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A. D'ALESSANDRO
METHOD OF MAKING SHOES

1,811,879

Filed Jan. 14, 1930

Fig. 1

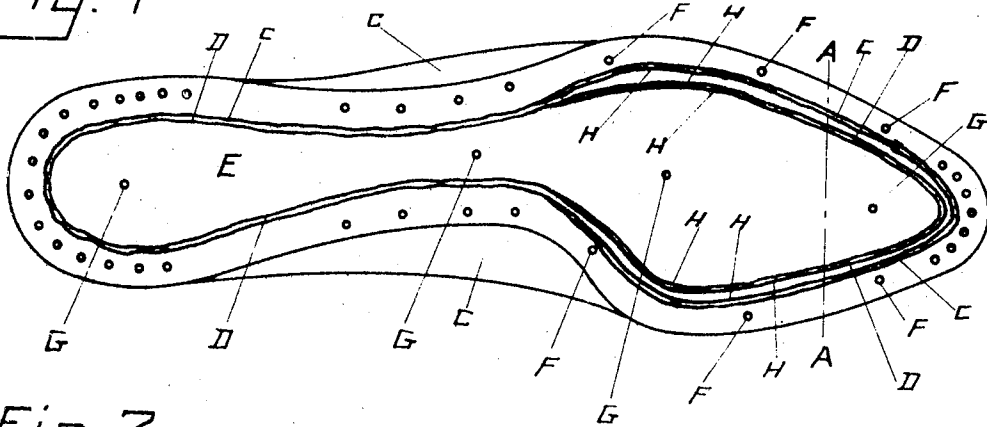


Fig. 2

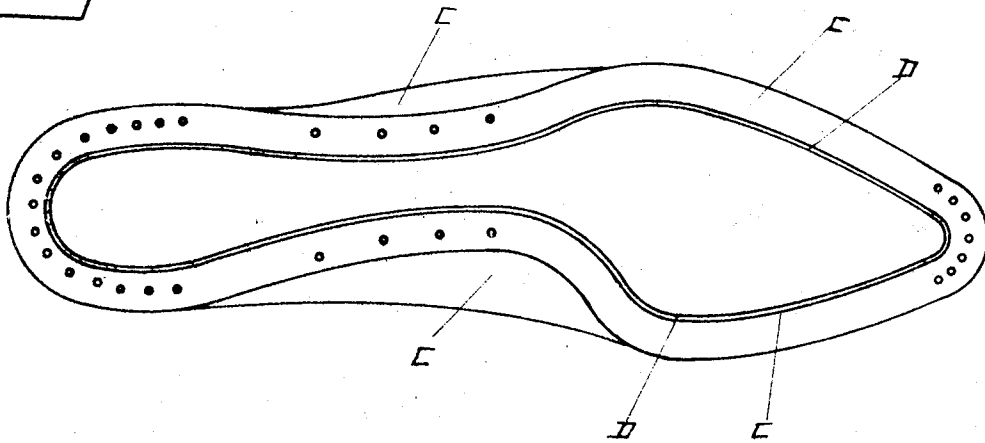
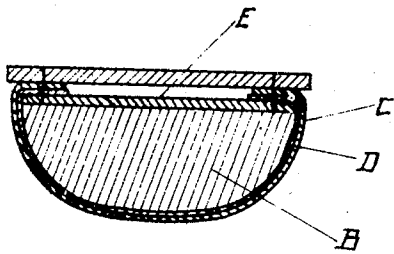


Fig. 3



Augusto D'Alessandro Inventor

By Charles W. Smith
Attorney

UNITED STATES PATENT OFFICE

AUGUSTO D'ALESSANDRO, OF LYNN, MASSACHUSETTS

METHOD OF MAKING SHOES

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This invention relates to shoes and more particularly to a new and improved method of making shoes in which the required investment in manufacturing equipment is minimized, yet the product materially improved.

It has for its objects to minimize the use of metal tacks heretofore voluminously utilized in shoe making; to avoid the "working through" the shoe materials of tacks and other metal parts; to produce a tackless McKay process shoe; to provide a method by which time, operations, materials, and money can be conserved in producing a cemented shoe; to minimize the cost of making cemented shoes; to produce good shoes at such a saving in production cost as to make their sale speedy in the highly competitive sales field; to provide a shoe more comfortable to the foot than heretofore; to eliminate the expense of armoured lasts in shoe making; to minimize needle breaking in shoe stitching, the major portion of which is caused by the needle contacting with tacks normally used in the manufacturing process to eliminate grooving of the sole and the possibility of running off the groove with the resulting damage to the sole and the upper; to lay the out sole of the shoe without staples or tacks; to so impregnate and adhere the outsole and the insole that they become practically one and the same piece; to thus obtain as good and as flexible results as in a turn shoe, to enable the speeding of production through the elimination of manufacturing operations and the elimination of the normal interruptions; to thereby cut overhead; to avoid the curling of the innersole during the process of manufacture; and to secure the various other advantages and results made evident from the following specification.

I accomplish the objects of my invention by first temporarily tacking an insole, preferably a thin one, but optionally of any thickness, upon an unarmoured last. I then assemble an ordinary lined upper upon the last, pull it over the insole in its desired position, and temporarily hold it in position by a limited number of tacks driven part way in, on a line near the edge of the shoe and

away from the edge of the upper and lining so as to leave said edges and that portion of the insole thereunder free and available. I then coat with cement the outer available surface of the insole, the inner available portion of the upper and both available surfaces of the lining and allow the cement to dry. Next I press the upper and lining against the insole into its final resting place and remove the tacks. The bottom of the shoe is then buffed to remove all projections and glaze, and again coated with cement. When the last mentioned cement is dry, I apply an unchannelled sole which has also been first coated and dried. At this stage a sole leveling machine may be advantageously used for perfection in detail, although the same results may be obtained by hand method without the use of the machine, which if used it will be noted is the first expensive equipment resorted to. In addition to the outsole cementing above referred to the shoe may then be stitched through and through the outsole, upper, lining, and insole without fear of the insole curling as in the usual manufacturing process. The shoe is then finished in the usual way.

Referring to the accompanying drawings which form a part of this specification and in which similar letters of reference refer to similar parts throughout the various views, Figure 1 shows a bottom view of a shoe with the lined upper assembled over a last and upon an inner sole with the temporary tacks holding the upper in lasted position. In this view, the edges of the lining and upper and that portion of the insole thereunder, are free and accessible for the application of cement or adhesive. Figure 2 shows the edges of the lining and upper in "pressed down position" after the adhesive has dried and the bottom of the shoe buffed smooth ready for the application of the sole. Figure 3 shows a cross sectional view of the shoe on line A—A in Figure 1 with an unchannelled sole finished position thereon.

Referring again to the drawings, B shows the last, C shows the upper, D shows the lining, E shows the insole, F shows the temporary tacks which hold the lining and up-

per in position on the last. G shows the tacks which temporarily hold the insole upon the last, H shows the coating of adhesive applied and allowed to dry before the edges of the lining and upper are pressed into final position as shown in Figure 2.

If a shoe with a heavy extension sole is desired it is made as already described but the edge of the outsole is cut of proper size to project the requisite amount beyond the edge of the upper. Then an extra sole is applied and stitched along its edge as in the Goodyear welt process. No filling is required. The edge is finished in the usual manner.

My improved method will be well understood from the detailed description herein, covering one mode of practising the same and as illustrated in the accompanying drawings. It will be understood however that the scope of the invention as defined by the claims hereto appended is not limited to the particular materials or steps which have been chosen for illustrative purposes in this specification.

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

1. The method of making shoes which includes temporarily tacking an insole upon an unarmoured last; assembling a lined upper upon the last and insole thereon, pulling the lining and upper over the insole in desired position and temporarily securing the upper and lining in such position by a limited number of tacks driven part way in on a line away from the edges of the upper and lining so as to leave said edges and that part of the insole thereunder free and accessible, coating with cement the outer available surface of the insole, the inner available portions of the upper, and both available surfaces of the lining, allowing the cement to dry, pressing the upper and lining against the insole into final resting place and removing the tacks, buffing the bottom of the shoe to remove all projections and glaze, coating the bottom of the shoe with cement, allowing the same to dry, applying an outsole which has first been cement coated and dried, pressing the outsole into finished position, stitching the shoe through and through the outsole, upper, lining, and insole, and finishing the shoe in the usual manner.

2. The method of making shoes which includes temporarily tacking an insole upon an unarmoured last; assembling a lined upper upon the last and insole thereon, pulling the lining and upper over the insole in desired position and temporarily securing the upper and lining in such position by a limited number of tacks driven part way in on a line away from the edges of the upper and lining so as to leave said edges and that part of the insole thereunder free and accessible,

coating with cement the outer available surface of the insole, the inner available portions of the upper, and both available surfaces of the lining, allowing the cement to dry, pressing the upper and lining against the insole into final resting place and removing the tacks, buffing the bottom of the shoe to remove all projections and glaze, coating the bottom of the shoe with cement, allowing the same to dry, applying an outsole which has first been cement coated and dried, pressing the outsole into finished position, and finishing the shoe in the usual manner.

In testimony whereof I affix my signature.
 AUGUSTO D'ALESSANDRO.

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