Aug. 12, 1947. K. A. STRITTER 2,425,445

METHOD OF MAKING SHOES

Filed June 28, 1945 3 Sheets-Sheet 1

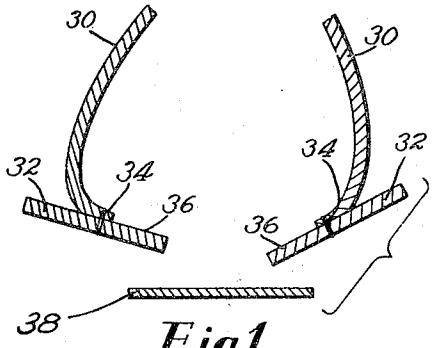


Fig.1

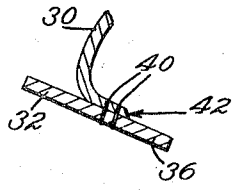


Fig.2

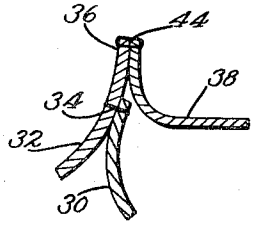


Fig.3

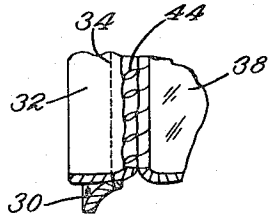


Fig.4

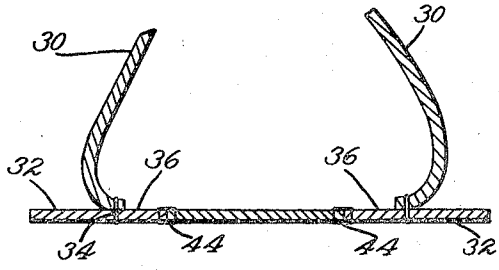


Fig.5

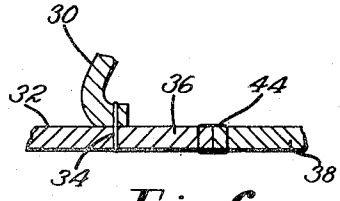


Fig.6

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Aug. 12, 1947. K. A. STRITTER 2,425,445

METHOD OF MAKING SHOES

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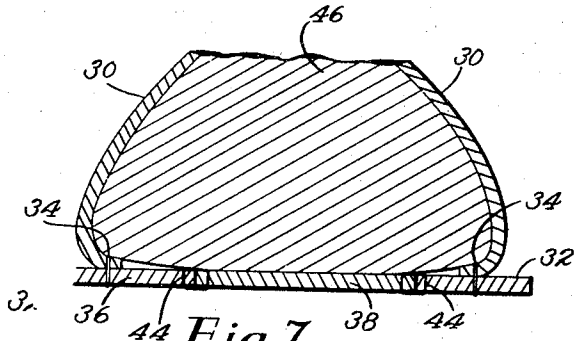


Fig. 7

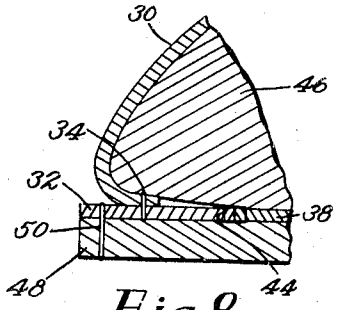


Fig. 8

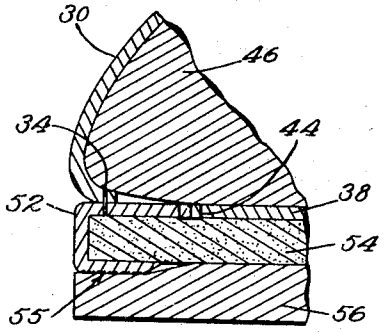


Fig. 9

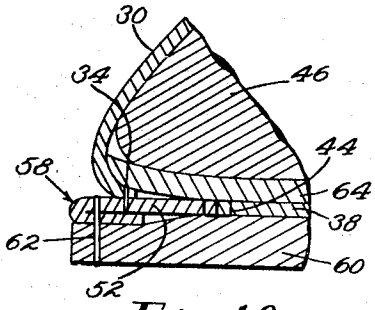


Fig. 10

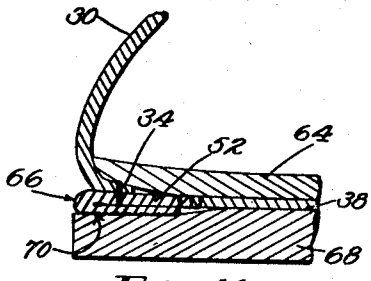


Fig. 11

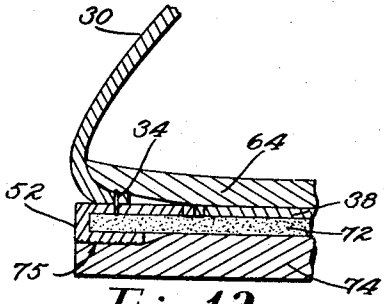


Fig. 12

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METHOD OF MAKING SHOES

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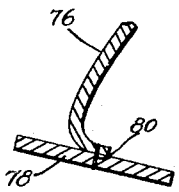


Fig.13

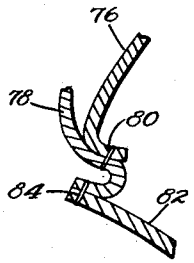


Fig.14

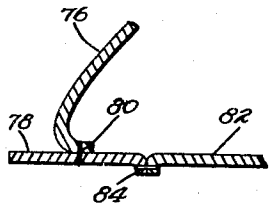


Fig.15

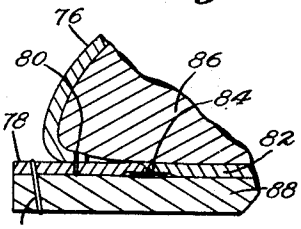


Fig16

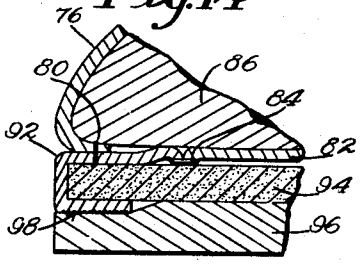


Fig17

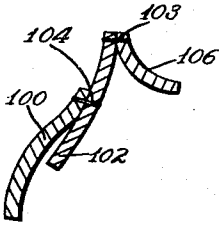


Fig.18

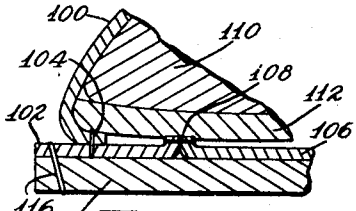


Fig.19

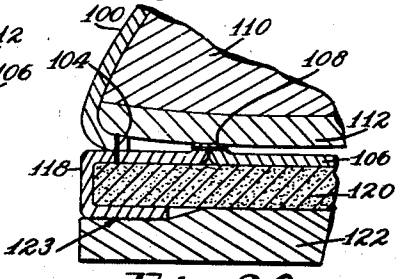


Fig.20

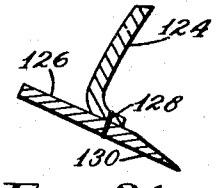


Fig.21

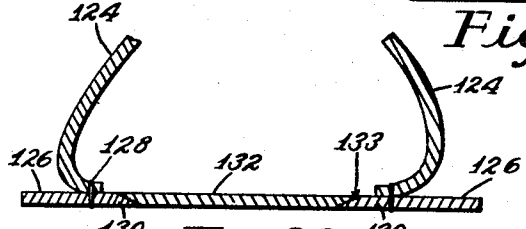


Fig.22

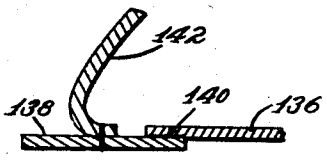


Fig.23

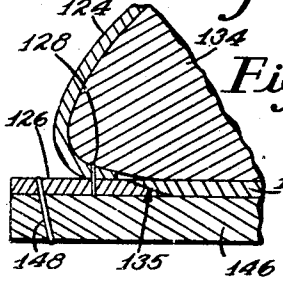


Fig.24

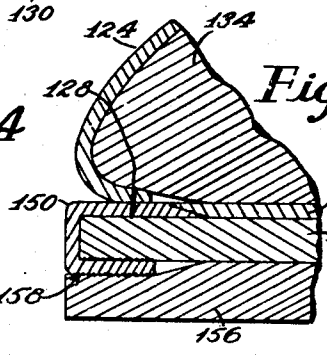


Fig.25

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Patented Aug. 12, 1947

2,425,445

UNITED STATES PATENT OFFICE

2,425,445

METHOD OF MAKING SHOES

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Application June 28, 1945, Serial No. 602,041

20 Claims. (Cl. 12—142)

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This invention relates to shoes and methods of making shoes and is illustrated herein with particular reference to prewelt shoes which are "slip-in" lasted, that is, lasted by inserting a last into the upper after it has been secured to a sole member while off a last.

In "slip-in" lasted shoes of the prewelt type and also of the platform type, the upper, a welt or edge covering strip, and a thin flexible insole or sock lining are usually stitched together in face-to-face relation while off a last and, after the parts have been secured together, a last is inserted into the upper to shape it and to permit an outsole, midsole, platform or other sole member to be attached to the shoe bottom to complete the construction of the shoe.

One objection to this method of making shoes is that when three or more layers of material such as leather, fabric or similar material are secured together in face-to-face relation by stitches they produce a bunch or ridge inside the shoe adjacent to the margin of the shoe bottom and this ridge, being inside the shoe, is difficult to reduce or eliminate by trimming, beating down or pounding, or even by covering with a slip sole or insole. A ridge of this nature inside the shoe also tends to spoil the fit of the shoe and often causes discomfort to the wearer. Moreover, such a bunch of material extending around the shoe bottom may interfere with the proper attachment of an outsole or platform sole, especially if the sole members are to be attached by cement.

An important object of the present invention is to provide an improved method of making prewelt "slip-in" lasted shoes in which the difficulties referred to above are eliminated.

To this end, the invention provides, in accordance with one aspect, an improved method of making prewelt shoes which consists in providing a prewelted upper in which the welt or edge covering strip on the upper projects beyond the lower edge of the upper an amount substantially equal to the lasting margin of a normal upper, and also providing a thin, flexible insole or sock lining which is smaller than a last bottom by an amount substantially equal to the normal lasting margin of an upper or, in other words, by the amount the welt projects beyond the upper. The projecting portion of the welt or strip is then secured to the marginal portion of the insole or sock lining while the upper is off a last, after which a last is inserted into the upper to shape it and also to position the welt or strip and sock

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lining relatively to each other underneath the last bottom.

As herein illustrated, the welt or edge covering strip projects beyond the lower edge of an upper which is cut scant or with substantially no lasting margin. The projecting portion of the welt or strip is positioned flat against the margin of the insole or sock lining and the parts are secured together in this position while off a last by overseaming stitches which are overcast across the adjacent edge faces of the members and which permit relative pivotal movement of the welt and sock lining about the stitches without disturbing the stitches. The welt and sock lining are then turned about the stitches as a pivot to position said members in substantially the same plane widthwise of the upper and with their adjacent edge faces in abutting relation to each other. A last is then inserted into the upper to shape the upper and to permit the attachment of an outer sole or the other sole members which are to be used in the shoe.

In accordance with the present method, as herein illustrated, the prewelt "slip-in" lasted shoe may be completed as a welt shoe with an outsole attached to the welt by stitches or, if desired, the shoe may be completed as a platform shoe in which the welt or strip serves as an edge covering strip or wrapper for a platform sole with an outsole attached to an inturned portion of the covering strip, for example, by cement. In either case, of course, the welt or the covering strip or wrapper serves as a sole attaching strip or, in other words, as a strip to which a sole member, such as an outsole or a platform sole, is subsequently attached either by cement or stitches. Modifications of the construction include utilizing the welt or strip to produce a rib or bead between the upper and sole member by folding the strip over upon itself and then attaching the sole member to the folded-over portion of the strip by cement or other attaching means. If desired, a shoe made in accordance with the present invention may be provided with a thin "wafer" platform sole covered at its edge face by the welt or strip, the shoe, if desired, also having an insole of normal thickness secured to the upper or sock lining by cement.

A modification of the invention provides a method of making prewelt "slip-in" lasted shoes in which the portion of the welt or strip which projects beyond the upper is beveled or skived to a relatively thin edge and the marginal portion of the insole or sock lining is also beveled com-

plementally to the bevel on the welt. In this construction, the welt is secured to the sock lining by overlapping their complementally beveled portions and securing said portions together in such position by cement or other fastening means. Such procedure permits adjustment of the welt and sock lining relatively to each other widthwise of the shoe and this assists in obtaining a tight fit of the upper on the last when the last is inserted into the upper. This type of prewelt shoe may be made on a last, if desired, although the welt and sock lining are preferably fastened together, as illustrated herein, while off a last. Any of the constructions mentioned above may, of course, have their soles attached directly to the welt or attaching strip, as in regular welt shoes, or they may be provided with platform soles or midsoles, in which case the welt or strip will serve as an edge covering strip or wrapper to cover the edge face of the intermediate sole, the outsole being attached to that portion of the covering strip that is turned inwardly over the outer face of the platform sole.

With the above and other objects and aspects in view, the invention will now be described in detail in connection with the accompanying drawings and will thereafter be pointed out in the claims.

In the drawings,

Fig. 1 is a cross-sectional view of a prewelt upper and a flexible insole or sock lining used in carrying out the present method;

Fig. 2 is a fragmentary sectional view of a prewelt upper in which the welt or strip is secured to the upper by two rows of stitching instead of one and the lower edge of the upper is beveled;

Fig. 3 shows the prewelt upper and sock lining of Fig. 1 secured together off a last by overseaming stitches;

Fig. 4 is a perspective view of the upper and sock lining illustrating how the overseaming stitches are overcast across the adjacent edge faces of the welt and sock lining;

Fig. 5 is a cross-sectional view showing the sock lining and welt in abutting relation to each other after being secured together by the overseaming stitches;

Fig. 6 is an enlarged sectional view illustrating the abutting relation of Fig. 5 more clearly;

Fig. 7 is a cross-sectional view after a last has been inserted into the upper;

Fig. 8 is a section showing an outsole attached to the welt;

Fig. 9 is a sectional view similar to Fig. 8 in which the welt or strip covers the edge face of a platform sole with an outsole attached to the inturned portion of the strip;

Fig. 10 is a sectional view of a shoe provided with an insole and in which the welt or strip is folded to form a bead between the upper and outsole, the outsole having an extending edge portion and being attached to the strip by stitches;

Fig. 11 is a sectional view illustrating a modified construction in which the outsole has no extension edge and is attached to the welt or strip by cement;

Fig. 12 is a section of a shoe provided with a thin "wafer" platform sole, the outsole being attached to the edge covering strip by cement;

Fig. 13 is a fragmentary sectional view similar to Fig. 2 showing a prewelt upper having substantially no lasting margin and with the welt or strip projecting beyond the upper;

Fig. 14 shows the welt secured off a last to a thin flexible insole or sock lining by through-and-through stitches;

Fig. 15 is a sectional view showing the welt and sock lining in a straightened position;

Fig. 16 is a section showing a last inserted into the upper and an outsole attached to the welt;

Fig. 17 is a modification in which the welt or strip covers the edge face of a platform sole with the outsole attached to the inturned portion of the strip by cement;

Fig. 18 is a sectional view, similar to Fig. 14, in which the welt or strip is secured to the sock lining by a seam with the upper turned wrong side out;

Fig. 19 shows the upper of Fig. 18 turned right side out, a last inserted, and an outsole attached to the shoe bottom;

Fig. 20 is a section showing the shoe of Fig. 19 as a platform shoe in which the welt or strip covers the edge face of a platform sole;

Fig. 21 is a sectional view of a prewelt upper in which the inwardly projecting portion of the welt is skived or beveled to a thin edge;

Fig. 22 shows the prewelt upper of Fig. 21 with a beveled sock lining attached to the beveled welt;

Fig. 23 illustrates a modification of the construction shown in Fig. 22 in which the welt and sock lining are not beveled but are of full thickness;

Fig. 24 is a sectional view showing the shoe of Fig. 22 with an outsole attached to the welt; and

Fig. 25 illustrates the shoe of Fig. 22 completed as a platform shoe instead of a welt shoe.

In carrying out a method of the present invention, as herein illustrated, a prewelt upper **30** is provided which is cut scant or with practically no lasting margin and has a welt or sole attaching strip **32** secured to its lower edge portion by stitches **34** with the welt or strip projecting beyond the lower edge of the upper a distance approximately equal to the lasting margin of a normal upper, as shown at **36**. A thin flexible insole or sock lining **38** is also provided which is smaller than a last bottom by substantially the same amount that the welt projects beyond the upper, that is, by an amount approximately equal to the normal lasting margin of an upper. As illustrated in Fig. 2, the welt or strip **32** may be attached to the upper by two rows of stitches **40** instead of a single row, if desired, and the lower edge face of the upper may be beveled, as at **42**, to remove the shoulder from inside the shoe.

The prewelt upper **30** of Fig. 1 is positioned so that the projecting portion **36** of the welt **32** is located in face-to-face relation flat against the marginal portion of the insole or sock lining **38**, as illustrated in Fig. 3, and the edge portions of the welt and sock lining are secured together by single thread overseaming stitches **44** which are overcast across the adjacent edges of the welt and sock lining, as shown in Figs. 3 and 4. The overseaming stitches **44** form loops or rings extending through the adjacent edges of the welt and sock lining and, accordingly, they permit relative turning movement of the welt and sock lining about the stitches as a pivot without disturbing the stitches. After the welt or strip **32** has been secured to the sock lining completely around its periphery, the welt and sock lining are turned relatively to each other about the stitches **34** from the position shown in Fig. 3 to that shown in Fig. 5, in which position the

welt and sock lining are located in substantially the same plane widthwise of the upper with their adjacent edge faces in abutting relation to each other, as illustrated in Figs. 5 and 6.

A last **46** is now inserted into the upper, as shown in Fig. 7, thereby "slip-in" lasting the shoe and shaping the upper to the last and also positioning the overseaming stitches **44** and the abutting edge faces of the welt and sock lining under the last bottom a substantial distance inwardly from the edge thereof. The shoe is now ready to receive an outsole if it is to be a welt construction, or to receive other shoe bottom members if it is to be a modified welt or other construction. The shoe illustrated in Fig. 8 is of welt construction and, accordingly, an outsole **48** is attached to the welt or sole attaching strip **32** by stitches **50** passing through the outer portion of the welt and the marginal portion of the outsole.

It may be desirable to make the prewelt shoe in accordance with the "slip-in" lasting method described herein and to complete the shoe as a platform construction rather than as a conventional welt construction. In such case, the welt is cut wider than the welt **32** or, if desired, a platform edge covering strip **52** (Fig. 9) of thin flexible material is substituted for the welt and a platform sole **54** of relatively thick yielding material, such as felt, cork or the like, is laid on the shoe bottom in engagement with the strip **52** and insole or sock lining **38**. The outer or free portion of the edge covering strip is then wrapped around the edge face of the platform sole and is turned inwardly against the outer surface of the sole and secured to said surface preferably by cement, as illustrated in Fig. 9. The inturned portion of the covering strip which, like the welt, also serves as a sole attaching strip, is next roughened lightly and coated with sole attaching cement **55**, after which an outsole **56** is cement attached in the usual manner to the inturned portion of the covering strip **52**. The platform shoe of Fig. 9 has a close edge sole portion which is substantially in alinement with the widest portion of the shoe, although it could, of course, have a platform sole and an outsole provided with extension edges similar to the extension edges shown in Fig. 8.

As a further modification of the shoes illustrated in Figs. 8 and 9, Fig. 10 shows a shoe with the welt or strip **52** extending outwardly from the upper to form a medium sole extension and then doubled over upon itself to provide a bead or rib **58** between the upper **30** and an outsole **60**, the outsole being secured to the doubled-over portion of the welt by through-and-through stitches **62**. In the shoe illustrated in Fig. 10, an insole **64** of substantially normal thickness was placed on the last **46** before the latter was inserted into the upper, the outer or exposed surface of the insole being coated with an adhesive. After the shoe was completed by the attachment of the outsole, the last was withdrawn from the shoe to leave the insole secured in the shoe, thereby providing a smooth inner surface for the foot.

The shoe illustrated in Fig. 10 may be still further modified, as shown in Fig. 11, by folding the welt or sole attaching strip **52** over upon itself to form a bead **66** between the upper and an outsole **68**, the bead being located close to the upper to produce a close edge sole portion instead of an extension edge sole portion, as in Fig. 10, the outsole **68** being attached to the inturned portion

of the sole attaching strip by cement **70**. The insole **64** may be placed on the last before the shoe of Fig. 11 is "slip-in" lasted, as illustrated in Fig. 10, to provide the shoe with an insole permanently secured to the shoe bottom. If it is desired to produce a platform shoe in which the insole **64** of Fig. 10 is employed without making the sole portion of the shoe too thick, the construction illustrated in Fig. 12 may be utilized, the welt or strip **52** in this construction being wrapped around the edge face portion of a thin "wafer" platform sole **72** of relatively yielding material and an outsole **74** of normal thickness being attached to the inturned portion of the covering strip, preferably by cement **75**. The platform constructions illustrated in Figs. 9 and 12 could, of course, have marginal extensions on the platform soles and outsoles instead of the close edge sole construction illustrated in those figures.

The constructions illustrated in Figs. 1 to 12, inclusive, are all prewelt shoes in which the welt or covering strip is secured to a thin flexible insole or sock lining by over-seaming stitches which permit the welt and sock lining to be turned about the stitches either by hand or by inserting a last into the upper without disturbing the stitches in order to locate the welt and sock lining in substantially the same plane widthwise and with their adjacent edge faces in abutting relation to each other. Since it may not always be convenient or desirable to attach the insole or sock lining to the welt by overseaming stitches as described above, the present method further provides for securing these members together in other ways to produce "slip-in" lasted shoes similar to those in which the overseaming stitch is used.

Fig. 13 illustrates a scant upper **76** having substantially no lasting margin and having a welt or strip **78** secured to its lower edge portion by a usual seam **80**, the welt **78** projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting allowance of an upper. The inwardly projecting portion of the welt **78** is bent over, as illustrated in Fig. 14, and positioned flat against the marginal portion of a thin flexible insole or sock lining **82** and the two parts are secured together in this position by through-and-through stitches **84** rather than by overseaming stitches, as described above, the through-and-through stitches being sewn on any conventional type sewing machine. The welt and sock lining are then straightened to position them in a relatively flat plane, as illustrated in Fig. 15, which causes the engaging edge portions of the welt and sock lining and the stitches **84** to project outwardly or away from the inside of the shoe. A last **86** is inserted into the upper to "slip-in" last the shoe and an outsole **88** is attached to the welt or sole attaching strip by stitches **90**, as shown in Fig. 16, the outsole in that figure having an extension edge portion in which the stitches are located.

Instead of the welt construction illustrated in Fig. 16, a platform edge covering strip **92** may be substituted for the welt, as shown in Fig. 17, and the strip wrapped downwardly and inwardly around the edge portion of a platform sole **94** and secured against the outer surface of the sole by cement. An outsole **96** is then permanently attached to the inturned portion of the covering or sole attaching strip, preferably by cement **98**. If desired, the shoes of Figs. 16 and 17 may be provided with insoles of normal thickness, as de-

scribed above, by mounting the insole on the last before the latter is inserted into the upper in the "slip-in" lasting operation.

While the attachment of the welt or strip to the sock lining by a through-and-through seam **84**, as illustrated in Figs. 14 and 15, provides a relatively smooth "slip-in" lasted shoe in either the welt construction or the platform construction, it may be desirable to secure the welt to the sock lining by a still different type of seam, for example, by the seam illustrated in Fig. 18. In this figure a scant upper **100**, having substantially no lasting margin, and a welt or sole attaching strip **102** are secured together by stitches **104** with the welt extending beyond the lower edge of the upper a distance approximately equal to the lasting margin of a normal upper. The prewelt upper is turned wrong side out and the inwardly extending portion of the welt is positioned flat against the edge portion of a thin flexible sock lining **106**, the sock lining and welt being stitched together in this position by a seam **108**. The upper is then turned right side out, as illustrated in Fig. 19, and a last **110** is inserted into the upper to shape it to the last and to position the welt **102** and the sock lining **106** in substantially the same plane with the contacting edge portions of the welt and sock lining projecting inwardly toward the last so that the seam **108** is located inside the shoe. Since the stitches **108** are positioned in close proximity to the edges of the welt and sock lining, the inwardly projecting portions of these members and the seam **108** will not produce any appreciable bunch in the shoe bottom although, as illustrated in Figs. 19 and 20, an insole **112** of normal thickness is preferably secured in the shoe, as described above, to provide a smooth bottom surface inside the shoe. An outsole **114** is then attached to the outer portion of the welt or attaching strip **102** by stitches **116** to complete the shoe.

If it is desired to make a prewelt shoe in accordance with the present method and with the seam just described but to produce a platform shoe rather than a welt construction, the welt **102** of Fig. 19 may be replaced by a platform edge covering strip **118**, as shown in Fig. 20, and a platform sole **120** of relatively thick yielding material laid upon the shoe bottom, the covering strip **118** being then wrapped around the edge face of the platform sole and wiped inwardly over its outer surface and secured to said outer surface by cement. An outsole **122** is then attached to the shoe bottom, as illustrated in Fig. 20, by cement **123** located between the margin of the outsole and the inturned portion of the covering strip **118** which, as indicated above, also serves as a sole attaching strip. The shoe of Fig. 20 does not have marginal extensions on the platform sole and outsole but such extensions could be provided, if desired. It is to be understood, of course, that the outsole of the shoe of Fig. 20 could be secured to the shoe bottom by stitches instead of cement.

In the different shoe constructions described above, the shoes were all "slip-in" lasted after the prewelt upper was secured off a last to a thin flexible insole or sock lining. Moreover, the welt or edge covering strip in these shoes extended a substantial distance beyond the lower edge of the upper to serve as the lasting margin for the upper and the insole or sock lining was made smaller than a last bottom by substantially the amount that the welt extended beyond the upper, that amount, as illustrated herein, being substantially equal to the lasting margin of a normal upper. It may be desirable in some cases, however, to construct a shoe in accordance with the method disclosed herein, but to provide for an adjustment of the welt and sock lining relatively to each other before they are permanently secured together. The provision of an adjustable feature during the construction of the present shoe, for example, would assist greatly in causing the upper to fit the last tightly when the last is inserted and thereby produce a well shaped shoe.

With this end in view, the shoe may be constructed in accordance with the modification illustrated in Fig. 21, in which a prewelt upper **124** having substantially no lasting allowance is provided having a welt **126** secured thereto by stitches **128**, the inner portion **130** of the welt projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper. The inner or projecting portion **130** of the welt, however, is skived or beveled to a relatively thin edge in the present case, as shown in Fig. 21, to provide an outwardly beveled inner portion on the welt. The upper **124** with its beveled welt **126** is then assembled with a thin flexible insole or sock lining **132** which is considerably smaller than a last bottom but large enough to overlap the inner or beveled portion **130** of the welt, as illustrated in Fig. 22. The marginal portion of the sock lining is skived or beveled complementally to the welt so that when the beveled portions of the sock lining and welt are placed in overlapping engagement with each other, they form a continuous layer of substantially uniform thickness across the bottom of the upper. The sock lining is preferably attached to the beveled portion of the welt or attaching strip by cement **133**, the members being adjusted widthwise relatively to each other as much as may be necessary before the cement has set to position them properly for the size of last which is to be inserted into the upper. The sock lining **132** may be attached to the welt **126** while off a last, in the manner described above and as shown in Fig. 22, or, if desired, the sock lining may be mounted on the bottom of a last **134** (Fig. 24) and the upper worked over the last bottom and the beveled portion of the welt secured in overlasted relation to the correspondingly beveled portion of the sock lining by cement **135**. In either case, when the relative adjustment of the sock lining and welt has been made, the upper will fit the last snugly and smoothly at all points and the welt and sock lining together will provide a continuous layer of substantially uniform thickness across the bottom of the shoe.

If it is not desirable to skive or bevel the welt and sock lining, as described above, they may be left at their full thickness, as shown in Fig. 23, and secured in overlapping relation by cement either on or off a last. This is especially true if the parts are of particularly thin material. As illustrated in Fig. 23, the welt **138** of full thickness projects beyond the upper **142** a substantial distance and the sock lining **136** overlaps the inner or projecting portion of the welt, being secured thereto by cement **140**.

The shoe of Fig. 22, if assembled off a last, is now "slip-in" lasted by inserting the last **134** (Fig. 24) after which an outsole **146** is attached to the welt by stitches **148** in the usual manner. If a platform shoe is desired, the welt is made wider or replaced by a platform edge covering strip **150**, as shown in Fig. 25, and, after "slip-in"

lasting, a platform sole 152 is laid on the shoe bottom and its edge face portion covered by the strip which is wiped inwardly over the outer surface of the sole and secured thereto by cement. An outsole 156 is then attached to the inturned portion of the covering or sole attaching strip 150 by cement 158 or other means to complete the construction of the shoe. The platform shoe illustrated in Fig. 25 is a close edge shoe rather than a sole extension type, although the extension edge sole construction could be provided, if desired.

As pointed out in connection with several of the other constructions described above, an insole of normal thickness may be mounted on the last 134 of Figs. 24 and 25, if desired, before the last is inserted into the upper so that the completed shoe will be provided with a normal insole permanently secured inside the shoe in the manner described above. Moreover, the outsole 146 of Fig. 24 could be attached by cement rather than stitches whereas the outsole 156 of Fig. 25 could be secured to the shoe bottom by stitches extending through the edge covering and sole attaching strip 150, the platform sole 152 and the outsole 156.

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

1. That improvement in methods of making shoes which consists in providing a prewelt upper in which the welt projects a substantial distance beyond the lower edge of the upper, securing the projecting portion of the welt off a last to the marginal portion of a thin flexible sole member which is smaller than a last bottom by approximately the amount that the welt projects beyond the upper, inserting a last into the upper, and attaching a sole to the welt.

2. That improvement in methods of making shoes which consists in providing a prewelt shoe upper in which the welt projects beyond the upper a distance approximately equal to the normal lasting allowance of an upper, securing the projecting portion of the welt off a last to the marginal portion of a thin flexible sock lining shaped like an insole but smaller than a last bottom by an amount approximately equal to the amount the welt projects beyond the upper, inserting a last into the united upper and sock lining, and attaching a sole member to the shoe bottom.

3. That improvement in methods of making shoes which consists in providing a prewelt upper having a scant lasting margin and in which the welt projects beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, positioning the projecting portion of the welt flat against the marginal portion of a thin flexible insole and permanently securing said portions together in such position while the upper is off a last, said insole being smaller than a last bottom by an amount approximately equal to the amount the welt projects beyond the upper, inserting a last into the united upper and insole thereby conforming the upper to the shape of the last and locating the welt and insole in a substantially flat position, and attaching an outsole to the outer portion of the welt.

4. That improvement in methods of making shoes which consists in providing an upper having substantially no lasting margin, stitching a welt to said upper off a last so that the welt projects beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of the upper, the stitches being located in close proximity to the lower edge of the upper, securing the projecting portion of the welt to the marginal portion of a thin flexible sock lining off a last, said sock lining being shaped like an insole but being smaller than a last bottom by an amount substantially equal to the normal lasting margin of an upper, inserting a last into the upper thereby conforming it to the shape of the last and straightening the sock lining and welt to cause them to lie in substantially the same plane, and attaching a sole member to the shoe bottom.

5. That improvement in methods of making shoes which consists in providing a prewelt upper having a scant lasting margin and in which the welt projects beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, securing a thin flexible sock lining off a last to the projecting portion of the welt by fastening means located close to adjacent edge portions of the sock lining and welt, the sock lining being smaller than a last bottom by substantially the amount that the welt projects beyond the upper, inserting a last into the upper, and attaching an outsole to the welt.

6. That improvement in methods of making shoes which consists in providing a prewelted shoe upper having substantially no lasting margin and a welt which projects a substantial distance beyond the lower edge of the upper, securing the projecting portion of the welt to the marginal portion of a thin flexible insole off a last by stitches which pass through the edge portions of the insole and welt, said insole being smaller than a last bottom by approximately the same amount that the welt projects beyond the upper, inserting a last into the upper thereby positioning the stitches a substantial distance inwardly from the edge of the last bottom, and attaching a sole to the welt.

7. That improvement in methods of making shoes which consists in providing a prewelted upper having a scant lasting margin with the welt projecting beyond the upper a distance approximately equal to the normal lasting margin of an upper, securing a thin flexible sock lining to the projecting portion of the welt off a last by means of stitches which permit relative movement of the sock lining and welt about the stitches without disturbing the stitches, moving the sock lining and welt relatively to each other until they are located in substantially the same plane with their adjacent edge faces abutting each other, inserting a last into the upper, and attaching a sole to the welt.

8. That improvement in methods of making shoes which consists in providing a prewelted upper having substantially no lasting margin with the welt projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, securing a thin flexible insole off a last to the projecting portion of the welt by means of overseaming stitches which permit relative turning movement of the insole and welt about the stitches without disturbing said stitches, turning the insole and welt relatively to each other about the stitches until they are located in substantially the same plane widthwise of the upper with their adjacent edge faces in abutting relation to each other, inserting a last into the upper thereby "slip-in" lasting the shoe, and attaching a sole to the shoe bottom.

9. That improvement in methods of making shoes which consists in stitching a welt to an upper off a last with the welt projecting a substantial distance beyond the lower edge of the upper, positioning a thin flexible insole flat against the projecting portion of the welt with the edge of the insole substantially flush with the inner edge of the welt, attaching the insole to the welt off a last by overseaming stitches which permit relative movement of the insole and welt about the stitches without disturbing the stitches, inserting a last into the upper to cause relative movement of the insole and welt about said stitches and thereby to position the insole in the plane of the welt with its edge face in abutting relation to the edge face of the welt, and stitching an outsole to the welt.

10. That improvement in methods of making shoes which consists in providing an upper having a scant lasting margin, securing a welt to the lower portion of the upper off a last by stitches located adjacent to the lower edge of the upper and with the welt projecting beyond said lower edge a distance approximately equal to the normal lasting margin of an upper, providing a sock lining of thin flexible material which is smaller than a last bottom by an amount substantially equal to the normal lasting margin of an upper, positioning the marginal portion of the sock lining flat against the projecting portion of the welt with the edge of the sock lining flush with the edge of the welt, securing the sock lining and welt together in such position by single-thread overseaming stitches which are overcast across the edges of the sock lining and welt and permit relative pivotal movement of said parts about the stitches without disturbing said stitches, inserting a last into the upper to cause the sock lining and welt to move relatively to each other about the stitches until they are located in substantially the same plane widthwise of the last with their adjacent edges abutting each other, thereby providing a flat surface for receiving an outsole, and attaching an outsole to the welt.

11. That improvement in methods of making shoes which consists in securing an edge covering strip to the lower margin of an upper off a last with the strip extending a substantial distance beyond the lower edge of the upper, providing a thin flexible sock lining which is smaller than a last bottom by an amount approximately equal to the amount the covering strip extends beyond the upper, securing the sock lining off a last to the extending portion of the covering strip, inserting a last into the upper thereby positioning the sock lining and covering strip in substantially the same plane to provide a relatively flat surface on the shoe bottom, laying a sole on said flat surface, wrapping the covering strip around the edge of the sole and turning it inwardly over the outer face of said sole, securing said strip to said outer face, and attaching an outsole to the inturned portion of the covering strip.

12. That improvement in methods of making shoes which consists in securing an edge covering strip of substantial width to the lower margin of an upper off a last with the strip projecting beyond the lower edge of the upper an amount approximately equal to the normal lasting margin of an upper, providing a thin flexible sock lining which is smaller than a last bottom by an amount substantially equal to the amount the covering strip projects beyond the upper, securing the sock

lining off a last to the projecting portion of the covering strip by overseaming stitches which permit relative pivotal movement of the sock lining and strip about the stitches without disturbing said stitches, inserting a last into the upper to move the covering strip and sock lining about the stiches into substantially the same plane with their adjacent edge faces in abutting relation to each other, thereby providing a substantially flat surface on the shoe bottom, laying a platform sole on the covering strip and sock lining, wrapping the covering strip around the edge face of the platform sole and turning it inwardly over the outer surface of said sole and securing it thereto, and attaching an outsole to the inturned portion of the covering strip.

13. That improvement in methods of making shoes which consists in providing a prewelt upper having a scant lasting margin and a welt which projects a substantial distance beyond the lower edge of the upper, the projecting portion of said welt being beveled to a thin edge, securing the beveled projecting portion of the welt to the margin of a thin flexible sock lining which is beveled complementally to the bevel on the welt, said sock lining being smaller than a last bottom, inserting a last into the upper thereby shaping the upper and locating the joint between the sock lining and welt under the last bottom and at a substantial distance inwardly from the edge thereof, and attaching a sole member to the shoe bottom.

14. That improvement in methods of making shoes which consists in providing a prewelt upper having substantially no lasting margin with the welt projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, the projecting portion of the welt being beveled to a relatively thin edge, providing a relatively thin flexible sock lining which is smaller than a last bottom by approximately the same amount that the welt projects beyond the upper and which has a marginal portion which is beveled to a thin edge to correspond to the bevel on the welt, positioning the beveled portions of the sock lining and welt together in face-to-face relation and securing them together by cement to produce a substantially uniform layer across the bottom of the upper, inserting a last into the united upper and sock lining and attaching a sole member to the sock lining and welt.

15. That improvement in methods of making shoes which consists in providing a prewelt upper having a scant lasting margin with the welt stitched thereto so that it projects a substantial distance beyond the lower edge of the upper, the projecting portion of the welt being beveled outwardly to a thin edge, providing a thin flexible sock lining smaller than a last bottom by an amount not quite so great as the amount the welt projects beyond the upper and having its marginal portion beveled complementally to the bevel on the welt, placing the beveled portion of the sock lining upon the beveled portion of the welt and adjusting them relatively to each other into a position in which the upper will fit tightly on a last, securing said portions together in such position, inserting a last into the upper to shape the shoe, and attaching a sole member to the bottom of the shoe.

16. That improvement in methods of making shoes which consists in providing an upper having a scant lasting margin and a welt stitched thereto with the welt projecting a substantial dis-

tance beyond the lower edge of the upper, the projecting portion of the welt being beveled to a relatively thin edge, positioning the beveled portion of the welt off a last upon the margin of a thin flexible sock lining the margin of which is beveled complementally to the bevel on the welt, securing the beveled portion of the sock lining to the beveled portion of the welt, thereby producing a continuous layer of uniform thickness across the bottom of the upper, inserting a last into the upper thereby shaping it to the last and locating the joint between the welt and sock lining under the last bottom and at a substantial distance inwardly from the edge thereof, said continuous layer providing a relatively flat surface for receiving a sole, laying a sole on said flat surface, and permanently attaching the sole to the welt.

17. That improvement in methods of making shoes which includes the steps of providing at least at the forepart of the shoe a scant upper having substantially no lasting margin, securing a sole attaching strip to said upper with the strip projecting beyond the lower edge of the upper, and attaching the projecting portion of the sole attaching strip off a last to a thin flexible sock lining which is smaller than a last bottom by approximately the same amount that the sole attaching strip projects beyond the upper.

18. That improvement in methods of making shoes which includes the steps of providing a scant upper having substantially no lasting margin, stitching a welt to said upper with the welt projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, and attaching a thin flexible sock lining to the projecting portion of the welt thereby preparing the upper for slip-in lasting, said sock lining being smaller than a last bottom by approximately the same amount that the welt projects beyond the upper.

19. That improvement in methods of making shoes which includes the steps of stitching a sole attaching strip to a scant upper having practically no lasting margin with the strip projecting beyond the lower edge of the upper a distance approximately equal to the normal lasting margin of an upper, attaching the sole attaching strip off a last to a thin flexible sock lining which is smaller than a last bottom by approximately the same amount that the sole attaching strip projects beyond the upper, and inserting a last into the upper to shape the latter and position the sole attaching strip and sock lining in substantially the same plane under the last bottom, thereby slip-in lasting the upper and positioning the sole attaching strip for the attachment of a sole member.

20. That improvement in methods of making shoes which includes the steps of providing a scant upper having substantially no lasting allowance, securing a sole attaching strip to said upper with the strip projecting beyond the lower edge of the upper an amount approximately equal to the normal lasting allowance of an upper, attaching the projecting portion of the sole attaching strip off a last to a thin flexible sock lining by overseaming stitches which permit relative movement of the sole attaching strip and sock lining about said stitches without disturbing the stitches, said sock lining being shaped like an insole but being smaller than a last bottom by approximately the same amount that the sole attaching strip projects beyond the upper, and inserting a last into the upper thereby shaping the upper and moving the sole attaching strip and sock lining about said stitches until said strip and sock lining are located in substantially the same plane with their adjacent edge faces in abutting relation to each other.

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