March 23, 1943. I. C. ANDERSON 2,314,436

PAD COVER AND METHOD OF MAKING SAME

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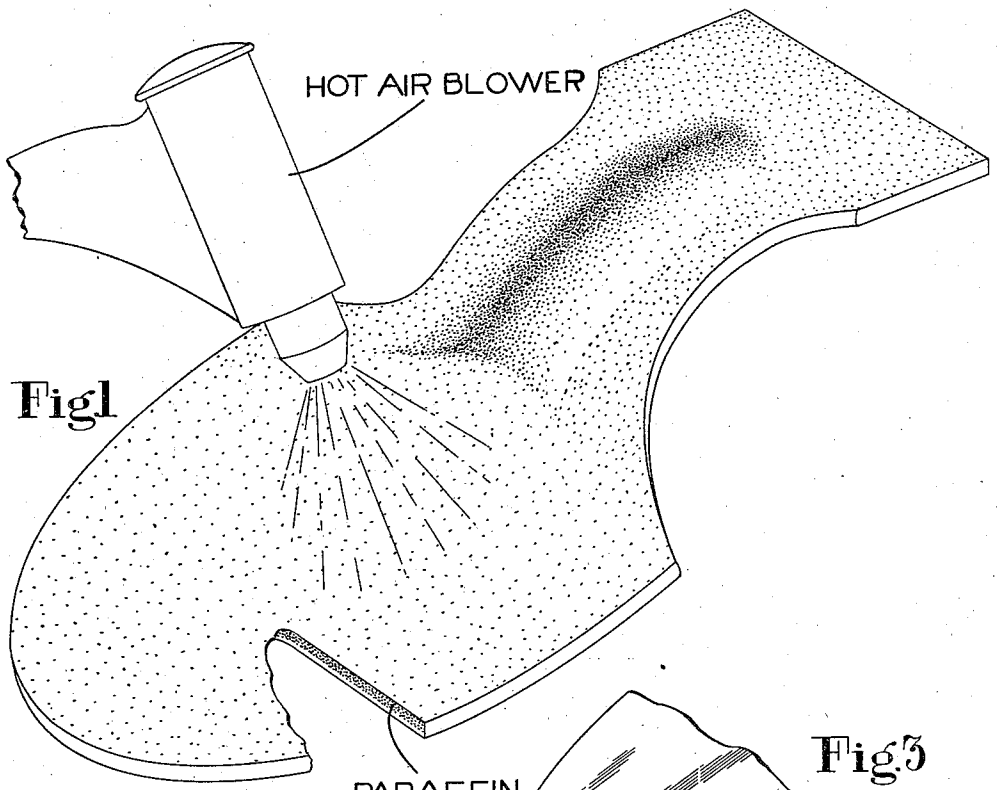


Fig1

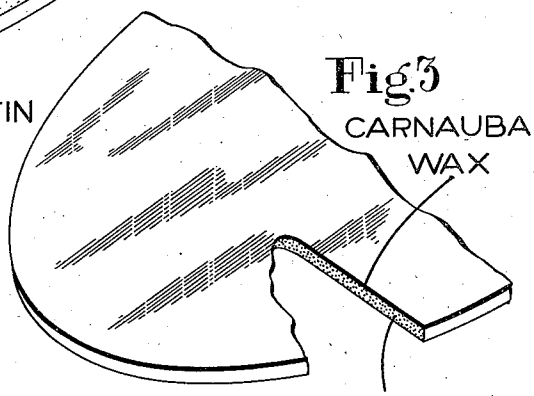


Fig3

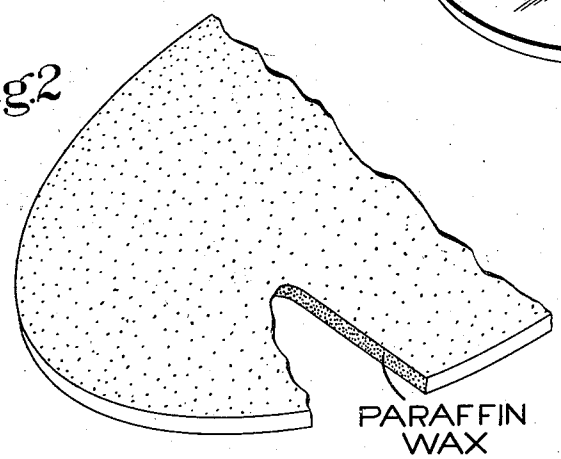


Fig2

INVENTOR
Ivan C. Anderson
By his attorney

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PAD COVER AND METHOD OF MAKING SAME

Ivan C. Anderson, Gloucester, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

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5 Claims. (Cl. 117—55)

This invention relates to a method of treating leather pad covers and to the resulting product.

Leather pad covers are customarily used on cement sole laying and attaching machines and other shoe bottom pressing machines to provide a continuous work-engaging surface for the pads and to aid somewhat in the shaping of the sole during attachment to a shoe. It has been found that, when such machines are used for pressing the soles of soft-sole slippers, which are in a moistened condition due to steaming, thereby to give them a smooth bottom line, or for the attaching of mulled outsoles, more or less water may be forced out of the sole and into contact with the pad covers, due to the pressure applied to the shoe. When this water comes in contact with untreated pad covers, it acts to soften them so that they tend to wrap around the bottom of the shoe and fail to give the desired outline thereto. The water may also act in conjunction with the flexing of the pad covers, which normally occurs when untreated covers are used, to cause cracks and abrasions in the grain surfaces thereof and thus materially reduces the time which such covers may be used without replacement.

It is well understood that leather articles may be waterproofed by impregnating them with a soft waterproofing filler, and that such impregnation may be satisfactorily carried out through the use of heated applying rolls. However, when such heated rolls are used to treat leather pad covers which have been molded to the shape of a shoe bottom before treatment, they tend to flatten the covers and destroy the conformation thereof. It has also been found that the application of pressure incident to the sole laying operation tends to squeeze the soft waterproofing filler out of leather pad covers treated in accordance with previously-known methods.

Accordingly, it is an object of this invention to provide a leather pad cover which is waterproof and which holds its shape when the sole laying or sole attaching pressure is applied.

It is a further object to provide a waterproof leather pad cover such that the waterproofing material will not squeeze out when pressure is applied.

Still another object is to provide a method of making such a waterproof pad cover which is applicable for the treatment of previously conformed leather covers.

With these objects in view, the invention provides, in one aspect, a leather pad cover impregnated with a waterproofing filler and having a wear-resistant grain surface coating of hard wax which acts to seal the waterproofing filler in the cover.

In another aspect, the invention provides a method of treating a leather pad cover which comprises impregnating it with a a waterproofing filler of paraffin wax and thereafter applying a sealing coating of carnauba wax to the grain surface thereof.

In another aspect, the invention provides a method of treating fully conformed leather covers wherein a blast of hot air is employed to cause the waterproofing filler to penetrate into the leather.

In still another aspect, the invention provides a method of stiffening leather pad covers for shoe bottom pressing machines to reduce their tendency to wrap around the sole of the shoe under treatment when pressure is applied.

In the drawing,

Fig. 1 is a perspective view of a leather pad cover with a portion cut away to indicate its appearance during impregnation with paraffin wax filler;

Fig. 2 is a fragmentary view of the cover of Fig. 1, showing its appearance after impregnation with paraffin wax; and

Fig. 3 is similar to Fig. 2 and shows the appearance of the cover at the completion of the waterproofing treatment after a surface coating of carnauba wax has been applied.

As indicated above and in the drawing, paraffin wax is used for the waterproofing filler and carnauba wax for the surface coating. While these materials are preferred for the purposes of the invention, it will be understood that other waterproofing fillers and coating waxes may be used.

In carrying out the method of the invention, the leather pad covers are heated on the grain side to a temperature which is about the melting point of the filling material to be used. This heating may conveniently be done through the use of a blast of hot air from a hot-air blower of the type disclosed in Letters Patent of the United States No. 1,896,017, granted January 31, 1933, on an application filed in the name of J. Sandt, although other suitable means may be used.

In the next step of the method, the cover is impregnated with a waterproof filler, such as paraffin wax. The paraffin supply is kept in a molten condition by suitable means and molten paraffin is applied to the entire grain surface of the cover with a brush. Inasmuch as the cover has already been heated, the paraffin wax does

not solidify at once, thus facilitating the impregnation. The surface coating of paraffin is forced into the leather by means of a hot-air blower, as shown in Fig. 1. The blast of hot air operates both to keep the wax in its molten condition and to carry it through the grain surface and into the leather without allowing it to solidify. This method of impregnating the leather cover with wax is particularly useful in the treatment of conformed covers, since no direct contact between the heater and the cover is necessary and there is accordingly no tendency to alter the shape of the latter. When the surface coating of paraffin has been driven into the leather cover, a second coating is painted on and is incorporated into the leather in the same way. This process is repeated until the wax begins to strike through the lower surface of the cover, indicating that it is substantially impregnated. In practice, the steps of coating and impregnating the leather with wax are substantially continuous, the operator using one hand to apply the wax to the surface with a brush and the other to manipulate the hot-air blower. It has been found that for covers of side leather approximately one coating of paraffin wax is required for each iron of thickness of the cover. After the completion of impregnation, the cover has the appearance indicated in Fig. 2.

The above-described treatment produces a leather pad cover which is substantially stiffer and harder than the untreated cover and which will not wrap objectionably about the shoe or absorb moisture even under the pressure incident to sole attaching or pressing operations. However, it has been found that the paraffin wax filler tends to squeeze out of the cover under repeated applications of pressure in cement sole attaching machines, and tends to soil the soles of the shoes being treated. For this reason, it has been found advantageous to provide a surface coating of a hard wax to seal the waterproofing filler in the cover.

Accordingly, after the cover has cooled, a heavy coating of carnauba wax is applied to the grain surface thereof with a polishing wheel or other suitable means. This gives the cover the appearance indicated in Fig. 3 and provides a hard work-engaging surface which reduces the wear on the leather cover and prevents soiling of the shoes. It has been found that the use of carnauba wax surface coating alone is not satisfactory for the purposes of waterproofing, because minute cracks develop in such a coating and allow moisture to seep therethrough. Such cracks, however, are not large enough to permit the waterproofing filler to squeeze out of the cover through the surface coating contemplated by the invention.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The method of treating leather pad covers which comprises applying a plurality of coatings of molten filler to the grain surfaces thereof, forcing each of said coatings into the leather until the leather is substantially impregnated with said filler, and thereafter applying a sealing coating of hard wax to the grain surfaces thereof.

2. The method of waterproofing leather pad covers which comprises applying a plurality of coatings of molten filter to the grain surfaces thereof, maintaining said filler in its molten state, using a hot air blast to cause said filler to penetrate into the leather without solidifying, and thereafter applying a sealing coating of hard wax to the grain surfaces thereof.

3. The method of preparing leather pad covers which comprises applying a plurality of coatings of molten paraffin wax to the grain surfaces thereof, incorporating each of said coatings into the leather until the leather is substantially impregnated with said paraffin, and sealing said paraffin in the leather by applying a coating of carnauba wax to the grain surfaces thereof.

4. The method of treating leather pad covers which comprises heating the same, applying a plurality of coatings of molten paraffin to the grain surfaces thereof, forcing each of said coatings into the covers until the covers are substantially impregnated with said paraffin, allowing the covers to cool, and sealing said paraffin in said covers by applying a coat of carnauba wax to the grain surfaces thereof.

5. The method of waterproofing leather pad covers which comprises heating the grain surfaces thereof by means of a blast of hot air, brushing a plurality of coatings of paraffin wax on said heated grain surfaces, using the hot air blast to cause said coatings to penetrate into the covers without solidifying, allowing the covers to cool, and thereafter sealing said paraffin in said covers by applying a coating of carnauba wax to the grain surfaces thereof.

IVAN C. ANDERSON.