

Sept. 7, 1965

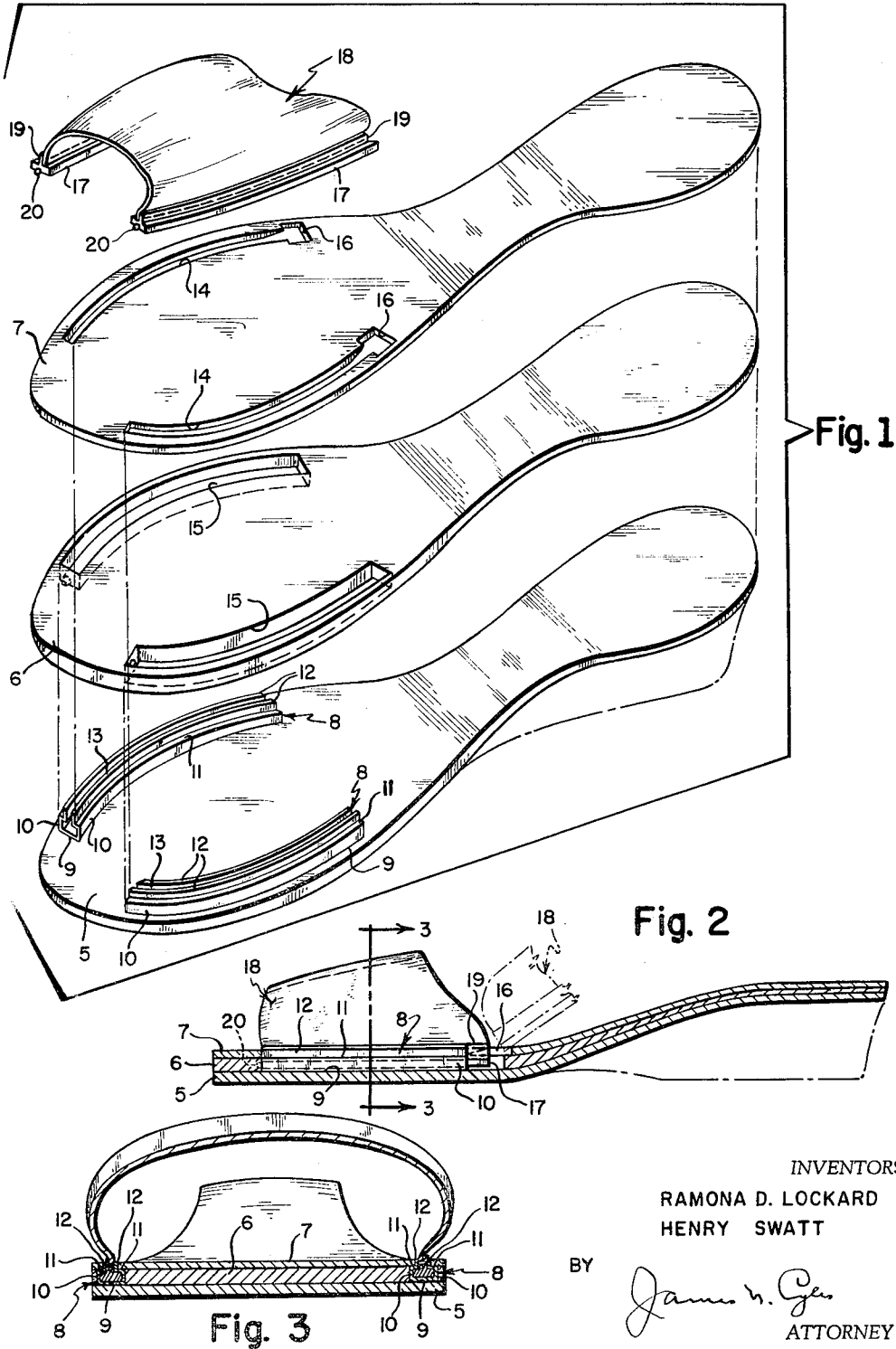
R. D. LOCKARD ETAL

3,204,346

INTERCHANGEABLE SOLE AND UPPER FOR SHOES

Filed Sept. 10, 1964

2 Sheets-Sheet 1



INVENTORS

RAMONA D. LOCKARD
HENRY SWATT

BY

James W. Gies
ATTORNEY

Sept. 7, 1965

R. D. LOCKARD ETAL

3,204,346

INTERCHANGEABLE SOLE AND UPPER FOR SHOES

Filed Sept. 10, 1964

2 Sheets-Sheet 2

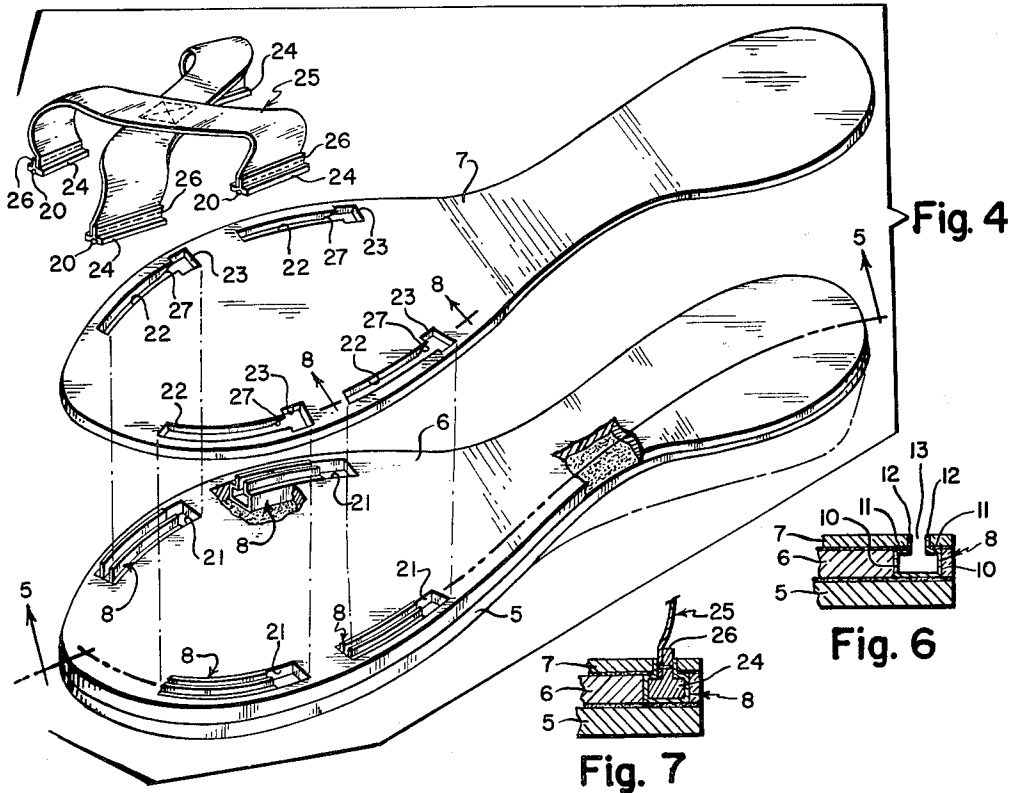
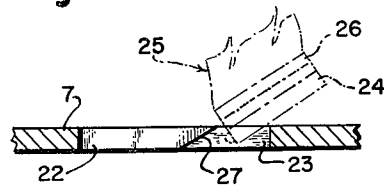
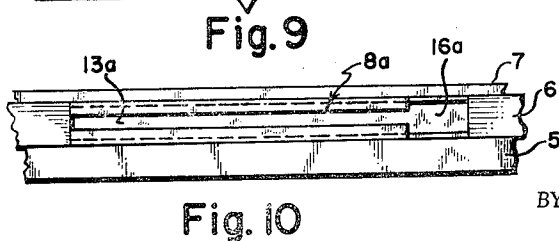
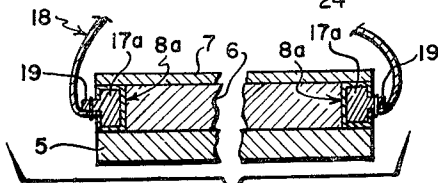
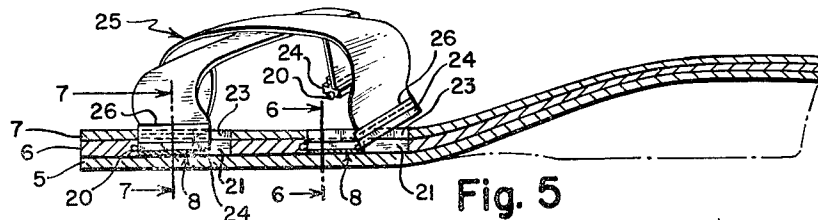


Fig. 7



INVENTORS

RAMONA D. LOCKARD
HENRY SWATT

BY

James H. Gleason
ATTORNEY

1

2

3,204,346

INTERCHANGEABLE SOLE AND UPPER FOR SHOES

Ramona D. Lockard, 7331 W. Plantation Blvd., Miramar,
West Hollywood, Fla., and Henry Swatt, 1930 NE.
197th Terrace, North Miami Beach, Fla.

Filed Sept. 10, 1964, Ser. No. 395,387

7 Claims. (Cl. 36—2.5)

This invention relates generally to improved and novel construction for shoes or other footwear and more specifically provides a shoe construction having interchangeable elements thereon so that such elements may be changed as desired for adapting the shoes for various occasions having various decorative qualities.

In shoe construction, and especially that utilized by women, it is necessary that a relatively large number of pairs of shoes be retained so that the shoes will be compatible to the particular clothes being worn. Normally a relatively large number of pairs of shoes presents a storage and cost problem and it usually results in the person buying pairs of shoes that are compatible to a particular wardrobe and it is the primary object of this invention to provide an improved shoe construction wherein the uppers of the shoe may be removably interchanged with the other uppers, thereby permitting a single basic frame or sole to be utilized with a plurality of various colored uppers in men's, women's and children's footwear in all categories where the construction may be applied permitting a single basic sole to be applicable to a plurality of uppers and greatly reducing the cost of the footwear, since the user may purchase various uppers at a relatively low price for detachable engagement with the sole.

A further object of the invention resides in the combination of a sole, midsole and a sock lining and with the sole being provided with trackways and with the midsole being slotted in accordance with the trackways and also the sock lining being slotted to conform to the trackways with the upper edges of the trackways and being flush with the sock lining and with the upper end of the shoe along its marginal edges being provided with slide devices that are engageable with the trackways to slide along the trackways and to thus anchor the upper against accidental displacement.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein has been illustrated the preferred form of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

FIGURE 1 is an exploded perspective view of the complete elements forming the assembly of the shoes,

FIGURE 2 is a longitudinal section through one trackway and associated elements for retaining the upper in assembled relation to the sole,

FIGURE 3 is a transverse section taken substantially on line 3—3 of FIGURE 2,

FIGURE 4 is an exploded perspective view of a modified form of the invention,

FIGURE 5 is a horizontal section taken substantially on line 5—5 of FIGURE 4,

FIGURE 6 is a fragmentary transverse section taken substantially on line 6—6 of FIGURE 5,

FIGURE 7 is a transverse section taken substantially on line 7—7 of FIGURE 5,

FIGURE 8 is a fragmentary longitudinal section on 8—8 of FIGURE 4 illustrating a bevel for the trackway,

FIGURE 9 is a fragmentary transverse section illustrating a further modified form of the invention, and

FIGURE 10 is a fragmentary side elevation of the modified form of the invention illustrated in FIGURE 9.

Referring specifically to the drawings and particularly to FIGURES 1—3, there has been illustrated a sole 5, formed of leather or other desirable material, and 6 illustrates a conventional midsole. Overlying the midsole, is a relatively thin sock lining 7.

Fixed to the sole 5 and conforming to the curvature thereof is a pair of tracks 8, formed of any desirable material such as plastic or other yieldable material. The tracks 8, see FIGURE 3 are rectangular in cross section, having a bottom wall 9 that is cemented or otherwise connected to the sole 5 and with the trackways having side walls 10 and an upper wall 11 that is provided with a pair of spaced apart flanges 12, presenting an upwardly opening slot 13. The track 8 is of a vertical thickness, corresponding to the midsole 6 and with the flanges 12, projecting upwardly through arcuate slots 14 formed in the sock lining 7. The midsole 6 is also slotted at 15, corresponding to the height of the tracks 8. The slots 14 of the sock lining 7 are enlarged at 16, to provide an insert opening for the slides 17 of the upper 18. Each of the slides 17 are provided with intermediate ribs 19 to which the marginal edges of the upper 18 are stitched or cemented. The slides 17 at their forward ends are provided with buttons or knobs 20 that engage in recesses formed in the forward ends of the slots 15 and whereby to yieldably hold the upper 18 in assembled relation to the trackways.

In the use of this form of the invention, the sole 5 is first provided with the tracks 8 either cemented thereto or otherwise attached and the midsole 6 is then engaged over the trackway, as shown in FIGURE 3 and then the sock lining 7 is disposed over the midsole 6 to be aligned with the slots 13 of the tracks 8. The several elements 5, 6 and 7 are then preferably cemented together, providing a unitary sole construction having the exposed guide slots 14 in the sock lining. When engaging the uppers 18 with respect to the tracks 8, the slides 17 are first engaged through the trackways to a point where the knobs 20 engage the recesses in the midsole 6. The knobs being yieldable, are snapped into engagement with the recesses and retard the movement of the upper 18 in a rearward direction. The uppers 18 may be formed of any desirable flexible material having slides 17 stitched to their marginal edges thereof and thus, uppers of varying designs and colors may be inserted into the trackways, forming a novel type of shoe construction that permits the interengagement of uppers corresponding to the particular wardrobe of the user. Heels, such as that illustrated in dotted lines in FIGURES 1 and 2 may be employed and form no part of the present invention.

Referring now to FIGURES 4—8, there has been illustrated a similar construction and wherein separate trackways 8 are disposed in spaced apart relation with respect to the sole 5, the midsole 6 and the sock lining 7. In this instance, the spaced apart tracks 8 are shorter than the tracks previously described and the sock lining 7 is also slotted as indicated at 22 to overlie the tracks 21 after the sole and midsole have been assembled, and the flanges 12 project through the slots 22 to be flush with the sock lining. The slots 22 are also provided with the enlarged openings 23 for the insertion of slides 24 of the strap type upper 25. The slides 24 are provided with the ribs 26 to which the ends of the straps 25 are either cemented or stitched.

In this form of the invention, the shortened trackways 8 are fixed to the sole 5 and the midsole 6, being slotted at 21 is engaged over the trackways flush with the upper wall 11 of the trackways and with the flanges 12 extending through the slots 22 of the sock lining, form-

3

ing spaced apart tracks into which the slides 24 are engaged and the slides 24 are also provided with the knobs 20 that have yieldable fitment into recesses formed at the forward ends of the tracks, the tracks at their rear extremities may be beveled as indicated at 27 in FIGURE 8 to facilitate the entry of the slides 24 and the same may apply to the first form of the invention with respect to the tracks 8 since the upper and their slides are relatively flexible and facilitates the guidance of the slides into the tracks.

In FIGURES 9 and 10, there has been illustrated a further modified application of the invention wherein tracks 8a are disposed upon the soles 5 and the tracks 8a are of a height corresponding to the midsole 6. Here, the tracks 8a are vertically arranged and the slide openings are disposed upon the marginal edge of the shoe, shown at 13a in FIGURE 10. The trackways 8a are also provided with the enlarged entrance opening 16a to facilitate the entrance of the slide 17a and as shown in FIGURE 9, the rib 19 of the slides carry the uppers 18. This form of the invention may be desirable where the upper is disposed with respect to the trackways outwardly of the marginal edge of the midsole 6, while in the first form of the invention, the uppers terminate on the ribs 19 inwardly of the marginal edge of the sock lining.

It will be apparent from the foregoing that novel means has been provided for detachably engaging the uppers to the sole construction of a shoe and for permitting interchanging of the uppers so that a single main sole, midsole and sock lining may be employed with various uppers for completely changing the appearance and construction of the shoe, thereby permitting a single shoe with a plurality of uppers to be utilized in conjunction with a plurality of dresses or outfits of wearing apparel, thereby eliminating the necessity of having a relatively large number of pairs of shoes available for use.

The device is simple in construction, cheap to manufacture, is strong, durable and most effective for the purposes indicated.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claims.

We claim:

1. A shoe including an outer shoe, a midsole and a sock lining, trackways fixed on the outer sole, the midsole and sock lining having aligned slots through which the trackways extend, each trackway having an upwardly-opening mouth flush with the upper surface of the sock lining, the shoe having a flexible upper provided at its opposite edges with slides fitting into the trackways, each trackway having an enlarged part at one end through which a slide can enter the trackway, each of the slides being provided at its forward end with a yieldable knob, the forward end of each trackway having a recess to receive one of the knobs with a snap engagement to thereby hold the slide in the trackway against longitudinal shift relatively to the trackway.

2. A shoe constructed according to claim 1, wherein the trackways longitudinally conform to the curvature of the marginal edge of the shoe, the trackways being formed of yieldable material, the trackways extending through the slots in the midsole and sock lining, each of the trackways having spaced flanges defining a slot opening between them, said flanges being flush with the inner surface of the sock lining.

3. The structure according to claim 1 wherein the trackways longitudinally conform to the curvature of the

4

marginal edge of the shoe, the trackways being formed of yieldable material and with the trackways being fixed to the outer sole and projecting upwardly through the slots formed in the midsole, the trackways having a longitudinal upper slot that is defined by upwardly extending flanges formed upon an upper wall of the trackways, the flanges extending through correspondingly shaped slots formed in the sock lining and whereby the flanges are flush with the inner surface of the sock lining.

4. An article of footwear that includes a laminated base including an outer sole, a midsole and a sock lining, all bonded together, the outer sole having fixed to its upper side marginal trackways formed of yieldable material, said trackways conforming to the curvature of the outer sole and spaced inwardly from the marginal edges thereof, said trackways being rectangular in cross section to form a channel, having a base wall, side walls and an upper wall, said upper wall intermediate its width being provided with a pair of upstanding flanges that are spaced apart to constitute a slot for the full length of the trackways, the midsole having slots conforming to the placement and curvature of the trackways, said trackways having a vertical height corresponding to the thickness of the midsole, said sock lining having slots to receive the flanges of the trackways, said flanges of said trackways terminating flush with the upper surface of the midsole, said slots of said sock lining being enlarged at the rear ends of the slots and constituting an opening for slide devices, an upper for the footwear being provided with slide devices along its marginal edges, said slide devices corresponding in width and height to the channel of said trackways, the slide devices being provided with longitudinal ribs for attachment to the upper, said slide devices being adapted to enter the enlarged openings of the slots of the sock lining to be shifted forwardly through the trackways and means carried by the forward ends of the slide devices to interlock the slide devices with the forward ends of the slots of the midsole.

5. The structure according to claim 4 wherein a pair of trackways are disposed upon the outer sole to project through spaced apart slots in the midsole at opposite sides of the footwear and with the sock lining having slots to receive the flanges of the trackways, the upper for the footwear comprising a pair of crossed straps and with the straps at their terminal ends being provided with slide devices for engagement in the trackways.

6. The structure according to claim 4 wherein the enlarged openings at the ends of the trackways are beveled to facilitate the engagement of the slide devices into the trackways.

7. An article of footwear comprising a laminated base consisting of an outer sole, a midsole overlying the outer sole and a sock lining overlying the midsole, channelled trackways embedded in the base and fixed to the outer sole, the midsole and sock lining having grooves conforming to and fitting around the trackways, a removable upper having slides arranged along its marginal edge and having slidable engagement with the trackways, and interlocking means at the ends of the slides and trackways for resiliently locking the slides against longitudinal sliding movement relatively to the trackways.

References Cited by the Examiner

UNITED STATES PATENTS

2,760,279	8/56	Jones et al.	36—15 X
2,761,224	9/56	Gardiner	36—15 X
3,016,630	1/62	Twiggs	36—15 X

FRANK J. COHEN, *Primary Examiner.*