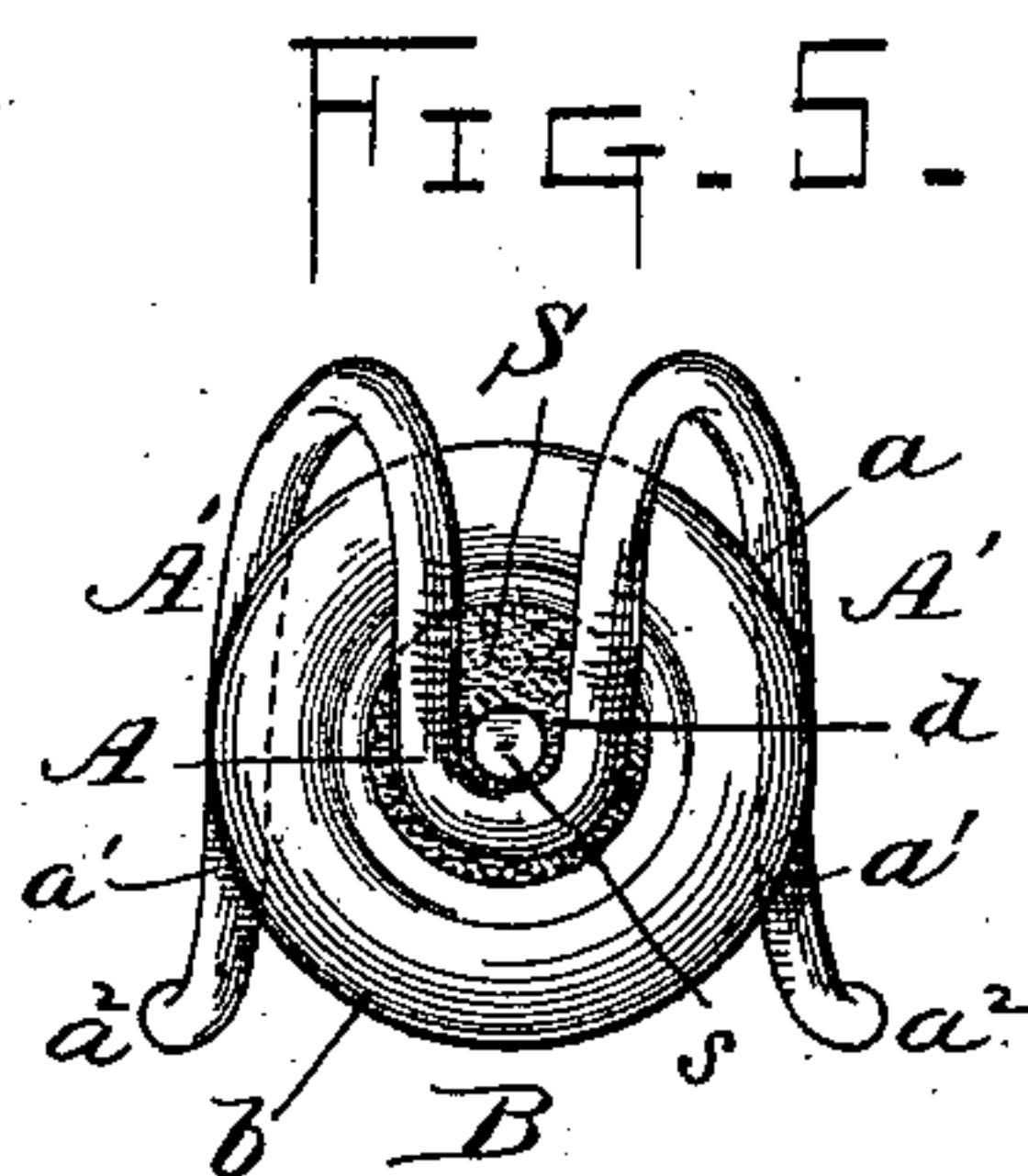
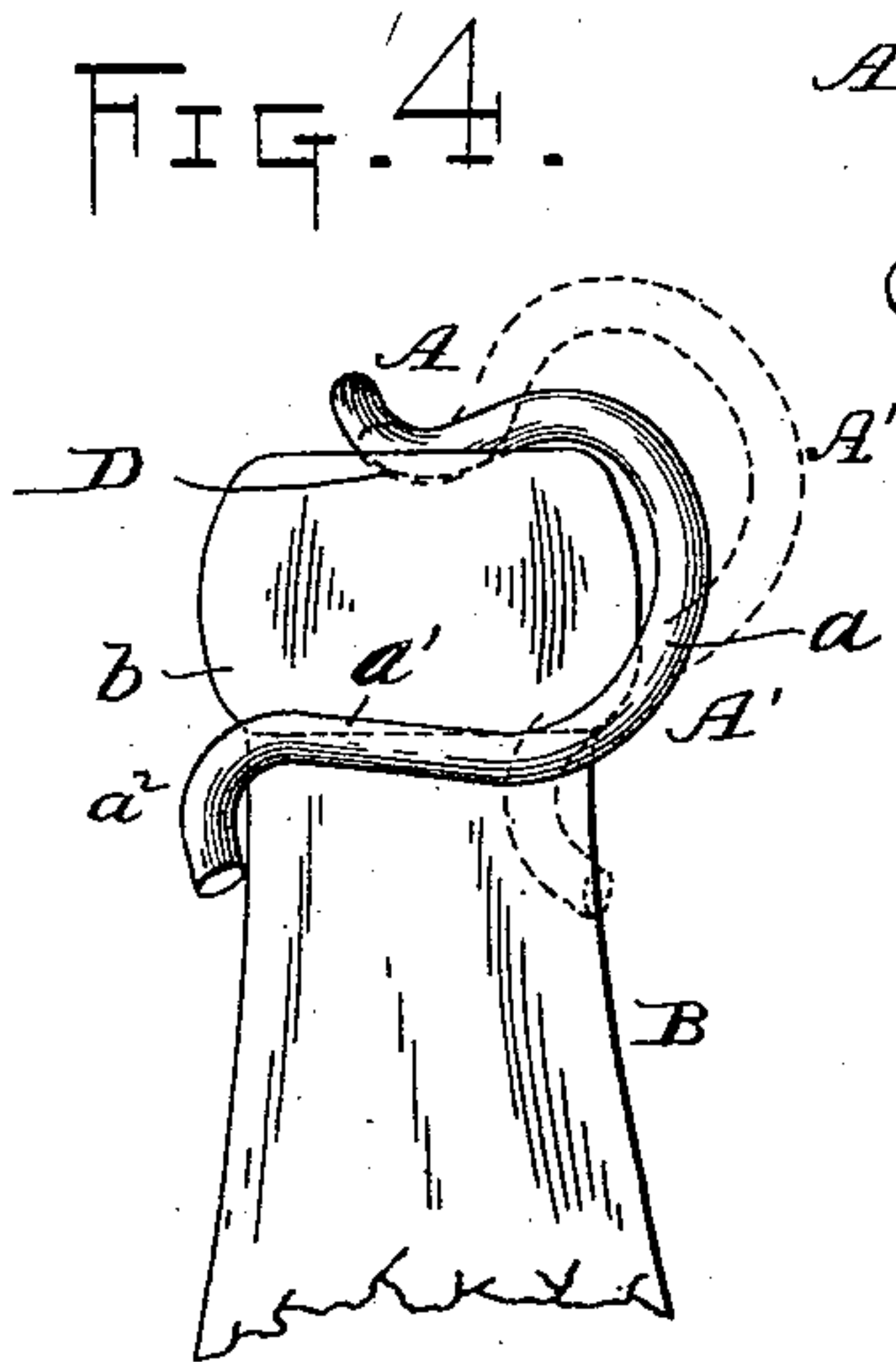
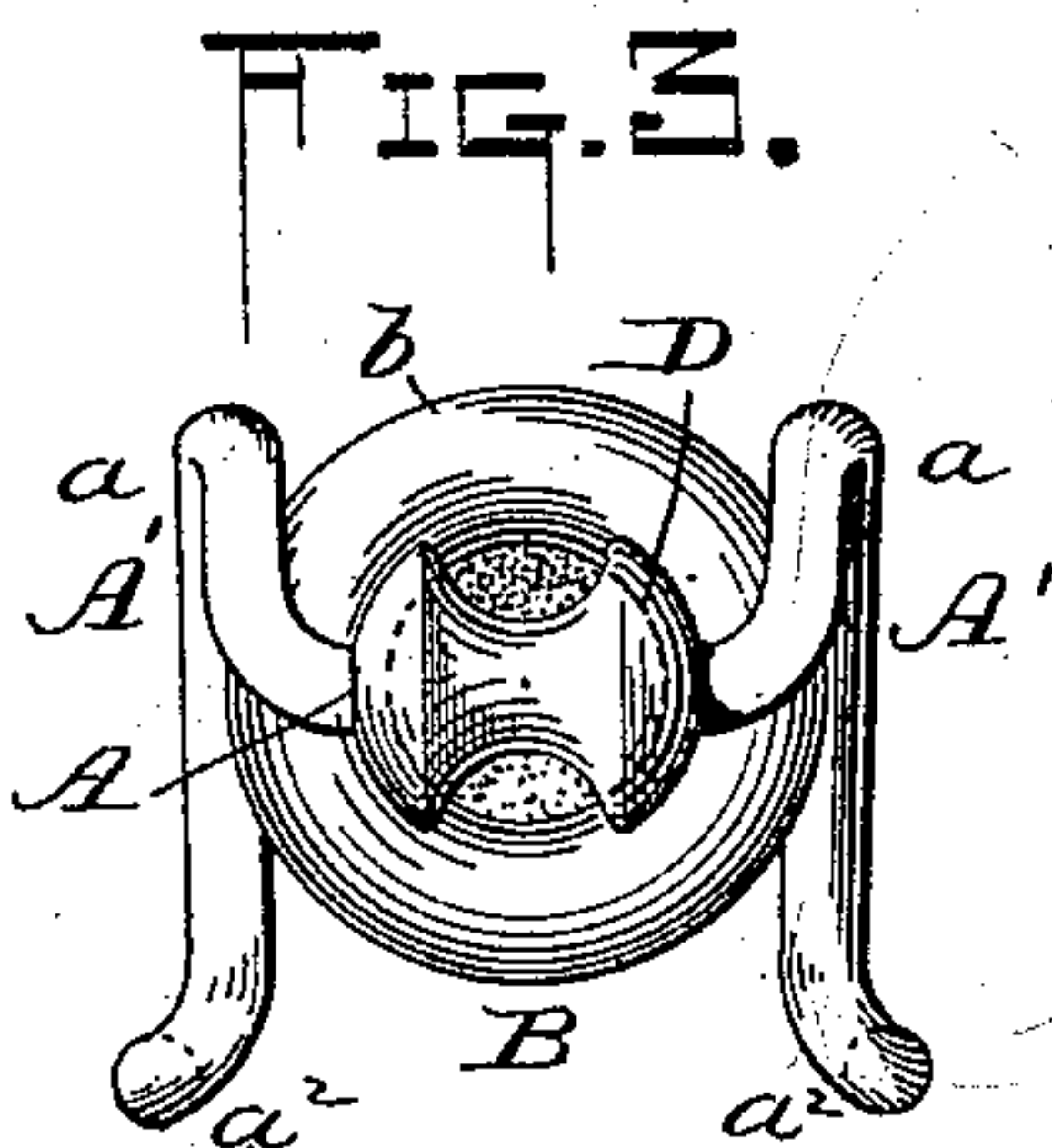
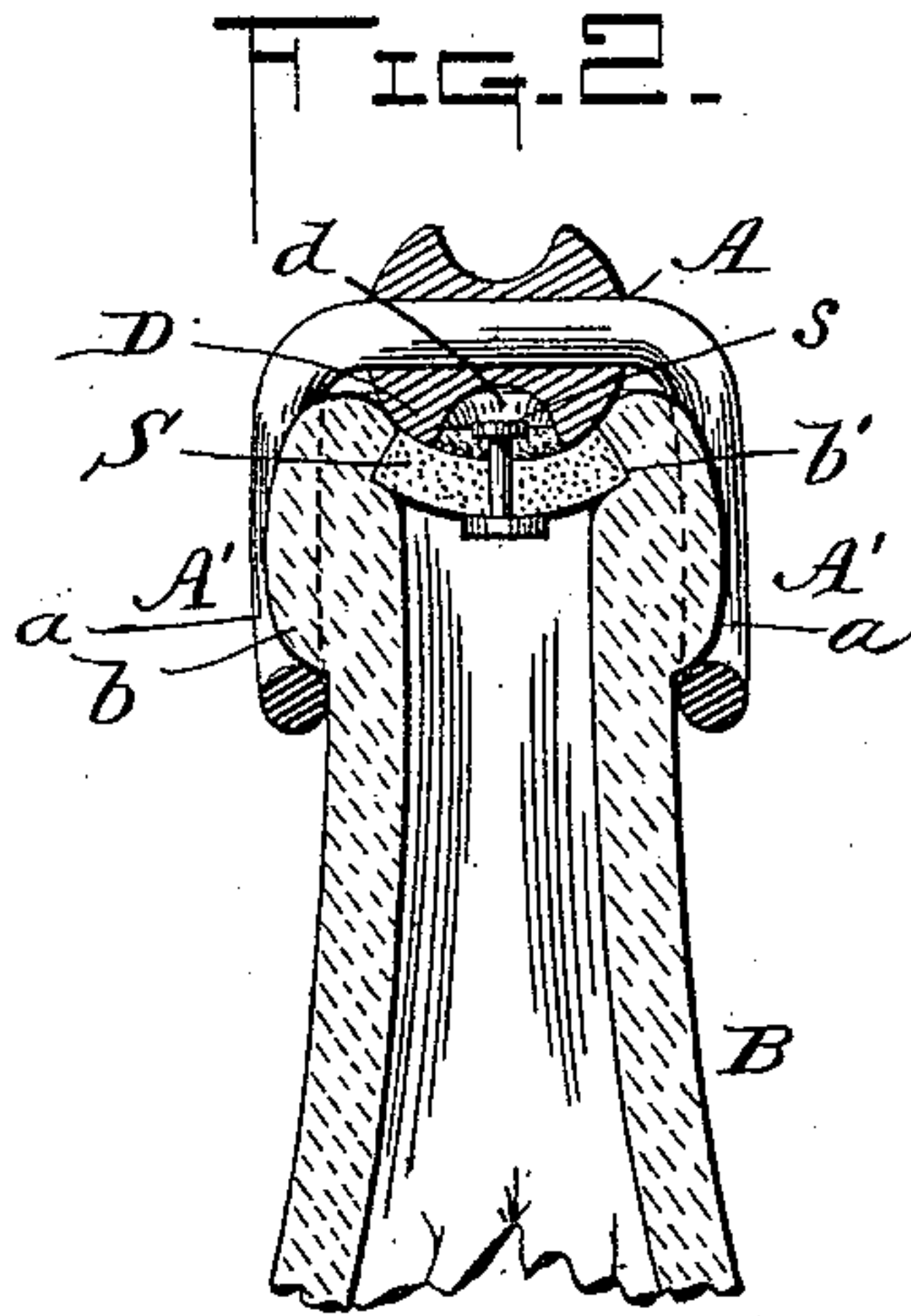
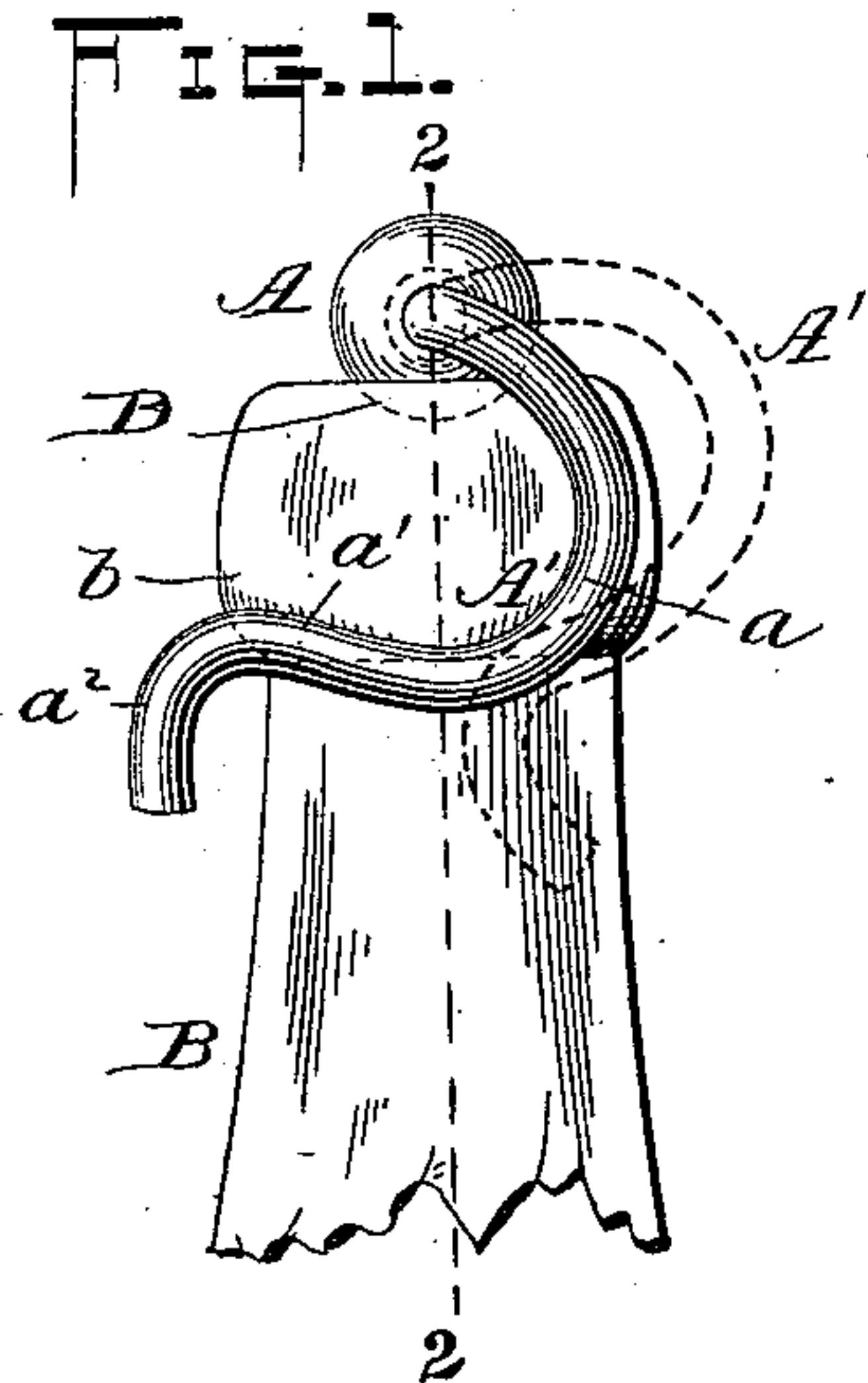


(Model.)

W. PAINTER.  
BOTTLE STOPPER FASTENER.

No. 438,711.

Patented Oct. 21, 1890.



Witnesses—  
E. H. Sturtevant.  
Daniel Curry.

Inventor—  
William Painter,  
by Smith & Low  
attorneys.



# UNITED STATES PATENT OFFICE.

WILLIAM PAINTER, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE BOTTLE SEAL COMPANY, OF SAME PLACE.

## BOTTLE-STOPPER FASTENER.

SPECIFICATION forming part of Letters Patent No. 438,711, dated October 21, 1890.

Application filed December 6, 1888. Serial No. 292,803. (Model.)

*To all whom it may concern:*

Be it known that I, WILLIAM PAINTER, a citizen of the United States, residing in the city of Baltimore, and State of Maryland, have  
5 invented certain new and useful Improvements in Bottle-Stopper Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
10 pertains to make and use the same.

My invention relates to fasteners for temporarily holding corks or other stoppers in beer-bottles while the beer in them is being steamed or pasteurized. Such devices are  
15 commonly known as "steaming-caps." They are removed from the bottles after the beer has been steamed and reused on other bottles continuously.

My fastener or steaming-cap consists, essentially, of a stopper-retaining part, hereinafter more particularly described, and two curved elastic bails adapted to span the bottle-neck and engage with the shoulder or under por-  
20 tion of the bottle-head.

The lengths of bottle-heads, and also the diameters of the necks immediately below the heads, vary considerably, and I therefore make my locking-bails elastic in both directions in order to meet these varying sizes. This elas-  
25 ticity is mainly secured by making the bails of spring-wire and giving them a curved form, whereby a sufficient length of wire is brought into use to yield in both directions for the purpose stated.

My fastener is especially designed for use with a stopper having at or near its middle a projection or stud by which it may be ex-  
30 tracted, and the said additional downwardly-extending part is divided or recessed so that it will enter the mouth of the bottle, and will not interfere with said projection or stud.

Figure 1 is a side elevation of a portion of a bottle having applied thereto a fastener embodying my invention. Fig. 2 is a section of  
45 the same on line 2 2, Fig. 1. Fig. 3 is a plan view of the same. Fig. 4 is a side view illustrating a fastener embodying my invention in a different form, and Fig. 5 is a plan of the same.

50 Referring to the drawings, B indicates a bottle-neck having the usual head b. The

bottle shown is also provided with the internal groove *b'* for holding my patented disk stopper or seal.

S indicates the stopper, in this instance one  
55 of the character above referred to, which lies below the lip of the bottle.

A indicates the retaining portion of my fastener, preferably formed of stout spring-wire and adapted to lie across or over the  
60 mouth of the bottle, and A' indicates the downwardly-extending curved elastic bails secured to or formed with the portion A. By preference said bails are formed from the ends of the same piece of wire which constitutes  
65 the part A. The bails A' are preferably so formed or bent as to have upon their upper sides cam portions *a'*, which as the fastener is applied pass under the head *b* with some little resistance. As the bails advance to  
70 their final or locked position, (from that shown in dotted lines to that shown in full lines in Fig. 1,) this resistance decreases, and the portions *a'* springing slightly upward effectively secure the fastener against accidental back-  
75 ward (toward the right of Fig. 1) displacement. Horizontal movement of the fastener in the other direction is prevented by stops formed by the portions *a* of the bails, which, when said bails have advanced to their locked  
80 position, engage the sides of the head *b*. The extremities of the bails extend downwardly and also, by preference, a little outwardly, forming the parts *a''*, by which the fastener may be operated to engage or to disengage it,  
85 and also as guides between which the bottle-neck enters as the fastener is applied.

At D is shown the downwardly-extending part, hereinbefore referred to, carried by the retaining portion A and adapted to enter the  
90 mouth of the bottle. This part is adapted, as shown best in Fig. 2, to bear upon the upper face of the stopper and effectually hold the same in place. It will be readily seen that by this means the disk stopper or seal may be  
95 used with and effectively held in bottles which are not provided with the groove *b'*. To receive a central projection or stud, one form of which is indicated at *s*, I divide or recess the part D, as indicated at *d*, or in other equiva-  
100 lent manner, so that the said projection *s* may not be interfered with.



When the part D is constructed as shown in Fig. 4, being there formed by a bend or bends of the part A, the bends of the wire are so situated that the stud s will have the desired space left for it.

5 In Figs. 1 and 2 the part D is formed by a button, preferably of metal. It may be cast around the part A, so as to be rigid therewith, or it may be journaled thereon.

10 In applying the fastener, the part D is first placed within the bottle neck or mouth and acts as a pivot or hinge about which the bails A' turn to engage, pass beneath, and become locked under the head b.

15 I claim—

1. A bottle-stopper fastener comprising a retaining portion adapted to lie across or over the mouth of a bottle and having a downward projection adapted to fit within and form a bearing in said mouth and to rest upon a disk stopper, and having two downwardly-extend-

ing elastic arms with cam-surfaces adapted to oscillate upon said bearing and engage the under side of the head of the bottle or equivalent shoulder, said projection having a recess 25 to receive an upward projection on such disk, substantially as set forth.

2. A bottle-stopper fastener comprising a retaining portion having two downwardly-extending elastic arms and a projection or button journaled upon said retaining portion, adapted to enter within the bottle-mouth and peripherally recessed to receive a projection on a stopper, substantially as and for the purposes set forth. 30

In testimony whereof I affix my signature in the presence of two witnesses. 35

WILLIAM PAINTER.

Witnesses:

ORRIN C. PAINTER,  
CHARLES H. BOND.