

A. C. REDDEN.
PIECED HEEL.
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1,024,699.

Patented Apr. 30, 1912.

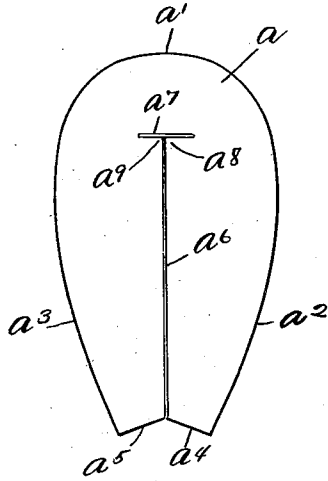


Fig. 1.

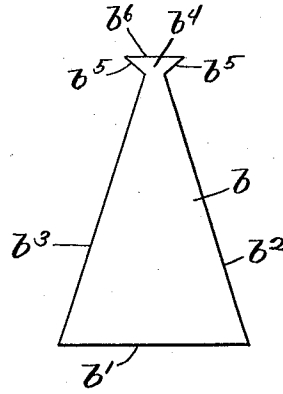


Fig. 2.

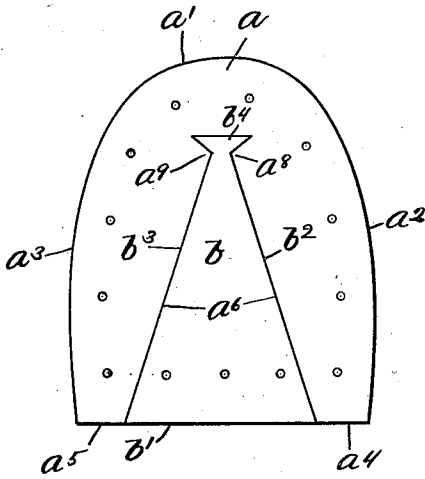


Fig. 3.

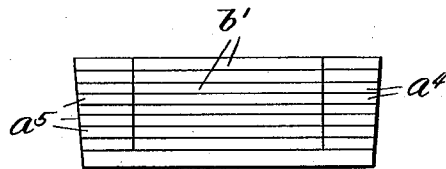


Fig. 4.

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UNITED STATES PATENT OFFICE.

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PIECED HEEL.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALFRED C. REDDEN, residing at Millis, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Pieced Heels, of which the following is a specification.

This invention relates to certain improvements in that class of heels in which the several lifts of which the heel is built are made up of two or more pieces, and which are known as "pieced-heels." One of the chief objections to heels of this type, which have been previously produced, is that the joints where the pieces meet are on the sides of the heel. It is practically impossible to fill or cover these joints so that they will not be readily discernible when the shoe is finished, or will not become readily discernible after the shoe is worn, and, while attempts have been made to obviate this difficulty by providing a pieced-heel lift, one of the pieces of which was extended continuously about the heel, so far as I am aware, this method has not been employed in practice to any appreciable extent, apparently because of the difficulty of assembling the lifts and building the heels, and that unnecessary waste of the stock would be involved in cutting from the pieces of which pieced-heels are usually made.

The objects of my invention are to provide a form of pieced-heel-lift, which may be cut from the pieces made in cutting out soles, without unnecessary waste, and in which joints about the sides of the heel are avoided, and a single piece for each lift is provided through which all the heel attaching nails, except some of the breast nails, pass, and whole leather is provided at the back portion of the heel of sufficient area to receive the excessive wear which comes at this point.

A further object of my invention is to provide a pieced heel lift in which the pieces are adapted to be readily connected by hand in the form of a whole lift, and are adapted to be retained in place by the elasticity of the leather, so that the lifts thus formed may be built into heels in the same way as when whole lifts are employed.

I accomplish these objects by cutting out two regular, or symmetrical pieces of leather, one of which has its side edges corresponding in length and curvature to the side edges of the whole lift, and which is partly divided by a medial cut, having a

short transverse cut at its inner end and the other of which is formed to be inserted between the divided portions when said portions are drawn apart to a sufficient extent to cause the piece to conform to the shape of the whole lift to be formed, the tension of the separated portions holding the inserted piece in place, so that lifts are thus formed which may be built into heels in the manner ordinarily employed in building a heel from whole lifts.

For a more complete understanding of my invention reference is made to the accompanying drawing in which—

Figures 1 and 2 illustrate the two pieces of which each lift is constructed as they are cut from the leather pieces. Fig. 3 is a similar view of the pieces assembled and Fig. 4 is a breast view of an assembled heel.

According to my invention I cut out a piece or section of leather a , in a partly egg-shaped form, as shown in Fig. 1, the end-edge portion a' being formed to correspond approximately to the back portion of the whole lift, and the side-edge-portion a^2 , a^3 being formed to correspond in length and curvature to the side-edge-portion of the whole lift, except that they extend convergently, instead of nearly parallel, and terminate at the ends in the breast edge portions a^4 , a^5 , which extend inwardly and meet the medial line of the piece at an obtuse angle. The outer edges a' , a^2 , a^3 are therefore equal in length to the entire curved edge of the lift to be formed. The piece is also partly severed by a medial cut a^6 , which extends from the vertex of the angle between the breast portions a^4 , a^5 to a point approximately at the center of the curve at the back edge portion a' , and a short transverse cut a^7 extends at right angles thereto equally on each side thereof.

As shown in Fig. 2, a triangularly shaped piece or lift section b is also provided, having a straight breast edge b' , and side edges b^2 and b^3 of equal length, which extend convergently from the ends of said breast edge at equal angles thereto. A dove-tail shaped head b^4 is formed on the tapered end of said section, and the side edges b^5 of said head extend oppositely from the edges b^2 , b^3 , at equal obtuse angles and are each equal to half the length of the transverse cut a^7 . The end edge b^6 of the head b^4 extends parallel to the breast edge b' , and is of equal length to the cut a^7 . All

portions of the section *b* are thus arranged symmetrically with relation to a perpendicular line to the edge *b'* at its middle point, while all portions of the section *a* are sym-

metrical with relation to the cut *a'*.

The sections *a* and *b* are died out of suitable leather pieces, then the sections *a* are suitably tempered, so that they are very flexible, and the portions thereof divided by the medial cut *a'* are pulled apart to an extent sufficient to permit the piece *b* to be inserted therebetween, so that the V-shaped projections *a^s*, *a^s*, formed by the intersection of the cross cut *a'* with the longitudinal cut *a'*, are swung away from the edge formed by cut *a'* next the back of the heel, and form a dove-tail shaped opening of the size and shape of the dove-tail shaped head *b^t*. The portions divided by the cut *a'* are also moved apart at the same time, to a sufficient extent to permit the main portion of the section *b* to be forced therebetween as shown in Fig. 4. The opening of the split portions of the piece *a* also causes the breast edges *a^s* *a^s* to be moved into alinement with each other. When the section *b* is inserted, its breast edge *b'* will also be in alinement with edges *a^s*, *a^s*, so that together they form a practically continuous edge. When the sections are in this position the adjacent edges of two side portions formed by cut *a'* are clamped firmly against the edges *b^s*, *b^s* of the piece *b* by the elasticity of the leather, and any tendency to press the piece *b* longitudinally from between them, by reason of the tapering sides thereof, is effectively prevented by the dove-tail head *b^t*, so that, after the piece *b* has been inserted, the pieces will remain in this position without the assistance of other means, and the lifts thus formed may be handled, transported and built into heels as conveniently as if they were whole lifts.

After the pieces have been assembled to form lifts they may be built into heels, glued together and molded in the usual manner of forming heels of whole lifts.

From the foregoing description it will be apparent that the different lifts thus formed have a continuous outer edge, and that the sides of the heel will have the same appearance as if the heel were made of whole lifts. When the heel is attached and a whole top lift is placed on the heel, the only joint which will be visible, to indicate that the heel is pieced, is at the breast, as shown in Fig. 4. Furthermore the outer piece *a* of each lift is so formed as to provide whole leather at the portion of the heel

at the back thereof which ordinarily receives excessive wear, and, as all of the heel-attaching nails, except those which pass through the breast portion of the piece *b*, will be driven through the piece *a*, as indicated in Fig. 3, the portion which receives the excessive wear is securely held in place by nearly all of said nails as well as by the cement usually employed. The pieces *a* and *b* are, furthermore, so formed that they may be cut without material waste of the leather from the partly oval and triangularly shaped pieces usually formed in cutting out soles.

What I claim as my invention is as follows:

1. A pieced-heel lift comprising an outer lift-section having a symmetrically curved edge-portion, corresponding in length and curvature to the edge of the whole lift and having a medial cut therein, extending from the middle of its breast edge to a point adjacent the middle of the heel portion thereof, and a transverse cut extending from said medial cut adjacent its inner end, and a V-shaped inner section having a transverse projection at its apex, and constructed to have its main portion fit into said medial cut and its projection into said transverse cut when the portions of said outer lift section are spread apart, substantially as described.

2. A pieced-heel lift comprising an outer lift-section having a symmetrically curved edge-portion corresponding in length and curvature to the edge of the whole lift, and having a medial cut therein extending from the middle of its breast edge to a point adjacent the middle of the heel portion thereof and a transverse cut extending perpendicularly to said medial cut at its inner end, and at each side thereof, and a V-shaped inner section having a dove-tail shaped head at its apex, oppositely disposed to the main portion thereof, said inner section being constructed to have its main portion fit into said medial cut and its head portion into the opposite portions of said perpendicular cut, when the portions of said outer section are drawn apart to shape said outer section into lift form, substantially as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALFRED C. REDDEN.

Witnesses:

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