

(No Model.)

J. C. DAGGETT.

SHANK STIFFENER FOR BOOTS OR SHOES.

No. 367,505.

Patented Aug. 2, 1887.

Fig. 1.

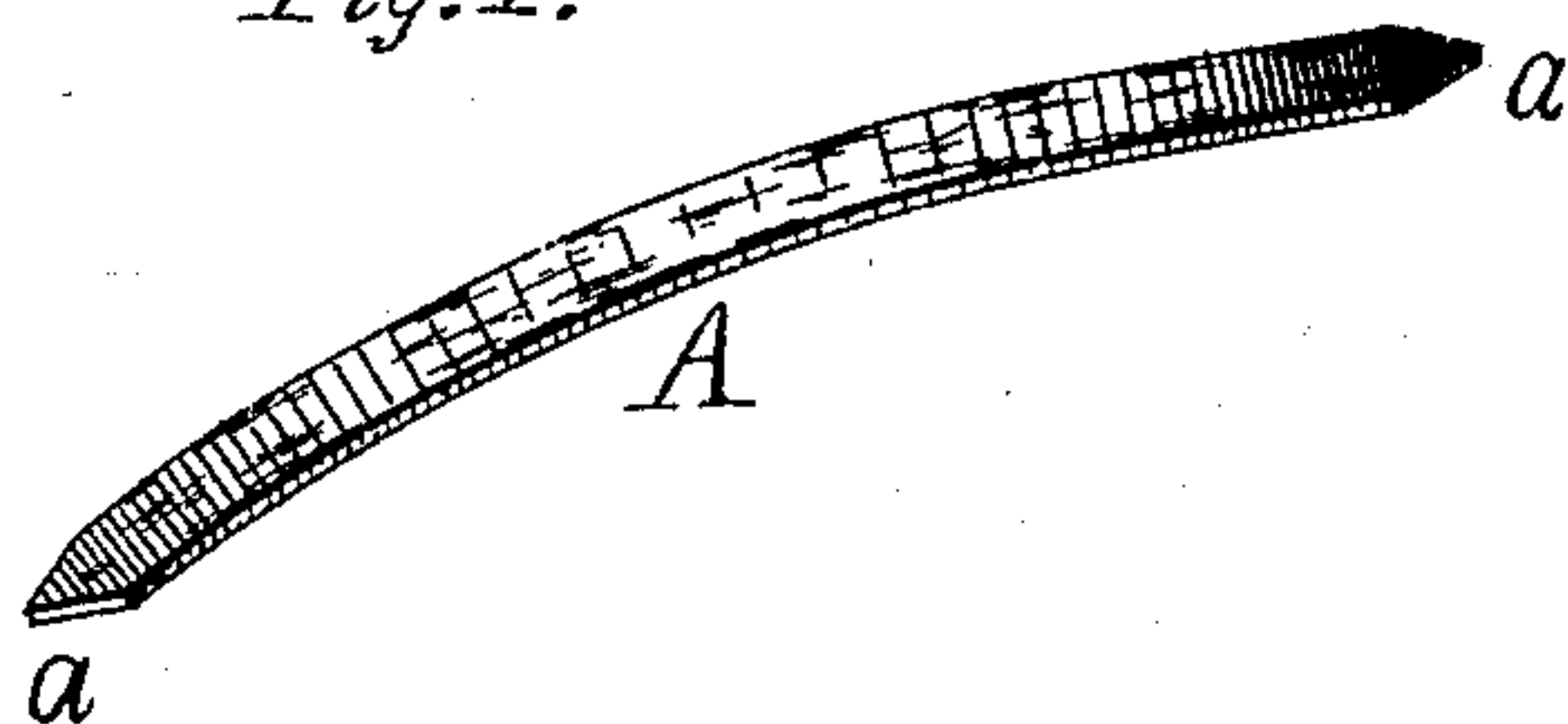


Fig. 4.

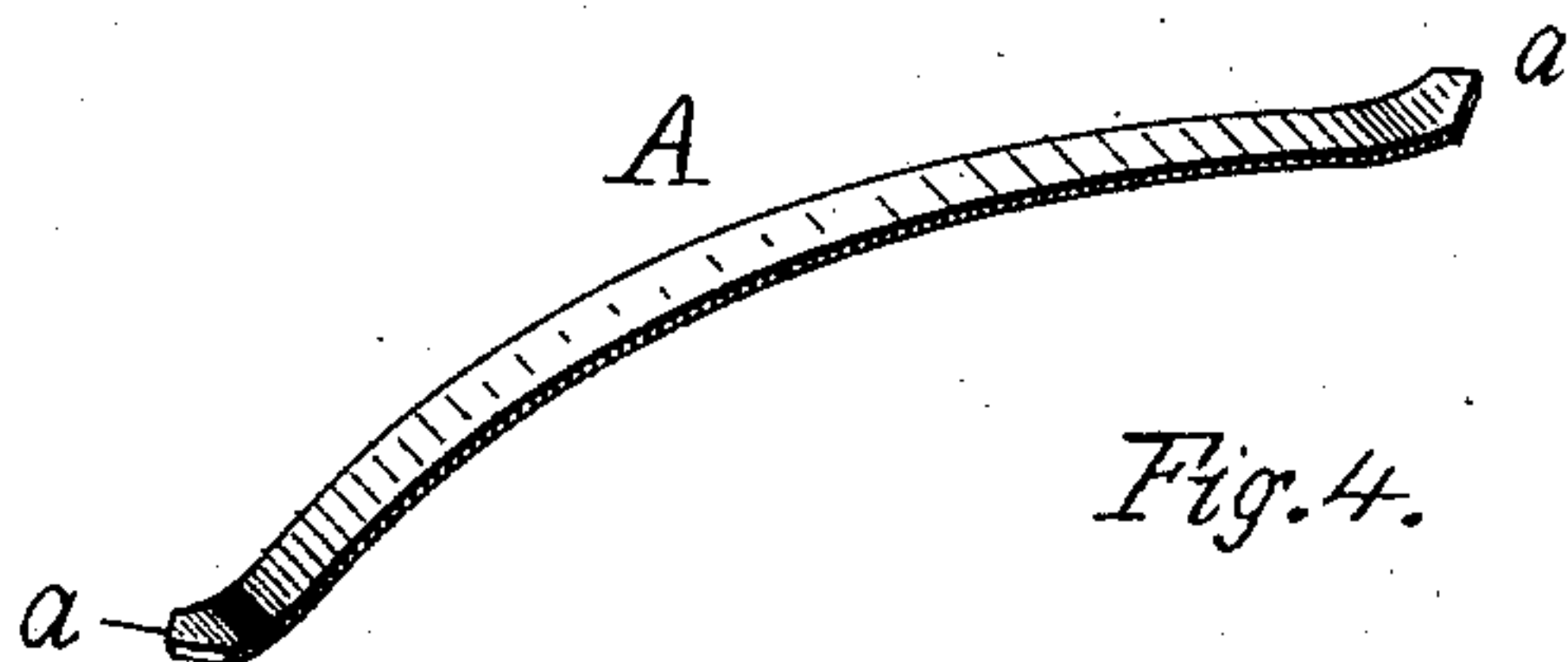


Fig. 2.

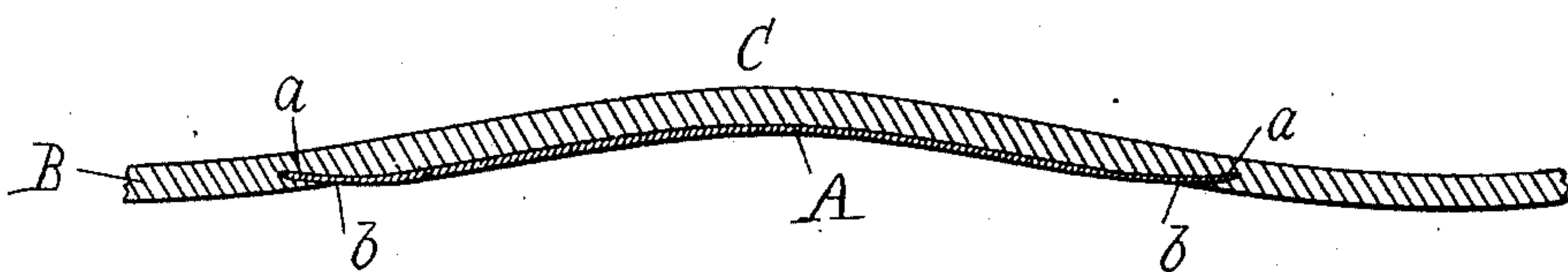
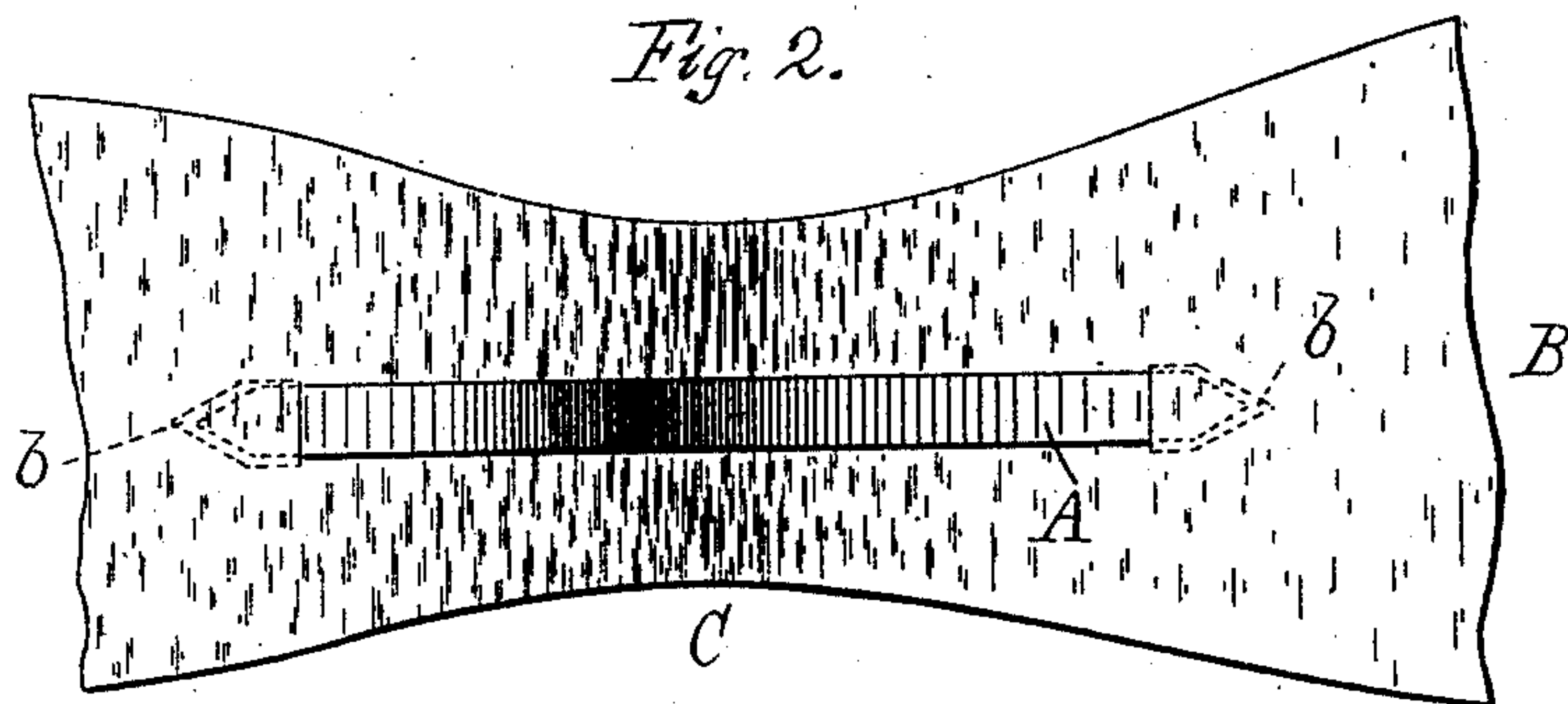


Fig. 3.

Witnesses.
H. E. Lodge.
E. W. Chase.

Inventor.
John C. Daggett.
F. Curtis, Atty.

UNITED STATES PATENT OFFICE.

JOHN C. DAGGETT, OF NEPONSET, ASSIGNOR TO GEORGE H. WOOD & CO.,
OF BOSTON, MASSACHUSETTS.

SHANK-STIFFENER FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 367,505, dated August 2, 1887.

Application filed November 26, 1886. Serial No. 219,908. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. DAGGETT, a citizen of the United States, residing at Neponset, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Shank - Stiffeners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 or figures of reference marked thereon, which form a part of this specification:

This invention pertains to "spring-shanks," so called, for boots or shoes, in which a thin metallic plate or shank-stiffener is employed, and is secured upon the sole to give greater elasticity and strength to the latter at this particular point—the shank. Furthermore, it preserves the form of the shoe and renders the latter more durable.

My invention consists in the particular form of the shank-stiffener and in the method of preparing the sole to receive it, whereby the two are united to form a spring-shank as an entirety without the aid of tacks, rivets, or other similar fastening devices now employed.

In the drawings accompanying this specification, Figure 1 represents a perspective view of a shank stiffener embodying my invention. Fig. 2 is a plan, and Fig. 3 is a vertical longitudinal section, of a shank-stiffener as applied to a sole of a boot or shoe. Fig. 4 is a modified form of the same.

Hitherto the metallic plates or stiffeners employed in the manufacture of boots or shoes provided with "spring-shanks," so called, have been made from narrow strips of thin steel cut into pieces of the requisite length. Such pieces have generally been squared at the ends, which are pierced to receive the fastening device driven into the leather to hold them in position.

There are some objections to this mode of affixing the shank-stiffener or spring-plate to the shank of the boot or shoe sole, as when the latter is unused the plate or stiffener conforms to and snugly rests against the shank, and it is in this position when the fastening devices are driven in.

It is evident that when the shoe is in use the weight of the wearer tends to flatten the stiffener and force its ends outwardly, or to increase the distance then existing between said extremities. This movement tends to shear off and break or tear the fastenings out or bring them into such a position as to interfere with and chafe the foot. To obviate some of these existing defects and to diminish the cost of constructing as well as that of securing said spring-stiffener to the shank of a boot or shoe, I proceed as follows:

From a narrow band or ribbon of steel or other analogous material I cut off pieces of a suitable length to form the spring-stiffener A. This shank-stiffener, in lieu of being squared at the ends and pierced with one or more holes, is pointed at the ends, preferably V-shaped and intact, as shown at *a a*. Moreover, I propose to do away with the use of metallic fastenings, and hence form in the under side of the sole B, upon the shank portion C, two cuts, *b b*, obliquely disposed with respect to the surface of said sole, as shown, and longitudinally of the latter. The distance between these cuts *b b* upon the surface of the sole is always less than the extreme length of the shank-stiffener, but may vary as circumstances require. Having extended these cuts (oppositely disposed) a proper distance downwardly into the substance of the sole, the latter is bent slightly to open the cuts *b b*, when the spring-stiffener A is forcibly compressed, its ends brought together, and when properly aligned with the cuts said stiffener is released and the ends at once enter the cuts *b b*, formed in the shank of the sole, while the sharp V-shaped extremities *a a* penetrate beyond, as the case may be, dependent upon the depth of the cuts. Thus the stiffener A is secured to and forms part of the sole, while the tendency of the spring to straighten is resisted by the strength of the material which composes the sole and which likewise holds it in place.

In Fig. 4 is shown a modified form of the plate A, in which the ends *a a* are slightly bent or turned up, to thereby conform more nearly with the direction of the cuts *b b* in the shank C. Thus when the weight of the wearer is brought upon the stiffener A the extremities

of the latter tend to enter the sole and hold the same more firmly; hence several prominent advantages accrue by this method of affixing the spring-stiffener A to the sole. First, no fastening devices of metal are required, and a simple blank is used, no holes being needed; secondly, the ends *a a* are free to move, while the pointed V-shaped extremities are adapted to pierce and enter the leather when the weight of the wearer is brought upon the shoe and the spring flattened, and, lastly, it will be evident that a spring-shank constructed in this manner will act more efficiently and last longer, since the stiffener, though confined, is free to move as circumstances require, and yet forms an integral portion of the spring-shank.

I claim—

1. A shank - stiffener consisting of a flat

piece of metal having its ends brought to a point, in combination with a sole in which the ends of said shank are embedded lengthwise, substantially as set forth.

2. The combination, with a boot or shoe sole, B, and its shank C, provided with the oppositely-disposed oblique cuts *b b*, of the shank-stiffener A, pointed at its extremities, which engage said cuts, whereby the stiffener is secured to the shank by the material composing the latter, substantially as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. DAGGETT.

Witnesses:

HARRY R. BARTLETT,
WILLIAM H. BARNEY.