April 15, 1930. J. F. McNAMARA 1,754,280

SHOE HEEL

Filed July 9, 1928

Fig. 1

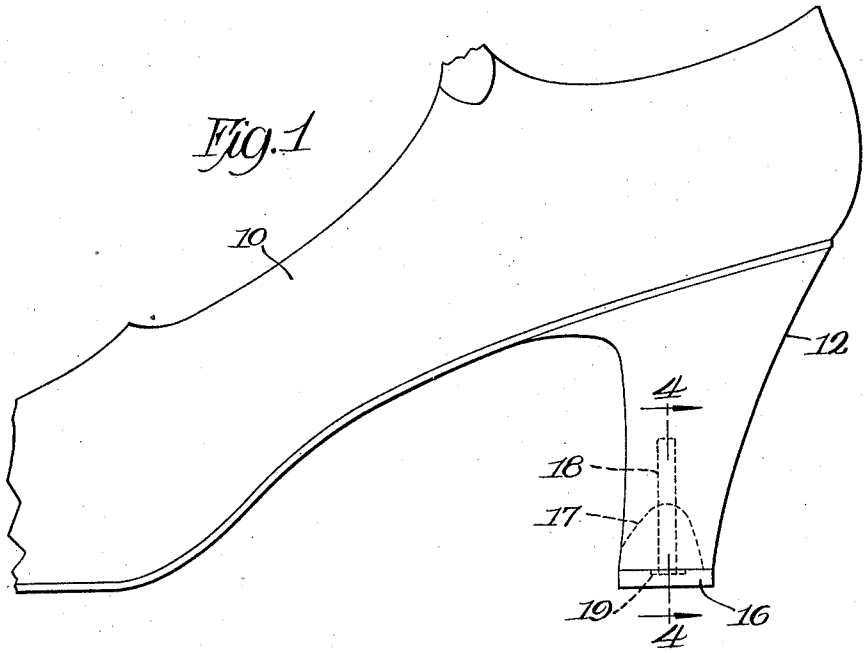


Fig. 2

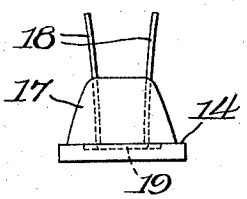


Fig. 4

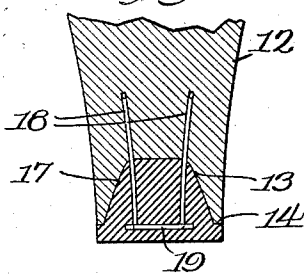


Fig. 3

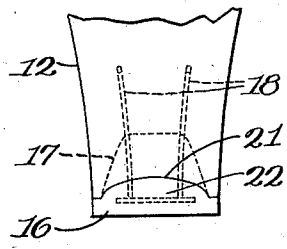
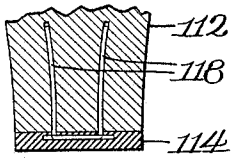


Fig. 5



Inventor
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UNITED STATES PATENT OFFICE

JOHN F. McNAMARA, OF CHICAGO, ILLINOIS

SHOE HEEL

Application filed July 9, 1928. Serial No. 291,153.

My invention relates in general to detachable shoe heels. It relates more particularly to a novel type of detachable heel particularly adapted for use on women's shoes, although the main features thereof may possibly be applied to the production of detachable heels for the use of men or children.

I am aware that rubber and composition heels are employed extensively and with satisfaction on men's shoes and that detachable heels have been designed for use on men's shoes. I know also that rubber heels or heel pads are employed on women's shoes, but within my experience such heels have been of no real merit. The heels employed have been formed of thin, relatively hard rubber and have been secured to the heel by nailing so that practically no good results from the use of heels of this type, and they accordingly are not in general use.

The principal object of my invention is the provision of an improved type of shoe heel particularly adapted for use on women's shoes.

Another object is the provision on women's shoes of a satisfactory rubber heel wherein the cushioning and silencing effect of the rubber is obtained.

Another object is the provision of a detachable heel pad for use on women's shoes.

Other objects and features of the invention will be apparent from a consideration of the detailed description taken with the accompanying drawings wherein

Fig. 1 is a fragmentary view of a lady's shoe equipped with the device of my invention;

Fig. 2 is a view of the heel pad removed from the heel;

Fig. 3 is a view looking at the front of the heel with the heel pad in position,

Fig. 4 is a sectional view such as taken along line 4—4 of Fig. 1 and showing the heel pad in position, and

Fig. 5 is a sectional view showing a modification.

The drawings show the invention applied to a lady's shoe 10 having a sole 11 and heel 12. The heel 12 is formed with a central opening 13 with the bottom outside lower edge of the heel formed with a flat horizontal bearing surface 14. A heel pad or heel body 16 has a central upwardly extending portion 17 which extends into the central opening 13 in the heel. The heel pad is so formed that when it is applied in place it has a portion extending against the horizontal edge 14 and it sides form a continuous line with the sides of the shoe heel.

To hold the heel pad in position I provide a number of prongs 18 secured to an anchor base 19 and adapted to extend upwardly into suitable elongated apertures or openings 20 in the shoe heel.

In order to hold the heel more firmly in position both the prongs and openings in which they are secured are arranged irregularly, so that they cannot slip out of engagement easily. Preferably both the openings and prongs diverge so that the prongs must be held together at the ends in order to insert them, but when in position are not under tension. The same result can be obtained by making the prongs come together at the ends, so that the prongs must be bent out of their normal plane to remove the heel.

The anchor plate 19 is preferably formed substantially as an integral part of the prongs 18, and the best results are obtained by molding the anchor plate and prongs in position as the heel pad is formed. When the pad is made of rubber as I prefer to make it, the prongs are readily secured in position before the rubber is vulcanized.

While the portion of the heel which is permanently attached to the shoe preferably extends downwardly on the outside thereof to reveal only a relatively narrow portion of the heel pad 16, I form the front part of the permanent heel with an opening 21 in which a front extension or protuberance 22 on the heel pad extends as shown in Fig. 3. This facilitates the removal of the heel pad when it has worn downwardly a considerable distance so as not leave a great amount of the material therof on the outside edges.

The permanent heel 12 I may make of a variety of substances and may modify the same to suit the substances employed. For example I may employ a light aluminum

alloy casting with the openings in the same directly, or I may employ wood, leather or other compositions in which event the openings or apertures therein may be faced with a metal to insure better wearing quality and the proper contact with the prongs during a greater period of time. Although I prefer to make the heel pad of semi-hard rubber, I may employ a variety of materials depending upon the results desired.

In the modification of Fig. 5 the heel 112 has no central opening but only the prong openings 120. The heel pad 114 is flat on both the top and bottom and simply fits entirely against the flat bottom of the shoe heel. With this arrangement the shoe may be worn readily with or without the detachable heel, whichever the owner thereof might possibly prefer.

Although I have described in detail some of the features of my invention to enable those skilled in the art to practice the same, I do not necessarily restrict myself to any of the details shown and described, but the invention is limited only by the scope of the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. In a detachable shoe heel, a heel support built as a permanent part of a shoe and having a plurality of elongated openings therein and a heel body adapted to be attached to the support and having resilient prongs extending into the elongated openings to hold the heel body in position.

2. In a detachable shoe heel, a heel support built as a permanent part of a shoe and having a plurality of elongated openings therein and a heel body adapted to be attached to the support and having prongs extending into the elongated openings to hold the heel body in position, the prongs being resilient and the prongs and openings being in non-parallel planes so that pressure of the prongs against the sides of the elongated openings serves to frictionally hold the heel body.

3. In a detachable shoe heel, a heel body support with a central opening, a straight horizontal bearing edge and elongated apertures extending upwardly from the central opening, and a heel body with a flat section cooperating with the heel support and straight bearing edge to form a normal appearing shoe heel, a middle upwardly extending portion adapted to fill the central opening in the support and resilient prongs extending upwardly into the elongated apertures in the heel support.

4. In a detachable shoe heel, a heel body support with a central opening, a straight horizontal bearing edge and elongated apertures extending upwardly from the central opening, and a heel body with a flat section cooperating with the heel support and straight bearing edge to form a normal appearing shoe heel, a middle upwardly extending portion adapted to fill the central opening in the support and prongs extending upwardly into the elongated apertures in the heel support, said heel body being formed of moldable material and the prongs secured together by an anchor plate, said anchor plate molded into the body of the heel with the prongs extending upwardly through said middle portion.

5. In a detachable shoe heel, a heel body support with a central opening, a straight horizontal bearing edge and elongated apertures extending upwardly from the central opening, and a heel body with a flat section cooperating with the heel support and straight bearing edge to form a normal appearing shoe heel, a middle upwardly extending portion adapted to fill the central opening in the support and prongs extending upwardly into the elongated apertures in the heel support, the heel body being slightly cut away at the front thereof and the heel body filling the resulting opening to facilitate removal of the heel body when the exposed portion of said body is greatly worn.

In witness whereof, I hereunto subscribe my name this 19th day of June, 1928.

JOHN F. McNAMARA.