COUNTER ASSEMBLY IN SHOE CONSTRUCTION

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COUNTER ASSEMBLY IN SHOE CONSTRUCTION

INVENTOR.

Charles Dinolfo

ATTORNEY
This invention relates to shoe construction and more particularly to an improved form of counter and method of forming a counter assembly in a shoe.

In accordance with the instant invention, a counter blank is first laminated with an upper and the combination is then shaped to form a bottom seat or flange. This is effected by a tensioning device such as a cord which is drawn to the bottom edge of the laminated assembly inwardly. The bottom portion is thus crimped or shirred and is, by the same action, rendered U-shaped to conform to the shape of the insole while its cross-sectional shape is in the form of an L. Since the cross-section is L-shaped, the bottom portion serves as a flange and avoids the necessity of pre-molding a counter into this shape or even last it thereafter.

The upper which is now formed with the flange and is crimped or shirred at its underside, is then connected to the insole and it is shaped thereafter to its final form. This completes the upper and insole assembly and the subsequent steps to finish the type of shoe desired may be conventional.

The formation of a counter assembly in accordance with the instant invention increases production and effects considerable manufacturing economies. Furthermore, the method permits the upper or quarter to be raised or lowered with facility so as to change the style of the shoe. It will be recognized that a pre-molded counter has inherent limitations since one must work with the particular size of the pre-molded counter. In the instant method, the counter is formed together with the upper in the manner described, the assembly being a single structure so that both the counter and the upper may be worked together to change the lines of the shoe or to vary the size thereof.

The invention will be further understood from the following description and drawings in which:

Figure 1 is a side elevational view of a substantially completed shoe constructed according to the instant invention;

Figure 2 is a bottom perspective view of an upper in the first stage of the invention;

Figure 3 is a perspective view of the upper in a succeeding stage;

Figure 4 is a perspective view of the upper in further advanced stage;

Figure 5 is a bottom view illustrating the initial application of the upper of Figure 4 to an insole;

Figure 6 is a bottom view of the completed upper and insole assembly;

Figure 7 is a plan view of a counter blank used in the instant invention;

Figure 8 is a cross-sectional view as taken along the line 8—8 of Figure 2;

Figure 9 is a cross-sectional view as taken along the line 9—9 of Figure 3;

Figure 10 is a cross-sectional view as taken along the line 10—10 of Figure 3;

Figure 11 is a cross-sectional view as taken along the line 11—11 of Figure 4;

Figure 12 is a cross-sectional view as taken along the line 12—12 of Figure 5; and

Figure 13 is a cross-sectional view as taken along the line 13—13 of Figure 6.

Referring to the drawings, a typical shoe which the invention provides is illustrated in Figure 1. Of course, shoes or sandals of many conventional types can be formed by employing the instant invention as will be evident hereinafter. In the form illustrated, the shoe upper 15 comprises a quarter portion 16 and a forepart or vamp portion 17. An outer sole is not illustrated in connection with the shoe of Figure 1 although a completely finished shoe will ordinarily have such an outsole.

In constructing the improved shoe, the vamp portion 17 and the quarter portion 16 are connected together in a conventional manner as by a line of stitching 18. Vamp portion 17 may be provided with a lining 19 while quarter portion 16 is provided with a lining 20. The outer wrapper or ply 21 may be of fabric or leather or the like. Outer ply 21 may be of the same nature as the outer ply of the vamp portion.

Adhesively secured between the lining 20 and outer ply 21 is the counter 22. This counter is applied as follows.

Counter blank 22, as illustrated in Figure 7, is normally planar and is formed of conventional counter materials such as buckram, paper or the like. The counter blank is cemented on both sides with a one-way sticking cement. It will be recognized that such a cement will stick to another surface without requiring such other surface to be precemented. The counter blank is then inserted between the lining 20 and the outer ply 21 so that it sticks to both, forming a three-piece laminated. The lamination is thereby pressed together so as to produce neatness and uniformity. Conventional machinery is used for this purpose, e.g., a United beading machine.

The upper is then brought to the stage illustrated in Figure 3. This is effected by running a third stitch 23 around the bottom edge to sew the laminations together. It will be understood, however, that the use of such a third stitch is optional since the lamination may be left in glued laminated form if desired. At this point, a layer 24 of cement, about a half inch wide, is applied around the inside of the upper at the lower portion thereof. It is this lower portion which subsequently forms a flange or seat and the cement layer 24 insures that such flange can be cemented to the insole. As an example, neoprene rubber cement is often used for this purpose.

Figure 4 illustrates the first step in forming the lower portion of the upper into a flange or seat. This is accomplished by cording the bottom edge of the quarter so that the bottom edge is crimped or shirred and at the same time tends to assume the shape of a flange or a seat. Thus, cord 25 is sewn around the bottom edge of the quarter 16. The cord 25 is actually shorter than the normal arcuate length of the quarter bottom edge which is illustrated in Figures 2 and 3 so that the application of such cord produces the shirring and crimping effect while urging the bottom portion into constricted U-shaped form and into a flange or seat 26. It will be noted that cord 25 is connected to such bottom edge by an arcuate line of stitching 27 which goes through the cord and connects it to the bottom edge. As will be recognized by those skilled in the art, this crimping action is known per se and is effected by a single needle machine with a conventional attachment. The cord 25 is applied under tension as will
be well understood so that the bottom edge is drawn inwardly or constricted as illustrated.

The upper is now in condition to be attached to the insole. For this purpose the insole 28 is cemented on its lower surface and it is placed within the upper as illustrated in Figure 5. At this point, the operator may pull upon the shank portions 29 and 30 in the direction of the toe so as to cause the flange or seat 26 to firmly seat itself around the margins of the insole while the cord 25 is disposed on the bottom surface of the insole as illustrated in Figure 13. It will be noted that the cement layer 24 assists in securing adhesion at this point. However, in order to produce superior adhesion, I may then use a conventional lasting machine such as a Kamboring machine which connects the entire upper to the insole. This completes the formation of the upper as illustrated in Figures 1 and 6 and any further steps can be taken to produce the type of shoe desired. If it is desired to make a McKay shoe, the insole may be seamed to the upper. It will further be recognized that in order to correct any irregularities or the like at this time, the finished shoe may be molded on either a hot or cold mold.

It will be recognized from the foregoing, that I have produced a shoe wherein production expenses are minimized without sacrificing quality in the finished shoe. The method employed further provides considerable flexibility in production because it permits facilitated regulation of the tension of the flange, it permits the quarter or any other portion of the upper to be lowered or raised with facility while the flange may be made larger or smaller as desired. Notwithstanding any such considerations, the counter always conforms to the flange, avoiding the inherent limitations in a pre-molded counter. It will be noted that since the counter blank and the outer ply are both worked together, the shirring of both is substantially identical and is complementary.

The above method may be employed with outer plys of fabric or leather or the like which may be either lined or unlined.

What is claimed is:

1. As an article of manufacture, a shoe upper comprising an outer ply, a counter laminated thereto and an insole connected to the lamination, said lamination being bent over at its bottom portion to form a flange which seats against the bottom surface of the insole, and a tensioning cord sewn to the outer edge of said flange, said cord being shorter in length than the normal length of the flange outer edge to which it is sewn so as to produce shirring of said flange.

2. An article of manufacture according to claim 1 and wherein the shirring of both the outer ply and the counter is substantially identical and complementary, said cord and flange both being U-shaped, the cord being sewn to the flange outer edge by an arcuate line of stitching penetrating said cord.

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