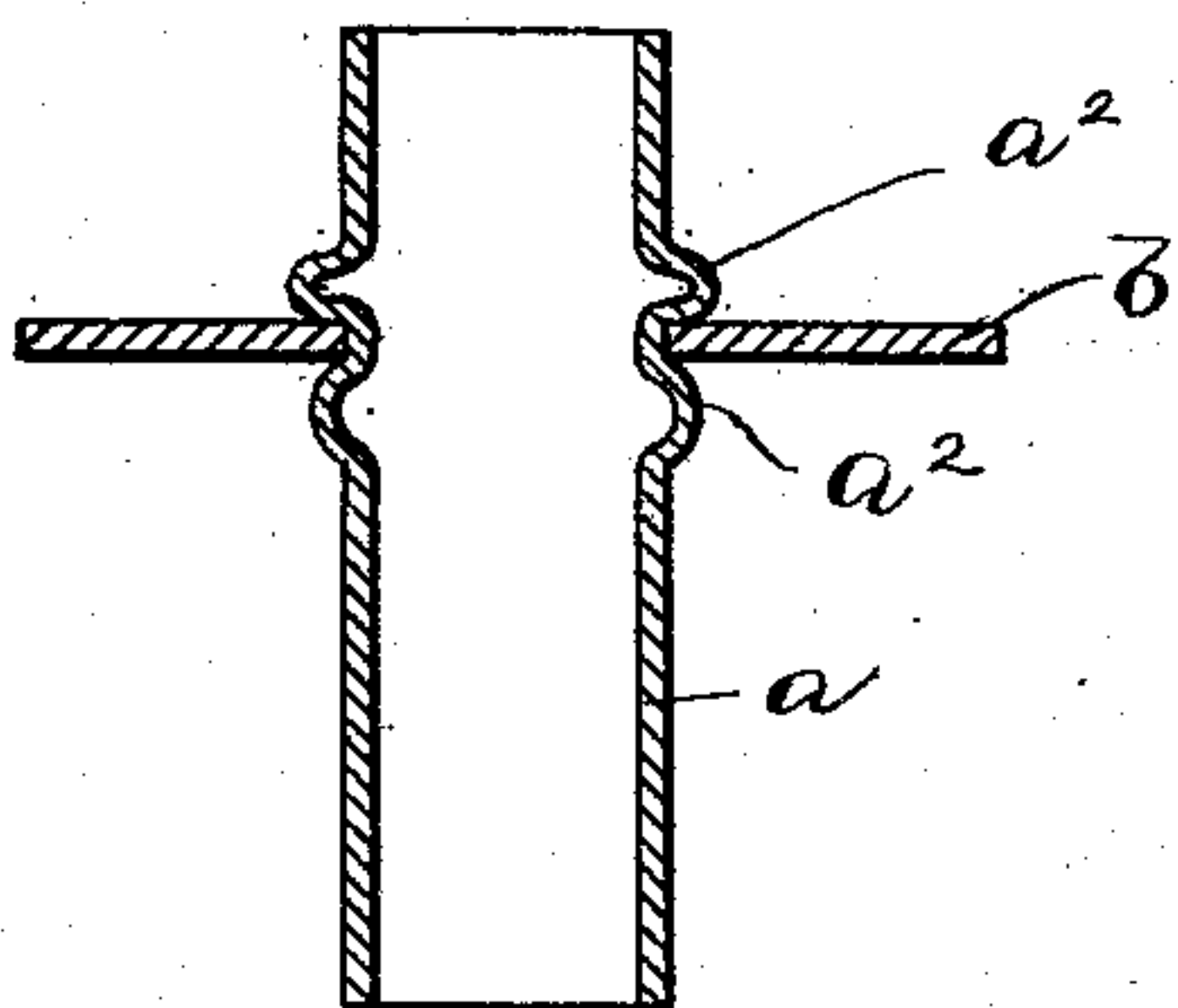


Fig. 4.

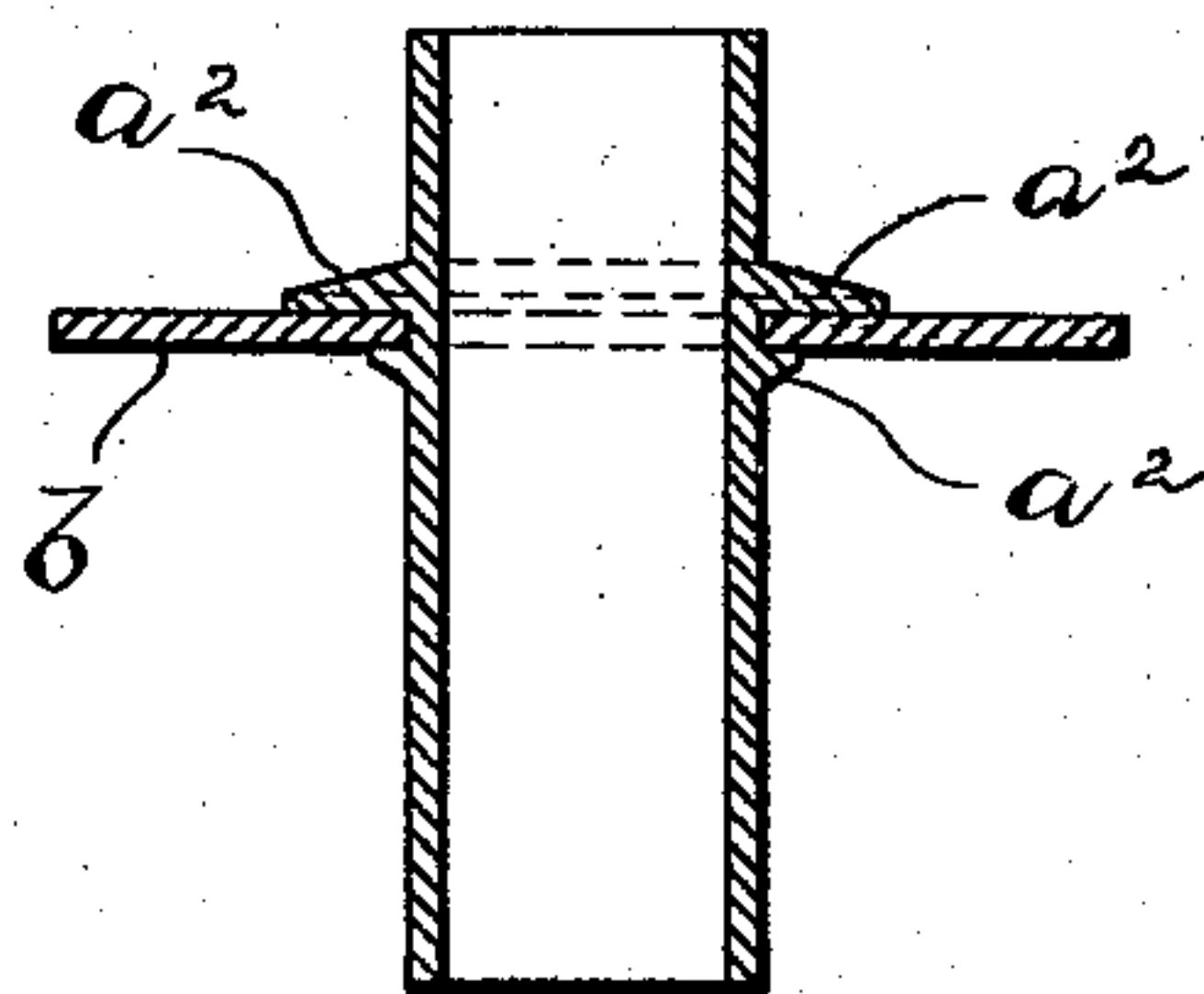


Fig. 5.

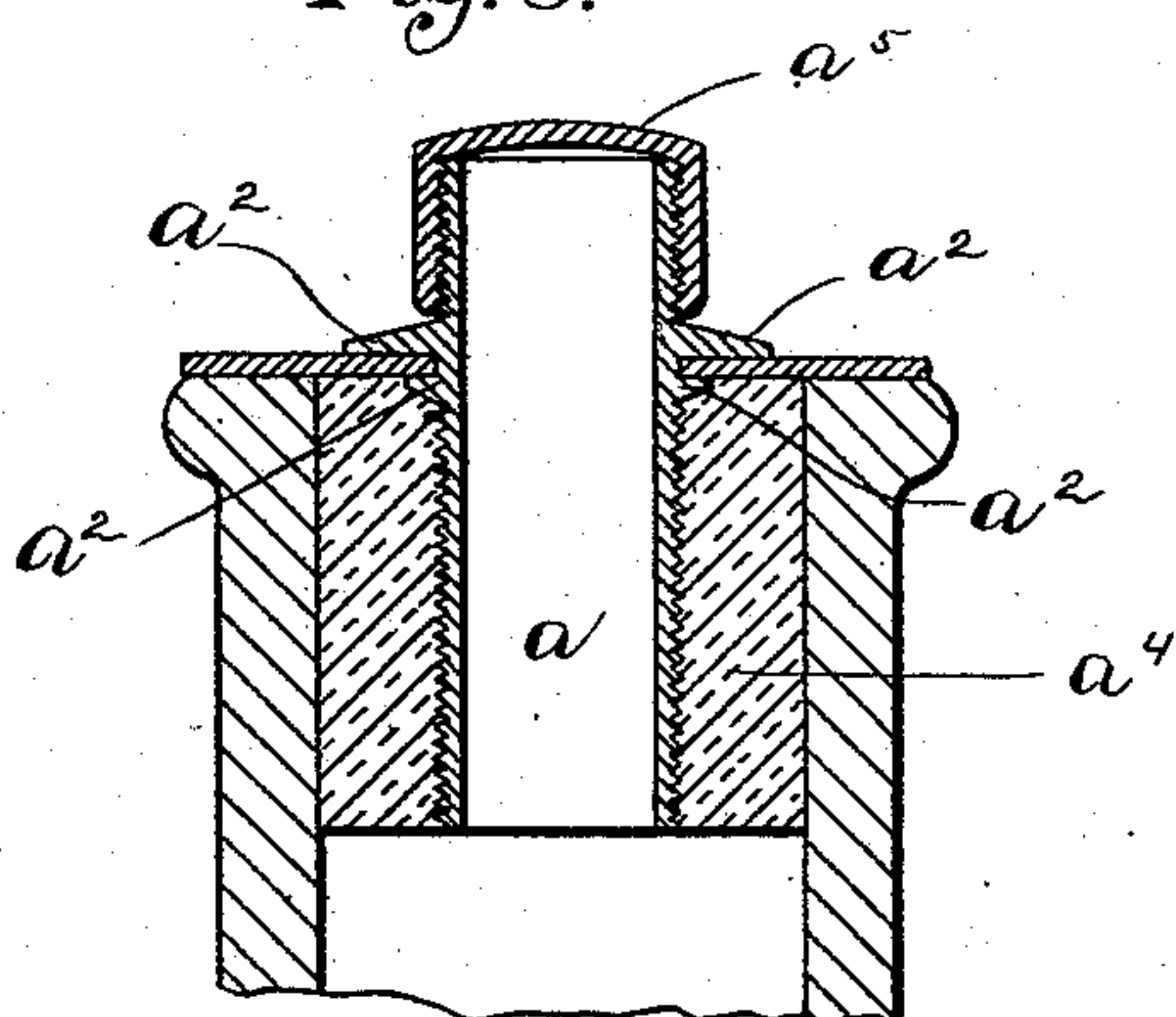
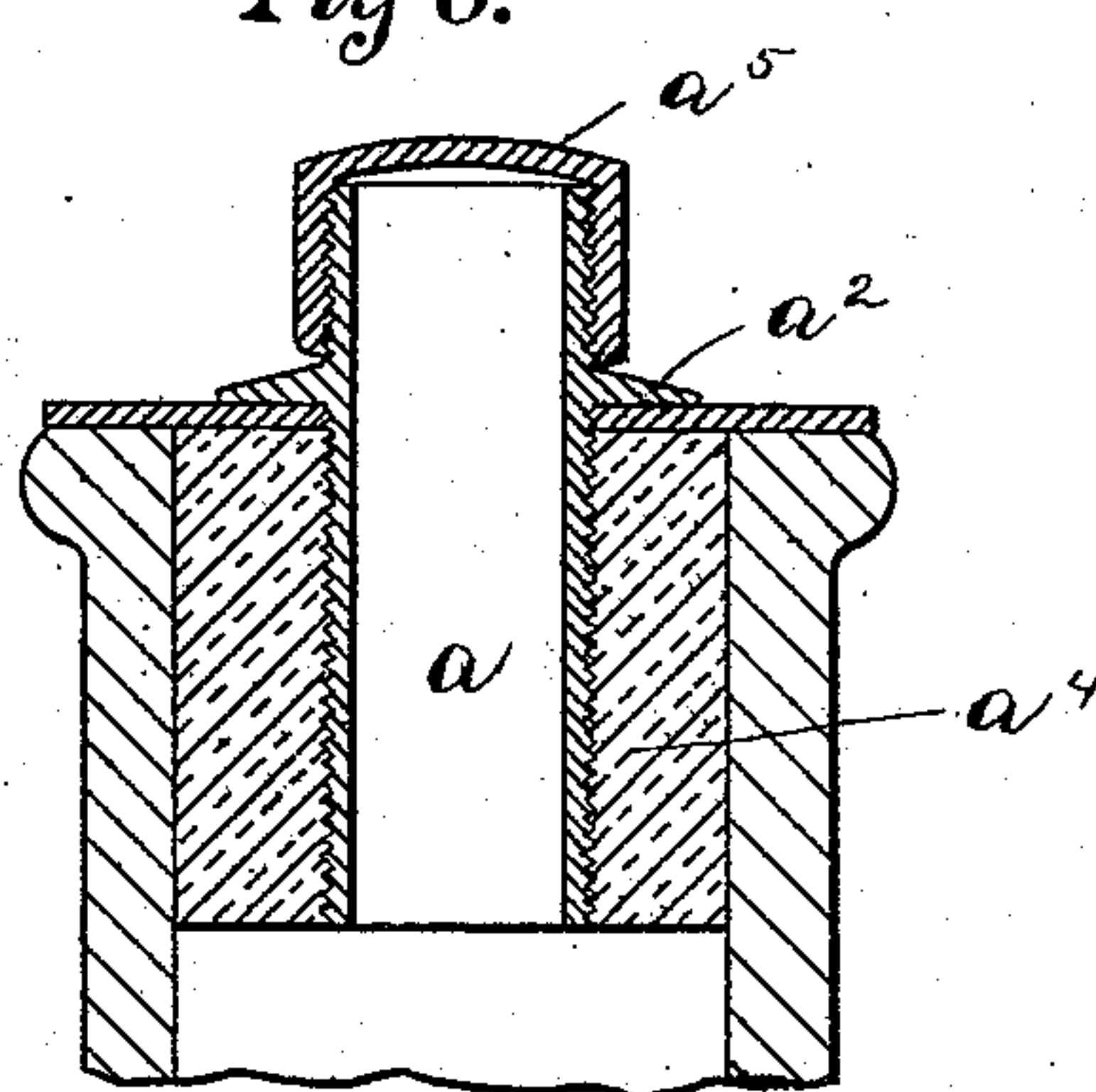


Fig. 6.



Witnesses:

A. D. Harrison
E. B. Bickel

Inventor:

Andrew J. Robinson
J. Wright Brown & Quincy
Atty.

UNITED STATES PATENT OFFICE.

ANDREW J. ROBINSON, OF BOSTON, MASSACHUSETTS.

STOPPER ATTACHMENT FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 572,772, dated December 8, 1896.

Application filed March 2, 1896. Serial No. 581,471. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Stopper Attachments for Bottles, of which the following is a specification.

This invention has for its object the production of a new and improved stopper attachment for bottles; and it consists in the novel features of construction and relative arrangement of parts hereinafter fully described in the specification, clearly illustrated in the drawings, and particularly pointed out in the claims.

Reference is to be had to the accompanying one sheet of drawings, forming a part of this application, in which like characters indicate like parts wherever they occur.

Figure 1 represents a detail detached view of a tube used in the construction of my improved attachment. Fig. 2 represents a detail like view of the washer. Fig. 3 represents in longitudinal section the washer and tube assembled, the wrinkles or projections having been struck up on either side of said washer by suitable tools. Fig. 4 is a view similar to Fig. 3, showing the wrinkles or projections pressed down upon the washer and the inside of the tube smoothed out. Fig. 5 represents a sectional view showing the attachment in place in the bottle. Fig. 6 is a view similar to Fig. 5, showing the lower flange omitted and the washer held against the outer flange by the cork a^4 .

My invention applies to devices that are employed in connection with bottles from which it is desired that the contents shall be shaken in small quantities. To do this, it is necessary to have a restricted orifice. If bottles are formed with small openings, they can with difficulty be filled. To attain the objects above cited, it has been the practice to form the bottle with any convenient-sized neck, the mouth of the bottle being closed by the stopper, provided with a hollow tube through which the contents could be shaken as desired. These attachments have thus far been castings comprising a tube and flange for fitting on the top of the cork. These castings are bulky and bungling.

My invention comprises an attachment of

the kind mentioned wherein a ring or washer is placed upon the tube and secured thereon by projections or flanges struck up from the tube against the washer.

a represents a tube having a central bore a' .

b represents a washer having a central bore b' sufficiently large to permit the washer to be slipped upon the tube, as shown in Fig. 3. This washer is positioned upon the tube at the desired point, and then by machinery or hand-tools the projections a^2 are struck up from the tube against the washer on either side, thus securely binding the washer in place. The projections a^2 are, as a matter of fact, wrinkles caused by the tool engaging the thin tube, that may or may not be arranged on a mandrel, and shortening said tube in the direction of its length on either side of the washer, thus forming the wrinkles or projections. After this is done these projections are finished down about the washer, as shown in Fig. 4, and the inside of the tube smoothed by arranging the tube on a mandrel, employing any suitable tools for this purpose. The tube is then formed with screw-threads a^3 above and below the washer, the screw-threads below the washer being adapted for engagement with a cork a^4 , while the screw-threads on the tube above the washer are adapted for connection with a cap a^5 , as is common. The flanges or projections a^2 may be continuous, as shown, or they may consist of points or projections. If desired, the lower flange or series of projections may be omitted and the washer b held against the upper flange or series of projections a^2 by means of the cork a^4 .

It will be seen that the improved stopper attachment involves a tube through which the contents of a bottle may be discharged, a flange made in a separate piece from the tube and secured thereto, and a cork formed to close the neck of the bottle around the tube and covered by the flange. Heretofore the flange formed on a tube for this purpose has been cast with the tube. By making the flange in a separate piece and securing it to the tube I am enabled to make the flange thinner than would be possible by casting and also to make it of a different material adapted to impart a more ornamental finish to the bottle. For example, the tube may be made of a base metal or alloy and the flange

of a finer metal. Believing myself to be the first inventor of a stopper attachment comprising these features, I do not desire to limit myself to the particular means here shown of
5 connecting the tube and flange or washer.

Having thus explained the nature of my invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it
10 may be made or all the modes of its use, what I claim, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a stopper attachment for bottles, comprising
15 a tube, and washer arranged thereon, shoulders or wrinkles on said tube on either side of said washer, and bearing against the latter to hold it in place, said shoulders being formed by shortening the tube in the direction of its

length, and screw-threads formed on said tube, 20 above the upper shoulder, or wrinkle.

2. As an article of manufacture, a stopper attachment for bottles comprising a tube, a washer arranged thereon, and a corrugation arranged to engage said washer, to hold the
25 latter in place, said corrugation being composed of the walls of the tube and formed by shortening the latter in the direction of its length, and means for holding the washer against the corrugation. 30

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 24th day of February, A. D. 1896.

ANDREW J. ROBINSON.

Witnesses:

E. BATCHELDER,

A. D. HARRISON.