May 24, 1938. G. C. LOUCKS ET AL 2,118,255

PERFORATED AND EMBOSSED SHOE PART

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FIG. 1.

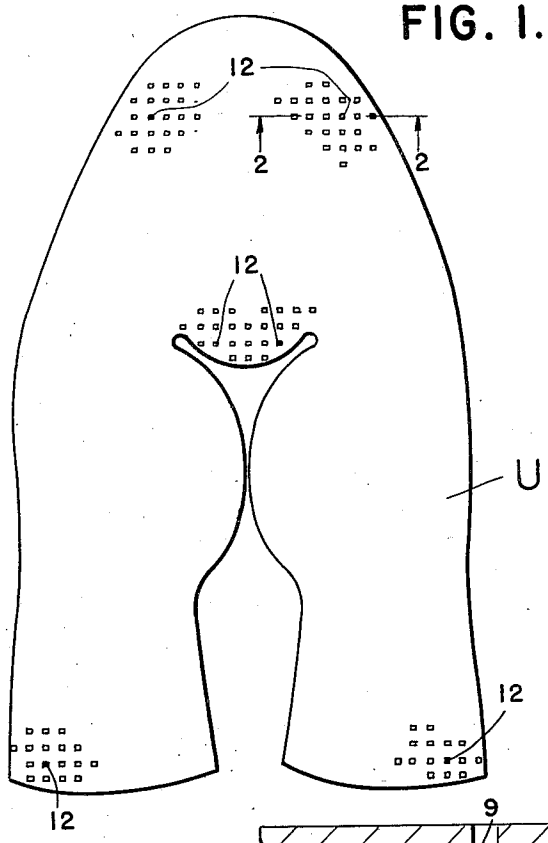


FIG. 2.

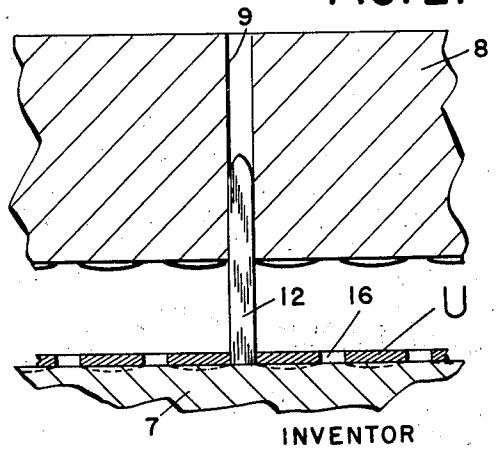
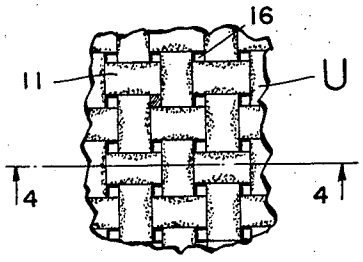


FIG. 3.



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FIG. 4.



FIG. 5.

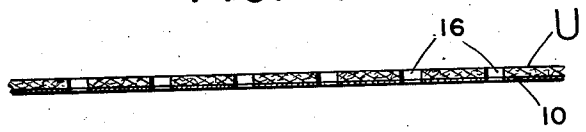


FIG. 6.

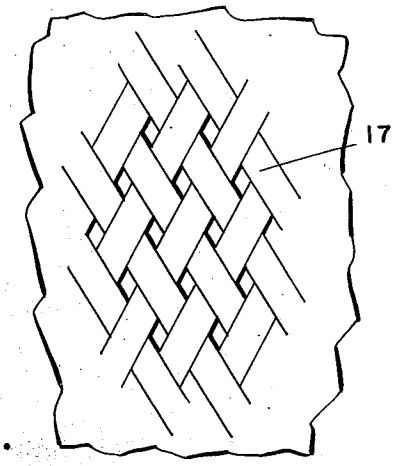
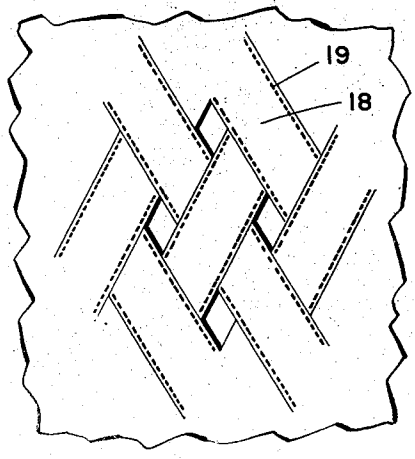


FIG. 7.



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PERFORATED AND EMBOSSED SHOE PART

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Milwaukee, Wis.

Application November 29, 1937, Serial No. 177,046

1 Claim. (Cl. 36—3)

This invention appertains to shoes and shoe manufacture, and more particularly to a novel means for treating shoe parts incident to the manufacture of ventilated shoes.

One of the primary objects of our invention is to provide means whereby the shoe manufacturer is enabled to emboss and perforate shoe upper blanks during the construction of the shoe without the necessity of buying embossed upper leather in the piece, thereby eliminating the expense of large dies and the like utilized by leather wholesalers, and the waste of leather incident to cutting upper blanks to the best advantage from an embossed hide.

Another salient object of our invention is to provide means for embossing and perforating a shoe part, whereby said part will closely simulate and give the appearance of platted leather strips.

A further important object of our invention is to provide means whereby the entire upper or only certain sections thereof can be treated to give the desired design or effect.

A still further object of our invention is to provide means for forming a ventilated shoe, which will simulate platted leather strips, and which consists in, first, cutting or forming the shoe upper from the hide; second, perforating or cutting holes in the leather at the points where the simulated leather strips will cross; and, third, embossing the design on the shoe upper between the holes.

With these and other objects in view, the invention consists in the novel construction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a top plan view of an upper blank after the perforating or hole-cutting operation, with the upper blank positively held relative to the embossing die by locating pins.

Figure 2 is an enlarged, fragmentary sectional view taken substantially on the line 2—2 of Figure 1, looking in the direction of the arows, showing the locating or guide pins passing through certain of the openings for holding the upper and guiding the embossing die in place.

Figure 3 is a fragmentary, top plan view of the upper blank after the perforating and embossing operations.

Figure 4 is an enlarged, fragmentary, transverse sectional view through the upper blank after the perforating and embossing operations, the view being taken substantially on the line 4—4 of Figure 3.

Figure 5 is an enlarged, fragmentary detail sectional view illustrating the upper after the perforations have been made therein and before the embossing operation, with the upper leather reinforced by fabric lining.

Figure 6 is a fragmentary, top plan view illustrating a slightly modified form of the design, and with the design formed only on a part of the upper.

Figure 7 is a view similar to Figure 6, illustrating a still further form of the design.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter U generally indicates an upper blank, and this blank is cut out of the hide in accordance with ordinary shoe-making practice.

The leather upper U can be reinforced, if so desired, by a fabric lining 10, as clearly shown in Figures 4 and 5, and where this lining is used, the leather and the lining are united together by a suitable adhesive.

After the upper U has been blanked from the hide, the same is perforated with a plurality of square-shaped openings 16. Hollow, square perforating knives (not shown) are utilized for this purpose, and it is to be noted that the square-shaped openings are arranged in equally spaced parallel intersecting rows.

The perforated upper blanks U are now placed on a table or platen 7 of an embossing device. The table or platen 7 has formed thereon or secured thereto relatively long upstanding guide pins 12. These guide pins are square-shaped in cross-section, so as to snugly fit in certain of the openings 16 and to extend above the upper blank. As illustrated in Figure 1, pairs of spaced guide pins are used at the front, back, and intermediate portions of the upper blank. The embossing die 9 is now brought down over the upper blank U. The die embosses on the outer surface of the upper blank a design 11, which takes the form of platted leather strips.

It is essential to the invention to accurately locate the die 8 relative to the intersecting rows of square-shaped openings 16, so that the simulated platted strips will be correctly disposed relative to the openings. Hence, the die 8 has formed therein guide openings 9 for receiving the guide pins 12. Thus, as the die 8 is guided down over the upper blank, the same is positively positioned relative to the openings 12, and lateral

shifting movement of the embossing die 8 and the upper blank U is prevented.

By referring to Figures 3 and 4, it can be seen that the embossing provides alternate raised portions 13 and depressed portions 14, and the strap simulations are arranged between the intersecting rows of openings 16, with the openings 16 located at the corners where the strap simulations cross.

These two operations give an appearance to the upper blank which closely resembles actual platted leather straps or strips.

By our method and process, the upper blanks can be quickly handled and treated, and as the blanks are cut before the perforating and embossing steps, a high cut of the hide is insured. Likewise, by our process the shoe manufacturer himself can do the perforating and embossing, and select his desired design.

While in Figures 1 to 5 inclusive we have shown a platted strap design with the strap simulations extending longitudinally and transversely of the blank, it is to be understood that the strap simulations can run diagonally of the blank, as indicated by the reference character 17 in Figure 6.

Likewise, the strap simulations can be made wide or narrow, and in Figure 7 we have shown relatively wide strap simulations 18, and the strap simulations have embossed therein dots or dashes 19 along their edges to give the appearance of stitching.

While we have shown an entire upper in Figure 1, it is to be noted that vamps or other upper parts can be treated according to our process.

Other changes in details may be made without departing from the spirit or the scope of our invention, but what we claim as new is:

A shoe upper blank having at least a part thereof provided with intersecting rows of openings and embossed simulated platted leather strips, with the strips extending between the intersecting rows of perforations.

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