H. H. MATHIS.

RESILIENT HEEL.

APPLICATION FILED DEC. 12, 1911.

1,021,751. Patented Mar. 26, 1912.

Fig. 1.

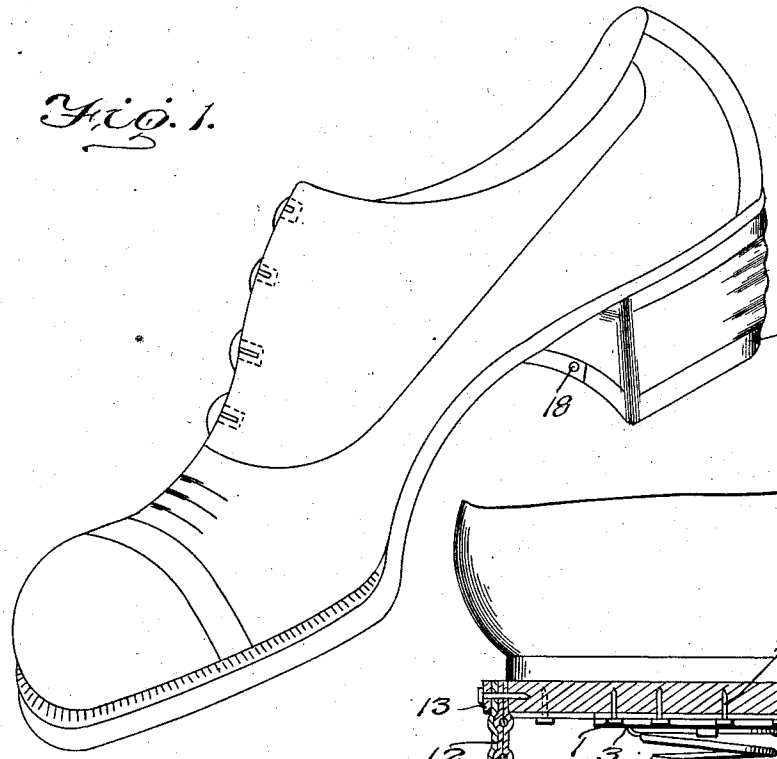


Fig. 2.

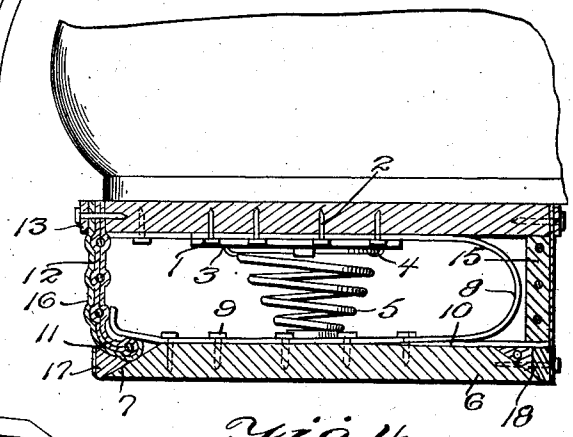


Fig. 3.

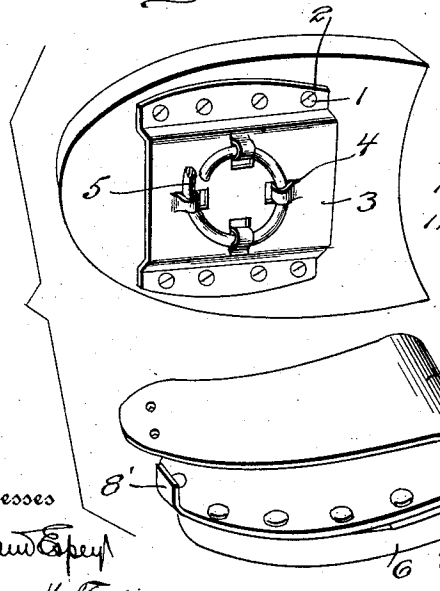


Fig. 4.

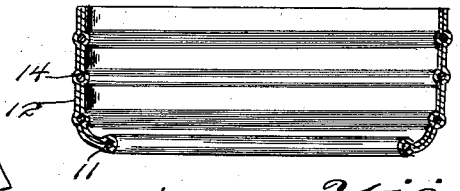
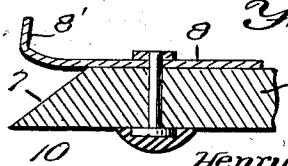


Fig. 5.



Witnesses

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RESILIENT HEEL.

1,021,751. Specification of Letters Patent. **Patented Mar. 26, 1912.**

Application filed December 12, 1911. Serial No. 665,293.

To all whom it may concern:

Be it known that I, HENRY H. MATHIS, citizen of the United States, residing at Camden, in the county of Kershaw and State of South Carolina, have invented certain new and useful Improvements in Resilient Heels, of which the following is a specification.

This invention has relation to resilient heels for shoes, and has for its object to provide a heel structure adapted to be applied to the remaining lifts of the shoe heel after several of the lifts have been removed therefrom.

Another object of the invention is to provide a heel of such structure as to absorb the shock incident to walking or running and which at all times will resiliently support the user.

With these objects in view the structural arrangement is such that the heel may be easily and quickly applied to the shoe, and when in position the parts of the heel are effectually braced against strains and protected against wear to which they are subjected.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a shoe with the heel applied; Fig. 2 is a sectional view of the heel; Fig. 3 is a perspective view of parts of the heel disconnected; Fig. 4 is a transverse sectional view of part of the heel; Fig. 5 is a detail sectional view of part of the heel.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

As hereinbefore stated the improved heel is applied to several lifts of the original heel of the shoe. In order to apply the improved heel several of the upper lifts are removed in a manner similar to that followed for the application of an ordinary rubber heel. To the exposed face of the remaining lift a plate 1 is secured by means of screws 2 or other suitable securing devices. This plate is provided with a depressed intermediate portion, indicated at 3, and the said intermediate portion is provided with several struck up tongues 4. A coiled spring 5 of general conical configuration has one end portion threaded under the tongues 4 and the said spring is thereby secured in position upon the plate 1.

The top lift 6 of the improved heel is provided with a continuous beveled edge 7. A U-shaped member 8 formed preferably from sheet metal is secured at one of its side portions to the upper face of the lift 6 and is provided with an edge portion which projects beyond the rear and side parts of the beveled edge 7. The upper side portion of the member 8 is adapted to be slid within the depressed portion 3 of the plate 1 and is snugly received therein. The extremity of that portion of the member 8 which is received within the depression 3 is secured to the remaining lift of the shoe by means of brads 9 or other suitable securing devices. The lower end of the spring 5 bears against the upper surface of the lower portion of the U-shaped member 8. The member 8 is provided at the rear end of its lower portion with an upstanding tongue 8′ which is adapted to come in contact with the upper portion of the said member when the parts are forced together and the said tongue will keep the opposite side portions of the said member spaced so as to prevent the possibility of the intermediate portion of the member from breaking or fracturing. A plate 10 is fixed between the lower forward portion of the U-shaped member 8 and the forward edge of the lift 6 and lies over the forward portion of the beveled edge 7 of the said lift. The space between the under sides of the edge portions of the U-shaped member 8 and the plate 10 and the beveled edge 7 of the lift 6 forms a groove which extends entirely around the said lift 6.

A rib 11 is sprung or otherwise inserted in the upper portion of the said groove formed at the edge of the lift 6 and lies snugly under the lower surfaces of the side of the member 8 and the plate 10. This rib 11 is incased between the folds of a flexible material 12, preferably of leather and the folded side portions of the said material are carried up bridging the space between the lift 6 and the remaining lift upon the heel of the shoe, and the upper edge portions of the said material are secured to the lift of the original heel by means of brads or a plate, indicated at 13, or other suitable securing devices. Stiffening ribs 14 are interposed between the side folds of the material 12 and the forward ends of said ribs 14 are connected with a reinforcing strip 15

which is located at the forward portion of the heel. The forward ends of the ribs 14 are preferably inlaid or inserted in the said strip 15, and the said strip is preferably composed of sole leather or similiar material.

A cover strip 16 lies over the outer surface of the outermost fold of the material 12 and is secured at its upper edge to the lift left upon the shoe and at its lower edge is secured in the groove formed about the edge of the lift 6. The opposite side portions of the material 12 which receive the ribs 14 are provided with lines of stitching which hold the said ribs in proper positions between the material.

A metallic rim 17 fits snugly about the periphery of the lift 6 and completely fills the space above the beveled edge 7 thereof. The lower surface of this rim 17 is flush with the lower face of the lift 6 so that the said lift is bounded by a metallic wearing surface. The upper portion of the rim 17 bears against the undermost fold of the material 12 and holds the said material together with the rib 11 securely in place under the lower portion of the member 8 and the plate 10.

The rim 17 may be sprung into place around the edge of the lift 6 and the end portions of the said rim may be secured together by a brad indicated at 18, or other suitable securing device.

The parts assembled as above described present a neat appearance and do not mar the symmetry of the heel of the shoe, and the strip 16 serves as a protection for the flexible material 12 and conceals the stitches which are provided therein.

Having thus described the invention, what is claimed as new is:

1. A shoe heel comprising spaced lifts, a resilient member interposed between the lifts, a flexible material bridging the space between the lifts, and ribs carried by the said material.

2. A shoe heel comprising spaced lifts, a resilient member interposed between the lifts, a flexible material folded upon itself and bridging the space between the lifts, and ribs located between the folds of the said material.

3. A shoe heel comprising spaced lifts one of which is provided with a continuous beveled edge, a resilient member interposed between the lifts and having an edge portion which overhangs the beveled edge, and a flexible material bridging the space between the lifts and having a portion confined at the beveled edge of the lift and under the overhanging portion of the said member.

4. A shoe heel comprising spaced lifts, a resilient member interposed between the lifts, one of the lifts having a continuous beveled edge, a portion of the said member projecting over a portion of the beveled edge of the lift, a plate mounted upon the last mentioned lift and projecting over a portion of the beveled edge thereof, and a flexible material bridging the space between the lifts and confined between said beveled edge and the projecting portions of said member and said plate.

5. A shoe heel comprising spaced lifts, a resilient member interposed between the lifts, a flexible material bridging the space between the lifts, and a metallic rim securing the flexible material against one of the lifts.

6. A shoe heel comprising spaced lifts, a U-shaped resilient member interposed between the lifts and having at one of its ends an upstanding tongue, and a flexible material bridging the space between the lifts.

7. A shoe heel comprising a plate adapted to be applied to the lift of a heel and having a depressed intermediate portion, a U-shaped member having an end portion which fits snugly within the said depressed portion of the plate, a lift secured to the lower side of the said U-shaped member and having a continuous beveled edge, the edge portion of the plate overhanging the said beveled edge, a plate attached to the upper side of the last mentioned lift and projecting over the forward beveled portion thereof, a spring interposed between the first mentioned plate and the lower portion of the U-shaped member, a strip having folded portions the edges of which are secured to the first mentioned lift, a rib interposed between the folds of said strip and lying against the beveled edge of the second mentioned lift, and a metallic rim surrounding the second mentioned lift and filling the space between the beveled edge of the said lift and the said strip of material.

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

HENRY H. MATHIS. [L. S.]

Witnesses:
JOEL HOUGH,
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