March 10, 1936. G. E. ROMANO 2,033,399

CUSHION HEEL

Filed Dec. 15, 1934

FIG. 1

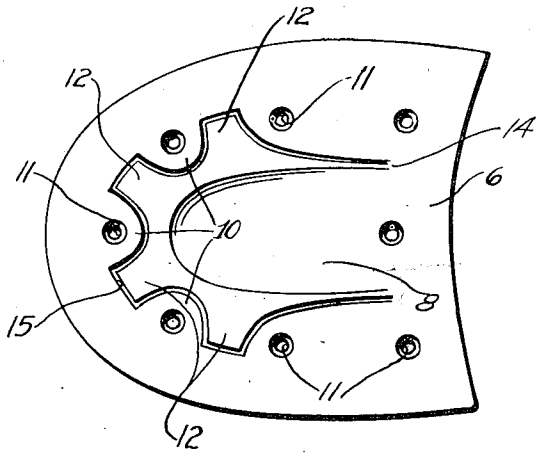


FIG. 2

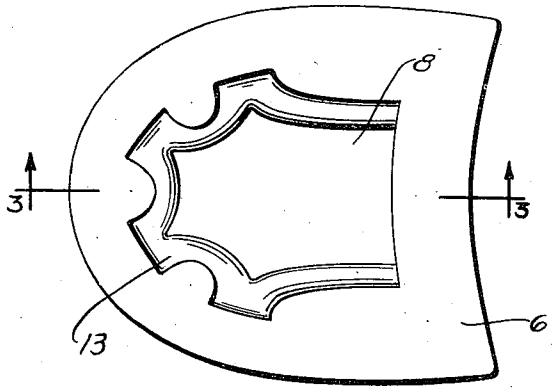
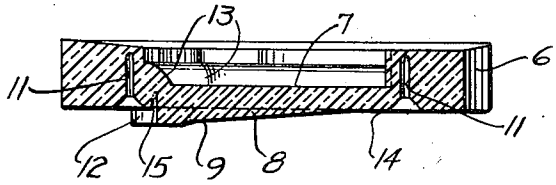


FIG. 3



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CUSHION HEEL

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2 Claims. (Cl. 36—35)

This invention is an improvement on the cushion or rubber heel shown and described in the Sansone Patent No. 1,764,353 and the object of the present invention is to improve the structure shown in said patent in certain respects as will more fully appear from the following description and the accompanying drawing.

Difficulties have been experienced in attaching the Sansone heel to the heel of a shoe, with respect to the nails used for that purpose. One object of the present invention is to provide improved means for fastening the rubber lift to a heel, while preserving the cushion nature or effect of the tongue or central part to which the impacts on the heel are first communicated.

A further object or result of the invention is to relatively enlarge the area of the tongue and consequently increase its cushioning effect.

Also by the present improvement the rubber heel is suitable for attachment by commercial or standard nailing machines, which has not been found to be practical with the heel shown in the Sansone patent.

Further details of improvement will be apparent from the following description.

In the accompanying drawing Fig. 1 is a bottom plan view of the improved heel. Fig. 2 is a top plan view. Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring to the drawing, the heel will as usual be molded of rubber or similar composition, to form an outer rim or edge part 6 of full thickness. In the upper side or top of the block, that is the side which fits against the leather heel, is formed a cavity 7, and under this cavity is a tongue or cushion part 8 which depends or extends, as indicated at 9, below the plane of the bottom of the block around the same, so that when used the tongue 8 will be the first to come in contact with the floor or other surface walked on, and will yield upwardly to cushion the impact of the step, or the first part thereof.

The outer rim or part 6 is formed with a series of inwardly projecting bosses or extensions 10, in which are made the nail holes 11 to receive the nails by which the rubber heel is attached. The provision of these extensions permits the nails to be set at a greater distance from the outer edge of the block than would otherwise be the case, and in use they are set to agree with the position of the nails in a standard nailing machine, so that the heel can be quickly fitted and applied by such a machine. Also by means or in consequence of this construction the outline and area of the tongue is increased or enlarged by the addition of extensions or projections 12 which enter the spaces between the projections or bosses 10, as clearly shown in Fig. 1.

As will be apparent from Figs. 1 and 3 of the drawing, the lower surface of these projections 10 is on a plane parallel with the block 6. The cushion tongue 8 has a gradual slope from the rear toward the front thereof beginning at a point relatively near to the junction of said projections with the main body of the tongue 8, and terminating in having the tongue flush with the front end of the block 6. This construction insures a high degree of resiliency and cushion effect for the heel.

The connection between the edges or outer border of the tongue 8 is made by means of a bead or web 13, seen in plan in Fig. 2, which follows the shape or contour of the irregular outer edge of the tongue 8, so as to flexibly connect the edges of the tongue to the adjacent part of the rim 6. At the front or breast edge the tongue merges into the lower plane or surface of the rim 6, as indicated at 14, and at the side and rear edges the web or connection 13 is grooved as indicated at 15 to give a desired flexibility, permitting the tongue to yield upwardly under the first impact of the heel against the floor and gradually absorb the shock which is finally taken up or absorbed by the contact of the rim 6 against the floor when the tongue is distorted upwardly to its full extent. The connecting web 13 is distorted under impact, to allow the upward movement of the tongue, but when the weight is removed it resumes its normal shape with the tongue depending or bent downwardly below the plane of the lower face of the rim 6, as shown in Fig. 3.

By the means described the nail holes may be placed at desirable points fully spaced from the rim of the heel, and also the relative area of the tongue is enlarged by means of the projections 12 projecting between said extensions. The bead or connecting part 13 follows the contour of the tongue and the groove 15 has a corresponding shape.

The cavity 7 above the tongue also confines air that has the function of a pneumatic cushion which assists the resilient action of the tongue.

I claim:

1. A resilient heel comprising a body having an outer rim provided with a series of inwardly projecting nail hole extensions, and a tongue normally projecting below the lower plane of the rim surface and having at its edge a series of projections extending outwardly between the projections on the rim, a recess being formed above the tongue and its projections.

2. A resilient heel as in claim 1, and a web connecting the side and rear edges of the tongue with the adjacent parts of the rim, the web having a groove around said edge and projections of the tongue to increase the resiliency thereof.

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