June 11, 1957 V. A. SHERBROOK 2,794,995

METHOD OF MAKING AN ARTICLE OF FOOTWEAR

Filed July 21, 1954

Fig. 1

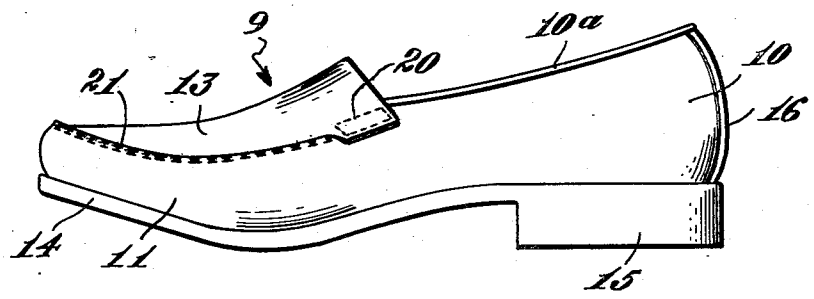


Fig. 2

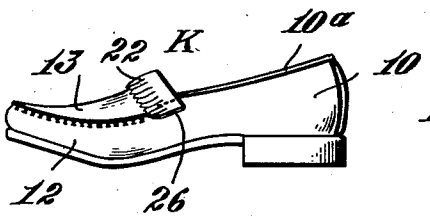


Fig. 3

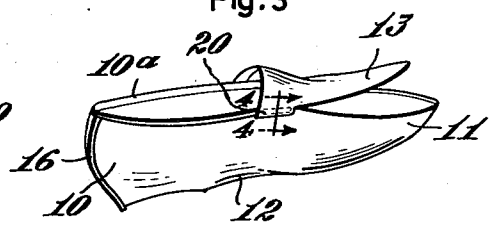


Fig. 4

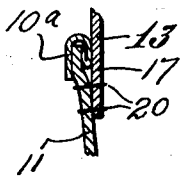


Fig. 7

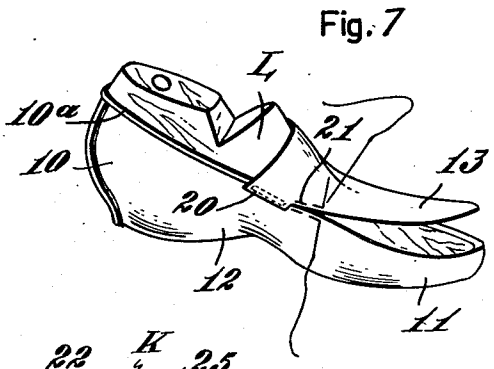
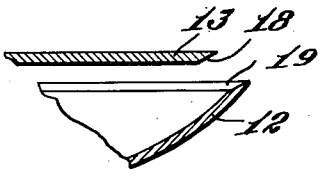


Fig. 5



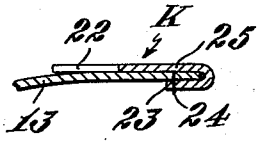


Fig. 8

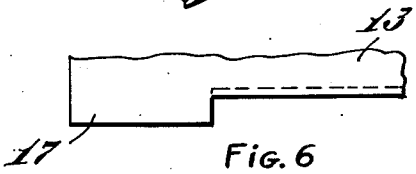


Fig. 6

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METHOD OF MAKING AN ARTICLE OF FOOTWEAR

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1 Claim. (Cl. 12—142)

This invention pertains to footwear, more especially to a shoe or slipper of the type commonly known in the trade as a "loafer," and relates to a novel method of making footwear of this general type and to a novel article of footwear resultant from the practice of this method.

The upper of a shoe of the above type commonly comprises a single piece of upper stock which forms the insole, quarter and the vamp proper, and a second piece of upper stock customarily referred to as the "plug" which covers the toe and instep portions of the wearer's foot and which in reality is the forepart portion of the vamp. In the completed shoe the upper margin of the vamp proper is united to the margin of the plug by a hand sewn seam. In accordance with customary prior procedure, the upper is first closed at its rear end, a last is inserted in the upper, the plug is arranged over the forepart of the last, and the plug and vamp are united by hand sewing, the hand sewn seam usually commencing at the rear end of the plug at one side and progressing around the toe and terminating at the rear end of the plug at the other side of the shoe. Since the pull exerted in drawing the stitches of the hand sewn seam constitutes the only lasting stress whereby the vamp is shaped to the last, and since when first assembled upon the last the vamp proper and plug are wholly independent, the forming of the hand sewed seam demands great care and a high degree of skill in order that the completed shoe may be conformed to the last and have a symmetrically arranged plug without tendency to twist or skew. Thus the prior procedure involves a cost for labor constituting a very substantial item in the total cost of production. Moreover, since the stitches which form the hand sewed seam are coarse and made by the use of a heavy thread, it is difficult to start and terminate the seam in such a way as to impart a neat appearance and at the same time to insure against raveling during use. It has been attempted to cure the latter difficulty by the use of auxiliary seams, made after the last has been withdrawn, or by the application of patches or the like to cover the ends of the hand sewed seam, but such prior expedients usually have an obvious make-shift appearance not desirable in high grade footwear, and do not even attempt to make easier the proper assembly and union of the plug and vamp.

One object of the present invention is to provide a novel method of making footwear of the above type such as to facilitate the shoe making operation by reducing the difficulties commonly experienced in properly assembling and uniting the plug and vamp and thus lessening the degree of skill required while at the same time insuring a more uniform product and at a reduced cost. A further object is to provide a novel article of footwear of the above type wherein the plug is united to the vamp throughout the major portion of the length of its margin by the customary hand sewed seam but has the rear end portions of its lateral margin united to the vamp by other means, for example a non-raveling machine-sewn seam. Other and further objects and advantages of the invention will be pointed out in the following more detailed description and by reference to the accompanying drawings, wherein

Fig. 1 is a side elevation of a shoe of the loafer type made in accordance with the present invention;

Fig. 2 is a side elevation, to smaller scale than Fig. 1, showing a shoe of the same general type but provided with an ordinary kiltie at the rear margin of the plug;

Fig. 3 is a perspective view showing the vamp and the plug of the shoe of Fig. 1 as they appear when assembled in accordance with the practice of the present invention;

Fig. 4 is a fragmentary transverse section to larger scale on the line 4—4 of Fig. 3;

Fig. 5 is a fragmentary vertical section showing the forward edges of the plug and vamp as they appear before they are united by the hand sewed seam;

Fig. 6 is a fragmentary side elevation of one rear corner of the plug, to larger scale than Fig. 3, and showing the plug before it is assembled with the vamp;

Fig. 7 is a perspective view showing the assembled plug and vamp of Fig. 3 as they appear after the last has been inserted and showing the first stitches of the hand sewed seam at one side of the shoe, and

Fig. 8 is a fragmentary front-to-rear section through the rear portion of the plug of the shoe of Fig. 2, showing the ornamental kiltie attached thereto.

Referring to the drawings, the numeral **9** (Fig. 1) indicates in general a shoe of the loafer type made in accordance with the present invention. This shoe comprises a single piece of upper stock which forms the quarter portions **10**, the side portions **11** of the vamp, and parts, 12 portions of which show in Figs. 3 and 7, which extend beneath the foot to form the insole. Customarily, the upper edge of the quarter portion **10** is provided with a finish bead **10a** such as a French cord edge or the like, and the forepart portion **13** of the vamp, that is to say, the part of the vamp which overlies the arch of the wearer's foot, is formed of a separate piece of upper stock customarily termed the "plug." As shown in Fig. 1, the shoe comprises the outer sole **14** and a heel **15**. However, it should be understood that the present invention is applicable to footwear of a more general type, for example, moccasins wherein there is no separate outer sole or heel.

The upper is closed at its rear, and as here illustrated is provided with a stay piece **16** which covers the closing seam, although the stay piece is not necessary.

In accordance with the present invention, the plug **13** is preferably provided, as shown in Fig. 6, with a widened portion along its rear margin so as to form a narrow elongate downwardly directed tab **17** at each rear corner. Either after or before the upper has been closed at the rear as above described, the plug is assembled with the upper (Fig. 3) so that the tabs **17** of the plug overlap the margin of the vamp **11** at opposite sides respectively of the shoe, the tabs **17** then being united to the vamp **11** by machine-sewed seams **20**.

In accordance with customary manufacturing methods, the parts which form the upper of a conventional shoe are united by machine-sewed seams. Such seams usually comprise fine or short stitches and are substantially non-raveling. The operators of the sewing machines which sew such seams acquire very great skill in the assembly and uniting of the parts of the upper, and in accordance with the present invention this skill is availed of for the assembly and preliminary uniting of the plug to the vamp proper. By properly marking the plug and the vamp, as is customary in the assembly and sewing of the upper parts of a conventional shoe, it is possible for the operator, without difficulty, to assem-

ble the plug and vamp with the greatest accuracy, so that the plug will be symmetrically disposed and properly located from front to rear. In order to insure a firm and non-raveling anchorage of the rear part of the plug to the vamp, it is desirable to provide more than one row of stitches at the point **20**, and for convenience, and to reduce the time of the operation as well as to impart a more or less ornamental effect, it is preferred to form a continuous seam which defines a vertically narrow rectangular area elongate from front to rear, thus providing at least two parallel lines of stitches extending lengthwise of the shoe.

Having assembled the plug with the vamp and having thus securely united the parts (and assuming that the upper is closed at the back), the last L (Fig. 7) is now inserted, and since the rear part of the plug snugly embraces the cone of the last while the rear end of the last fits within the rear part of the quarter, the upper is thus accurately positioned on the last and the operator who makes the hand sewed seam **21** (which unites the plug to the vamp forwardly of the machine-sewed seams **20**) finds his work greatly facilitated, since it is no longer necessary for him to observe care in centering the plug with reference to the vamp. The operation of forming the hand sewed seam may thus be carried out more rapidly and likewise requires less skill than ordinarily, and thus the cost of production is substantially reduced. Furthermore, since the fine-stitch machine-sewed seams at **20** provide a very firm anchorage for the rear parts of the plug and have little tendency to ravel, the termini of the hand sewed seam are not subjected to the strains which they customarily experience during the wear of the shoe and thus the tendency to ravel is very greatly reduced. Moreover, the lateral tabs **17** of the plug which overlap the upper margin of the vamp and which are of vertical width approximating that of the hand sewed seam, provide a finished appearance which adds to the aesthetic characteristics of the completed shoe.

While the shoe of Fig. 1 is of a very simple, plain construction, it is obvious that the present method may be embodied in a shoe of the same general type but provided with ornamental effects such for example as the kiltie K shown on the shoe of Fig. 2. Such kilties are commonly employed in shoes of this general type, the kiltie consisting of a piece of upper stock, which may or may not be like the material forming the rest of the shoe upper, the forward margin of this piece of material being slashed to provide a flange **22**.

When making a shoe of this type and before the plug **13** is assembled with the vamp, the upper margin **23** of

the kiltie (Fig. 8) is secured by a seam **24** to the undersurface of the plug. The tabs **17** of the plug are then attached to the vamp as above described, and the kiltie is folded over the rear margin of the plug, as shown at **25** (Fig. 8), and if desired may be secured to the part of the plug which it overlaps by adhesive.

The lateral edges of the kiltie are now stitched by machine stitches at **26** to the underlying plies of material including the tabs **17** of the plug and the upper margin of the vamp **11**, thus forming a firm anchorage for the ends of the kiltie to prevent the latter from becoming unfolded and at the same time providing additional anchorage for the rear portion of the plug to prevent separation of the plug from the vamp during use.

While a certain desirable procedure has herein been described and illustrated by way of example, it is to be understood that the invention is broadly inclusive of any and all modification, including the use of different material and a different order of steps such as fall within the scope of the appended claims.

I claim:

That method of making a shoe whose upper comprises a single piece of upper stock which forms the quarter portions and the side walls of the vamp, and a plug which forms the fore part portion of the vamp, the plug having at its rear corners downwardly directed integral tabs which are relatively narrow vertically and relatively long from front to rear, said method comprising as steps closing the upper at its heel end, assembling the plug with the other part of the upper so that the tabs at the rear corners of the plug overlap the upper margins of the side walls of the vamp, permanently uniting each tab to the vamp by a seam comprising a substantial number of relatively fine ravel-resistant machine-sewn stitches, the seams extending longitudinally of the respective tabs, then introducing a last and finally completing the union of the plug to the vamp by a hand sewed seam comprising relatively coarse stitches, beginning the seam at the forward edge of one of said tabs, continuing the seam about the toe of the shoe and terminating the hand sewed seam at the forward edge of the opposite tab.

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