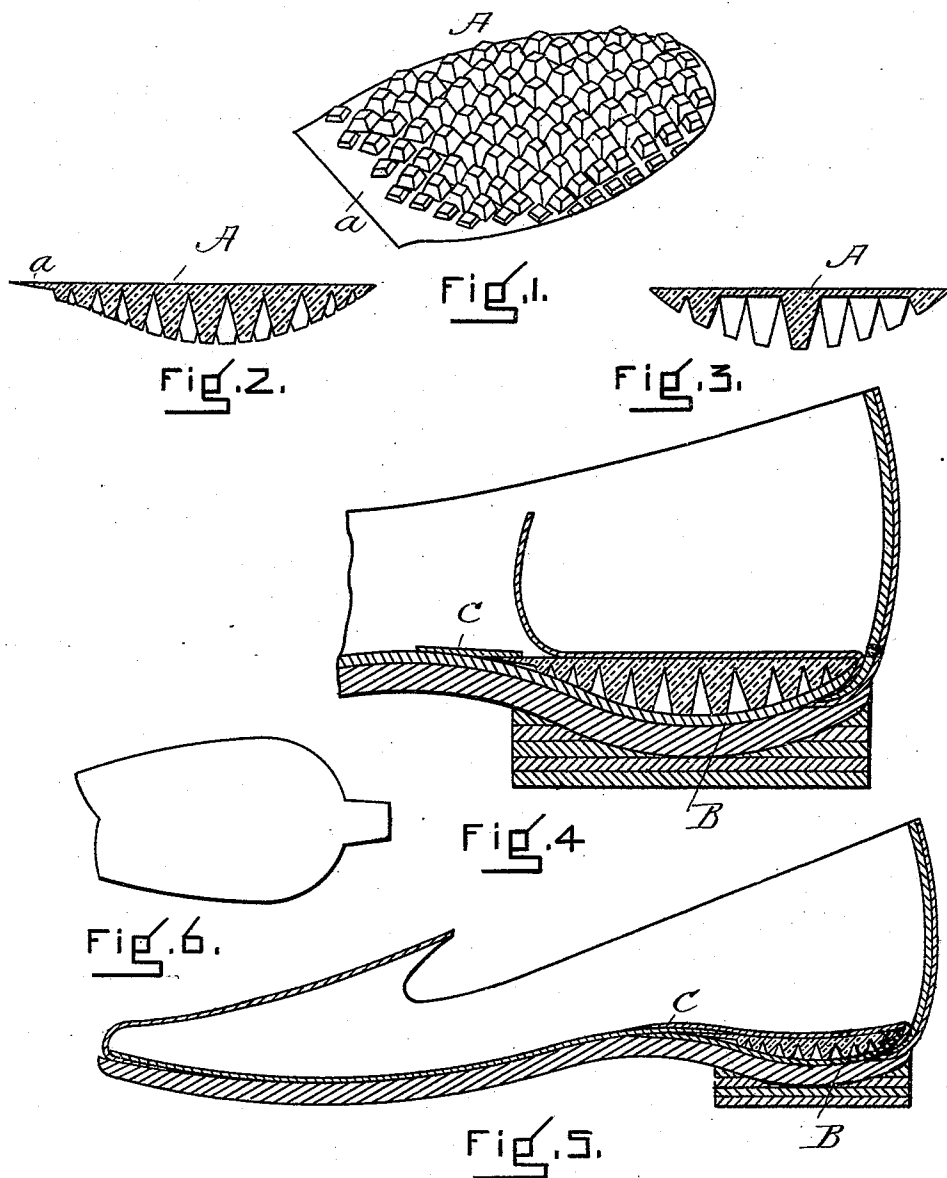


(No Model.)

B. R. TILLGREN.
CUSHIONED HEEL FOR BOOTS OR SHOES.

No. 536,590.

Patented Mar. 26, 1895.



WITNESSES

Ellen B. Tomlinson.
William J. Marks.

INVENTOR

Bengt R. Tillgren -
by Alex P. Brown
attorney.

UNITED STATES PATENT OFFICE.

BENGT R. TILLGREN, OF ROCKLAND, MASSACHUSETTS.

CUSHIONED HEEL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 536,590, dated March 26, 1895.

Application filed March 9, 1894. Serial No. 503,014. (No model.)

To all whom it may concern:

Be it known that I, BENGT R. TILLGREN, a subject of the King of Sweden and Norway, but having declared my intention of becoming a citizen of the United States, residing at Rockland, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Cushioned Heels for Boots or Shoes, of which the following is a specification.

My invention relates to an improvement in heels for boots and shoes, and particularly to those in which a yielding surface or cushion is obtained by the use of a pad of rubber or analogous material located within the shoe beneath the heel of the wearer, and its object is to improve and simplify the construction in the particulars hereinafter more fully pointed out.

In the accompanying drawings at Figures 1, 2, and 3, I have shown in perspective and in longitudinal and cross-sections respectively my improved construction of heel pad. At Figs. 4 and 5 I have represented in longitudinal section a shoe to which my present improvements are applied, Fig. 5 showing a modification in detail of construction that will be hereinafter explained. At Fig. 6 is shown in plan the heel lining hereinafter mentioned.

I will first describe the improved pad shown in Figs. 1, 2, and 3. This pad A is formed of india rubber or its equivalent and is substantially flat upon its upper side or that which comes next the foot. On its opposite side it is convex or rounded both in the direction of its length and width, being thus made tapering to a thin edge around that portion of its perimeter which is adjacent to its inner sole. Furthermore, at its front portion it is provided with an extension or lip *a* as shown. For use with this sole I provide the inner sole, the heel portion B of which is molded or rounded to a contour corresponding to that of the pad, and upon the inner sole at or near the line between the heel and the shank, I provide a pocket C, within which the forward extension of the pad previously described is inserted when the pad is in place. This pocket serves to prevent the pad from being displaced, either forwardly or upwardly at its

front portion. I also provide a heel lining D which is secured at the rear of the heel, preferably by being lasted in at that point when the shoe is lasted. This heel lining is of a size and shape to cover the pad and also the pocket over which it lies in the finished shoe. It may be secured in place by paste or its equivalent and by reason of its being attached to the shoe at its rear, and lying over the pad, it prevents the displacement thereof.

I have already stated that in Fig. 5 I have shown a modification of the construction shown at Fig. 4. This modification relates to the detail of construction of the pocket above referred to. At Fig. 4 I have shown it as constructed of an additional piece of material secured to the inner sole. At Fig. 5 I have shown it as formed from the inner sole itself, which for this purpose is divided transversely at or near the line between the shank and the heel, the fore part of the inner sole slightly overlapping the rear part, which overlap forms the pocket. In practice, and for convenience, this overlapping portion is skived or beveled to make the upper surface of the inner sole more even.

It will be understood that in connection with my improved pad and molded inner sole it will be ordinarily necessary to use a last made convex to correspond with the concavity of the inner sole, and also the heel portion of the outer sole will preferably be correspondingly concaved, its outer surface, or that to which the heel is attached, being brought to a level by the use of "runners" or plano concave first lifts, according to the well known practice of shoe manufacturers.

A material advantage of the curved form of the pad with tapering edges is that it enables the edge of the concaved heel portions of the inner and outsole to come at their usual positions in the shoe, thus giving to the heel of the latter the same external appearance as the ordinary shoe. This is not the case where a pad of uniform thickness is employed, and this has been a reason among others, why such a pad has not been practically successful. A further advantage is that the inner sole does not have to be shortened nor reduced in thickness, by compression or otherwise, to accommodate the pad, while at the

same time the usual level of the inner sole is preserved.

I claim—

1. The combination in a boot or shoe with
5 a pad formed substantially as described and
having a forwardly extending portion, of an
inner sole extending the entire length of the
shoe and molded to receive the pad, and pro-
10 vided with a pocket adapted to receive and
lap over the forward extension of the pad,
substantially as set forth.

2. In combination, a pad formed as de-
scribed and provided with a forward exten-

sion, an inner sole provided with a pocket to
receive and hold the forward extension of the 15
pad, and a heel lining piece secured at its rear
to the shoe, and adapted to extend forward
and cover said pad and pocket, all substan-
tially as and for the purpose set forth.

In testimony whereof I have hereunto sub- 20
scribed my name this 6th day of March, A. D.
1894.

BENGT R. TILGREN.

Witnesses:

SEWALL P. HOWARD,
ELLIS F. COPELAND.