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CUSHION LINER INSERT FOR SHOES

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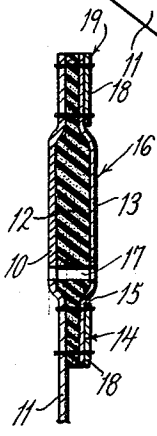
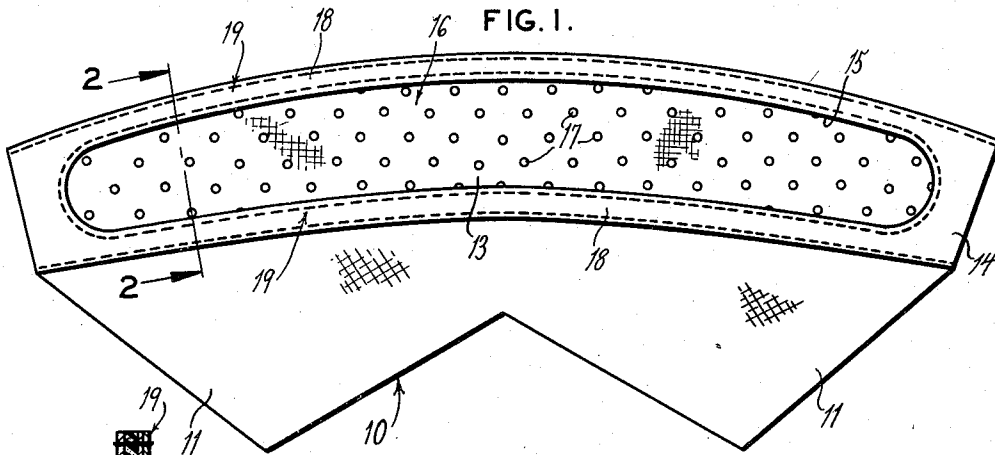


FIG. 2.

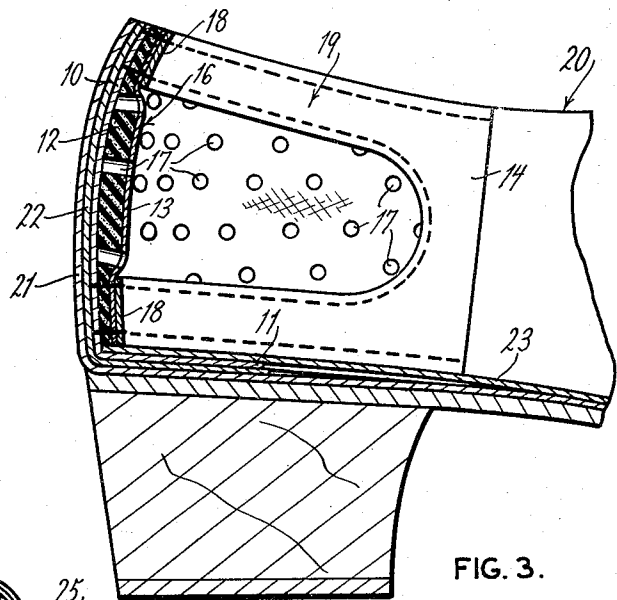


FIG. 3.

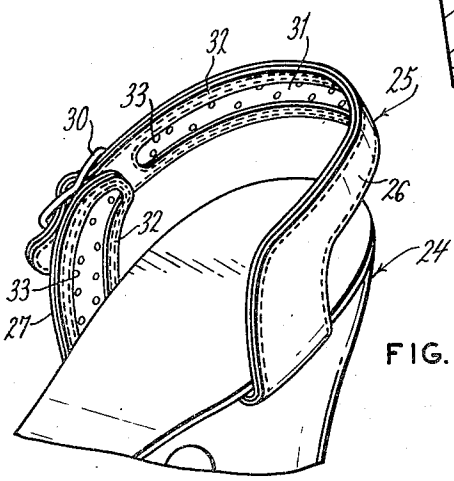


FIG. 4.

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CUSHION LINER INSERT FOR SHOES

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4 Claims. (Cl. 36—58.5)

This invention relates to improvements in liners for shoes and more particularly to improvements in a resilient counter liner adapted to provide a cushion in the heel portion which compensates for discrepancies between the shoe and the foot, whereby to realize a comfortable well-fitting shoe.

It is a major objective of the present improvements to provide a resilient liner adapted for use in a shoe assembly, the liner including an elongate strip of rubber-like material having a high compressibility, such as air foam rubber, connected to the counter of the shoe. The liner presents an effective, compressible strip portion through an elongate slot formed in a frame member secured to the strip, the effective portion of the strip being adapted to extend completely around the counter, whereby to realize a cushion for the entire heel portion of the shoe. The above structural arrangement of the liner affords a resilient cushion which supports the entire heel of the foot, thus providing a comfortable, well-fitting shoe that closely conforms to the foot regardless of any slight differences in size between the shoe and the foot, or any other irregularities in shoe structure occurring in manufacture.

Another important object is realized in providing a resilient counter liner which may be structurally inserted in a shoe at the time of manufacture, or installed separately by the shoe purchaser after manufacture, the liners in either instance being adapted for quick and easy replacement.

Still other important objects and advantages are afforded by a connection of a frame member to a strip of highly compressible material, which provides an elongate compressible rib or band adjacent a slot in the frame member through which an elongate, compressible strip portion is presented. The ribs or rib adjacent the slot serves as a heel-retaining and positioning band that cooperates with the effective, compressible gripping portion of the strip to provide and further augment the distinct functional results noted previously.

The foregoing and numerous other objects of the invention will more clearly appear from the following detailed description of a preferred embodiment, and a modification thereof, particularly when considered in connection with the accompanying drawing, in which:

Fig. 1 is a front elevational view of a resilient liner, showing the liner in a single plane;

Fig. 2 is a view in cross section as taken along line 2—2 of Fig. 1;

Fig. 3 is a view in cross section as taken along a longitudinal axis of a shoe, showing the liner assembled in the heel portion, and

Fig. 4 is a perspective view of an opened heel shoe, and shows a resilient strap liner.

Referring now by characters of reference to the drawing, and first to Fig. 1, the resilient liner is shown to consist of an elongate backing element, generally indicated at 10, comprised of a flexible, durable material such as twill, canvas or leather, and arranged symmetrical to a medial vertical axis. The lowermost portion of the backing element 10 is formed to provide two flaps 11 having downwardly convergent lower margins, each flap 11 being adapted to position and to retain the liner in the heel portion of a shoe in the manner fully described and discussed later.

Secured to backing element 10 is an elongate strip 12 of a rubber-like material having a high degree of compressibility, as for instance air foam rubber. It should be noted that any specific recital of a material used for

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the various parts of the liner, such as leather, canvas, or rubber-like, is not intended to be restrictive as to those materials, but are only indicative of the materials having the desired characteristics.

A thin fabric facing element 13 (Figs. 2 and 3) is secured to the inner or front surface of the elongate strip 12 of rubber-like material, the fabric of facing element 13 being of a type characterized in having flexible, durable wearing qualities. Disposed over facing element 13 is an elongate frame member 14 in the form of a quarter lining that is secured by stitching to the backing element 10 and strip 12. The frame member 14 is provided with an elongate slot 15 which serves to expose an underlying, effective, highly compressible portion 16 of strip 12. The strip 12 of rubber-like material and its fabric facing 13 are provided with a plurality of regularly spaced apertures 17 which permit the liner to breathe, cause a more even distribution of pressure over the effective gripping portion 16, and further augment the flexibility and compressibility of the liner.

Stitching about the peripheral margin of slot 15, and along the upper and lower margins of the frame member 14 secures the frame in position. Relatively narrow bands 18 are formed between the elongate margins of slot 15 and the outer elongate margins of the frame member 14. The regions of strip 12 underneath the framing bands 18 are slightly compressed by the stitching, and thus cause the effective, compressible portion 16 to extend through slot 15 and slightly beyond the inner face of frame member 14. The framing bands 18 and the underlying regions of strip 12 constitute compressible ribs, indicated at 19, that cooperate with the intervening effective gripping portion 16 to enhance the fitting qualities of a shoe.

From Fig. 3, it is shown that the liner is particularly adapted to be installed in a closed back shoe, referred to as 20, the shoe 20 including a counter and heel quarter 21 constituting the outermost part of the shoe, and a reinforcing element 22 located contiguous with the counter quarter 21 so as to provide the necessary stiffness and durability to the counter.

The resilient liner is normally located in shoe 20 in the position shown by Fig. 3, so as to extend around the counter 21 and forwardly along the lateral heel portions of the shoe. The frame member 14, the strip 12, and the slot 15 are structurally related so as to provide the integral, effective highly compressible portion 16 that assumes the curvilinear configuration of the heel, and provides a resilient cushion for the entire heel portion of the shoe. In addition, the compressible ribs 19 function as resilient gripping elements that conform to the heel of the foot along the uppermost and lowermost portions confined by the shoe, thus serving to retain the heel of the foot in proper position and alignment in the shoe, and further operating to cushion the heel in cooperation with the effective strip portion 16 exposed by slot 15.

Flaps 11 are so formed as described previously to underlie an inner sole or sock lining 23, and hence anchors the liner in position relative to the counter 21. Of course, it is a preference that the effective, compressible strip portion 16 be such a length as to cover the region about the counter and along the lateral portions of the heel, and be of a height to bridge substantially the top and the bottom of the counter quarters 21 with only a small region along the top and bottom occupied by the compressible ribs 19.

A comfortable, well-fitted shoe can be realized even though there may be a discrepancy in the size of the foot and of the shoe, or an irregularity in the heel portion of the shoe that might have occurred in manufacture. With the liner located as clearly shown in Fig. 3, and a foot inserted in the shoe, the strip portion 16 exposed by slot 15 is compressed to conform closely to the outline of the heel, and hence cushions the entire heel portion. Moreover, the compressible ribs 19 operate in a slightly lesser degree to cushion the heel in cooperation with strip portion 16, and further serve as retaining parts which resiliently grip the uppermost and the lowermost portions of the heel immediately adjacent strip portion 16 so as to align the heel in the shoe, to prevent slipping, and to compensate for any discrepancy in fit as noted above.

Fig. 4 shows an opened back shoe, generally referred

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to at 24, including a strap 25 that consists of two separate parts 26 and 27. Strap part 26 is attached to the sole of the shoe, and is extended upwardly from the side of the heel portion, and hence around the back of the heel to the opposite side for operative engagement with buckle 30 carried by strap part 27. Each strap part 26 and 27 is provided with a strip of rubber-like material 31, and a frame element 32 having a slot 33 which serves to expose a considerable portion of the underlying strip 31. Obviously the highly compressible portions of strips 31 presented through slots 33 constitute substantially the entire heel portion of the shoe, and afford the distinct advantages and functions noted above as to the closed heel shoe 20.

Although the improvements have been described by making particularized reference to a single preferred embodiment, and a modification thereof, the detail of description is not to be understood as restrictive, numerous variants being possible within the principles disclosed and within the fair scope of the claims hereunto appended.

I claim as my invention:

1. A resilient liner adapted for use in the interior of the heel portion of a shoe assembly, the liner being in direct heel-contacting relationship when so used and comprising an elongated backing element, an elongated generally arcuate strip of compressible resilient material of a size sufficient to extend laterally around the back of the heel portion to the sides thereof, an arcuate perforated facing member having durable wearing qualities secured to and completely overlying the strip on the side opposite said backing element, a frame member having an arcuate slot of smaller size than said facing member and contacting the marginal portions thereof on its face opposite that contacted by said elongated compressible strip, the frame member being secured to the facing member and said backing element by stitching completely around the marginal edges of said slot to confine the elongated strip in compressible relation between said facing member and backing element beneath the slot, the compressible elongated strip within the slot being of a length so as to extend around the counter and forwardly along the lateral portions of the heel of the shoe, and being of a height so as to bridge a substantial portion of the distance between the top and the bottom of said counter, whereby to realize a resilient cushion for the entire quarter portion of the shoe.

2. A resilient liner adapted for use in the interior of a shoe assembly including a counter, the liner being in direct heel-contacting relationship when so used and comprising an elongated backing element, an elongated strip of compressible resilient material, a frame member secured to the elongated strip and the backing element, said frame member being provided with an elongated slot overlying said strip with the strip extending underneath the marginal edges of said slot, the frame member being secured to the elongated strip and the backing element by means compressing the elongated margin of said elongated strip adjacent said slot, the strip presenting an effective compressible portion through the slot, said effective portion of the compressible strip being adapted to extend completely around the counter, whereby to realize a cushion for the entire quarter portion of the shoe.

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3. A resilient liner adapted for use in the interior of a shoe assembly including a counter and an inner sole, the liner being in direct heel-contacting relationship when so used and comprising an elongated backing element to be connected to the counter, an elongated strip of compressible resilient material connected to said backing element, the material of said strip being characterized by a high degree of compressibility, a frame element secured to the backing element and the strip, said frame element being provided with an elongated slot overlying said strip with the strip extending underneath the marginal edges of said slot, the strip being adapted to expose an effective compressible portion through the said slot, the frame element being secured to the backing element and the strip by means compressing the portion of said elongated strip adjacent said slot, the said compressed portion of the strip and the strip portion exposed through said slot constituting a heel-retaining band, the effective portion of the strip exposed by said slot being of a length so as to extend around the counter and forwardly along the lateral portions of the heel of the shoe, and being of a height so as to bridge substantially the top and the bottom of said counter, whereby to realize a resilient cushion for the entire quarter portion of the shoe.

4. A resilient liner adapted for use in the interior of a shoe assembly including a counter and an inner sole, the liner being in direct heel-contacting relationship when so used and comprising an elongated backing element, an elongated strip of resilient material connected to said backing element, said material being characterized by a high compressibility, a frame member secured to the marginal portion of the elongated strip and the backing element, the frame member being provided with an elongated slot overlying said strip with the strip extending underneath the marginal edges of said slot, the frame member being secured to the elongated strip and the backing element by means compressing the margin of said elongated strip adjacent said slot, the underlying strip having an effective compressible portion exposed through said slot, and a facing element having durable wearing qualities secured to the said effective compressible portion of the strip, the said backing element having a downwardly depending lowermost portion adapted to extend beneath the inner sole, whereby to locate and secure the liner in position relative to the counter, the effective portion of the strip exposed by said slot being of a length so as to extend around the counter and forwardly along lateral portions of the heel of the shoe, and being of a height so as to bridge substantially the top and the bottom of said counter, whereby to provide a resilient cushion for the entire quarter portion of the shoe.

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References Cited in the file of this patent

UNITED STATES PATENTS

1,566,791	Ekins	Dec. 22, 1925
1,926,818	Ratcliff	Sept. 12, 1933
2,052,692	Brauer et al.	Sept. 1, 1936
2,489,429	Nathan	Nov. 29, 1949
2,578,681	Everston	Dec. 18, 1951