

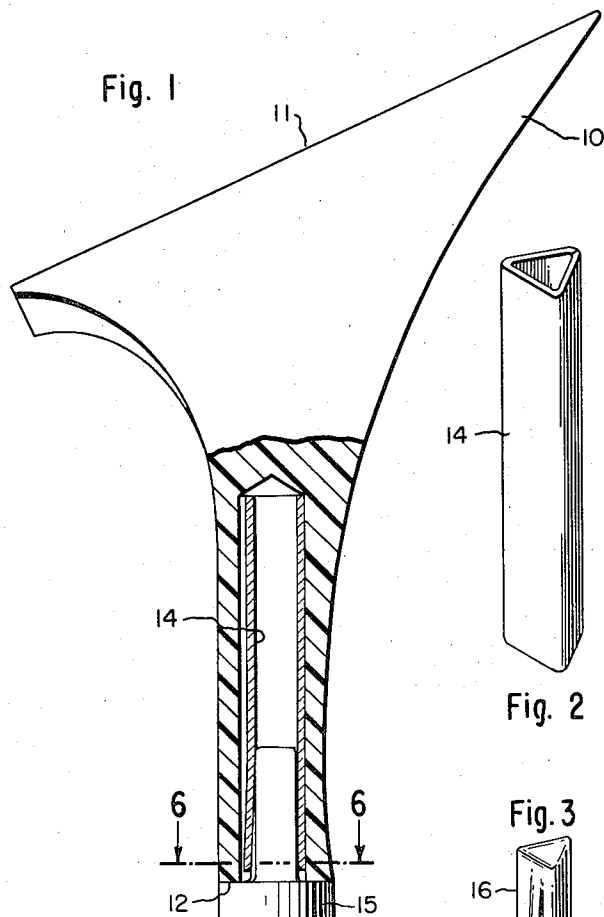
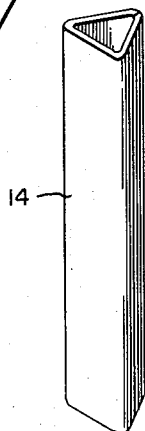
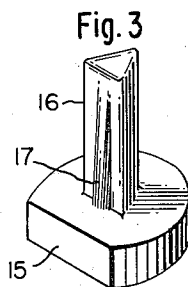
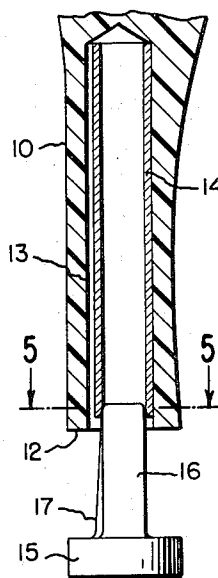
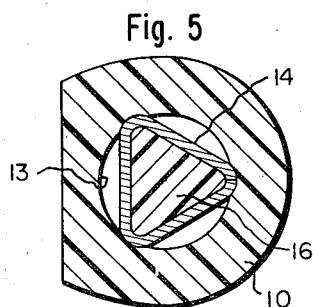
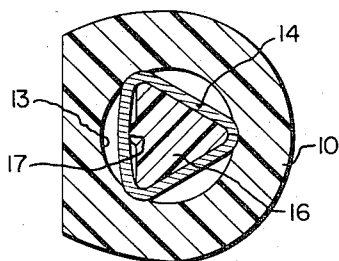
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TOP LIFT ATTACHMENT

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2,875,532

TOP LIFT ATTACHMENT

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2 Claims. (Cl. 36—36)

The present invention relates to shoes for women and in particular to detachable and replaceable lifts for women's shoes.

The purpose of the invention is to provide a woman's shoe, having a high slim heel, with a top lift attachment which will both strengthen the slim portion of the heel and at the same time allow quick, easy, and inexpensive changing of the lift without injury to the heel as frequently happens when a standard lift is applied with nails.

Difficulty has been encountered heretofore with detachable top lifts being pulled off the heel by catching in sidewalk gratings or even in heat-softened asphalt. An object of the present invention is to obviate much trouble and insure a firm and reliable grip on the lift and yet one that may be overcome by sufficient force properly applied.

These purposes are carried out generally by forming a heel with a triangular tube of spring metal inserted forcibly into a circular hole drilled into the heel from the top lift end; the tube receiving a triangular-shaped shank that is formed integrally with the lift; the shank, with the lift, being retained in position by a wedge-shaped rib along the length of the shank which wedges against an inner wall of the tube in an increasing degree as the shank, with the lift, is pressed into position and thus retains the shank under firm frictional engagement. In this arrangement the tube operates to strengthen the heel and to receive the lift.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment of the heel structure, selected for purposes of illustration and shown in the accompanying drawings in which:

Fig. 1 is a view in elevation, partly in section, showing the complete heel,

Fig. 2 is a perspective showing the tube of triangular cross section,

Fig. 3 is a perspective showing the unitary lift with the shank,

Fig. 4 is a sectional outline of the heel with the tube installed, just before insertion, or just after removal of the shank of the lift,

Fig. 5 is a sectional view of the line 5—5 of Fig. 4, and Fig. 6 is a sectional view of the line 6—6 of Fig. 1.

The heel 10 shown in Fig. 1 is typical of those to which the invention relates and may be turned from wood, metal or molded from plastic or a combination of any or all of them. It is of the usual shape of a woman's heel, having an overall height of 2" to 3", more or less, depending on the style and fashion of the shoe. The invention is not limited to any particular size or shape, but is adaptable to any woman's heel which comes under the general description of "high heel." The heel seat surface 11 is given a concave curvature to fit the heel seat of the sole of the shoe.

The first step in the application of the invention to the heel consists in drilling a circular hole 13 from the top

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lift or tread face 12 of the heel 10, and as herein shown the hole 13 extends toward the heel seat face 11 for about two-thirds of the length of the heel. Fitted firmly into and extending its entire length into hole 13 is a metal tube 14 formed triangular in cross section and having rather sharp vertex edges. Said tube is somewhat greater in its cross-sectional dimensions than the dimensions of the hole 13 and can be inserted into the hole only by exerting sufficient pressure thereon to cause its sharp vertex corners to broach well defined passages in the walls of the hole. The tube 14 is preferably made from spring sheet metal since a certain amount of resiliency is required of the tube for the attachment to function properly. The tube 14 serves both as a strengthening member to heel 10 and as a socket for shank 16 of lift 15.

Lift 15 is shown in perspective in Fig. 3. It may be molded from plastic, rubber, or other suitable material. The lift is formed so that its sides will fit flush with the sides of the heel when the lift is in place. The tread of the lift may be knurled or otherwise treaded to provide traction. This is not shown and is not part of the invention.

The lift is provided with a shank 16 and a rib 17 that are formed integrally with the lift so that all comprise one piece. The shank is $\frac{3}{8}$ " to 1" in length depending on the model of the shoe and triangular in cross section. The dimensions of the shank are just slightly less than that of tube 14 so that the upper portion of the shank may be forced into tube 14 easily but without undue play. On the front face of shank 16 is a wedge-shaped rib 17. This rib starts at a point below the end of the shank and runs to the base of the shank and to the under face of the lift 15, rising at a gentle angle so as to form a narrow wedge.

The side wedge-shaped rib 17 operates to deflect or expand the front wall of tube 14 when the shank is fully inserted into the tube by a moderate pressure being applied to the lift. The wall of the tube is allowed to deflect or spring into the clearance space that exists between the walls of circular hole 13 and the sides of tube 14. The tube, being of resilient material, in cooperation with the wedge-shaped rib, holds the lift 15 snugly and firmly in place. The faces of the shank are frictionally engaged with the corresponding walls of the tube.

The lift may be removed from the heel by grasping the base of the lift and pulling it out with a somewhat moderate tug. With the lift removed, the tube, being of resilient material, returns to its former contracted condition, and is immediately ready to receive a new lift.

The triangular shape of the tube and shank prevents the lift from rotating and keeps it in position.

It will be apparent that the triangular tube operates not only to receive and hold the lift but also to add strength to an otherwise fragile heel.

Having thus disclosed my invention and having described it in an illustrative manner, I claim as new and desire to secure by Letters Patent:

1. A top lift attachment for a high heel, comprising a triangular resilient metallic tube retained in a circular hole extending into the solid body of a heel and providing clearance space opposite the flat sides of the tube, a heel lift having a base and an integral triangular shank received snugly within said triangular tube, said shank having on one of its flat faces a projecting wedge-shaped lengthwise rib tapered from the base of the lift toward the end of the shank, whereby said rib operates to engage and deflect one wall of said resilient tube when the shank is inserted therein and to hold the lift firmly in place.

2. A detachable top lift for women's heels, comprising a heel-fitting lift and an integral shank of triangular cross-section projecting substantially centrally from the

inner face of the lift, the said shank being solid and having on one of its flat faces an integral projecting rib tapering outwardly toward the said inner face of the lift and merging smoothly into a longitudinal face of the shank before it reaches the end thereof remote from the lift.

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