

(No Model.)

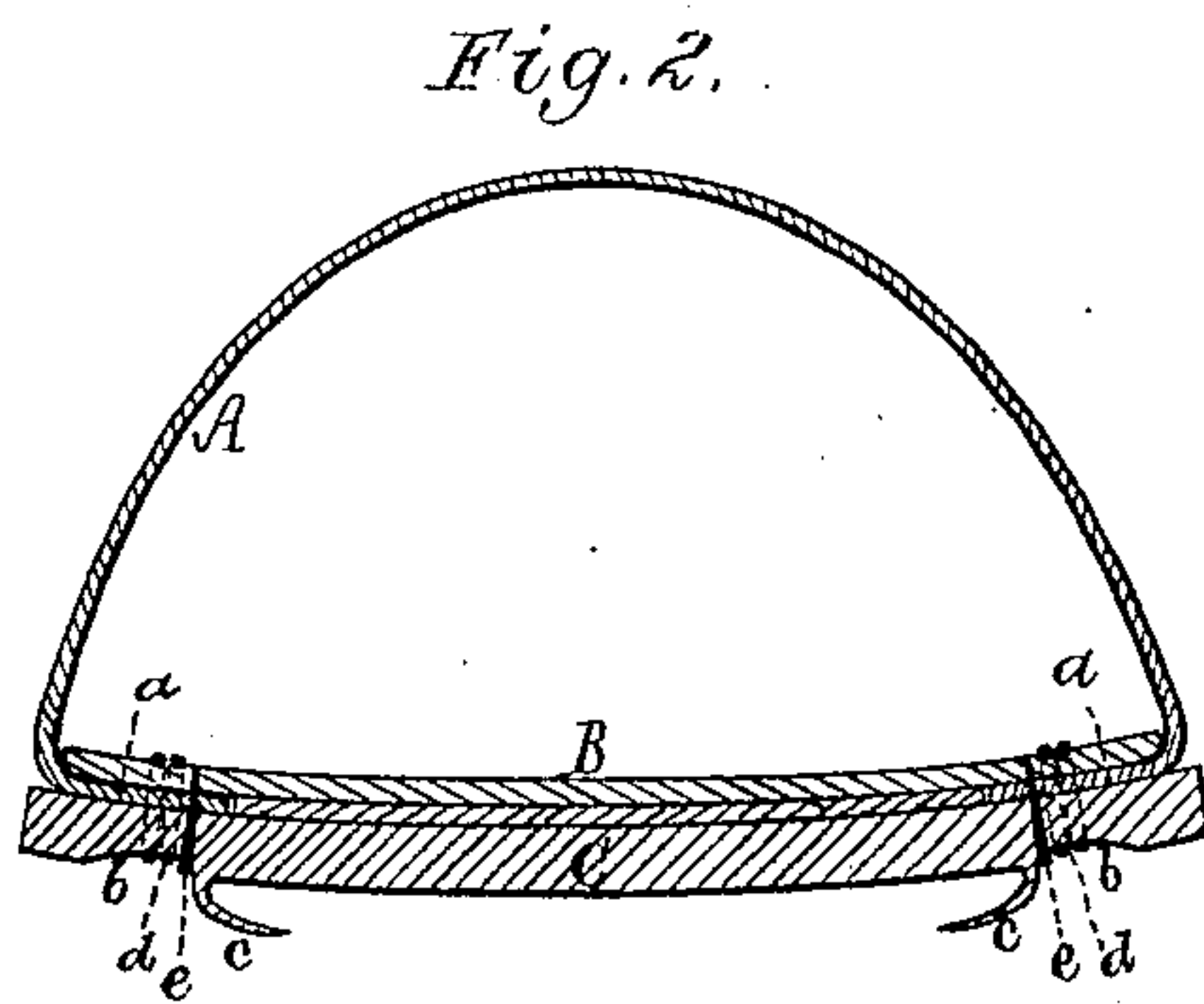
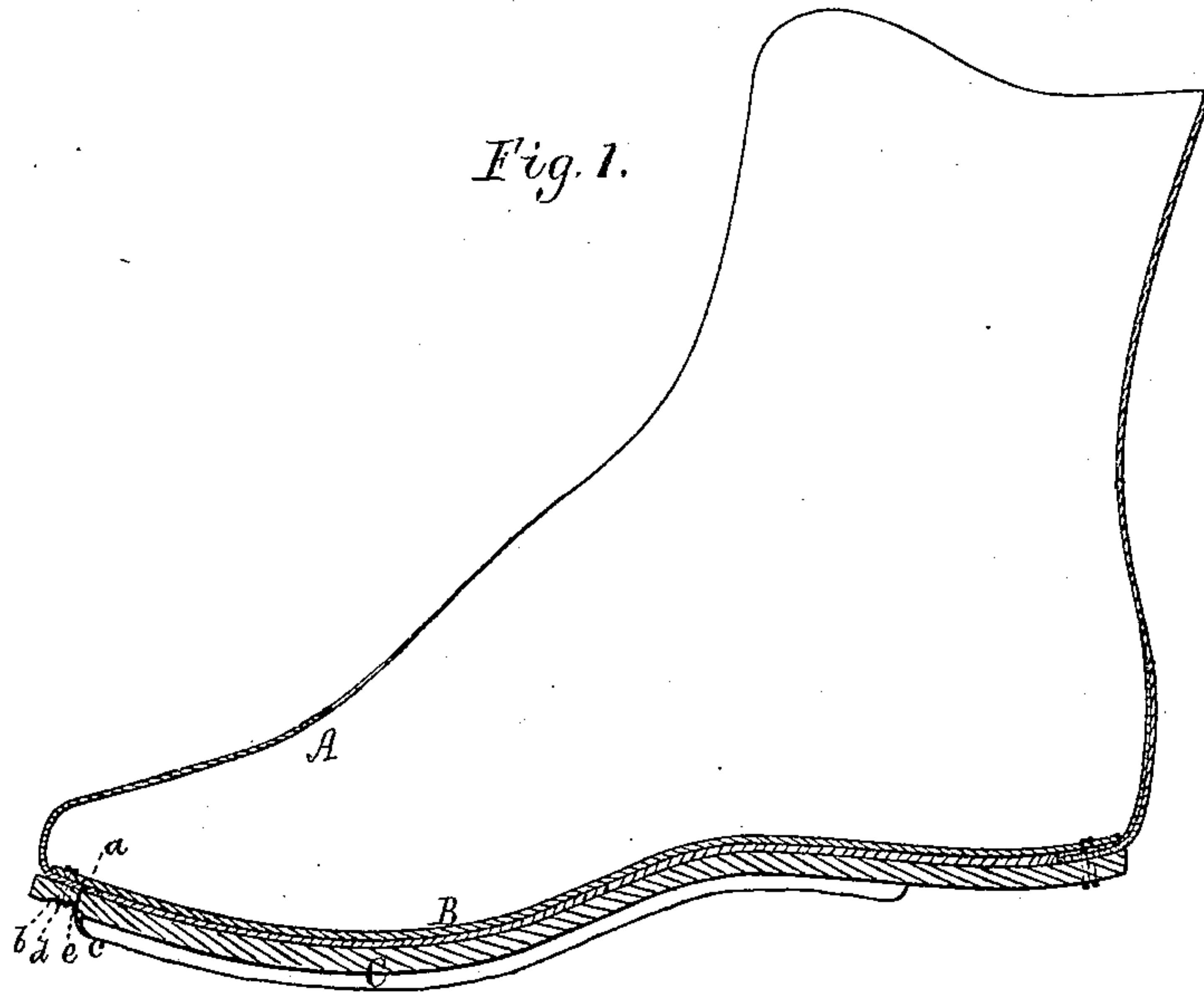
2 Sheets—Sheet 1.

M. R. ETHRIDGE.

MANUFACTURE OF BOOTS AND SHOES.

No. 269,842.

Patented Jan. 2, 1883.



Witnesses.
S. N. Piper.
E. D. Pratt.

Inventor.
Martin R. Ethridge.
by *R. M. Eddy* atty.

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Fig. 3.

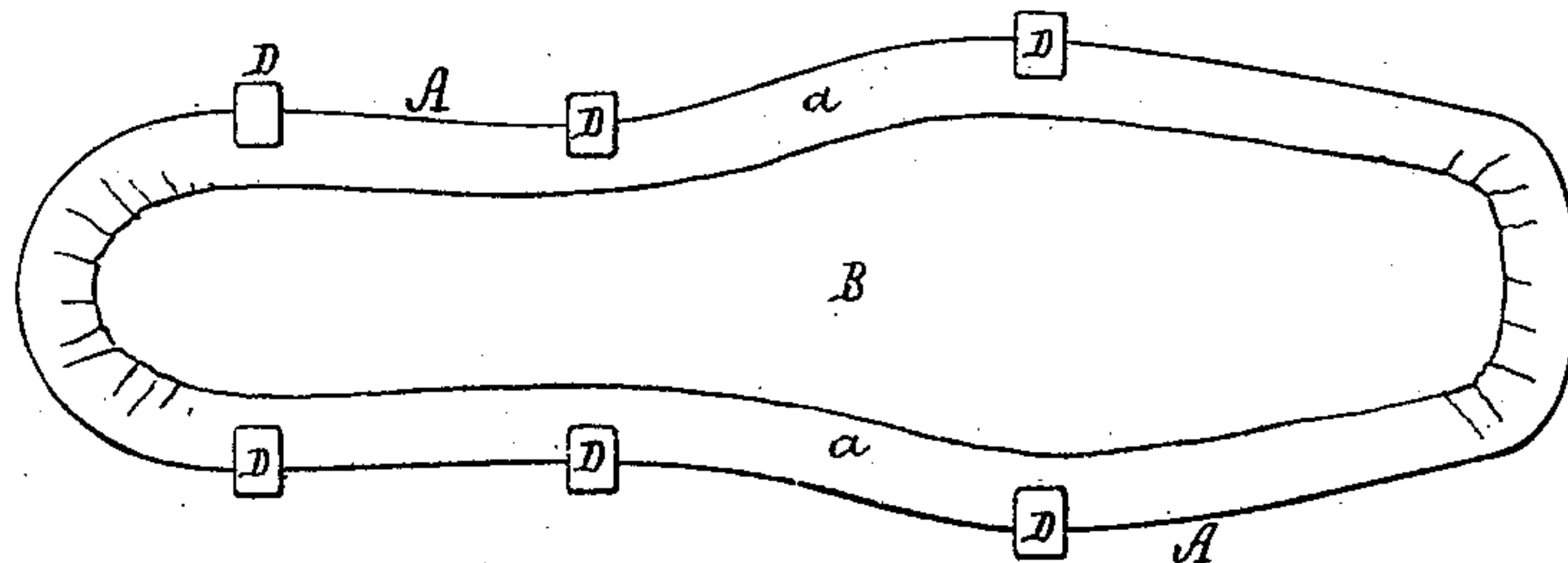
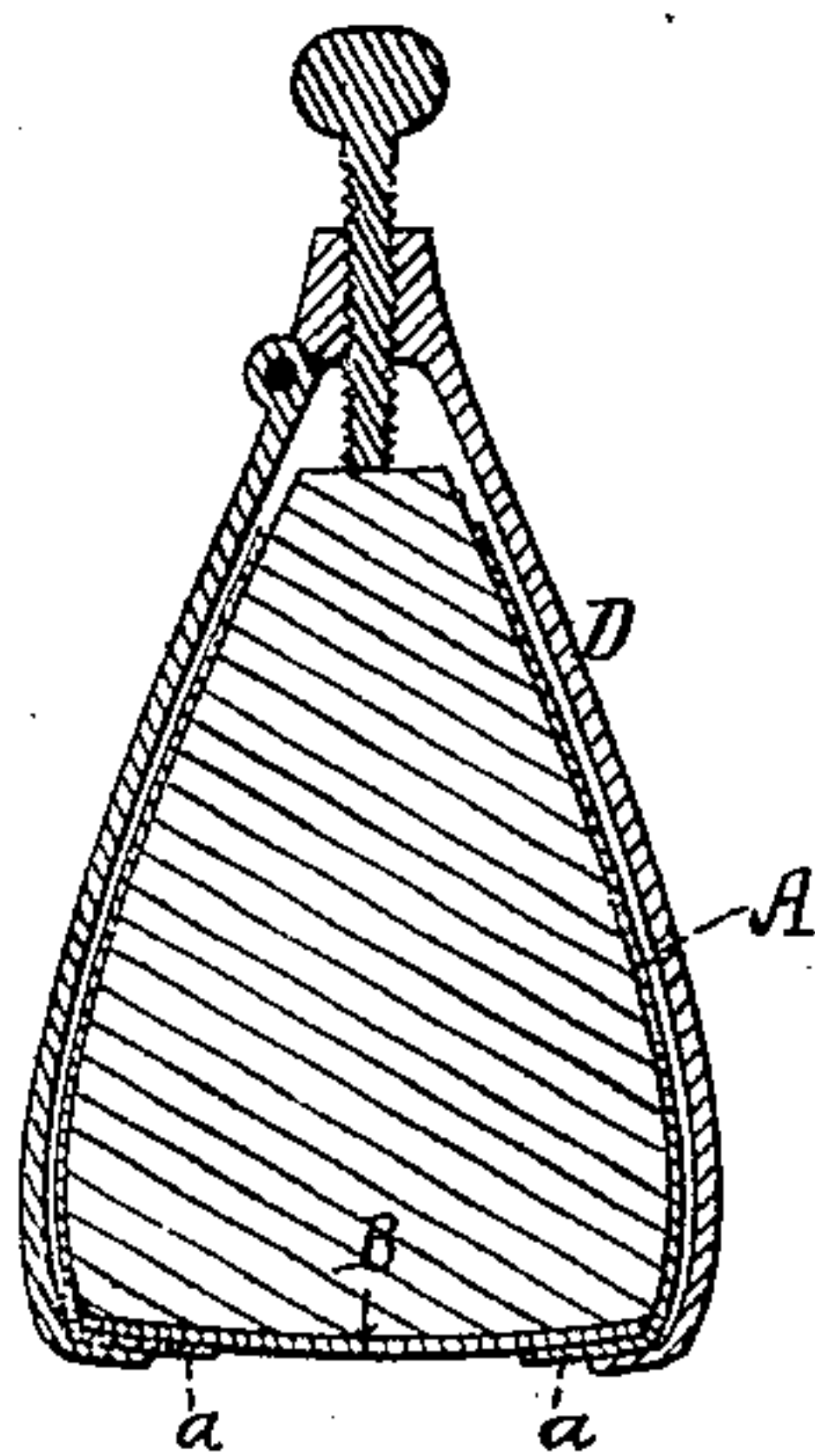


Fig. 4.



Witnesses.

J. N. Piper
E. B. Prath

Inventor.

Martin R. Ethridge.
by R. H. Eddy atty.

UNITED STATES PATENT OFFICE.

MARTIN R. ETHRIDGE, OF LYNN, MASSACHUSETTS.

MANUFACTURE OF BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 269,842, dated January 2, 1883.

Application filed June 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, MARTIN R. ETHRIDGE, of Lynn, in the county of Essex, of the State of Massachusetts, have invented a new and useful Improvement in the Manufacture of Shoes or Boots; and I do hereby declare the same to be described in the following specification, reference being had to the accompanying drawings, of which—

Figure 1 is a longitudinal section, and Fig. 2 a transverse section, of a shoe made in accordance with or by the process herein described. Fig. 3 is a bottom view of the upper and insole lasted, and having the laps of the upper held down to the insole at intervals by clamps, preparatory to applying and nailing the outer sole to the said laps and insole. Fig. 4 is a transverse section of the last, with the lasted upper and insole held in place by clamps applied to the laps of the upper.

In carrying out the said process of making the shoe or boot, the upper of such shoe or boot is first to be lasted on the insole without connecting by sewing or other means (extending from one to the other of them) the laps of the upper upon the outer surface of the insole. To hold the laps securely against the insole, to enable the outer sole to be laid on such laps and insole and connected thereto, I use clamps or devices such as will press the laps at suitable intervals closely to the insole. Having applied such clamps to the upper, I next lay the outer sole upon the upper, the clamps, and the insole, and I drive nails between the clamps and through the outer sole, the said laps, and the insole to or about to the bottom or sole of the last. The outer sole I provide with a groove and a covering-lip thereto, such groove and lip extending around the outer sole near to and parallel with its periphery, and being for reception of the thread used in stitching together the outer sole, the laps, and the insole. The nails or tacks used, as above described, in connecting the upper and the two soles are to be inserted at or near one edge of but not in the said groove so as to interfere with the needle of the McKay sewing-machine when used to sew together the soles and upper. After having so tacked together the soles and laps of the upper, the shoe is to be separated from the clamps and the last is to be extracted from the upper, and the shoe is to be applied to the sewing-machine, and the soles and upper are to be sewed together thereby, the stitches be-

ing arranged in the groove of the upper, after which the nails are to be withdrawn from the soles and upper, and the covering-lip is to be closed down over the stitches, so as to hide them from view, and the shoe is to be finished, a heel being fixed to it, if necessary.

In the drawings, A denotes the upper; B, the insole; C, the outer sole; *a a*, the laps of the upper on the insole; *b*, the groove; *c*, the covering-lip of the outer sole. The stitching is shown at *d* and the nails at *e* for holding the soles and the upper together.

In Figs. 3 and 4 the clamps are represented at D as adapted to the side laps, the toe and heel portions of the laps being generally tacked at their middles to the insole.

For expeditiously lasting the upper and clamping it at the insole and firmly holding together the last, the upper, and insole during the process of applying and fixing the outer sole to the laps, I have invented and use a machine for which I propose to apply for a patent.

By the above-described method of making a shoe or boot it becomes, when completed, void of nails extending through its insole to the inconvenience of the wearer or to cause wear of his stockings, the shoe or boot being, when completed, what is usually termed a "sewed" shoe or boot; but it may have the said lip-fastening nails left in it, provided they be arranged so as to be covered by the lip, when it may be turned down; but I prefer to withdraw the nails before laying and fastening down the lip.

What I claim as my invention is as follows, viz:

The process, substantially as described, of making a shoe or boot, it consisting in first lasting the upper and securing its laps down to the insole at intervals by clamps, next laying the outer sole upon the clamps, the lap, and insole, and driving nails through the outer sole and laps and into the insole between the clamps, and next separating the clamps from the laps and extracting the last from the shoe, and connecting the sole and laps by sewing or stitches going through them, as set forth, the nails, if preferable, being subsequently extracted from the soles.

MARTIN R. ETHRIDGE.

Witnesses:

R. H. EDDY,
E. B. PRATT.