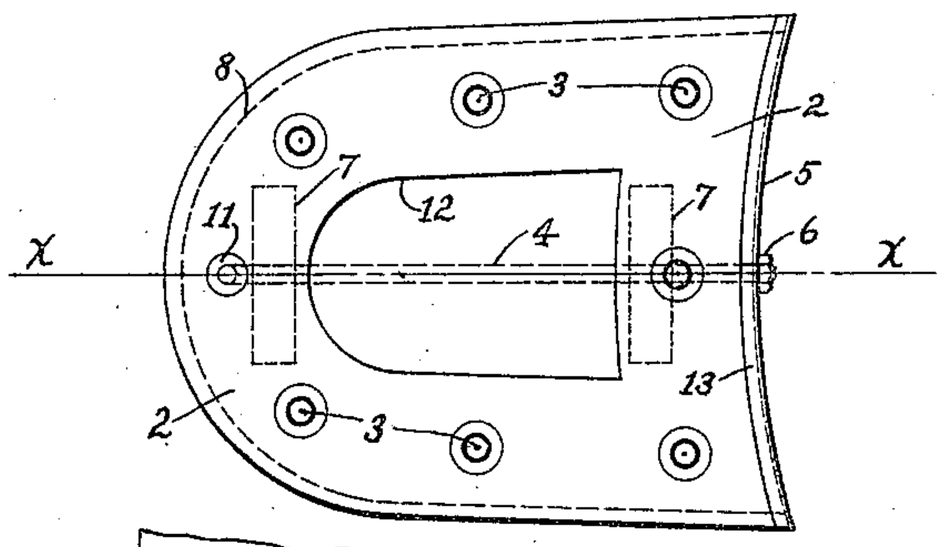
F. G. SHERMAN.

INTERCHANGEABLE RUBBER HEEL.

APPLICATION FILED DEC. 9, 1908.

944,287. Patented Dec. 28, 1909.

Fig. 1.



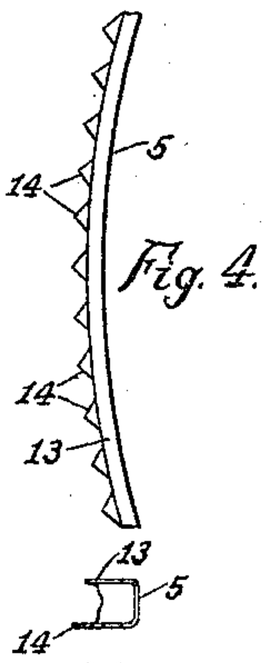


Fig. 4.

Fig. 5.

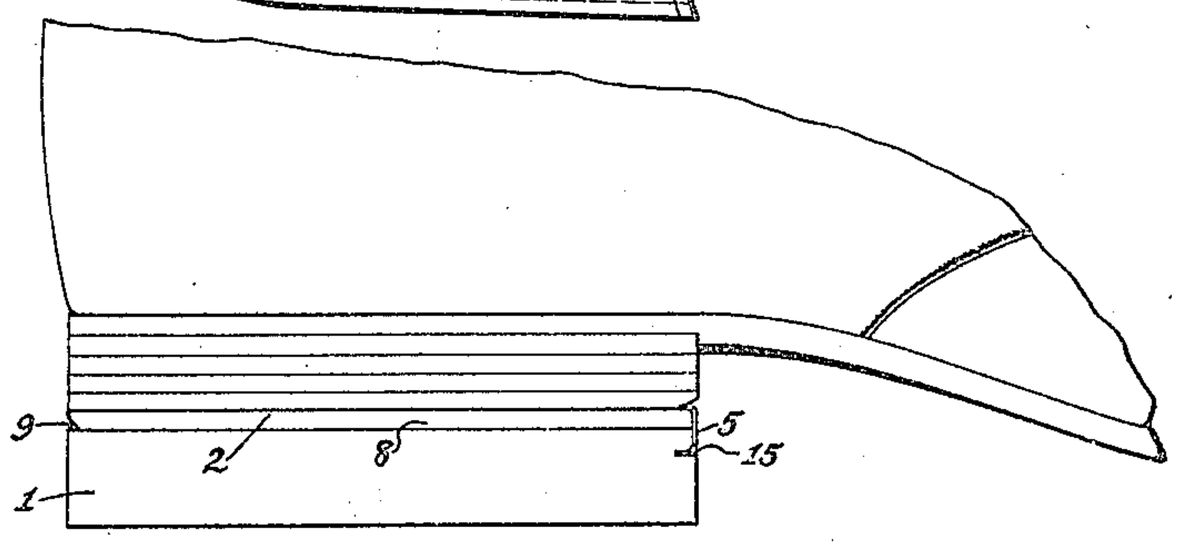


Fig. 2.

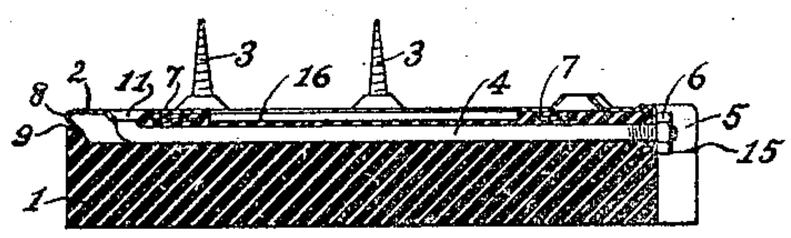


Fig. 3.

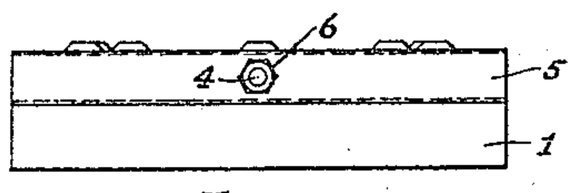


Fig. 6.

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INTERCHANGEABLE RUBBER HEEL.

944,287. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed December 9, 1908. Serial No. 466,636.

To all whom it may concern:

Be it known that I, FRANK GILBERT SHERMAN, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Interchangeable Rubber Heel, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

My invention relates to resilient boot or shoe heels, my principal objects being to provide an interchangeable heel of the character hereinafter set forth; to increase the resiliency of such heels; to provide a nailless heel of the character herein set forth; and to provide simplicity and durability in such a device.

Other objects will be apparent from the following specification.

In the accompanying drawings Figure 1 is a plan view of the improved heel of this invention; Fig. 2 is a side elevation of the heel shown in Fig. 1, fitted onto a shoe heel; Fig. 3, is a cross-sectional view of the heel shown in Fig. 1, taken on line *x x*, with the anchor pin shown in elevation; Figs. 4 and 5 are detail views of the clamping plate used on the improved heel; and Fig. 6 is a front elevation of the assembled heel.

Like characters refer to like parts in the several figures.

It is well known that with all of the various forms of boot or shoe heels now in use, the heels are generally worn down on one side only, which wearing, after a time, renders the heel practically useless or very unsuitable to walk on.

In this present invention I provide a heel which may be changed from the right boot or shoe to the left, or vice versa, as desired. This construction provides a heel which may be worn down gradually on both sides, thus practically doubling the life or the serviceability of the heel. A pair of these improved heels may be interchanged on a pair of boots or shoes so as to always give practically plane surfaces to walk on instead of the uneven surfaces generally seen on heels subjected to wear.

I will now describe my invention more in detail by reference to the accompanying drawings in which—

1 is the rubber cushion of the improved heel; 2 is the formed sheet-metal base which is screwed to the leather boot or shoe heel by screws 3 3; 4 is an anchor pin which is carried by the metal base 2 and which extends through a hole in the rubber cushion 1 as shown in Fig. 3; 5 is a clamping plate fitting the front edge of the rubber cushion 1 and metal base 2; 6 is a clamping nut screwed onto the anchor pin 4 and securely holding the clamping plate 5 in place; and 7 7 are reinforcing plates embedded into the upper portion of the rubber cushion 1, above the anchor pin 4, to strengthen the rubber cushion.

The metal base 2 is formed with an inturned lower edge 8 around its exterior, except at the front of the heel, which inturned portion fits into a groove 9 in the rubber cushion 1. The metal base 2 is also formed with a countersunk portion adapted to accommodate the head 11 of the anchor pin 4, as shown, and with other countersunk portions adapted to accommodate the heads of screws 3 3. The interior portion of the base 2 is preferably cut away as shown at 12.

The clamping plate 5 is formed to fit the front portion of the heel, being provided with an upper rim 13 fitting over the top corner of the metal base 2, and with teeth 14 14 on the lower edge thereof fitting into a groove 15 in the front portion of the rubber cushion 1 and partially embedding themselves in the rubber cushion when the nut 6 is screwed up tightly on the anchor pin 4.

The reinforcing plates 7 7 are simply thin metal plates molded into the rubber cushion 1 near the top surface thereof.

The rubber cushion 1 is preferably cut away at the center of the top surface thereof, as shown at 16, so as to make the cushion more resilient. This recess 16 preferably coincides with the hole 12 in the metal base 2.

In assembling the heel the anchor pin 4 is first put in place into the metal base 2, the latter then being securely screwed to the boot or shoe heel. Then the rubber cushion 1 is a slid in place into the metal base 2, the rim 8 of the base 2 fitting into the groove 9 of the rubber cushion 1, and the anchor pin 4 extending through its hole in the cushion 1. Now the clamping plate 5 is put in place over the free end of the anchor pin 4, the teeth 14 14 of the clamping plate 5 fitting into the groove 15 of the rubber cushion 1. Now the clamping nut 6 is screwed onto the free end of the anchor pin 4, which tightly clamps all of the parts together and rigidly holds the rubber cushion 1 in place.

It will readily be seen that if it is de-

sired to remove the rubber cushion 1 from the heel it is only necessary to unscrew the nut 6 and remove the clamping plate 5, whereupon the cushion 1 may be readily slid from the metal base 2 and off of the anchor pin 4.

From this description it will be readily seen how a pair of the improved rubber cushions of this invention can be readily interchanged on a pair of heels. The advantages of such a heel are very apparent.

I do not wish to limit this invention to the exact details of construction herein shown, as various modifications in same may be made without departing from the scope of the appended claims.

What I claim as my invention is:

1. A heel of the character described comprising a heel plate, screws for securing the heel plate to a boot or shoe heel, said plate being formed to provide an inturned rim around the edge thereof, a rubber cushion, said cushion having a groove therearound adapted to fit the said rim when slid in place into the said plate, a pin carried by the said plate and extending through a hole in the said cushion when the latter is in place in the heel plate, a clamping plate placed across the front portion of the heel and over the free end of the said pin, and a nut for the free end of the said pin adapted to clamp the clamping plate to the heel and thereby securely hold the several parts together.

2. A heel of the character described comprising a cushion, a heel plate having a rim therearound for engaging the cushion and adapted to be attached to the heel of a boot or shoe, a pin permanently carried by the said plate and extending substantially horizontally through the said cushion, and means for removably holding the cushion on the pin.

3. A heel of the character described comprising a cushion, a heel plate adapted to be attached to the heel of a boot or shoe, a bolt carried by the said plate and extending through the said cushion, a clamping plate extending across the front of the heel and placed on the said bolt, and a nut on the said bolt whereby the said cushion and clamping plate are securely held in place.

4. A heel of the character described comprising mechanism adapted to be attached to the heel of a boot or shoe, a cushion adapted to fit the said mechanism, a clamping member extending across the front of the heel, and a member extending through the said clamping member and cushion and cooperating with the said mechanism for purposes substantially as described.

5. A heel of the character described comprising mechanism adapted to be attached to the heel of a boot or shoe, a cushion adapted to fit the said mechanism, a pin permanently carried by the said mechanism and extending substantially horizontally through the said cushion, and means for removably holding the cushion on the pin.

As inventor of the foregoing I hereunto subscribe my name this 5th day of December 1908, at Chicago, Illinois.

FRANK GILBERT SHERMAN.

Witnesses:
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