(No Model.)

J. D. KAESTNER.

BOOT OR SHOE HEEL.

No. 556,504. Patented Mar. 17, 1896.

Fig. 1.

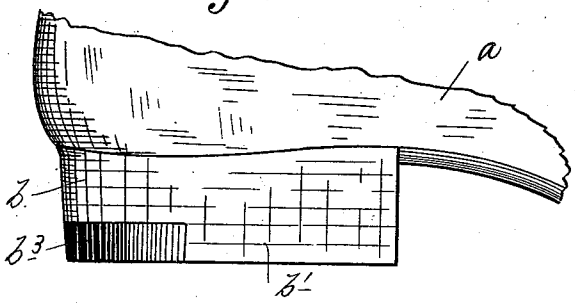


Fig. 2.

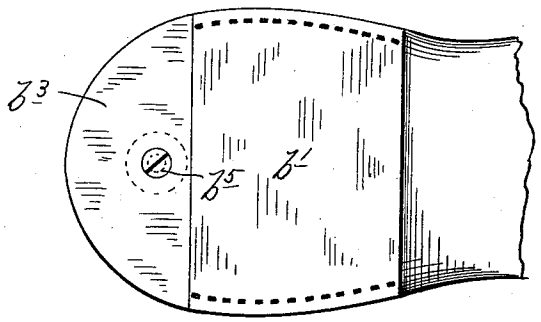


Fig. 3.

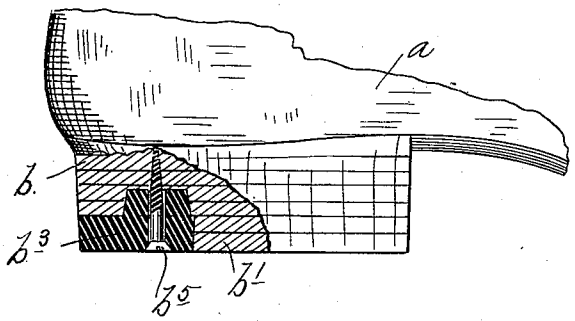


Fig 4.

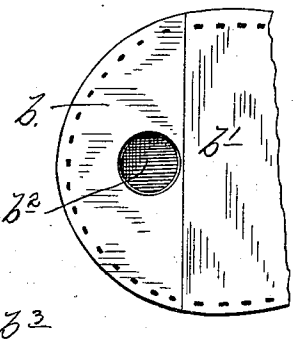


Fig. 5.

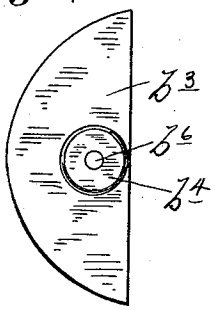
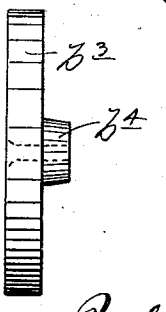


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN D. KAESTNER, OF MINNEAPOLIS, MINNESOTA.

BOOT OR SHOE HEEL.

SPECIFICATION forming part of Letters Patent No. 556,504, dated March 17, 1896.

Application filed September 26, 1895. Serial No. 563,714. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. KAESTNER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Boot or Shoe Heels; 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.

My invention relates to boots and shoes, and has for its object to provide an improved heel for the same with a view of greater comfort to the wearer.

To this end my invention consists of the novel features of construction hereinafter described, and defined in the claim.

The accompanying drawings illustrate the invention, wherein like letters refer to like parts.

Figure 1 is a perspective and Fig. 2 a plan view of the heel portion of a shoe constructed in accordance with my invention, some parts being broken away. Fig. 3 is a view similar to Fig. 1 with some portions broken away and part of the heel shown in vertical section. Fig. 4 is a plan view of the heel with the elastic-lift section removed, and Figs. 5 and 6 are respectively plan and end views of the elastic-lift section detached from the heel.

a represents the boot or shoe upper.

b represents complete leather lifts, and *b'* partial leather lifts, secured together in the ordinary way to form the body of the heel. The complete lifts are recessed or cut out to form the dowel-seat b^2 in the portion thereof rearward of the rear ends of the partial leather lifts *b'*. The said dowel-seat b^2 and the portion of the body of the heel left incomplete by the partial leather lifts *b'* constitute a seat for an elastic-lift section composed of the lift portion proper, b^3, and the dowel portion b^4. This elastic-lift section b^3 b^4 is preferably made of rubber and is applied, as shown best in Figs. 1, 2, and 3, to complete the heel and form an elastic surface at the rear end of the heel. The said elastic-lift section is first cemented to the leather portions or body of the heel and is then further secured by set-screw b^5, working through the body and dowel portion of the elastic-lift section into the body or leather portion of the heel, as best shown in Figs. 2 and 3. The elastic-lift section is preferably perforated, as shown at b^6, to form a passage for the shank of the screw b^5. The elastic-lift section may also be further secured by nails, if so desired. The cement and the screw b^5 will, however, be sufficient to hold the same into working position and renders a worn-out elastic lift readily removable for the application of a new elastic. The dowel-seat b^2 and the dowel b^4 are preferably slightly tapered in opposite directions, as best shown in Fig. 3.

It is obvious that with this construction the heel action in walking is taken on the elastic-lift section b^3 b^4. Hence the heel movement, when striking or leaving the ground or other surface over which the person is walking, is cushioned or rendered slightly yielding or elastic. This avoids the shock or jar incidental to the ordinary leather heel and adds greatly to the comfort of the wearer. At the same time, in virtue of the fact that the entire forward part of the heel is formed from leather, the heel, when stood upon flat-footed, will be unyielding and as rigid as an ordinary non-yielding heel. This is important not only because it is more agreeable to stand upon, but also because it renders the heel less liable to wear one-sided than it would be in case the heel was completely covered with rubber.

This improved form of heel is cheaply made, adding but little, if any, to the cost of the ordinary leather heel. The rubber-lift section will of course wear out more rapidly than a leather lift at the same point; but in virtue of the peculiar construction a new rubber-lift section can be much more readily applied to restore the heel to its original condition than in the case of an all-leather heel.

The interlocking of the heel-body and the elastic lift afforded by the dowel b^4 on the elastic lift and the dowel-seat b^2 in the body of the heel serves to prevent the elastic lift from sheering or moving in any direction. In other words, the interlocking engagement of the said parts co-operates with the cement and the set-screw to securely hold the same together in working position.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

The combination with the complete leather-

lift sections b having the dowel-seat b^2 in their rear portions, the partial leather lifts b' forming the forward wearing portion of the heel, the elastic or rubber lift section having the body portion b^3 lying flush with the lift-sections b' and provided with the dowel portion b^4 fitting said dowel-seat b^2, and the screw b^5 securing said elastic-lift section in position with said heel, substantially as and for the purpose set forth.

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

JOHN D. KAESTNER.

Witnesses:
JAS. F. WILLIAMSON,
E. F. ELMORE.