A. PITTROFF.

HEEL STIFFENER FOR BOOTS AND SHOES.

APPLICATION FILED MAY 28, 1914.

1,154,429. Patented Sept. 21, 1915.

Fig. 1.

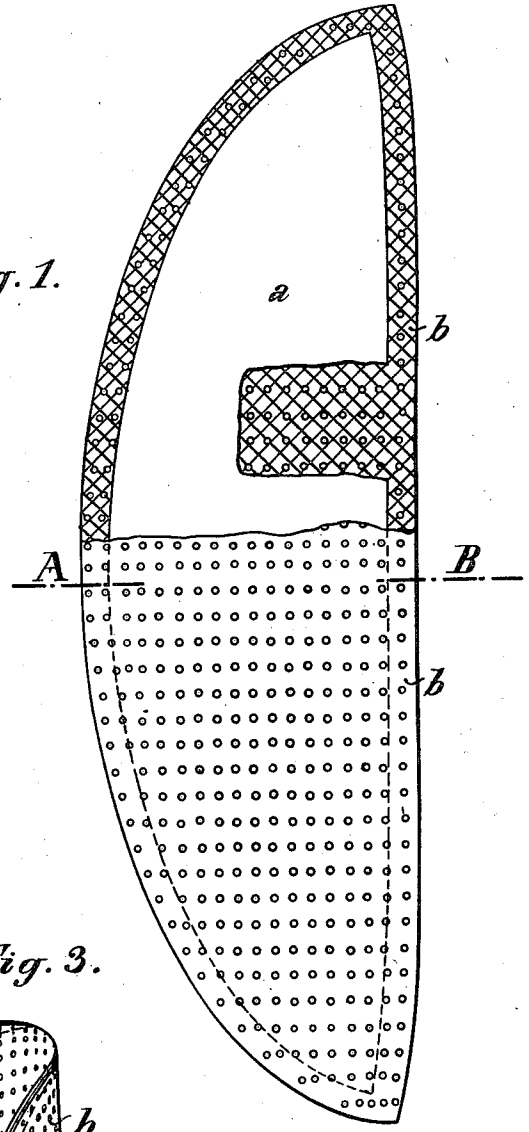


Fig. 3.

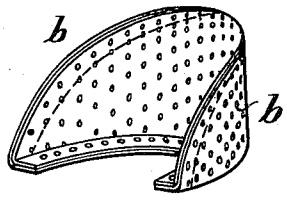


Fig. 2.



Witnesses:
Hyperion Barry.
F. George Barry

Inventor:
Andreas Pittroff
by attorneys
Brown & Seward

UNITED STATES PATENT OFFICE.

ANDREAS PITTROFF, OF DRESDEN, GERMANY.

HEEL-STIFFENER FOR BOOTS AND SHOES.

1,154,429. Specification of Letters Patent. Patented Sept. 21, 1915.

Application filed May 28, 1914. Serial No. 841,535.

To all whom it may concern:

Be it known that I, ANDREAS PITTROFF, engine-fitter, a subject of the King of Prussia, and resident of Holbeinstrasse 17, Dresden—A., Kingdom of Saxony, German Empire, have invented a new and useful Heel-Stiffener for Boots and Shoes, of which the following is a specification.

The invention refers to heel-stiffeners for boots and shoes consisting of a stiffened middle-part and two waterproof covers closing up around the outer periphery of said middle-part, and mainly consists in that for the purpose of softening this stiffened middle-part to enable the same to be shaped and worked into the boot or shoe, notwithstanding the water-proof covers entirely closing up around its edges, said covers are partly made porous by means of fine perforations or the like for the purpose of allowing the softening fluid to pass through into the middle-part. The middle-part being made smaller than the two covers may consist of any desired known material, such as thin leather, card-board, textile-fiber material stiffened by celluloid-solution or the like, whereas for the two covers stiffened textile-fiber material is used, which on the side to be used as outside is for the purpose of obtaining an air- and water-tight cover provided with a cork-dust-layer, applied onto the same in a well known manner in combination with varnish, which layer is thereafter provided with pores or perforations or may also be made porous together with the material for the covers.

On the drawing a heel stiffener for boots and shoes according to the invention is shown by way of example in Figure 1 in full view in its stretched position and with its middle part partly uncovered and in Fig. 2 in section according to line A—B of Fig. 1. Fig. 3 shows in perspective the stiffener in its completed form ready for insertion in a boot or shoe.

The heel stiffener consists in a known manner of the stiffened middle-part *a* made of appropriate or suitable material and the two covering parts *b* closing up around the outer edges of the middle-part and consisting of a textile fiber-material provided on its outside in a well known manner with a cork-dust- or other air-tight and water-proof layer. These three parts are by means of an adhesive and, if necessary, also by additionally sewing them together, connected to each other and will give a leather-like resistant and at the same time cheap heel-stiffener, which, in particular its stiffened middle-part entirely inclosed in or surrounded by the water-proof covers *b*, requires to be softened to enable it to be shaped and worked into the shoe or boot. For the purpose of obtaining said softening, the covers *b* are, according to the invention, made partly porous by being provided, as is shown in Fig. 1, with a great number of fine pores or perforations passing through the covers as well as through the cork-dust-layer thereon. If a heel-stiffener formed in this manner is immersed into a fluid causing it to be softened, the latter will be allowed to pass through the fine perforations or pores and reach the stiffened middle-part *a* which thus is made soft and pliant and thereupon consequently can easily be brought together with the covers surrounding it into the necessary stiffener form as shown in Fig. 3, and worked into the boot or shoe. After drying the stiffener will again receive its full stiffness and firmness.

The pores or perforations of the covers may be obtained by either the finished stiffener or the cut out parts of the covers or also the material used for them being passed through rollers which are provided with small needle-point-like pins for pricking through the water-proof layer. These pins may also be provided on appropriate plates which will be pressed together against the covers to obtain the holes or perforations therein.

What I claim is:

In a heel stiffener for boots and shoes, the combination with a stiffened middle-part, of two outer covers made of water-proof material entirely closed at the edges of said middle-part, and having fine perforations provided within said covers for allowing a softening fluid to pass through them for the impregnation of the middle-part to be softened.

In testimony, that I claim the foregoing as my invention I have signed my name in presence of two witnesses, this sixteenth day of May, 1914.

ANDREAS PITTROFF.

Witnesses:
LEO BERGHOLZ,
EDWIN BECHER.