H. M. EATON.

HEEL PAD.

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1,164,177.

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Fig 1

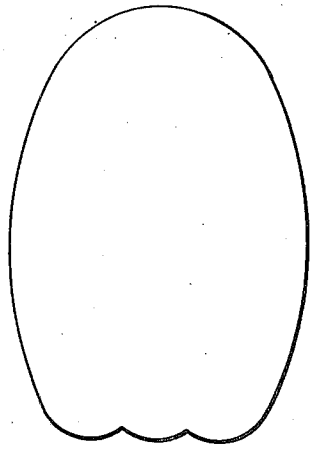
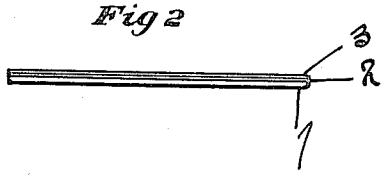


Fig 2



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UNITED STATES PATENT OFFICE.

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HEEL-PAD.

1,164,177. Specification of Letters Patent. Patented Dec. 14, 1915.

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To all whom it may concern:

Be it known that I, HORACE M. EATON, a citizen of the United States, residing at Hudson, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Heel-Pads, of which the following is a specification.

The present invention relates to heel pads.

In the manufacture of shoes it is customary to attach the heels to the shoes by a plurality of nails which are driven through the insole and clenched upon the face of that portion of the insole, known as the heel seat, which directly supports the heel of the foot. The early shoe manufacturers covered the heel seat with a pad made from a superior grade of thick stock with the intention of providing the wearer of the shoe with some measure of protection from the bunchy condition produced in the heel seat by the heel nails. Experience soon demonstrated to these manufacturers that, owing to the deteriorating action of sweat or moisture upon the available adhesive employed to secure these pads to the heel seats, the pads became loosened on the heel seats and bunched in a wrinkled condition under the heels of the wearers resulting in so much discomfort as to cause the wearers to pull the pads out of the shoes and throw them away. As this practice destroyed the beneficial use of the heel pads the shoe manufacturers, in order to cheapen the cost of production, abandoned the practice of employing a high grade quality heel pad and substituted therefor a thin piece of upper stock or a cheap grade of felt the sole function of which was to enable the manufacturers to mask the unsightly heel seat which was found to be a desirable thing to do from a selling point of view. As is well known these thin cheap heel pads afford small protection to the heel of the foot from the uncomfortable condition produced by the heel nails in the heel seats. Moreover these heel pads are easily penetrated by the moisture of the foot which causes the heel nails to rust which action in turn corrodes the leather around the nails thus freeing the clenched ends of the nails and permitting their points to protrude through the heel pad and penetrate the heel of the foot causing excessive wear on the stockings and great discomfort to the wearer of the shoe. These conditions are particularly liable to occur when the wearer of the shoe becomes exasperated and pulls the heel pads from the shoes which has become almost a universal practice even after only a few days wear.

Many attempts have been made to devise practical methods of nailing heels with the object in view of obviating the presence of nails in the heel seats. These methods have usually been founded either upon the splitting of the heel of the insole and the use of a metallic plate in the split for the purpose of clenching the heel nails in the lower portion of the insole, or upon the attachment of a metallic plate to the bottom of the insole so that the heel nails would be clenched in the outsole. These methods, some of which required special last construction, have proved to be so expensive as to materially increase the cost of manufacture and for that reason have never been adopted for commercial use.

The object of the invention is to produce a heel pad which will afford ample protection to the heel of the foot and which will be provided with a surface by means of which the heel pad may be permanently attached to the heel seat and which will protect the nails and the heel seat from rust and corrosion.

To the accomplishment of this object a feature of the invention contemplates the provision in a heel pad, having an ample thickness, of a non-viscous, waterproof adhesive coating unaffected by the moisture or heat of the foot and normally non-adhesive under ordinary conditions of temperature but capable of being converted under the influence of heat into a viscous surface for attaching the pad to the heel seat and protecting the nails and heel seat from rust and corrosion. Heretofore it has been the practice to attach heel pads to heel seats by means of paste applied by a brush in the hands of a cheap operative. This method of attaching heel seats is not only uneconomical in the expenditure of labor and material but often causes soiling of the linings which to clean involves an expensive operation. As a contrast to this crude method the heel pad of the present invention may be placed in its proper position in the heel seat while the adhesive coating thereon is cold and then be pressed upon by a hot plate the combination of heat and pressure acting to melt the adhesive and amalgamate the heel pad with the heel seat. As the adhesive is waterproof and permits the nails to embed themselves

therein, all danger of moisture penetrating the pad and causing the nails to rust and the leather of the heel seat to corrode is avoided.

A further feature of the invention contemplates providing the adhesive with a sheeting to protect the adhesive while being handled or shipped.

The various features of the present invention will be best understood from an inspection of the accompanying drawing illustrating the preferred form of the invention, in which,

Figure 1 is a bottom plan of the heel pad, and Fig. 2 is a reversed elevation looking at the breast end of the heel pad.

In the illustrated embodiment of the invention the heel pad comprises a portion of felt 1 shaped to cover the heel seat of a shoe and having a thickness sufficient to prevent the presence of the heel nails being felt by the wearer of the shoe. This body portion of felt is provided upon one face with a non-viscous waterproof adhesive coating 2 which is unaffected by the moisture or heat of the foot and normally non-adhesive under ordinary conditions of temperature but which is capable of being converted into a viscous surface by heat.

In order to protect the cold adhesive from contact with foreign substances and premature heating the adhesive 2 is covered with a paper sheet 3 which is readily removed prior to the attachment of the pad to the heel seat.

To attach the heel pad to the heel seat the paper backing 3 is removed and the heel pad inserted into the shoe with the cold adhesive engaging the heel seat. A hot plate is then firmly pressed against the uncoated face of the heel pad. The heat converts the adhesive coating into a viscous surface and the pressure amalgamates the sticky heel pad with the heel seat and embeds the nails in the waterproof adhesive thus effectively preventing the moisture of the foot from rusting the nails and corroding the leather of the heel seat.

What is claimed as new, is:—

1. A heel pad comprising a body portion having one face coated with a non-viscous, waterproof adhesive unaffected by the moisture or heat of the foot and normally non-adhesive under ordinary conditions of temperature but capable of being converted under the influence of heat into a viscous surface for attaching the pad to the heel seat and protecting the nails and heel seat from rust and corrosion, substantially as described.

2. As an article of manufacture, a piece of felt provided upon one face with a waterproof adhesive coating normally non-adhesive under ordinary conditions of temperature but capable of being converted under the influence of heat into a viscous surface for attaching the pad to the heel seat and protecting the nails and heel seat from rust and corrosion, and covered with a protective sheeting separable therefrom, substantially as described.

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