

1

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REPLACEABLE HEEL STRUCTURE

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5 Claims. (Cl. 36—36)

This invention relates to a heel construction for a shoe or the like and, more particularly, to a heel construction wherein means are provided for detaching and replacing the tread portion of the heel.

One object of this invention is to provide an improved heel having a fixed inner portion or retaining member having undercut sides and a cooperating removable outer portion or tread member which may be readily removed and replaced by the owner when worn without resort to the services of a cobbler.

A further object of this invention is to provide an improved heel construction comprising few parts which may be readily manufactured and applied to the sole of the shoe.

Another important object of this invention is to provide in a heel of the type described an adjustable anchor which may be mechanically adjusted to cause the removable tread to tightly grip the fixed heel portion thereby cooperating with the mating interlocked flanges provided on the tread and fixed heel portion to hold the tread member securely against shifting or rattling movement relative to the shoe.

Still another important object of this invention is to provide an adjustable anchor in a heel of the type described which will securely bind a tread member to its corresponding retaining member to prevent shifting or rattling movement of the tread whether it be formed of resilient material such as rubber or rigid material such as leather.

Another object of this invention is to provide an adjustable anchor in combination with a removable heel of the type described, which anchor is adjustable to compensate for deformation of the fixed retaining portion of the heel as a result of wear, whereby a new tread may be readily alined and secured in place without difficulty.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view looking up toward the heel portion of a shoe;

Figure 2 is a longitudinal sectional view taken along line 2—2 in Figure 1;

Figure 3 is a transverse sectional view taken along line 3—3 in Figure 1;

Figure 4 is a perspective view of an inverted tread member removed from the heel;

Figure 5 is an inverted perspective view of the fixed retaining member secured to the heel portion of the sole;

Figure 6 is an isometric view of the adjustable anchor removed from the heel structure.

Referring more specifically to the drawings, the numeral 10 indicates the upper portion of a shoe or boot to which a sole 11 is secured in a conventional manner. An inner heel portion undercut about its periphery to define a fixed heel tread retaining portion 12 is secured to the sole 11 in a conventional manner as by nails or adhesive. The undercut periphery of the fixed retaining

2

portion 12 defines a groove 13 thereabout and an overhanging lip or projection 14 which serves as guide means for a dove-tail connection.

The side and rear portions of the groove 13 and projection 14 are adapted to slidably receive a replaceable heel tread 15 having a cavity 16 therein and an intumed lip or projection 17 adapted to mate with the projection 14 and groove 13 respectively in the fixed retaining portion 12. It will be observed that the lip 17 on the tread 15 does not extend across the front of the tread thereby leaving the front of the tread 15 exposed to permit the tread 15 to be slid onto the retaining portion 12 from rear to front or from right to left as shown in the drawings. The mounting of the tread 15 on the retaining portion 12 does not depend on the resiliency of the tread 15 and a tread formed of any material whether resilient or rigid may be mounted on the retaining portion 12 in this manner.

The tread 15 is secured in position by a metallic anchor 20 removably positioned in the front portion of the groove 13 and extending between the front end portions of the lip 17 on the tread 15. The removable anchor 20 is preferably fashioned in the configuration of an elongated bar and is provided with threaded bores 21 in each end thereof.

The bores 21 are adapted to register with opposed bores or passageways 22 extending transversely through the front end portions of the lip 17 on the tread 15. The passageways 22 need not be threaded and are provided for the reception of screws 23 which loosely penetrate the passageways 22 and engage the threaded bores 21 in the anchor 20.

In order to firmly bind the tread 15 to the retaining portion 12 the anchor 20 is threadably penetrated by one or more set screws 24 having an enlarged inner end portion 25 adapted to bear against the inner front wall of the groove 13 in the retaining portion 12, there being two such set screws 24 shown in the drawings for purposes of illustration.

In mounting the tread 15 on the retaining portion 12 the bolts 23 are loosely threaded into the bores 21 after the tread is slid into position on the retaining portion 12 in the manner described. The set screws 24 are then tightened to draw the tread 15 forwardly relative to the retaining portion 12 thereby tightly binding the tread and retaining portion together. The bolts or screws 23 are then tightened to also bind the tread transversely against the retaining portion 12. By tightly binding the tread 15 to the retaining portion 12 in the manner described it is apparent that the tread is confined against shifting or rattling movement relative to the retaining portion 12.

It is apparent that the tread 15 may be readily removed from the fixed retaining portion 12 when desired, such as when the tread becomes worn, by removing the screws 23 and sliding the tread rearwardly from over the retaining portion 12. If desired, the treads on a pair of shoes or boots may be reversed and the tread from one shoe secured to the other shoe in the manner described or the old treads may be discarded and new treads installed in an identical manner.

The set screws 24 in the removable metallic anchor 20 may be adjusted to aline the threaded bores 21 in the anchor with the passageways 22 in the tread when installing the tread on the shoe.

The passageways 22 are preferably counterbored at their outer portions so the heads of the screws 23 may be recessed therein to prevent them from extending outwardly beyond the heel to catch on foreign objects.

It is thus seen that there is provided an improved heel structure and anchor therefor whereby the tread may be securely bound against movement relative to the shoe

3

and may yet be readily installed and removed as desired without the skilled services of a cobbler.

In the drawings and specification there has been set forth a preferred embodiment of the invention and, although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation, the scope of the invention being defined in the claims.

I claim:

1. A removable heel for shoes comprising a replaceable heel tread and a tread retaining portion, said retaining portion being undercut at its periphery to define a groove extending thereabout and an overhanging projection, means securing the retaining portion of the heel to the sole of a shoe or boot, said replaceable tread having a cavity therein and an intumed lip extending about the sides and rear of the tread, the cavity and lip on the tread member forming mating interlocking flanges with the projection and groove respectively on the retaining portion to permit the tread member to be slid onto the retaining portion from rear to front, and an adjustable anchor positioned against the front wall of the groove in the retaining member, said anchor having threaded bores in each end thereof, screws loosely penetrating the tread and engageable with the threaded bores in the anchor, a set screw threadably engaging the anchor and extending transversely therethrough and an enlarged portion on the inner end of the set screw bearing against the front wall of the groove in the retaining member whereby said anchor may be forced away from the retaining member to draw the tread tightly against the retaining member and the screws in opposite ends of the anchor may be tightened to firmly bind the tread to the retaining member.

2. A removable heel for shoes comprising a replaceable heel tread and a tread retaining portion, said tread and retaining portion having mating interlocking flanges to permit the tread member to be slid onto the retaining portion from rear to front, a groove in the front edge of the retaining portion, and an adjustable anchor positioned in said groove, said anchor having threaded bores in each end thereof, screws penetrating the tread and engageable with the threaded bores in the anchor, a set

4

screw threadably engaging the anchor and extending transversely therethrough and the inner end of the set screw bearing against the wall of the groove in the retaining portion, whereby said anchor may be forced away from the retaining portion to draw the tread tightly against the retaining portion.

3. In a removable heel for shoes, a removable tread, a tread retaining portion permanently secured to the shoe, interlocking flanges on the tread and retaining portion for slidably mounting the tread on the retaining portion, the front of the tread being open, an anchor positioned between the flanged side portions of the tread, means for connecting the tread to the anchor, and means for forcing the anchor outwardly from the retaining member to tightly bind the tread on the retaining member.

4. In a removable heel for shoes, a removable tread, a tread retaining portion permanently secured to the shoe, said tread and retaining portion having cooperating flanged and undercut side and rear edge portions, the front of the tread being open and the front of the retaining portion also being undercut, an anchor positioned in the front undercut portion of the retaining portion and between the flanged side portions of the tread, means connecting the flanged portions of the tread to the anchor, and a set screw threadably penetrating the anchor transversely thereof and having its inner end engageable with the retaining portion whereby the set screw may be tightened to draw the tread firmly on the retaining portion and prevent relative movement between the tread and the retaining portion.

5. In a removable heel for shoes, a removable tread, a tread retaining portion permanently secured to the shoe, interlocking flanges on the tread and retaining portion for slidably mounting the tread on the retaining portion, the front of the tread being open and the front of the retaining portion being undercut, an adjustable anchor removably positioned in the front undercut portion of the retaining portion and between flanged portions of the tread, means for connecting the tread to the anchor, and means for forcing the anchor outwardly from the retaining portion to tightly bind the tread on the retaining portion.

No references cited.