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Y. PERETTI ET AL

2,495,820

SHOE CONSTRUCTION

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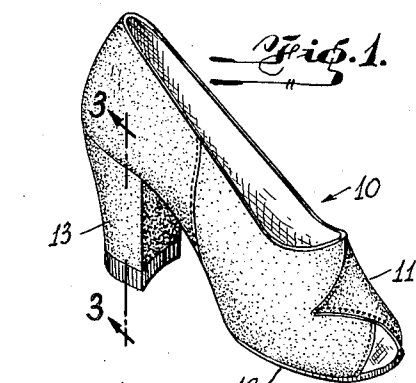
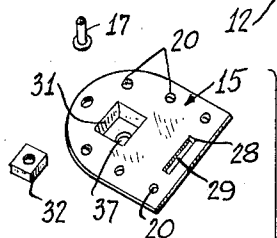
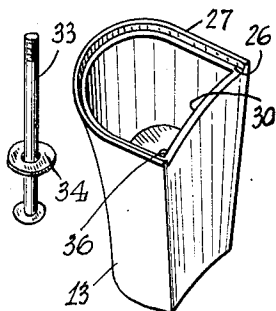
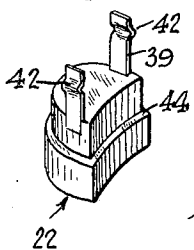
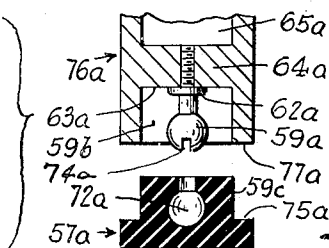
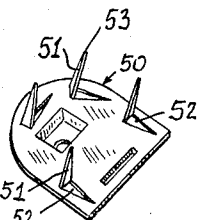


Fig. 5.

Fig. 6.

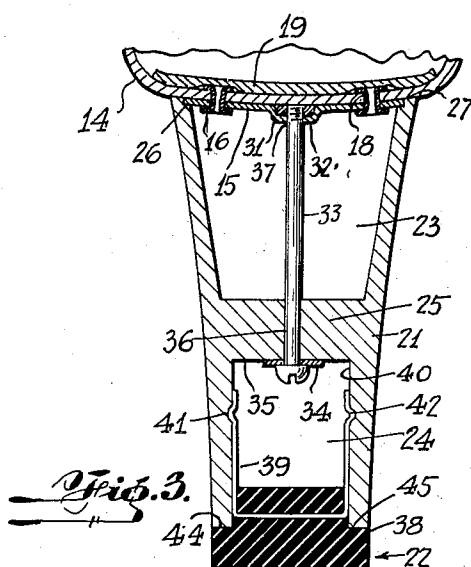


Fig. 3.

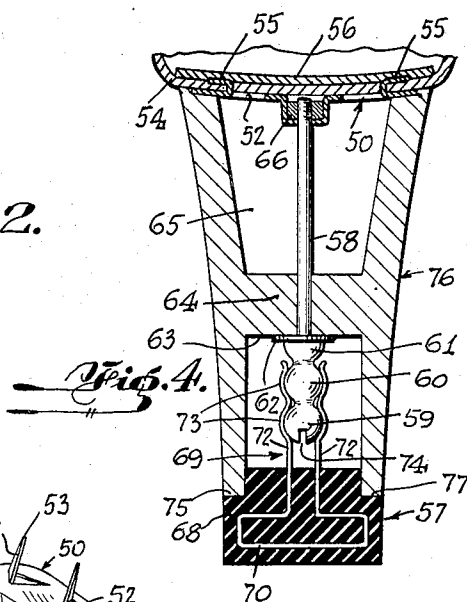


Fig. 4.

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UNITED STATES PATENT OFFICE

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SHOE CONSTRUCTION

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2 Claims. (Cl. 36—36)

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This invention relates to improvements in shoe construction, and more particularly to the anchorage of heels, especially heels of ladies' shoes and to the anchorage of tips to such heels.

It is one of the great difficulties in shoe construction, to securely anchor such heels to the shoe, without the danger of the heel coming off at the most inopportune time, sometimes even causing injury to the foot or ankle of the wearer when the heel breaks off at an unexpected moment. Heels are also at the present made usually of wood, which entails the cutting to shape of the heel, and also may cause a splitting of the heel if the wood is not of perfect grain. In all cases where the heel has come off the anchorage or where the heel has split, repair is necessary, which affects the good appearance of the shoe, especially, since such repairs usually include the adding of some metal brace.

It is therefore an object of this invention, to provide a shoe, especially a lady's shoe with a heel, which is readily applied, securely anchored, and substantial, but light in construction.

It frequently occurs that a woman likes the shape and style of the upper part of a shoe, but not its heel; or the heel of the shoe she likes is not conducive to comfort. It is therefore another object of this invention to overcome this difficulty by providing separate heel styles, varying in shapes and/or heights and further providing the last of the shoe and the said heels with cooperative means for interchangeably attaching such heels, thus giving the person the privilege of selecting the style of the upper and the right kind of heel. Furthermore, uppers can be put up in smaller boxes, thus saving space on the shelves of the retailer.

It is a further object of this invention, to provide for heels on ladies' shoes, wherein the heel is made of material such as plastic, thus facilitating the manufacture of the same and at the same time making such heels of much lighter weight, without impairing the strength of such heels.

It is a still further object of this invention, to manufacture heels for ladies' shoes, in which the heel is securely anchored to a metal base plate, which in turn is securely fastened to the sole of the shoe.

It is still another object of this invention, to provide for heels, such as the kind used on ladies' shoes, in which the so-called lift is made of rubber and readily attached, without the use of cement or nails, as at present.

It is a still further object of this invention to

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provide such rubber heels with metal spring clamps, which either clamp against the inside wall of the hollow heel, or which clamp against the head of the bolt used to secure the heel against the metal base plate.

Further objects and advantages of the invention will appear from the following disclosure thereof together with the attached drawing which illustrates certain forms of embodiments thereof. These forms are shown for the purpose of illustrating the invention since the same have been found to give satisfactory and reliable results, although it is to be understood that the instrumentalities of which the invention consists can be variously arranged and organized and that the invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

In the drawing:

Fig. 1 is a perspective view of a lady's shoe, incorporating a heel constructed in accordance with the invention;

Fig. 2 is an exploded view of the various parts constituting a heel in conformity with the invention;

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 1;

Fig. 4 is a similar view to Fig. 3, but showing one of the many possible modifications of the invention;

Fig. 5 is a perspective view of a modified base plate; and

Fig. 6 is a sectional view (exploded) of the lower portion of a heel and its tip.

The shoe 10 consists of the conventional upper portion 11 and the sole 12 to which is anchored the heel 13. Referring to the sectional assembly view of Fig. 3 the sole 12 is conventionally formed to fit the heel of the foot, as at 14. The anchor plate 15 is secured to the sole by means of rivets 16, which are preferably of the tubular type, shown at 17 in Fig. 2. These rivets 16 pass through the sole of the shoe as at 18 and are covered by means of the inner sole 19. The inner sole 19 is again secured in the conventional manner. The slightly raised portion of the rivet head will therefore not interfere with the comfort in walking of the wearer. The anchor plate 15 may be provided with sufficient holes 20 for a secure attachment with sufficient rivets. The heel 13 consists of the shank portion 21 and the lift portion 22, which may be made of resilient material such as rubber. The heel shank is preferably made of plastic.

The shank of the heel is made hollow, this hol-

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low space being divided into two portions 23 and 24 by the partition 25. At 26 the upper edge 27 of the heel 21 is provided with a recess, into which fits the metal anchor plate 15 when the heel 21 is attached. At 28 the metal anchor plate 15 is provided with an indentation 29, which rests against the inside portion 30 of the heel, thus securely fitting the heel to the anchor plate. Recess 31 is for the purpose of inserting a nut 32 into which the screw 33 is threaded when heel 13 is attached. The screw 33 is provided with a washer 34, resting against the underside 35 of the partition wall 25. The bolt passes through a hole 36 and into the upper chamber 23, entering the hole 37 of the anchor plate 15 and then threading into the nut 32 as already mentioned. It can readily be seen, how the heel 13 thus will be securely attached to the shoe by means of the anchor plate, and also, that the heel can be replaced without damaging the shoes in any way.

The lift consists of the resilient part 38 and the locking member 39. The inner wall 40 of the hollow chamber 24 may be provided with indentations 41, into which slide two projections 42 of the locking-spring 39. The locking-spring 39 is molded into the lift 22. A shoulder 44 rests against the lower edge 45 of the heel 13, thus providing for a bearing in supporting the weight of the wearer.

In the modification shown in Fig. 4, two changes will be noted from the previously described embodiment of the invention. First of all, the anchor plate 50 is shown secured by means of tongues 51, which project from the anchor plate, and are actually stamped from the anchor plate as at 52. These tongues 51 have sharp points 53 to readily penetrate the sole 54, after which penetration they are bent over as at 55, and then covered with the conventional inner sole 56. In all other respects, this anchor plate is similar to the plate described under anchor plate 15. The second variation in this instance is the securing of the lift 57. The bolt 58 in this case is provided with ball heads 59 and 60, and the shoulder 61, which again rests against a washer 62. The washer 62 during the assembly is forced against the underside 63 of the partition 64. The bolt 58 passes now through the chamber 65 into the anchor plate 50 with its nut 66. The lift 57 consists of the resilient member 68, into which is molded the spring clamp 69. In this instance the lower portion of the spring clamp 70 is molded at such a distance from the lower surface that whenever the lift 57 has been worn to a point where it should be replaced, the metal portion of the spring clamp 69 will become exposed, and thus warn the wearer of the advisability of having the lift replaced. This replacing is accomplished readily, by detaching through pull the clamping arms 72, having the curved portions 73 which grip the ball heads 59 and 60. The ball head 59 is provided

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with a screwdriver slot 74. This lift also has a shoulder 75 resting against the underside of the heel 76 as at 77. It is understood in both forms of the invention, that the spring clamps 39 and 70 are of sufficient strength to securely clamp the lifts 22 and 57 in their respective location, but are still pliable enough to permit withdrawal for replacement purposes.

Referring to Fig. 6, which shows an embodiment in a somewhat modified form, the heel 76a has the partition 64a and chamber 65a. Abutting the underside 63a of partition 64a is the flange 62a of the screw threaded in partition 64a, the ball head 59a of the screw having the screwdriver slot 74a and extending in the chamber 59b. The resilient tip 57a has a shoulder 75a adapted to abut against the face 77a of heel 76a, the reduced portion 59c of tip 57a extending within chamber 59b and the ball head 59a being received in the recess or socket 72a when the tip is forced against heel 76a.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a shoe, in combination, a heel having a hollow portion open at the bottom, a lift fitting partially into said hollow portion, said portion having a part provided with a recessed surface inside the hollow of said portion, and a resilient element having a pair of arms partially embedded in and projecting above said lift and a portion embedded in said lift connecting said arms, said arms projecting into the hollow of said portion and cooperating with said recessed surface to secure said lift yieldably within said hollow portion.

2. In a shoe, in combination, a heel having a hollow portion open at the bottom, a lift fitting partially into said hollow portion, said portion having a pair of oppositely arranged recesses therewithin, and a substantially U-shaped resilient element partially embedded in said lift, said element having a pair of arms extending above said lift into the hollow of said portion and engaging, respectively, the said recesses to secure said lift yieldably within said hollow portion.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,874,773	Macearone et al.	Aug. 30, 1932
2,023,441	Riddock	Dec. 10, 1935

FOREIGN PATENTS

Number	Country	Date
11,593	Great Britain	May 17, 1909
439,165	Great Britain	Nov. 27, 1935