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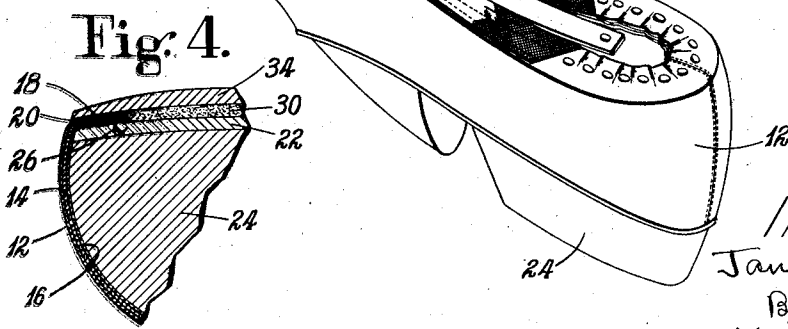
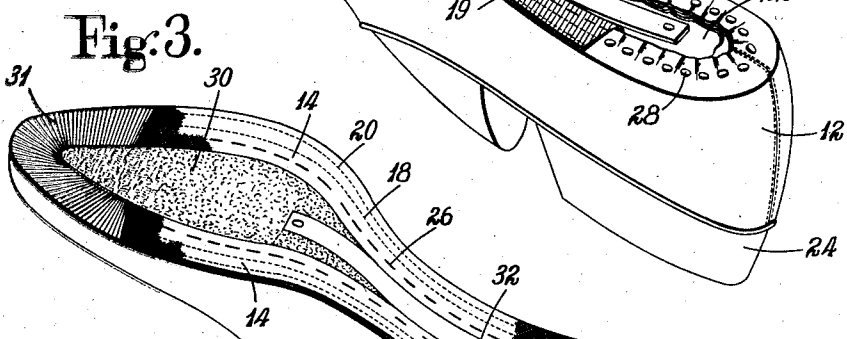
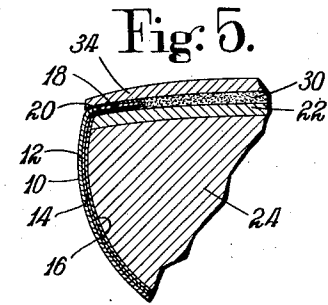
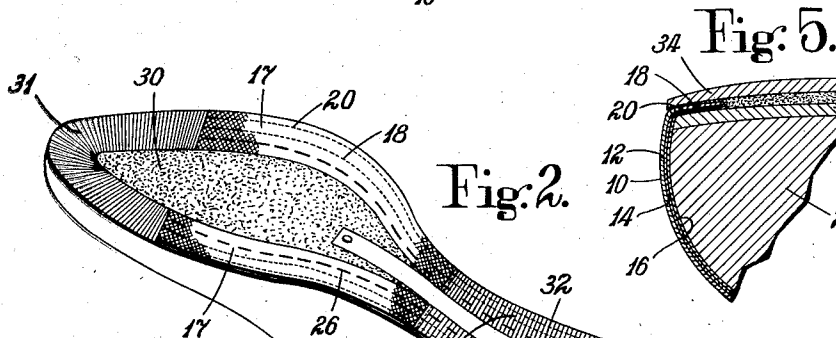
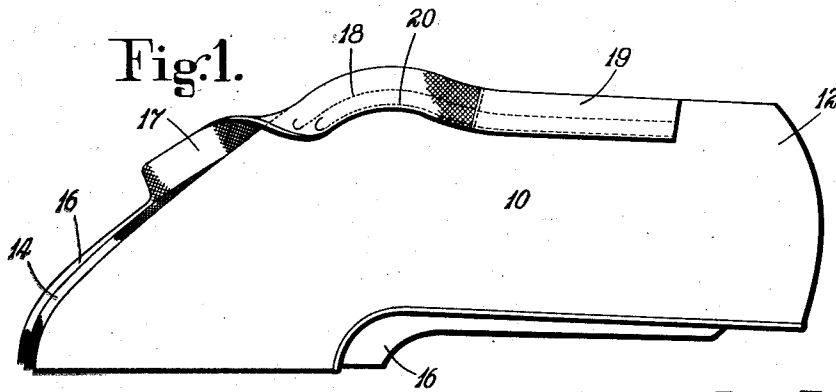
J. CAVANAGH

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SHOE AND THE MANUFACTURE THEREOF

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INVENTOR:
James Cavanagh
By his Attorney
Harlow M. Davis

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SHOE AND THE MANUFACTURE THEREOF

James Cavanagh, Cohasset, Mass., assignor to
United Shoe Machinery Corporation, Paterson,
N. J., a corporation of New Jersey

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34 Claims. (Cl. 12—142)

This invention relates to improvements in shoes and the manufacture thereof and is illustrated herein with reference to the manufacture of compo shoes.

In the manufacture of compo shoes it is usually necessary, in order to provide a surface suitable to receive the cement by which the sole is to be attached to the shoe, to roughen or scour the overlasted marginal portion of the shoe upper. This roughening or scouring of the upper removes the finish from the grain side of the leather which finish is generally of such a character as to make it practically impossible to secure a reliable cement bond between the overlasted portion of the shoe upper and the outsole without such roughening or other special treatment. The roughening operation is usually performed with a rotating wire brush or an abrasive wheel which scrapes or roughs the grain surface of the leather in such a manner that the finish is removed therefrom, thereby rendering this surface suitable to receive the sole attaching cement.

It will be seen from the above that in order to remove the finish from the grain surface of the leather, the lasting margin of the shoe upper is ordinarily subjected to a considerable amount of abrasion which may seriously weaken the shoe upper. If the leather is thin or delicate it is not infrequently torn, even to such an extent that the upper is rendered worthless and cannot be used, which, of course, greatly adds to the cost of manufacturing the shoes. Moreover, some kinds of leather, notably certain reptile skins, cannot be roughened effectively by the methods now in use since the horny nature of the scales or scutes on such skins prevents the rotating brush or abrasive wheel from producing satisfactory results. In addition, considerable difficulty often arises in determining the portion of the margin of the upper which should be roughened at the shank of the shoe, since the location of the edge of the insole cannot always be determined accurately through the material of the upper.

Important objects of the present invention are, therefore, to reinforce the marginal portions of shoe upper and to eliminate or at least to reduce to a minimum the upper roughening operation.

As illustrated herein, and in accordance with a feature of the invention, these objects are attained by cutting the marginal portion of, for example, a multi-ply upper (this portion being commonly referred to as the "lasting allowance")

fuller than normal by a width substantially equal to the width of the normal lasting allowance of the upper and turning the excess material back upon the lasting allowance of the upper and securing it thereto, for example, by means of stitching. The turned-back material, which is integral with the upper, serves to reinforce the marginal portion of the upper and to increase its durability, thereby preventing weakening or tearing of the upper at the margin during subsequent operations on the shoe, or after the shoe is completed. The rest of the multi-ply upper is cut normally and the parts are secured together in the usual manner to form the complete upper. The portions of the lasting allowance which are cut fuller than normal preferably should extend from about the tip line to the heel breast line at each side of the shoe. As illustrated, these portions are secured to the outer leather layer of the upper by one or more rows of stitching one row of which is located close to the edge of the excess material so that this edge will be drawn tightly against the surface upon which it has been turned back, thereby providing a firm lower edge along the lasting margin of the upper. The reinforcing of the lasting allowance of the upper by excess material integral with the upper as herein disclosed, also provides an unfinished leather surface which is well adapted to receive the sole attaching cement. Consequently, no upper roughening operation will have to be performed along those portions of the lasting margin of the upper which have been reinforced in the manner described, in order to insure that a reliable cement bond will be obtained between the overlasted marginal portions of the upper and the outsole.

It is within the scope of the present invention to reinforce a shoe upper by turning back the leather outer layer of the upper, the fabric or leather of the lining, or the fabric material of the doubler. When the leather upper material is utilized for this purpose the flesh side of the leather will, except in the case of suede shoes, be uppermost after the excess material has been turned back and secured to the lasting allowance of the upper. This unfinished surface provides an excellent base upon which to apply the sole attaching cement and forms, as well, a substantial reinforcement for the marginal portions of the upper at each side of the shoe. If a fabric lining or a fabric doubler is used to reinforce the upper, the marginal portions of the lining or the doubler are cut fuller than normal in the manner described and the excess material is then

turned back upon the lasting allowance of the outer leather layer of the upper and stitched thereto. In either instance, the excess material preferably extends from about the tip line to the heel breast line of the shoe and is of a width substantially equal to the width of the normal lasting allowance of the upper, so that when the material is turned back upon the outer leather layer of the upper its lower edge will coincide substantially with the bottom edge of the normal lasting allowance of the upper. When the lining of the upper, or a portion of the lining, is composed of leather, for example if the quarter lining is of sheepskin, as is not infrequently the case, the surface exposed, if the lining is turned back to reinforce the lasting margin of the upper, will be the grain surface of the leather. This grain surface should be roughened lightly to remove the finish from the leather and thus to prepare it to receive the sole attaching cement.

The method of preparing a multi-ply upper disclosed by the present invention not only reinforces and strengthens the lasting allowance of the upper at each side of the shoe from about the tip line to the heel breast line, but it also reduces materially the area which needs to be roughened since it provides exposed surfaces at these reinforced portions of the upper which in their normal condition and without roughening are well adapted to receive the pyroxylin cement by which the sole is to be attached to the shoe. Consequently, the upper roughening operation and the numerous disadvantages resulting therefrom are in this way reduced to a minimum.

With the above and other objects in view the invention will now be described with reference to the accompanying drawings and pointed out in the appended claims.

In the drawings,

Fig. 1 is a view in side elevation of a multi-ply shoe upper with the marginal portion of its lining cut fuller than normal, turned back upon the outer layer of the upper, and secured thereto partway of its length by rows of stitching, the lining being formed partly of fabric material and partly of leather;

Fig. 2 is a perspective view of a shoe illustrating how the shoe bottom will appear after the upper shown in Fig. 1 has been lasted to the insole, trimmed, and the leather portions of the lasting margin roughened;

Fig. 3 is a perspective view of a shoe showing the shoe bottom at the same stage of completion as the shoe in Fig. 2, the doubler of the upper in Fig. 3 having been cut fuller than normal and then turned back and secured to the leather outer layer of the upper;

Fig. 4 is a transverse sectional view of a portion of the shoe shown in Fig. 2 after the outsole has been applied;

Fig. 5 is a transverse sectional view of a portion of a shoe in which the doubler of the multi-ply upper has been cut fuller than normal as in Fig. 3, the upper shown in Fig. 5 having been side lasted by cement instead of by staples;

Fig. 6 is a view in side elevation of a multi-ply upper with the marginal portion of the outer leather layer cut fuller than normal, turned back upon said outer layer, and secured thereto partway of its length by a row of stitching;

Fig. 7 is a perspective view of a shoe showing how the shoe bottom will appear after the upper shown in Fig. 6 has been lasted to the insole; and

Fig. 8 is a transverse sectional view of a portion of the shoe shown in Fig. 7 after the outsole

has been applied, showing the outsole secured to the upper by cement.

In the manufacture of shoes in accordance with the present invention, a shoe upper 10, comprising a leather outer layer 12, a doubler 14, and a lining 16, is prepared by cutting the above-mentioned parts from suitable materials and, after assembling the parts, stitching them together in the usual manner to form a multi-ply upper. The lining 16 of the upper may be made entirely from one material such as fabric, for example, canvas or duck, or it may, especially in higher grades of shoes, be made of two different materials. In the latter case, the upper may have a forepart or vamp lining made of cotton fabric and a quarter lining made of leather, such as sheepskin. The present invention contemplates the use of either type of lining since the steps of the method herein disclosed may be performed with substantially equal facility whether the lining is all fabric or is formed partly of fabric and partly of leather.

In cutting the different parts of the shoe upper in accordance with the method herein disclosed, the lining 16 (Fig. 1) is cut substantially fuller than a normal lining at certain portions of its margin, the purpose of which will be hereinafter explained. The lasting marginal portion of the upper, that is, the portion to which the outsole is secured in the manufacture of shoes which have the outsoles attached by means of cement, is commonly referred to as the "lasting allowance" of the upper, since it forms the portion which secures the upper in lasted relation to the insole after the lasting operation, this lasting allowance ordinarily being about one-half or five-eighths of an inch in width. The portions of the lasting allowance of the upper lining 16, therefore, which are cut fuller than a normal lining, extend at both sides of the upper from about the tip line to the heel breast line of the shoe. These portions are cut fuller than a normal upper by a width substantially equal to the width of the lasting allowance of the upper, or about one-half or five-eighths of an inch wider than a normal lining, and extend this distance beyond the marginal portions of the other layers of the multi-ply upper after the parts have been assembled and stitched together to form the completed upper. Fig. 1 shows the three-ply upper 10 having a vamp lining formed of fabric material 17 and a quarter lining formed of leather 19, such as sheepskin, and illustrates how the fabric and leather lining 16, cut in the manner described, extends beyond the lasting margin of the doubler 14 and the leather outer layer 12 of the upper after the parts have been secured together by stitching, the leather outer layer 12 and the doubler 14 having been cut in accordance with the usual upper pattern so that they are normal in size and shape.

After the materials have been cut and assembled to form the three-ply upper 10, the portions of the lining 16, which have been cut fuller than normal and which, as stated, extend beyond the normal portions on either side of the upper from about the tip line to the heel breast line of the shoe, are turned over upon the grain surface of the lasting allowance of the outer leather layer 12 of the upper and are secured thereto by means of a plurality of rows of stitching 18 and 20, these rows, as indicated in Fig. 1, extending substantially parallel to the margin of the upper and preferably being located approximately one-quarter inch apart. Fig. 1 shows the stitching

extending only part way along the turned-over portion of the lining 16 in order to illustrate how the upper appears both before and after the excess material of the lining is stitched to the outer surface of the upper. It will be noted in this figure that the lower row of stitching 20 is located fairly close to the edge of the turned-back material of the lining so that this material will be held closely against the leather outer layer 12 of the upper at the lower edge of the lasting margin. This insures that after the shoe is lasted the outer edges of the overlapped margin of the upper will afford a substantially solid foundation to which an outsole may be permanently secured by cement without danger of the turned-back portions of the upper pulling away or becoming loose along the edges of the outsole. The lasting allowance or margin of the shoe upper will thus be reinforced and strengthened by the turned-back lining so that the danger of tearing the upper during subsequent operations on the shoe will be practically eliminated.

The upper 10 and an insole 22 are now assembled on a last 24 and the shoe is pulled over and lasted in any usual or suitable manner. As illustrated in Fig. 2, the upper is secured in lasted relation to the insole at the sides of the shoe by means of staples indicated at 26 which, as shown in Fig. 4, are anchored in the substance of the insole without passing completely therethrough. The shoe may conveniently be side lasted in this fashion with the aid of the staple side lasting machine shown in Letters Patent of the United States No. 1,815,297, granted July 21, 1931, on an application filed in the name of George Goddu. The toe end of the shoe may be cement lasted, for example, in a bed lasting machine with the aid of the toe plate or binder disclosed in United States Letters Patent No. 1,894,678, granted January 17, 1933, upon an application filed in the name of Joseph Fausse. The heel end of the shoe, as illustrated in Fig. 2, may be secured in lasted relation by driven fastenings 28. It should be understood, however, that the lasting of the upper may be done in other ways and by hand, or with the aid of other machines. For example, the shoe may, if desired, be side lasted with cement as shown in Fig. 5, in which case no staples will extend through the margin of the upper in the manner illustrated in Fig. 4.

After the lasting operations have been performed it is usually desirable to trim the edges of the turned-back portions of the lining 16 adjacent to the stitching 20, in order to insure that the outer edge of the lasting margin will be substantially flush with the edge of the shoe bottom and thus prevent the turned-back portions of the lining from extending out of the crease between the upper and outsole in the finished shoe. Since these turned-back portions of the lining are substantially equal in width to the width of the normal lasting allowance of the upper, it will be seen that, except where there have been unusual variations in the stretch of the upper materials during the lasting operations, the outer edges of the turned-back material will be located fairly close to the edge of the shoe bottom and, consequently, will require very little trimming. As stated, the row of stitching 20 is located adjacent to the lower edge of the lasting margin of the upper so that, after the trimming operation has been performed, the excess material of the lining will be held closely united to the outer surface of the upper along the edge of the shoe bottom. In this way a firm marginal surface is

provided along both sides of the shoe bottom, from about the tip line to the heel breast line, this surface being especially effective in obtaining a solid and permanent attachment of the sole to the shoe.

After the trimming operation has been performed, the bottom filler, indicated at 30, is applied in the usual way to the shoe bottom and a shank piece 32 is secured in proper position at the shank portion of the shoe. Fig. 2 shows the shoe after the surplus lining material has been trimmed off and the bottom filler 30 has been applied to fill the space between the inner edges of the overlapped portions of the upper at the forepart of the shoe, and illustrates how the shoe bottom will appear at this stage of the process. It may be well to point out here that it is within the scope of the present invention to reinforce the lasting margin of the multi-ply upper by utilizing any one of the layers of material of which it is made up. Accordingly, the doubler instead of the lining may, if desired, be cut fuller than the normal lasting margin of the upper, turned back upon the outer layer of the upper, and secured thereto by a plurality of rows of stitching. Fig. 3 shows a shoe on a last 24 at the same stage of completion as the shoe illustrated in Fig. 2, with the doubler 14 instead of the lining cut wider than normal from about the tip line to the heel breast line of the shoe and then secured by stitching 18 and 20 to the outer leather layer 12 of the upper to reinforce the lasting margin thereof.

The next step in the method herein disclosed is to insure that all portions of the surface of the overlapped marginal portion of the upper, from the heel breast line to the tip of the toe, are in a suitable condition to receive the sole attaching cement, so that when the cement is applied, it will become securely bonded thereto. In the upper illustrated in Fig. 1, the portions of the turned-back lining 16 which are made up of fabric material 17 extend at each side of the shoe from about the tip line to a point some distance rearwardly of the forward end of the shank portion of the shoe. The portions of the lasting margin of the upper which extend from this point to the heel breast line are reinforced by leather 19 which forms the quarter lining of the upper. It will, of course, be apparent that the marginal portions of the upper 10 which are composed of fabric material 17 afford perfectly good surfaces upon which to apply the sole attaching cement and that no roughening operation will be necessary to prepare these portions for the cement, whether such portions are covered by the lining 16 or by the doubler 14. The portions of the lasting margin of the upper which are composed of lining leather with the grain side out, however, should be roughened lightly to remove the finish from the grain surface of the leather and thus render the surface suitable to receive the sole attaching cement, the roughening operation being performed in the usual manner by means of a rotating wire brush or an abrasive wheel. In addition to roughening the leather portions of the turned-back lining 16, the upper at the toe portion of the shoe, which, it will be remembered, was cement lasted with the aid of a toe plate, or binder and which will, therefore, be formed of the leather of the outer layer 12 with the grain side uppermost, should also be roughened lightly, as indicated at 31 in Figs. 2 and 3, to remove the finish and render the surface suitable to receive the sole attaching cement.

A coating of pyroxylin cement is now applied to

the marginal portion of the shoe bottom and allowed to dry. A sole 34 (Fig. 4) is prepared for cement attachment by reducing the thickness of its marginal portion, particularly at the shank, 5 roughening this marginal portion, and then applying thereto a band of pyroxylin cement. After the cement has dried it is activated on either the sole or the shoe bottom, or on both, with a suitable solvent, for example, with a solvent such as 10 that disclosed in United States Letters Patent No. 1,959,320, granted May 15, 1934, upon an application filed in the name of Walter H. Wedger. The sole is then positioned properly on the shoe bottom and placed under pressure while the sole 15 attaching cement is setting, this pressure being applied, for example, by a cement sole attaching machine of the type disclosed in United States Letters Patent No. 1,897,105, granted February 14, 1933, upon an application filed in the name of Milton H. Ballard. Figs. 4 and 5 are fragmentary views illustrating how the shoe appears 20 in cross section after the sole 34 has been attached, Fig. 4 illustrating a shoe in which the lining 16 has been turned back to reinforce the lasting margin of the upper, and Fig. 5 illustrating a shoe in which the doubler 14 has been 25 turned back to reinforce the upper. In Fig. 5 the upper indicated generally by the reference numeral 10 has been side lasted to the insole 22 by means of cement so that no staple appears as in Fig. 4.

Figs. 6, 7 and 8 illustrate the method of reinforcing the upper by cutting the marginal portion of the leather outer layer of the upper fuller 35 than a normal lasting margin and turning the excess material back upon this outer layer and securing it thereto by a plurality of rows of stitching. Fig. 6 shows an outer leather layer 36 of a multi-ply upper 38 having a doubler 40 and a lining 42. The marginal portion of the outer leather layer 36 has been cut fuller than a normal upper by a width substantially equal to the width of the normal lasting allowance of the upper or, in other words, about $\frac{1}{2}$ or $\frac{3}{8}$ of an inch wider, 45 than such allowance, this fuller portion extending, as in the case of the lining, from about the tip line to the heel breast line of the shoe. The excess material of the outer leather layer 36 of the upper, indicated in the drawings at 44 (Fig. 50 6), is now turned back against the grain surface of the layer 36 and positioned so that the outer edge of the marginal portion 44 coincides substantially with the lower edge of the normal lasting margin of the upper. The turned-back material 44 is then stitched to the outer layer 36 55 by a single row of stitching 46 which is located in close proximity to the lower edge of the portion 44, as shown in Fig. 6. In this way the normal lasting margin of the upper 38 is reinforced 60 by an additional layer of material from about the tip line to the heel breast line of the shoe, this material being integral with the upper and exposing a flesh surface of leather for the reception of the sole attaching cement.

After the extended marginal portion 44 has 65 been turned back and stitched against the grain side of the leather outer layer 36 in the manner described, the upper 38 and an insole 48 are assembled on a last 50 and the shoe is pulled over 70 and lasted in any usual manner. As illustrated in Fig. 7 the shoe may be side lasted by staples indicated at 52, precisely in the manner set forth above, the staples passing through the reinforced marginal portion of the upper to secure it in 75 lasted relation to the insole without passing com-

pletely through the insole. The toe end of the shoe may be lasted by cement with the aid of a toe plate or binder as previously described and the heel end, as illustrated, may be secured in 5 lasted relation by driven fastenings, indicated at 53. The bottom filler 54 and a shank piece 56 are then applied to the shoe bottom in the usual way as shown in Fig. 7.

The reinforced lasting margin of the multi-ply upper 38 now has the flesh side of the leather 10 outer layer 36 uppermost and therefore presents an unfinished and substantially rough surface from about the tip line to the heel breast line of the shoe, this surface being well adapted to receive the cement by which the sole is to be attached to the shoe. The overlasted marginal 15 portion of the upper at the toe end of the shoe should be roughened lightly to remove the finish on the grain side of the leather, as shown at 55 (Fig. 7), and a coating of pyroxylin cement may 20 then be applied to the overlasted marginal portion of the shoe. An outsole 58 (Fig. 8) is prepared for cement attachment, and, after the cement on the shoe bottom and/or on the margin 25 of the sole has been activated, the shoe and sole are properly located relatively to each other and placed under pressure while the sole attaching cement is setting.

It will be seen that by preparing a shoe upper 30 in accordance with the method herein set forth the marginal portion of the upper, known as the "lasting allowance", is not only substantially reinforced at the sides of the shoe so that it will be better able to withstand excessive strains to which 35 it may be subjected during the pulling over and lasting operations, but the upper roughening operation, which is usually necessary in the manufacture of shoes having the soles attached by cement in which the grain surface of the upper leather is to receive the sole attaching cement, 40 is reduced to a minimum. Consequently, the difficulties heretofore encountered in making this type of shoe, namely, the weakening and tearing of the shoe upper during the roughening operation, the unsatisfactory results obtained in roughening certain reptile skins, and the difficulty in 45 determining how much of the upper to roughen at the shank portion of the shoe, are practically eliminated.

Having thus described my invention what I 50 claim as new and desire to secure by Letters Patent of the United States is:—

1. That improvement in methods of manufacturing shoes which comprises cutting a shoe upper fuller than normal by a width substantially equal to the width of the normal lasting allowance of the upper, and turning the excess material back upon the lasting allowance and securing it thereto before the upper is assembled 55 in a shoe, thereby reinforcing the marginal portion of the shoe upper.

2. That improvement in methods of manufacturing shoes which comprises cutting a shoe upper fuller than normal by a width substantially 65 equal to the width of the normal lasting allowance of the upper, and turning the excess material back upon the lasting allowance and stitching it thereto before the upper is secured in lasted relation to an insole, thereby reinforcing 70 the marginal portion of the shoe upper.

3. That improvement in methods of manufacturing shoes which comprises cutting one of the layers of material of a multi-ply shoe upper fuller 75 than normal by a width substantially equal to the

width of the normal lasting allowance, securing the parts together to form a shoe upper, and, before the upper is united to other parts of a shoe, turning back the excess material of the layer which has been cut fuller than normal against the lasting allowance of the upper material and securing it thereto to reinforce the marginal portion of the upper.

4. That improvement in methods of manufacturing shoes which comprises cutting the outer layer of a multi-ply shoe upper with a normal lasting allowance, cutting a lining for the shoe upper fuller than normal by an amount about equal to the width of the lasting allowance of the upper, assembling the outer layer and lining and securing them together to form a completed shoe upper, and turning the excess material of the lining back upon the lasting allowance of the upper and securing it thereto, thereby reinforcing the marginal portion of the shoe upper.

5. That improvement in methods of manufacturing shoes which comprises cutting the outer layer of a multi-ply shoe upper fuller than normal by a width substantially equal to the width of the normal lasting allowance, turning the excess material back upon the lasting allowance of the upper before the upper is assembled with an insole on a last, and securing said material to said lasting allowance with a plurality of rows of stitching, thereby reinforcing the lasting allowance of the shoe upper before the latter is secured in lasted relation to the insole.

6. That improvement in methods of manufacturing shoes which comprises cutting the outer layer and lining of a multi-ply shoe upper with a normal lasting allowance, cutting a doubler for the upper fuller than normal by a width substantially equal to the width of the lasting allowance of the upper, assembling the outer layer, doubler, and lining and securing them together to form a complete upper, and turning the excess material of the doubler back upon the lasting allowance of the upper and securing it thereto, thereby reinforcing the marginal portion of the upper.

7. That improvement in methods of manufacturing shoes which comprises cutting an outer layer for a shoe upper, a doubler, and a lining, the material of the doubler at the sides of the shoe being cut fuller than the outer layer and the lining, stitching the parts together to form a complete shoe upper, and turning the excess material of the doubler back upon the lasting margin of the outer layer of the upper and stitching it thereto, thereby reinforcing the marginal portion of the shoe upper.

8. That improvement in methods of manufacturing shoes which comprises cutting one of the layers of material of a multi-ply shoe upper fuller than normal, stitching the parts together to form a shoe upper, and turning back the excess material of the layer which has been cut fuller than normal against the outer surface of the lasting allowance of the outer layer of upper material and stitching it thereto before the upper is assembled with an insole on a last, thereby to reinforce the marginal portion of the upper prior to the pulling-over and lasting operations on the shoe.

9. That improvement in methods of manufacturing shoes which comprises cutting a leather shoe upper, a doubler and a lining, the material of the leather upper at the sides of the shoe being cut fuller than the doubler and lining by a width substantially equal to the width of the normal lasting allowance of the upper, making a shoe

upper from the various layers, turning the excess material of the upper leather back upon the lasting allowance of the upper and stitching it thereto, thereby reinforcing the marginal portion of the upper, working the upper into lasted relation to a last and insole and securing its marginal portion in lasted relation to the insole, and cement-attaching an outsole to the shoe bottom.

10. That improvement in methods of manufacturing shoes which comprises cutting an outer layer for a shoe upper, a doubler and a lining, the material of the outer layer at the sides of the shoe being cut fuller than the doubler and lining by a width substantially equal to the width of the normal lasting allowance of the upper, stitching the layers together to form a complete shoe upper, turning the excess material of the outer layer back upon the lasting allowance of the upper and stitching it thereto, thereby reinforcing the marginal portion of the upper, working the upper into lasted relation to a last and insole and securing its marginal portion in that relation to the insole, and cement-attaching an outsole to the shoe bottom.

11. That improvement in methods of manufacturing shoes which comprises cutting a leather outer layer for a shoe upper, a doubler and a lining, the material of the leather outer layer at the sides of the shoe being cut fuller than the doubler and lining by a width substantially equal to the width of the normal lasting allowance, stitching the layers together to form a shoe upper with the grain surface of the leather out, turning the excess material of the leather layer back upon the lasting allowance of the upper and stitching it thereto, flesh side out, thereby reinforcing the marginal portion of the upper and providing a surface which without roughening is well adapted for the reception of cement, working the upper into lasted relation to a last and insole and securing its marginal portion in that relation to the insole, and cement-attaching an outsole to the shoe bottom without roughening the over-lasted marginal portion of the upper at the sides of the shoe.

12. That improvement in methods of manufacturing shoes which comprises cutting the outer layer and the lining of a multi-ply shoe upper, the lining being cut fuller at the sides of the shoe than the outer layer by a width approximately equal to the width of the lasting allowance of the upper, securing the outer layer and the lining together to form a shoe upper, turning back the excess material of the lining against the upper and inserting stitching to secure the turned-back marginal portion of the lining to the lasting allowance of the upper, thereby reinforcing the marginal portion of the upper, lasting the upper, roughening such portion, if any, of the turned-back surface of the lining and cement-attaching an outsole to the shoe bottom.

13. A shoe having the overlasted marginal portion of its upper reinforced by material integral with the upper and turned back and secured to the overlasted marginal portion of the upper, thereby reinforcing the upper.

14. A shoe having a cement-attached outsole and a multi-ply upper, one of the layers of the shoe upper being turned back against the overlasted marginal portion of the upper and secured thereto, thereby reinforcing the marginal portion of the upper.

15. A shoe having a multi-ply upper, one of

the layers of the upper being fuller than normal at the sides and being turned back against the overlapped marginal portion of the upper and stitched thereto, thereby reinforcing the marginal portion of the upper.

16. A shoe having a cement-attached outsole and a multi-ply upper, one of the layers of the shoe upper being turned back against the overlapped marginal portion of the upper and secured thereto by a plurality of rows of stitching, thereby reinforcing the marginal portion of the upper.

17. A shoe having a cement-attached outsole and a multi-ply upper, the overlapped marginal portion of the upper of the shoe, at least between the heel breast line and the tip line of the shoe, being reinforced by material integral with the outer layer of the upper and turned back upon itself and stitched to the overlapped marginal portion of said layer of the upper, thereby reinforcing the upper.

18. A shoe having a cement-attached outsole and a lined upper, the overlapped marginal portion of the upper of the shoe, at least between the heel breast line and the tip line of the shoe, being reinforced by material integral with the lining and turned back and secured to the overlapped marginal portion of the outer layer of the upper.

19. A shoe having a cement-attached outsole and a multi-ply upper comprising an outer layer, a doubler, and a lining, the overlapped marginal portion of the upper being reinforced by material integral with the doubler and turned back and secured to the overlapped marginal portion of the upper, thereby reinforcing the upper.

20. A shoe having a cement-attached outsole and an upper consisting of a leather outer layer, a doubler, and a lining, the overlapped marginal portion of the upper being reinforced at each side of the shoe by material integral with the doubler and turned back and stitched to the overlapped marginal portion of the leather outer layer of the upper, thereby reinforcing the marginal portion of the upper.

21. A shoe having a multi-ply upper the outer layer of which is of leather with its grain surface out, the overlapped marginal portion of the upper being covered at the sides of the shoe by a layer of material integral with one of the layers of the upper and turned back against the overlapped marginal portion of the leather of the upper, thereby reinforcing the marginal portion of the upper and providing a surface well adapted for the reception of cement, and an outsole attached to said reinforcing material with said cement.

22. A shoe having a multi-ply upper, the overlapped marginal portion of the upper at the sides of the shoe being reinforced by excess material integral with the lining layer of the upper and turned back against the overlapped marginal portion of the upper and secured thereto, thereby reinforcing the marginal portion of the upper, and an outsole cement-attached to the shoe bottom.

23. A shoe having an upper of leather with its grain surface out, the overlapped marginal portion of the upper at the sides of the shoe being reinforced by excess material integral with the leather of the upper and turned back upon itself against the overlapped marginal portion of the upper and secured thereto, thus providing an exposed flesh surface, and an outsole cement-attached to said flesh surface.

24. A shoe having an upper of leather with the grain surface out, the overlapped marginal por-

tion of the upper being reinforced at the sides of the shoe by a layer of material integral with the upper leather and turned back upon itself against and stitched to the overlapped marginal portion thereof, thereby reinforcing the marginal portion of the upper and providing a surface well adapted for the reception of cement, and an outsole cement-attached to said reinforced material.

25. A shoe having an upper of leather with its grain surface out, the overlapped marginal portion of the upper at the sides of the shoe being reinforced by excess material integral with the leather of the upper and turned back against the overlapped marginal portion of the upper and secured thereto by a plurality of rows of stitching, thereby providing a flesh surface to which the outsole is cement-attached.

26. A shoe upper, the lasting margin of which is reinforced at opposite sides of the upper by material integral with the upper and turned back and secured to the surface thereof before the upper is incorporated in a shoe, thereby reinforcing said margin.

27. A multi-ply shoe upper, one of the layers of the upper being turned back against the lasting margin of the outer layer at the opposite sides of the upper and secured to said outer layer prior to the attachment of the upper to an insole, thereby reinforcing said lasting margin.

28. A multi-ply shoe upper, one of the inner layers of the upper being turned back against the marginal portion of the outer layer of the upper and stitched thereto, thereby reinforcing the marginal portion of the upper before it is lasted in a shoe.

29. A multi-ply shoe upper, one of the layers of said upper being cut fuller than the outer layers and being turned back against the marginal portion of the outer layer of the upper and secured thereto by a plurality of rows of stitching which pass through the other layers of the upper, thereby reinforcing the marginal portion of the upper.

30. A multi-ply shoe upper the outer layer of which is of leather with its grain surface out, the marginal portion of the leather outer layer of the upper, at least between the heel breast line and the tip line, being cut fuller than the other layers and being turned back and secured to the marginal portion of said outer layer, thereby reinforcing the upper.

31. A shoe having an insole, outsole and a multi-ply upper, the overlapped marginal portion of the upper at least from the tip line to the heel breast line being reinforced by a layer of material integral with one of the layers of the upper and turned back against the marginal portion of the upper thereby reinforcing such portion, said reinforced portion being lasted against the outer surface of the insole.

32. A shoe having an insole, outsole and a multi-ply upper, the overlapped marginal portion of the upper at the sides of the shoe being reinforced by material integral with the outer layer of the upper and turned back upon itself against the overlapped marginal portion of the upper and secured thereto by stitches which pass through only the turned back material and the outer layer of the upper, said upper being secured in lasted position against the outer surface of the insole.

33. A shoe having a lined upper, the marginal portion of the upper of the shoe, at least between the heel breast line and the tip line of the shoe, being reinforced by material integral with the lining and turned back and secured to the overlapped

marginal portion of the outer layer of the upper, thereby reinforcing the upper.

34. A shoe having a multi-ply upper comprising an outer layer, a doubler and a lining, the marginal portion of the upper, at least between the heel breast line and the tip line of the shoe,

being reinforced by material integral with the doubler and turned back and secured to the overlapped marginal portion of the outer layer of the upper, thereby reinforcing the marginal portion of the upper.

JAMES CAVANAGH.