(No Model.)

W. P. BRADFORD.

SHOE.

No. 492,186. Patented Feb. 21, 1893.

Fig: 1.

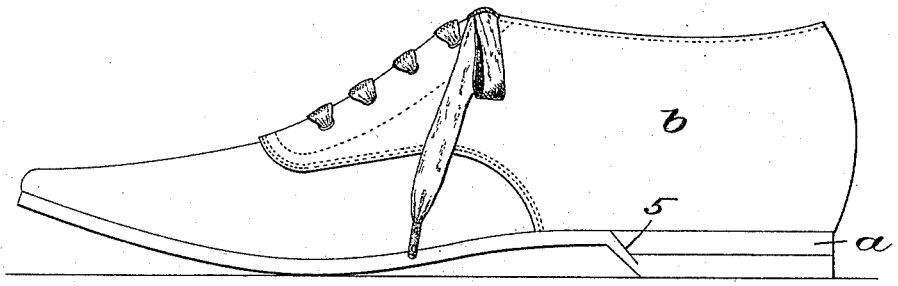


Fig: 2.

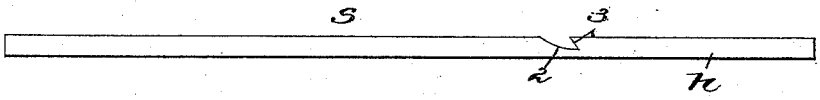
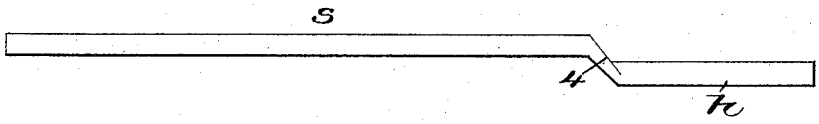


Fig: 3.



Witnesses.
Edward G. Allen.
Louis N. Dowell.

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UNITED STATES PATENT OFFICE.

WINSLOW P. BRADFORD, OF HAVERHILL, MASSACHUSETTS.

SHOE.

SPECIFICATION forming part of Letters Patent No. 492,186, dated February 21, 1893.

Application filed November 11, 1892. Serial No. 451,595. (No model.)

To all whom it may concern:

Be it known that I, WINSLOW P. BRADFORD, of Haverhill, county of Essex, State of Massachusetts, have invented an Improvement in Boots or Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of a novel shoe of the so-called spring-heel variety. In the construction of this class of shoe, it has been customary to apply between the heel end of a lasted shoe and the heel end of the outer sole, one or more layers of leather shaped like heel-lifts, but skived thin at their inner edges toward the shank of the shoe, the heel of the outer sole also being sometimes skived, but such a shoe fails to meet the requirements of purchasers, as the heel presents a rounded tread surface which is very unstable and disagreeable to the wearer, the shank is not sufficiently elevated, and the sole is made very stiff. In my experiments to improve this class of shoe, and give it a more developed heel having a long and flat tread surface, I have provided the inner face of the outer sole with a transverse notch at substantially the heel breast line, acute-angular in shape, or in other words, with a notch, the side walls of which are of unequal height and which incline from the shank toward the heel end of the outer sole, and thereafter the sole is so bent as to put these inclined faces in contact, and a lift with a beveled inner edge is placed between the heel end of the lasted shoe and the heel end of the outer sole, the beveled inner edge of the lift and one side of the notch referred to abutting against the longer incline or side of the notch, the part of the outer sole adjacent to and opposite that against which the one inclined side wall of the notch and the beveled edge of the lift bear, being held in an inclined position and enabling the shank of the shoe to be held up firmly into the hollow of the foot, the springy quality of the shank being much greater owing to the inclined position of the leather at the inner end of the spring heel than would be the case if the leather between the shank and spring heel stood vertical and presented a square shoulder, or a shoulder such as shown at the breast of an ordinary heel made by attaching lifts outside an outer sole, and the heel part of the sole under the lift forms a flat tread surface extending over the entire heel.

Figure 1, in side elevation, shows a shoe embodying my invention; Fig. 2 shows my improved sole after being subjected to its first operation; and Fig. 3 shows the sole after it is bent.

In the production of a shoe in accordance with my invention, I take a piece of sole leather of proper length, shape and thickness for a sole *s*, and I cut in its inner or flesh side a transverse cut, see Fig. 2, so formed as to present two inclined side walls 2, 3, at about the heel breast line both walls inclining downwardly from the inner side of the sole toward the heel end thereof, the side wall 2 being enough longer from top to bottom than the side wall 3 to enable the sole to be bent or molded as in Fig. 3 and form of the inclined wall 2 a shank support and abutment 4, leaving the heel end *h* of the outer sole depressed below the level of the bottom of the sole at the heel end of the shank, the wall 3 abutting firmly against the wall 2 for part of its length. The lift *a* having a beveled inner edge 5 is placed between the heel end of the sole and the heel end of the lasted shoe *b*, which may be of any suitable or usual shape or material, and the end 5 is abutted against the inclined wall 2 as best shown in Fig. 1 and by dotted lines Fig. 3. After this, the sole and upper are attached in usual or suitable manner, and the heel presents a broad and flat tread surface from end to end.

The shoe thus constructed has an inclined sustaining wall for the shank of the shoe, said wall also constituting the breast for the heel.

The sole described is of novel shape and production.

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

1. A spring-heel shoe, composed of an upper, a sole having inclined cross walls 2, 3, of different height, the heel end of the sole being depressed below the level of the inner end of the shank with the wall 3 abutted against the wall 2, and a lift intermediate the heel end of the sole and the heel end of the upper, the

beveled inner edge of the lift being abutted against or supported by the longer incline 2 of the sole, the part of the sole between the longer inclined wall 2 and the outer side of the sole standing in an inclined position,—keeping the inner end of the shank well elevated, and presenting a flat tread surface for the heel, substantially as shown and described.

2. As an improved article of manufacture, an outer sole having at its inner side a transverse acute-angled notch in the line of the inner end of the shank, the walls of said notch being of different height and inclined from the toe end toward the heel end of the sole, the heel end of the sole being depressed to bring its inner side below the outer side of the sole at the inner end of the shank, the wall 2 abutting against part of the wall 3 and leaving a portion of the wall 3 in inclined position to receive a lift against it, substantially as described.

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

WINSLOW P. BRADFORD.

Witnesses:
RICHARD B. O'CONNOR,
ROBERT D. TRASK.