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**SHOE HEEL WITH AN INTERCHANGEABLE
 HEEL TAP**

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ABSTRACT OF THE DISCLOSURE

A shoe heel with an interchangeable heel tap comprising an axial hole opening downwardly, a sleeve member firmly mounted in said hole, one end of said sleeve member projecting from said hole and being provided with a flange-like element in abutting engagement with the free end of said heel, a shaped block member for abutting engagement with said step element, a stem member carrying said block member and designed to be releasably inserted into said sleeve member.

BACKGROUND OF THE INVENTION

This invention relates to an interchangeable heel tap particularly suitable for use with female shoe heels in general.

Various types of heel taps are commercially available which, whilst having different structures, are designed to satisfy but one object, and, more precisely, they are intended to preserve a shoe heel from wear. These known types of heel taps are advantageous from some points of view and are widely used. However these heel taps are disadvantageous due, above all, to the fact that they are difficult to apply to shoes and consequently usually necessitate the aid of a shoemaker. Heel taps are also known which allow the user both to apply and to substitute them. However, in general, these heel taps are not such as to guarantee the stability and life usually required from such articles.

The main object of this invention is that of providing a heel tap which is not subject to the above indicated inconveniences, and, which may, consequently, readily be fitted and/or substituted on female shoes by the user without by this adversely affecting the required characteristics of practically, stability and resistance to wear.

Another object of this invention is that of providing a heel tap which comprises means adapted to ensure the protection of the bottom part of the heel to which it is fitted even when the heel tap be completely worn down.

Another object of this invention is that of providing a heel tap whose structural dimensions are of limited encumbrance and which is consequently suitable to be fitted to shoes in general.

A further object of this invention is that of providing a heel tap which may be produced from materials which are readily commercially available and such as to give the required attributes of mechanical resistance and resistance to wear, as well as a heel tap which may be produced by known work processes, and which is of consequently low cost.

An object of the invention is that of providing a shoe heel adapted to releasably and interchangeably receive a heel-tap member according to the invention.

SUMMARY OF THE INVENTION

These and other objects, which will appear more clearly hereinafter, are achieved by a shoe heel according to the invention, having a longitudinal hole, characterized in

that it comprises a heel-tap member, a stem member carrying said heel-tap member, said stem member being arranged for slidable guiding within said longitudinal hole, a sleeve member inserted into said longitudinal hole with a free end in contact with said heel-tap member, spring means in said longitudinal hole between said sleeve member and said blind end, and locking means for releasably locking said stem member within said sleeve member.

BRIEF DESCRIPTION OF THE DRAWING

Further characteristics and advantages will appear more clearly from the following detailed description of a heel tap according to the invention illustrated by way of example in the accompanying drawing in which:

FIG. 1 shows a perspective view of separated parts of a heel tap according to the invention;

FIG. 2 shows a cross-sectional elevation of a heel tap according to the invention fitted to a shoe heel.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to the above figures, the heel tap according to the invention comprises a block or top lift 1 (of leather, synthetic resins or the like) suitably shaped and provided on one of its faces 2 with a hollow stem adapted to be inserted, in an engaging manner, in a cavity or central recess 4 axially provided in the body of a shoe heel 5. In said cavity 4 is previously inserted a sleeve member or sheath 6 which is of shape such as to be exactly conjugate both to said cavity 4 and to the stem or tube 3. A cap member 6a is mounted on the upper section of said sheath 6, which is centrally provided with a vertical pin 6b adapted to extend inside said sheath 6 and to provide a mounting for a spring 6c. The lower section of said sheath or sleeve member 6 is provided with a plate-like edge or step or flange portion 17. The lateral external surface of said sheath 6 is transversally provided with annular rim members 17a of flexible synthetic material and designed to ensure the stability of the desired positioning of the sheath 6 within the cavity 4 provided in said heel 5.

In the stem 3, on its front plane face, is provided, by means of longitudinal slots 8 and 9, a flexible tongue 10. The lower portion of said tongue 10 is provided with projecting teeth 11 and 12. Said teeth are designed to engage in seats 13 and 18 respectively provided in the sheath 6. Advantageously the seat 13 is surrounded by a guide 13a dimensioned in manner such as to exactly house the tooth 11.

Said sheath, internally defines a longitudinal relief 14 designed to engage with a conjugate longitudinal grooving 15 formed in the stem 3. The engagement of said grooving with said stem is such as to secure the unit, formed by the association of the stem 3 with the sheath 6, against twisting or forces tending to alter its stability. For such reason there is also provided an edge or lip 16 peripherally surrounding said face 2 of the block 1 and adapted to encompass the width of said step 17 of the sheath 6.

The working of the heel tap according to the invention is apparent from what is illustrated in the figures of the accompanying drawing. The sheath 6 is inserted in the axial cavity 4 provided in the heel 5 in manner such that the lower end or step 17 of said sheath covers or protects the cover layer of said heel 5 folded in known manner below the lower end of said heel. It is then sufficient to insert the stem 3 in said sheath 6 against the action of said spring 6c in manner such that that the longitudinal grooving 15 of said stem engages the longitudinal relief 14 of the sheath. At the end of such insertion the peri-

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pheral edge 16 of the block 1 exactly surrounds the stop 17, while the teeth 11 and 12 engage in the respective seats 13 and 18; thus the stable locking of the heel tap according to the invention is achieved. The tooth 11 is externally accessible with respect to the heel 5; thus, in order to replace the heel tap according to the invention, the user simply acts on said tooth 11 in manner such as to disengage the latter from its seat 13 and, consequently, cause the simultaneous disengagement of the tooth 12 from the seat 18. Simultaneously to said disengagement, the spring 6c causes the expulsion of the stem 3, after which the user may readily effect the replacement of the heel tap according to the invention.

A further especial advantage is represented by the peripheral edge 16 which, besides constituting a means ensuring the stability of the heel tap according to the invention, also confers a desirable esthetic attribute to said heel tap since it serves to hide the junction lines of the various parts constituting the heel tap.

I claim:

1. In a shoe heel having a detachable top lift, cooperating means for the quick removal of a worn-out top lift and replacement thereof by a new one, said cooperating means including: a central substantially vertical recess in the shoe heel, a sleeve member fixed into said recess and having a flange portion at an end thereof near the free end of the shoe heel, said flange portion having a peripheral outline corresponding to the peripheral out-

line of the free end of the shoe heel, a lift member having a tube rigid therewith insertable into said sleeve member and cooperating resilient means for detachably anchoring said tube into said sleeve member, wherein according to the improvement said lift member has an upper face abutting against said flange portion, said upper face has a peripheral outline greater than the peripheral outline of said flange portion and an upstanding lip upwardly projecting from said upper face along said peripheral outline and encompassing externally at least the peripheral outline of said flange to prevent lateral movements of the lift member.

References Cited

UNITED STATES PATENTS

2,063,042	12/1936	Mauser	-----	36—42
2,070,229	2/1937	Gentile	-----	36—42
2,829,447	4/1958	Odom	-----	36—42
3,079,709	3/1963	Yankov	-----	36—42

FOREIGN PATENTS

228,086	6/1963	Austria.
Ad. 82,747	2/1964	France.
1,284,086	1/1962	France.
528,540	6/1955	Italy.
50,456	9/1966	Germany.

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