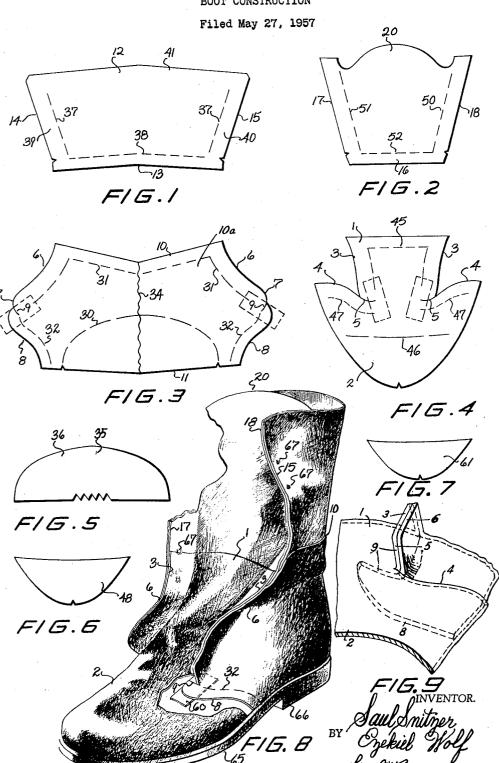
BOOT CONSTRUCTION



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The present invention relates to a boot construction 15 and more particularly to a boot having a structure of improved wearability and adapted to be waterproofed.

It is an object of the present invention to provide a shoe and boot structure which is particularly designed to be treated with waterproofing materials. While sub- 20 stantial steps have been made in the manufacture of chemicals for waterproofing leather, such water proofing procedures are of no avail if holes are formed in the boot through which water may enter. In conventional boots waterproofing is ineffective because moisture may enter the interior of the boot through holes formed by stitching. Thus, the literally hundreds of holes through which the stitching passes in the shoe provides a ready means of ingress for water and moisture. The present invention is designed to provide a boot which not only may be impregnated with conventional waterprofing chemicals but also provides a structure in which all the stitching is eliminated and consequently in which all holes for thread are eliminated. In the present invention there is provided a structure having a single piece tongue and 35 vamp combination and a lower quarter, with the lower quarter and the vamp and tongue combination being cemented together to form a complete upper. is also provided, if desired, an upper tongue and upper quarter section as well as a counter, box toe lining and 40 stays. The upper of this boot structure is cemented to a sole construction to form a complete watertight boot structure having no holes at all for the passage of water to the interior of the boot. This particular structure in addition to providing a waterproof construction has unusual wearability due, in part to the utilization of cement as a securing means throughout the structure, and in part to the method of interlocking the vamp and lower quarter. Normally threads used for stitching the various components of the boot together test approximately twenty pounds of pull test with perhaps a somewhat greater test for nylon thread. In the present invention, a permanent bond cement properly used may have a strength of fifty pounds pull test.

It is a further object of the present invention to provide a boot which is light weight and flexible in nature and which, being of leather, is capable of "breathing" while at the same time it has waterproof qualities. Thus, the boot of the present invention may be worn conventionally as an ordinary leather boot, and additionally, may be used in place of rubber boots or overshoes.

One important feature of the present invention is that the blucher seams are under the vamp at the vamping allowance, thus minimizing the stress at this usually weak point. This particular area is reinforced by stays cemented to the vamp and lower quarter. Of further importance is the formation of a slit continuous with the blucher nose at either side of the vamp-lower tongue section. This slit is used to interlock the lower quarter with the vamp-lower tongue section in such a manner as to eliminate exposed corners which if present could

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readily be raised where cement rather than stitching was utilized.

The present invention by providing a structure in which but two pieces of leather are used in the upper, in a low cut boot, is easy to manufacture and thus provides a structure of lower cost. Furthermore, by elimination of stitching and the substitution of cementing, skilled stitching operators may be eliminated with the additional and consequent elimination in stitching room machinery.

These and other objects and advantages of the present invention will be more clearly understood when considered in connection with the accompanying drawings in which

Figure 1 is a plan view of the upper quarter, Figure 2 is a plan view of the upper tongue, Figure 3 is a plan view of the lower quarter, Figure 4 is a plan view of the vamp lower tongue.

Figure 4 is a plan view of the vamp-lower tongue combination,

Figure 5 is a plan view of the counter, Figure 6 is a plan view of the box toe lining, Figure 7 is a plan view of the box toe,

Figure 8 is a fragmentary perspective view of a boot made in accordance with the present invention, and

Figure 9 is a fragmentary perspective view of a detail 25 of the present invention.

The particular patterns shown in Figures 1 to 7 are, of course, illustrative of the present invention, and it should be understood that their particular shape and dimension may be varied without departing from the scope of the present invention. Each of these Figures 1 to 7 discloses a pattern of the particular component above indicated before any crimping or forming operation.

As illustrated in Figure 4 there is provided a vamplower tongue combination with the tongue 1 tapered toward the vamp 2. The side edges 3 of the tongue angularly approach the upper extension edges 4 of the vamp. Curved slits 5 are continuous with the edges 4 and extend inwardly towards one another across the blucher nose. These slits 5 in part form an interlock between the vamp-lower tongue member and the lower quarter member.

The lower quarter 10a illustrated in Figure 3 is cut with the configuration illustrated. It will be noted that the edges 6 of the quarter eyelet stay are curved and extend angularly, outwardly and downwardly, terminating in an inwardly curved section 7 forming in part the blucher corner. The lower side edges of the lower quarter are curved and extend angularly inwardly and downwardly as indicated at 8. A slash 9 is formed between the edge sections 6 and 8 with the slash being continuous with the edges 6. The upper edge 10 and lower edge 11 may each be formed with an obtuse angle extending outwardly from the center so that upon crimping the lower quarter, the upper and lower quarter will form a shape at the rear of the boot, known as the rake, to conform to the normal contour of ankles and legs. An upper quarter, as illustrated at 12 in Figure 1, is provided with a lower edge 13 of a width corresponding with the edge 10 of the lower quarter. The side edges 14 and 15 of the upper quarter may be inclined outwardly to form a continuation of the edges 6. The upper tongue 20 is provided with a lower edge 16 corresponding with the upper edge of the tongue section 1. Side edges 17 and 18 are inclined outwardly from the bottom edge 16 so as to form continuations of the edges 3.

In the formation of this boot, the lower quarter, illustrated in Figure 3, is marked on the inside as indicated at 30 and 31 and on the outside as indicated at 32. The inside marker 30 is for approximately a quarter inch band of cement for securing the counter pocket 35. The marker 31 is for a cement lap for the upper quarter and for a cement lap for the vamp eyelet stay. The outside

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marker 32 is for a cement lap for the vamp along the edges 4.

After the lower quarter has been properly marked, it is crimped down the middle along a line generally indicated at 34 to obtain the desired rake. The counter 35 is then skived along the edge 36 and cemented to the lower quarter along the line 30, after which it is properly fitter and pressed to the lower quarter. The lower quarter is cemented along the eyelet stay portion of the quarter between the marker 31 and edges 6. It is also cemented along the upper edge between the edge 10 and marker 31 in an area which forms the upper seam of the lower quarter and between the marker 32 and edges 8 forming the yamping seam of the lower quarter.

The upper quarter 12 is then marked on the inside 15 along line 37 and on the outside along line 38. After skiving the lower marginal edge between the line 38 and edge 13, cement is applied thereto. Cement is also applied to the eyelet seams 39 and 40, formed respectively between the lines 37 and edge 14 and 37 and edge 15. The upper edge 41 may be skived and cemented to provide a finished top edge. The upper and lower quarters are then fitted together by aligning the line 38 to the edge 10

The vamp, illustrated in Figure 4, is marked along the lines 45 and 46 after suitably skiving the box toe lining 48, illustrated in Figure 6, and cementing it in the vamp along the line 22. The box toe lining may be secured to the vamp in a conventional manner. The vamp is cemented between the edges and the markers 45, 46 and 47.

The upper tongue, shown in Figure 2, is then marked on the inside along lines 50 and 51 and on the outside along line 52, following which the upper tongue has cement applied to it between these markers and the edges with which they are parallel. Having first properly skived and roughened the upper tongue, the upper tongue may then be fitted and pressed to the lower tongue with the lower tongue overlapping and extending outside of the upper tongue, the lower edge 16 being aligned with marker 45.

The vamp and tongue combination with the attached upper tongue is then attached at both sides to the upper and lower quarters which, as indicated, have been cemented together. In fitting these two assemblies together, the edges 4 of the vamp are laid over forward margins of the quarter and are aligned with the marker 32 while the edges 3 of the tongue are aligned with the side portions of the marker 31. The slashes or slots 5 are interengaged with the slashes or slots 9 with the lower side edges 8 of the lower quarter in the area of the slashes 9 extending below the vamp at the blucher nose. Thus, as illustrated in Figure 6, in the area of the interengaging slashes of the vamp and lower quarter, the forward portion of the lower quarter along edges 8 extends below the vamp with this forward edge area being cemented on its outer side to the inner side of the vamp. The portion of the vamp and the tongue forming the eyelet stay section is cemented in face to face relation with the eyelet stay section of the lower quarter, with each of these members being cemented together on their inner surfaces. Attention is directed toward the fact that in the area of the blucher nose, there are no free corners which may accidentally be picked free. A leather reenforcing strip 60 is then cemented to the blucher nose on the flesh side of the upper at the slashes 5 and 9. Following this, a box toe 61 and a counter may be incorporated into the structure by conventional means. The shoe is lasted, and an inner sole and outer sole conventionally positioned and secured to the upper. The sole should be cemented or vulcanized rather than stitched to the upper. Following the cementing and securing of the sole, the entire sole and heel, 65 and 66, should be vulcanized to the shoe. Eyelets or hooks may then be formed in the eyelet stay as indicated at 67 for lacing the boot.

Having now described my invention, I claim:

1. In a boot construction a one piece lower quarter having opposing side edges with an inwardly extending slash formed in each, and a one piece member having vamp and tongue portions with means forming an inwardly extending slash at each side of said member at the junction of the tongue and vamp portions, cement means securing said member and quarter together with said member overlapping said quarter along adjacent margins of the vamp portion of said member and said quarter, said member lying in face to face relation with said quarter along adjacent margins of the tongue portion of said member and said quarter thereby forming an eyelet stay, said slashes in said quarter and member interengaging, and said cement means securing said adjacent margins together.

2. A boot construction having a one piece lower quarter, an integral vamp and tongue member, and a sole, said member sealed at its lower edges to the edges of said sole from the front to the instep region of the sole with the rear edges of the vamp portion extending transversely over the instep region and terminating at the lower end of the side edges of said tongue portion, means forming inwardly extending slashes continuous with said rear edges between said vamp and tongue portions and partially defining an eyelet stay, said quarter sealed at its lower edges to the edge of said sole from the rear to the instep region of said sole, said quarter having upper and lower marginal portions along its forward edges with the upper and lower portions being defined from one another 35 by inwardly extending slashes, said lower marginal portions underlapping said rear edges whereby marginal areas of the inner surface of said vamp portion and outer surface of said quarter are in face contact, said first and second mentioned slashes interengaging with one another and with said upper marginal portions having their inner surface in face contact with marginal portions on the inside of said tongue portion along the side edges thereof thereby forming eyelet stay sections, and cementitious means securing said facing marginal portions together.

3. A boot as set forth in claim 2 wherein said lower marginal portion extends angularly forward from the sole and said upper marginal portion extends rearwardly from said lower portion with said slashes defining said portions being continuous with the edge of said upper marginal portion.

4. A boot as set forth in claim 2 wherein said first and second mentioned slashes are substantially parallel with one another in an interengaging position.

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