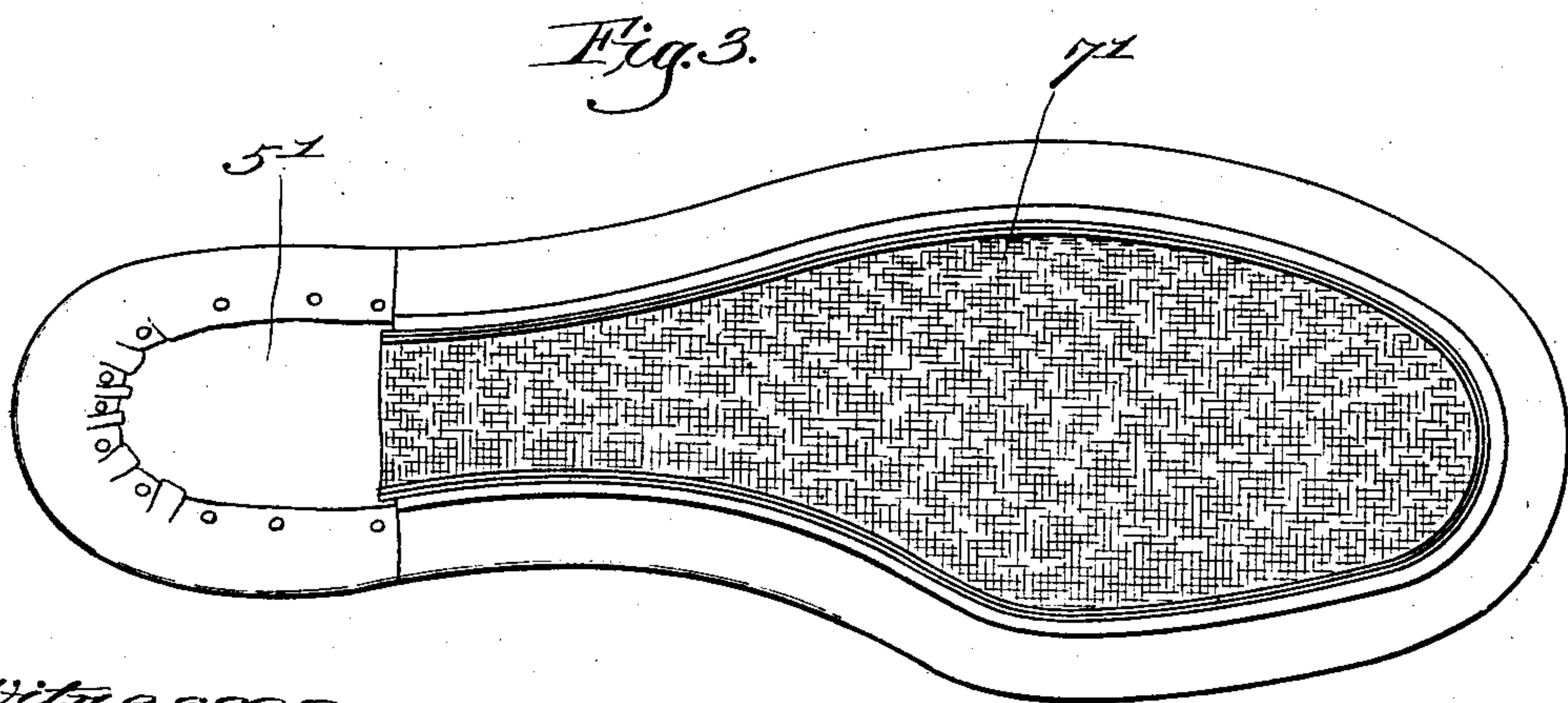
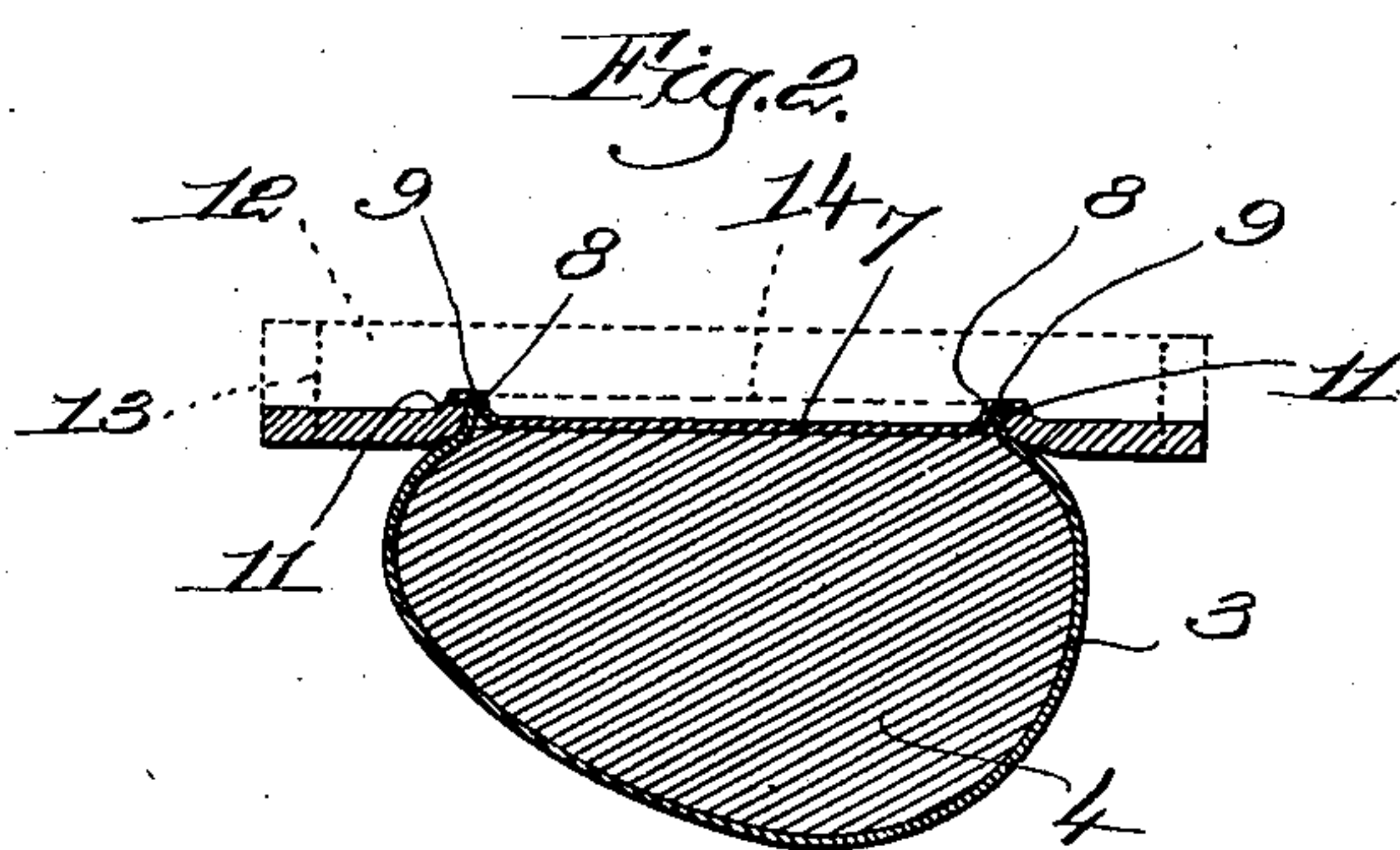
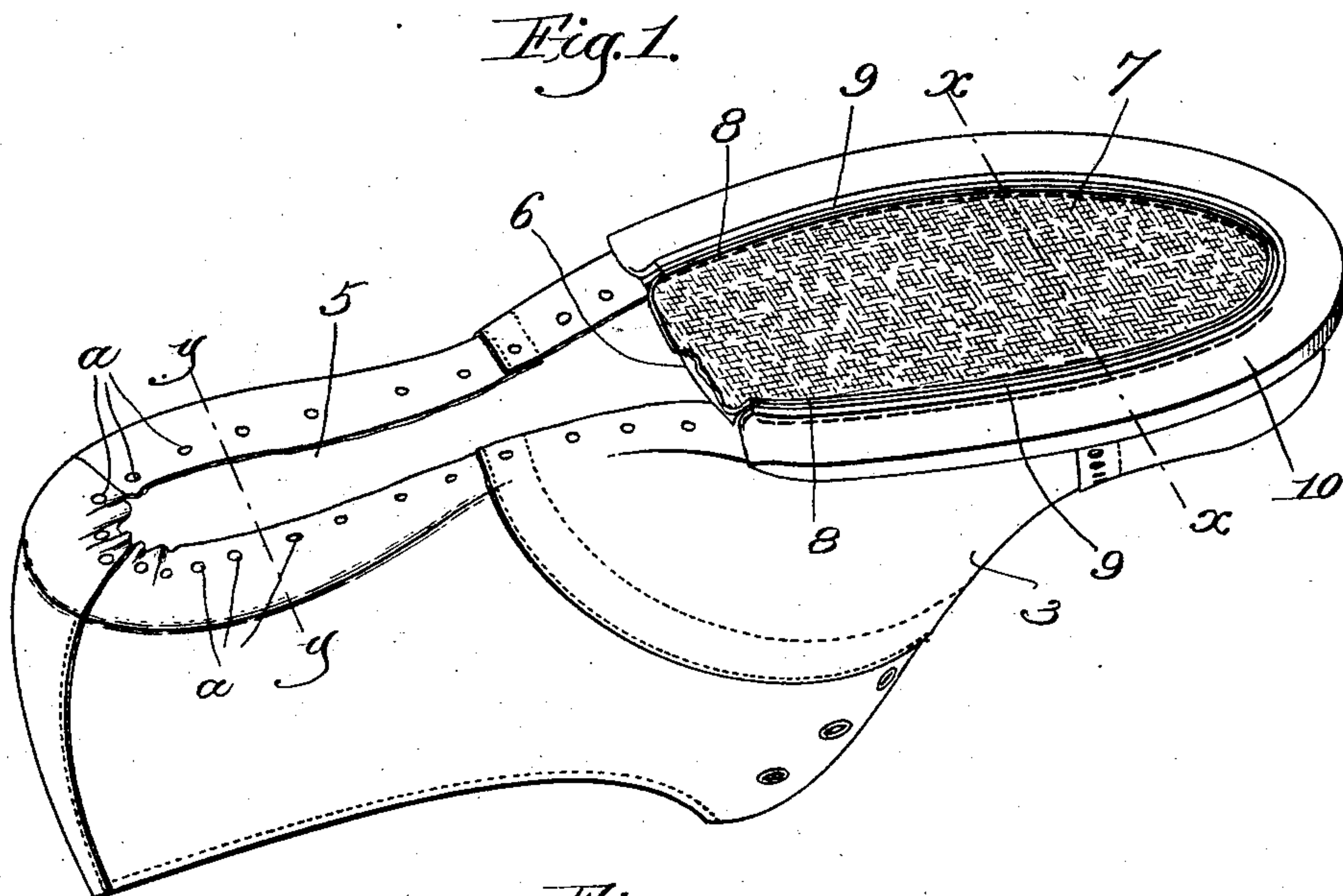


H. ALBERTS.
METHOD OF MAKING BOOTS OR SHOES.

APPLICATION FILED FEB. 14, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

Thomas J. Drummond
J. William Lutton.

Inventor.
Henry Alberts,
by Crosby & Gregory
Attys.

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2 SHEETS—SHEET 2.

Fig. 4.

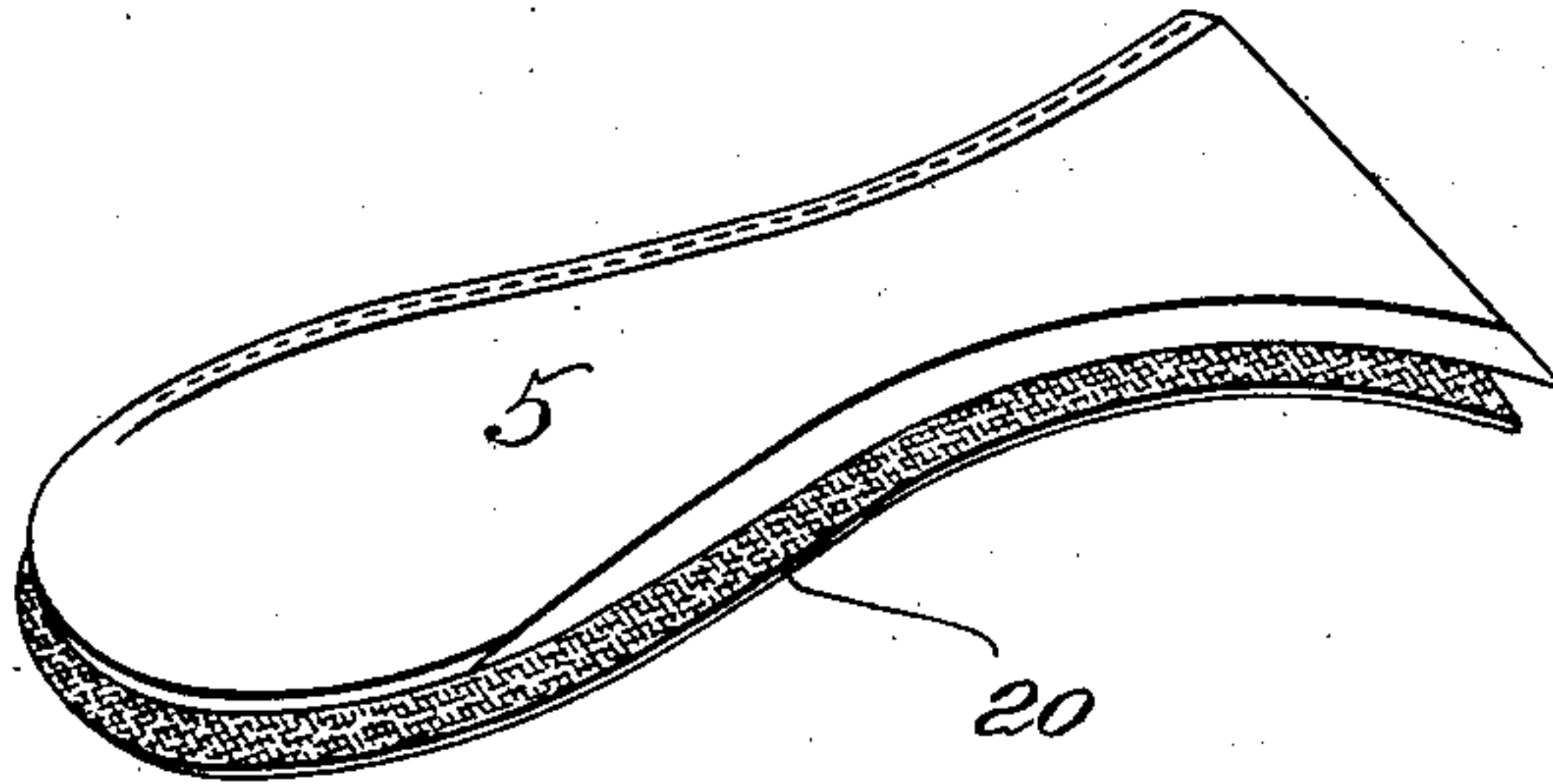
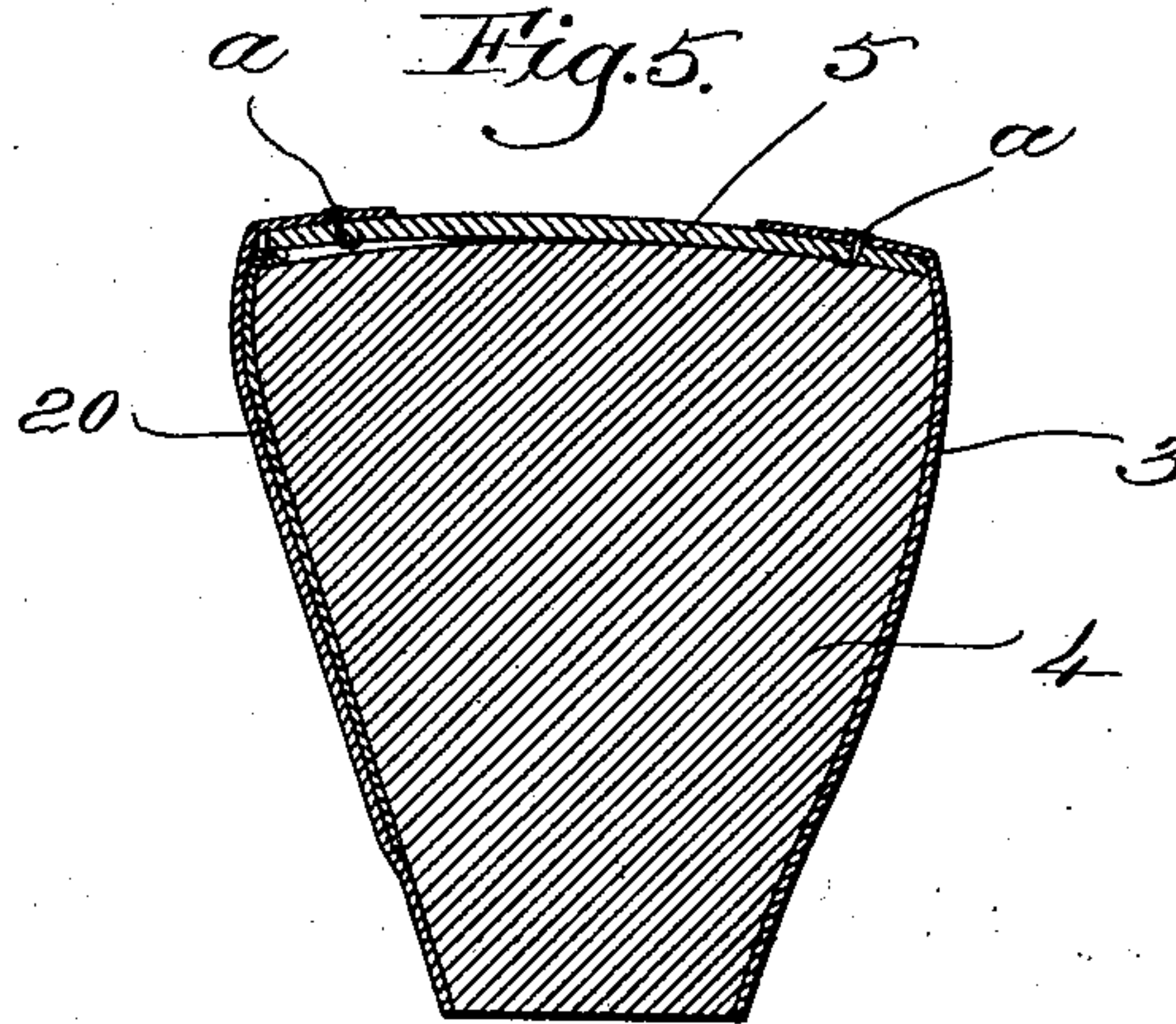


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY ALBERTS, OF SWAMPSCOTT, MASSACHUSETTS.

METHOD OF MAKING BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 742,372, dated October 27, 1903.

Application filed February 14, 1903. Serial No. 143,359. (No model.)

To all whom it may concern:

Be it known that I, HENRY ALBERTS, a citizen of the United States, residing at Swampscott, in the county of Essex and State of Massachusetts, have invented an Improvement in Methods of Making Boots or Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a novel boot or shoe which possesses great flexibility and which can be made at a minimum cost.

In making a shoe embodying my invention a shank-piece or stiffening member is placed on the bottom of the last at the heel portion, and the upper is then drawn over the last and its edges brought up and temporarily secured in some suitable way, as by tacks, a temporary binder of wire, or any other temporary fastenings. During this lasting operation the bottom of the last is bare with the exception of that portion covered by the shank-piece or stiffening member, which may extend only to the breast of the heel or clear to the ball of the foot, as desired. Whatever the length of the shank-piece or stiffening member, the toe portion of the last is bare during the lasting of the upper. After the upper has been lasted and the edges thereof turned upwardly from the last a properly-shaped stay-piece or tie member, which may be made of fabric or a piece of light upper-leather or any other similar material, is placed on that portion of the bottom of the last which is bare and secured thereto and its outer edges turned up parallel with the upturned edges of the upper. This stay-piece or tie member extends back to the shank-piece. The usual welt is then applied and the inner edge thereof secured to the upturned parallel edges of the tie member and upper by suitable stitches and the temporary fastenings removed. The outer sole is then applied to the welt in the usual way. The purpose of the tie member or stay-piece is merely to hold the upper properly drawn over the last when the temporary fastenings have been removed and before the welt and outer sole are applied.

My invention also includes a novel construc-

tion by means of which the tacks which are used in lasting the heel portion of the shoe are covered after the shoe is completed.

In the drawings, Figure 1 is a perspective view of a welt-shoe embodying my invention and in the process of manufacture. Fig. 2 is a transverse section through the shoe on substantially the line *xx*, Fig. 1. Fig. 3 is a plan view of a slightly-modified form of my invention. Fig. 4 is a perspective view of a shank having the lining secured thereto. Fig. 5 is a section on the line *yy*, Fig. 1.

My improved shoe has no insole proper, although a suitable shank-piece extends from the heel forward as far as the ball of the foot, if desired.

In making the shoe shown in Fig. 1 the shank-piece 5 is placed upon the last 4 and the upper 3 drawn over the last and its edges brought up and temporarily secured by some suitable temporary fastenings, such as tacks or a wire binder. In thus lasting the upper that portion of the last-bottom not covered by the shank-piece is bare, and if the temporary fastenings employed at the toe portion of the upper are tacks they will be driven through the upper into the last. The tacks *a* used in lasting the heel portion of the shoe are of course driven through the shank-piece 5 and clenched by engaging a metallic jacket on the heel portion of the last. A suitably-shaped tie member 7 is then placed on and temporarily secured to the bare bottom of the last and its outer edge 8 turned upwardly, as perhaps best seen in Fig. 2, such upwardly-turned edges being parallel with the upwardly-turned edges 9 of the upper. This tie member or stay-piece may be made of fabric or light upper-leather or any other suitable thin material which will not add any stiffness to the sole of the shoe. Such member extends backward to meet and overlap the forward edge 6 of the shank-piece 5. The usual welt 10 is then applied and permanently united to the upturned edges 8 and 9 of the tie member and upper, respectively, by suitable stitches 11, the temporary fastenings at the toe portion of the shoe being removed during the sewing operation. Thereafter the usual outer sole 12 is secured to the welt in any usual way, as by stitches 13. If desired, a filling-piece 14,

of felt or any other suitable material, may be employed to fill the space between the upturned edges 8 of the tie member. In Fig. 3 I have shown substantially the same construction except that the stiffening-piece 5' only extends substantially to the breast of the heel and the tie member 7' is long enough to extend back to the heel.

The tie member 7 does not act in any way as an inner sole, as its only function is to hold together the edges of the upper after the temporary fastenings have been removed and while the welt is being sewed to the upper, and this piece, therefore, can be made of any suitable material which has sufficient strength for this purpose. It is not absolutely necessary that the tie member be of a size to cover the entire portion of the last left bare by the shank-piece, as the purpose of the invention would be answered if it had such a shape as to hold the upper drawn tightly over the last between the time that the temporary fastenings used during the lasting of the upper are withdrawn and the outer sole applied.

The temporary fastenings *a* used in lasting the heel portion of the shoe remain in the shoe permanently, and to cover the clenched points of them on the inside of the shoe I employ a lining member 20, which is secured in a novel manner. This lining member is substantially the same size as the shank-piece, and before the latter is applied to the last I sew one edge of the lining 20 and shank-piece 5 together, as seen in Fig. 4. When the shank-piece, with the lining thus secured thereto, is placed on the last, I turn the lining away from the shank-piece, so that the former lies on the side of the last, as seen in Fig. 5. After the shoe is completed the lining-piece 20 is turned down onto the shank-piece and secured by some suitable means, such as an adhesive. In this position it completely covers the tacks *a*,

and because it is sewed to the shank-piece there is no possibility of its coming loose.

From the above it will be seen that my invention makes possible the manufacture of a welt-shoe without the use of an insole. The absence of the insole renders the shoe much more flexible at the ball of the foot, where the greatest flexibility is desired, and also reduces materially the cost of the shoe, as the reinforcing member 7 can usually be made from pieces of canvas or upper-leather, which would ordinarily go into the waste heap.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The method of making a boot or shoe which consists in placing a shank-piece on the last-bottom, stretching an upper over the last and securing its edges at the heel portion directly to the shank-piece, and securing the edges of the toe portion of the upper to the last by temporary fastenings, temporarily securing a stay-piece on the bare bottom of the toe portion of the last, and turning its edges upwardly from the last-bottom parallel with the upturned edges of the upper, permanently sewing a welt to said upturned edges of the upper and stay-piece while the upper is still stretched over the last, whereby the stay-piece operates to tightly hold the upper stretched over the last when the temporary fastenings are removed as the sewing is done, and subsequently attaching an outer sole to said welt.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY ALBERTS.

Witnesses:

LOUIS C. SMITH,
JOHN C. EDWARDS.