

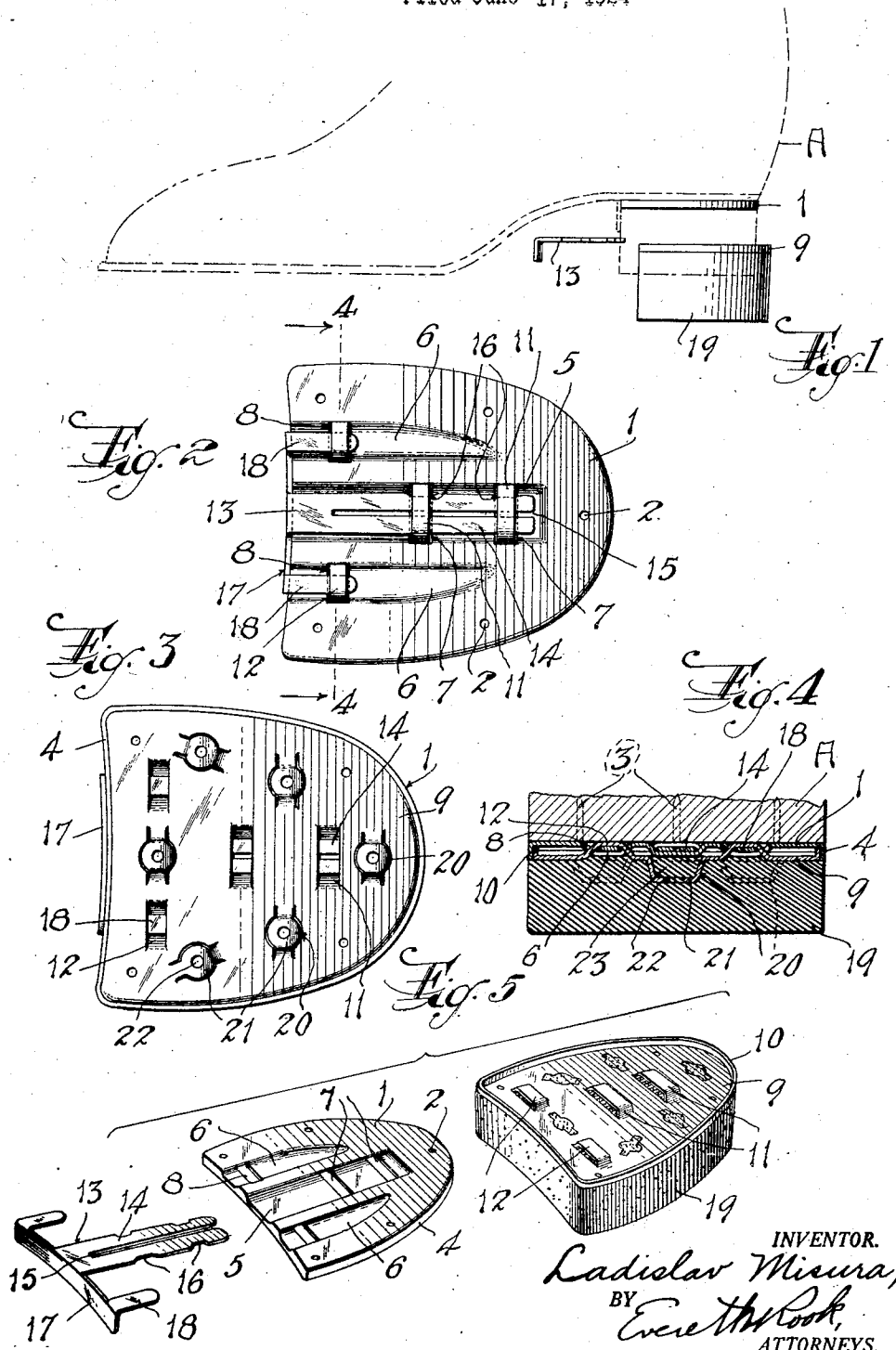
July 7, 1925.

1,544,587

L. MISURA

DETACHABLE SHOE HEEL

Filed June 17, 1924



INVENTOR.

Ladislav Misura,
BY
Everett Rook,
ATTORNEYS.

Patented July 7, 1925.

1,544,587

UNITED STATES PATENT OFFICE.

LADISLAV MISURA, OF NEWARK, NEW JERSEY.

DETACHABLE SHOE HEEL.

Application filed June 17, 1924. Serial No. 720,487.

To all whom it may concern:

Be it known that I, LADISLAV MISURA, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Detachable Shoe Heels, of which the following is a specification.

This invention relates to a heel for boots or shoes which can be easily and quickly applied to a shoe or boot without the usual fastening members, such as nails or screws, and which can be quickly removed without special tools and without in any manner damaging the shoe.

One object of the invention is to provide a heel of the character described embodying novel and improved features of construction whereby the heel may be more securely fastened to a shoe and more easily and quickly applied to and removed from a shoe than has been possible with known heels of this type.

Another object is to provide such a heel including a metal plate adapted to carry a heel lift or tread and embodying novel and improved features of construction for securing said lift or tread thereto, and means for detachably fastening said plate to a shoe.

Further objects are to provide a heel of this character including a metal plate having projections on one side thereof and a rubber lift or tread molded thereon around said projections whereby said tread is permanently secured to said plate, and means for detachably fastening said plate to a shoe; to provide in combination with said tread carrying plate a second plate adapted to be permanently fastened to a shoe, said two plates embodying improved features of construction to enable them to interlock against movement longitudinally and laterally and prevent relative tilting thereof, and a locking member or key for holding said plates together, and to obtain other results and advantages as may be brought out by the following description.

Referring to the accompanying drawings in which the same reference characters designate corresponding and like parts throughout the several views,

Figure 1 is a composite side elevation of the shoe heel, showing the parts thereof separated in solid lines and assembled in dotted lines;

Figure 2 is a plan view of the heel de-

tached from the shoe and viewing the same from the top side of the plate which is secured to the shoe;

Figure 3 is a bottom plan view of the heel viewing the same from the underside of the tread carrying plate and with the tread or lift removed;

Figure 4 is a transverse vertical sectional view taken on the line 4—4 of Figure 2, and

Figure 5 is a composite perspective view of the parts of the heel separated and detached from a shoe.

Specifically describing the present embodiment of the invention, the reference character 1 designates a sheet metal plate provided with openings 2 to receive screws, nails or the like 3 for securing the plate to a shoe A. The said plate is formed with a peripheral flange 4 on the underside thereof, and has a central longitudinal groove or depression 5 stamped in the upper side thereof and a pair of smaller longitudinal grooves 6 one arranged at each side of the central groove 5. A pair of slots 7 are formed in the plate 1 transversely of the depression 5, and similar slots 8 are formed in the depressions or grooves 6 adjacent the outer ends thereof. In this connection, it will be noted that the grooves 5 and 6 open through the edge of the plate 1, as clearly shown in Figures 2 and 5.

A tread or lift carrying plate 9 is adapted to fit within the flange 4 of the plate 1 and to be detachably secured to said plate. The plate 9 is also provided with a peripheral flange 10 at its upper side adapted to fit within the flange 4 of the plate 1 and about the underside of said plate. Two straps 11 corresponding in position and size to the openings 7 in the plate 1, are stamped from the plate 9 and project from the upper side thereof, said straps being adapted to project through the opening 7 with their upper sides substantially flush with the top side of the plate 1, as clearly shown in Figure 4. Similar straps 12 corresponding to the openings 8 in the plate 1 are also stamped from the plate 9 and adapted to project through the openings 8.

The straps 11 and 12 in conjunction with the respective grooves 5 and 6 are adapted to receive a key or locking member 13 which is substantially T-shaped and provided with a central stem portion 14 adapted to fit the groove 5 and slip beneath the straps

11, and said stem is preferably longitudinally slitted, as at 15, to provide two spring arms each of which is notched at its outer side, as at 16, to engage the straps 11 and
 5 hold the key against accidental longitudinal displacement. The head 17 of the key is offset laterally from the stem, as shown in Figure 5, to form a finger hold, and the ends of said head are provided with arms
 10 18 adapted to slip through the straps 12, as shown in Figure 2. With the plates 1 and 9 assembled and the key 13 in position, the plates are rigidly held against lateral or transverse relative movement by means
 15 of the engaging flanges 4 and 10 and the edges of the slots 7 and 8 engaging the edges of the straps 11 and 12, and the plates are positively connected by the locking key 13 interposed between the straps 11 and 12 of
 20 the plate 9 and the bottoms of the grooves 5 and 6 in the top plate 1. The grooves 5 and 6 are of such a depth as to cause the undersides thereof to bear against the top side of the plate 9 so that rocking, springing
 25 or relative tilting of the plates 1 and 9 is prevented. The grooves 5 and 6 also permit the straps 11 and 12 to pass through the slots 7 and 8 without interference or engagement thereof with the shoe; they also permit
 30 use of the key 13 without countersinking or recessing the shoe and serve as guides for the key to enable easy manipulation thereof to connect and disconnect the plates 1 and 9.

35 While the heel tread or lift may be secured to the plate 9 in any desired manner, where a rubber tread such as indicated at 19 is to be used, I prefer to permanently connect the tread to the plate 9 by a molding
 40 process so as to eliminate fastening members and thereby simplify the attachment of the tread to the plate and obtain a more positive and secure connection of the tread to the plate. In accordance with the invention,
 45 the plate 9 has stamped therefrom a plurality of loop-like projections 20 which extend from the underside of the plate 9 a considerable distance, as shown in Figure 4. These projections preferably include substantially
 50 circular central portions 21 having apertures 22 therein. The tread 19 is applied to the plate by molding the rubber around said projections 20, the rubber passing
 55 through the spaces between the projections and the plane of the underside of the plate, as indicated at 23, and also through the openings 22 in the projections. Also, the rubber will pass through the openings in the
 60 plate 9 formed by the stamping out of the projections 20, as shown in Figures 4 and 5. With this construction, it will be obvious that the tread 19 will be firmly secured to the plate 9 against all movement relative to
 65 all that is necessary is to remove the key

13 which permits the tread 19 and plate 9 to fall away from the plate 1 by action of gravity, apply a new plate 9 carrying a new tread to the plate 1 and reinsert the key 13. The plate 9 being formed wholly of sheet
 70 metal and by a simple stamping operation is comparatively inexpensive, so that the permanent attachment of the plate to the tread is not objectionable from the standpoint of cost, but is particularly advantageous
 75 in simplifying the attachment of the heel to a shoe and in the positive and simple connection of the tread to the plate 9.

While I have shown and described the heel as embodying certain details of construction, it will be understood that the details of construction may be modified or
 80 changed by those skilled in the art without departing from the spirit or scope of the invention. Therefore, I do not desire to be understood as limiting myself except as required by the following claims when construed
 85 in the light of the prior art.

Having thus described the invention, what I claim is:

90 1. A detachable shoe heel including a sheet metal plate adapted to be secured to a shoe and formed with a central longitudinal depression stamped in the side thereof to be secured to a shoe and a peripheral flange
 95 projecting at right angles from the other side thereof, said plate being also formed with a longitudinal depression at each side of said central depression, all of said depressions opening at one end through the
 100 edge of said plate with their other ends terminating short of the edge, said plate having a slot transverse of said central depression in the bottom and adjacent the inner end thereof and a slot in the bottom of each of said
 105 other depressions adjacent the outer ends thereof, a second sheet metal plate carrying a tread or lift and having a plurality of straps stamped therefrom and projecting from the side thereof opposite said tread one to pass
 110 through each of said slots in said first-mentioned plate, and a locking key having three parallel arms each of which is adapted to enter one of said depressions in said first-mentioned plate and beneath the respective
 115 ones of said straps to connect said plates together.

120 2. A detachable shoe heel including a sheet metal plate adapted to be secured to a shoe and formed with a central longitudinal depression stamped in the side thereof to be secured to a shoe and a peripheral flange
 125 projecting at right angles from the other side thereof, said plate being also formed with a longitudinal depression at each side of said central depression, all of said depressions opening at one end through the
 130 edge of said plate with their other ends terminating short of the edge, said plate having a slot transverse of said central depression

in the bottom and adjacent the inner end thereof and a slot in the bottom of each of said other depressions adjacent the outer ends thereof, a second sheet metal plate 5 carrying a tread or lift and having a plurality of straps stamped therefrom and projecting from the side thereof opposite said tread one to pass through each of said openings in said first-mentioned plate and a peripheral flange projecting at right angles 10 therefrom to fit within said flange on the first-mentioned plate, and a locking key having three parallel arms each of which is adapted to enter one of said depressions in 15 said first-mentioned plate and beneath the respective one of said straps to connect said plates together, one of said arms being longitudinally slitted and formed with notches in its edge to engage the corresponding one 20 of said straps and hold the key against accidental displacement.

3. A detachable shoe heel including a flat sheet metal plate having a plurality of loop-like projections stamped therefrom on one 25 side with the intermediate portions of said projections spaced from said side of the plate and a rubber lift or tread molded around said projections so that said lift is positively connected to said plate, and means 30 for detachably connecting said plate to a shoe.

4. A detachable shoe heel including a sheet

metal plate adapted to be secured to a shoe and formed with a central longitudinal depression stamped in the side thereof to be 35 secured to a shoe and a peripheral flange projecting at right angles from the other side thereof, said plate being also formed with a longitudinal depression at each side of said central depression, all of said depressions opening at one end through the 40 edge of said plate with their other ends terminating short of the edge, said plate having a slot transverse of said central depression in the bottom and adjacent the inner 45 end thereof and a slot in the bottom of each of said other depressions adjacent the outer ends thereof, a second sheet metal plate having a plurality of straps stamped therefrom and projecting from one side thereof to pass 50 through each of said slots in the first-mentioned plate, said second plate also having a plurality of spaced loop-like projections stamped therefrom and projecting from the 55 other side of said plate, a vulcanized rubber tread molded around said loop-like projections whereby said tread is fixedly secured to said plate, and a locking key having three parallel arms each of which is adapted to enter one of said depressions in said first- 60 mentioned plate and beneath the respective one of said straps to connect said plates together.

LADISLAV MISURA.