April 12, 1932. O. C. ADAMS 1,853,027

SHANK PIECE FOR SHOES

Filed April 29, 1930

Fig.1.

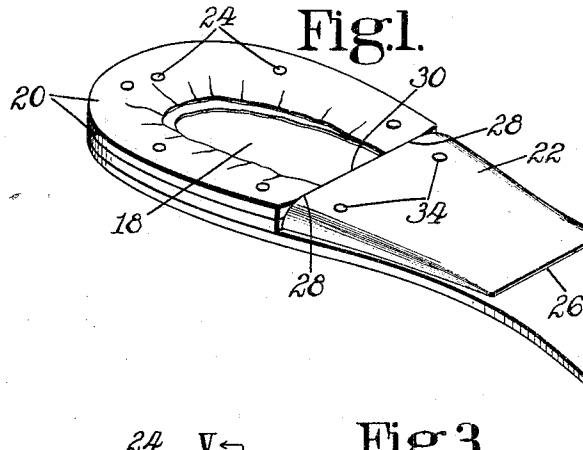


Fig.2.

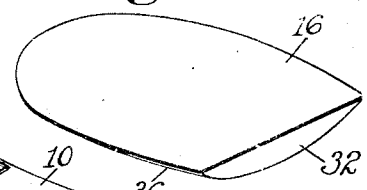


Fig.3.

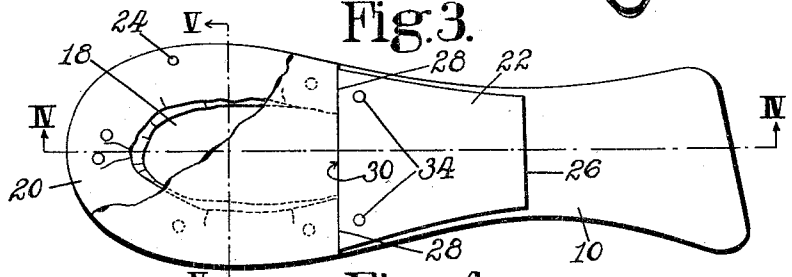


Fig. 4.

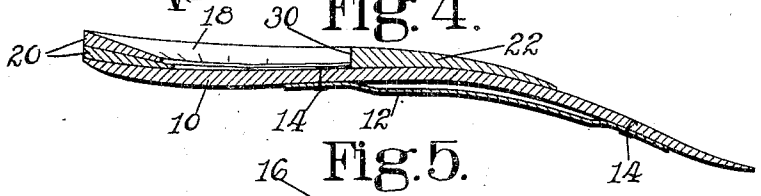


Fig.5.

Fig.6.

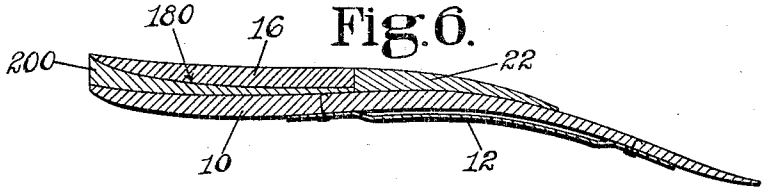
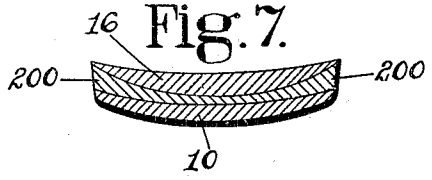


Fig.7.



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UNITED STATES PATENT OFFICE

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SHANK PIECE FOR SHOES

Application filed April 29, 1930. Serial No. 448,357.

This invention relates to improvements in shank pieces for shoes and, as herein illustrated, is embodied in a shank piece especially designed for use in a shoe having an internal heel cushion.

It has been customary heretofore, in certain types of cushion heel shoes, to provide a pocket or cavity in the rear portion of the insole and to insert a cushion or pad in this pocket to afford a yielding support for the heel of the foot. Such a construction, however, has not proved to be entirely satisfactory from the standpoint of good shoemaking and, moreover, the necessity of forming a cushion-receiving pocket in the insole has added materially to the labor and expense of manufacturing such shoes.

In view of the foregoing, one object of the present invention is to improve the construction and reduce the expense of manufacturing shoes having internal heel cushions.

To the accomplishment of this object there has been produced an improved article of manufacture adapted for application to the interior of a turn shoe or for use between the soles of a double soled shoe and consisting of a shank piece having a pocket in its rear portion for receiving a heel cushioning pad and having an abrupt shoulder extending throughout the width of the shank piece and located forwardly of the pocket for engaging the front of a pad seated in the pocket to hold the pad against forward displacement in the shoe.

The shank piece herein shown comprises a filler member having a marginal contour corresponding to that of the heel and shank portions of the bottom of a shoe, the filler member being longitudinally arched forwardly of its heel portion and provided with a metallic stiffening and reinforcing strip which is curved to maintain the longitudinal arch of the filler member. As illustrated, the pad-receiving pocket is a shallow concavity formed by the attachment to the upper surface of the filler member of two strips which are wedge-shaped in cross-section and are arranged one above the other, the strips being curved to correspond to the curvature of the margin of the heel portion of the filler member. The illustrated shoulder for preventing forward displacement of the pad is formed by the rear edge of a supplementary filler piece which is secured to the main filler member forwardly of the pocket and which gradually diminishes in thickness to provide a feather edge at its forward extremity. The illustrated heel cushioning pad is shaped to fit the bottom contour of the pocket in the shank piece and has a forward edge face which engages the rear edge of the supplementary filler piece.

The illustrated shank piece, while especially designed for application to a turn shoe, is also adapted for use between the soles of a double soled shoe, in which case the cushioning pad will be effective to afford yielding support for the heel of the foot notwithstanding the fact that the insole is between the pad and the foot. When used in a turn shoe, however, the pad may be permitted to come into direct engagement with the foot or it may be covered merely by means of a suitable sock lining.

The invention will be explained with reference to the accompanying drawings, in which

Fig. 1 is a perspective view of the improved shank piece as it appears before a heel-cushioning pad has been assembled therewith;

Fig. 2 is a perspective view of a heel-cushioning pad adapted for use in connection with the shank piece shown in Fig. 1;

Fig. 3 is a plan view of the improved shank piece, together with the heel-cushioning pad, a portion of which is broken away to disclose certain characteristics of the pad-receiving pocket in the shank piece;

Fig. 4 is a sectional view taken along the

line IV—IV of Fig. 3, the heel-cushioning pad not being shown;

Fig. 5 is a sectional view taken along the line V—V of Fig. 3 showing the heel-cushioning pad in place;

Fig. 6 is a longitudinal sectional view of an alternative form of shank piece; and

Fig. 7 is a transverse sectional view taken through the heel portion of the shank piece shown in Fig. 6.

Referring to the drawings, the shank piece shown in Figs. 1 to 5, inclusive, comprises a filler member 10 made of suitable non-metallic material such as leather or leather-board and a metallic stiffener strip 12 (Fig. 4) which is secured at its ends to the filler member 10 by means such as the tacks 14. The filler member 10 is shaped in marginal contour to correspond to the marginal contour of the heel and shank portions of the bottom of a shoe. The margins of the filler member 10 are shown as being reduced or beveled somewhat to facilitate the fitting of the member within a shoe. The stiffener strip 12, and the portion of the filler member 10 to which the stiffener strip is attached, are arched longitudinally to correspond to the longitudinal arch of the last for a shoe in which the shank piece is to be incorporated. The construction so far described is similar to that of the usual shank pieces used in turn shoes although the present shank piece is adapted for use between the inner and outer soles of a double soled shoe, as well as for use in a turn shoe.

In order to provide for the reception of a heel cushioning pad, such as the pad 16 shown in Fig. 2, a cupped recess or pocket 18 is provided at the upper side of the filler member 10 by assembling with the filler member two curved strips 20, which are wedge-shaped in cross-section, and a supplementary filler piece 22. The strips 20 may conveniently be formed by bending two strips of stock of the required tapering cross-sectional shape into conformity with the edge curvature of the heel portion of the filler member 10. Horseshoe rands, such as are ordinarily employed in the manufacture of leather heels, may advantageously be employed to constitute the strips 20, the rands being secured together and attached to the filler member 10 by the use of adhesive supplemented, if desired, by means of tacks or nails 24. The supplementary filler piece 22 is secured to the shank portion of the main filler member 10 in front of the strips 20 and is shaped to conform to the marginal contour of the main filler member. The thickness of the filler piece 22 corresponds to the combined thickness of the two strips 20 at the rear extremity of the member 22 but the thickness of the filler piece 22 diminishes gradually toward its front extremity 26 which is reduced substantially to a feather edge so that its upper surface will blend with the upper surface of the main filler member 10. The rear edge of the supplementary piece 22 is substantially perpendicular to the surface of the member 10 and closely abuts the square front edges of the rand-shaped members 20, as indicated at 28, and provides an abrupt shoulder 30, best shown in Fig. 4, for engagement with the front edge face 32 of the cushioning pad 16 in such a manner as effectively to prevent forward displacement of the pad within the shoe. The member 22 may be secured to the member 10 by adhesive, supplemented, as shown, by means of tacks 34.

As a result of the above-described construction and arrangement of the rand-shaped strips 20 the pocket or concavity 18 is shaped to fit the convex lower surface 36 of the pad 16 so that when the pad 16 has been placed within the recess 18 the upper surface of the pad will be flush with the outer edge of the upper strip 20 and with the upper surface of the supplementary filler piece 22.

In the construction shown in Figs. 6 and 7, the pad-receiving pocket 180 is formed by attaching to the main filler member of the shank piece a single layer of material 200 the upper surface of which has been gouged to provide the desired concavity for the reception of the pad. As in Fig. 1, the front wall of the pocket 180 is defined by the rear edge of the supplementary filler piece 22.

The heel-cushioning pad 16 may be composed of soft rubber or other suitable yielding material and the pad may be secured by any suitable means within the pocket in the shank piece.

The concavity of the pocket in the shank piece and the corresponding convexity of the lower side of the pad 16 are such that the pad is more yielding and resilient in its central than along its rear and lateral margins. Consequently the pad is readily conformable under the pressure of the foot to afford the desired cupped heel supporting surface which will effectively, though yieldingly, support the marginal as well as the central portions of the bottom of the heel of the foot.

The above-described shank piece is adapted for use between the inner and outer soles of double soled shoes such, for example, as welt shoes, McKay-sewed shoes, or shoes in which the outsole is secured in place by cement, in any of which cases the heel-cushioning pad is separated from the foot by only a relatively thin layer of insole material. Thus the pad is practically as effective for the purpose of cushioning the heel of the foot as if it were arranged for direct engagement with the foot. When used in a turn shoe, however, the above-described shank piece is applied to the inner surface of the sole, in the same way as a so-called turn shank piece is ordinarily applied, and the cushioning pad may be left uncovered for direct engagement

with the heel of the foot, or, if desired, the pad may be covered by the usual sock lining.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A shank piece having a rear portion adapted to extend above the heel of a shoe and having a cupped recess therein for receiving a heel-cushioning pad, the shank piece being formed with an abrupt shoulder extending throughout its width and located forwardly of said pocket for engaging the front of a pad seated in the pocket.

2. A shank piece comprising a longitudinally arched forward portion, a rear portion adapted to extend above the heel of a shoe and having a concavity therein, a heel-cushioning pad located in said concavity, and a substantially perpendicular shoulder extending across the shank piece forwardly of said concavity for engaging the forward edge of the cushioning pad.

3. A shank piece comprising a longitudinally arched forward portion and a rear portion adapted to extend above the heel of the shoe and having a pocket formed therein for receiving a heel-cushioning pad, and a member secured to the shank piece forwardly of the pocket and constructed and arranged to provide an abrupt shoulder for engaging the front of a heel-cushioning pad in the pocket, said member having a forwardly sloping upper surface arranged to blend gradually with the upper surface of the forward portion of the shank piece.

4. A shank piece comprising a body member, and means secured to the body member and constructed and arranged to provide a pocket for receiving a heel-cushioning pad and also to provide a surface sloping from the margin of the pocket toward the bottom thereof and blending gradually with the upper surface of the body portion of the shank piece.

5. A shank piece comprising a body portion, a wedge-shaped member secured to the upper surface of the body portion and arranged to provide a substantially perpendicular shoulder extending transversely across the shank piece, and a surface sloping forwardly from said shoulder, and means secured to the upper side of said body member at the rear of said wedge-shaped member shaped to provide a cup-shaped recess for receiving a heel-cushioning pad.

6. A shank piece comprising a member having a marginal contour corresponding to that of the heel and shank portions of the bottom of a shoe, and means secured to the upper side of said member constructed and arranged to provide a cupped recess for receiving a heel-cushioning pad and an abutment for engaging the front edge of the pad.

7. A shank piece comprising a member having a marginal contour corresponding to that of the heel and shank portions of the bottom of a shoe, and means secured to the upper side of said member constructed and arranged to provide a cupped recess for receiving a heel-cushioning pad and an abutment for engaging the front edge of the pad and also to provide an inclined surface sloping forwardly from said abutment.

8. A shank piece comprising a body member having a marginal contour corresponding to that of the heel and shank portions of the bottom of a shoe, and means including a member secured to the upper surface of said body member and shaped and arranged to provide a pocket for receiving a heel-cushioning pad, said pocket having a substantially perpendicular front wall for preventing forward displacement of the pad.

9. A shank piece comprising a member having a marginal contour corresponding to that of the bottom of the heel and shank portions of a shoe, and means including a strip wedge-shaped in cross-section throughout its entire width secured to the upper surface of said member and extending along the margin of the heel portion thereof to form a concavity at the upper side of said member extending to the extreme outer edge thereof for receiving a heel-cushioning pad.

10. A shank piece comprising a member having a marginal contour corresponding to that of the bottom of the heel and shank portions of a shoe, and a plurality of rand-shaped strips arranged in superposed relation and secured to said member, said strips extending along the margin of the heel portion of said member and being arranged with their thin edges innermost to provide a pocket for receiving a heel-cushioning pad, and means secured to said member in front of said strips to engage said pad to prevent forward displacement thereof.

11. A shank piece comprising a member having a marginal contour corresponding to that of the bottom of the heel and shank portions of a shoe, and a plurality of rand-shaped strips arranged in superposed relation and secured to said member, said strips extending along the margin of the heel portion of said member and being arranged with their thin edges innermost to provide a pocket for receiving a heel-cushioning pad, and a filler piece secured to the shank portion of said member, said filler piece abutting the forward ends of said rand-shaped filler pieces and diminishing in thickness toward the forward portion of the shank piece.

12. A shank piece for a turn shoe comprising a main filler member having a marginal contour shaped to correspond to that of the heel and shank portions of the bottom of a shoe and having a concave upper surface, and a supplementary filler member secured to said main filler member and constructed and arranged to accentuate the concavity of said

surface to adapt it for receiving a heel-cushioning pad.

13. A shank piece for a turn shoe comprising a main filler member having a marginal contour shaped to correspond to that of the heel and shank portions of the bottom of a shoe and having a concave upper surface, a supplementary filler member secured to said main filler member and constructed and arranged to accentuate the concavity of said surface to adapt it for receiving a heel-cushioning pad, and a metallic stiffener strip secured to the lower surface of said filler member.

In testimony whereof I have signed my name to this specification.

OSCAR C. ADAMS.