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PLASTIC COVERED METAL HEEL FOR LADIES' SHOES

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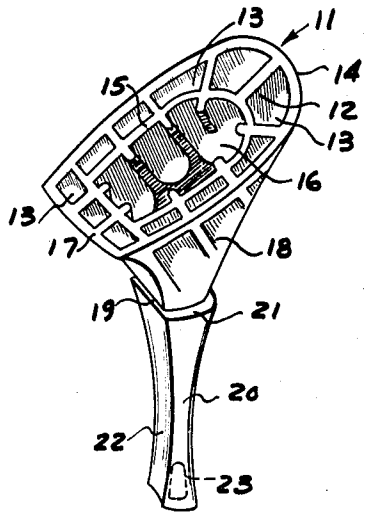


Fig. 1

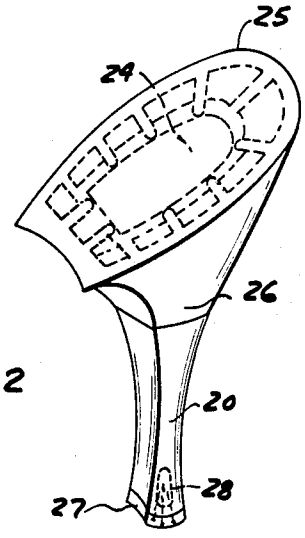


Fig. 2

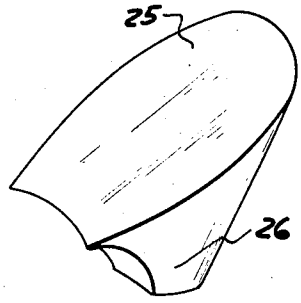


Fig. 3



Fig. 4

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PLASTIC COVERED METAL HEEL FOR LADIES' SHOES

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3 Claims. (Cl. 36—40)

This invention relates to ladies' shoes and more particularly to the construction of a spike-type heel for ladies' shoes.

Heretofore spike-type heels have been provided wherein the more serious difficulty was not only lack of rigidity but an effective means of securing the heel to the shoe.

It is the primary object to provide an improved spike-heel for ladies' shoes, including the use of a rigid unitary supporting body and shank together with a plastic molded cover therefor and incorporating means for effectively securing the heel to the shoe.

It is a further object to provide a unitary spike-type heel in the form of a metallic base including a honey comb or apertured structure together with an integral depending heel shank and incorporating a plastic covering for the base of said heel which is permanently connected therewith and fixedly retains a wood securing plug within said base.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawing in which:

Fig. 1 is a perspective view of the metallic base and shank for the present heel.

Fig. 2 is a perspective view of the completed heel with plastic covering.

Fig. 3 is a fragmentary perspective view illustrating the plastic covering by itself.

Fig. 4 is a perspective view of a slightly different form of heel lift.

It will be understood that the above drawing illustrates merely a preferred embodiment of the invention and that other embodiments are contemplated within the scope of the claims hereafter set forth.

Referring to the drawing, the present spike-type heel for ladies' shoes includes a formed metallic base **11** of some light metal such as aluminum which has formed therethrough a honeycomb or porous structure as at **12** and **13** and has a conventional oval marginal shape at its upper end as indicated at **14**. Central aperture **16** extends down into base **11** for a portion of its depth as defined by wall elements **15**. The honeycomb structure referred to is intended to mean a base having formed thereinto a series of apertures or openings adapted to interlockingly receive portions of a plastic covering molded thereover.

The upper forward portion of the metallic base has a slightly concave front edge **17**. Lower portions of said base curve inwardly and downwardly in a substantially conventional manner and terminate in the integral elongated metallic supporting shank **20**. Said shank at its upper end is peripherally enlarged with respect to adjacent portions of said base, defining ledge **19—21** which extends completely around the upper end of said shank.

The free end of shank **22** has an axial relatively short bore **23** projecting up thereinto adapted to receive a permeable plug **28**, Fig. 2, as hereafter described. An enlarged permeable plug **24** is snugly nested down into aperture **16** in base **11** with its upper face substantially

flush with the generally concave upper portion of said base.

The assembly of Fig. 1, with the permeable plug **24** therein, preferably constructed of wood, then has a plastic covering **25** conforming to its general shape molded over the top of said base and around its slides, with the plastic cover extending down to and engaging ledge **19—21**.

The thickness of plastic cover **25** is such that said plastic covering at its reduced lower end **26** smoothly merges on all sides with the corresponding contour of shank **20**. The plastic cover is molded so as to interlockingly engage and project into the honeycomb or otherwise porous structure of the metallic base for the purpose of providing a secure interlock therewith to complete the heel assembly.

An additional important function is performed by the plastic cover upon the top of the base, namely the fixedly securing therein of the wood or otherwise permeable plug **24**.

The plastic material in the finished article and upon the top of said base projects peripherally thereof on all sides and is longitudinally as well as transversely concave to conform with the heel portion on a lady's shoe to which it is secured.

The securing is in a substantially conventional manner, in that a series of nails are projected down through the heel portion of the shoe through the plastic cover and fixedly into the plug **24**.

A top lift **27** of conventional construction, made of rubber, leather or composition substantially conforms to the shape of the shank **20** at its free end and is positioned thereover and secured to the lower end of the shank by a series of nails, which project through top lift and up into the permeable or wood core **28** secured within bore **23**. This completes the heel structure.

A slight variation of top lift assembly is shown in Fig. 4 wherein the top lift **29** includes an integral upwardly extending formed shank **30**, which is adapted for snug retaining projection up into bore **23** upon the lower end of shank **20**. This construction eliminates the use of nails for securing the top lift **29** in position.

The base **11** and shank **20** of Fig. 1, and the completed heel of Fig. 2 are substantially to full scale, for illustration. It is contemplated, however, that there may be variations in the size and cross sectional shape of the various parts.

Having described our invention, reference should now be had to the following claims.

We claim:

1. In a spike-type heel for ladies' shoes, a formed metallic base of a honeycomb structure having a central aperture extending down thereinto, and an elongated metallic supporting shank depending therefrom as an integral part thereof, said shank at its upper end being peripherally enlarged with respect to adjacent portions of said base defining a peripheral ledge, a permeable plug snugly projected into said aperture and having an end face flush with the top of said base, and a plastic covering molded over the top of and around the sides of said base extending down to and engaging said ledge, and smoothly merging with the contour of said shank, said covering entering the honeycomb apertures of said base interlocking therewith, enclosing said plug and fixedly retaining the same.

2. In the heel of claim 1, a central axial bore extending into the free end of said shank, a second permeable plug secured therein, a top lift upon the free end of said shank, and fasteners extending through said top lift up into said second plug.

3. In a spike-type heel for ladies' shoes, a formed metallic base having a central aperture extending down thereinto, and an elongated metallic supporting shank

depending therefrom as an integral part thereof, said shank at its upper end being peripherally enlarged with respect to adjacent portions of said base defining a peripheral ledge, a permeable plug snugly projected into said aperture and having an end face flush with the top of said base, and a plastic covering molded over the top of and around the sides of said base extending down to and engaging said ledge, and smoothly merging with the contour of said shank, said covering interlocking with said base, enclosing said plug and fixedly retaining the same.

References Cited in the file of this patent

UNITED STATES PATENTS

1,609,918	Perugia	Dec. 7, 1926
2,263,186	Parkhurst	Nov. 18, 1941
2,871,583	Cooper et al.	Feb. 3, 1959