Sept. 22, 1931. C. D. MALAGUTI 1,824,358

COUNTER STIFFENER

Filed Feb. 25, 1929

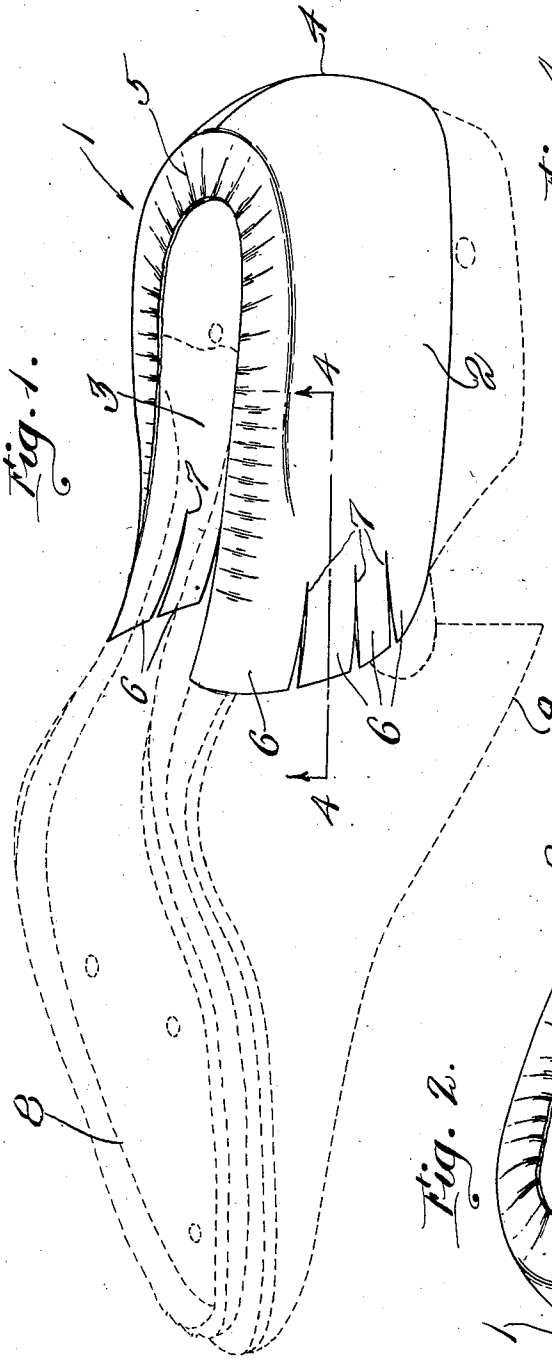


Fig. 1.

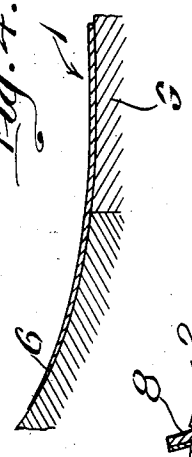


Fig. 4.

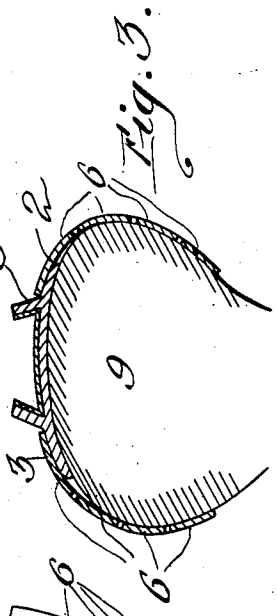


Fig. 3.

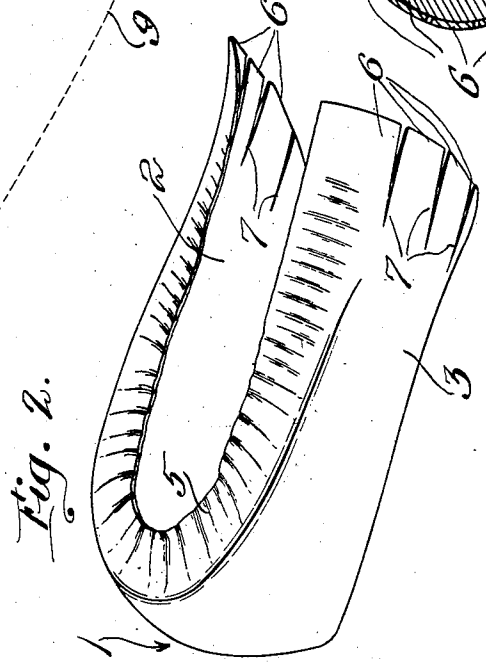


Fig. 2.

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Patented Sept. 22, 1931 1,824,358

UNITED STATES PATENT OFFICE

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COUNTER STIFFENER

Application filed February 25, 1929. Serial No. 342,364.

My invention relates to counter stiffeners for boots and shoes and it has for its object to provide an improved article of this class.

A counter stiffener is a molded piece of stiff sheet material that is incorporated in a boot or shoe at the heel thereof between the outer leather and lining, and its opposite side walls extend forwardly into the shank or instep portion of the shoe, said stiffener being placed in position between the lining and outer leather preparatory to the lasting operation and while the shoe is being built up upon a last. The lower part of the side of the shank or instep portion of a last, particularly upon the inner side thereof, is convex as viewed in cross-section and also concaved as viewed in longitudinal section. Consequently, when the shoe is lasted it has heretofore been very difficult, and sometimes impossible, to properly fit the forward end portions of the opposite side walls of the ordinary stiffener to the shank or instep portion of the last, particularly upon the inner side thereof where the exterior of the last is concavely convex; that is, it is longitudinally concave and transversely convex.

My invention has for its object to obviate this objectionable feature characterizing counter stiffeners as heretofore constructed, and it consists in providing an article of this class having the forward end portion of at least one side thereof constituted by a plurality of narrow independently flexible tangs which readily fit themselves individually to the curvature of the last during the lasting operation. In the best form of my invention the forward end portions of both sides of the stiffener are constructed in this fashion.

Other features of my invention are hereinafter pointed out.

In the accompanying drawings:

Figure 1 is a perspective view of a counter stiffener for boots and shoes constructed in accordance with my invention, said figure including also dotted lines indicating a last and an innersole in assembled relationship with said counter stiffener.

Figure 2 is another perspective view of the stiffener shown in Figure 1.

Figure 3 is a cross-section through the shank portion of a last showing an innersole and shank stiffener in position thereon.

Figure 4 is a partial section on line 4—4 of Figure 1, but with a portion of the last shown by full lines.

Having reference to the drawings, 1 represents a counter stiffener for boots and shoes illustrating one embodiment of my invention, and in said drawings 2 and 3 are the opposite side walls of the counter stiffener which are forward extensions of the back wall 4. At the bottom of the counter stiffener is provided the usual heel seat flange 5.

The forward end portion of each side wall 2 and 3 is constituted by a plurality of independently flexible and adjustable tangs 6 that are produced by slitting said walls longitudinally as at 7. These slits 7 may be produced either before, during or after the molding operation which gives to the stiffener its final shape.

My new stiffener is incorporated in a boot or shoe in the usual manner, except that when the upper is lasted over on to the innersole 8 each finger or tang 6 fits itself more or less flatwise to that portion of the last 9 that is opposite it as shown in Figure 4, while the slits 7 give to the forward end portions of the side walls 2 and 3 a transverse flexibility which enables said portions to conform to the convex shape of the opposite sides of the shank portion of the last as shown in Figure 3. By reducing the forward end portions of the side walls 2 and 3 each to a plurality of relatively narrow tongues, each of the latter is free to fit itself to the longitudinally concaved side of the last. Thus, all parts of the forward end portions of the side walls 2 and 3 are fitted properly to the shank portion of the last both with respect to the transverse convex shape thereof shown in Figure 3, and the longitudinally concaved shape shown in Figure 4.

Other methods of slitting the forward end portions of the side walls of the counter

so that each forward end portion is constituted by a plurality of independently adjustable and flexible tongues will be apparent to those skilled in this art, and for that reason it is not intended herein to limit the invention to the particular embodiment thereof shown and described.

The portion of the last opposite the forward end portions of the side walls 2 and 3, particularly at the inner side of the last, are transversely convex as shown in Figure 3 and longitudinally concaved as shown in Figure 4, and it is one of the distinguishing features of my invention that the slits 7 permit each of said forward end portions to fit itself as a whole to one of these curves while the individual flexibility of each tongue 6 permits each of the latter to fit itself to the other curve of the last that is at right angles to the first mentioned curve. Therefore it will be clear that any method of producing the tongues 6 which secures these results may be resorted to without departing from the spirit and scope of my invention.

My improved counter stiffener is molded from a blank which preferably, and as usual, has its marginal portions reduced in thickness by skiving as indicated in Figure 4. Therefore the tangs 6 are comparatively thin at their free ends and gradually increase in thickness toward the body or metal of the stiffener.

What I claim is:

1. A molded counter stiffener of stiff sheet material having the forward end portions of its opposite side walls each constituted throughout by a plurality of longitudinal independently flexible tangs each independently conformable longitudinally to the shape of the shank portion of a last, said tangs also rendering said end portions conformable transversely to the convex curvature of the shank portions of the last.

2. A counter stiffener of stiff sheet material having the forward end portions of its opposite side walls each longitudinally slitted at intervals throughout its height so that each of said portions is constituted by a plurality of independently flexible tangs and so that said slits impart transverse and longitudinal flexibility to said portions.

Signed by me at Boston, Suffolk County, Massachusetts, this 23rd day of February, 1929.

CHARLES D. MALAGUTI.