W. H. WATSON.

CUSHION HEEL.

APPLICATION FILED AUG. 3, 1910.

989,673. Patented Apr. 18, 1911.

Fig. 2.

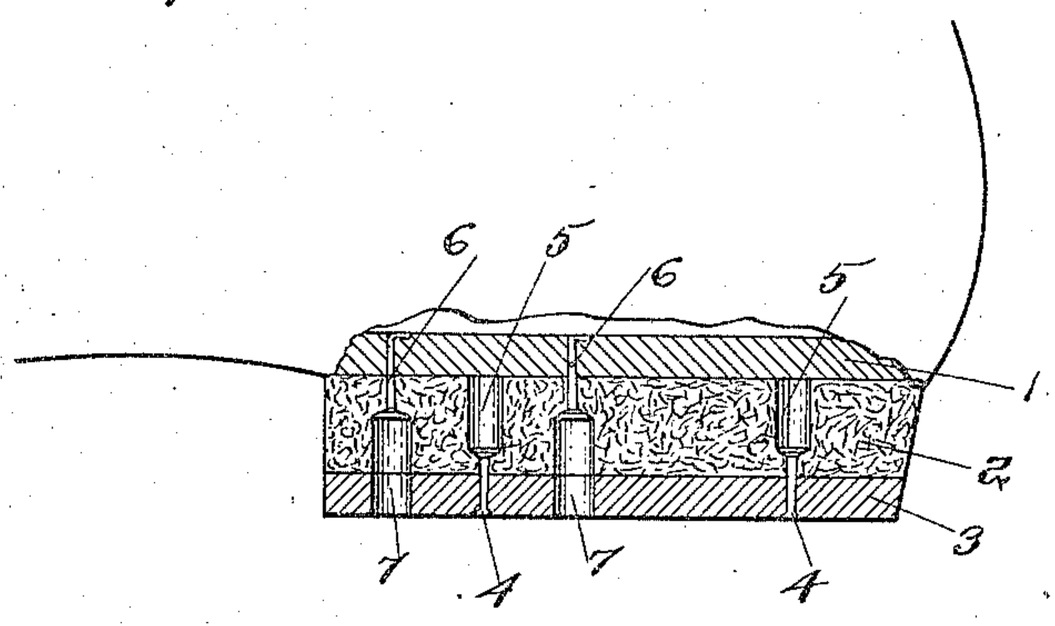
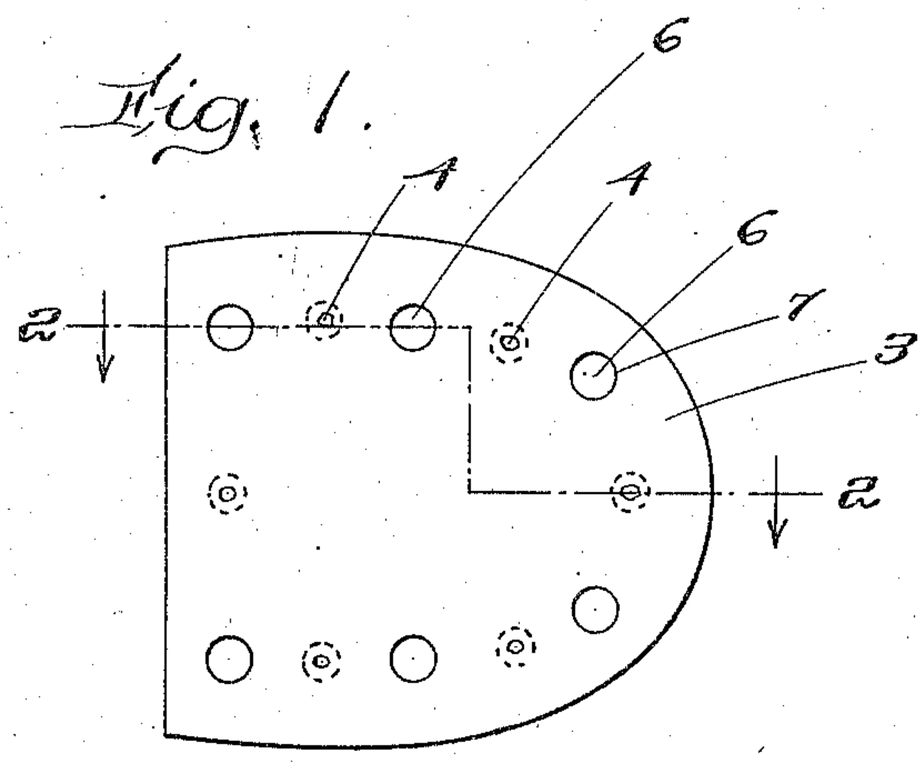


Fig. 1.



Witnesses:

Arthur F. Randall

John H. Parker

Inventor:

William H. Watson

By Macleod, Calvert, Copeland & Dodge.

Attys.

UNITED STATES PATENT OFFICE.

WILLIAM H. WATSON, OF KEENE, NEW HAMPSHIRE.

CUSHION-HEEL.

989,673. Specification of Letters Patent. Patented Apr. 18, 1911.

Application filed August 3, 1910. Serial No. 575,370.

To all whom it may concern:

Be it known that I, WILLIAM H. WATSON, a citizen of the United States, residing at Keene, county of Cheshire, State of New Hampshire, have invented a certain new and useful Improvement in Cushion-Heels, of which the following is a specification, reference being had therein to the accompanying drawings.

My present invention has for its object an improvement in cushion heels intended as a substitute for rubber heels for boots and shoes.

The increasing cost of rubber makes some substitute therefor in heels extremely desirable.

In a previous application for Letters Patent of the United States filed March 11, 1908, Serial No. 420,382, I have shown and described a cushion heel made from layers or lifts of felt and leather held together chiefly by stitching. Such a construction is necessary with felt of common consistency of fiber, but I have since found that felt may be obtained of such density and tenacity as to admit of securing the parts of the heel together by nailing.

My present invention affords a means of securing the parts of the heel together and to the heel seat entirely with nails and without the use of stitching and at the same time of preserving all the natural elasticity of the felt exactly the same as if the parts were stitched together.

The heel embodying my present invention keeps its shape perfectly, since the slight compression of the felt which takes place after a period of use has no effect on the fastening of the heel as is sometimes the case with a heel, the parts of which are stitched together. The heel is also very inexpensive to construct costing not over half the amount of a good rubber heel, and gives an equal or greater amount of wear. It is also safer to wear than a rubber heel as the leather lift does not slip on wet pavements the bottom lift being made from leather. Furthermore, it is pleasanter to wear than a rubber heel as it does not give to the wearer the noiseless catlike tread of a rubber heel which most persons who change from a leather heel to a rubber heel find very annoying.

My invention will be fully understood from the following description taken in connection with the accompanying drawings, and the novel features will be pointed out and clearly defined in the claims at the close of the specification.

In the drawings,—Figure 1 is a bottom view of a heel embodying my invention. Fig. 2 is a section on line 2—2 Fig. 1 looking in the direction of the arrows and showing a portion of the heel seat.

Referring to the drawings:—At 1 is indicated the heel seat to which the heel is secured. This heel seat is of ordinary construction as my improved cushion heel is adapted to be applied to any ordinary shoe. Below the heel seat is a lift or layer of felt 2 which is very elastic and gives to the heel its springy cushioning effect. Below the lift 2 of felt is a bottom lift or tread 3 of leather either natural or artificial as desired. This tread 3 of leather takes the wear which comes upon the heel and being stiffer than the felt lift 2 tends to distribute the force of the blow struck in walking to the entire area of the felt lift. It also wears longer, and makes the heel very desirable. In practice I find that a heel thus constructed wears much longer than a solid leather heel and believe this to be due to the fact that the tread of my heel while having all the wear resisting qualities of a solid leather heel, is cushioned upon the felt layer 2. The felt lift 2 and the leather tread 3 are secured together by flat-headed nails 4, 4, which are inserted in holes 5, 5, bored about three quarters way through the felt lift 2. These holes 5, 5, are of such a size as to allow the heads of the nails 4, 4, to pass freely to the bottom of the hole, as shown in Fig. 2. When the nails are driven, the portion of the felt lift 2 which lies between the head of the nail and the upper surface of the tread 3 is considerably compressed so that the two parts of the heel are held securely together even though some considerable compression of the felt lift occurs as the result of continued wear. The cushion heel is made up for sale in this form with the two parts secured together and the holes to receive the fastening nails bored as will now be described. In this form the heel may be readily applied to the shoe by any cobbler. The completed heel is secured to the heel seat of the shoe by means of flat-headed nails 6, 6, received in holes 7, 7, which are slightly larger than the heads of the nails 6, 6. Said holes 7, 7, pass through the tread 3 and about two thirds through the felt lift 2 and allow the

nails to be inserted from the bottom of the heel. They may also be arranged so as to permit the attachment of the heel by heel nailing machines, if desired. I also consider it desirable to use a thin application of a suitable glue or cement, preferably waterproof, between the elastic lift and the wear resisting tread, also between the elastic lift and the heel seat. This prevents any separation at the edges of the layers composing the heel.

From the foregoing it will be seen that the heel is so constructed that the fastening means by which the parts of the heel are secured together and to the heel seat do not interfere in the least with the elasticity of the felt which gives the cushioning effect to the heel. By employing felt of proper density and toughness, the heel is firm and does not get out of shape even under hard usage while at the same time it affords the exact amount of elasticity desired. The felt composing the layer 2 may be waterproofed by the use of a suitable waterproofiing mixture, and the edges filled, blacked and polished in exactly the same manner as leather since the fibrous nature of the felt makes it readily susceptible to this treatment.

What I claim is:—

1. The improved heel comprising a tread of wear resisting material having holes therethrough large enough to pass the head of the fastening nails, a felt layer between said tread and the heel seat having holes bored part way through and in registration with the holes in the tread, and having a second set of holes entering the said layer on the side next the heel seat, and nails in the said holes, one set securing the said lifts together and the other set securing the heel to the heel seat.

2. The improved cushion heel comprising a layer of elastic material, and a tread of wear resisting material, said layer of elastic material having holes therein entering from opposite sides, and bored nearly through said elastic layer, said lifts being secured together and to the heel seat by two sets of oppositely extending headed nails in the said holes.

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

WILLIAM H. WATSON.

Witnesses:

GEORGE P. DIKE,

ALICE H. MORRISON.