April 8, 1958 M. E. ODOM 2,829,447

PROCESS FOR AN IMPROVED VARIABLE POSITION SHOE HEEL

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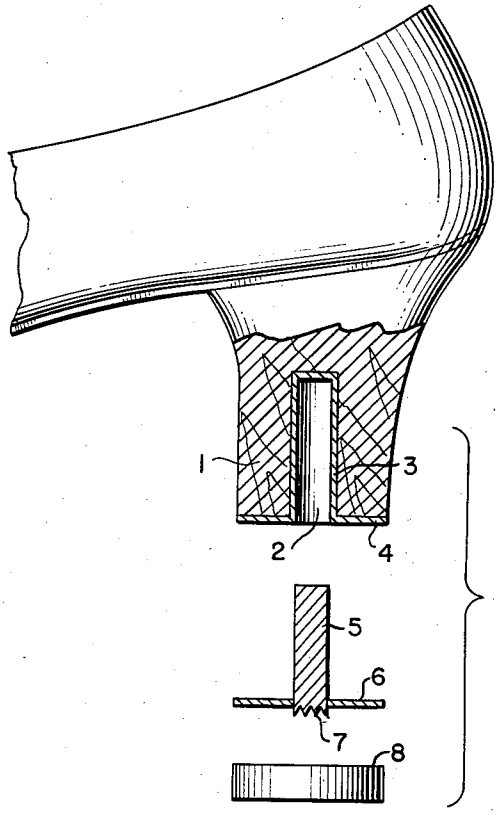


FIG. 1

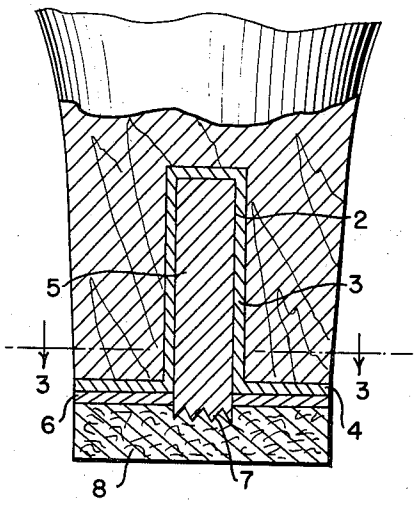


FIG. 2

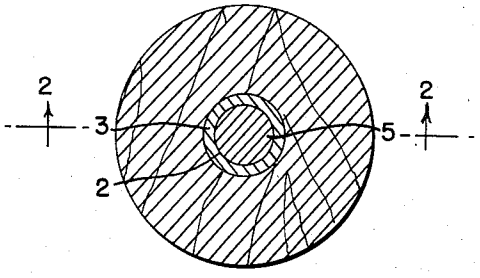


FIG. 3

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# PROCESS FOR AN IMPROVED VARIABLE POSITION SHOE HEEL

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2 Claims. (Cl. 36—42)

My invention relates to an improved process in the construction of heels and more particularly it relates to a novel heel construction that permits the heel tread to be re-positioned without the use of any tool or loosening of any mechanical fastening.

It is an object of this process to provide a novel shoe heel the tread or tap of which may be rotated to take better advantage of all of the wearing area of the tap and prevent "run-over" heels which in turn causes "run-over" shoes.

With the foregoing and other objects in view, the process consists of new and novel arrangement and combination of parts to be described, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantage of the process.

The objects and advantages will be apparent from the following description and references to the accompanying drawing. The construction chosen for illustration is a heel, round on the bottom and with a round top but I wish to point out that it need not be restricted to this shape but may be made square or square with rounded corners, or oval or any of the polygon shapes or in the popular horseshoe shape. The illustration is of a lady's heel but with proper changes in proportion of the parts it is equally suitable for male footwear.

Fig. 1 is a view of a lady's heel, round at the bottom.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 3.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

A hole is made in the center of the bottom of the heel extending upward in the axial direction of the body 1. The circumference and length of the hole depending on the size of the heel. A sleeve 3 of material capable of being magnetized and which is magnetized previously (or it may be magnetized by induction from the piece later described) is cemented in place or if desired to be removable, it may be left uncemented but fitted snugly enough to hold in place.

This sleeve or insert has a flange 4 the size of the heel bottom and the hole is of such depth as to allow the flange to seat itself squarely on the heel bottom. This flange is preferably thin so as not to show much edge from a side view.

The heel tread or tap 8 is fastened to another flange 6 that is on one end of a plunger or stem 5. The heel tap is cemented firmly to this flange but to provide better attachment the stem is allowed to protrude slightly through the flange; the protruding part is hollowed and then notched to form short, small spikes or spurs 7 which are driven into the underside of the tap to strengthen it from being dislodged by side thrusts. In a larger diameter heel these spurs may be formed by cutting small V's in the flange at several equally spaced places and bending the points out to form spurs.



The plunger is made of material of high magnetic permeability and retentivity, Alnico in this case but others even better may be available. This plunger is magnetized to as great a degree as possible.

The stem is inserted in the sleeve until the two flanges come smoothly together and are there held by magnetic attraction between the two flanges and between the stem and walls of the sleeve; the polarity being previously determined and the sleeve and stem being mutually arranged so that the two attract and provide a magnetic "grip" that holds the tap against the heel proper. The stem prevents it from being "kicked off" and the only way it may be detached is by a straight downward pull.

The tap may be made larger than the heel bottom to allow a shoemaker to stock spares and trim them to fit and again the flange to which the tap is attached may be made smaller than the finished heel and imbedded in the tap just the amount of its own thickness in order that its edge will not show from a side view.

The flange on the plunger serves to provide a better magnetic grip and also as a cover for the tucked in bits of leather or cloth or other material that a heel may be covered with.

Detents may be provided by punching small indentations in one flange and matching ones in the reverse direction in the other if the wearer desires a tap less easy to turn. The plunger stem may be hollow or hollow and packed with magnetic material or solid as previously described.

The polygon shaped heels may have their sleeve and plunger stem also likewise shaped for their full length or only part of their full length and re-positioned by withdrawing it entirely or partly and turning it one flat or more and reinserting. The oval one would be turned 180° and re-inserted and the horseshoe shaped one would be withdrawn, discarded, and another, identical or compatible (another color may be provided) inserted.

What is claimed is:

1. In combination with a shoe heel having a centrally located hole extending from the bottom upward in the axial direction, a rotatable heel device comprising a magnetic sleeve adapted to be inserted firmly in said hole, said sleeve having a flange formed at a 90° angle with the sleeve proper to fit squarely against the bottom of the heel; a magnetic stem adapted to be inserted in said sleeve, said stem having a flange formed at a 90° angle with the stem proper whereby upon insertion the flange of said stem rests against the flange of the said sleeve, the said stem protruding slightly thru its flange, the protrusion being hollowed out and notched to form small spurs to retain a heel tap.

2. A rotary heel device for use with a shoe heel having a centrally located hole in the bottom thereof, comprising a magnetized sleeve in said hole and having an annular flange abutting the bottom of the shoe heel; a magnetic stem adapted to be inserted in said sleeve, said stem having an annular flange adapted to fit against the flange of said sleeve upon insertion, said stem having a slight protrusion thru its flange, said protrusion being hollowed and notched to form small heel tap retaining spurs.

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