April 16, 1946. C. H. DANIELS 2,398,623

SHOE

Filed May 19, 1942 2 Sheets-Sheet 1

Fig. 1

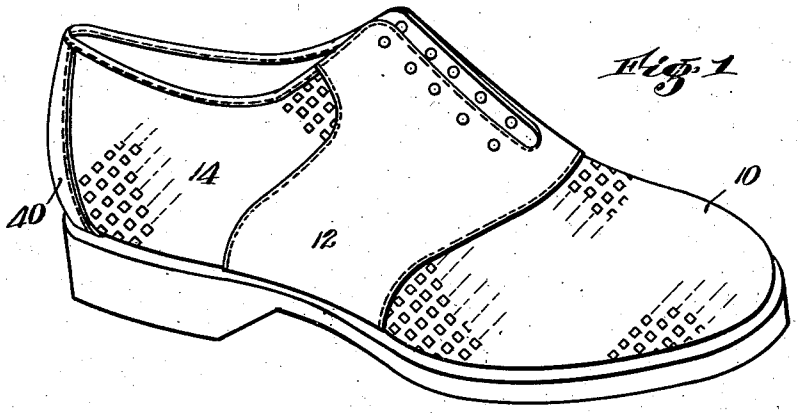


Fig. 2

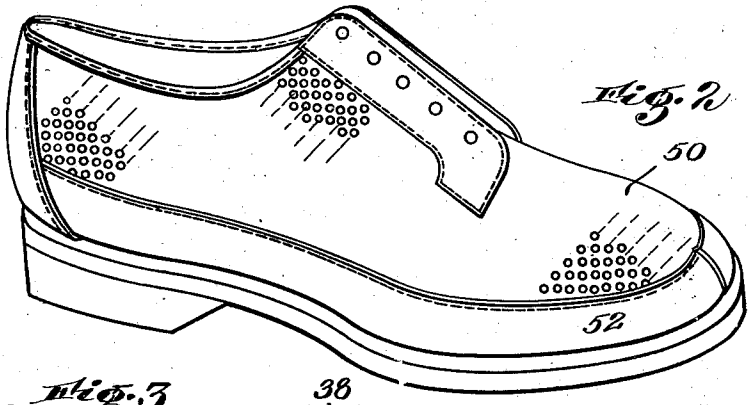


Fig. 3

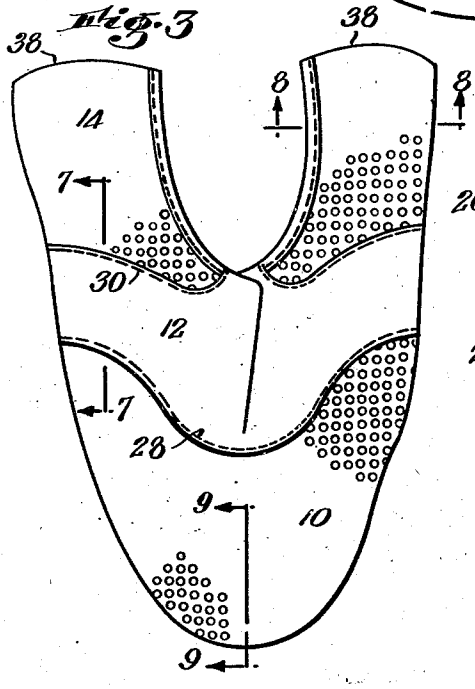
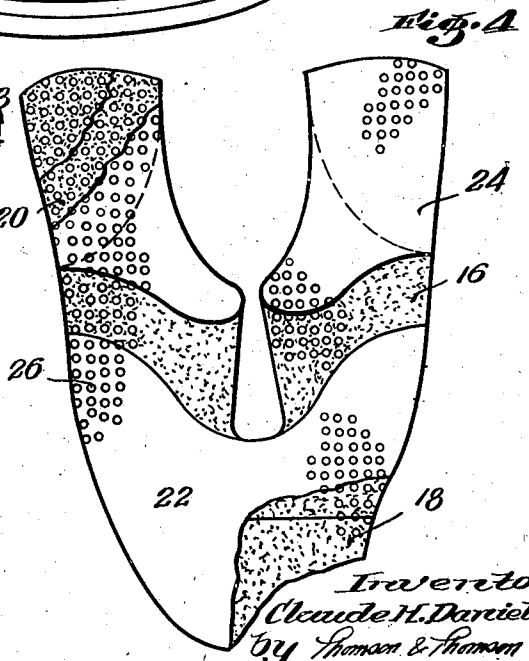


Fig. 4



Inventor
Claude H. Daniels
by Thomson & Thomson
his Attys.

April 16, 1946. C. H. DANIELS 2,398,623

SHOE

Filed May 19, 1942 2 Sheets-Sheet 2

Fig. 5

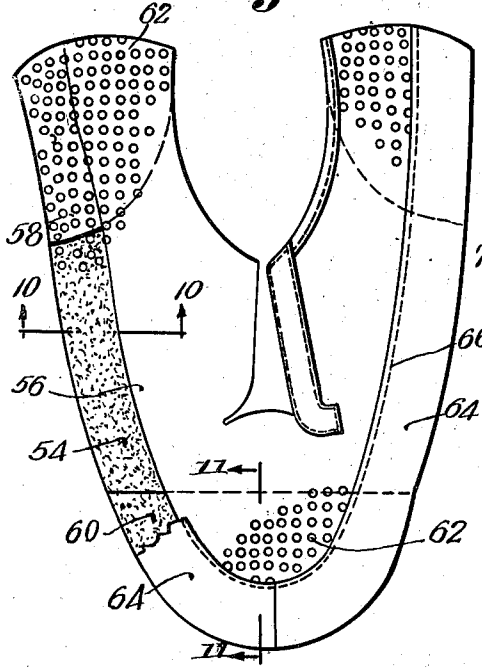


Fig. 6

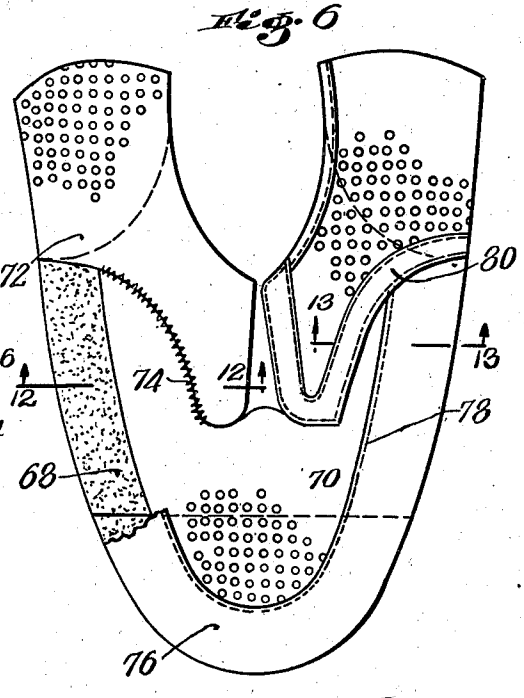


Fig. 7

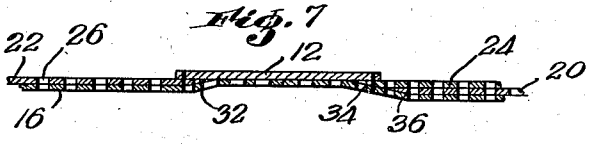


Fig. 9

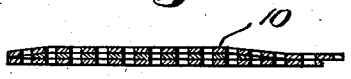


Fig. 8

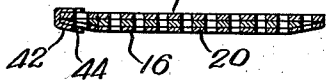


Fig. 10



Fig. 11

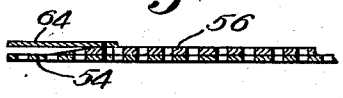


Fig. 12

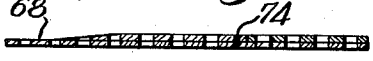


Fig. 13



Inventor:
Claude H. Daniels,
By Thomson & Thomson
his Attys.

Patented Apr. 16, 1946 2,398,623

UNITED STATES PATENT OFFICE

2,398,623

SHOE

Claude H. Daniels, Greenwich, Conn.

Application May 19, 1942, Serial No. 443,554

4 Claims. (Cl. 12—146)

This invention relates to improvements in shoes and more particularly to improvements in the cutting and assembling of the parts of a shoe upper.

In the manufacture of various types of shoes it is customary practice to cut the upper leather stock in more than one piece. This method is advantageous, because it is more economical to cut smaller pieces rather than large pieces from the leather skins, and where the upper is made of parts of contrasting colors the parts must be cut separately. The lining is usually cut in pieces conforming in shape to the pieces of the upper.

In the manufacture of ventilated or perforated shoes where the perforating is carried out over the entire area of the upper, the parts of the upper are usually assembled and secured together in the flat so that the flat upper or upper part may be passed through the perforating machine. In certain styles of shoes it is desired to have the perforations extend over the entire area of certain parts of the upper while other parts of the upper are left unperforated. For example, it may be desired that the saddle portion, the toe cap or the mudguard be left unperforated while the remainder of the upper is perforated over its entire area. This usually requires making the upper and lining in separate parts which must be stitched or otherwise secured together after certain parts have been perforated over their entire areas. When the lining is made in more than one piece the edges are usually lapped and seamed together.

An object of the present invention is to eliminate the lapped seams of the lining on the inside of the shoe and thereby make the shoe more comfortable to the foot by cutting the lining for the shoe upper or a portion of the area of the upper in one piece while the outer layer of the shoe upper which covers the same area is cut in more than one piece.

It is further an object of my invention to make a shoe upper by cutting a lining piece, cementing certain parts of the outer layer on the lining piece in the flat leaving exposed and uncovered certain portions of the lining piece and thereafter, after perforating if desired the partially assembled upper in the flat, attaching other parts of the outer layer to cover the exposed portion of the lining piece, said parts being secured to the marginal edges of the cemented parts.

Further objects and advantages of my improvements will be more readily apparent from the following description of preferred embodiments of my invention as disclosed in the attached drawings, in which:

Fig. 1 is a perspective view of a shoe of the saddle type;

Fig. 2 is a perspective view of a shoe of the mud-guard type;

Fig. 3 is a plan view of the assembled upper for the shoe shown in Fig. 1;

Fig. 4 is a fragmentary plan view, partially in broken section, showing the upper of Fig. 3 before the saddle is applied;

Fig. 5 is a plan view of the assembled upper for the shoe disclosed in Fig. 2 with part of the mud-guard broken away and the binding applied to only one side of the upper;

Fig. 6 is a view similar to Fig. 5 but showing a modification;

Fig. 7 is a sectional view taken on the plane indicated 7—7 in Fig. 3;

Fig. 8 is a sectional view taken on the plane indicated 8—8 in Fig. 3;

Fig. 9 is a sectional view taken on the plane indicated 9—9 in Fig. 3;

Fig. 10 is a sectional view taken on the plane indicated 10—10 in Fig. 5;

Fig. 11 is a sectional view taken on the plane indicated 11—11 in Fig. 5;

Fig. 12 is a sectional view taken on the plane indicated 12—12 in Fig. 6; and

Fig. 13 is a sectional view taken on the plane indicated 13—13 in Fig. 6.

The shoe of Fig. 1 includes the forepart 10, the saddle 12 and the quarter 14. In making this shoe the upper lining 16 is cut to the shape disclosed in Fig. 4. It is customary to apply a toe stiffener 18 and a counter stiffener which, in the present example, is made in separate pieces 20. These stiffener parts 18 and 20 may be cemented to the top side of the lining 16 in the proper position. If desired the lining could be cut off at the toe and the toe stiffener stitched thereto. The forepart 22 of the outer layer of the shoe upper is cut to the shape indicated in Fig. 4 and is cemented in position as shown. The forepart 22 extends rearwardly beyond the toe stiffener. The separate parts 24 of the quarter 14 are cut from upper leather stock and cemented in position as shown in Fig. 4. These quarter parts 24 extend forwardly beyond the counter stiffener pieces 20. It will be noted from Fig. 4 that the forepart 22 and the quarter parts 24 when cemented in position are spaced apart with respect to each other leaving an exposed area of the lining which must be covered by applying the saddle 12.

The parts of the upper before the saddle is applied are flat and, if desired, the flat vamp may be perforated over its entire area as indicated by the perforations 26. The perforations extend through three layers at the toe, the outer layer 22, the toe stiffener 18, and the lining 16. Immediately at the rear of the toe stiffener the perforations extend through the two layers of the outer layer 22 and the lining 16. The lining 16 only would be perforated in the space between the parts 22 and 24. At the quarter area the perforations extend through the three layers of the quarter section 24, the counter stiffener 20 and the lining 16.

After perforating the vamp, or without perforating if perforations are not desired, the saddle 12 is then applied. The saddle is cut to the shape indicated in Fig. 3 and is placed in position so as to overlap the marginal edges of the forepart 22 and the quarter parts 24. The saddle is then stitched in position by the line of stitching 28 which passes through the three layers of the marginal edge of the saddle 12, the marginal edge of the forepart 22 and the lining 16; and the line of stitching 30 which passes through the rear marginal edge of the saddle 12, the forward marginal edges of the quarter section 24 and through the lining layer 16. The saddle is not adhesively secured to the lining 16.

As shown in Fig. 7, the rear marginal edge 32 of the layer 22 is skived to a thin edge while the forward marginal edges of the quarter section 24 and counter section 20 are similarly skived to thin edges as indicated at 34 and 36 in Fig. 7. The upper is closed by bringing together the rear edges 38 of the quarter sections of the vamp and applying the back-stay 40. The binding 42 may then be applied over the top edges of the quarter 14 and secured by a line of stitching 44 as shown in Fig. 8. This line of stitching passes through the marginal edge of the quarter section 24, the skived edge of the counter 20 and the marginal edge of the lining 16.

By this method of construction the shoe has a smooth continuous lining which is preferable to the usual method of construction in which the lining is made in several parts with lapped seams. Further, if it is desired to have the shoe perforated as shown in Fig. 1, it is much more convenient to carry out the perforating of the forepart and quarter while they are attached together rather than in separate pieces.

The shoe displayed in Fig. 2 is of the mud-guard type and is made with a continuous lining similar to the shoe in Fig. 1. In Fig. 2 the upper generally is indicated 50 and the mud-guard around the bottom of the upper is indicated 52. Fig. 5 illustrates the manner of making the upper for the shoe of Fig. 2. The lining 54 is made of one piece cut as shown in Fig. 5. The outer layer 56 of the upper is cut smaller than the lining 54. The customary counter stiffener sections 58 and a toe stiffener 60 may be cemented in position between the lining 54 and the outer layer 56. The layers 54 and 56 are otherwise adhesively secured to each other throughout their contacting surfaces. If it is desired to make a ventilated shoe, the flat upper blank may then be perforated throughout its entire area as indicated by the perforations 62 in Fig. 5. The upper may then be finished by applying the mud-guard strips 64 which are laid over the exposed margin of the lining 54 and overlap the marginal edge of the outer layer 56. These strips 64 may be secured in position by the line of stitching 66. The mud-guard strips are not adhesively secured to the lining layer.

The upper blank disclosed in Fig. 6 is somewhat similar to the blank of Fig. 5 except that the vamp is cut separately from the quarter and the mud-guard does not extend through the quarter area of the shoe. The lining 68 is cut the same as the lining 54 in Fig. 5. The outer layer is cut in three separate pieces comprising the vamp 70 and the separate quarter sections 72. Suitable quarter stiffener sections and a toe stiffener may be applied in the same manner as in Fig. 5. Before applying the outer layer pieces 70 and 72, it is preferred to secure the parts together after the edges have been brought into abutment such as by the zig-zag stitching 74. This will insure that the quarter portions will be in the correct position with respect to the vamp when the stitched together pieces are laid upon and cemented to the lining. The flat upper blank may then be perforated if desired before applying the mud-guard strip 76 which is stitched to the marginal edge of the vamp 70 by the line of stitching 78. The abutting edges of the vamp 70 and quarter section 72 and the stitching 74 are covered by suitable stay strips 80.

In all the uppers disclosed the lining is in one piece while the outer layer of upper leather stock covering the lining piece is made in several parts, and if the shoe is perforated the perforations do not extend through certain parts of the outer layer which are stitched in position after perforating the flat cemented layers of the partially assembled upper.

Although I have shown the lining for the entire shoe vamp cut in one piece, it should be understood that certain advantages of my improvements will result if the lining is cut in more than one piece provided that the pieces of lining are less in number than the pieces of the upper leather stock which cover the lining. For example, the upper could be cut in separate vamp and quarter sections, the lining for the vamp section being in one piece while the upper leather stock which covers the vamp lining is cut in several pieces.

I claim:

1. In a method of making an upper for a shoe in which only a portion of the upper area is perforated, the steps which consist in cutting a lining layer in one piece, adhesively securing to said lining layer in the flat sections of upper leather stock so as to cover only a portion of the lining area, then perforating the adhesively secured layers of the lining and the upper leather sections over the entire area thereof, then placing a piece of unperforated upper leather stock in position to cover the portion of the lining area which is not covered by the perforated upper leather stock sections, said piece of upper leather overlapping marginal edges of the upper leather stock sections, and stitching said piece of unperforated upper leather stock in position.

2. In a method of making a mud-guard type of shoe in which the upper of the shoe is perforated over its entire area except for the mud-guard, the steps which consist in cutting a one-piece lining layer, cutting upper leather stock to form the parts of the outer layer with the forepart of said outer layer narrower in width than the forepart of the lining layer, adhesively securing said outer layer to the lining layer in the flat whereby a marginal portion of said lining layer at the forepart will remain uncovered by said outer layer, perforating said assembled lining and outer layers in the flat over the entire area and then

attaching a mud-guard strip by stitching the mud-guard strip to the marginal edge of the forepart of the outer layer and to the lining layer whereby said mud-guard strip covers the perforations in the marginal portion of said lining layer.

3. In the method of making a saddle type shoe which is ventilated in the toe and quarter sections but not in the saddle portion, the steps which include cutting out a one-piece lining and securing to the lining suitable toe and quarter stiffener sections, a forepart section and quarter sections while leaving exposed portions of the lining intermediate the forepart and quarter sections, then perforating the assembly throughout the entire area while in the flat, and finally securing an unperforated saddle piece in position over the exposed perforated area of the lining, the saddle piece being arranged to overlap the opposed marginal edges of the forepart and quarter sections.

4. In the method of making a complete shoe upper which is only partly ventilated the steps which consist in, cutting out a one-piece lining, securing to the lining a partial outer layer of upper leather stock while leaving exposed part of the area of the lining, then perforating the assembly throughout the entire area while in the flat and finally securing an imperforate piece of upper leather stock in position over the exposed perforated area of the lining, said piece being arranged to overlap the adjoining marginal edge portions of the perforate outer layer.

CLAUDE H. DANIELS.