

(No Model.)

C. K. PEVEY.
HEEL FOR BOOTS OR SHOES.

No. 583,814.

Patented June 1, 1897.

Fig. 1.

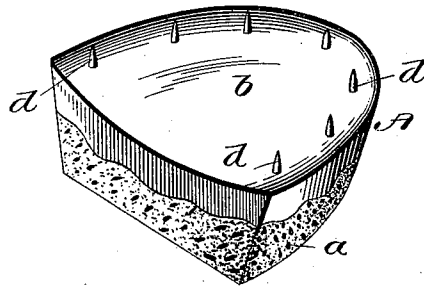


Fig. 2.

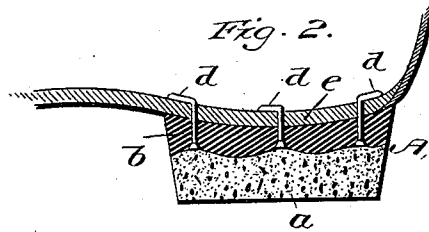
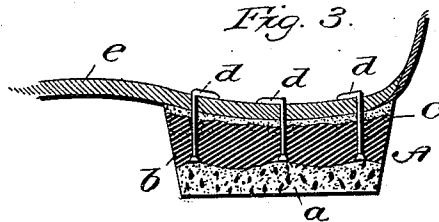


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES KIMBLE PEVEY, OF WORCESTER, MASSACHUSETTS.

HEEL FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 588,814, dated June 1, 1897.

Application filed August 17, 1892. Serial No. 443,345. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KIMBLE PEVEY, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Heels for Boots or Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in heels for boots and shoes; and the object of the invention is to provide a durable flexible heel which can be readily attached to the sole of any shoe and which will take up all of the jar commonly experienced when walking on hard pavements with shoes provided with heels of ordinary construction.

With these ends in view my invention consists of a heel formed of two or more layers of soft rubber and vulcanite, which are firmly secured together and provided with means for attachment to the sole of a boot or shoe.

My invention further consists in the peculiar construction and arrangement of parts, as will be more fully pointed out and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a heel constructed in accordance with my invention. Fig. 2 is a longitudinal vertical sectional view through a portion of a shoe sole and a heel, and Fig. 3 is a similar view of a slightly-modified construction.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates a heel, which may be of any desired form and size, composed of a lower layer or section *a*, of soft rubber, and another layer or section *b*, of vulcanite, said layers being firmly united together by vulcanization, and the layer of vulcanite *b* being provided with means for securing the heel on the sole *c* of a shoe or boot.

My improved flexible heel is formed in the following manner: A layer of rubber or caoutchouc is placed in a suitable mold, and on this first layer is placed a second layer of different grade of rubber. The two layers are composed of different grades of rubber, so

that when the mold is heated and the material therein subjected to vulcanization the lower layer will be converted into what is technically known as "soft rubber," while the upper layer will be converted into vulcanite. The two layers are firmly united together during the vulcanization process.

To provide for attaching or securing the heel, when formed, on the sole of a boot or shoe, I place in the second layer in the mold, while such layer is in a plastic or semiplastic state, a series of brads, nails, staples, or similar devices *d*, and, when by the vulcanizing process, said layer is converted into vulcanite the attaching-brads *d* are held firmly in place with their upper ends projecting some distance above the heel.

To attach the heel *A* to the sole of a boot or shoe, I preferably place over the upper surface thereof a transfer-sheet of paper or other suitable material of the desired size and press said sheet down over the brads *d*, in order that it may be punctured thereby. The transfer-sheet is then removed from the heel *A* and placed against the sole *e* of the boot or shoe, and apertures or punctures corresponding to the perforations in the transfer-sheet are formed in said sole by an awl or other suitable implement. The transfer-sheet is then removed and the heel placed against the sole *e*, the nails or brads *d* thereon alining with and extending through the apertures or perforations in the sole, and the upper ends of the nails or brads are bent down or clenched on the sole to hold the heel firmly in place thereon.

Owing to the flexible nature of my improved heel it is of course impossible to secure the same on the sole *e* by the ordinary method of driving or hammering the bottom thereof to force the attaching-nails through the sole.

It will be seen that I have provided a simple, durable, and flexible heel which can be easily secured on soles of boots and shoes of ordinary construction.

My improved heel, while being flexible and operating to take up all the jar commonly experienced when walking on hard pavements, is strong enough not to crush down by weight placed thereon, the vulcanite layer *b* giving strength and stability to the heel equal to

that of a heel of ordinary construction and also serving to hold the attaching-brads securely in place.

5 The lower surface of the vulcanite layer *b* is curved or irregular in order that there will not be a sharp regular line between the layers *a b* and that there will be no danger of the hard layer *b* cutting into and weakening the layer of soft rubber.

10 In some cases I place above the vulcanite layer *b* another layer *c* of soft rubber similar to the layer *a*, all of the layers being firmly united by vulcanization, as hereinbefore described. This construction, which is illus-
15 trated in Fig. 3, enables the heel to adjust itself readily to any irregularities or rough places that may be on the under side or surface of the sole of the boot or shoe.

20 Comminuted particles of emery or other suitable material may be placed in the lower layer *a*, when it is placed in the mold, to make the lower surface of the heel rough and prevent the person using the same from slipping when walking on ice or slippery pavements.

25 The advantages of my improvement will be readily understood and appreciated.

I am aware that changes in the form and proportion of parts and details of construc-

tion of the devices herein shown and described as an embodiment of my invention can be 30 made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of the same. For instance, I may 35 employ screws instead of the nails herein shown and described for attaching the heel to the boot or shoe.

Having thus fully described my invention, what I claim as new, and desire to secure by 40 Letters Patent, is—

As an article of manufacture, a heel composed of two layers of soft rubber and a layer of vulcanite arranged between the layers of soft rubber and permanently united thereto, 45 said vulcanite layer being provided with a series of brads or nails which extend upwardly through the upper layer of soft rubber, substantially as described.

In testimony whereof I affix my signature 50 in presence of two witnesses.

CHARLES KIMBLE PEVEY.

Witnesses:

CHARLES S. DODGE,
JOHN A. DANA.