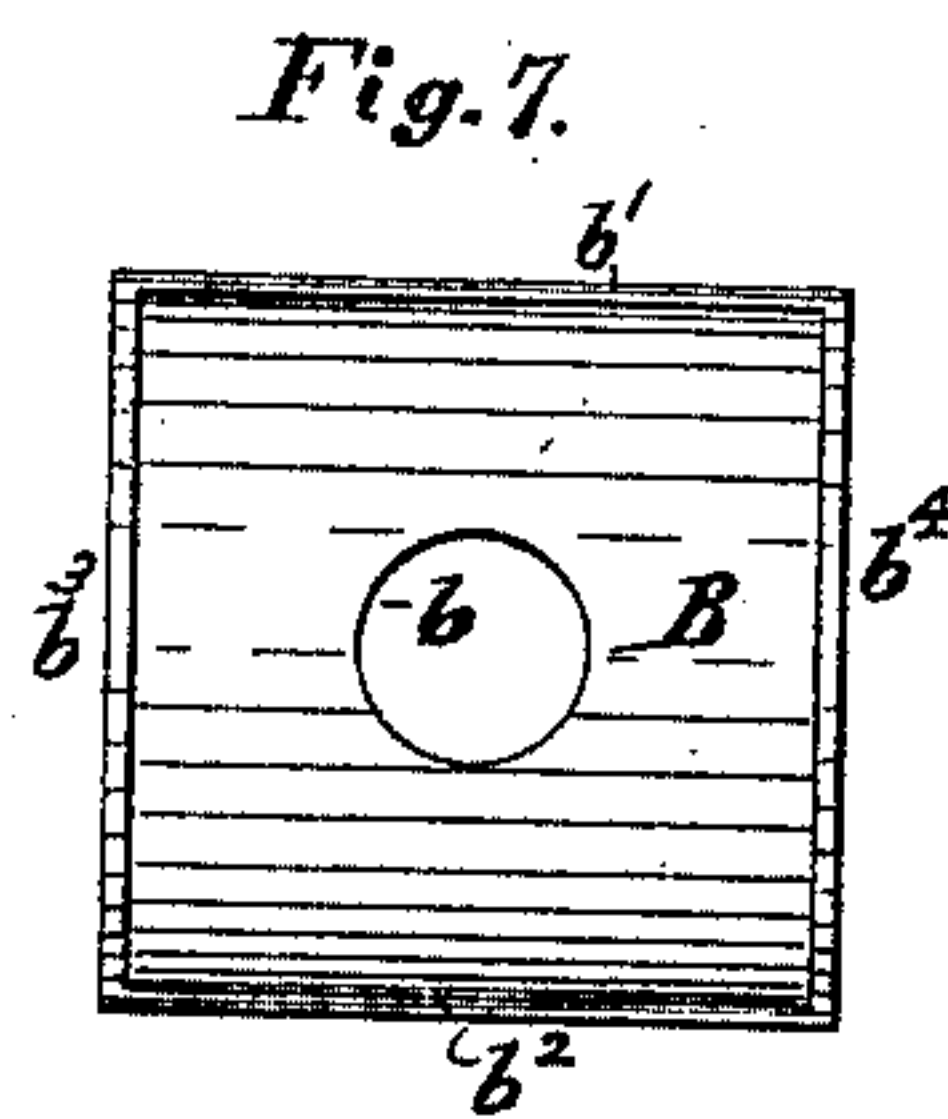
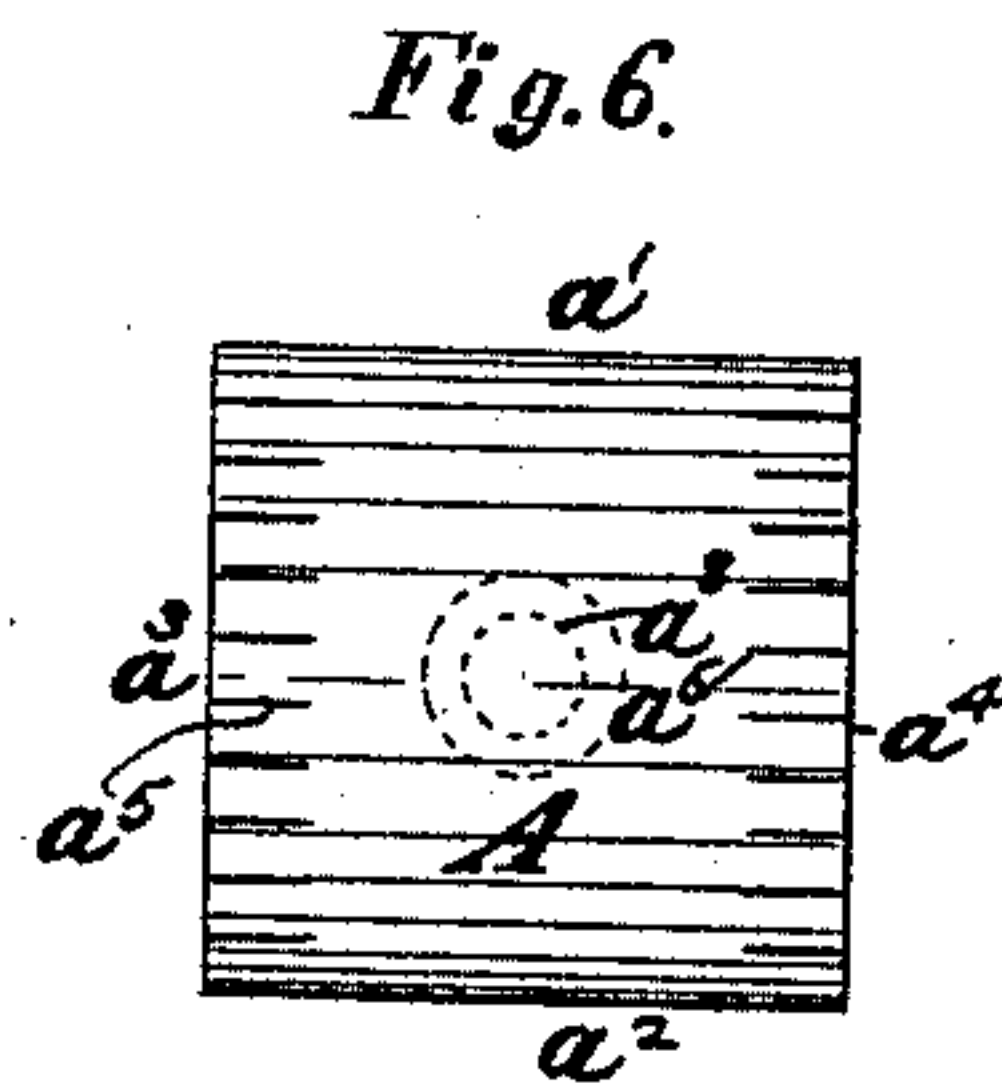
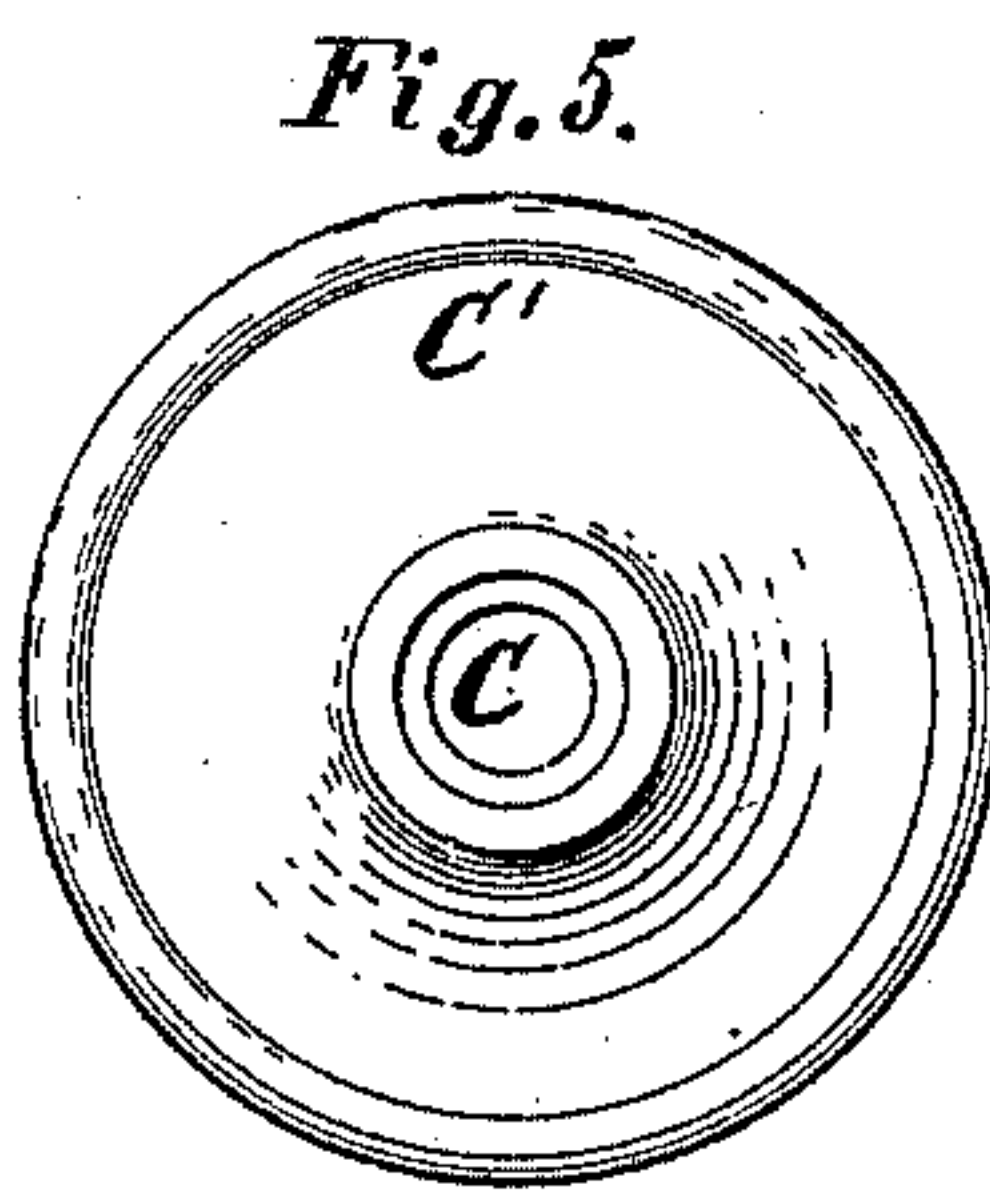
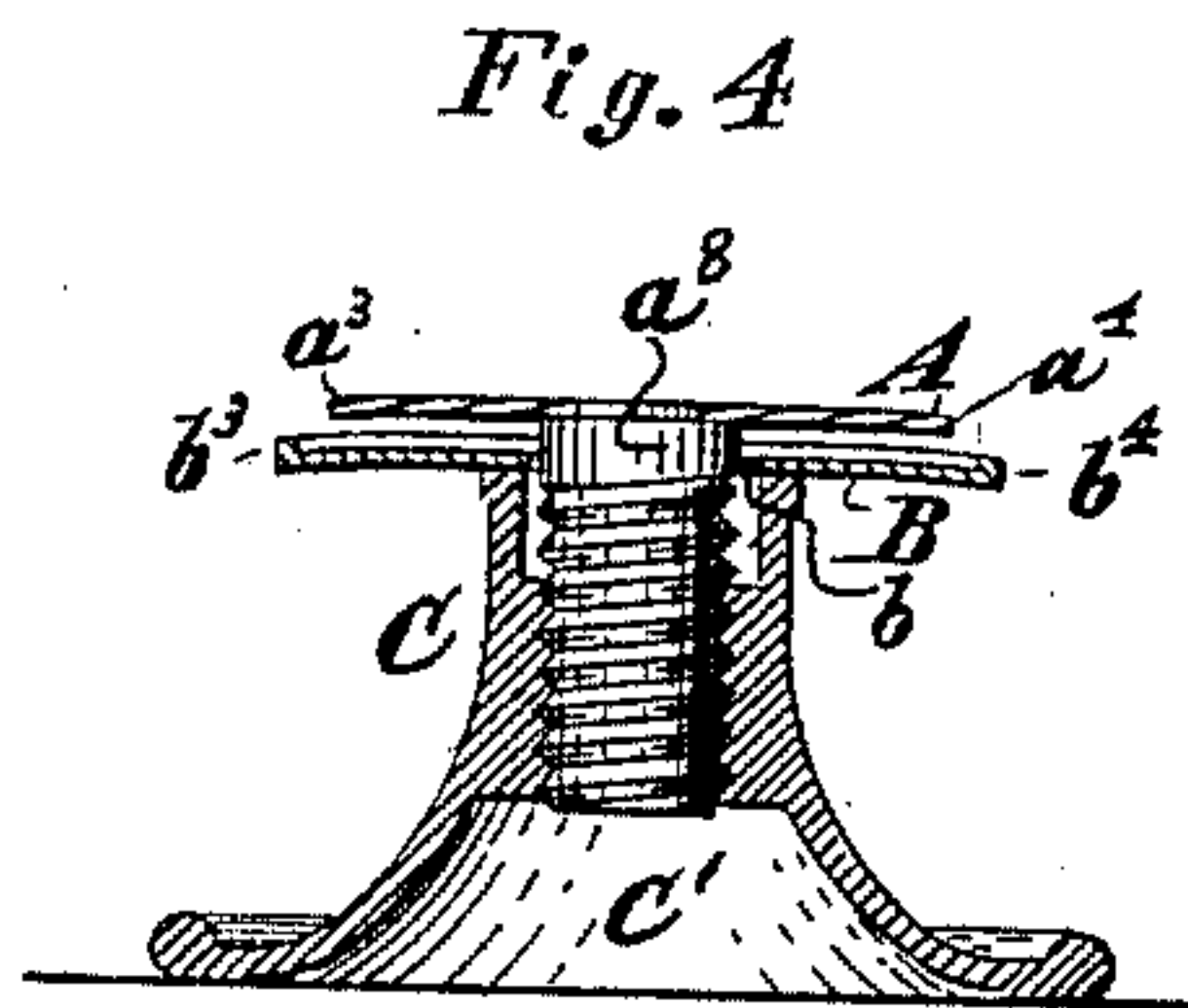
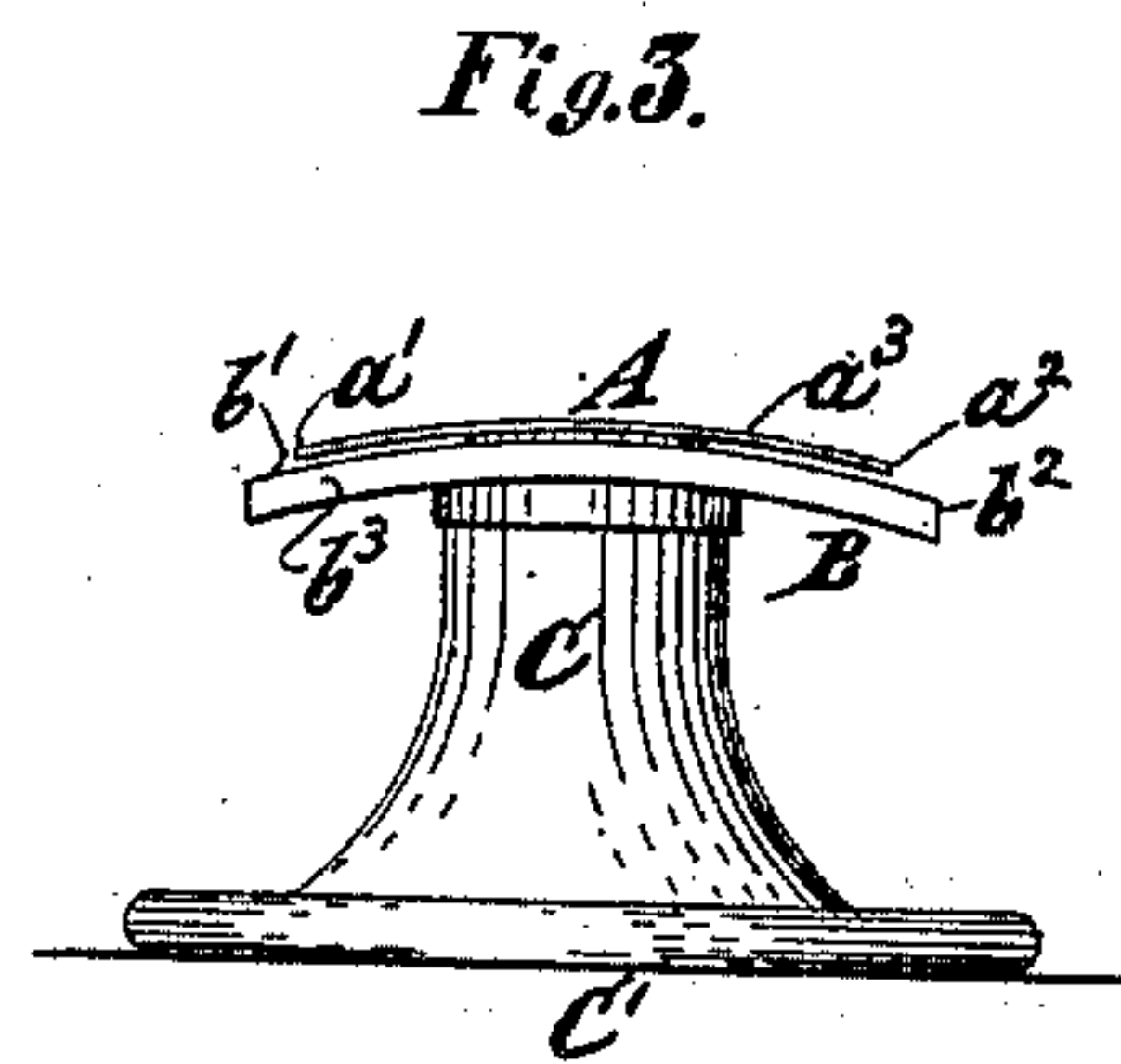
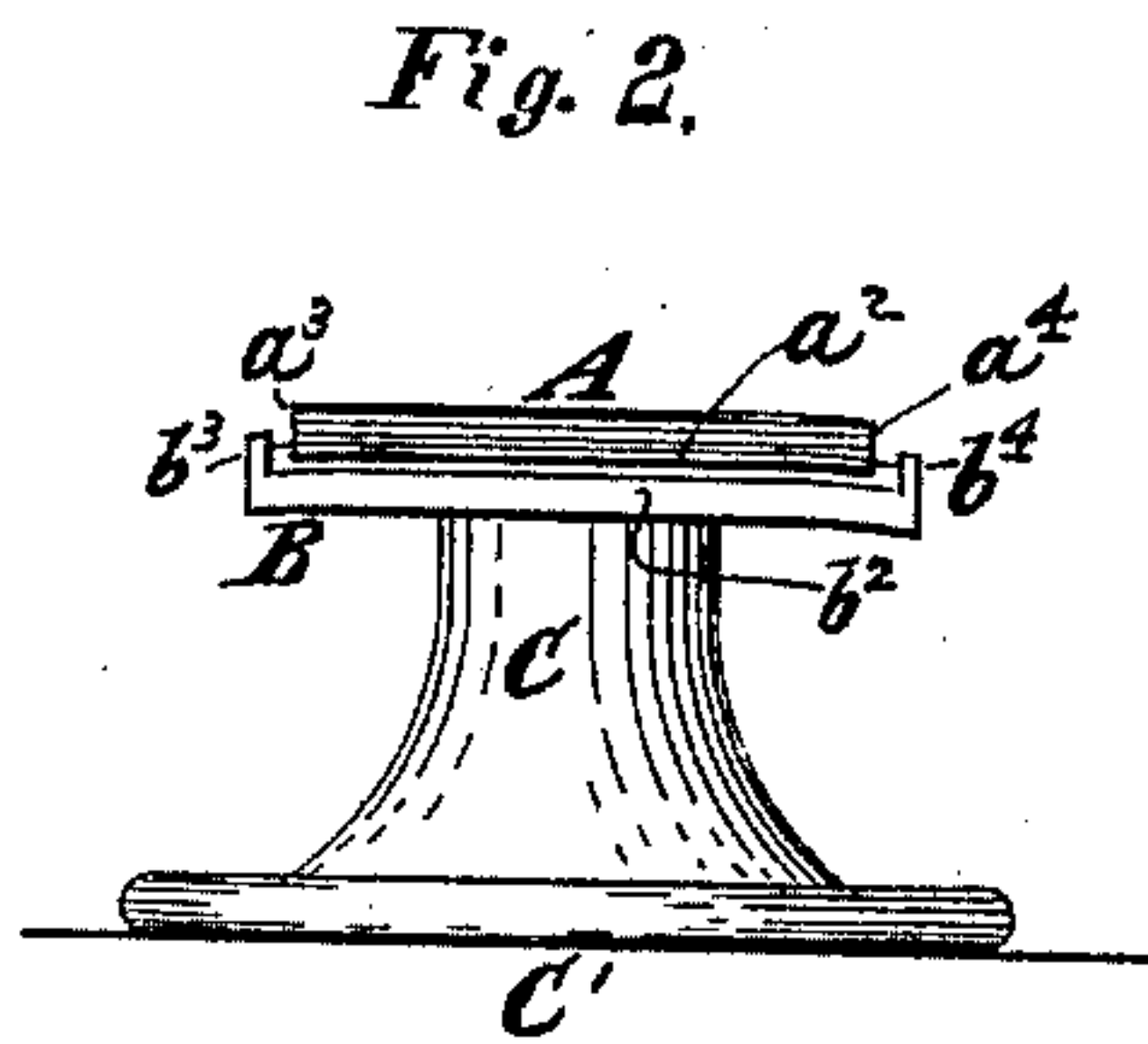
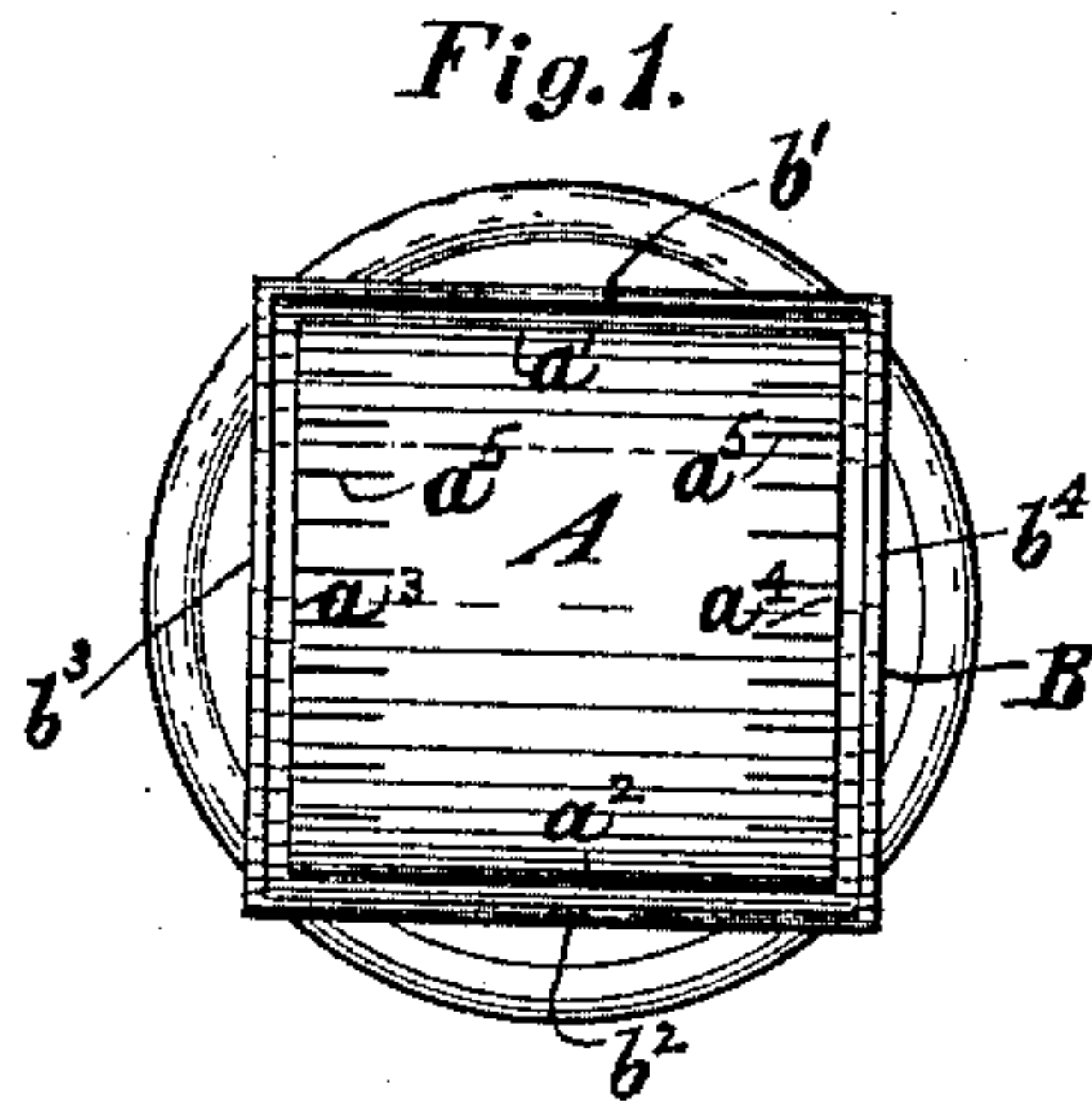


(No Model.)

C. H. SHAW.  
DARNING LAST.

No. 440.659.

Patented Nov. 18, 1890.



WITNESSES:  
C. R. Ferguson  
Wm. M. Eliff

INVENTOR  
Charles H. Shaw  
BY Gifford T. Brown  
HIS ATTORNEYS.



# UNITED STATES PATENT OFFICE.

CHARLES H. SHAW, OF BROOKLYN, NEW YORK.

## DARNING-LAST.

SPECIFICATION forming part of Letters Patent No. 440,659, dated November 18, 1890.

Application filed December 6, 1889. Serial No. 332,841. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. SHAW, of Brooklyn, in Kings county and the State of New York, have invented a certain new and  
5 useful Improvement in Darning Blocks or Lasts, of which the following is a specification.

I will describe a darning block or last embodying my improvement and then point out  
10 the novel features in the claims.

In the accompanying drawings, Figure 1 is a plan view of a block or last embodying my improvement. Fig. 2 is a side view of the same. Fig. 3 is a side view of the same viewed  
15 from a position at right angles to that from which the view, Fig. 2, is taken. Fig. 4 is a longitudinal section of the same. Fig. 5 is a plan view of a hand-piece forming part of the block or last. Fig. 6 is a plan view of the  
20 body-piece of the block or last. Fig. 7 is a plan view of a securing-piece.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body-piece of the block or  
25 last. It consists of a plate curved between its side edges  $a^1 a^2$ , and, as here shown, straight from near one end  $a^3$  to near the other end  $a^4$ . At the ends are grooves or lines  $a^5$ . This  
30 body-piece may be made of sheet metal—as, for instance, sheet-brass—plated or ornamented to suit the taste.

B designates a securing-piece. As here shown, it consists of a plate corresponding approximately with the body-piece, except  
35 that it is slightly longer and wider, has its edges  $b^1 b^2 b^3 b^4$  bent forwardly, and is provided with a central hole  $b$ . The forwardly-bent edges of the securing-piece surround the body-piece.

It is intended that a fabric to be darned shall be placed behind the body-piece and between it and the securing-piece, the function of the latter being to secure the fabric properly behind the body-piece. As it is desirable  
45 that there shall be no possibility of any relative rotary movement or turning between the body-piece and the securing-piece, these parts will preferably be made to interlock. The forwardly-bent edges of the securing-piece  
50 may be sufficient for this purpose. It will be seen that the body-piece has at the rear a cen-

tral externally screw-threaded boss or hub  $a^8$ . This extends through the central hole of the securing-piece and is intended to enter a screw-threaded socket or nut, which will bear  
55 against the rear of the securing-piece and serve to clamp the securing-piece and body-piece together. I have shown such a socket or nut. It is in the present instance made to form part of a hand-piece having a neck portion C, forming the nut or socket, and a flange or extended portion C' at the rear. This hand-piece may be made of metal, and the outer or forward extremity of its neck portion C may be left plain or unthreaded, so as  
65 to facilitate the entrance into it of the boss or hub  $a^8$  of the body-piece.

Having described the construction of my block or last, I will explain the manner of using it. The body-piece is to be laid over  
70 the portion of fabric to be darned, with the securing-piece behind it and interlocking with it. Both these parts will then be clamped together, in the present instance by means of the hand-piece. Then a needle supplied  
75 with thread will be passed through the fabric close to the first groove or line in one end—as, for instance, the end  $a^3$  of the body-piece. The needle is then moved so as to carry the thread over the body-piece in line with this  
80 groove or line to the opposite groove or line at the other end  $a^4$  of the body-piece, where the needle is inserted through the adjacent part of the fabric and the thread drawn through. Then the needle is inserted through  
85 the fabric opposite the second groove or line in the end  $a^4$  of the body-piece. Next the needle will be moved to carry the thread over the body-piece in line with the said second groove or line, and at a point opposite the second groove or line in the end  $a^3$  of the body-piece the needle is inserted through the adjacent part of the fabric and drawn through. Now the needle is inserted in the fabric opposite the third groove or line in the end  $a^3$  of  
95 the body-piece. The thread is then carried over the body-piece, and this method of procedure is pursued until there are portions of thread extending over the body-piece in parallel positions from end to end and from side  
100 to side. This having been done, the needle is caught into the fabric adjacent to one of the



side edges of the body-piece and close to one of the ends of the latter—as for instance, adjacent to the side edge  $a'$  and close to the end  $a^3$ . Then it is passed across either above or below the first of the series of parallel threads extending over the body-piece between the ends. I will assume that it is passed over the first of these threads. On this assumption it will be passed under the second thread, over the third, under the fourth, over the fifth, and so on throughout the series of threads. Then the needle and thread will be passed through the fabric close to the other side  $a^2$  of the body-piece. Next the needle and thread will be passed through the threads extending between the ends of the body-piece over those which before it passed under and under those which before it passed over. The thread laid in in this manner may be worked up close to the end  $a^3$  of the body-piece. The thread will be inserted through the threads extending between the ends of the body-piece back and forth in the same manner as before. It may be passed through the fabric each time it traverses between the sides of the body-piece, or it may be caught through the fabric only at other intervals, if desired. In this way a new fabric may be darned or woven over the front of the body-piece. On the completion of this the securing-piece is detached from the body-piece, in the present instance by unscrewing the hand-piece and lifting off the securing-piece. Then the portion of the fabric

behind the new fabric darned or woven over the front of the body-piece is cut away sufficiently to allow the body-piece to be pulled back through it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a darning block or last, the combination of a securing-piece having a perforation, a body-piece provided with lines or grooves in its edge and having a threaded boss or hub passing through the perforation in the securing-piece, and a hand-piece having a threaded socket to engage the boss or hub of the body-piece, the said socket bearing against the securing-piece and serving to clamp the securing-piece and body-piece together when the socket is turned onto the boss or hub, substantially as specified.

2. In a darning block or last, the combination of a body-piece curved between its side edges and having its bent or rounded edges provided with grooves, a threaded boss extending from the body-piece, a securing-piece, between which and the body-piece material is to be clamped, and a hand-piece having a threaded socket to engage the boss of the body-piece, the said hand-piece serving to clamp the securing-piece and body-piece together, substantially as specified.

CHARLES H. SHAW.

Witnesses:

E. D. CAPRON,  
W. H. SAIGLAND.