FOOTWEAR OR SABOT WITH METAL SOLE AND HEEL

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FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

FIG. 7

FIG. 1

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FOOTWEAR OR SABOT WITH METAL SOLE AND HEEL

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The present invention relates to shoe construction, more particularly to the construction of a shoe comprising a metal insole which is especially adapted for securing the upper portion of the shoe thereto by gluing or by screws.

Previously, shoes have been made comprising wooden insoles to which the upper portions were attached. These upper portions, however, became easily detached from the insole, and consequently the shoe did not last long. In addition, difficulties were experienced in rigidly connecting the upper shoe portions to the wooden insoles. To eliminate these disadvantages of shoes comprising wooden insoles, the present invention proposes a shoe comprising a metallic insole formed from a light alloy casting or stamping. The metallic insole has slots along its edges into which projections from the upper portions of the shoe are inserted and attached to the under side of the shoe by gluing or by other fastening elements.

There is a raised edge around the periphery of the sole to form a seat to retain a rubber or composition outsole therein. Transverse ribs are also provided in order to secure the rubber outsoles against longitudinal movement. A metallic hollow heel is fastened to the heel of the metallic sole in a conventional manner.

It is therefore the principal object of this invention to provide a lightweight shoe having great strength and durability and being more attractive in appearance than previously known shoes.

It is a further object of this invention to provide a shoe construction utilizing a lightweight metal alloy as an insole.

Other objects and advantages of this invention will become apparent upon reference to the accompanying description and to the following drawings, wherein:

Figure 1 is a top plan view of the metallic insole with the upper shoe portions being removed;

Figure 2 is a side elevational view of the shoe constructed in accordance with the teachings of this invention;

Figure 3 is a bottom plan view of the metallic insole as illustrated in Figure 1 with the rubber outsole removed so as to show the details of construction on the under surface thereof;

Figure 4 is a longitudinal sectional view of the metallic insole as shown in Figures 1 and 3 taken along the lines 4—4 of Figure 1;

Figure 5 is a plan view of the rubber outsole;

Figure 6 is a transverse sectional view of the improved shoe which shows how the projecting strips of the upper portion of the shoe are attached to the underside of the insole; and

Figure 7 is a partial view of Fig. 6 showing more clearly how a projecting strip of the upper shoe portion is disposed intermediate the insole and the outsole.

Returning now to the drawings, wherein like reference symbols indicate the same parts throughout the various views, it will be seen from Figure 1 that a lightweight metallic insole 1 constructed in accordance with the teachings of this invention. The insole is formed from a light metallic alloy such as from aluminum or magnesium and is fabricated by casting or stamping. There are a plurality of longitudinally extending slots 2 along each of the longitudinal edges of the insole 1. There is a raised edge 3 extending around the entire periphery of the metal sole 1, as shown in Figure 1, to form a seat for a rubber or composition outsole indicated at 4. The outsole 4 is secured to the under side of the insole 1 by glue or by screws. There are a number of cross ribs 5 which can be seen in Figure 3 on the underface of the insole 1 to prevent longitudinal displacement of the outsole 4. In addition, ribs 6 and 7 are also formed on the under side of the insole 1 for further defining the space to receive the rubber outsole 4. The rib 6 is particularly intended for securing the rubber outer sole 4 against movement.

The heel of the sole comprises a plurality of reinforced ribs 8 at the center of which is secured a stud 9 to which a heel 10 can be screwed in a conventional manner. The heel 10 is preferably hollow and formed entirely of metal in a known manner.

The upper portion of the shoe indicated at 11 in Figure 2 comprises a number of projecting strips 12 which are inserted into the corresponding slots 2. The strips 12 are then folded under the insole 1 and are secured thereto by gluing, screws or other fastening means such as rivets.

The finished shoe can be exposed to an oxidizing annealing treatment, and the resulting oxide layers can be colored as desired in order to produce shoes of various colors.

Thus it can be seen that the present invention provides a lightweight shoe construction which has considerable strength, since the insole of the shoe is formed from a lightweight metal stamping or casting and the upper portions of the shoe are secured thereto.

It will be understood that this invention is susceptible to modification in order to adapt it to different usages and conditions, and, accordingly, it is desired to comprehend such modifications within this invention as may fall within the scope of the appended claims.

What is claimed is:

1. In a shoe having a detachable sole portion, a unitary light alloy metallic insole of cast material, a raised edge around the entire periphery of said metallic insole so as to form a seat for an outsole, and a plurality of ribs normal to said raised edge on the under side of said insole.

2. A shoe comprising a unitary light alloy metallic insole of cast material, there being a plurality of longitudinally extending slots along each of the longitudinal edges of the metallic insole, an upper shoe portion having a plurality of strips inserted into said slots and secured to the under side of said insole, a raised edge around the entire periphery of the metallic insole so as to form a seat for an outsole, and a plurality of ribs normal to said raised edge on the under side of said raised insole to prevent longitudinal displacement of an outsole.

3. In a shoe having a detachable sole portion, a unitary light alloy metallic insole of cast material, and a raised edge around the entire periphery of the metallic insole so as to form a seat for an outsole.

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