

(No Model.)

2 Sheets—Sheet 1.

H. A. WEBSTER.

NAIL BLOCK OR PLATE FOR HEEL ATTACHING MACHINES.

No. 559,554.

Patented May 5, 1896.

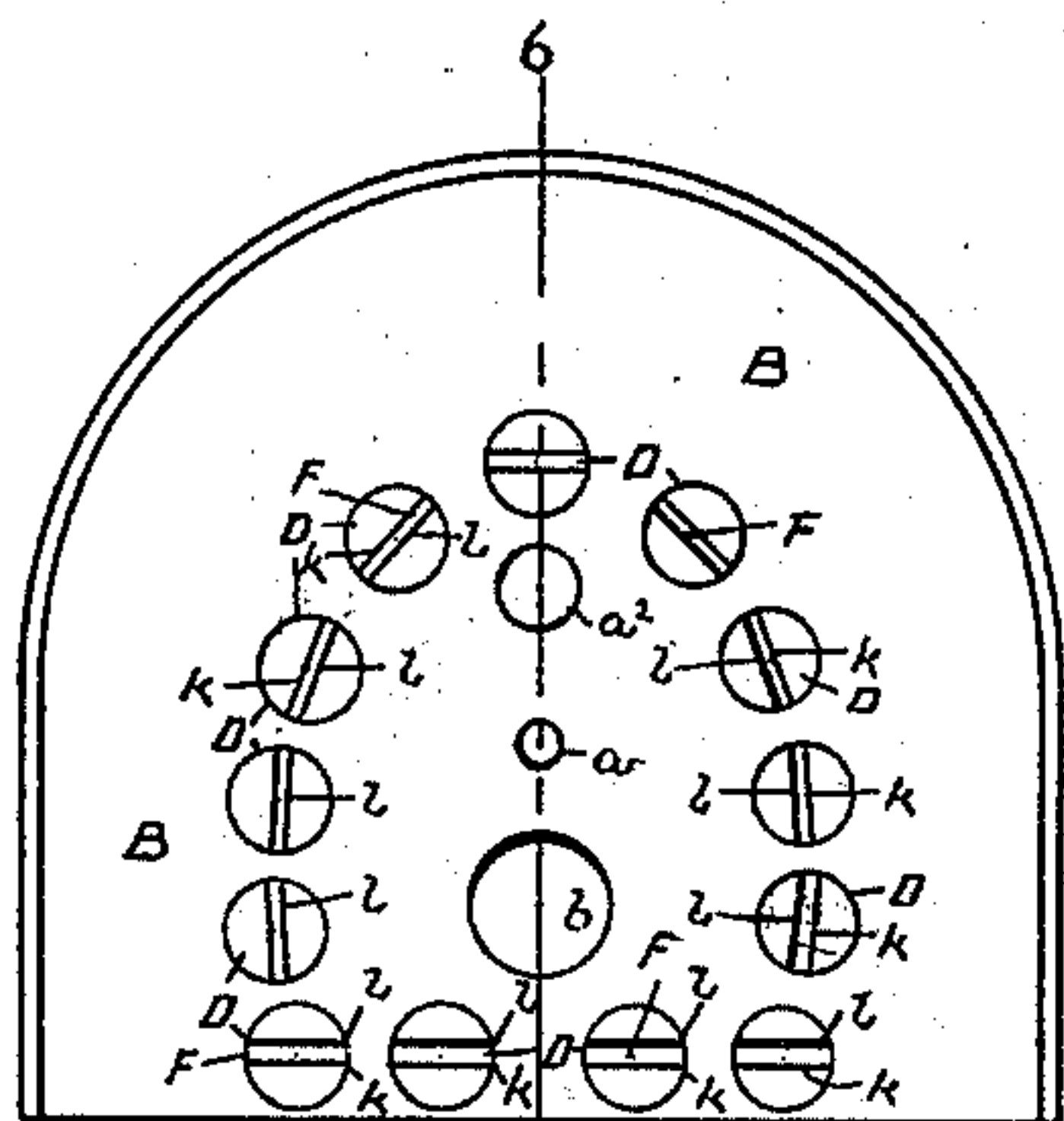


Fig. 1.

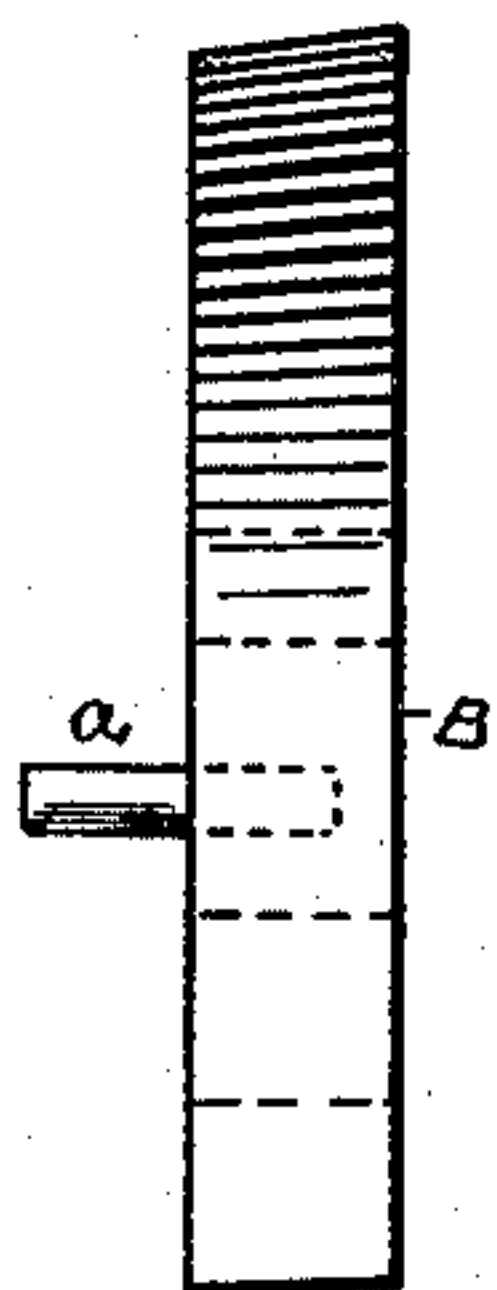


Fig. 2.

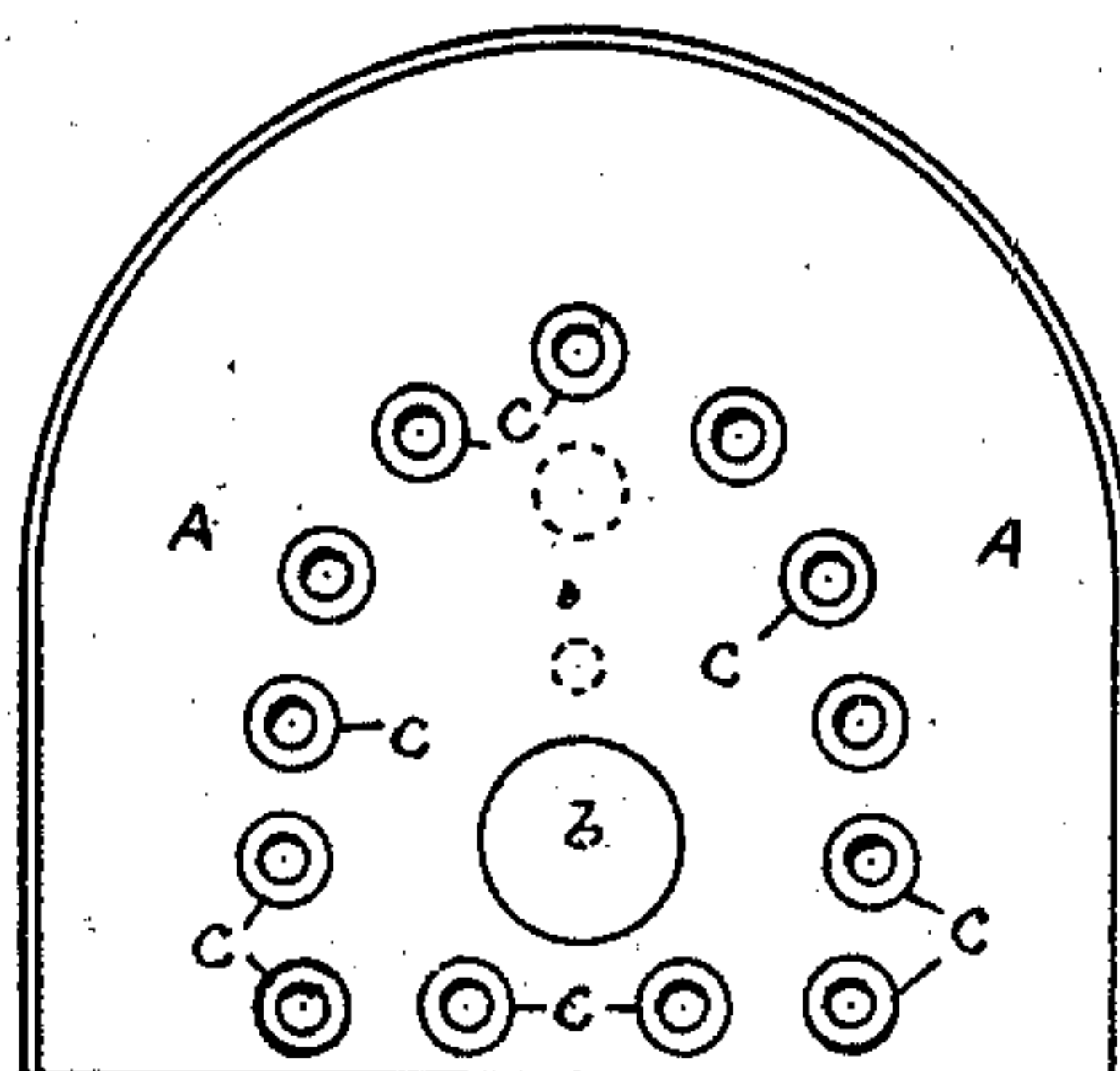


Fig. 3.

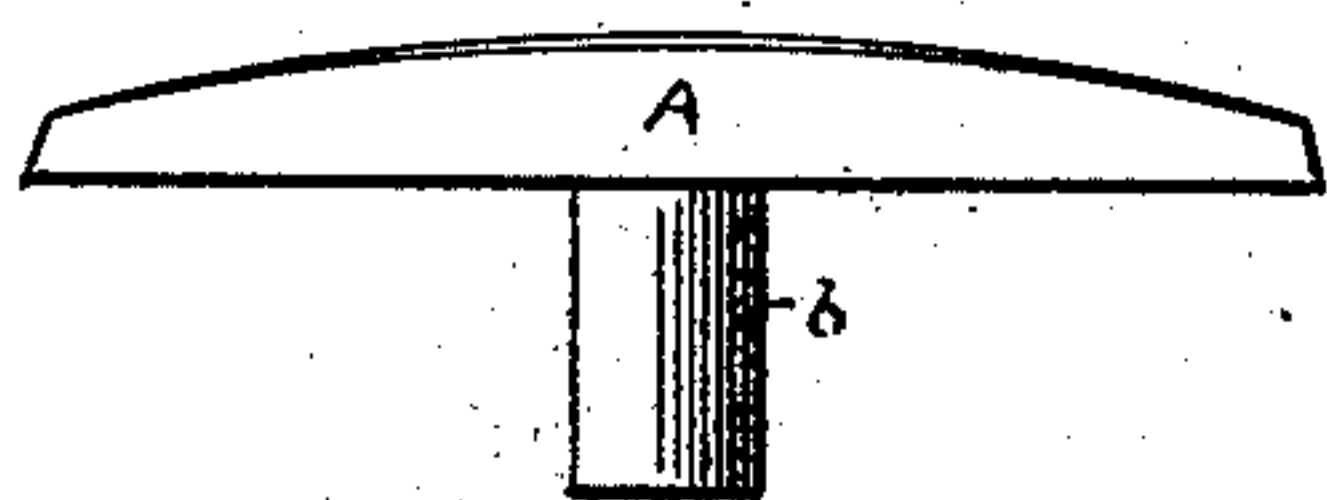


Fig. 4.

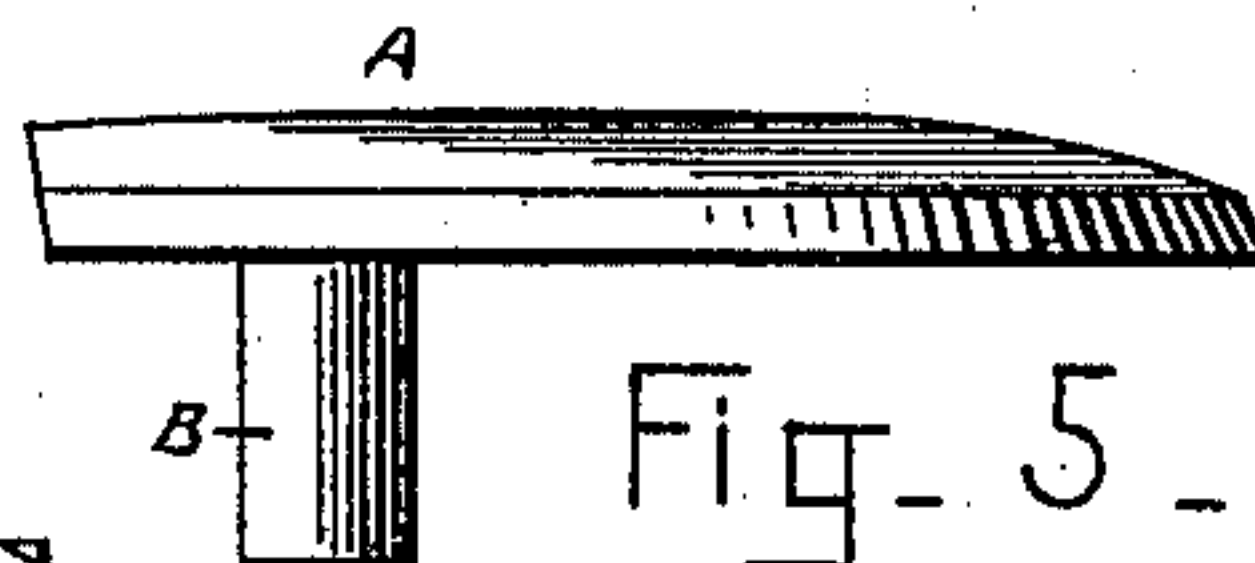


Fig. 5.

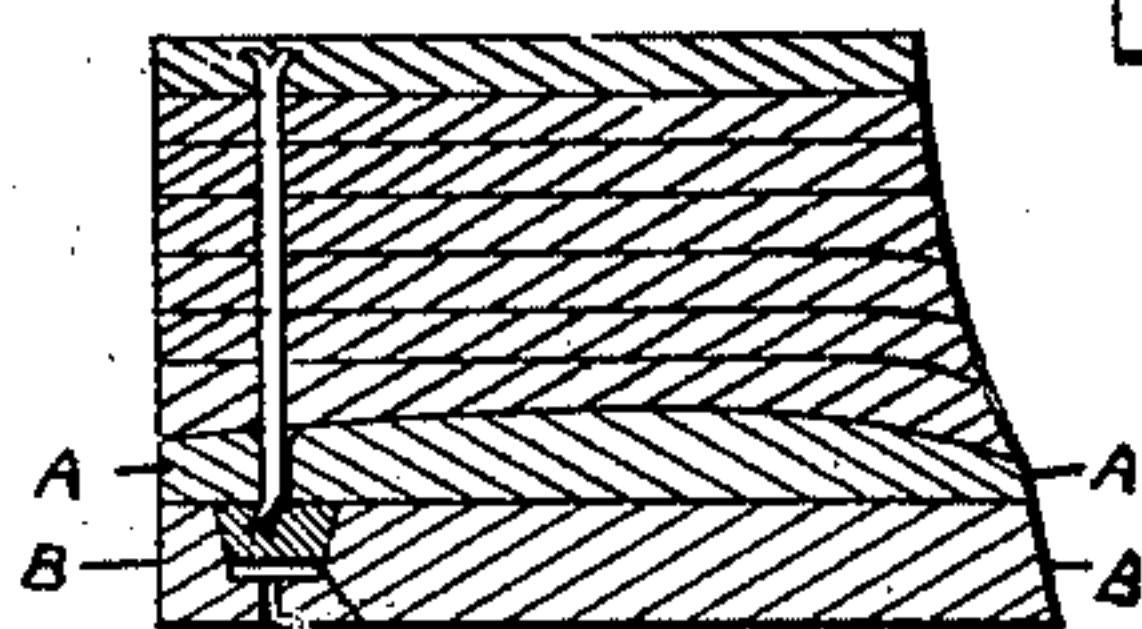


Fig. 6.

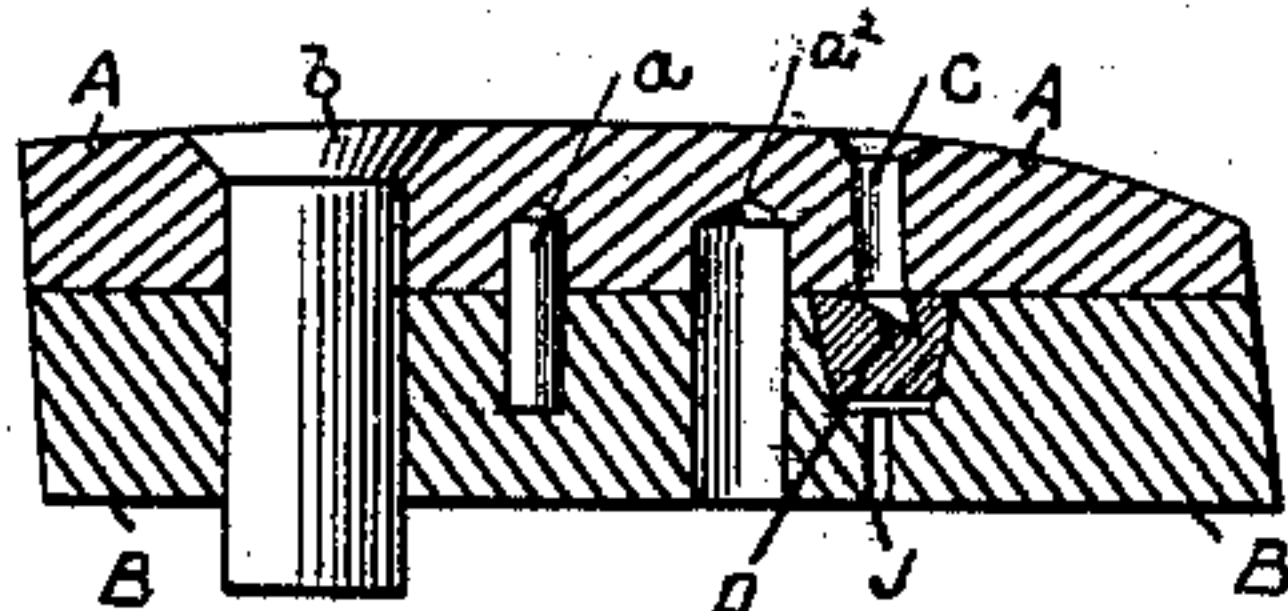


Fig. 7.

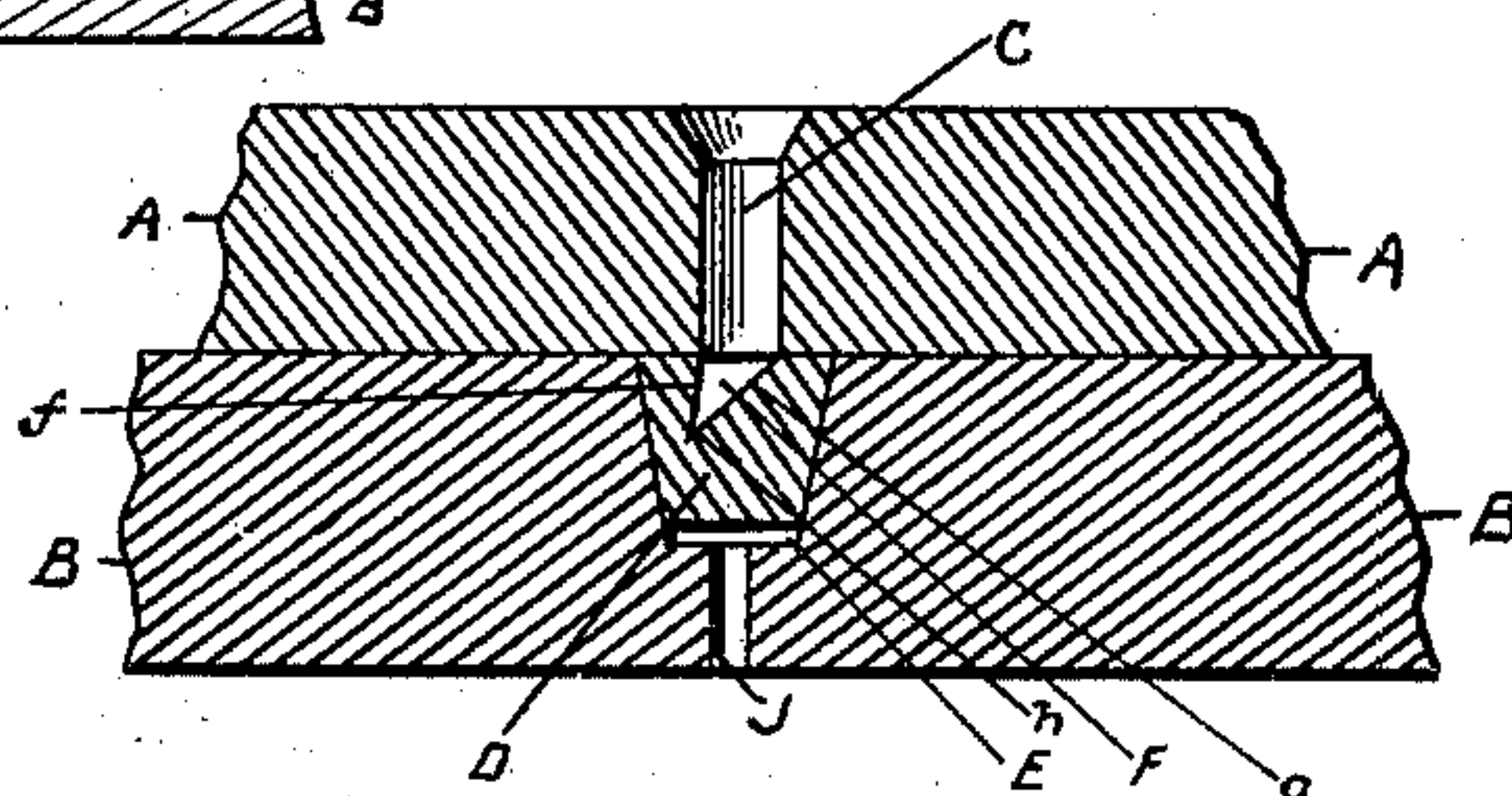


Fig. 8.

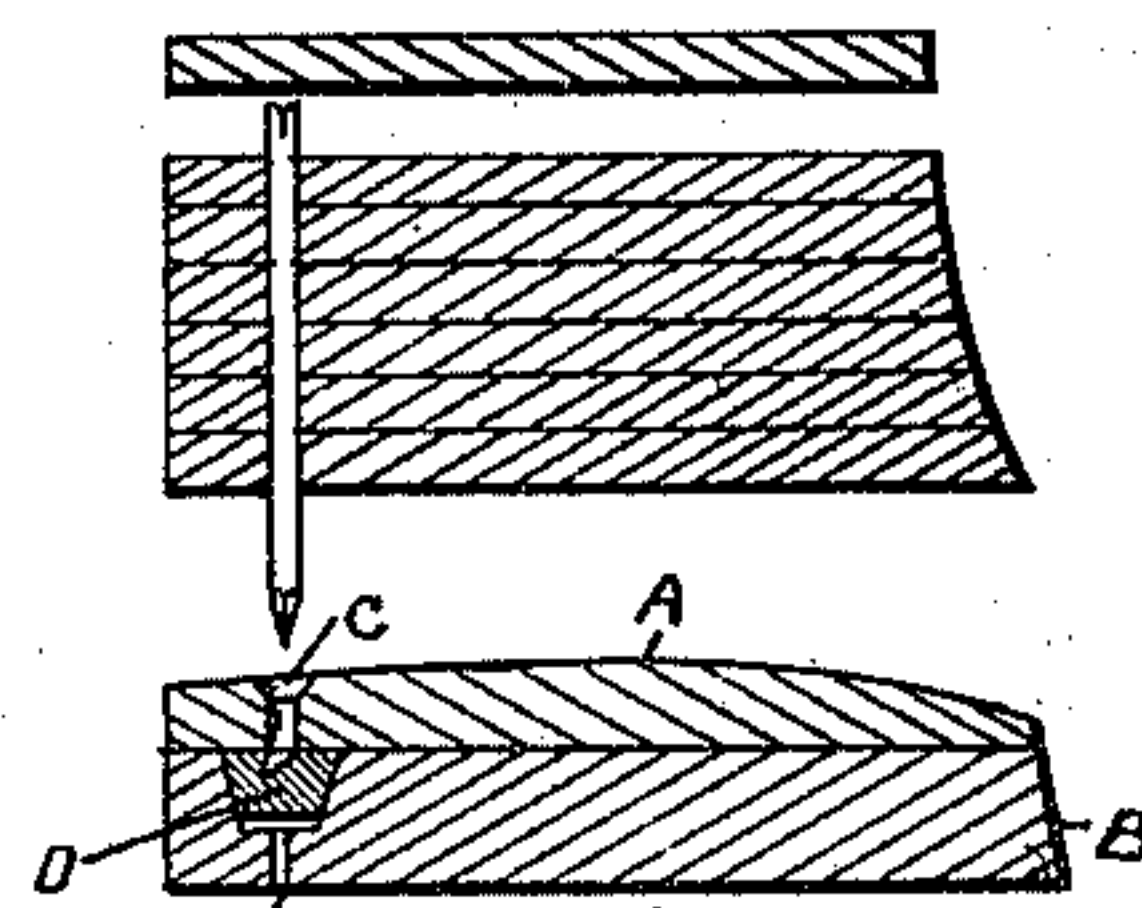


Fig. 9.

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Geo. C. Bent
Henry F. McKeever.

INVENTOR:

Harold A. Webster
by his Attorneys
Brown Bros.

(No Model.)

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No. 559,554.

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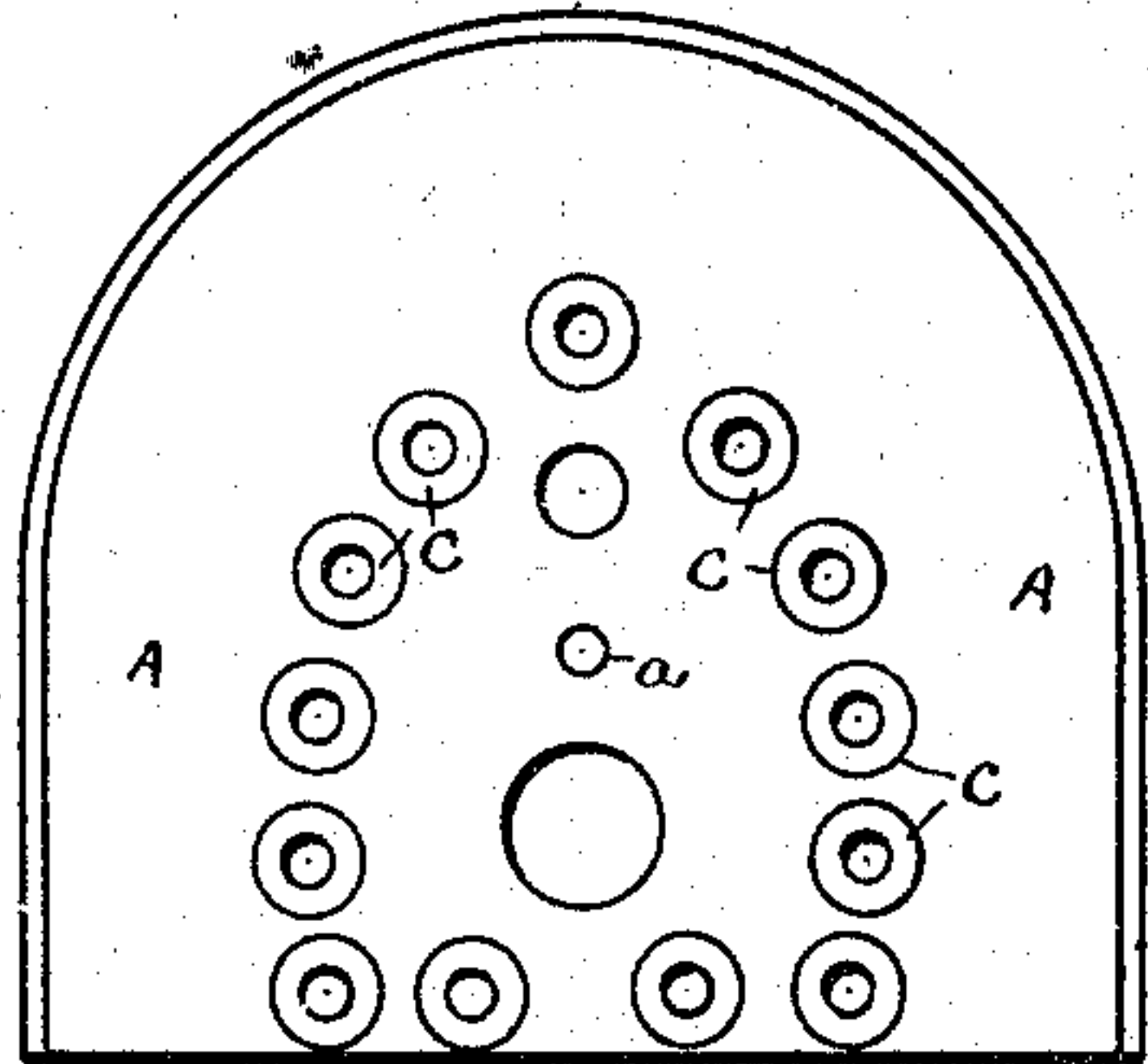


Fig. 8.

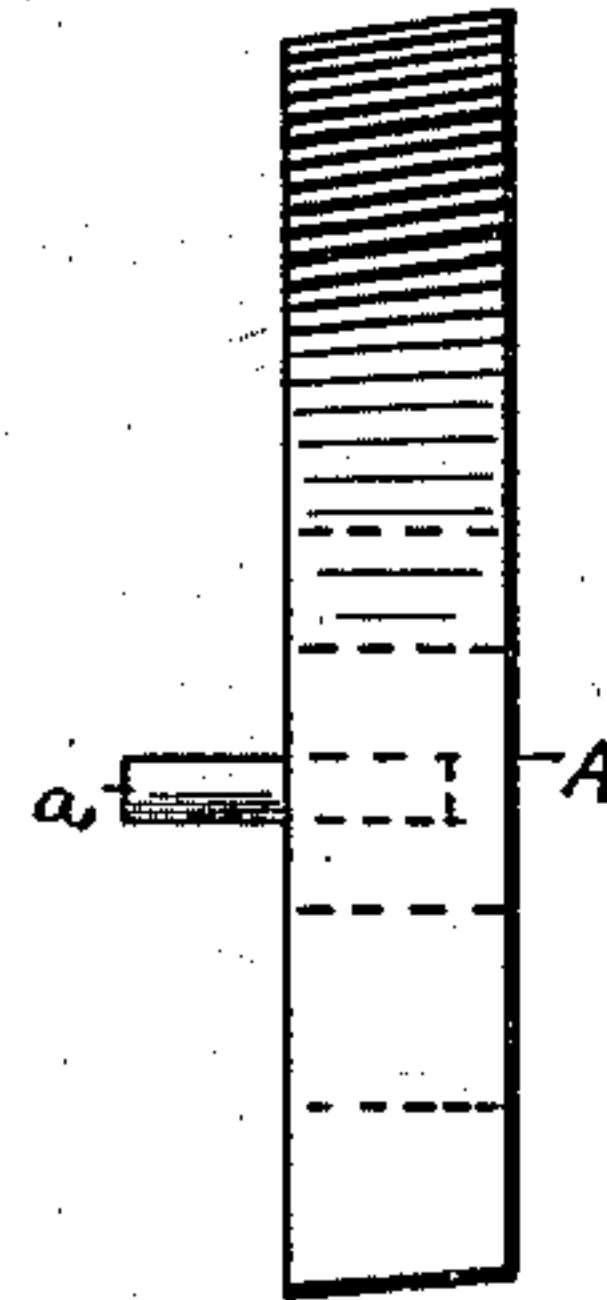


Fig. 9.

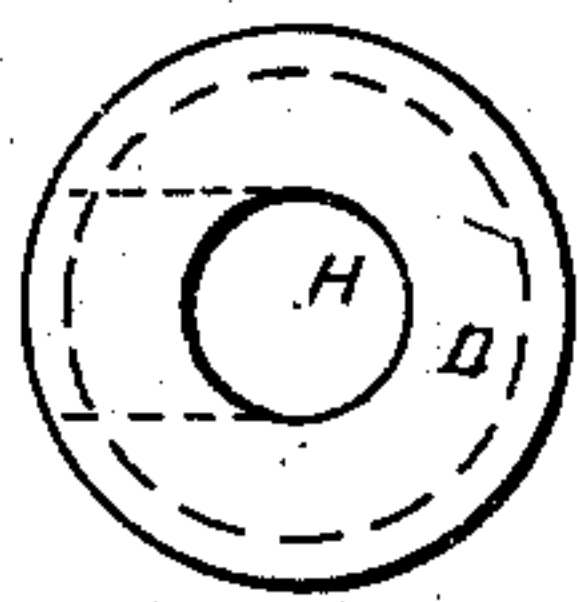


Fig. 10.

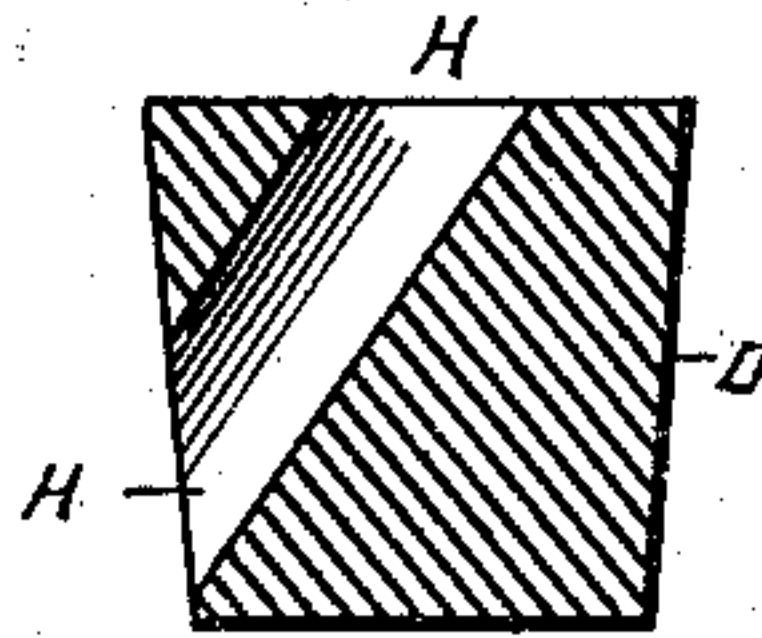


Fig. 11.

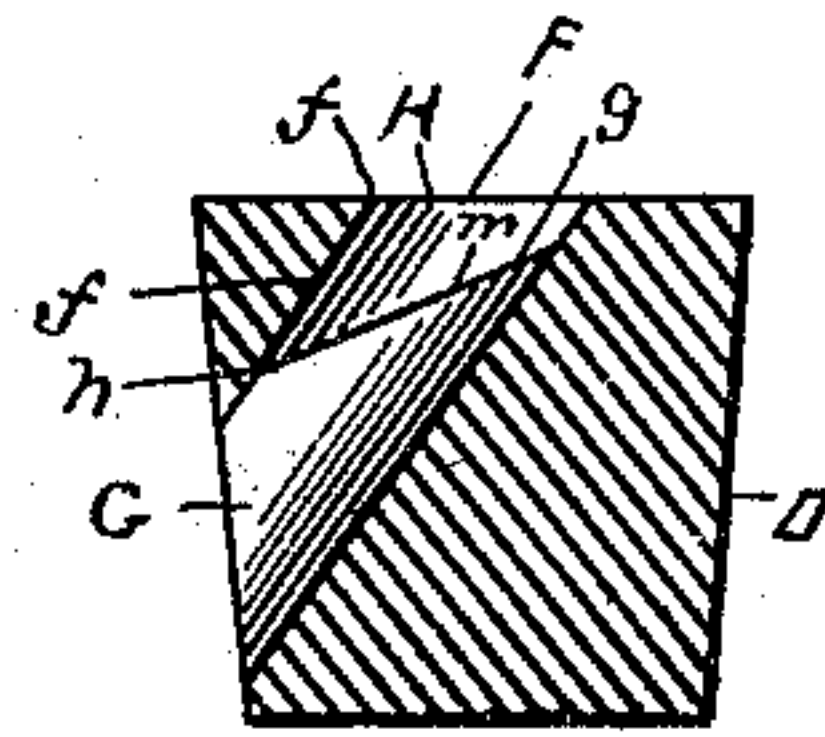


Fig. 12.

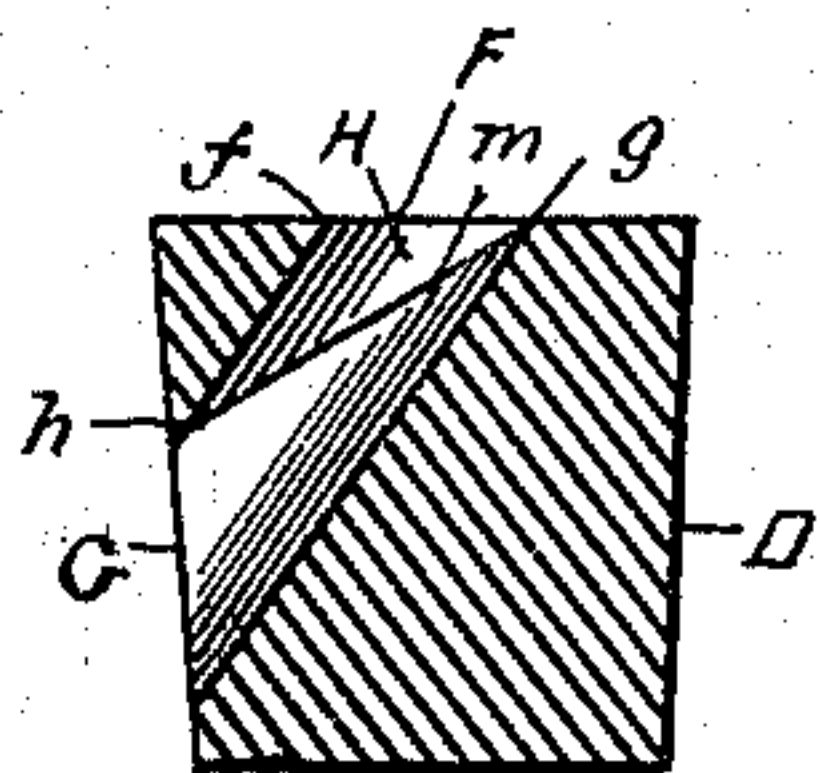


Fig. 13.

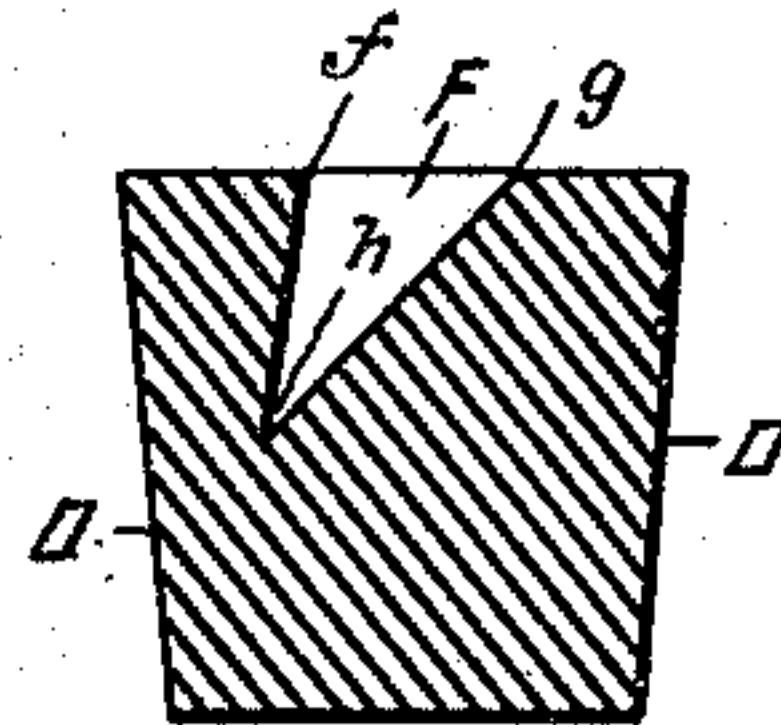


Fig. 14.

WITNESSES:

Geo. L. Dent
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INVENTOR:

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UNITED STATES PATENT OFFICE.

HAROLD A. WEBSTER, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO
JAMES W. BROOKS, TRUSTEE, OF CAMBRIDGE, MASSACHUSETTS.

NAIL BLOCK OR PLATE FOR HEEL-ATTACHING MACHINES.

SPECIFICATION forming part of Letters Patent No. 559,554, dated May 5, 1896.

Application filed January 30, 1889. Serial No. 298,097. (No model.)

To all whom it may concern:

Be it known that I, HAROLD A. WEBSTER, a citizen of the United States of America, and a resident of the city of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Nail Blocks or Plates for Heel-Attaching Machines, of which the following is a full, clear, and exact description.

This invention relates to heel plates or blocks of the machine for attaching boot or shoe heels constituting the application for Letters Patent of the United States which I filed February 18, 1888, Serial No. 264,538, and which are used in that machine to bend the projecting nail-points outwardly in a radial direction as the top lift is being forced over the projecting heads of the nails of and thus attached to the heels, the object of such bending being, first, to prevent the displacement of the heel while it is being attached to the boot or shoe by the bending or yielding of the projecting points of the nails, which bending would be liable to occur if the points were straight and parallel with each other, and, secondly, to cause the nails to turn or clench outwardly or toward the margin of the heel-seat, thus making the attachment of the heel more secure and effecting a tighter joint between the heel and the heel-seat than would be possible if the nails were turned or clenched at random.

This invention consists of a heel plate or block in upper and lower sections or parts suitably attached together. The upper part has a series of round holes through its thickness and arranged in the outline of a boot or shoe heel and corresponding to the location of the nails in the boot or shoe heel. The lower part has a series of anvil-blocks seated in it, preferably so as to be removable at pleasure. Each anvil lies across a hole of the upper part of the heel-plate and has a groove or channel from side to side of the hole, having walls at diametrical opposite sides of the hole which extend downward into the anvil and meet at their lower end in an acute angle, all substantially as hereinafter described.

In the drawings forming part of this specification, Figures 1 and 8 are top face views,

and Figs. 2 and 9 are edge views, of the lower part of the heel plate or block, the upper part being detached. Fig. 3 is a top face view, and Figs. 4 and 5 are edge views, of the upper part of the heel-plate, the lower part being detached. Fig. 6 is a transverse section of the heel-plate, line 6 6, Fig. 1; and Fig. 7 is a similar section enlarged and in detail. Figs. 10, 11, 12, 13, and 14 are views, enlarged, of modifications of the anvil-blocks, as hereinafter appear. Figs. 15 and 16 are vertical sectional views hereinafter referred to.

In the drawings, A and B are the upper and lower parts or sections of the heel plate or block secured together by dowel-pins a a^2 and rivet b .

C C are a series of round holes through the thickness of upper part A and arranged in the outline of and corresponding to the location of the nails in a boot or shoe heel.

D D are a series of anvil-blocks, each entered in a socket E of the lower part B and lying across a hole C of the upper part.

F is a groove or channel in each anvil-block D at its face opposite to the hole C. Each groove or channel F of the anvil-blocks extends diametrically across from side to side of the hole C, and the walls f g at its opposite ends extend downward into the block and meet in an acute angle h , which, laterally, is beyond the vertical plane of the corresponding side of the hole C.

In the use of the heel plate or block described and in the machine referred to, Figs. 15 and 16, the projecting points of the nails of the heel are forced through the holes C of the upper part A of the heel-plate into and against the downwardly-inclining walls g of the grooves or channels of the anvil-blocks of the lower part B and thereby bent laterally and in a corresponding downwardly-inclining direction.

In bending the nail-points, as described, the opposite side walls k l of the channels or grooves of the anvil-blocks hold the nail-points in position for the walls g to work on them, as stated.

Figs. 1, 7, and 4 show the sides k l of the grooves or channels of the anvil-blocks as straight and parallel. The grooves or channels F may be round, Figs. 10, 11, 12, and 13,

and formed by boring inclined holes H, Figs. 10 and 11, in the lower part B, and then inserting plugs G, Figs. 12 and 13, in the holes to close them, shaped, as at *m*, to give inclining walls *g* for securing the bend of the nail-points.

Straight and parallel side walls *k l* for the grooves or channels F of the anvil-blocks are most preferable, for the reasons stated.

10 The anvil-blocks D are preferably made tapering, as also the sockets E of the lower part B to receive them, all so that an accurate and close fit and seating of the blocks may be secured. Furthermore, to facilitate
15 the removal of the anvil-blocks a hole J is made through the lower part of each socket for the insertion of a proper tool to force the anvil-block out of its seat.

As the anvil-blocks obviously can be turned
20 in their sockets, their grooves or channels can be placed in different lines or directions, according to the direction in which it is desired to bend the nail-points. Although the heel plate or block of this invention has been de-
25 scribed, particularly in relation to the heel-attaching machine stated, it is not intended to limit it thereto.

It will be seen that by arranging the anvil-blocks so that they will turn the points of the
30 nails outwardly, so that said points will radiate or approximately radiate from the center of the heel, the nails are caused to bend or clench outwardly toward the margin of the heel-seat and thereby finally unite the mar-
35 gin of the heel to the heel-seat. The turning of the points also insures the correct position of the heel when it is attached by preventing the nails from bending all in one direction while they are being forced into the bottom
40 of the boot or shoe.

When the nail-points have been bent as described, the block B will be removed, and such

of the anvil-blocks D as adhere to the bent nail-points may readily be removed by a slight lateral movement in the direction in which the
45 nail-point has been bent.

When the said blocks B and D have been removed, the block A may be removed from the nail-points by inserting any suitable tool between the heel-lifts and the block A and
50 forcing the latter off. The bent ends of the nails will yield sufficiently to permit this operation, and will still remain bent sufficiently to cause the final radial clenching.

Having thus described my invention, what
55 I claim, and desire to secure by Letters Patent, is—

1. A heel plate or block, composed of an upper part A having holes C through its thickness, and a lower part B held on the upper
60 part in combination with removable anvil-blocks D of lower part B opposite to hole C of upper part A and each having a groove or channel F with parallel side walls *k, l*, and opposite walls *f, g*, downwardly extending and
65 meeting in an acute angle, substantially as described, for the purpose specified.

2. A heel plate or block, composed of an upper part A having holes C through its thickness, and a lower part B held on the upper
70 part in combination with removable anvil-blocks D of lower part B opposite to holes C of upper part A and each having a groove or channel F with opposite walls *f, g* downwardly extending and meeting in an acute angle, sub-
75 stantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

H. A. WEBSTER.

Witnesses:

ALBERT W. BROWN,
EDWARD HAMILTON.