

H. H. BIGELOW.

Process of Forming Pieced Heels for Boots and Shoes.

No. 125,528.

Patented April 9, 1872.

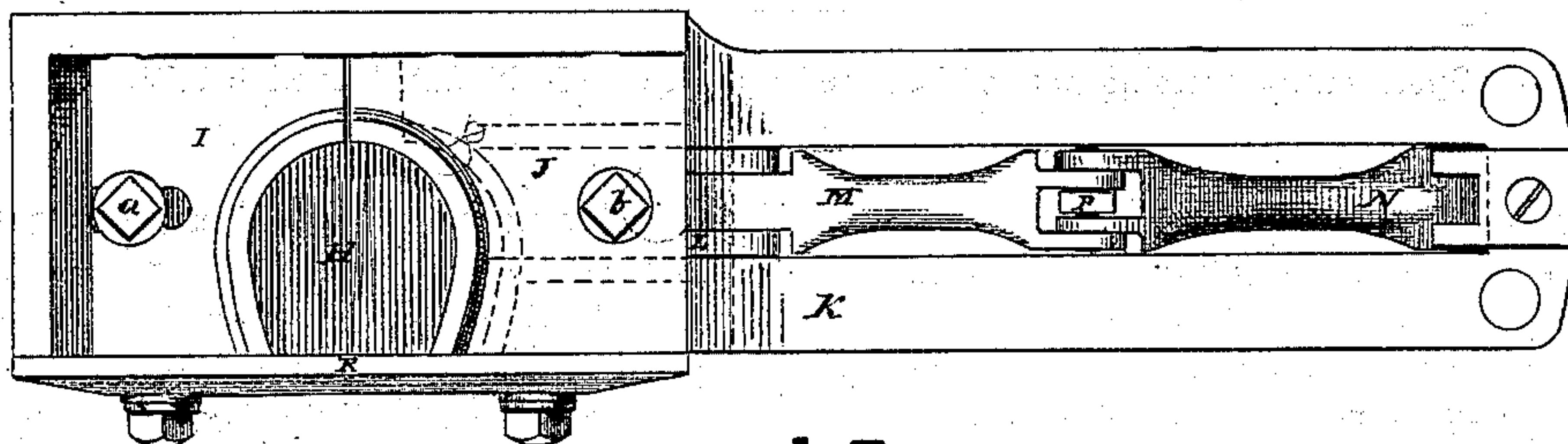


FIG. 5

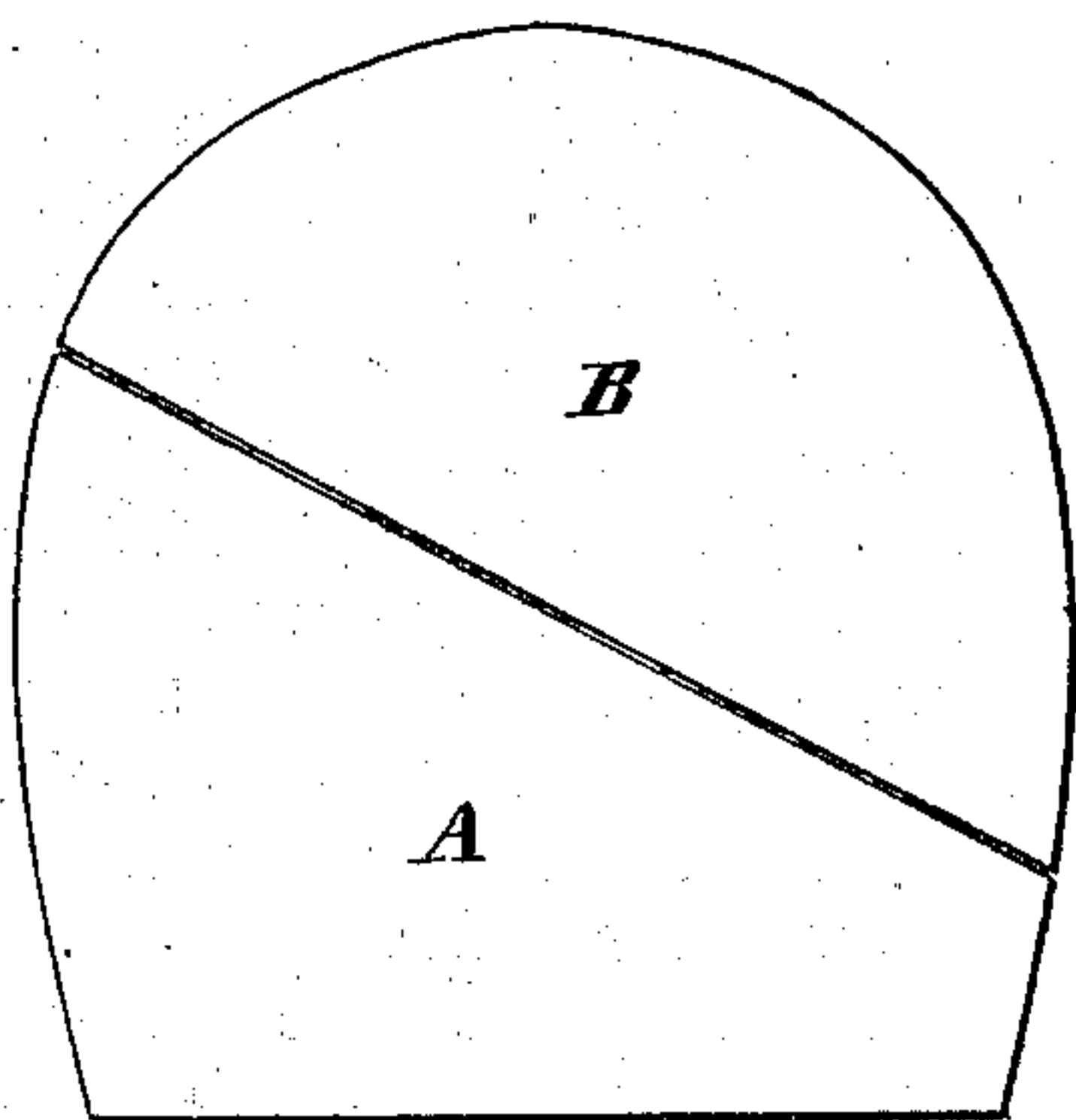


FIG. 3

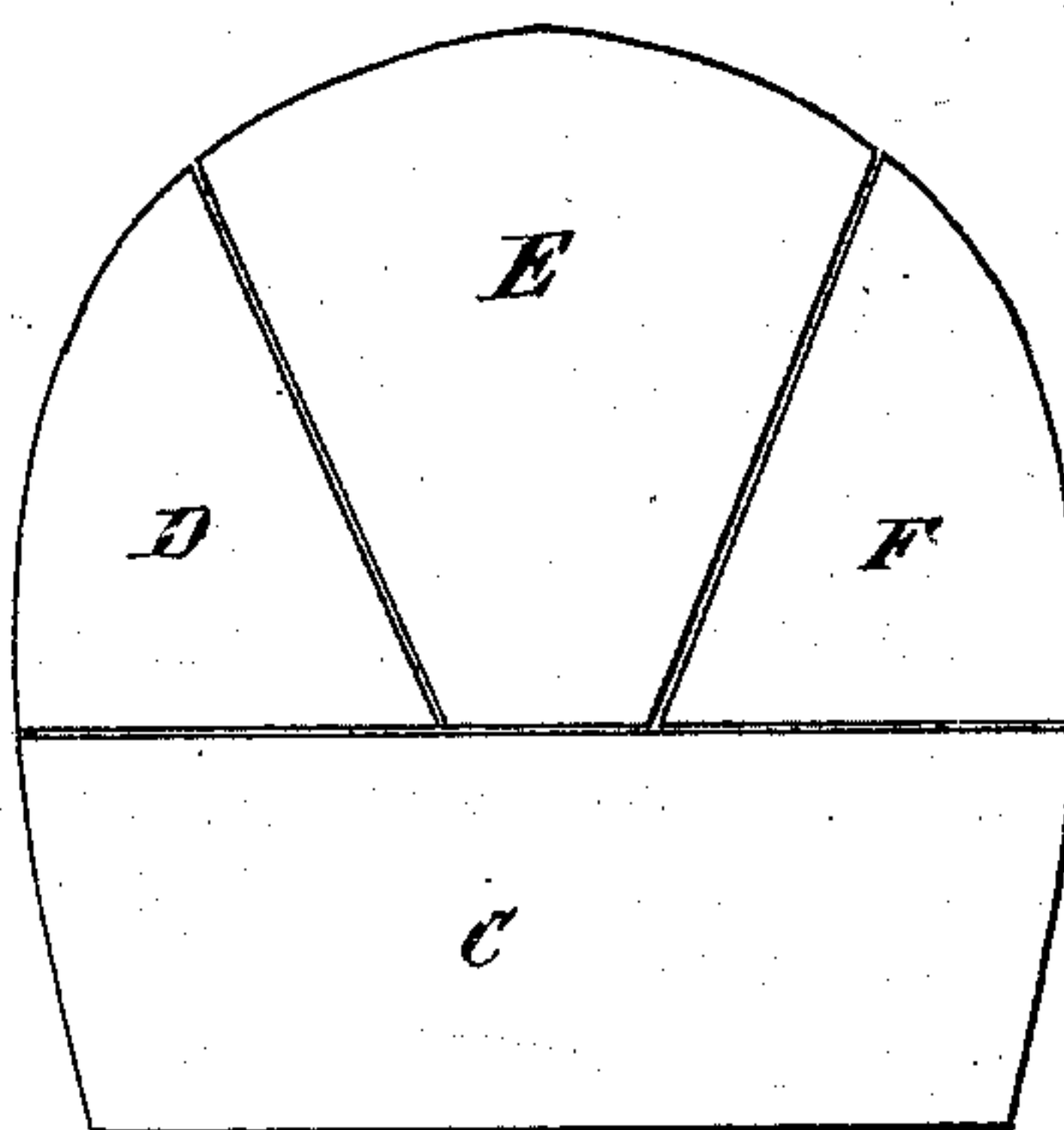


FIG. 4

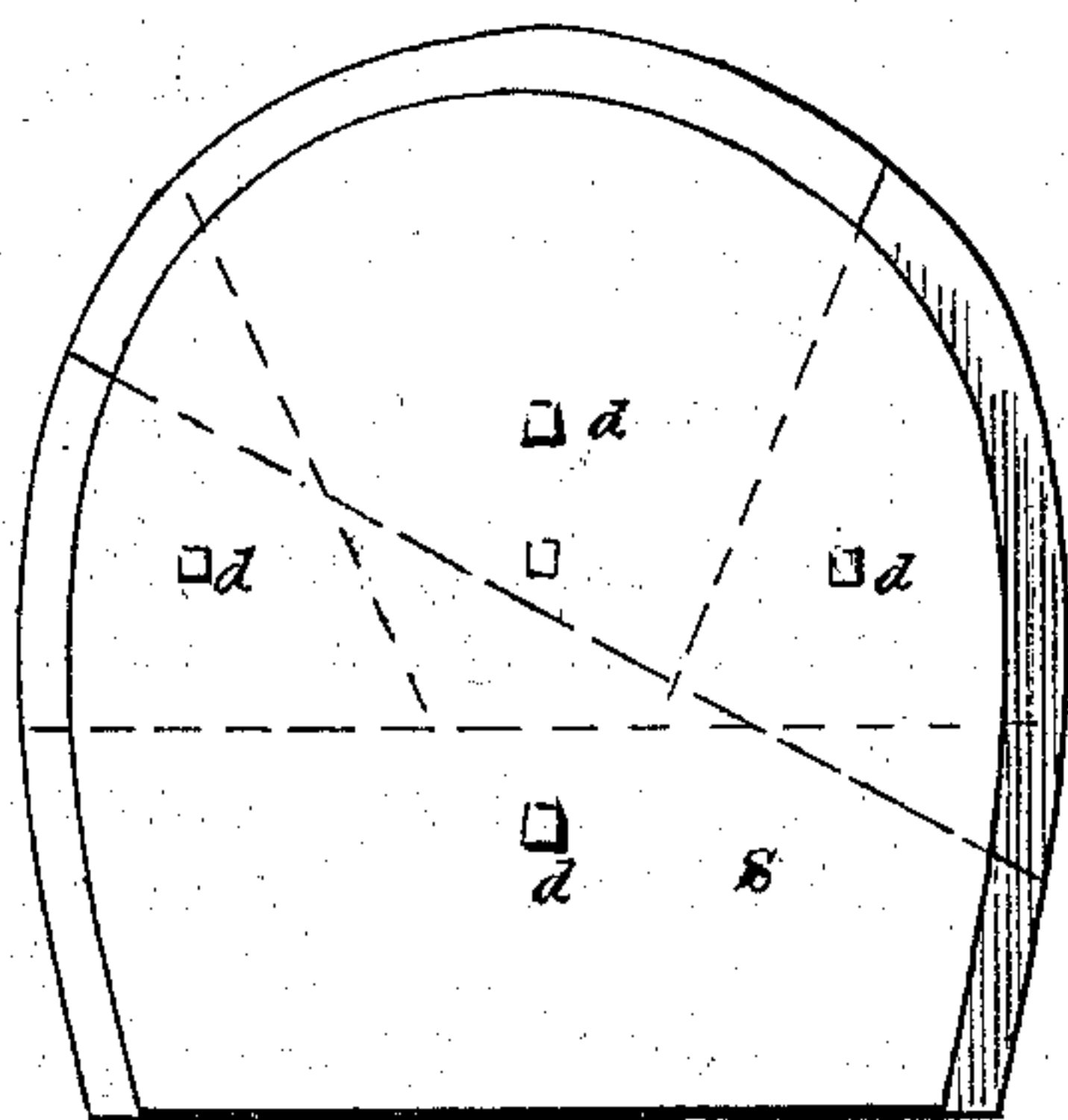


FIG. 1

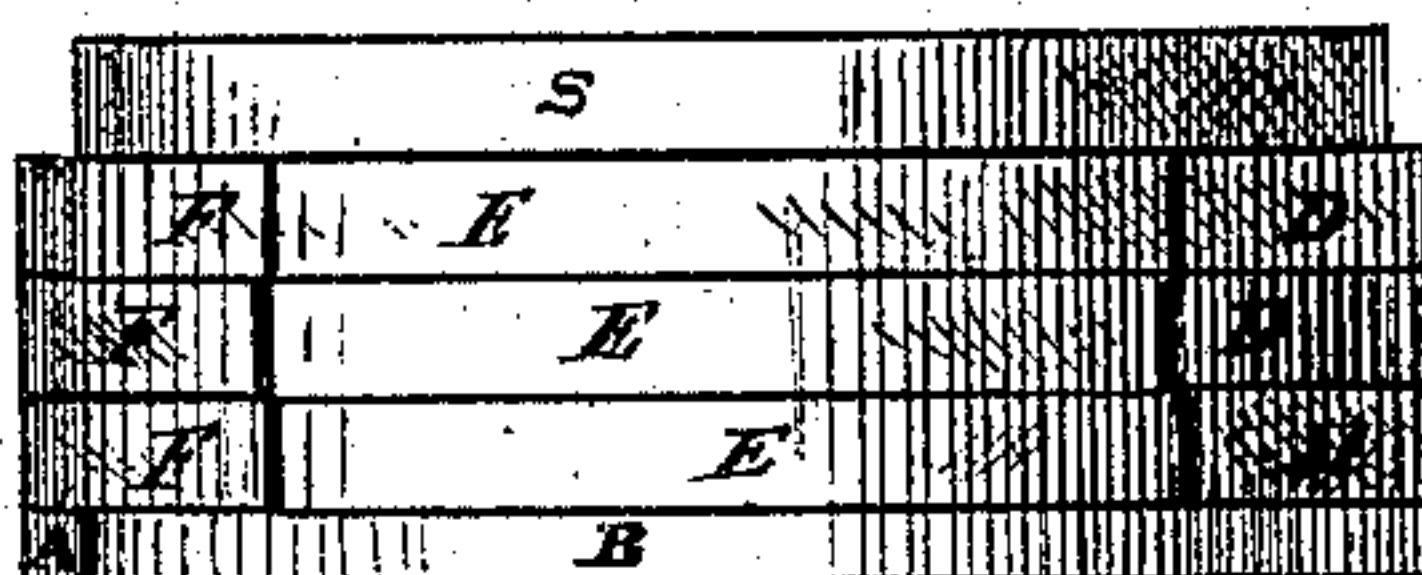


FIG. 2

Witnesses

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HORACE H. BIGELOW, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN PROCESSES OF FORMING PIECED HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 125,528, dated April 9, 1872.

*To 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 Improvements in the Process of Forming Pieced 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 drawing which forms a part of this specification, and in which—

Figure 1 represents a plan view of the heel. Fig. 2 represents a view of the rear edge of the heel. Figs. 3 and 4 show two lifts composed of different-shaped pieces; and Fig. 5 represents, on a reduced scale, a plan view of the clamp for holding the pieces together while the heels are in the first process of construction.

The nature of my invention consists in an improved process of forming pieced heels for boots and shoes, as hereinafter described, whereby firm and solid heels can be produced from small pieces of waste stock, thus utilizing a large quantity of the leather which has heretofore been considered unfit for use.

The leather for the heels is first cut with proper dies into the form shown at A B, Fig. 3, and C D E F, Fig. 4, or into such other forms as may be necessary in order to utilize the waste pieces of leather. These pieces are of such size that they can be cut from the small waste pieces left after cutting outer soles, and which pieces are often of the best portion of the stock. The pieces are packed together in a matrix of a holding clamp, which may be of the form and construction shown in Fig. 5, or of such other form as will best subserve the object to be obtained. This clamp, represented in Fig. 5, is composed of two jaws, I J, rounded out at one side, so that, together, they form a matrix, H, the shape of the heel. The jaw I is clamped rigidly to the frame K by the set-screw *a*, while the jaw J is attached to a sliding piece, L, by the bolt *b*, and the sliding piece L is connected to the end of the frame by two link pieces, M N, hinged to each other and to the frame and slide, respectively. A treadle-rod, P, is attached to the links at their junction with each other, and, by means of said rod, the links can be swung up so as to draw back the matrix-jaw J to the position in-

dicated by dotted line; then, by pressing the links down, the jaws are forced together. The front plate R is adjustable vertically, and serves as a guide in making the heels of proper height, the pieces being packed into the matrix until it is filled level with the top edge of the plate R. This is done while the jaws are open, and when the matrix is full the jaws are closed by straightening the links, which can be done by a treadle or lever, and the various pieces thereby firmly compressed together by the jaws I J, so as to bring their edges into close contact with each other, and while so held preliminary holding-nails *d*, or other fastenings, are driven through them or inserted therein, thus confining the parts in such a manner that the joints between the pieces will be tight and close, and not liable to become injuriously separated during the subsequent operations of finishing the heels or attaching them to the boots or shoes.

I prefer, as a general thing, in making pieced heels, to use for the first lift pieces of leather which will cut of the form shown in Fig. 3; or, if not of that form, with only two pieces to the lift, the top lift *s* being of a single piece, while the intermediate pieces may be cut of such forms as will utilize the leather to the best advantage.

By having a form in which to pack up the pieces which go to make up the various lifts of the heel, and which form is also so constructed that it can be employed to force or press the different pieces together, as above described, before any nailing, pegging, or fastening of the pieces together takes place, a very perfect heel, although made from pieces, can be produced.

Having described my improved process of forming pieced heels for boots and shoes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

The process of forming pieced heels for boots and shoes, as above described, whereby the pieces are retained in position while being packed, and afterward compressed or forced together before any nailing, pegging, or other fastening together of the pieces takes place.

HORACE H. BIGELOW.

Witnesses:

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