

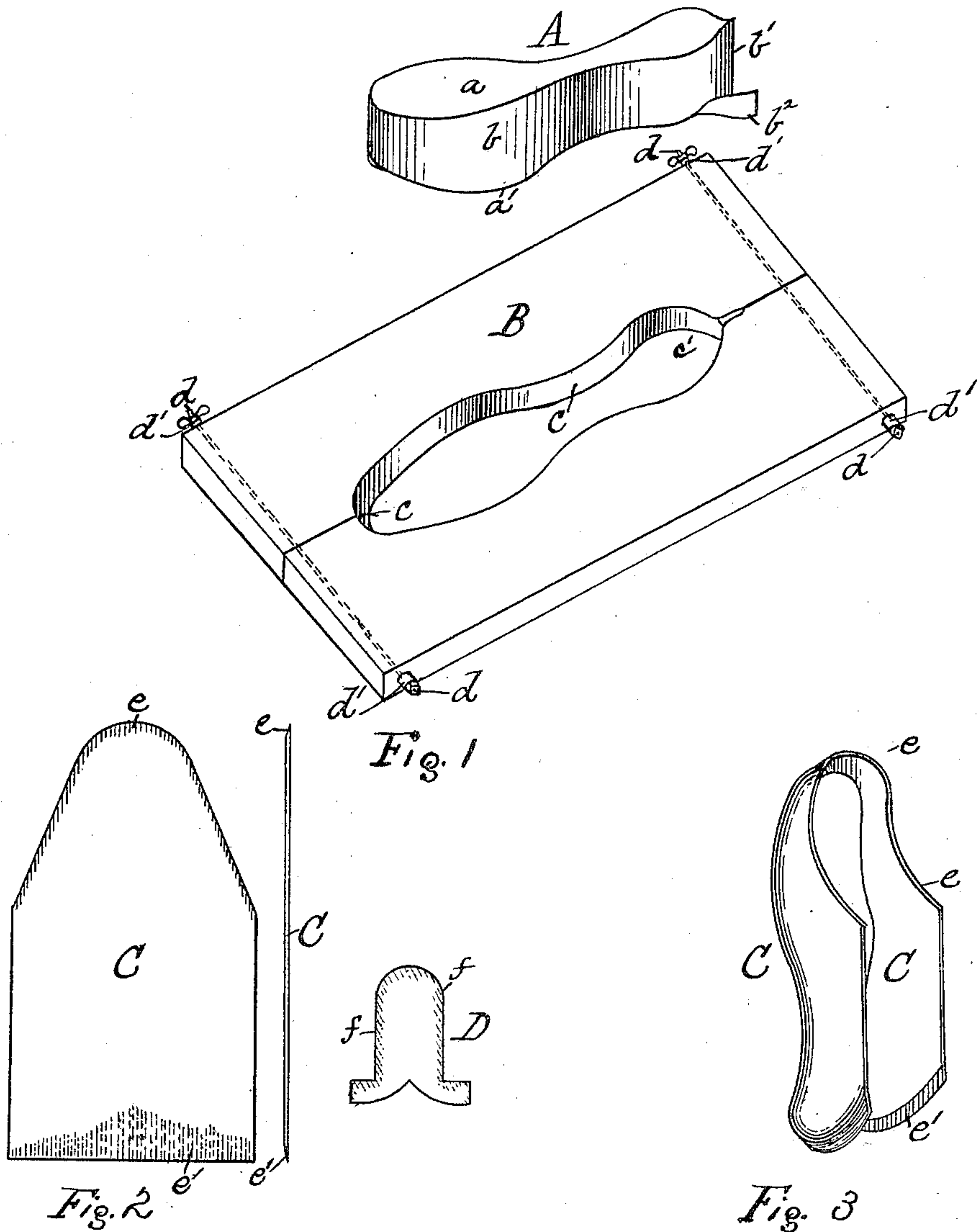
(No Model.)

2 Sheets—Sheet 1.

H. L. LARRABEE & D. PUTNAM.  
MANUFACTURE OF WIGWAM SHOES OR SLIPPERS.

No. 411,454.

Patented Sept. 24, 1889.



WITNESSES

*Wm. S. Norton*

*Geo. M. Copenhaver*

INVENTORS

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*and David Putnam*

by *John J. Halsted & Son*

*their Attorneys.*

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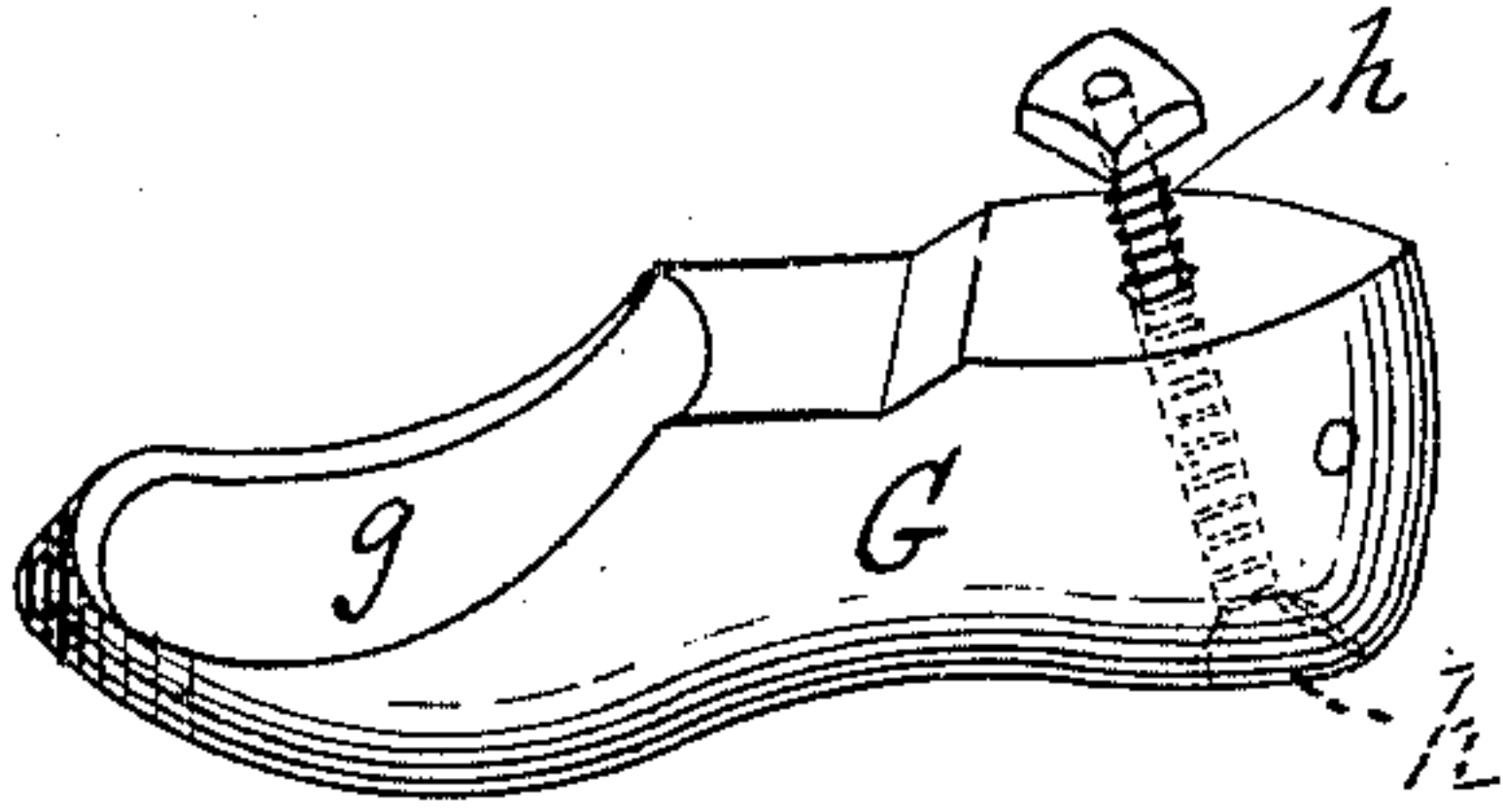


Fig. 4.

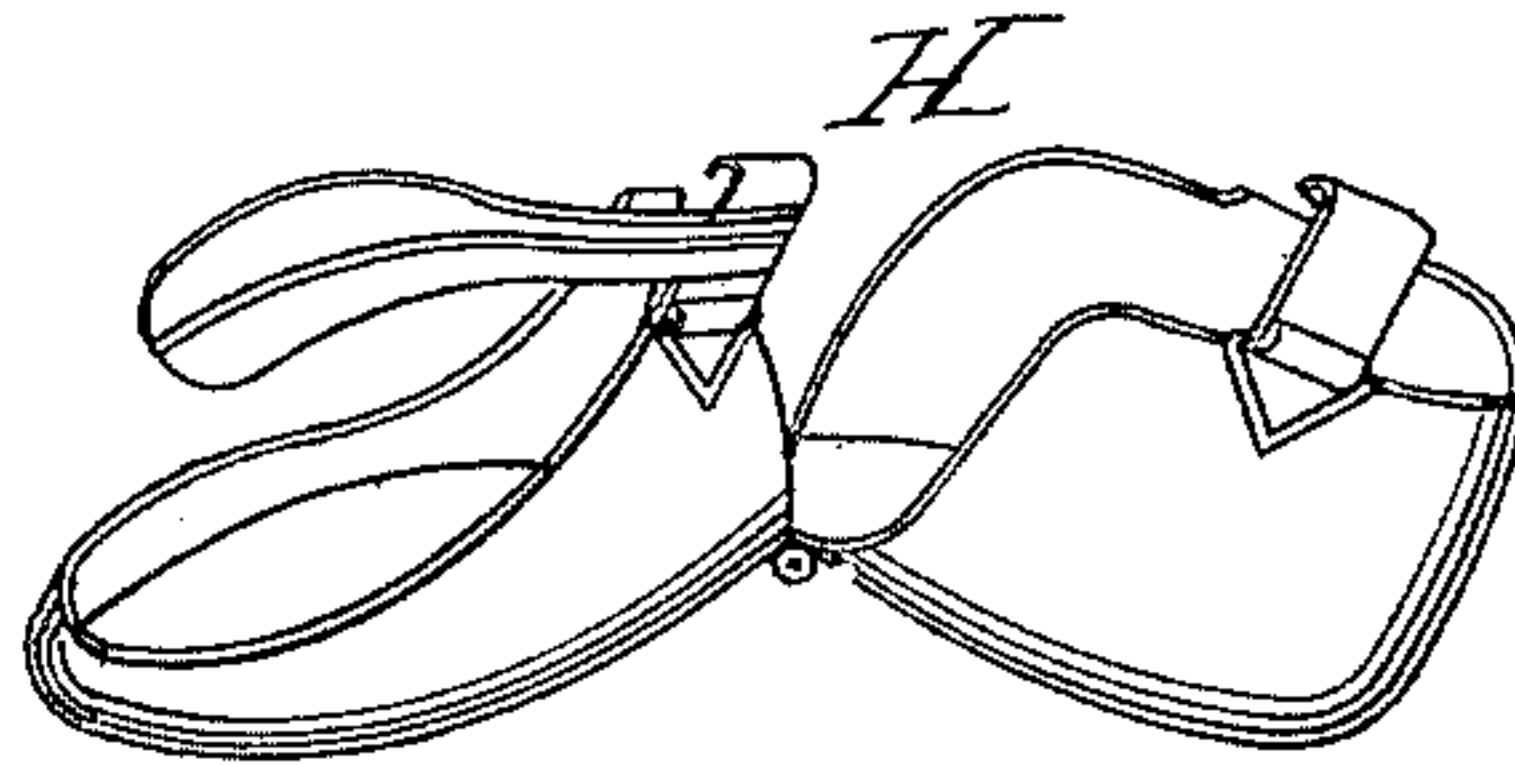


Fig. 5

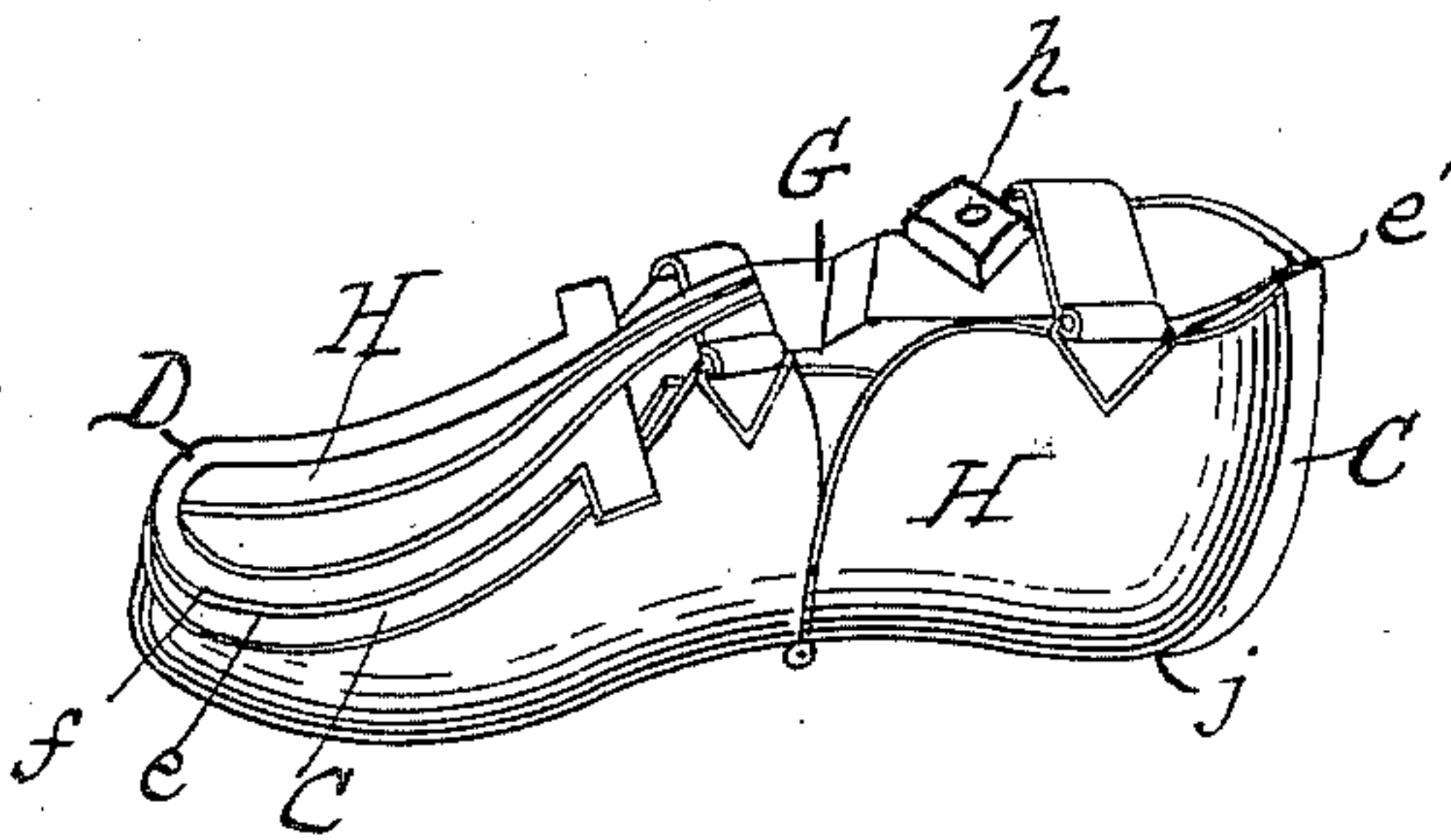


Fig. 6

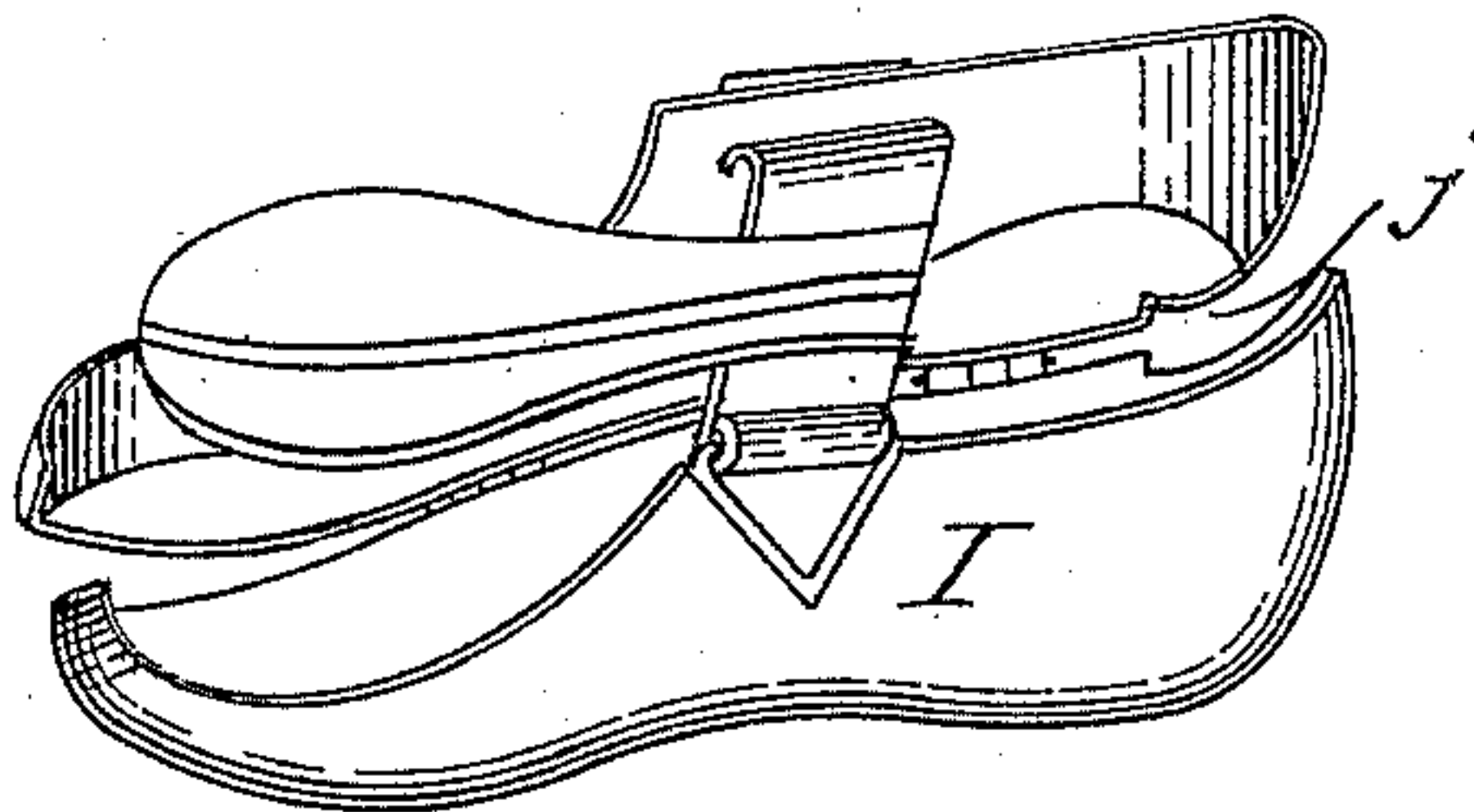


Fig. 7

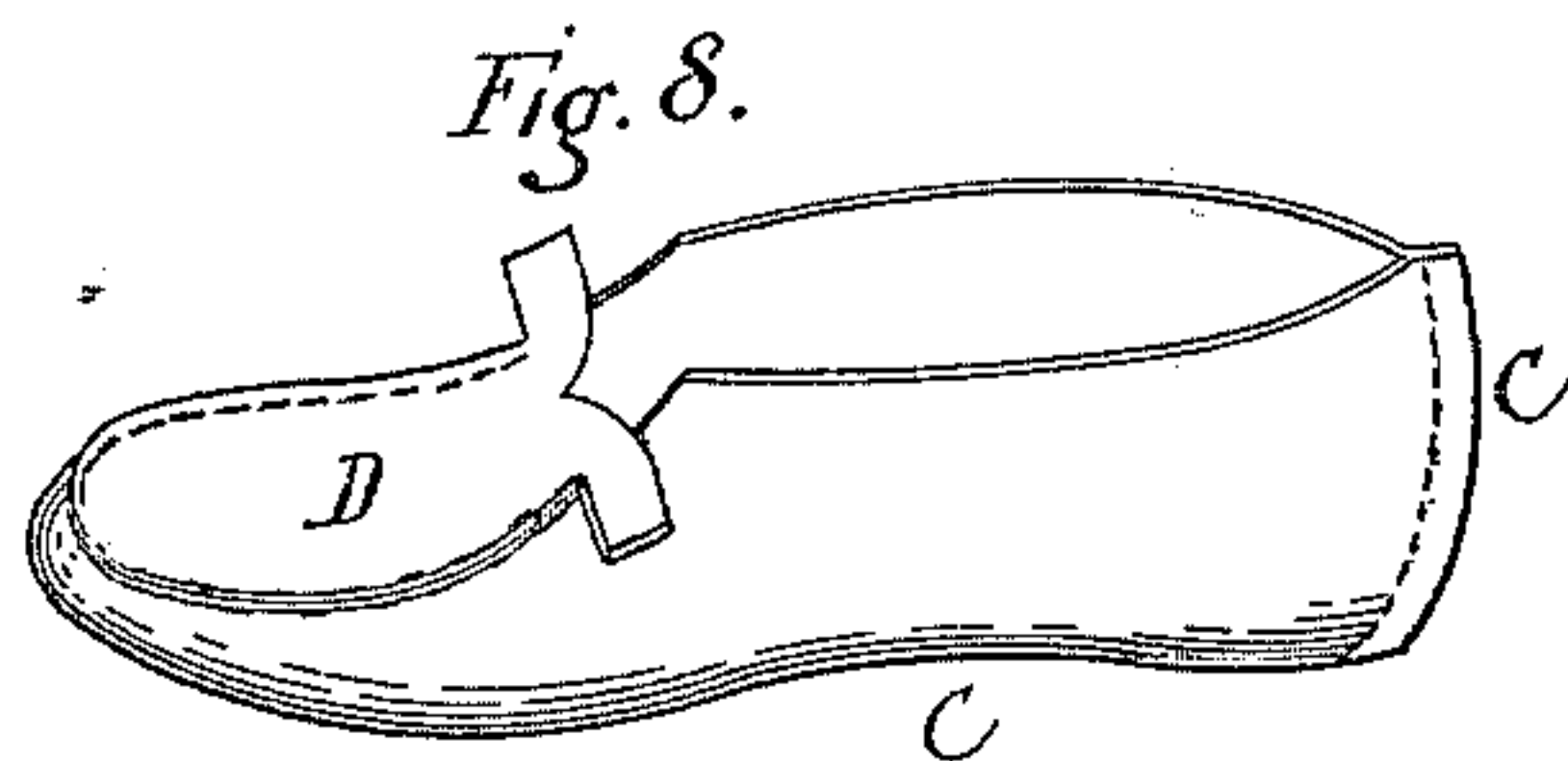


Fig. 8.

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# UNITED STATES PATENT OFFICE.

HENRY L. LARRABEE AND DAVID PUTNAM, OF PEABODY, MASSACHUSETTS.

## MANUFACTURE OF WIGWAM SHOES OR SLIPPERS.

SPECIFICATION forming part of Letters Patent No. 411,454, dated September 24, 1889.

Application filed April 26, 1889. Serial No. 308,658. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY L. LARRABEE and DAVID PUTNAM, both of Peabody, in the county of Essex and State of Massachusetts, have invented a certain new and Improved Method of Manufacturing Wigwam or other Similar Shoes or Slippers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to the manufacture of shoes or slippers such as have the sole and the greater part or body of the upper turned up from one piece of leather, and which are usually known by the name of "wigwam slippers;" and it consists in a new and improved method of forming the same and retaining them in shape during the process of stitching, all as more particularly hereinafter described.

The wigwam slippers are usually made of thick leather, the entire shoe, with the exception of a cap or vamp for the instep, being constructed of one piece. Both pieces are then tacked to the last in a wet and pliable condition, with the curved edge of the cap or vamp meeting the upper curved edge of the large piece of leather and the back edge of the latter at the heel folded upon itself. Said folded edges are then stitched together, as are also the adjacent edges of the vamp and the large piece or blank. By this method it is exceedingly difficult to keep the leather drawn tightly on the last while the shoe is being sewed, for only one person can form and stitch the shoe and they must both be done together, requiring a great deal of care and time.

By our invention the leather is molded previous to being lasted, and then held firmly in place upon the last by a mold or former while the shoe is being stitched. By this mode of manufacture a much greater number of shoes can be made, as the work can be better divided among several operators and the sewing can be done by machine, while in the present mode one operator has to do the en-

tire work and it is impossible to sew the shoe by machine.

In the accompanying drawings, Figure 1 illustrates in perspective the dies for shaping or molding the large piece of leather which forms the greater portion of the shoe. Fig. 2 illustrates the leather blanks from which the shoe is to be made. Fig. 3 illustrates the large blank after it has been molded. Fig. 4 illustrates a last upon which the molded leather is to be stretched. Fig. 5 illustrates a mold or former in which the lasted shoe is to be placed and held while the shoe is being stitched. Fig. 6 illustrates the same inclosing the blanks and last, with said blanks ready to be stitched; and Fig. 7 illustrates a modified form of mold or former. Fig. 8 illustrates a sewed shoe after having been removed from the last and former.

A and B, Fig. 1, are the male and female dies, respectively, for molding the large leather blank C, Fig. 2. The upper and lower surfaces *a* and *a'* of the male die A are substantially of the same contour as that of the sole of a shoe or last, except that said die has a sharpened edge *b'* at the extremity of the heel, and a tongue *b<sup>2</sup>*, extending below and beyond said heel, for purposes hereinafter to be described. The lower surface *a'* is rounded and shaped similarly to the bottom or sole of a last, and its edges are also slightly rounded off, like those of a last. The vertical sides *b* are parallel with each other.

The female die B consists of a block having an opening of similar contour to the surfaces *a a'* of the die A, with its walls *c* parallel and of slightly-larger area than that of either of the surfaces *a* or *a'*. The die B may be divided, as shown in Fig. 1, and the two parts held together by nut-bolts *d*, with springs *d'* between the heads or nuts of the bolts and the block, so as to allow a slight play apart of the two parts of the die B, in order that the leather may not be chafed.

The two leather blanks C D are cut into shapes similar to that shown in Fig. 2, and the large blank C is skived off around its upper and lower edges, as at *e e'*, said skiving being for the purpose of molding the blank better and of uniting the edges more closely together. The small blank D also has its



curved edge *f* skived off for the same purpose. The two blanks C and D are next soaked so as to be pliable, and the larger one C is placed over the opening of the die B with the same width of the blank upon each side of the opening, and from half to three-quarters of an inch of the blank beyond the upper or toe end *c'* of the die B. The die A is then forced down against the blank C and through the die B, carrying said blank with it, when the latter will have assumed the form as shown in Fig. 3. The tongue *b<sup>2</sup>* serves the purpose of holding down and keeping stretched the blank C at its rear, so that its sides will not buckle, and to keep the back edges *e' e'* parallel, while the sharp tapering edge *b'* of the die A is for the purpose of bringing said edges *e' e'* together. The next stage of the operation is to insert the molded blank C, Fig. 3, in the mold or form H and then insert the last G into the molded blank C. The blank D for the vamp is next pressed into the concaved instep *g* of the last G, so that the edges *f* of said blank will come in contact with the edges *e e* of the blank D. The mold H is then clamped tightly upon the inclosed lasted shoe, holding the blanks C and D firmly in their proper positions against the last. The back edge *e'* will be folded upon itself, and it and the edges *e* and *f* will extend beyond said last and mold, (see Fig. 6,) so that they may be stitched together either by hand or machine. If desired, the last may be first inserted in the molded blank C, and then the last and blank together inserted in the mold or former; but when such a former as is shown by H in Fig. 5 is used we prefer to insert the blank first, in order to prevent chafing the leather by forcing it with the inclosed last into the toe end of the former. When such a former as is shown by I in Fig. 7 is used, there is no danger of chafing the leather by previously inserting the last in the

blank. In order that there may be sufficient of a fold of the leather under the heel in which to start the stitching, a spring-presser *h*, which is inserted through an oblique hole *i* in the last from its top to the bottom of the heel, is pressed down to carry a fold of the leather through the slot *j*. After having been stitched the shoe is then removed from the mold H and last G, and is then stretched upon an ordinary last with a convex instep until the shoe has dried, when it will have its proper shape.

The mold H is made of hinged parts that clamp together, and which when clamped are of the same interior contour as the last G, and which hold the blanks throughout their surfaces closely against said last. In the modified former shown by I, Fig. 7, the two principal parts are hinged longitudinally, instead of transversely, as shown in Fig. 5.

The concaved instep *g* of the last is for the purpose of better retaining the small blank D in its proper position, and also for better turning up its edges against the adjacent edges of the large blank, so that the two can be readily stitched.

We make no claim in this application to the specific devices above described, as we intend hereafter to make separate applications for the same; but

What we do claim is—

The improved method of manufacturing wigwam or other similar shoes or slippers, consisting in molding the leather in a wet and pliable condition, then lasting the same and inclosing the lasted shoe in a close-fitting mold or former, and finally stitching the shoe while so held.

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Witnesses:

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