

E. BRINER.

Spring Shanks for Boots and Shoes.

No. 148,349.

Patented March 10, 1874.

Fig. 1.

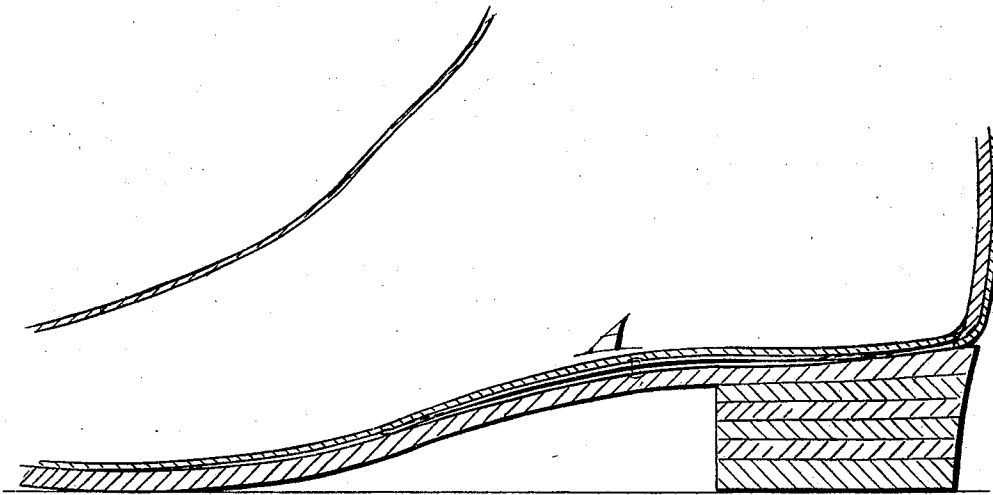
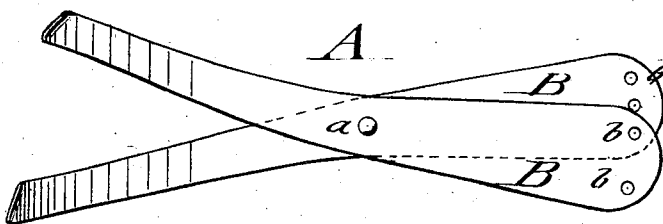


Fig. 2.



WITNESSES:

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EMIL BRINER, OF NEW YORK, N. Y.

IMPROVEMENT IN SPRING-SHANKS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **148,349**, dated March 10, 1874; application filed February 21, 1874.

To all whom it may concern:

Be it known that I, EMIL BRINER, of the city, county, and State of New York, have invented a new and Improved Spring-Shank, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side view of my improved spring-shank as applied to a boot in the usual manner, and Fig. 2 a top view of the same detached.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide, for use in the manufacture of boots and shoes, an improved spring-shank, which is not only stronger at the point of greatest strain, and more flexible at the fore ends, but which may also be adjusted to various degrees of elasticity, as required. My invention consists of two spring-shanks, of equal length and strength, which spread at the front ends, and are connected by a central pivot, being provided with holes at the heel ends for attaching them to the heel and adjusting their front ends without weakening the heel part.

In the drawing, A represents my improved spring-shank for boots and shoes, which is constructed of two shanks, B, of nearly equal length and shape, but with sidewise-spreading fore ends, corresponding to the ball of the foot. The shanks B are made of tempered steel, with broader heel ends and narrower fore ends, and connected by a central pivot, *a*, so that the heel ends form a double thickness of steel, while the front ends, spreading in V shape, are flexible and yielding to the foot.

The greatest strain on the spring-shanks in use is at the point of connection with the heel, where they frequently, on drawing off the boot or shoe, get broken and useless. My double shank resists this strain more effectively, and is connected, by holes *b* at the rear ends, to the heel, in the usual manner.

The front ends of the shank may be brought nearer to or farther from each other, according to the resistance required, by sliding the rear ends to either side, without decreasing thereby the strength of the rear shanks. The greater or lesser extent of spreading apart of the front ends strengthens or weakens the flexibility of the shanks, so that they may be exactly adjusted to heavier or lighter work, as required.

The double shank may also be used like the common single shank by throwing the upper shank completely around till the upper heel end is above the lower front end, by which a shank of greatly increased strength is obtained.

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

As an improvement in spring-shanks for boots and shoes, the adjustable pivoted double shank B B, having two thicknesses at the rear, to be attached to the heel, and spreading adjustable fore ends, constructed and applied substantially as and for the purpose set forth.

EMIL BRINER.

Witnesses:

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