

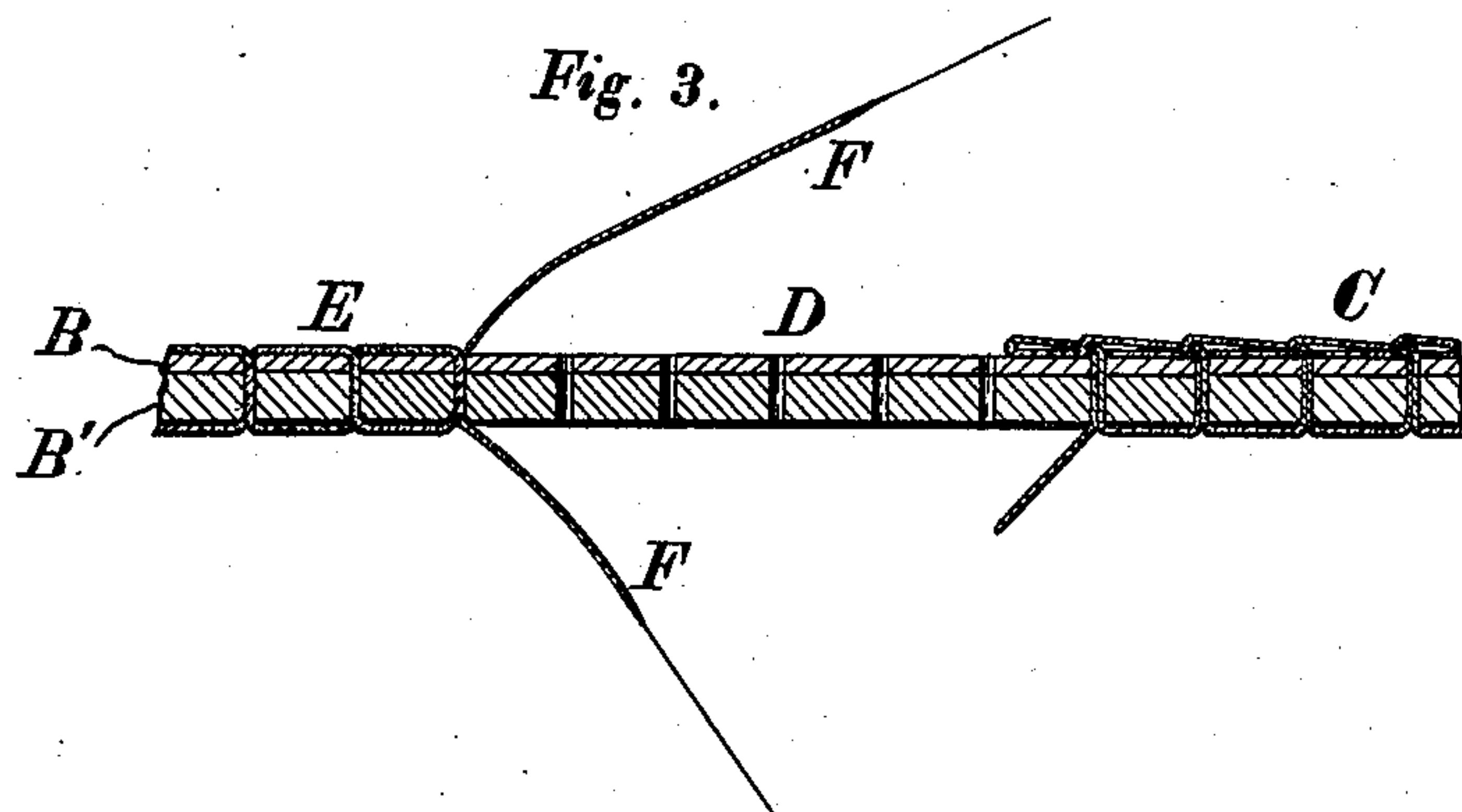
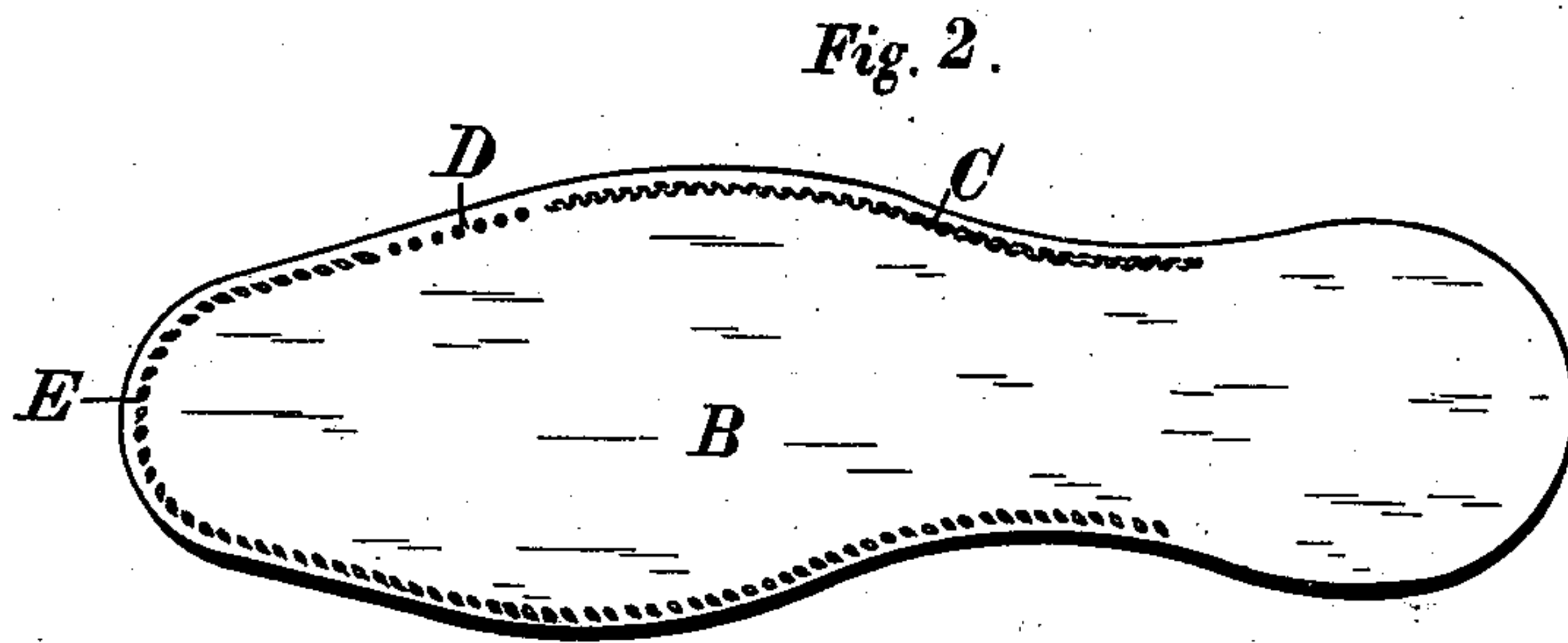
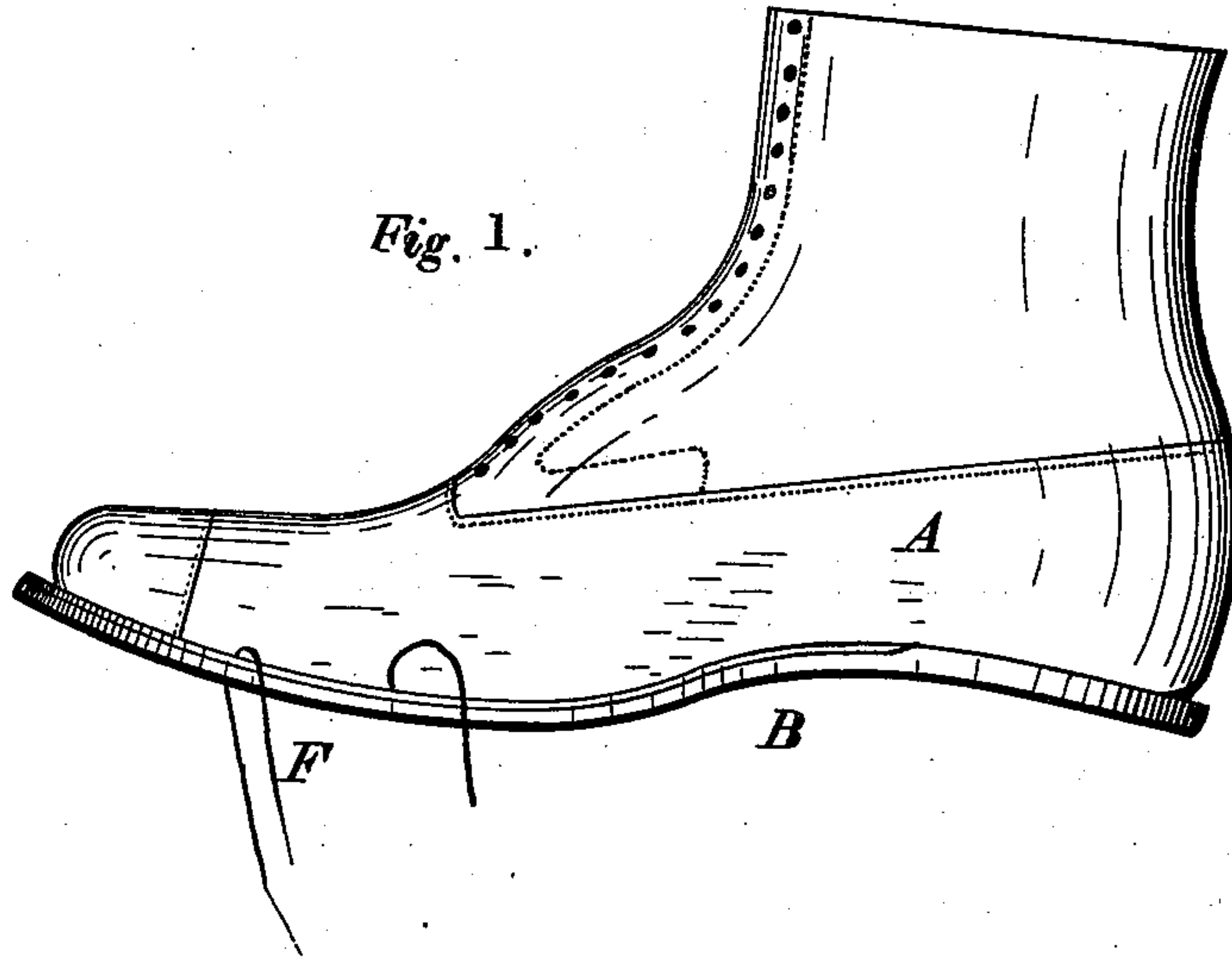
(No Model.)

H. B. HOOKER.

MANUFACTURE OF LEATHER ARTICLES.

No. 352,752.

Patented Nov. 16, 1886.



Witnesses

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# UNITED STATES PATENT OFFICE.

HORACE B. HOOKER, OF ROCHESTER, NEW YORK, ASSIGNOR TO S. H. HOOKER, OF SAME PLACE.

## MANUFACTURE OF LEATHER ARTICLES.

SPECIFICATION forming part of Letters Patent No. 352,752, dated November 16, 1886.

Application filed August 16, 1886. Serial No. 210,988. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE B. HOOKER, a citizen of the United States, residing at Rochester, New York, have invented an Improved Process of Manufacturing Articles of Leather—such as boots, shoes, harness, &c.—of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improved process of uniting leather capable of being used in the manufacture of boots, shoes, harness, or other articles made of leather, whereby the strength and flexibility of hand-sewed work is obtained at a material reduction in the cost.

My invention is fully described and illustrated in the following specification and accompanying drawings, and the novel features thereof specified in the claim annexed to the said specification.

In the accompanying drawings, Figure 1 is a side elevation of a shoe illustrating my invention. Fig. 2 is a view of the sole of a shoe embodying my invention. Fig. 3 is a longitudinal section through a row of stitches, showing the manner of carrying my invention into practice.

In the practical operation of uniting leather by means of my improved process the parts are attached together by stitching or sewing with any machine forming a stitch which can readily be removed. The row of stitches thus formed is then removed, leaving the perforations made by the needle open and adapted for the final step of the process, which consists in sewing the parts together in the ordinary way by hand, dispensing entirely with the use of the awl in the latter operation, and thereby materially reducing its cost, and enabling an unskilled workman to produce work of a better character than that ordinarily done by hand. The machine-sewing should be done with a smaller needle and thread than the hand-sewing thread which is to follow, and the machine-thread should be wet with or passed through water, (without using wax or gum,) so as to properly set the form of the stitch-holes and permit the ready removal of the thread. In making boots and shoes by my invention the outsole is sewed to the welt,

stitched aloft, or in any desired channel by any ordinary machine which makes a chain or other stitch which can readily be removed. The shoe is now ready for the hand-sewing workman, (either skilled or unskilled,) who proceeds to remove the machine-sewed stitches, leaving the holes open and ready for the reception of the waxed-end thread, which is inserted in the usual manner, dispensing entirely with the use of the awl, and producing thereby (even with unskilled labor) improved and more perfect hand-sewed work than can be accomplished by the old method.

In the accompanying drawings, the shoe A is represented as having the sole B in the different stages of the process. Thus at C is represented the machine-sewing, which, having been removed, leaves the row of perforations made by the awl or needle of the machine, as indicated at D, and at E is shown the hand-sewing, done in the usual manner, but without using the awl, by means of the waxed ends F.

In Fig. 3 I have represented two pieces of leather, B B', as attached together at C by the machine-stitching, and at E by the hand-sewing, the intermediate space being provided with the perforations D, left after the removal of the machine-sewing.

The operations are substantially the same as those already described when my improved process is used in uniting pieces of leather together in the manufacture of harness, trunks, or other articles. By using the thread in the machine-sewing the holes once formed are prevented from being entirely or partially closed up, as would occur if it were not used, the awl or needle in piercing one hole forcing the intermediate leather into the one last made; and I am thereby enabled to dispense with the awl entirely in doing the hand-sewing, as the thread of the machine-sewing keeps the holes open, so as to permit the introduction of the waxed ends, after the machine-sewing has been removed.

It will be readily understood that my improved process may be applied to materials other than leather.

I claim—

As an improvement in the art of manufac-



turing articles of leather—as boots, harness,  
&c.—the herein-described process of uniting  
the parts, consisting in sewing them together  
by suitable machinery with a line of stitches  
5 which permit the ready removal of the thread,  
in subsequently removing the thread, and then  
sewing the parts again together by hand in the

holes previously made by the machine-stitches,  
whereby the employment of an awl is dispensed  
with, substantially as described.

HORACE B. HOOKER.

Witnesses:

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