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PLASTIC REINFORCED LEATHER HEEL

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Fig. 1

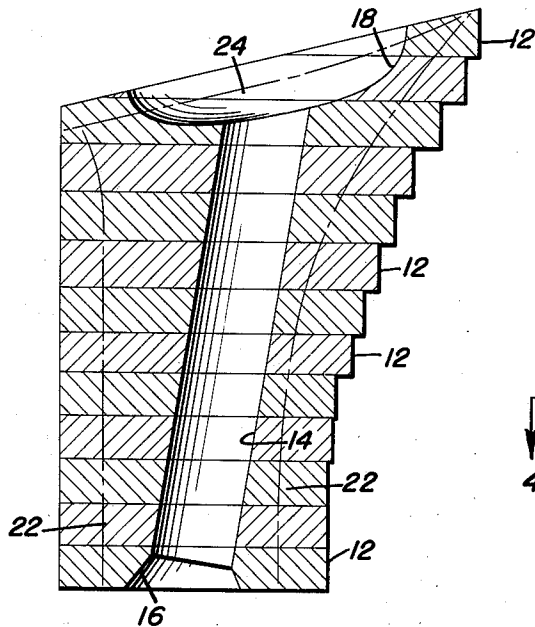


Fig. 2

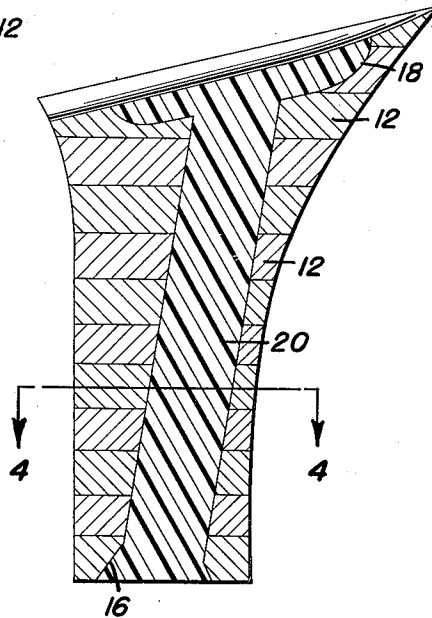


Fig. 3

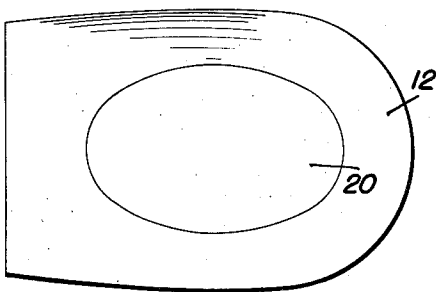
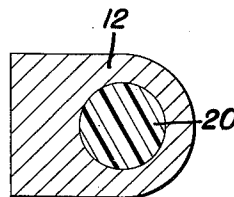


Fig. 4



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PLASTIC REINFORCED LEATHER HEEL

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3 Claims. (Cl. 36—34)

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This invention relates to new and useful improvements in the art of making leather heels and the article produced thereby.

The primary object of the present invention resides in devising a method of producing leather heels which will increase the production rate thereof, and entirely eliminate the necessity for nails or the like in securing the leather lifts together or any other metallic fastener, so that when the lifts are secured the heel may be readily turned without any danger whatsoever of striking nails, or the like.

Still another important object of the present invention is to devise a method of making leather heels which, in addition to permitting the ready and safe turning of the same, also permits the heel to be readily concaved to form a heel seat and which heel so formed may be easily secured to the other portions of the shoe.

Another important object of the present invention resides in providing a leather heel free from metallic parts, which may be quickly produced, and which article will be exceptionally light in weight and sturdy.

Still another object of the present invention is to provide a leather heel which is formed with a major portion of its upper face of plastic, so that the same may be readily concaved to form a heel seat.

A meritorious feature of the present invention resides in the provision of a single means for securing the assembled leather lifts, and the single step operation in forming such means.

These, together with various ancillary objects and features of the invention, which will later become apparent as the following description proceeds, are realized by the present invention, one embodiment of which has been illustrated, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a central vertical sectional view of the leather lifts arranged for being secured together, the final contour of the heel to be formed thereof being indicated in dotted outline;

Figure 2 is another central vertical sectional view of the leather lifts after the same have been secured together and the shoe heel turned to the contours indicated in dotted outline in Figure 1;

Figure 3 is a top plan view of the completed heel; and

Figure 4 is a horizontal sectional view taken upon the plane of the section line 4—4 of Figure 2.

Reference is now made more specifically to the accompanying drawings, wherein like numerals designate similar parts throughout the various

views, and in which a plurality of vertically arranged leather lifts are designated at 12. It will be understood in assembling the lifts 12 in the position shown in Figure 1 that the same may be secured together with adhesive, if desired, so as to enhance the strength of the final product. While the lifts 12 have been shown as all being of uniform thickness, it will be readily appreciated that any or all of the same may be slightly wedge-shaped, as in conventional leather heel construction, so that the uppermost lift need not necessarily lie in a plane parallel to the lowermost lift.

In the practice of the present invention, an opening 14 is bored throughout the vertical extent of the lift 12, which opening 14 is terminally enlarged at its opposite ends as the lowermost lift being cut away at 16 and the uppermost lift being cut away to form an enlarged depression 18. Obviously, if desired, the individual lifts may be separately bored and then be arranged as shown in Figure 1 with the openings in the lifts in registry.

The opening 14 and the enlarged extremities thereof, including the depression 18, are then filled with plastic of any suitable type which either hardens upon cooling or setting, it being apparent that when the plastic 20 has hardened that the leather lift 12 will be securely retained in assembled position thereby. While any hardenable plastic will serve the purposes of the present invention, phenol-formaldehyde, urea formaldehyde, Vinylite, methyl methacrylate and lignin resins are particularly well adapted for use in the present invention.

It will be understood that while the depression 18 may be entirely formed by cutting away the uppermost lift 12, it is deemed preferable that at least to some extent the depression 18 be formed by compression of the leather lifts in the area of the depression 18 to partially form the same by pressure, inasmuch as this will enhance the rigidity with which the lifts 12 are held together after the plastic 20 has hardened within the depression 18.

After the plastic 20 has hardened sufficiently, the heel may then be turned on a conventional lathe, not shown, to the contours indicated by the dotted lines 22 in Figure 1, and the top of the heel cut away to the line 24 to form the completed heel shown in Figure 2.

From the foregoing, it will be readily appreciated that by utilizing the method of forming the heel hereinbefore described, a stronger, lighter and more durable product is produced, and which method has the advantage of permitting the heel

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to be turned without the possibility of striking nails which are ordinarily used in assembling heels, and likewise the concaved seat at the top of the heel may be readily cut, since the major portion of the top of the heel consists of plastic material as best shown in Figure 3.

It will also be noted that the finished product shown in Figure 2 may be readily assembled with other portions of the shoe, not shown, by means of screws or other fasteners being driven into the plastic material 20. Thus, it will be seen that there has been provided a strong leather heel which is reinforced throughout its vertical extent by a unitary column of plastic material, which heel may be swiftly and inexpensively produced, and which heel may be readily assembled with other portions of a completed shoe.

Since from the foregoing the construction and advantages of this plastic reinforced leather heel are readily apparent, further description is believed to be unnecessary.

However, since numerous modifications and equivalents will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to the exact embodiment shown and described but all suitable modifications and equivalents may be resorted to which fall within the scope of the appended claims.

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Having described the invention, what is claimed as new is:

1. A shoe heel comprising a plurality of vertically stacked lifts, said lifts having an opening extending entirely therethrough which is terminally enlarged through the uppermost and lowermost lifts respectively, a hardened plastic core entirely filling said opening including the enlarged terminal portions thereof to hold and retain the lifts in assembled relation.

2. A shoe heel comprising a plurality of vertically stacked lifts, said lifts having an opening extending entirely therethrough which is terminally enlarged through the uppermost and lowermost lifts respectively, a hardened plastic core entirely filling said opening including the enlarged terminal portions thereof to hold and retain the lifts in assembled relation, the upper end of said core being concaved to constitute a heel seat.

3. A shoe heel comprising a plurality of vertically stacked lifts including an uppermost and a lowermost lift, a passageway extending through the intermediate lifts and terminating in outwardly flaring enlarged portions in the uppermost and the lowermost lifts, and a hardened plastic core entirely filling the passageway including the terminal portions thereof.

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No references cited.