SHOE WITH MOVABLE THONGED UPPER

Fig. 1

Fig. 2

Fig. 1A

Fig. 2A

Fig. 3

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SHOE WITH MOVABLE THONGED UPPER

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1. This invention relates generally to shoes. More particularly my invention is directed to a highly improved and novel shoe construction of the type in which the upper and other shoe portions are removably attached to the sole portion.

One of the objects of my invention is to provide a novel shoe construction of the class described in which the said shoe may be quickly converted into a house shoe, or a shoe for street wear, or a sandal and which shall be so designed that discomfort generally experienced by the wearer in certain areas because of pressure by the shoe may be readily relieved.

Another object of my invention is to provide, in a novel shoe construction of the class described, a thong sandal arrangement which shall be so constructed and arranged that the thong will automatically adjust itself to variations in anatomical structures of the toes of different persons.

A further object of my invention is to provide, in a shoe construction of the class described, an improved design for a removable thong member whereby the said thong will adjust itself to and follow the contour of the foot.

Still another object of my invention is to provide in a shoe construction of the class described, an improved design for a removable toe cap which will permit the same to adjustably stretch over and fit the joints of the foot.

Other objects of my invention will become apparent from the description of the invention to follow or will hereinafter be specifically pointed out.

In the accompanying drawing:

Fig. 1 is a perspective view of the basic unit of a shoe construction designed in accordance with my invention;

Fig. 1A is a cross-sectional view substantially along the line 1A—1A of Fig. 1;

Fig. 2 is a view similar to Fig. 1, but with an instep part removably attached to said basic unit;

Fig. 2A is a top plan view of the component parts of the instep member disassembled from the shoe shown in Fig. 2;

Fig. 3 is a view similar to Fig. 2, but with a toe cap additionally removably attached thereto and adapted for use in stormy weather;

Fig. 4 is a view similar to Fig. 3, but with the toe cap removed therefrom and replaced by a thong, thereby converting the shoe into a sandal for fair weather use;

Fig. 5 is a perspective view of the toe cap shown in Fig. 3, but removed therefrom;

Fig. 6 is a cross-sectional view taken substantially along the line 6—6 of Fig. 5;

Fig. 7 is a perspective view of the thong member alone, shown in Fig. 4 and removed therefrom;

Fig. 8 is an enlarged cross-sectional view taken substantially along the line 8—8 of Fig. 7;

Fig. 9 is an enlarged view of a portion of the shoe construction shown in Figs. 1 and 4, with a wall portion thereof broken away to disclose the interior construction;

Figs. 9A and 9B are fragmentary views similar to Fig. 9, but illustrating modified forms of my invention.

Referring now in detail to the drawings and more particularly to Figs. 1 and 1A, I have shown the basic unit 10 of my shoe construction comprising a sole member which may be of any standard type, such as, for example, a platform sole 11 made with an air foam filler or of any other desired known material. Overlying the platform sole is an inner sole 12 of any suitable material having edges terminating at the edge of the sole member 11. A layer of relatively thin, soft leather 14a may underlie the member 11, the edges thereof being turned upwardly to overlie the edge of the said member 11 and inturned to secure the same in permanent position as clearly shown in Fig. 1A of the drawings.

A permanently attached heel portion 14 may be provided underneath the sole 11 and a counter member 15 may be permanently attached to the sole 11 above the said heel 14 in the customary manner, well known to the art. A plurality of male fastener elements 16 of any suitable type are fixedly attached to the sole 11 in spaced relationship around the edge 11a of the said sole 11, as shown in Figs. 1A and 1A.

In accordance with my invention I provide an instep member 20. As noted in Figs. 2 and 2A, the instep member 20 comprises a pair of strips 20x and 20y of leather or other suitable material having a row of female fastener elements 21, parallel to and disposed adjacent each transverse edge 28a thereof. The said fastener elements 21 are spaced so as to correspond to the spacing of the elements 16 on the sole for cooperation therewith so that the strips 20x and 20y may be attached in effective position to form a strap, as shown in Figs. 2 and 2A. A buckle 22 fixed to the strip 20x and a cooperating eyelet member 27 on the strip 20y serves to adjustably interconnect the said strips to provide a snug fit around the instep.

A series of male fastener elements 22 are fix-
Many persons are unable to wear thong-type sandals due to the fact that the spacing between the big toe and the adjacent toe of the foot does not correspond with the position of the fixed thong of the sandal, with the result that the thong cuts into the flesh and renders the wearer extremely uncomfortable. I have therefore provided the following construction to obviate the above mentioned disadvantage whereby the thong may automatically adjust itself in each individual instance to occupy a comfortable position.

In the sole 11, between the top and bottom surfaces thereof, I provide a slotted opening 50 which extends inwardly from the front portion of the edge 11b of the sole and which may be made in the shape of a triangle, as shown. Pivotally mounted within the said opening 50, by means of the pivot 51, is a relatively rigid bar 52, which is adapted to freely move in a lateral direction within the said opening, and having a portion 50a thereof projecting slightly outside of said opening. Mounted at the end of the portion 50a of the bar 52 is a female fastener element 55 similar in form and function to the fastener element 42 on the thong 40 and adapted to snap on to the movably mounted element 55.

It is thus seen from the above described construction that when the thong 40 is attached to the shoe to convert the same into a sandal as above described the forward end of the thong will automatically find its most comfortable position between the big toe and the next adjacent toe of the wearer's foot.

In Figs. 9A and 9B I have shown modified forms of the Fig. 9 form of my invention. In Fig. 9A I have shown a channel member 90 made of metallic or other suitable material and having a pair of bent over longitudinal edges 90a to form a trackway for a plate 91 to freely laterally slide therein. A male fastener element 92 is fixed to the plate 91 for movement therewith. The member 90 may be adhesively fixed to the edge of the sole 11 or it may be nailed in the well known manner.

In the Fig. 9B form of my invention I embed the track member 101, similar in design and function to that of the track member 90, into the material of the sole, such as, for example, the heretofore mentioned foam filler. Similarly to the track member 90, the track member 101 is provided with bent over longitudinal edges 102 and a slidable plate 103 to which there is fixed a male fastener element 104, for movement therewith. To permit the free sliding movement of the fastener element 104, I provide a slotted opening 105 extending from the top surface of the sole 11 to the track member 101. In this form of my invention the fastener element 104 is so designed as to project beyond the top surface of the said sole.

In both forms of my invention according to Figs. 9A and 9B the cooperating fastener element 42 on the thong part 40b is designed to be snapped into engagement with the elements 92 or 104. In accordance with my invention as hereinbefore mentioned female fastener elements 41 is provided in either of the forms illustrated in Figs. 2, 3 and 4 of the drawings, uncomfortable pressures of the shoe on the foot may be relieved by unlocking or separating any selected pair or pairs of cooperating fastener elements.

It is also noted that any suitable form of well known fastener devices may be employed to carry out my invention, and if desired certain striking
ornamental effects may be produced by using the nail-head type of fastener elements.

In accordance with the provisions of the patent statutes, I have herein described the principle and operation of my invention, together with the construction which I now consider to represent the best embodiment thereof, but I desire to have it understood that the construction shown is only illustrative and that the invention can be carried out by other means. Also, while it is designed to use the various features and elements in the combinations and relations described, some of these may be altered and others omitted without interfering with the more general results outlined, and the invention extends to such use.

Having described my invention, what I claim and desire to secure by Letters Patent is:

1. In a shoe of the character described having a shoe bottom comprising a sole portion, a thong member having a forward end and a rearward end, means for detachably attaching said forward end of said thong to said sole portion, said last named means comprising a first fastener element carried by said sole portion, a cooperating second fastener element carried by said thong, and means for movably mounting said first fastener element on said sole portion.

2. A shoe according to claim 1 in which the said thong comprises two parts overlapping intermediate said forward and rearward ends thereof and saidable relative to each other, and an elastic member interconnecting said two overlapping parts of said thong member.

3. A shoe according to claim 1 in which the means for movably mounting said first fastener element on said sole portion comprises a slotted opening between the top and bottom surfaces of said sole portion extending inwardly from the marginal edge thereof, a relatively rigid bar member pivotally mounted at its inner end for oscillating movement within said slotted opening and having its opposite free end projecting outside of said slotted opening, the said first fastener element being carried by said outside projecting portion of said bar member.

MARTIN SHAPIRO.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>213,490</td>
<td>Apfel</td>
<td>Mar. 25, 1879</td>
</tr>
<tr>
<td>311,018</td>
<td>Lord</td>
<td>Jan. 20, 1885</td>
</tr>
<tr>
<td>730,366</td>
<td>Gunthrop</td>
<td>June 9, 1903</td>
</tr>
<tr>
<td>1,554,833</td>
<td>Sahlin</td>
<td>Sept. 22, 1925</td>
</tr>
<tr>
<td>1,877,724</td>
<td>Gustin</td>
<td>Sept. 13, 1932</td>
</tr>
<tr>
<td>2,221,132</td>
<td>Girard</td>
<td>Nov. 12, 1940</td>
</tr>
<tr>
<td>2,236,327</td>
<td>Grober</td>
<td>Mar. 25, 1941</td>
</tr>
<tr>
<td>2,263,339</td>
<td>Koch</td>
<td>Nov. 18, 1941</td>
</tr>
<tr>
<td>2,377,119</td>
<td>Amenta</td>
<td>May 29, 1945</td>
</tr>
<tr>
<td>2,428,262</td>
<td>Bunker</td>
<td>Sept. 30, 1947</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>241,910</td>
<td>Great Britain</td>
<td>Nov. 19, 1925</td>
</tr>
<tr>
<td>467,247</td>
<td>Great Britain</td>
<td>July 15, 1937</td>
</tr>
<tr>
<td>498,635</td>
<td>Germany</td>
<td>Oct. 23, 1930</td>
</tr>
</tbody>
</table>