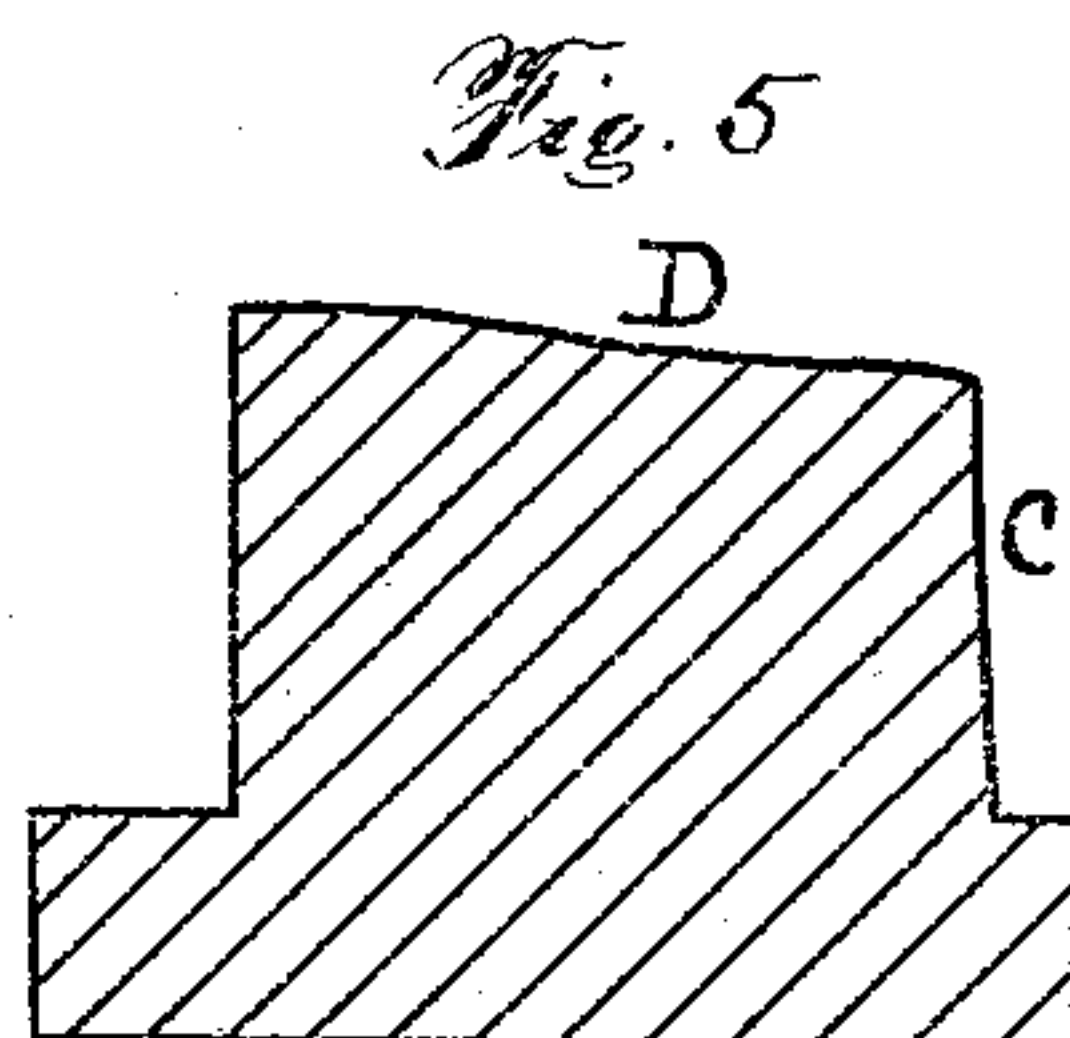
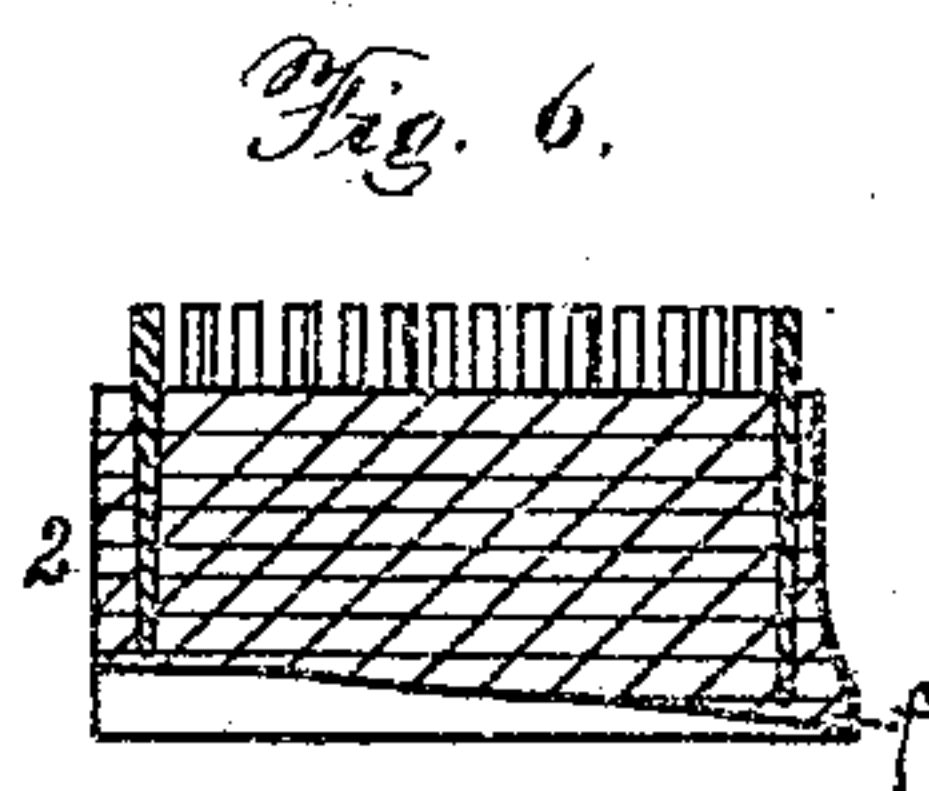
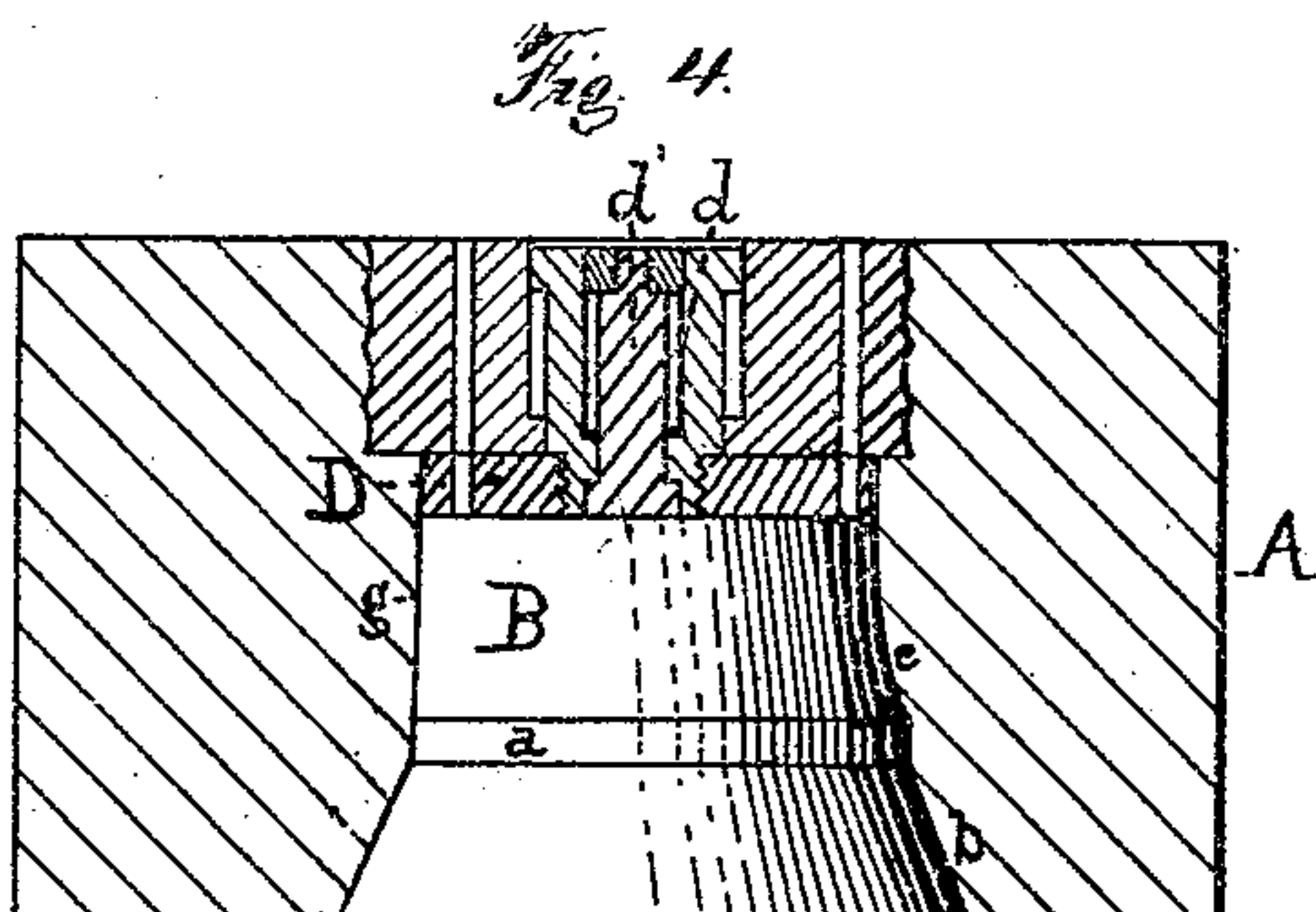
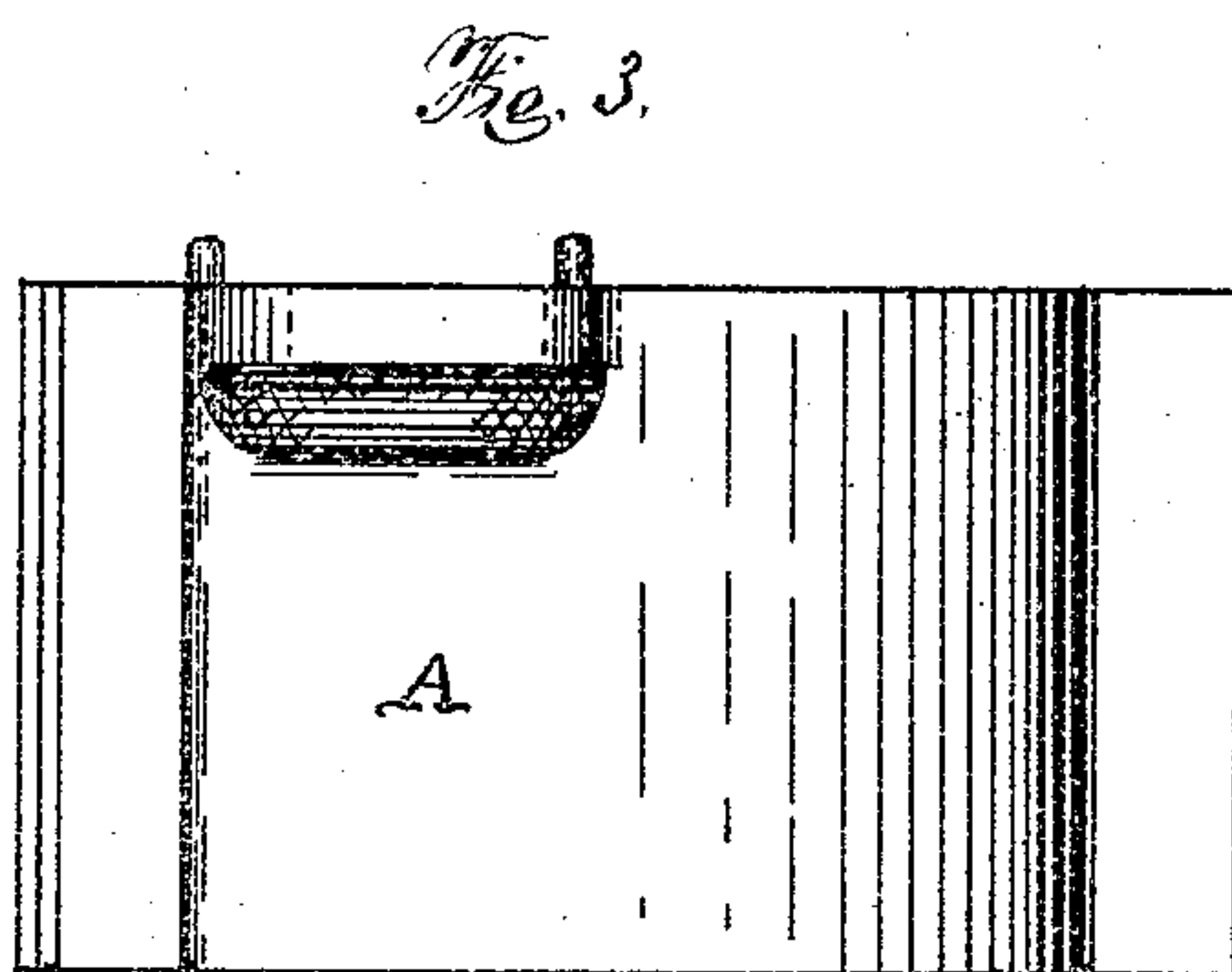
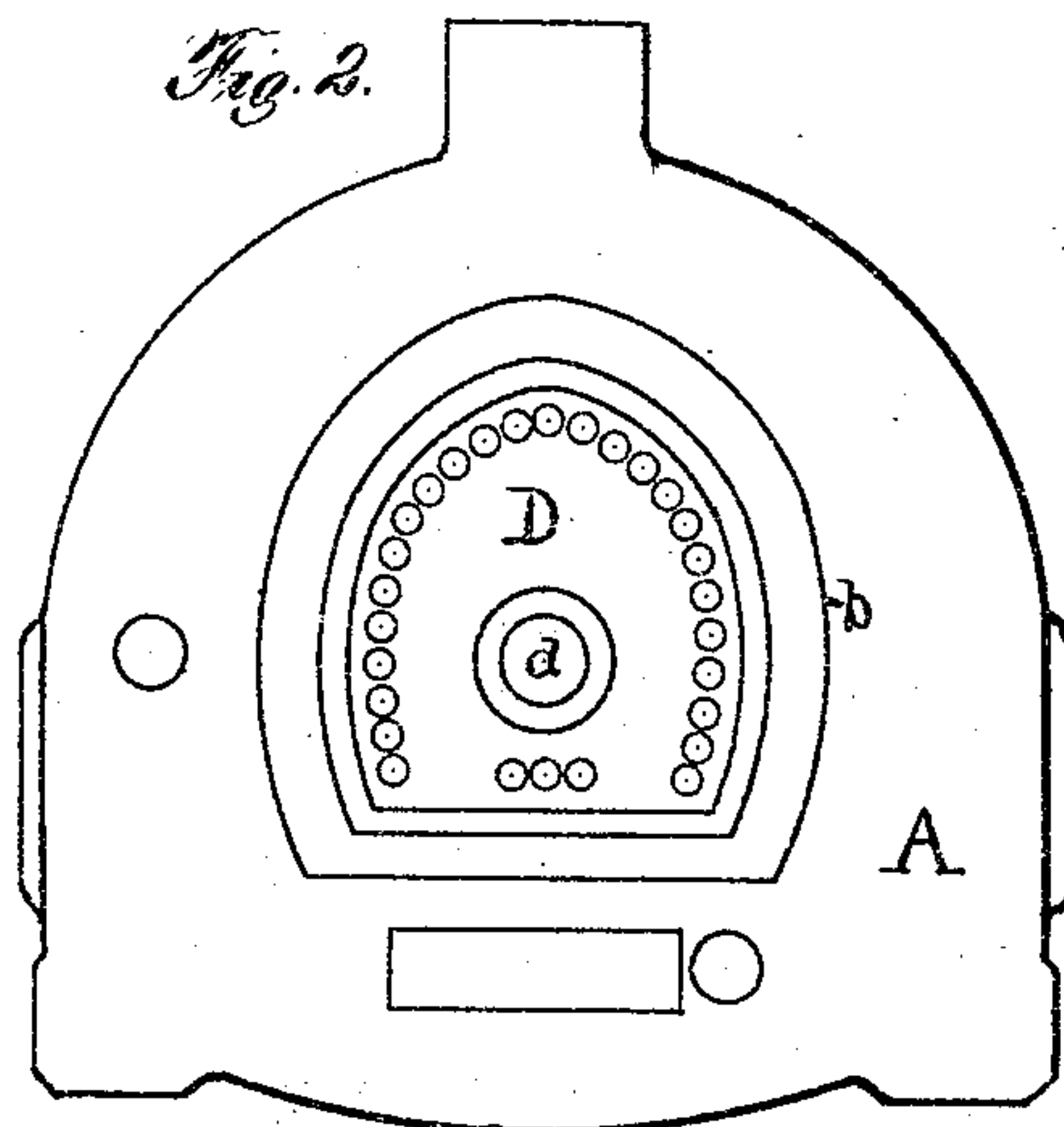
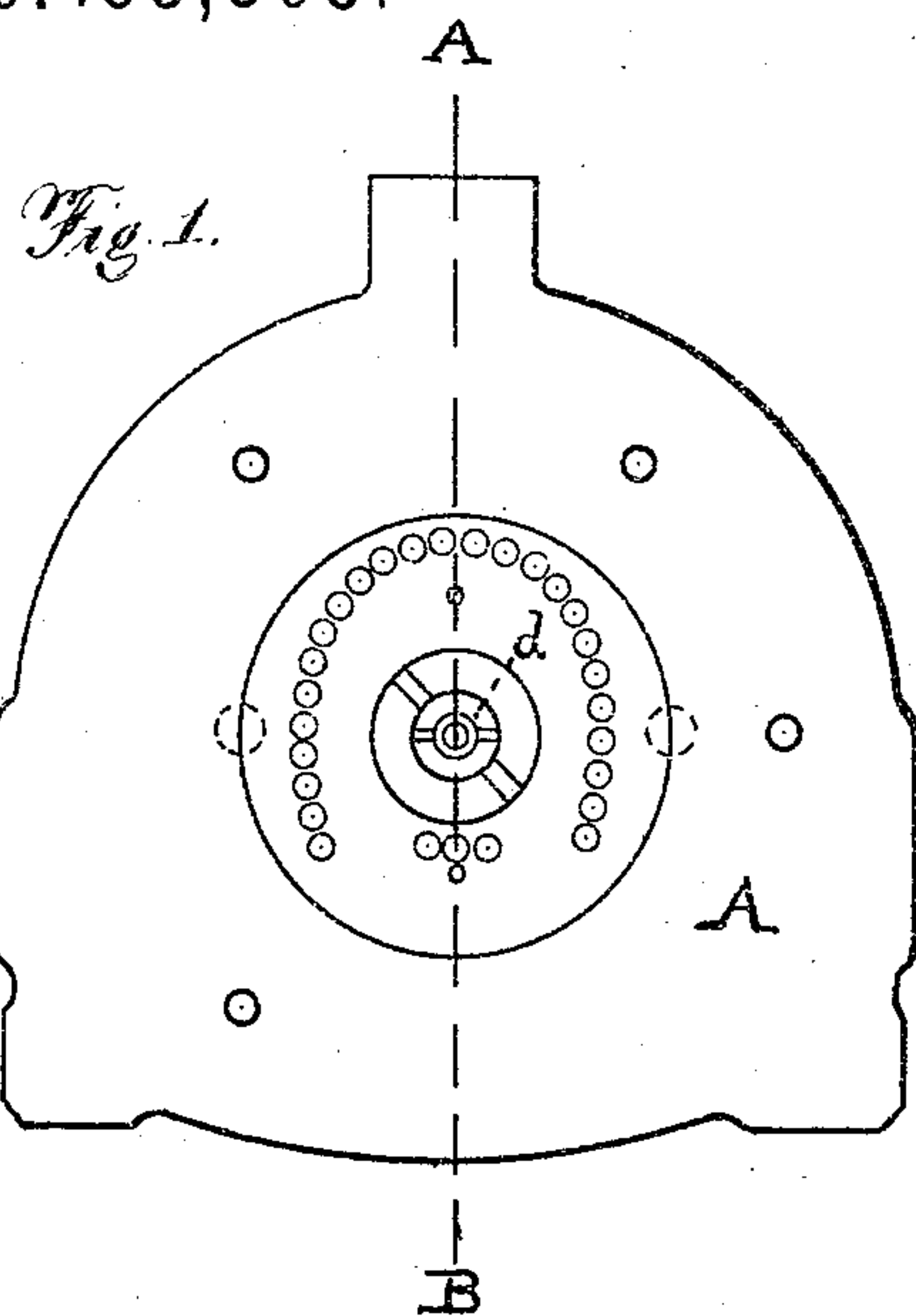


H. H. BIGELOW.

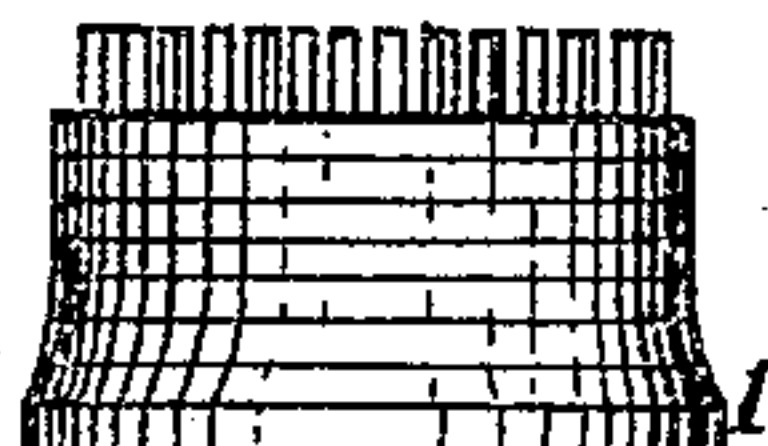
Molds for Compressing the Heels of Boots and Shoes.

No. 153,305.

Patented July 21, 1874.



*Fig. 7.*



WITNESSES

INVENTOR

*Thos. H. Dodge*

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*Edwin C. Moore*



# UNITED STATES PATENT OFFICE.

HORACE H. BIGELOW, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN MOLDS FOR COMPRESSING THE HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **153,305**, dated July 21, 1874; application filed July 2, 1874.

*To all whom it may concern:*

Be it known that I, HORACE H. BIGELOW, of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvement in Molds for Compressing Blank Heels for Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of this specification, and in which—

Figure 1 represents a top view of the mold. Fig. 2 represents a bottom or under-side view. Fig. 3 represents a side view. Fig. 4 represents a vertical central section on line A B, Fig. 1. Fig. 5 represents a vertical central section of the follower used, in combination with the mold in compressing the heel-blank. Fig. 6 represents a vertical central section cut from the back of the heel through to the breast of a heel formed by said mold, and Fig. 7 represents a back view of a heel.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The mold and follower in their general construction are similar in form, and are used in combination with the compressing-machine, so far as the movable parts thereof are concerned, for compressing blank heels and inserting nails therein with their heads left projecting, as the corresponding parts are used in the machine for compressing blank boot and shoe heels, for which Letters Patent were granted to me July 5, 1870; and, therefore, no particular description of such parts is necessary.

The nature of my present invention consists in the combination, with the mold and follower, of a perpendicular edge upon the inside of the mold, of about one-eighth of an inch in depth, for encircling the heel-seat edge of the blank heel at the time of its final compression.

In the drawings, A represents the main body of the mold, having a concavity, B, in which the blank heel is compressed when the mold is pressed down upon the follower C. *a* is a perpendicular edge, formed or cut entirely around the mold, upon the inner surface of the mold. The sides of the mold *b* and *c*, upon each side of said perpendicular part, are made

flaring or taper shape, as shown in Fig. 4. D is a movable plate, attached to the stem *d*, which is also movable, and which has also within it a movable pin, *d'*, the object of these parts being to loosen or detach the blank heel from the sides of the mold and face of plate D after it has been compressed.

The blank heel being placed upon the top D of the follower C, it is raised up into the flaring mouth of the mold A, as fully described in my patent of July 5, 1870. The mold is then depressed or forced down over the follower C until the top D of the follower reaches the perpendicular part *a* of the mold, and in making the mold the proper height of the heel and the degree of compression desired are taken into account, and the distance of the perpendicular part *a* is so arranged that it will encircle about one-eighth of an inch in width of the outer surface of the heel-seat edge at the time of the final completion of the compression of the heel.

By making the mold with the perpendicular edge *a* a wire or rough edge is prevented from forming upon the outer upper surface of the heel-seat part of the blank heel. Still another advantage resulting from the use of a mold thus constructed is, the formation of a smooth and even outer surface of that part of the heel which comes next to the upper; and still another advantage that may be mentioned as resulting directly from the use of a mold having a perpendicular surface, *a*, at the point designated upon its inner surface is, the prevention of the heel-seat edge being drawn down upon the sides while the final compression of the heel is being given. Particularly is this the case when a rand, *f*, is tacked upon a heel before it is compressed.

In using molds previous to my present invention there was great liability of the sides and back of the face of the follower striking against the inclined surface of the sides and back of the mold, thereby greatly injuring both the follower and mold; but by having the perpendicular surface *a* upon the sides and back of the mold at the point designated these difficulties are obviated.

Those skilled in the art to which my invention belongs will readily appreciate the practical advantages which naturally result from



the use of my said invention, since they will perceive that after the blank heel has been attached to the boot or shoe the outer surface of that part of the heel which comes next to the upper, and which is formed by the perpendicular part *a* of the mold, will have an even, true, and highly-finished appearance, while if it be desired to have the edge or corner 1 of the heel removed, it can be easily and quickly effected by the operator with a suitable tool, which will enable him to cut or remove said edge from the heel. It will also be observed that the breast *g* of the mold is perpendicular, whereby the breast 2 of the blank heel is formed true and perpendicular also, thereby obviating much, if any, breasting of the heel during the process of finishing the boot or shoe.

It will be understood that the top of the mold is provided with holes, and plate *D* with corresponding holes, whereby the blank heel can

be pricked or punched and the nails inserted and partially driven, the same as the said operation is fully described in the Letters Patent granted to me July 5, 1870; and, therefore, no further description of said parts is necessary in this connection.

Having described my improvements in molds for compressing blank heels for boots and shoes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

A mold for compressing blank heels for boots and shoes, having a perpendicular surface or edge, *a*, for encircling a portion of the outer surface of the heel-seat edge, substantially as and for the purposes set forth.

HORACE H. BIGELOW.

Witnesses:

THOS. H. DODGE,

EDWIN E. MOORE.