

H. R. MANZ.

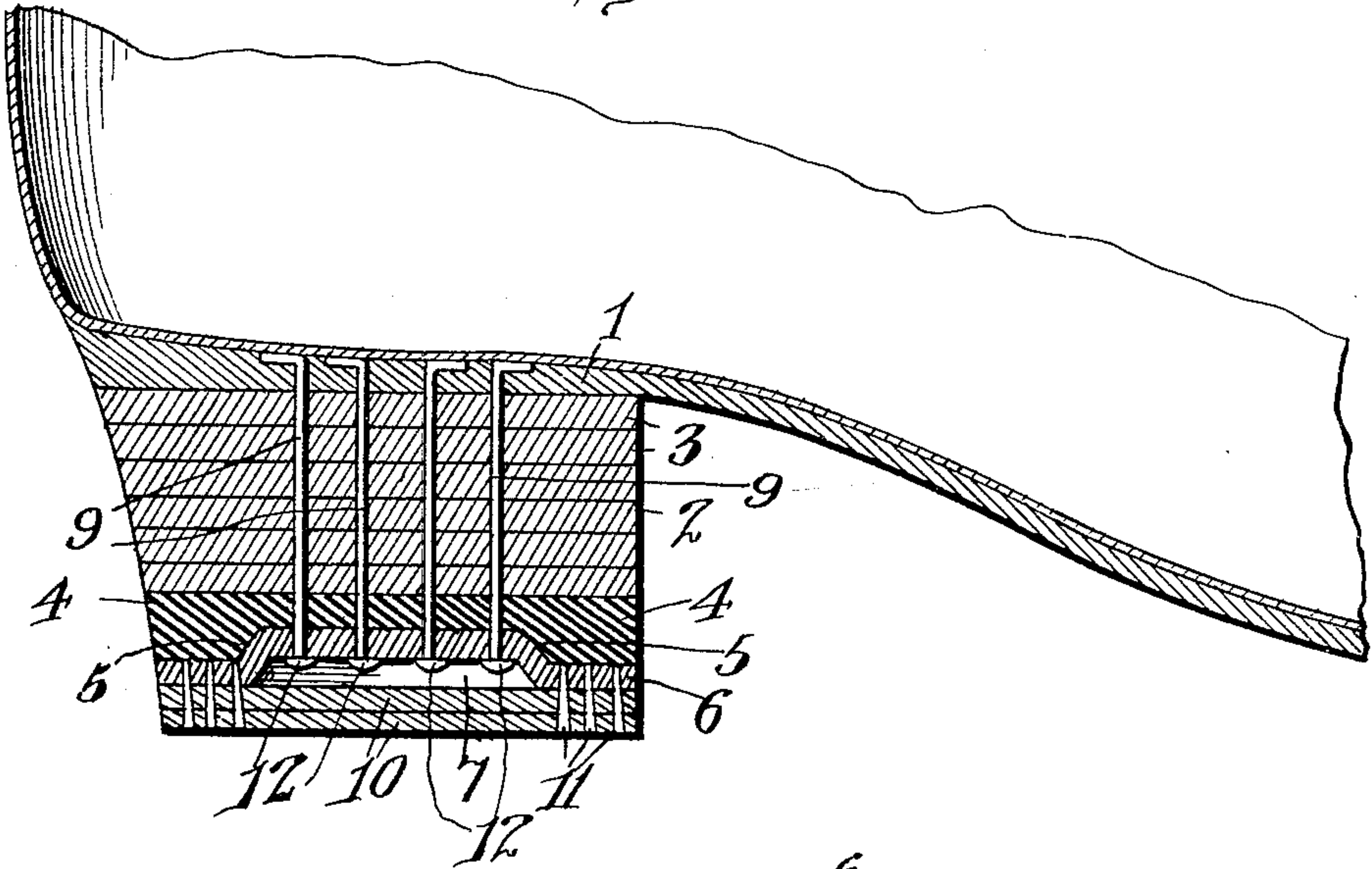
HEEL.

APPLICATION FILED OCT. 24, 1908.

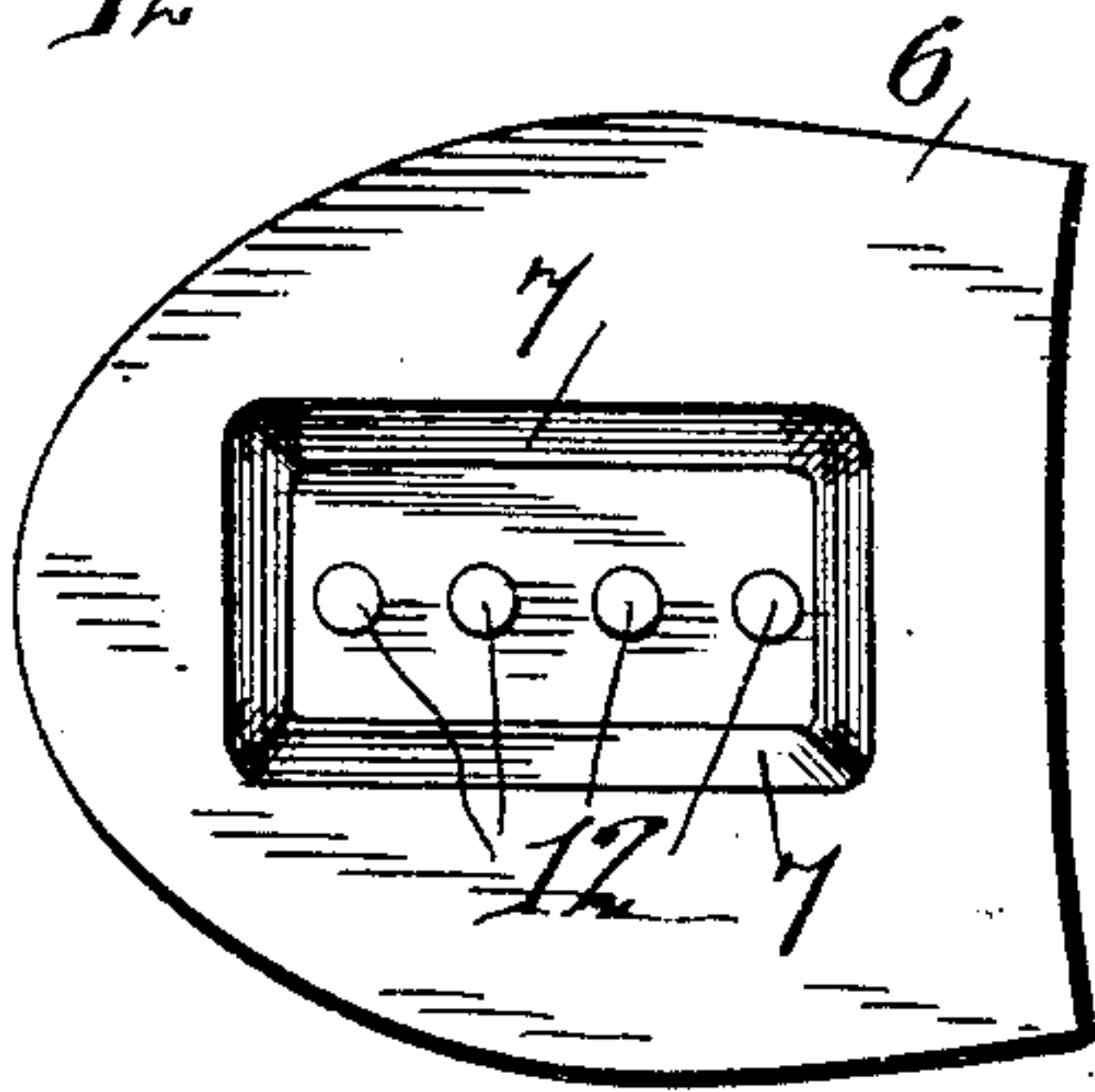
912,479.

Patented Feb. 16, 1909.

*Fig. 1*



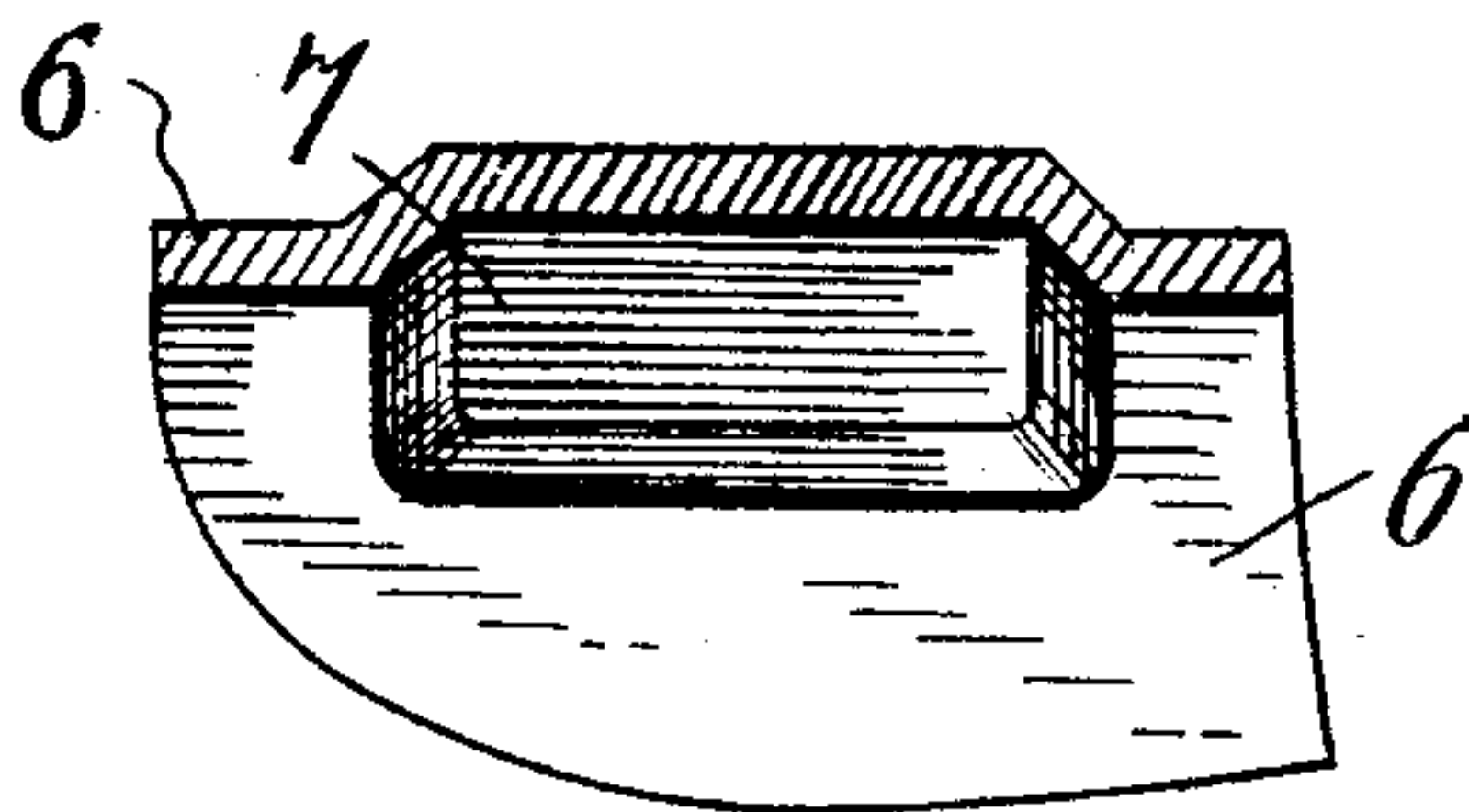
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



*Henry R. Manz,* Inventor

Witnesses

*L. A. Cotter.*  
*J. W. L. McCathran*

By *E. E. Vrooman,*  
*his* Attorney.



# UNITED STATES PATENT OFFICE.

HENRY R. MANZ, OF ELGIN, ILLINOIS.

## HEEL.

No. 912,479.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed October 24, 1908. Serial No. 459,395.

*To all whom it may concern:*

Be it known that I, HENRY R. MANZ, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have  
5 invented certain new and useful Improvements in Heels, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to elastic spring  
10 heels, and has for its object the production of a heel which will obviate the jar usually experienced in walking upon hard and unyielding pavements, and which will give a forward spring movement in walking.

15 Another object of this invention is the production of a spring-heel which is simple in construction and durable and inexpensive.

With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangements of  
20 parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a sectional view of the heel applied to a shoe or boot.  
25 Fig. 2 is a plan view looking at the outer surface of the leather-section which is provided with an air-cushion. Fig. 3 is a detail sectional view of the same. Fig. 4 is a view showing a modified form of a nail which may  
30 be used to secure the heel to the sole of the shoe.

Referring to the drawing by numerals, 1 designates the sole of the shoe to which is applied a heel 2, which comprises a plurality of  
35 leather sections 3, which sections are, preferably, secured together by means of glue, or other adhesive material. Secured to the leather sections 3 is a rubber section 4, which rubber section is provided, upon its outer  
40 face, with a pocket 5, said pocket being formed near the center of said section.

A leather section 6 is provided with an elongated pocket or depressed portion 7, which pocket fits in the pocket 5 in the outer  
45 face of the rubber section 4. This pocket is stamped or pressed out of the leather section 6, and the edges of the leather section 6 engage the outer face of the rubber section 4. Therefore, it will be noted that the leather  
50 section 6 is so formed as to conform to the shape of the outer face of the rubber section 4. Pins or nails 9 are driven through the leather section 6 and through the rubber section 4 and the leather sections 3, to

securely hold the heel upon the sole of the shoe. Secured to the outer face or edges of the leather section 6 is a plurality of leather sections 10, and said sections are secured to said outer edge of the leather section 6  
55 by means of tacks 11, which tacks only extend through the leather section 6, and the sections 10, and do not engage or come in contact with the rubber section 4. The tacks or pins 9 are provided with heads 12, which heads are adapted to be positioned in  
60 the pocket 7, and by having the sections 10 secured to the outer face of the leather section 6, it will be noted that the pocket 7 forms an air-cushion, and by having the heads 12 of pins 9 so positioned in the pocket  
65 7, the same will not come in contact with the sections 10 and wear out or otherwise injure said sections, in case the sections 10 should come in contact with a foreign object.

It will be noted that I have provided a  
75 cushion-spring heel, which will remove any jar caused by walking upon an uneven surface, or on a hard pavement, and at the same time will not wear out very quickly.

If it be so desired, the ordinary shoe nail,  
80 as shown in Fig. 4 and indicated by 9<sup>a</sup> may be used to firmly attach the heel to the sole of the shoe, in place of the nails 9 shown in Fig. 1 of the drawing, the heel being first secured to the sole by means of glue or  
85 other adhesive material. When the ordinary nail is used, as shown in Fig. 4, the outer end of the same will be flush with the surface of the depressed portion of the leather section 6. Therefore, it will be seen  
90 that the head of the nail will not extend into the closed air cushion 7.

Of course, it is to be understood that when the lower layers 10, constituting the tread section wear out they can be readily  
95 replaced by new sections.

What I claim is:

1. A heel comprising a rubber section provided with a pocket, a plurality of leather sections secured to the inner face of said  
100 rubber section, a leather section secured to the outer face of said rubber section and having a portion fitting in the pocket formed in the rubber section, and means passing through all of said sections and  
105 securing the same to a shoe, and a leather section secured to said last-mentioned leather section and constituting a tread.



2. A heel comprising a rubber section having a pocket formed in its under-face intermediate its side-edges, a leather section provided with a bulged portion or pocket  
5 formed between its edges, the bulged portion of said leather section positioned in the pocket of said rubber section, a tread section secured only to the edges of the leather section and covering the pocket thereof,  
10 said pocket and tread section forming a cushion or air-cell, and headed members extending through a pocket-section and rubber section for attaching all of the sections to a shoe or boot, the heads being  
15 positioned in the air-cell and free of the tread section.

3. In a heel the combination with a rubber section, provided near its under-face with a pocket and having a flat upper face, a  
20 leather section provided with a pocket compressed from its body and seated in the pocket of the rubber section, a tread section covering the pocket section and secured at its edges parallel with the edges of the  
25 pocket sections and leather section, and said

sections having a closed air-cushion-cell or compartment.

4. A heel comprising a rubber section provided with an elongated pocket formed in the center thereof, a plurality of leather  
30 sections secured to the inner face of said rubber section, a leather section provided with a centrally-arranged elongated depressed portion and registering or fitting in said pocket in said rubber section, nails  
35 passing through said depressed portion and through all of said sections for securing the same to a shoe, and having their heads positioned in said depressed portion of said  
40 last-mentioned leather section out of engagement with any of the tread sections, and a plurality of leather sections secured to said last-mentioned leather section and constituting a tread.

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

HENRY R. MANZ.

Witnesses:

H. T. NORDAHL,

GEORGE E. MORRIS.