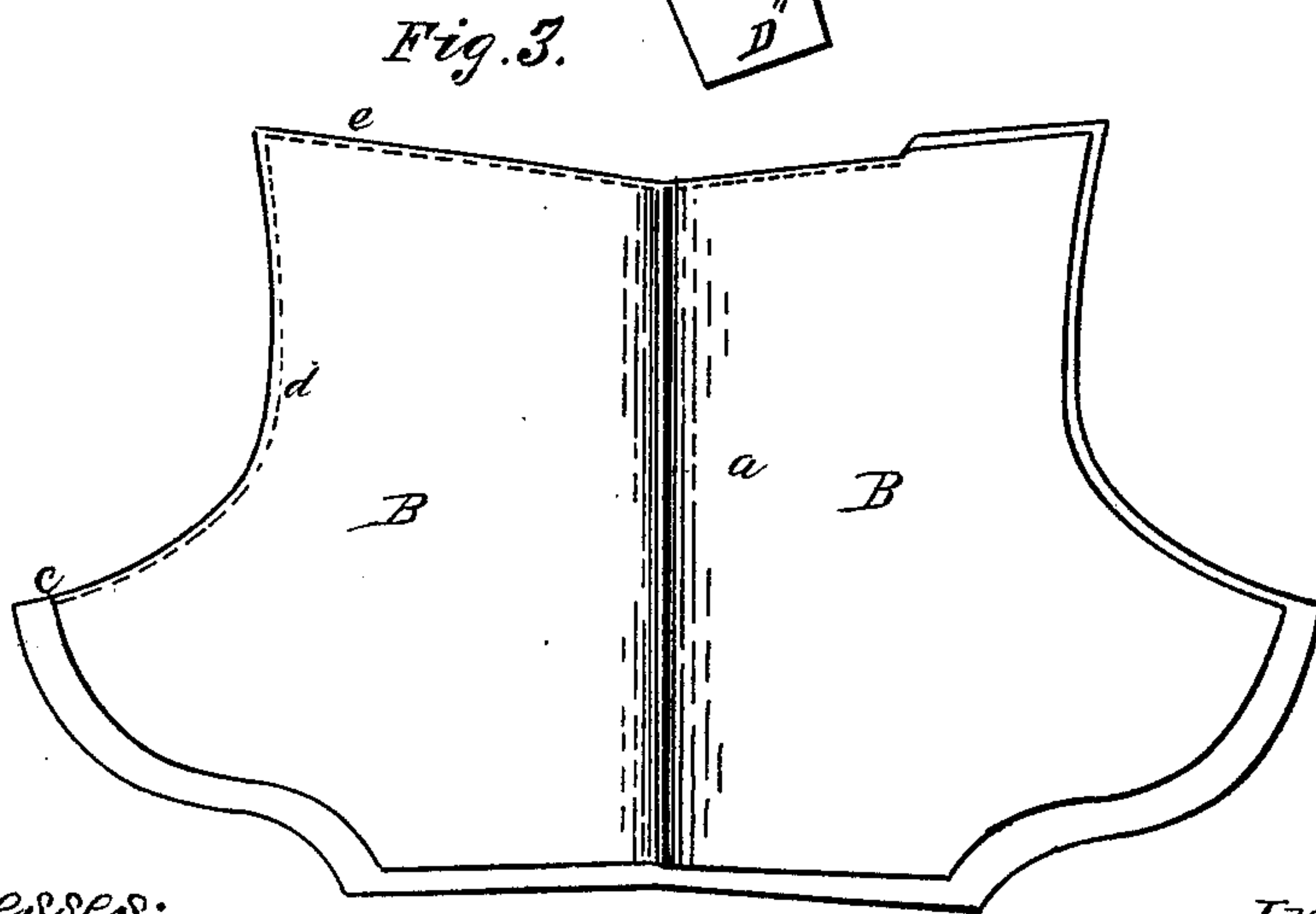
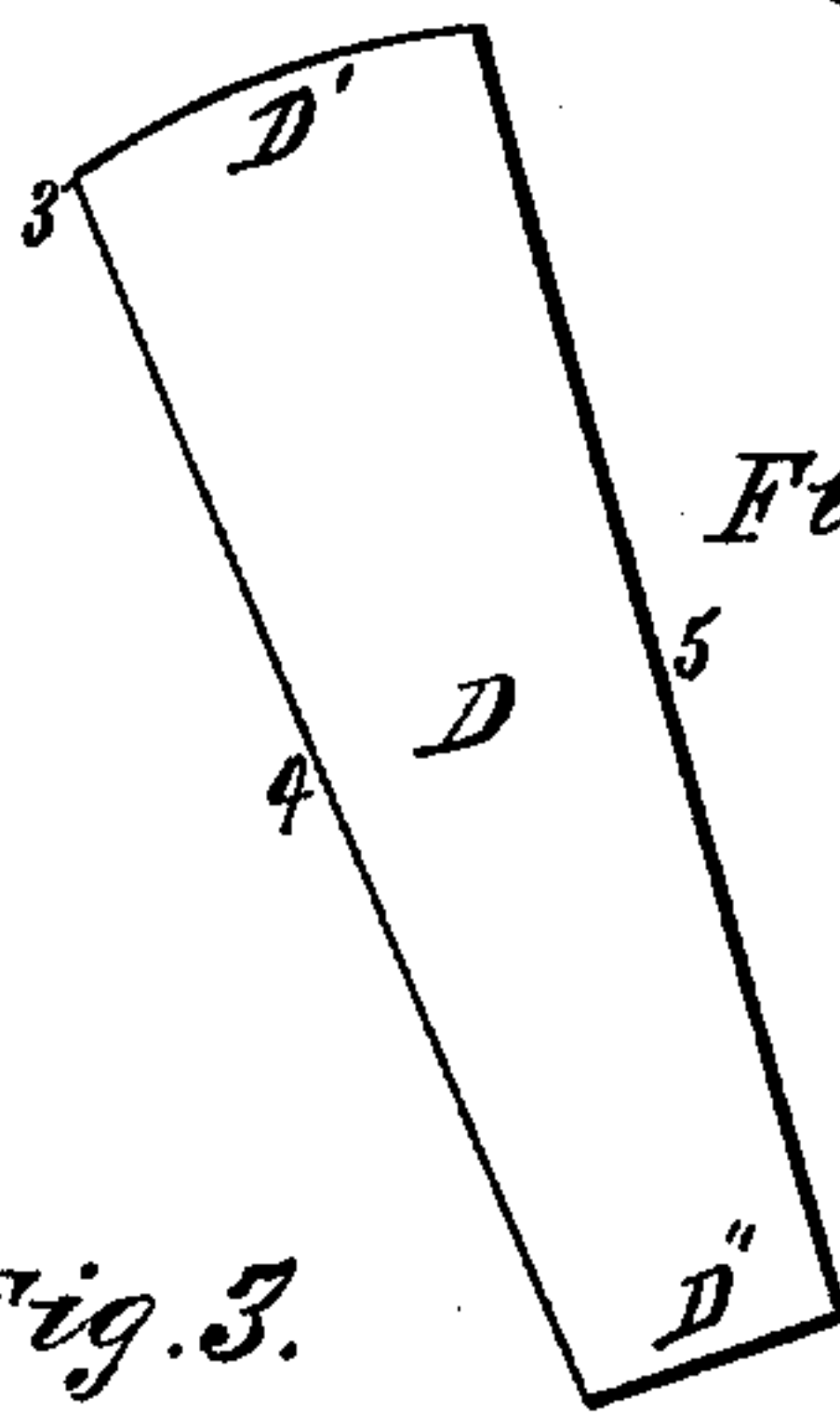
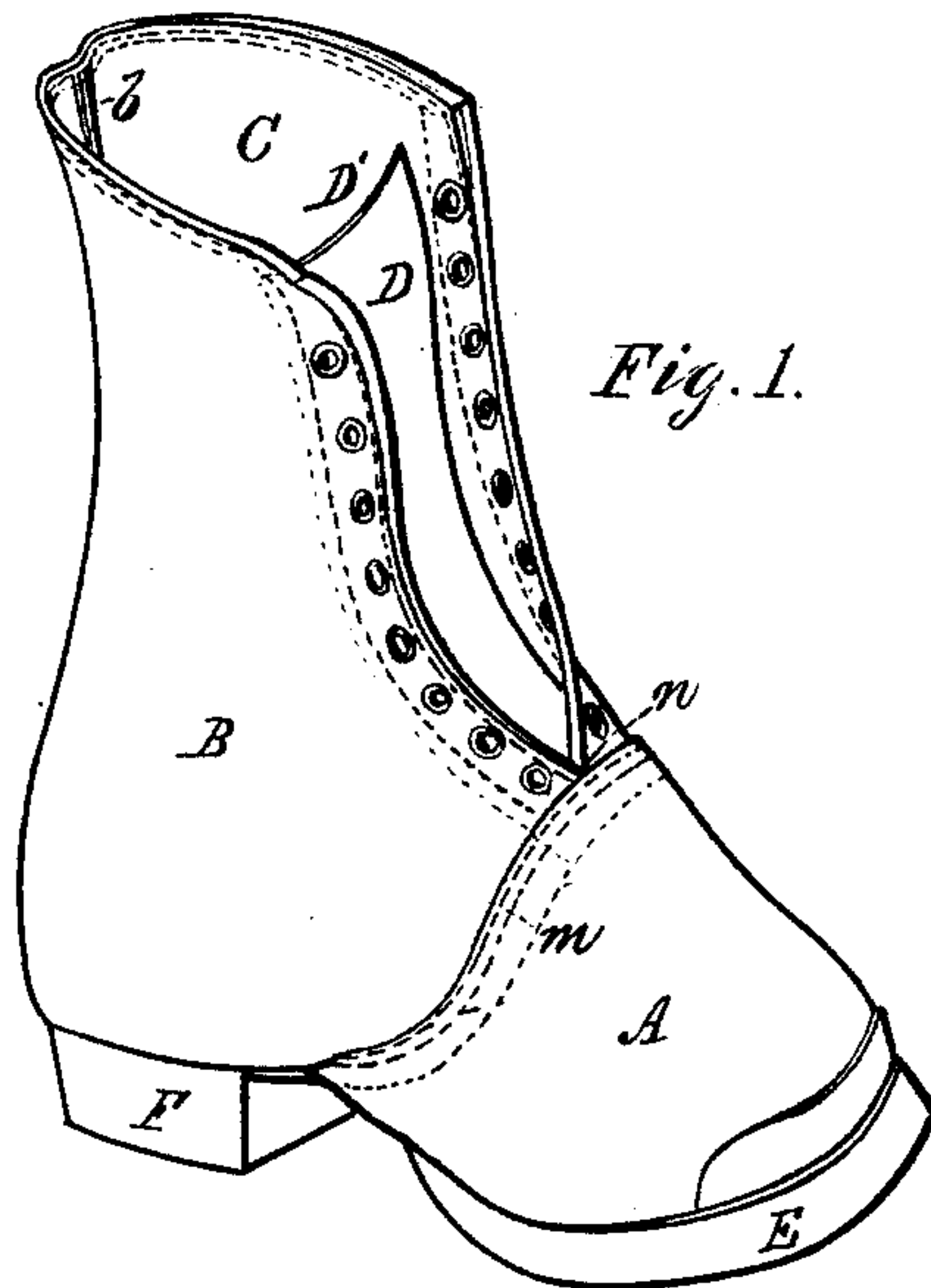


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 No. 214,264. Patented April 15, 1879.



Witnesses;

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 John M. Nichols

Inventor;

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2 Sheets—Sheet 2.

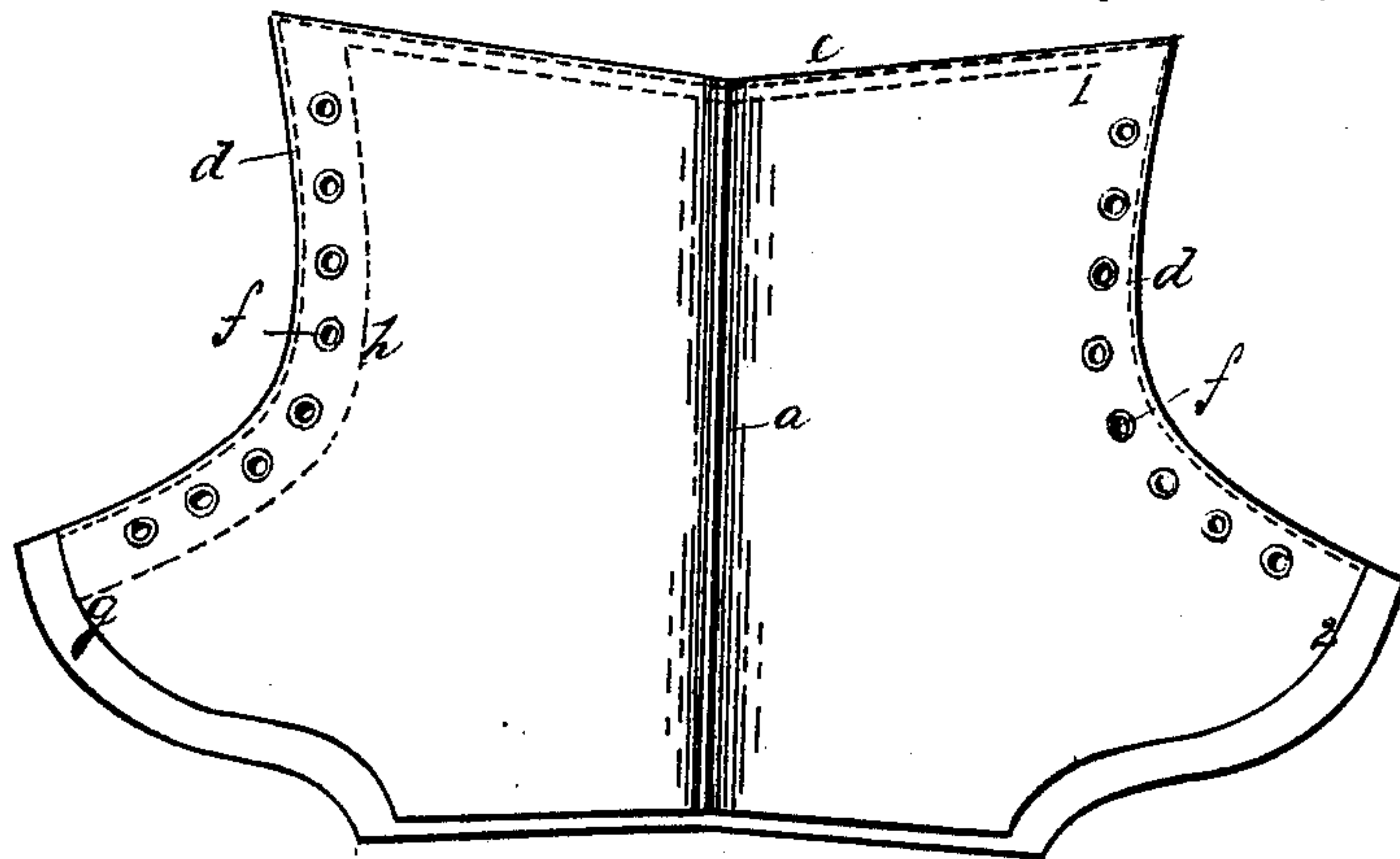


Fig. 4.

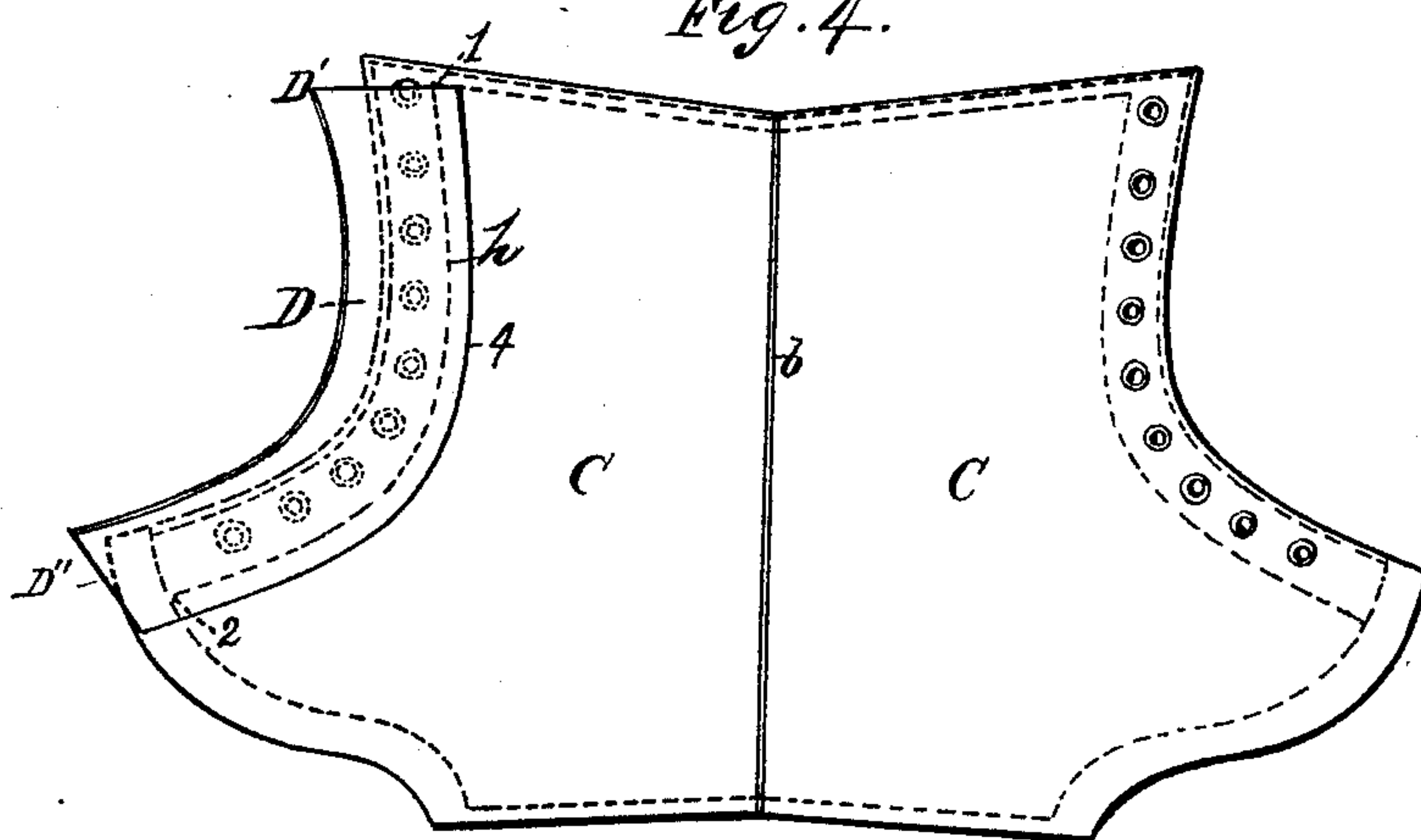


Fig. 5.

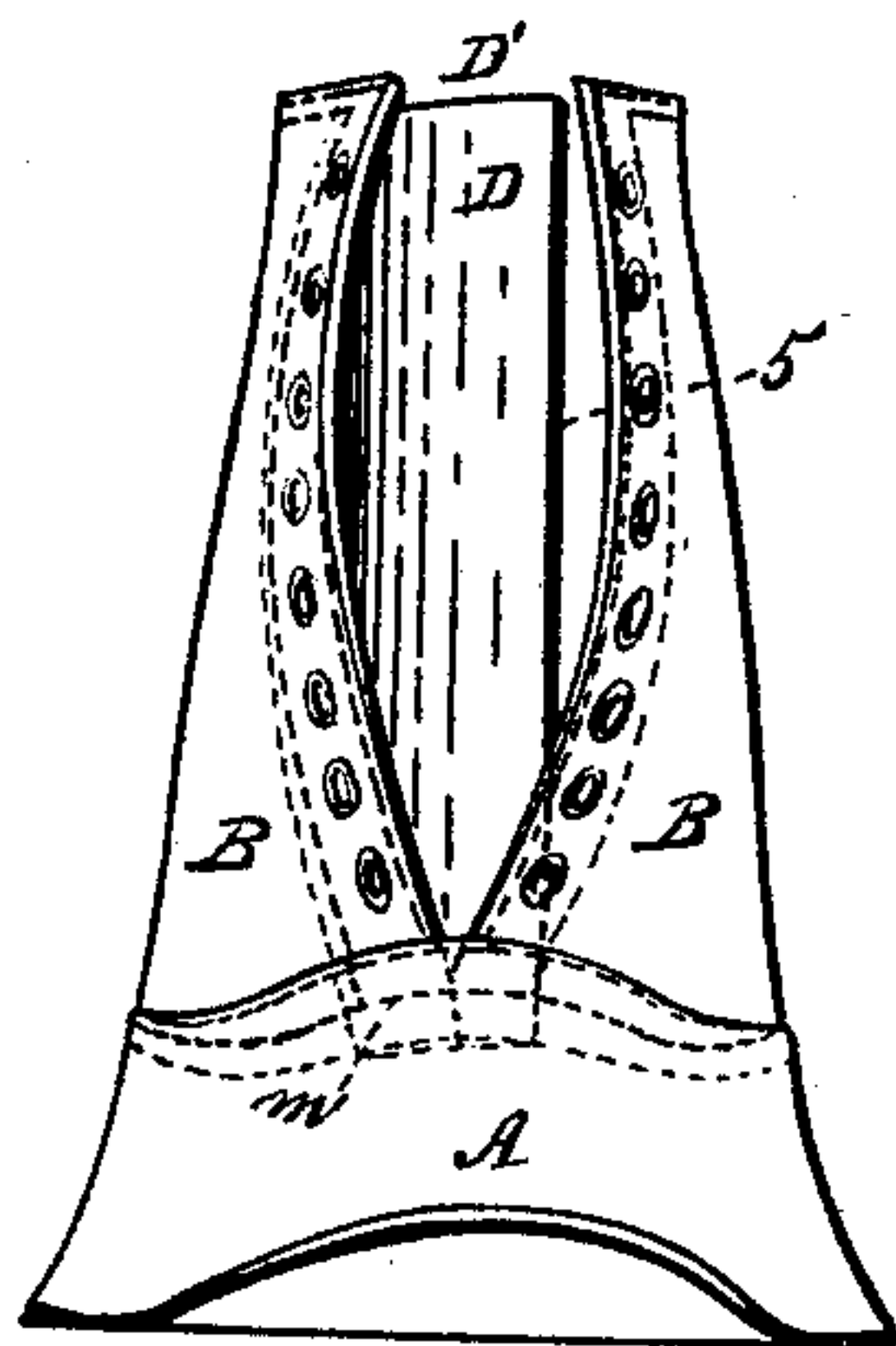


Fig. 6.

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 William A. Springer



# UNITED STATES PATENT OFFICE

WILLIAM A. SPRINGER, OF MARLBOROUGH, MASSACHUSETTS.

## IMPROVEMENT IN MANUFACTURE OF LINED TONGUED SHOES.

Specification forming part of Letters Patent No. **214,264**, dated April 15, 1879; application filed July 13, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM A. SPRINGER, of Marlborough, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in the Manufacture of Lined Tongue-Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this description, and in which—

Figure 1 represents a perspective view of a finished lined shoe embracing my said improvements. Fig. 2 represents a perspective view of a tongue-piece before it is secured to the shoe. Fig. 3 represents a back or outside view of the quarters, or rear parts of the shoe, after the lining has been partially stitched thereto, as such parts appear at one stage of the manufacture, as will be hereinafter more fully explained. Fig. 4 represents a similar view of the same parts as they appear at a subsequent stage of the manufacture, as will be hereinafter more fully explained. Fig. 5 represents an inside view of the same parts as they appear at a subsequent stage of the manufacture, and after the tongue-piece (shown in Fig. 2) has been secured or stitched in position, eyelets inserted, and the edges of the parts evenly stitched and trimmed, as will be hereinafter more fully explained; and Fig. 6 represents a front view of the upper part of the shoe as it appears after the vamp has been secured to the quarters, and the upper part of the shoe has progressed to that stage of its manufacture when it is ready to receive the sole and to be finished in the form shown in Fig. 1.

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 nature of my invention consists in an improved mode or process of manufacturing lined tongue-shoes, as will be hereinafter fully described.

In the drawings, the part marked A is the vamp; B B, the quarters; C C, the lining-pieces of the quarters; D, the tongue-piece; E, the sole, and F the heel.

The improved process of manufacturing my

said improved lined shoe is as follows: The quarters B B are first stitched together, as shown at *a*, and their lining-pieces C C are stitched together in a similar manner, as shown at *b*. The operator then places the quarters B over their lining-pieces C C, as indicated in Fig. 3, when the stitching of the lining to the upper is commenced at the point *c*, and the first row of stitching, *d*, is completed at the same time the edge *e* is trimmed in an even manner, as indicated in Figs. 3 and 4—the trimming operation being performed automatically by my shoe-trimming machine, for which Letters Patent have heretofore been granted to me, or by some similar machine. After the row of stitching *d* has been completed and the edge *e* trimmed, as above described, the eyelets *f* are inserted, after which the operator commences at the point *g*, and completes the second row of stitching, *h*, up to the point 1, when tongue-piece D is placed under the lining, with its wide end D' slipped under and through a guide-piece, substantially such as that described in Letters Patent No. 142,819, granted to me September 16, 1873, and said tongue-piece is moved forward, so that its corner 3 will be caught by the needle when the operator commences to complete the second row of stitching from the point 1, Figs. 4 and 5, to the points 2, same figures. The guide through which the wide end of the tongue-piece is slipped is so arranged that the edge 4 of the tongue-piece will project the proper distance beyond the row of stitching *h*, as indicated in Fig. 5, which represents an inside view of the parts shown in Fig. 4, turned over after tongue-piece D has been stitched in position.

It will be observed that the edges 4 and 5 of the tongue-piece are straight, but converge from the end D' to the end D'', and that as the stitching proceeds from the point 1 to the point 2 the edge 4 of the tongue-piece D is gradually and evenly curved to correspond with the curved line of stitching, and this is done automatically as the quarters are moved under the needle by the operator, unstitched edge 4 of tongue-piece D being kept close up against the shoulder of the guide as the stitching progresses, and the result is, that the edge 4 of tongue-piece D is secured to the parts



C and B, as shown in Figs. 1, 5, and 6, in a most perfect manner and upon a regular curve, and that, too, at the same time that the second row of stitching of the parts B C is made. By this improved mode of manufacture the operator is enabled to stitch a wedging-shaped tongue-piece, D, in a uniform and even manner, as above described, to the inside of the shoe-upper at the same time that the second row of stitching, *h*, is made, and that, too, while the edge 4 of the tongue-piece being stitched is covered from the sight of the operator, and also out of the reach of his hands, (the parts B and C lying flat upon the sewing-machine table or plate, with the tongue underneath;) consequently a very perfect lined tongue-shoe can be made, such as that represented in Fig. 1. It will be observed that the tongue is gradually curved as it is stitched to its supporting-piece by means of the guide before referred to, so that its stitched edge is parallel to the rows of stitching, and, as a result of such uniform stitching, there is no liability of the tongue-piece crimping or curling up near the center of its length to injure the foot and ankle.

As the edges to be eyeleted are trimmed automatically at the same time that the first row of stitching, *d*, is made, they present a uniform and even surface, whereby the operator can double them together and punch the holes for both series at the same time, and it is necessary to have the holes punched and eyelets inserted before the tongue-piece is stitched or secured in position, in order that the tongue-piece may be secured close to the edge of the eyelets, so that when the shoe is laced about the ankle a perfect fit will be obtained. Then, again, the holes could not be punched and the eyelets inserted after the

tongue-piece has been stitched in position, as above described, without liability of injuring the tongue-piece and making the eyelet-holes irregular and imperfect. A lined tongue-shoe made as above described can be laced to fit about the ankle and instep, so as to give an ease of fit not attainable previous to my invention, which has been fully tested and found to give great satisfaction.

Having described my improvements in lined tongue-shoes, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

The mode or process herein described and represented of constructing or manufacturing lined tongue-shoes, consisting of first stitching the quarters and lining-pieces together, as shown at *a* and *b*, respectively, and then arranging the quarters over the lining-pieces and stitching the lining to the uppers, commencing at the point *c*, and completing the row of stitches *d*, and at the same time trimming the edge *e*, after which the eyelets *f* are inserted, and the stitching commenced again at the point *g*, and the second row of stitches, *h*, is completed up to the point 1, when the tongue-piece D is placed under the lining, with its wide end D' slipped under and through a guide-piece, and moved forward, so that its corner 3 will be caught by the needle, and the operation of completing the second row of stitching from the point 1 to the point 2 is commenced, and the tongue stitched into position in an even and uniform manner, all substantially as and for the purposes set forth.

WILLIAM A. SPRINGER.

Witnesses:

CLIFTON D. HUNTER,  
JOHN M. NICHOLS.