

(No. Model.)

E. ANDREWS.

HEEL STIFFENER FOR BOOTS OR SHOES.

No. 276,550.

Patented May 1, 1883.

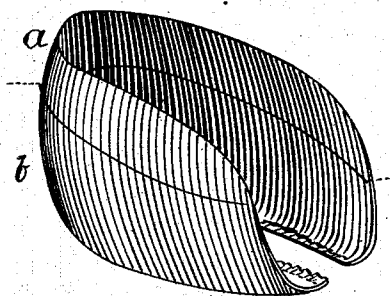


Fig. 1.

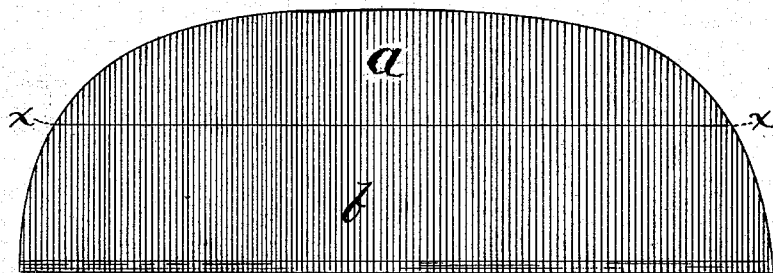


Fig. 2.

Witnesses:

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EMERY ANDREWS, OF KENNEBUNK, MAINE.

HEEL-STIFFENER FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 276,550, dated May 1, 1883.

Application filed June 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, EMERY ANDREWS, of Kennebunk, in the county of York and State of Maine, have invented a new and useful Improvement in Heel-Stiffeners for Boots and Shoes, of which the following is a specification.

My invention relates to that class of heel-stiffeners which are inserted between the outer leather and the lining of the heel portion of a boot or shoe upper for the purpose of supporting the same in proper shape. It is desirable that the lower portion of a stiffener should be firm and stiff to give a proper support to that part of the shoe, while the upper portion should be more soft and pliable, that it may be easy for the foot of the wearer.

Stiffeners as heretofore made have been stiffened along their bases or lower parts by supplementary re-enforcing pieces, or, if made of a single piece of material, have been skived thin along their upper edges to secure the requisite pliability.

The object of my invention is to provide a stiffener which shall have its different parts of differing degrees of flexibility, as may be desired, while of substantially uniform thickness throughout.

My invention consists of a stiffener of substantially uniform thickness throughout, having its upper portion softened, while the base or remaining portion is hard and stiff, as more fully set forth hereinafter.

In the drawings, Figure 2 represents a flat stiffening; Fig. 1, the same when molded to shape.

In carrying out my invention I cut from a flat sheet of suitable fibrous or textile material, preferably parchmented paper, known usually as "leatheroid" or "vulcanized" fiber, the stiffener-blanks, as shown in Fig. 2, of any desired size and shape. These blanks, being of a hardness suitable for the base of the stiffener, I dip in a softening preparation to about the distance represented by the line *a*, Fig. 2, so that the part *a*, which forms the upper edge when in position in the shoe, is softened to any desired degree, and the remaining portion, *b*,

is of full stiffness. The softening preparation may be applied with a brush, if desired; but I prefer the practice above described. The preparation for softening may be a solution of glycerine or any other material that will properly soften the stiffener, and may be of a strength adapted to the degree of hardness required.

The flat blank, having been cut and prepared, as set forth, may be molded to any desired form by the means usually employed to shape leather or leather-board stiffeners. If desired, they may be molded prior to being softened. I can also make the blank of material of suitable flexibility for the top of the stiffener, and afterward stiffen the bottom part by extracting the softening compound or applying a suitable hardening preparation—such, for instance, as is set forth in Letters Patent of the United States No. 154,185, dated August 18, 1874.

By the treatment herein described a stiffener may be made (of a single piece of any suitable material of uniform thickness) that will possess the requisite pliability and stiffness in its different parts without being re-enforced at its base by additional thicknesses of material or thinned at the top, as has heretofore been done.

I claim—

1. That improvement in the method of making heel-stiffeners which consists in making the upper and lower portions of a stiffener of different degrees of pliability by subjecting one of such portions to the action of a chemical compound which shall be absorbed into the pores thereof, and thereby change such portion to any required degree of pliability, substantially as set forth.

2. As an improved manufacture, a heel-stiffener having its upper portion saturated with glycerine, substantially as and for the purpose set forth.

EMERY ANDREWS.

Witnesses:

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