

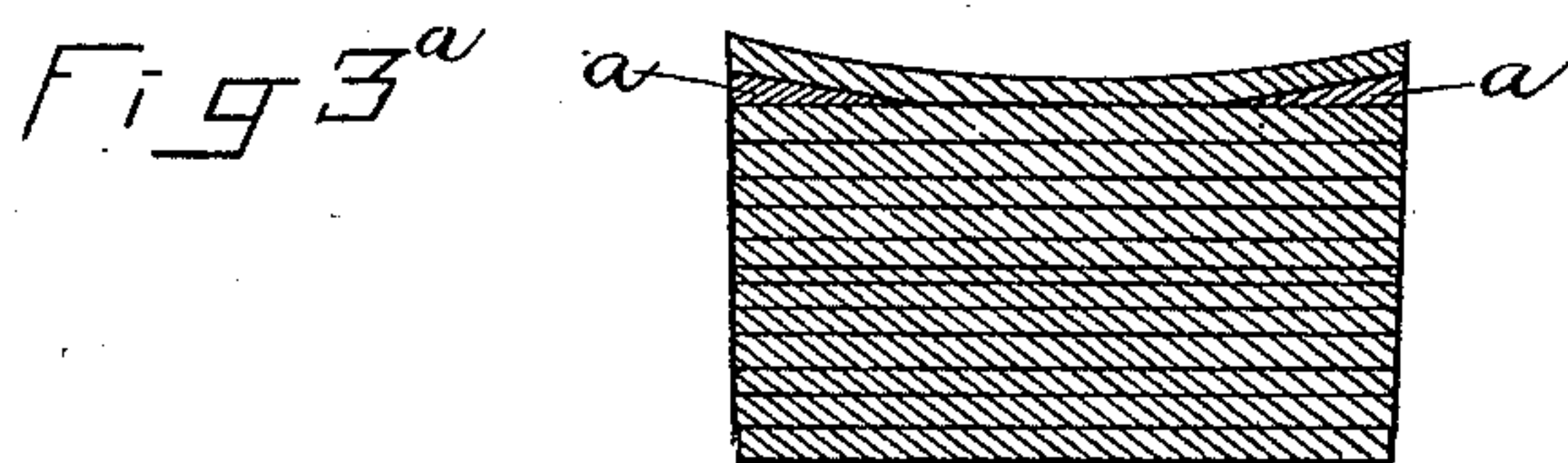
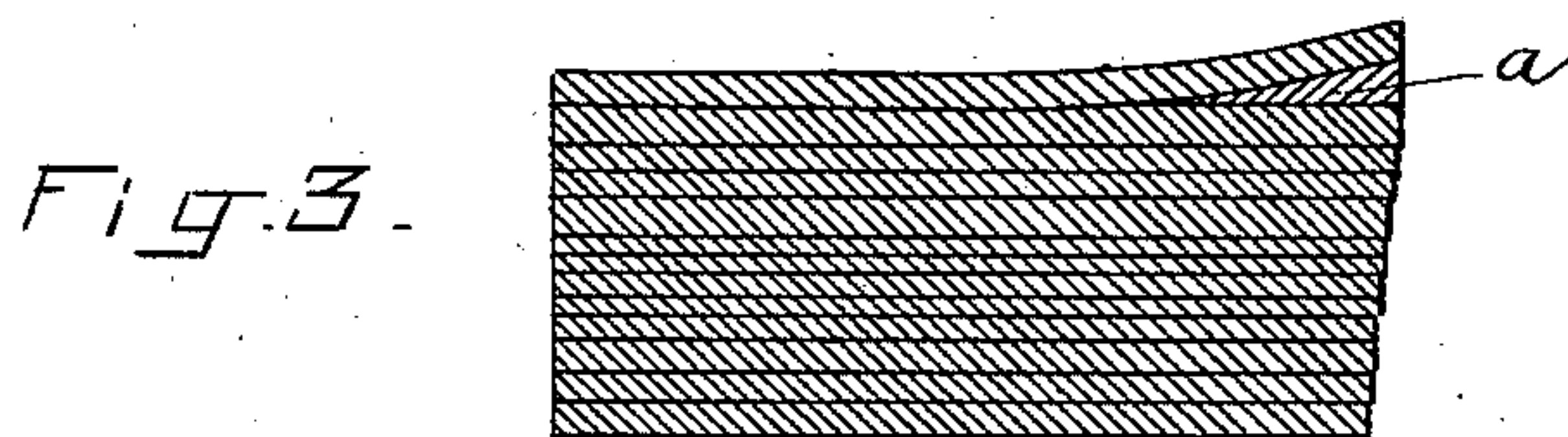
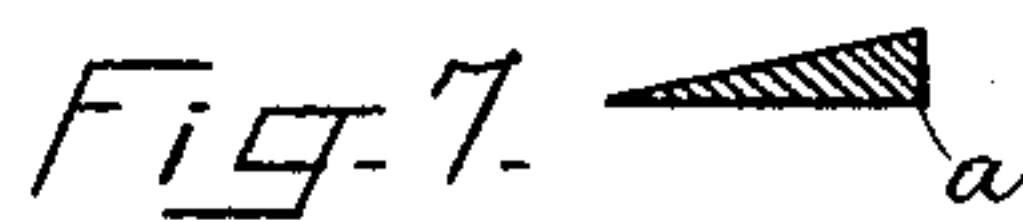
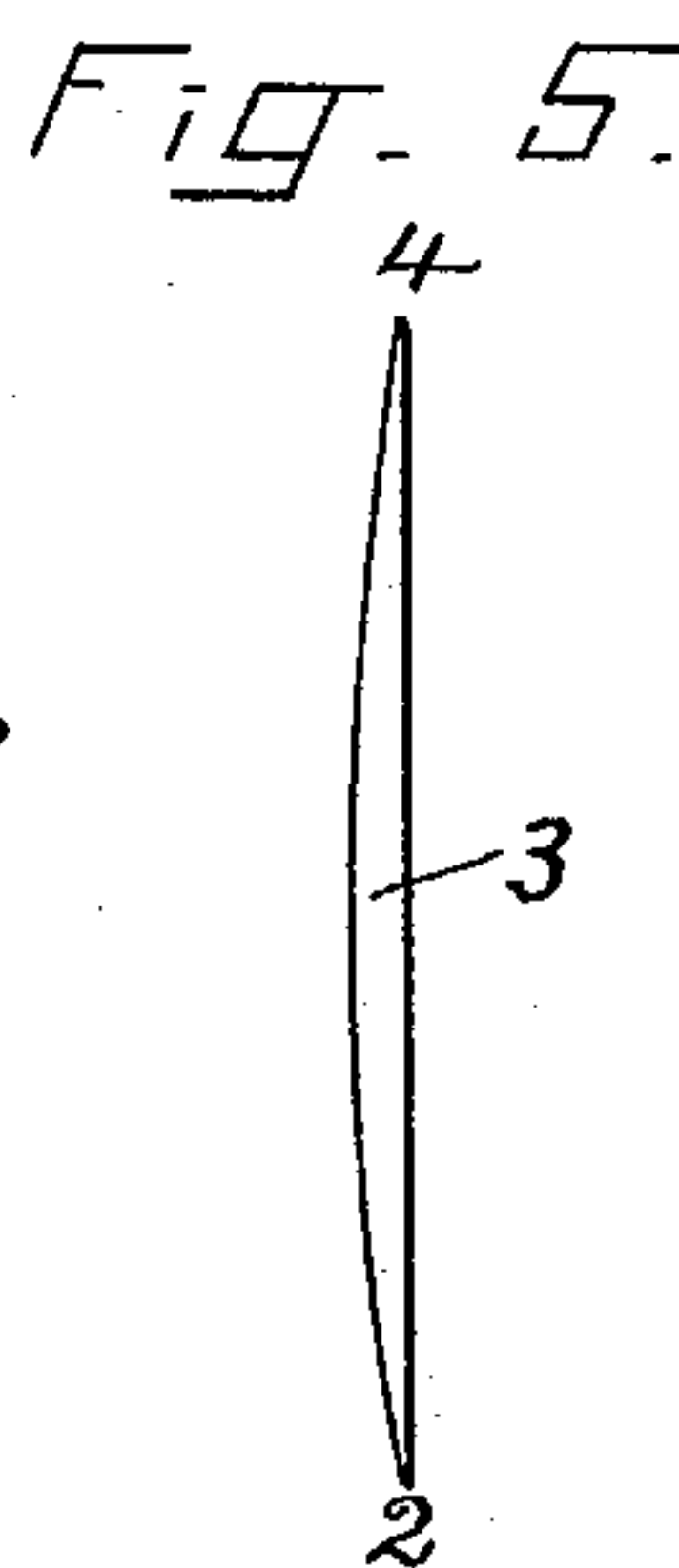
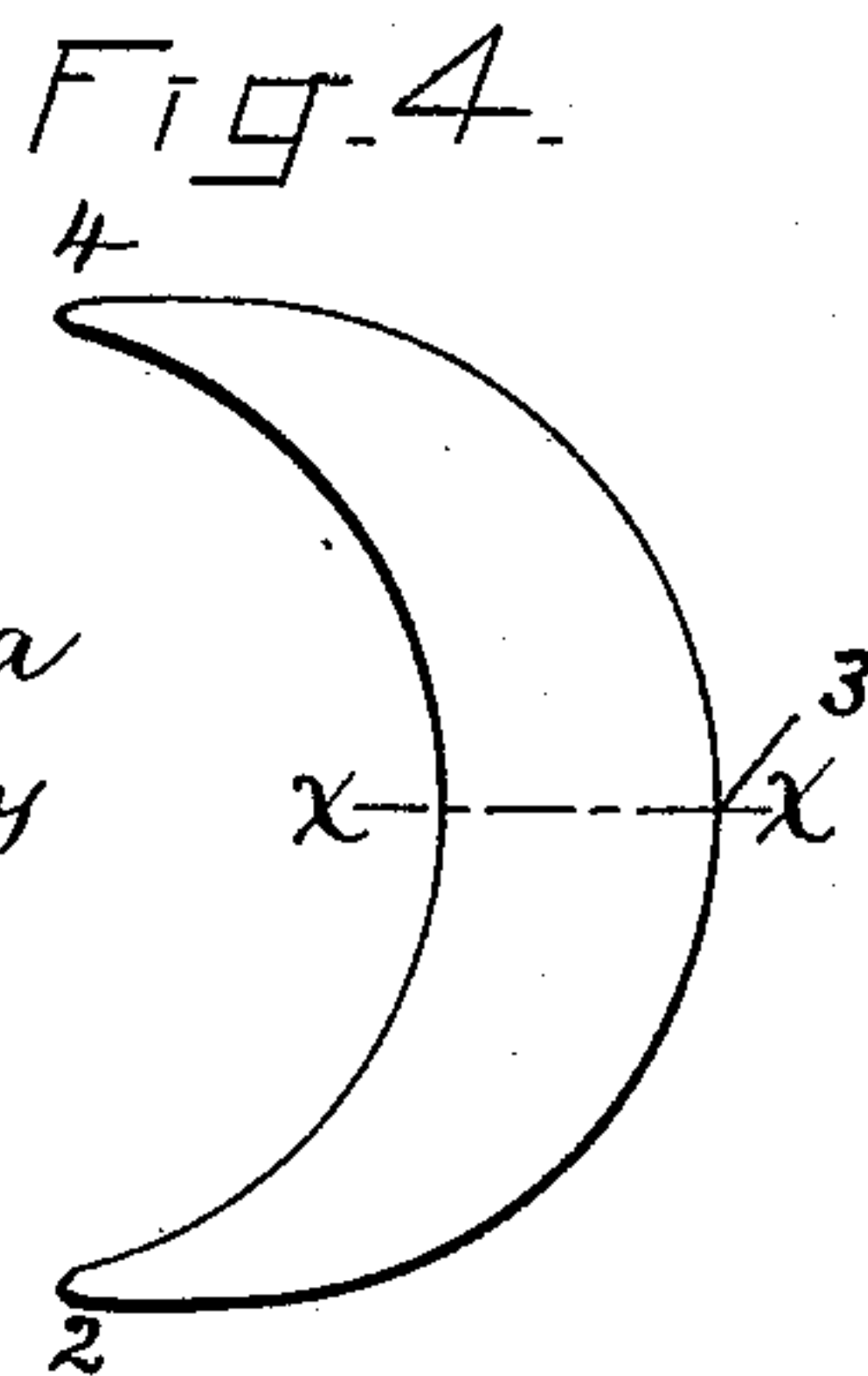
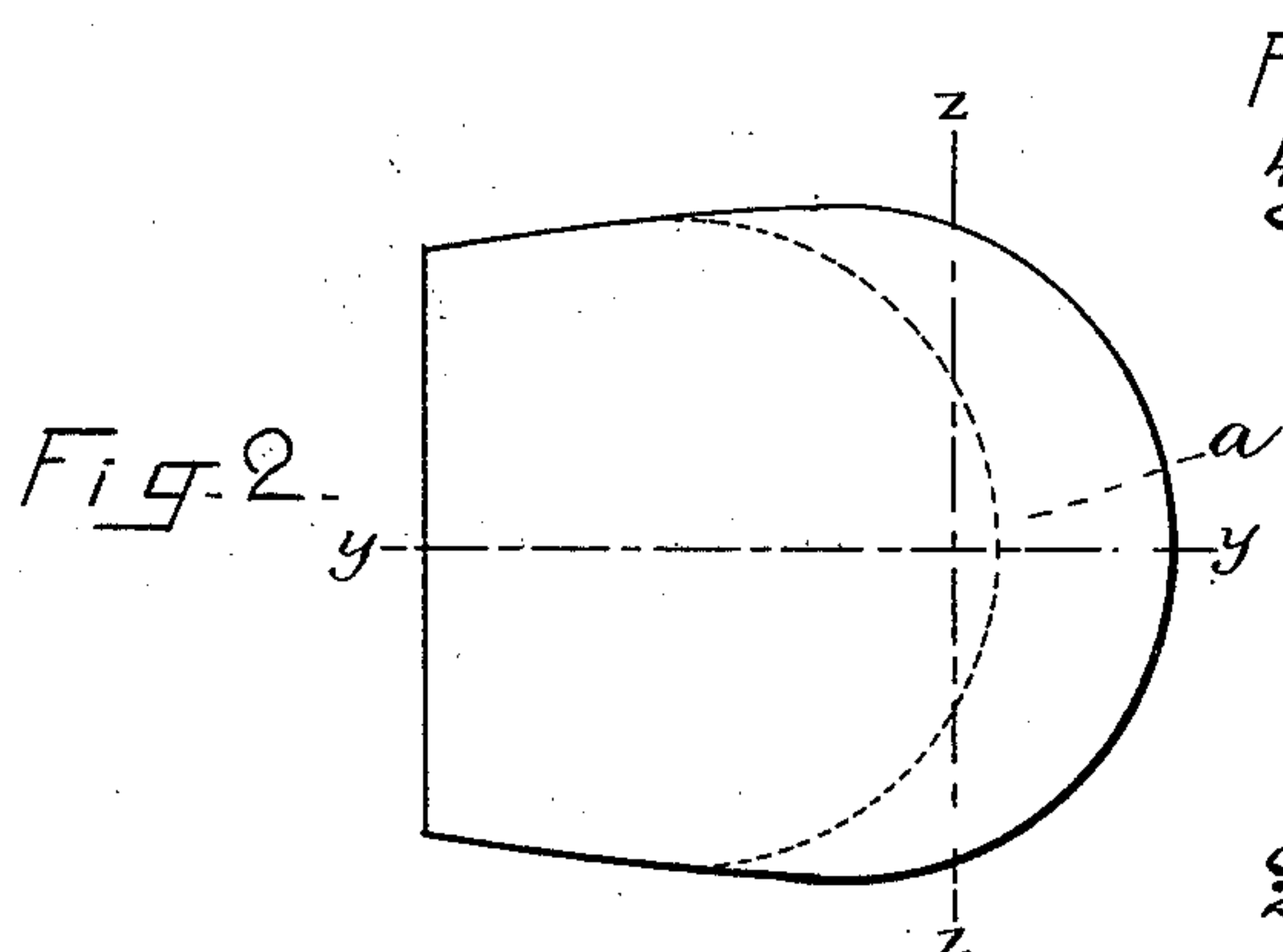
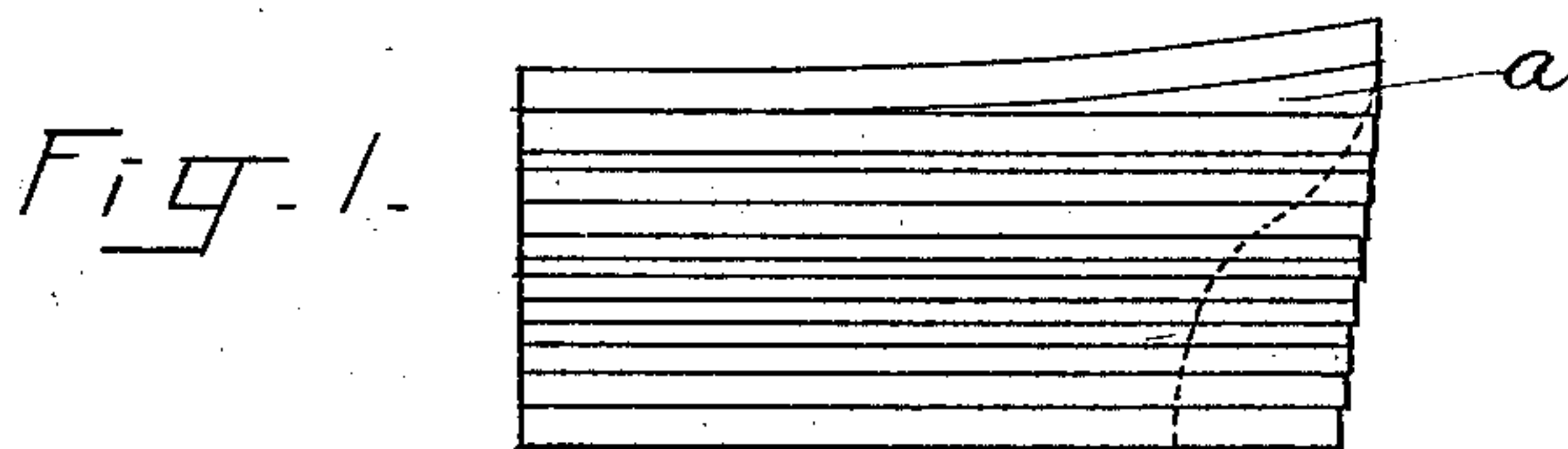
(No Model.)

H. A. HENDERSON.

BOOT OR SHOE HEEL.

No. 370,621.

Patented Sept. 27, 1887.



WITNESSES:  
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A. J. Harrison.

INVENTOR:  
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Atty

# UNITED STATES PATENT OFFICE.

HENRY A. HENDERSON, OF LYNN, MASSACHUSETTS.

## BOOT OR SHOE HEEL.

SPECIFICATION forming part of Letters Patent No. 370,621, dated September 27, 1887.

Application filed May 26, 1887. Serial No. 239,396. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. HENDERSON, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Boot or Shoe Heels, of which the following is a specification.

This invention consists in a boot or shoe heel or heel-blank having a tapered rand inserted between two of its lifts at the rear portion of the heel, said rand being peculiarly formed, as hereinafter set forth, so that it raises the rear portion of the foot-bearing surface of the heel and makes said surface concave, not only longitudinally but also transversely.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side view of my improved heel-blank. Fig. 2 represents a top view. Fig. 3 represents a longitudinal section in line *yy*, Fig. 2. Fig. 3<sup>a</sup> represents a section on line *zz*, Fig. 2. Figs. 4 and 5 represent, respectively, top and back views of the rand before the same is molded. Fig. 7 represents a section on line *xx*, Fig. 4. Fig. 6 represents a perspective view of the molded rand.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I incorporate between two of the lifts of a heel a rand, *a*, which has the following peculiarities of form: First, its convex edge 2 3 4 is of varying thickness, which gradually decreases from the central point, 3, to the ends 2 4, which are pointed, as shown in Figs. 1, 5, and 6; secondly, the width of the rand gradually decreases from the center of its length to its ends, as shown in Figs. 2, 4, and 6; thirdly, the concave edge is made thin or knife-edged from end to end; fourthly, the length of the rand is such that it will extend from the back only about half of the length of the heel toward the breast, as shown in Figs. 1 and 2. This peculiarly-shaped rand is interposed between two of the solid lifts of the heel, preferably between the lift at the upper or foot bearing or seat of the heel and the one beneath it, the thickened central portion of the lift being at the back of the heel, while the reduced ends are about half-way between the back and

breast. The heel is then subjected to a mold or former, which completes the concavity of its upper surface or seat.

It will be seen that the rand gives the upper surface of the heel a gradual increase in height at its rear portion, and also gives the upper surface a concave form, not only longitudinally of the heel, as shown in Fig. 3, but also transversely, as shown in Fig. 3<sup>a</sup>. The heightened rear portion adapts the heel-blank to the French or ogee style of heel, as indicated by dotted lines in Fig. 1.

I am aware that it is not new to insert a wedge-shaped lift in the rear portion of a heel for the purpose of raising the rear portion; but in all instances known to me the thin edges of said lifts have been straight instead of concave, so that the longitudinal curvature shown in Fig. 3 and the transverse curvature shown in Fig. 3<sup>a</sup> cannot be imparted to the upper surface of the heel, unless by very heavy pressure, such as would require great power.

I am also aware that a rand having a thick outer edge and a thin inner edge has been extended entirely around the curved surface of a heel, from breast to breast, without giving the heel an increased height at the back alone, the thick outer edge of the said rand being of uniform thickness from end to end.

The peculiar form of the rand of my invention raises the heel at its rear, but not at its front, and enables the described curvature to be given to the upper surface of the heel by a comparatively-light molding-pressure, as will be readily seen.

The rand, shaped as shown in Figs. 4 and 5, is the part removed by the operation of skiving or beveling a leather heel-stiffener, and has heretofore been regarded only as waste leather, which can be obtained very cheaply.

The ends of the improved rand may, if desired, be extended to or nearly to the breast of the heel.

I claim—

A heel or heel-blank having between two of its lifts a rand, which has a thin concave inner edge and a convex outer edge or back made thickest at its center and decreasing in thickness from its center to its ends, the thick-



est central portion of the rand being at the  
center of the back of the heel, whereby the  
upper surface of the heel is given a gradual  
downward inclination along its margin from  
5 the center of the back toward the breast and  
a concave depression from all parts of said in-  
clined margin toward the center of the heel,  
as set forth.

In testimony whereof I have signed my name  
to this specification, in the presence of two sub- 10  
scribing witnesses, this 23d day of May, A. D.  
1887.

HENRY A. HENDERSON.

Witnesses:

C. F. BROWN,

A. D. HARRISON.