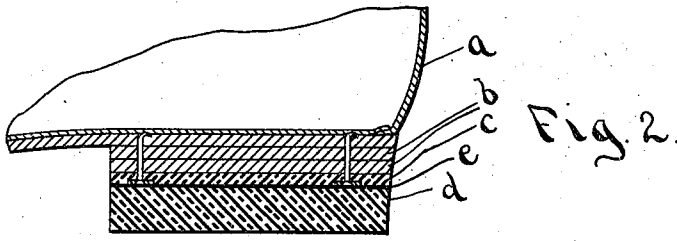
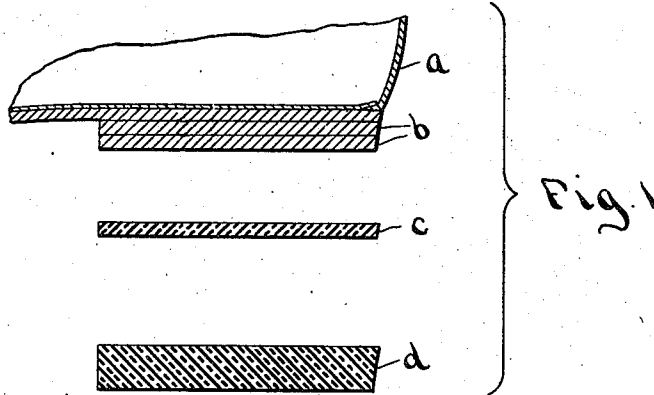


S. D. SMITH.
CUSHION HEEL.
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1,185,606.

Patented May 30, 1916.



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CUSHION-HEEL.

1,185,606.

Specification of Letters Patent. Patented May 30, 1916.

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To all whom it may concern:

Be it known that I, SAMUEL D. SMITH, of East Dedham, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Cushion-Heels, of which the following is a specification.

This invention relates to cushion heels or heel treads of the kind usually known as rubber heels. The present most approved kinds of such heels, when made, either have holes entirely through them or partly through them for the nails which secure them to the heel portions of the shoe, for the reason that it is difficult to drive nails properly through rubber of the thickness usually employed. Such nail holes or recesses, being formed in the rubber body when the heels are molded and vulcanized, leave pockets in the tread surface which gather dirt and road oil when the shoes are worn, to be afterward tracked into the house. Moreover, a large number of sizes must be carried in stock by a dealer or cobbler because the presence of the nail holes or recesses predetermines the locations of the nails and a given size cannot be materially cut or trimmed down to a smaller size without cutting into the holes or approaching them too closely to enable the heel to be securely attached. Furthermore, it is usually necessary to nail a leather lift to the heel portion of the shoe, before attaching the rubber heel.

The object of my invention is to provide a rubber heel by which these objections are avoided; that is, no intermediate leather lift such as mentioned is required, there are no pockets or recesses to gather dirt and oil, and by making the rubber heel with no holes or projections such as brads or nails or recesses for nails any given size can be cut down so that a dealer need not carry more than two or three sizes in order to be prepared for any sizes of shoes to which the heels are to be attached.

My invention consists in making the heel in two pieces of rubber, preferably one of them quite thin, nailing the thin or upper piece or layer to any shoe or boot heel structure, and then cementing the other piece to the upper piece or layer.

Of the accompanying drawings: Figure 1 is a sectional elevation illustrating my improved heel with the two members thereof

separated from a shoe heel to which they are to be attached. Fig. 2 is a view similar to Fig. 1 but showing the parts united for use.

The heel portion of the boot or shoe is indicated at *a*, having one or more of the usual lifts *b, b*, of leather or other suitable material. Some heels are made with more or less of the interior portion consisting of paper.

My improved heel comprises two layers of rubber *c* and *d* which preferably correspond with each other in outline or area, and preferably made of the same quality of resilient rubber, although I do not limit myself to having the two portions *c* and *d* of the same quality of rubber. They should be sufficiently similar, however, to enable them to be firmly and permanently connected by cement. No nail holes are formed in the layers *c, d*. Owing to the fact that the layer *c* is relatively thin, attaching nails can be driven through it at any desired point or points, in order to attach layer or rubber lift *c* as indicated in Fig. 2. Washers, of course, may be employed for the attaching nails to aid in holding the layer *c* to the lifts *b* of the boot or shoe heel. The thick layer or tread body of rubber *d* is cemented to the under surface of the layer *c*. The cement is indicated by the heavy line *e* in Fig. 2.

It has been found in practice that cement will not permanently attach rubber to leather. Moisture is particularly liable to so act upon the material as to permit the rubber to be pulled away from the leather. The two layers of rubber, however, can be securely and permanently connected by cement. I, therefore, do not need to first provide any holes whatever in the body layer *d*, nor in the intermediate rubber layer or lift *c*, nor in any part of the shoe sole. As indicated in Fig. 1, neither of the layers *c, d*, have any holes. Therefore, if the cobbler is to apply a rubber heel, according to my invention, and if the shoe which is to have the heel applied thereto is of considerably smaller size than any of the heels which he has in stock, he can cut down the members *c, d*, to the required size, such cutting down not affecting in any way the means for then securing the rubber heel to the shoe heel.

When the boot or shoe is of a structure which includes more or less paper in the heel portion, it is now customary to apply a leather lift before connecting the rubber

- heels now on the market, because otherwise the nails for securing the rubber heel cannot be always driven into portions of the shoe heel that will result in permanently holding the heel. With my invention, however, no such leather lift is needed, because the layer or lift *c* can have the nails driven through it at whatever may be the proper locations to firmly secure that lift in place.
- 10 The upper or thin layer is preferably composed of harder material than the tread layer, to provide a firmer base for the tread layer and to be held more securely by the nail heads.
- 15 An advantage which may, however, be considered a minor one is that owing to the fact that there are no holes in the body portion *d*, the wear of the cushion heel is increased because there is more rubber in it than in a heel of the same size which has holes. Another advantage is that the thick piece or body *d* can be worn entirely through before exposing the nail heads which secure the layer *c* in place. And of course it will be understood that the body *d*, with no nails in it, is more resilient than an elastic heel which is secured by nails which have heads or washers embedded therein.
- 30 It is to be understood that by the term "rubber," I do not limit myself to pure rubber, or natural rubber, since any of the compounds known as, or sometimes sold as,

rubber, and which are of the same or substantially the same characteristics as rubber, are to be included under said term. 35

Having now described my invention, I claim:

1. A boot or shoe having a cushioned heel comprising a cushioning tread lift consisting of two layers of rubber corresponding with each other in outline, one layer being thin and nailed to the heel portion of the boot or shoe and the other layer being imperforate and substantially thicker than the first-mentioned layer and cemented thereto, said thin layer being of a quality of rubber and having a thickness that will permit the driving of attaching nails through it without previous formation of holes. 40 45 50

2. A boot or shoe having a cushioned heel comprising a cushioning tread lift consisting of two layers of rubber corresponding with each other in outline, one layer being thin and nailed to the heel portion of the boot or shoe and the other layer being substantially thicker than the first-mentioned layer and cemented thereto, said thin layer being of a quality of rubber and having a thickness that will permit the driving of attaching nails through it without previous formation of holes. 55 60

In testimony whereof I have affixed my signature.

SAMUEL D. SMITH.