

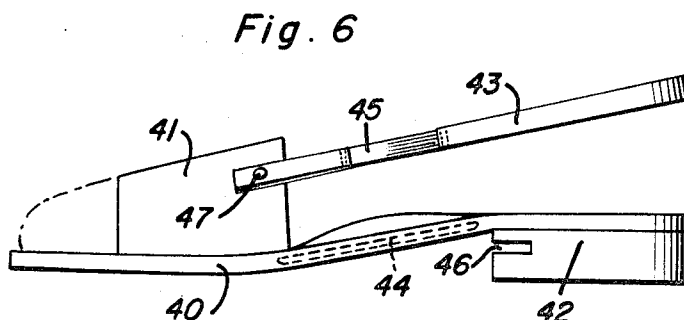
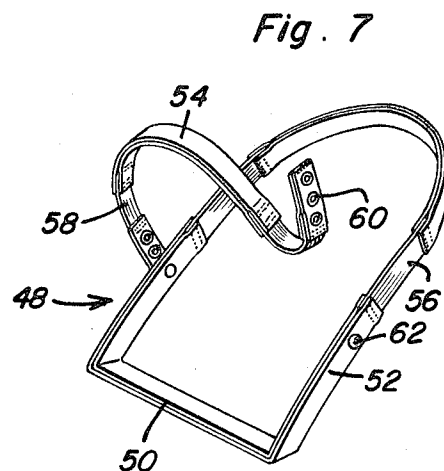
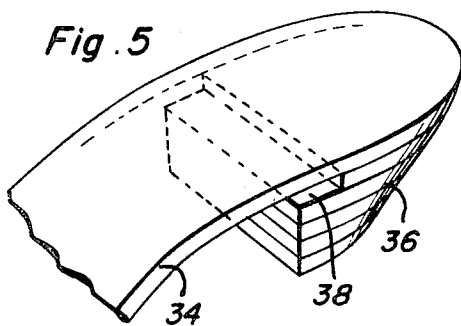
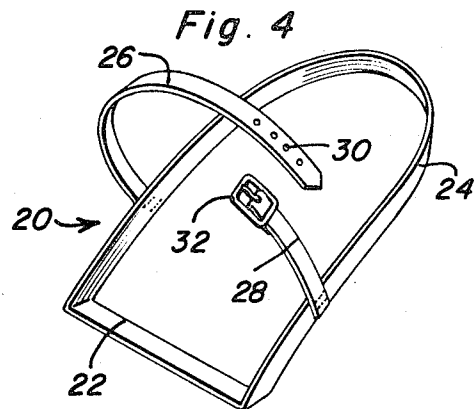
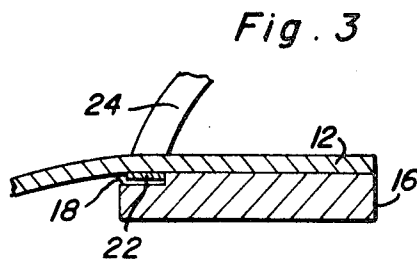
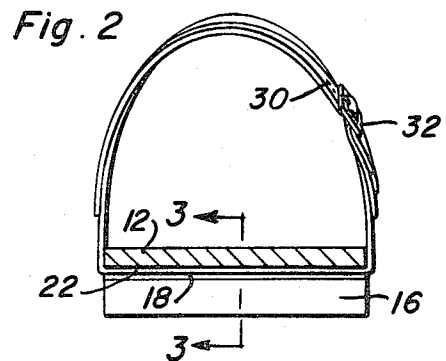
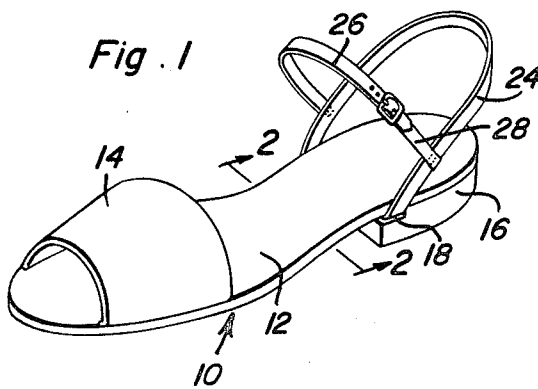
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3,570,147

CONVERTIBLE SHOE

Filed Jan. 15, 1969



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3,570,147

CONVERTIBLE SHOE

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7 Claims

ABSTRACT OF THE DISCLOSURE

A shoe construction convertible from a sandal-type which does not include a rear heel engaging component to a shoe having a sling engaging the heel of the wearer.

The present invention generally relates to shoe structures and more particularly a shoe structure in which the heel engaging sling thereof is readily removably attached to the shoe to enable the shoe to be converted between the sandal-type having no heel engaging component at the rear thereof and a shoe of conventional construction including a heel engaging sling.

Shoes with removable components such as detachable and replaceable uppers have been known but generally have not been acceptable in view of the difficulties encountered in manipulating the fastener assemblies for retaining the detachable shoe components in assembled condition. Another factor which has diminished the commercial possibilities of such convertible shoe structures is the frequent occurrence of accidental disengagement of the fastener assemblies when the shoes are being worn.

In order to overcome such problems, it is an object of the present invention to provide a convertible shoe structure in which the heel engaging sling of the shoe is removably connected therewith so that the shoe may be used either with or without the sling and more importantly, the sling is attached or detached without the necessity of manipulating fasteners and the like.

Another object of the present invention is to provide a convertible shoe construction which is quite simple in construction, easy to use and relatively inexpensive to manufacture.

Essentially, the present invention resides in the provision of a forwardly opening notch in the forward or breast surface of the heel adjacent the upper end thereof so that a portion of the sling is received in the notch or slot and will be retained therein by its engagement with the heel of the wearer thus eliminating entirely the provision of fasteners or other complex structures for securing the heel sling in position. Thus, the heel sling may be quickly and easily placed in position or removed therefrom with the modification of the shoe heel being relatively simple and such modification does not affect the strength, appearance or other functions of the shoe heel and may be incorporated into various types of shoes and shoe heels.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective view of a shoe with the removable sling of the present invention incorporated therein;

FIG. 2 is a transverse, sectional view taken substantially upon a plane passing along section line 2-2 of FIG. 1 illustrating the relationship of the heel sling to the shoe sole and heel;

FIG. 3 is a detailed, vertical sectional view taken substantially upon a plane passing along section line

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3-3 of FIG. 2 illustrating further structural relationships between the sling, shoe sole and heel;

FIG. 4 is a perspective view of the removable shoe heel sling;

FIG. 5 is a fragmental perspective view of another type of shoe heel adapted for receiving the removable sling;

FIG. 6 is a side elevational view of another embodiment of the invention; and

FIG. 7 is a perspective view of a type of removable shoe heel sling incorporating elastic inserts therein.

Referring now specifically to the drawings, the numeral 10 generally designates a shoe construction having a sole 12, an upper 14 attached thereto in any conventional manner with the upper being of any suitable configuration such as an open toed construction with the upper extending only along the forward portion of the sole 12. The rear portion of the sole 12 is supported in a conventional manner by a flat heel 16 secured to the sole in any suitable and conventional manner. The forward edge of the heel 16 is provided with a transversely extending notch or recess 18 therein which communicates with the upper surface thereof. The notch or recess 18 cooperates with the lower surface of the sole 12 to define of forwardly opening slot or notch.

A heel sling assembly generally designated by the numeral 20 is attached to the shoe by virtue of a lower or bottom portion 22 of the sling being received in the notch or slot 18. The lower portion 22 is in the form of a relatively narrow and flexible strap with the ends thereof being connected to the ends of a generally U-shaped heel engaging sling 24 which is also in the form of a flexible strap which is attached to the ends of the lower strap 22 in an angular manner so that the loop or strap 24 will engage rearwardly of the heel in the usual manner of a heel sling. Attached to the upper edge of the strap or loop 24 is a pair of ankle straps 26 and 28 with the ankle strap 26 being longer and attached to the inner edge portion of the loop 24 and provided with a plurality of apertures 30 in the free end thereof for adjustable engagement with a buckle 32 which is attached to the shorter ankle strap 28. Thus, the detachable and adjustably interconnected straps 26 and 28 extend across the forward surface of the ankle portion of the wearer in a conventional manner to secure the heel sling in position on the wearer.

When it is desired to employ the shoe as illustrated in FIG. 1, the straps 26 and 28 are disconnected in a known manner and the shoe placed on the foot with the strap 24 engaged with the rear surface of the heel or ankle of the wearer after which the straps 26 and 28 are reconnected in an adjustable manner thus securely retaining the shoe on the foot. When it is desired to use the shoe 10 as a sandal, it is only necessary to grasp the heel sling 20 and move it forwardly so that the strap 22 exits from the notch or recess 18. Thus, it will be understood that the shoe may be converted from a sandal type without a heel sling to a shoe having a heel sling associated therewith by merely removing or inserting the strap 22 into the notch 18 thereby eliminating the necessity of manipulating complicated fastener devices and the like.

FIG. 5 illustrates another type of shoe structure including a sole 34 having a tapering heel 36 mounted thereon in a conventional manner with the heel 36 being of laminated material of a medium height or it may be of any suitable height and any suitable material with the heel 36 including a notch or recess 38 in the forward surface thereof where it connects with the undersurface of the shoe sole 34 in the same relationship as illustrated in FIGS. 1-3.

FIG. 6 illustrates another type of shoe including a sole

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40, a heel 42 thereon, an upper 41 and a conventional metal arch support 44 built into the shoe. Any known and conventional type arch support may be employed such as one molded or carved directly into the sole. In this construction, the forward surface of the heel 42 is provided with a notch or slot 46 which is spaced below the top edge of the heel 42 and, of course, spaced above the bottom surface thereof as illustrated in FIG. 6. A heel strap 43 having elastic inserts 45 is detachably attached to the rear edges of the upper 41 by conventional snap fastener assemblies 47 or other conventional fastening devices.

FIG. 7 illustrates a modified form of heel sling generally designated by the numeral 48 which has substantially the same configuration as the heel sling 20 including a bottom member or strap 50 and a generally U-shaped strap or sling 52 attached to the ends thereof in an upward angular direction and an ankle strap 54 attached to the heel strap 52. As illustrated, the two legs of the U-shaped strap 52 are each provided with an elastic insert 56 and the ankle strap 54 is also provided with elastic strap inserts 58 which enables the shoe with the heel sling 48 associated therewith to be placed on the foot without the necessity of manipulating any buckles or fasteners with the elastic inserts enabling sufficient elongation of the straps to enable the heel sling to be positioned over the heel with the elastic inserts then snugly retaining the heel sling on the foot and at the same time retaining the bottom strap 50 in the notch in the heel 46 such as shown in FIG. 6 thus enabling either the heel strap 43 or the heel sling 48 to be used with the shoe.

Each end of the ankle strap 54 in FIG. 7 is provided with a plurality of spaced snap fastener elements 60 thereon for adjustable and detachable attachment with a mating snap fastener element 62 on each leg of the strap 52. The male snap fastener elements and female snap fastener elements may be mounted on either the ankle strap 54 or heel strap 52 and provides adjustment or complete removal of the ankle strap 54. Any combination of heel strap, ankle straps, elastic inserts, snap fasteners, buckles and other fasteners may be used.

In each embodiment of the invention, the heel sling may be constructed of various materials normally employed in shoe structures compatible with or in contrast with the remainder of the shoe. Also, the heel sling may be used with any type of shoe either with an open toed or closed toed upper such as a sandal, slipper or dress shoe for not only ladies but also shoes for men and children. If the shoe is constructed of rubber or plastic materials, the sole and heel and possibly the uppers may be constructed by molding into one-piece. The heel sling will facilitate conversion of the shoe from an sandal-type where the heel of a wearer is completely free of the heel portion of the sole of the shoe to the type in which the heel of the wearer is engaged by the sling with an ankle strap extending over the front of the ankle area of the foot of the wearer thus serving to securely retain the shoe in position.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A convertible shoe construction including a sole and

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a supporting heel attached thereto, said heel including a front edge having a transversely extending recess extending from one side edge to the other thereof, and a heel sling including a bottom strap of a width and thickness to be closely received in the recess in the heel thereby detachably mounting the heel sling to the shoe, said recess in the front edge of the heel including a notch spaced downwardly from the top edge of the heel and upwardly from the bottom edge thereof whereby the heel sling is freely movable into and out of the notch and serves to retain the forward edge of the heel in position against the undersurface of the sole, the sole extending forwardly of the heel and receiving an upper, said heel sling being changeable without removing the shoe from the foot.

2. A convertible shoe construction including a sole and a supporting heel attached thereto, said heel including a front edge having a transversely extending recess extending from one side edge to the other thereof, and a heel sling including a bottom strap of a width and thickness to be closely received in the recess in the heel thereby detachably mounting the heel sling to the shoe, said recess in the front edge of the heel being at the upper edge thereof with the bottom surface of the shoe sole combining with the recess to define a transverse slot receiving the heel sling.

3. The structure as defined in claim 2 wherein said heel sling includes a U-shaped heel strap adapted to engage the rear surface of the heel of the foot of a wearer and an ankle strap extending generally perpendicularly therefrom for engagement with the top surface of the foot of the wearer to retain the heel strap in engagement with the heel.

4. The structure as defined in claim 3 wherein said ankle strap includes a pair of straps having buckle means adjustably interconnecting the straps for enabling the ankle strap to be fitted around the foot of the wearer.

5. The structure as defined in claim 3 wherein said ankle strap is provided with an elastic insert therein to enable elongation thereof when placed on the foot of a wearer.

6. The structure as defined in claim 5 wherein said heel strap is provided with an elastic insert to enable a elongation thereof.

7. The structure as defined in claim 3 wherein said ankle strap is provided with an elastic insert therein to enable elongation thereof when placed on the foot of a wearer, said heel strap being provided with an elastic insert to enable elongation thereof, said ankle strap including a plurality of spaced snap fastener elements on at least one end thereof, said heel strap including coacting snap fastener elements to enable adjustment of the effective length of the ankle strap.

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