

[54] **METHOD OF MAKING SHOES OVER SHEATHED LAST UTILIZING A LASTING ELEMENT**

[76] Inventors: **Jerome A. Rubico**, 196 Trenton St., Boston; **Charles F. Batchelder**, 75 Canton Ave., Milton, both of Mass.

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Related U.S. Application Data

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[52] U.S. Cl. **12/142 R**

[51] Int. Cl. **A43d 9/00**

[58] Field of Search..... **12/142 R, 142 F, 12/145, 1 A, 107; 36/72 C**

[56]

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Primary Examiner—Patrick D. Lawson

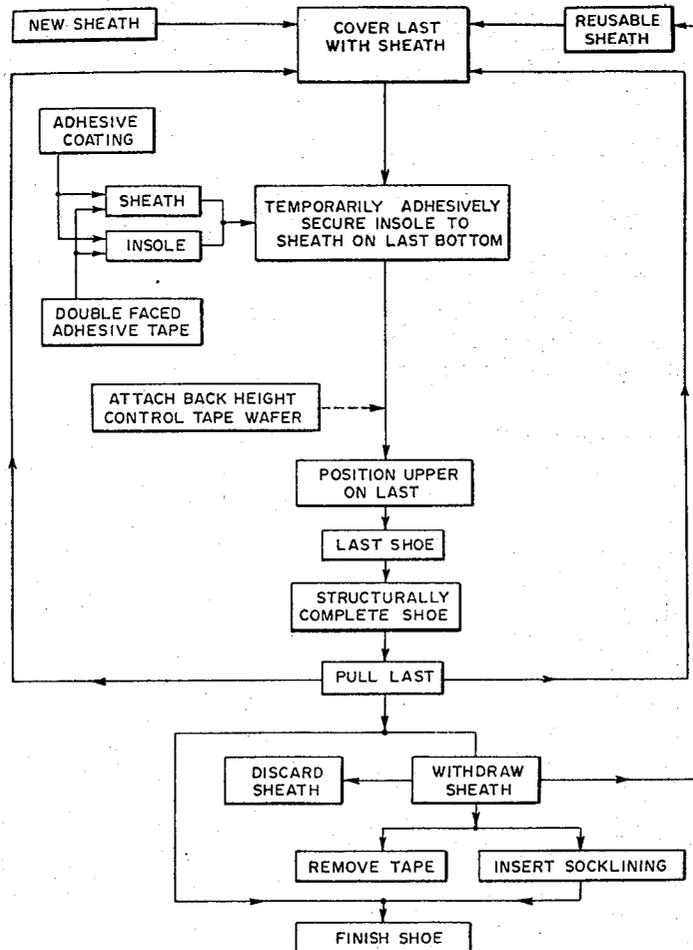
Attorney—Chittick, Thompson & Pfund

[57]

ABSTRACT

A method for making shoes over a sheathed last using a lasting element. In one embodiment of the invention, the lasting element comprises a single layer of a very thin and relatively flexible material while in another embodiment, the lasting element comprises a laminated structure.

11 Claims, 14 Drawing Figures



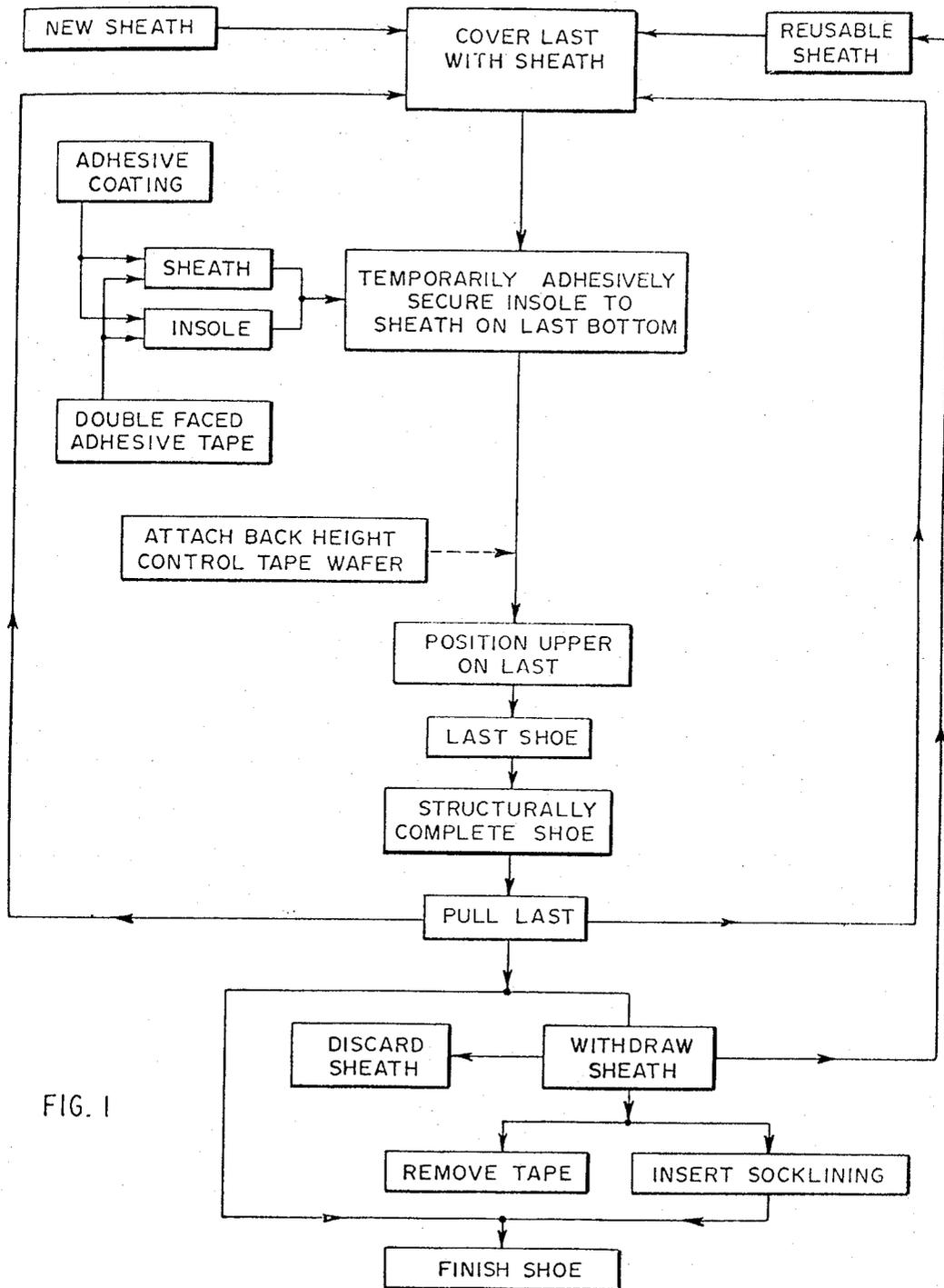
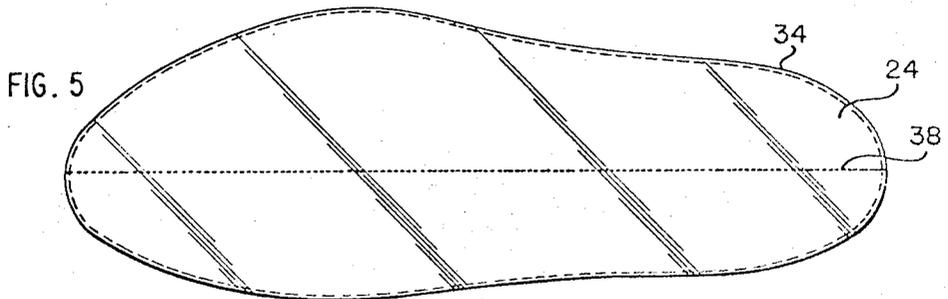
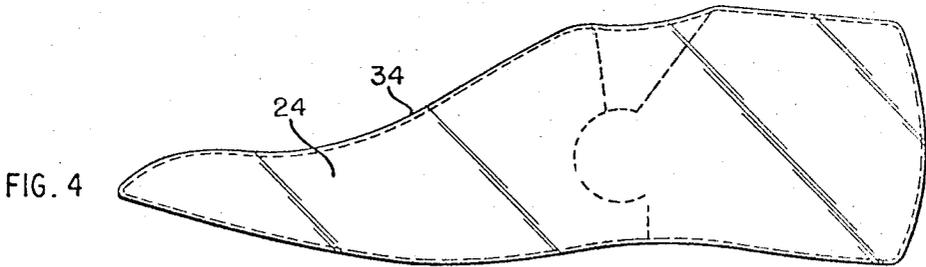
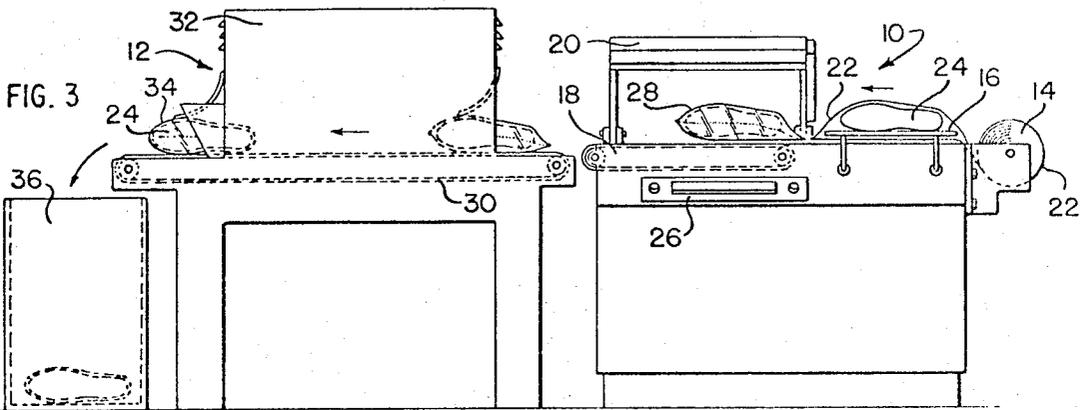
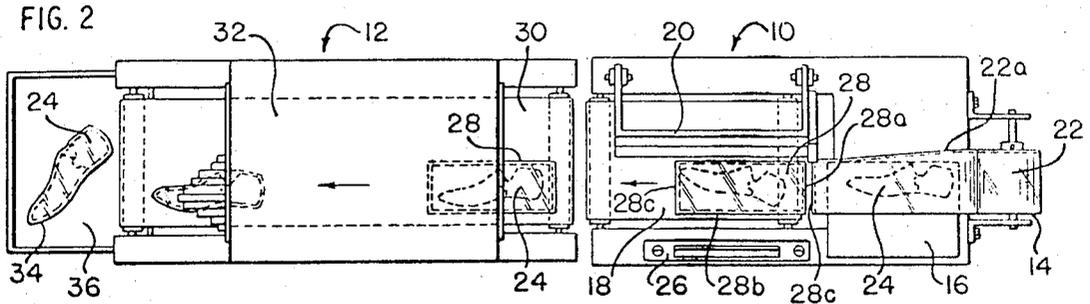


FIG. 1

INVENTORS
CHARLES F. BATCHELDER
JEROME A. RUBICO
BY



INVENTORS
CHARLES F. BATCHELDER
JEROME A. RUBICO
BY

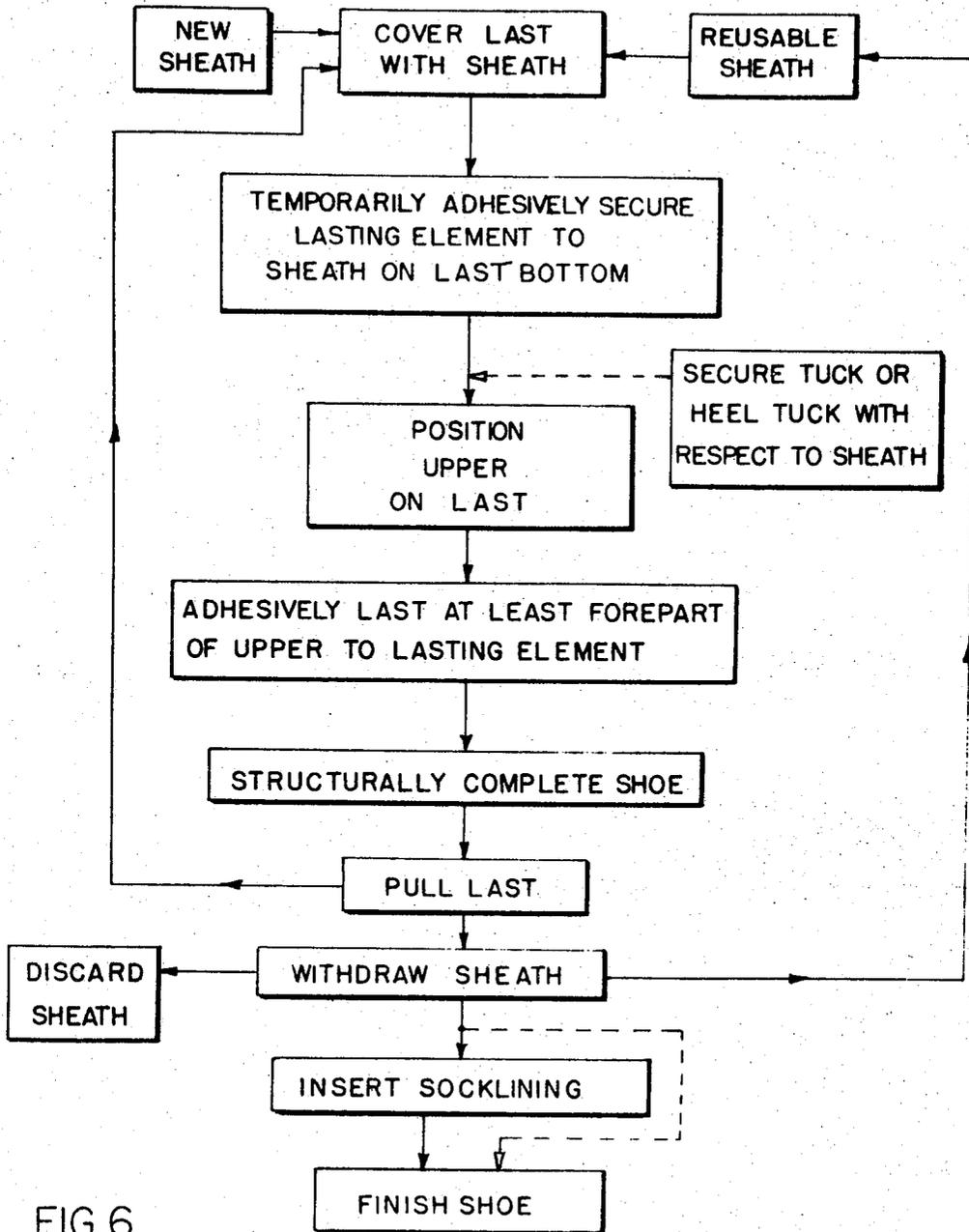


FIG. 6

INVENTOR.
CHARLES F. BATCHELDER
BY JEROME A. RUBICO

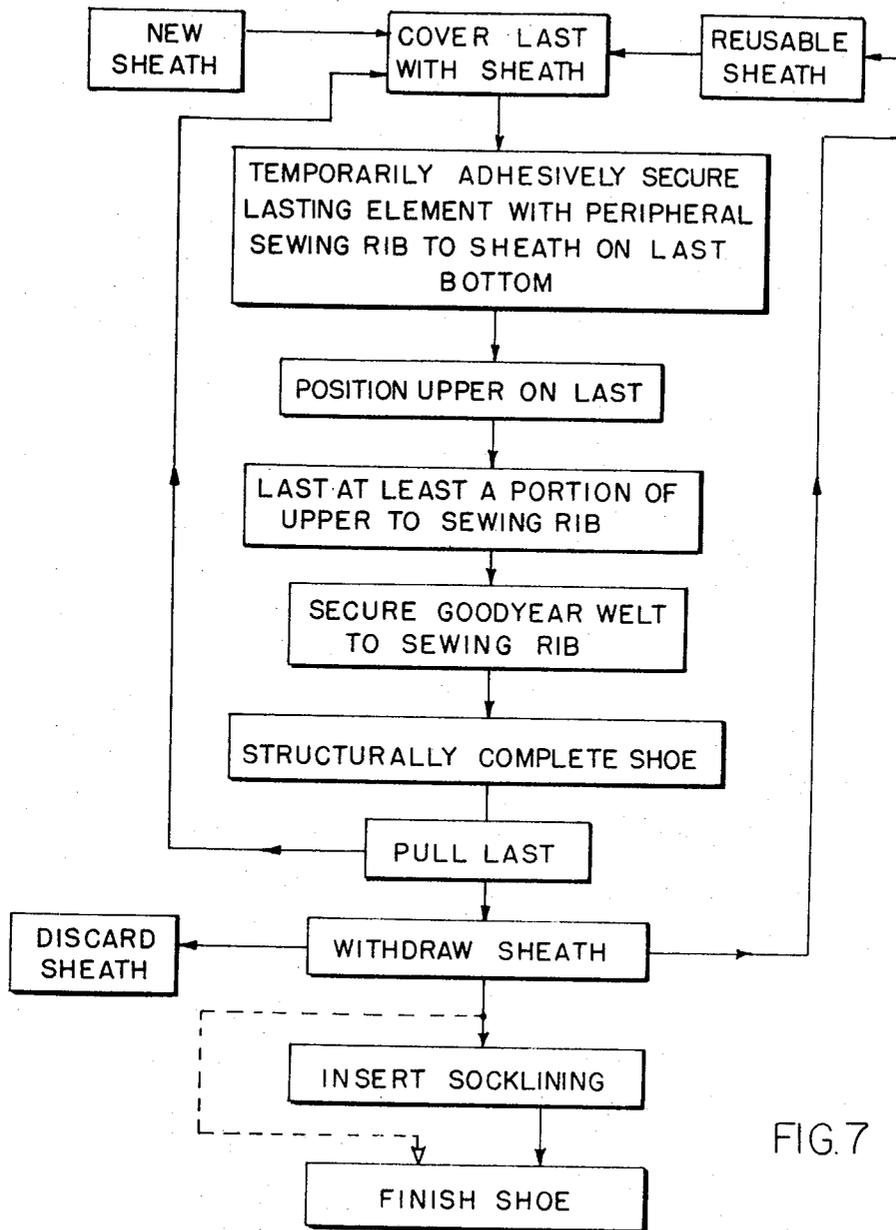


FIG. 7

INVENTOR,
CHARLES F. BATCHELDER
BY JEROME A. RUBICO

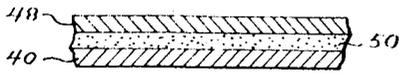


FIG. 12

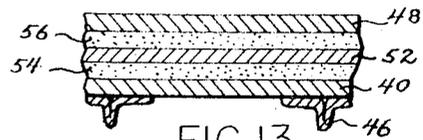


FIG. 13

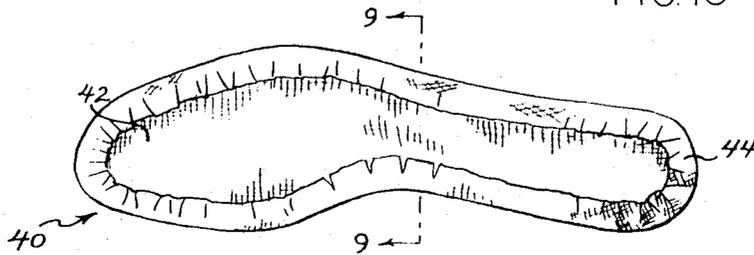


FIG. 8

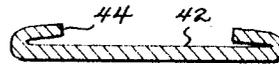


FIG. 9

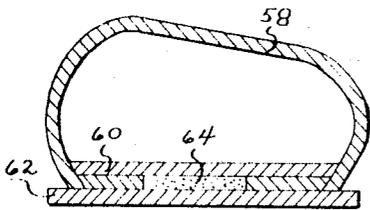


FIG. 14



FIG. 10

INVENTOR.
CHARLES F. BATCHELDER
BY JEROME A. RUBICO

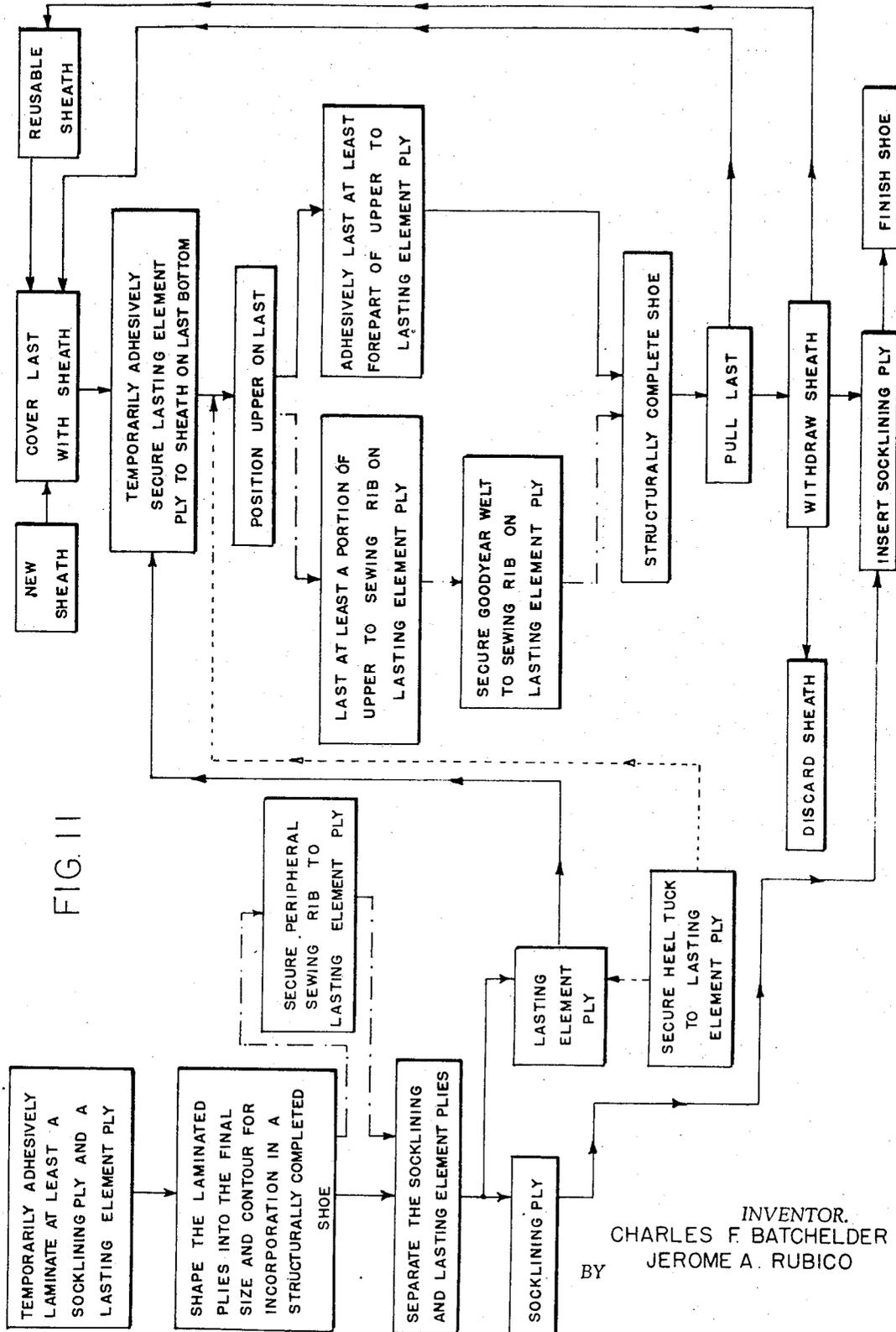


FIG. 11

INVENTOR,
CHARLES F. BATCHELDER
BY
JEROME A. RUBICO

METHOD OF MAKING SHOES OVER SHEATHED LAST UTILIZING A LASTING ELEMENT

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a division of application Ser. No. 66,212 filed on Aug. 24, 1970, which is a continuation-in-part of application Ser. No. 805,205, now U.S. Pat. No. 3,525,110 filed by the present inventors on May 7, 1969 for Method of Making Shoes Over Sheathed Lasts and assigned to the same assignee as the present application.

BACKGROUND OF THE INVENTION

The present invention relates to shoe-making in general, and more specifically, to a method of making shoes over sheathed lasts utilizing various types of lasting elements.

In the parent application Ser. No. 805,205, there is disclosed a process for making shoes using a removable, intermediary sheath that is tightly fitted over at least a portion of the bottom of the last. Preferably, the sheath is formed from a thermoshrinkable, thermoplastic film of the type currently used in the packaging industry for shrink wrapping goods. Conventional bagging and heat shrinking equipment provide a rapid and inexpensive means for producing the conforming sheath for the last.

After the last has been covered with the removable sheath, an insole element is temporarily adhesively secured to the sheath on the last bottom. With the insole correctly placed on and releasably secured to the sheath on the last bottom, the shoe-making process then proceeds in a normal fashion. The upper is positioned on the last and lasted to the insole. Thereafter, the shoe is structurally completed and the last pulled. At this point in the shoe-making process, the sheath is normally withdrawn from the shoe, if desired, a socklining is subsequently inserted in the shoe. Depending upon the particular type of sheath employed in practicing the process, the sheath can be re-used on the same or another last or discarded.

The present invention utilizes the basic "BARUWAY" process described in the above-mentioned copending application Ser. No. 805,205 in conjunction with various types of lasting elements which, among other things, facilitate the use of the process in the manufacture of a number of lines of shoes including Goodyear and flat lasted shoes.

The specific objects, features and advantages of the present invention can best be understood from the following detailed description of a preferred embodiment of the invention, selected for purposes of illustration and shown in the accompanying drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a flow diagram illustrating in block form the sequential steps of the BARUWAY shoe-making process;

FIG. 2 is a plan view of a bagging, sealing and heat shrinking station showing the bagging, sealing and heat shrinking of a thermoshrinkable sheath around a last;

FIG. 3 is a view in side elevation of the station shown in FIG. 2;

FIG. 4 is a view in side elevation depicting a last covered with a heat shrunk thermoplastic sheath;

FIG. 5 is a view of the bottom of the last shown in FIG. 4;

FIG. 6 is a flow diagram illustrating the use of lasting element and an optional tuck or heel tuck in the BARUWAY process;

FIG. 7 is a flow diagram illustrating the use of a lasting element with sewing rib for the manufacture of Goodyear shoes using the BARUWAY process;

FIG. 8 is a plan view of one form of the lasting element;

FIG. 9 is a view in section of the lasting element taken along lines 9-9 in FIG. 8;

FIG. 10 is another view in section showing the lasting element with an inclined peripheral sewing rib thereon;

FIG. 11 is a flow diagram illustrating in block form the sequential steps of the BARUWAY shoe-making process using a laminated lasting element;

FIG. 12 is a view in section of a portion of another version of the lasting element showing the use of a laminated two ply construction;

FIG. 13 is another view in section of a portion of a laminated, three ply lasting element; and,

FIG. 14 is a diagrammatic view in section of a shoe incorporating the lasting element.

Turning now to the drawings and particularly to FIG. 1 thereof, there is shown in block form a flow diagram of the BARUWAY method of making shoes over sheathed lasts which is described in detail in the above-mentioned copending application Ser. No. 805,205.

The basic concept of the BARUWAY process is the partial or full encasement of a shoe last within a removable sheath of thin material that is closely fitted over at least a portion of the last bottom. The sheath is a means by which the structural elements of a shoe can be adhesively assembled in their proper design relationship without any direct adhesive attachment to the last. The term "sheath", as used herein, is generic to both a partial and a full sheath, i.e., one which covers only a portion of the last and one which covers the entire last. The partial or full sheath is mechanically "bonded" or held in position over the last bottom without the use of any attaching means between the sheath and the last bottom. In other words, no adhesive tacks or other attaching means are interposed between the bottom of the last and the last bottom contacting inner surface of the sheath.

With the last covered by either a partial or a full sheath, one or more elements of the shoe are adhesively secured to the sheath. In a sense, the sheath functions as an intermediary between the shoe elements and the last itself. The shoe is then structurally formed around the sheathed last. The sheath can be removed from or left in the finished shoe depending upon the desired type of shoe construction. The particular shoe-making operations employed in manufacturing the shoe will be described below after we discuss the sheath itself and the method for sheathing the last.

Preferably, the sheath is formed from one of the well-known heat shrinkable, thermoplastic films, such as the polyolefin films including polypropylene and polyethylene, vinylidene chloride (saran), or stabilized polyvinyl chloride (PVC) that are currently used in the packaging industry. The use of heat shrinkable films is quite desirable because the resulting heat shrunk sheath tightly conforms to the compound curvatures of the last and provides a dimensionally stable, fixed intermediary

element between the last bottom and an overlying insole.

However, it should be understood that the sheath can be fabricated in a number of ways from a variety of suitable materials. For example, conventional vacuum forming techniques including flow on applications can be employed to sheath the bottom and sides of the last. Alternatively, rubber latex and other similar materials can be spray coated on or dip formed around the shoe last. Stretchable molded rubbers and elasticized fabrics can also be used in the construction of a full or partial sheath. Although sheaths formed in this manner can be reused for a number of times, we believe that the maximum manufacturing economies will be realized from the use of a disposable sheath of thermoshrinkable, thermoplastic film that is heat shrunk around the shoe last.

The equipment for sheathing a shoe last with a sheath of thermoshrinkable, thermoplastic film is shown in plan view in FIG. 2 and in side elevation in FIG. 3. The equipment comprises a sealing machine and a heat shrinking machine indicated generally by the reference numerals 10 and 12, respectively. Commercial machines for performing both the sealing and heat shrinking operations are readily available and well known to those in the packaging industry. For example, Applicants have experimented with the sealing machine manufactured by the Weldotron Corp. of Newark, New Jersey, and sold under the nomenclature of "Console — Type Automatic Package Forming Machine, Series 5200" to seal heat shrinkable film around a last. Subsequent heat shrinking of the film was done in Weldotron's Shrink Tunnel Model 7121. Of course, other commercially available units can be used to seal and heat shrink the thermoplastic film around a last.

The sealing and shrinking operations can best be understood by examining FIGS. 2 through 8 in conjunction with the following description. Looking at FIGS. 2 and 3, the sealing machine 10 comprises a supply roll 14, a work or "bagging" surface 16, a conveyer 18 and a pivotally mounted sealing head 20 containing one or more selectively energizable sources of thermal energy (not shown). The internal components of the sealing machine 10, such as, the pneumatic or hydraulic systems, electrical equipment, drive motors and so forth, have not been shown in the drawings for purposes of clarity.

The supply roll 14 has a heat shrinkable film 22 wound thereon in sleeve form with a fold line 22a facing away from the operator as viewed in FIG. 2. A number of readily available heat shrinkable materials can be used to form the sheath. For example, we have used heat shrinkable PVC film sold by the Reynolds Metals Co. under the trademark Reynolon and 1.5 mil PVC film sold by the Borden Chemical Co. of No. Andover, Massachusetts. The thickness of the film before shrinking is not critical. However, for purposes of maximum economy and ease of operation, we prefer a film thickness of approximately 0.75 mils before shrinking.

Referring to the plan view of FIG. 2, the normal operator position is located directly in front of the sealing machine 10. When wrapping a conventional bare last 24, the operator places the last in the center folded heat shrinkable film 22 and then moves both the last and film together to a position directly beneath the pivotally mounted sealing head 20 as indicated by the arrow in FIG. 2. The operator then initiates the sealing

cycle by actuating the appropriate machine controls 26. Upon actuation of the controls 26, the sealing head 20 is automatically lowered to the horizontal or sealing position by pneumatic or hydraulic means. When the sealing head is in the sealing position, the source or sources of thermal energy are energized to form a bag 28 by sealing the upstream edge 28a and facing side 28b of the center folded heat shrinkable film 22. The sealing operation also severs the upstream of the bag from the leading edge 28c of the next "bag." Thus, after the first sealing cycle, the leading edge 28c, of each bag is sealed by the preceding sealing operation.

After sealing, the bagged last is moved by conveyer 18 onto conveyer 30 which carries the bagged last through a heat tunnel 32 that generates sufficient heat to cause the heat shrinkable film bag 28 to shrink tightly around the last thereby forming a sheath 34. Upon emerging from the heat tunnel, the sheathed last 24 is deposited in a collecting tub 36 located at the downstream end of conveyer 32.

The last and the tightly fitting sheath of thermoshrunk, thermoplastic film are shown in greater detail in the side elevation and bottom views of FIGS. 4 and 5. From an inspection of FIGS. 2 through 5, it can be seen that the sealed bag side 28b, after heat shrinking, forms a seam 38 that extends substantially along the longitudinal axis of the last bottom. This particular location of the sheath seam 38 is produced by placing the bare last 24 within bag 28 as shown in FIGS. 2 and 3. The last generally should be positioned with the heel portion of the last reasonably close to the corner of the sealing head 20 so that the last is located approximately along the diagonal of bag 28. It is also desirable to keep the bag sizes as small as possible in order to insure a good, tight, shrink of the film around the bare last.

Alternatively, the seam 38 can be positioned on the upper surface of the last leaving a smooth, unseamed area of thermoshrunk film on the last bottom. This sealing arrangement is obtained by positioning the last 24 within the bag of thermoshrinkable film with the last bottom facing the center fold 22a of the film.

It should be noted that the seam placement on the sheathed last is not a critical parameter of the BARUWAY process and that the process can be practiced with the seam in a number of locations. However, we believe that it is preferable to position the seam on the upper surface on the last in order to provide a uniform, unseamed, sheath surface on the bottom of the last. This arrangement will produce a tighter lasting of the shoe upper to the insole. Furthermore, if there is any offset marking of the shoe components by the irregular ridge or bump of seam 38, the marking will appear on the relatively unseen, inside surface of the upper lining rather than on the highly visible exposed surface of the insole in the finished shoe.

The sheathing of the shoe last is the first step in the practice of the BARUWAY process. Referring back to the flow diagram of FIG. 1, the next step in the process is the use of the sheath as an intermediary to which elements of the shoe can be adhesively attached, in lieu of adhesive attachment directly to a bare last as taught by the previously mentioned prior art.

With the last bottom covered by the tightly fitting sheath, an insole element is temporarily secured to the sheath by adhesive means instead of by the traditional method of nailing.

Various adhesive means can be employed in the BARUWAY process to temporarily adhesively secure the insole to the intermediary sheath. For the large volume of cement-process shoes which normally have a socklining over their insoles, we prefer to use an adhesive layer between the insole and sheath. For shoes such as Goodyear welts which commonly have no socklining in the finished shoe, a double-faced adhesive tape can be applied to either the sheath itself or to the insole. After withdrawal of the last and subsequent removal of the sheath, the tape can be used to hold a socklining in place. Alternatively, the tape can be removed from the finished shoe.

It should be noted that regardless of the particular means of adhesive insole attachment, none of the adhesive actually contacts the last bottom because of the adherence of the insole to the sheath and not to the last itself. The sheath functions as a removable intermediary to hold the insole in proper juxtaposition against the last bottom for subsequent lasting of the upper components to the insole.

Once the upper has been accurately positioned on the last, the shoe is lasted and structurally completed in a conventional manner. The structurally completed shoe is now ready for last pulling. The sheath is cut or broken around the throat of the shoe to permit the last to be pulled from the shoe. After insertion of the socklining, the shoe is finished in a conventional manner.

The preceding description of the BARUWAY process has been directed to the use of the preferred disposable sheath formed from a thermoshrinkable, thermoplastic film. However, a BARUWAY process is not limited to the use of such a disposable thermoplastic sheath. For instance, it has already been mentioned that a re-usable sheath can be formed from a variety of materials including stretch fabrics, molded rubber, synthetics and the like.

Having briefly reviewed the BARUWAY shoemaking process described in the above-mentioned copending application Ser. No. 805,205, we will now discuss the various types of lasting elements used in the present invention to implement the BARUWAY process. Since no tacks are required for securing the lasting element to the last in the BARUWAY process, an extremely lightweight and flexible material can be employed as the lasting element. Materials such as No. 12 Gem duck or 1½-2 iron "TEXON" can be employed as a lasting element in the BARUWAY process. From the standpoint of comfort and flexibility in the finished shoe, it is quite desirable to use a material that is extremely flexible in the interior portion of the toe area of the lasting element. We have found that material having a longitudinal stiffness not in excess of 0.057 inch-pounds and a lateral stiffness not in excess of 0.168 inch-pounds as measured by Federal Test Method Standard No. 311, Testing Method No. 4211, published by the General Services Administration, dated Jan. 15, 1969, is quite suitable. It will be appreciated that the lasting elements described herein are not limited to materials which meet the flexibility requirements set forth above. However, in order to obtain maximum flexibility in the finished shoe, we do recommend that the lasting element meet these requirements for flexibility.

Looking at FIG. 6, the basic BARUWAY process is shown with a lasting element temporarily adhesively secured to the sheath on the last bottom. In some shoe

constructions it may be desirable to employ either a full tuck or a heel tuck. The use of such tucks is illustrated in the flow diagram of FIG. 6 by the dashed lines. Preferably, the full tuck and heel tuck are secured with respect to the sheath by adhesive means. This operation is performed between the step of temporarily adhesively securing the lasting element to the sheath on the last bottom and the step of positioning the upper on the last.

The back part of the upper and its components are lasted to the underside of the tuck by conventional means, such as staples or adhesive, while the forepart of the upper is lasted to the lasting element by adhesive. The remaining steps in the process illustrated in FIG. 6 are the same as the basic BARUWAY process. If desired, a socklining can be inserted in the shoe after withdrawal of the sheath, as illustrated by the solid lines in FIG. 6. Alternatively, the socklining can be omitted and the shoe finished immediately after the step of withdrawing the sheath as shown by the dashed lines.

One type of lasting element that is suitable for the process described in connection with FIG. 6 is illustrated in FIGS. 8 and 9. The lasting element 40 is cut from a gem duck into the correct size and contour for incorporation in a structurally completed shoe. The lasting element 40 has a central portion 42 and a folded over lasting margin 44. With this configuration, the lasting margin 44 can be lifted for subsequent inseaming.

It has already been mentioned that one of the objects of the present invention is to provide a method of making shoes over sheathed lasts using a lasting element that facilitates the manufacture of Goodyear welt shoes. The flow diagram for manufacturing a Goodyear welt shoe with the BARUWAY process and the lasting element of the present invention is illustrated in FIG. 7. Suitable lasting element for the Goodyear welt construction are shown in FIGS. 10 and 13. The lasting element with a peripheral sewing rib 46, either inclined (FIG. 10) or upstanding (FIG. 13) is temporarily adhesively secured to the sheath on the last bottom. After positioning the upper on the last, at least a portion of the upper is lasted to the sewing rib. Thereafter, a Goodyear welt is secured by conventional means to the sewing rib. The subsequent shoe-making process follows along in the same manner as illustrated in FIG. 6 and discussed previously in connection with the basic BARUWAY process.

The use of another form of a lasting element is illustrated in flow diagram form in FIG. 11 and shown in structural cross-section in FIGS. 12 and 13. In this embodiment, the lasting element comprises a lamination of at least two plies which are temporarily held in lamination by an adhesive. Looking at FIG. 12, there is in laminated form, a lasting element ply 40 and a socklining ply 48 which are temporarily adhesively held in lamination by an adhesive 50. A multiple ply combination using more than two plies is illustrated in FIG. 13 and will be discussed below in connection with the manufacture of Goodyear welt shoes.

Looking at FIG. 11, the first step in the process is the temporary adhesive lamination of the lasting element and socklining plies 40 and 48, respectively. Preferably, the lasting element and socklining plies are laminated together while in sheet form and then they are shaped into the final size and contour for incorporation in a structurally completed shoe. However, it will be

appreciated that it is possible to separately shape the socklining and lasting element plies before temporarily adhesively laminating the two plies. Given the sized and contoured laminated plies, the next step in the process for a non-Goodyear welt shoe is the separation of the socklining and lasting element plies. After separation, the socklining ply is put aside for subsequent use in the shoemaking process. At this point in the process, a heel tuck can be secured to the lasting element ply as shown by the dashed line in FIG. 11.

In accordance with the basic BARUWAY process, at least a portion of the last bottom is covered with a sheath. The lasting element ply is then temporarily adhesively secured to the sheath on the last bottom. If desired, the heel tuck can be secured to the lasting element at this point in the shoe-making process. After positioning the upper on the last, at least the forepart of the upper is adhesively lasted to the lasting element ply. Thereafter, the shoe is structurally completed, the last pulled and the sheath withdrawn from the shoe. The previously separated socklining ply is now inserted in the shoe and the shoe is then finished in a conventional manner.

The steps for making a Goodyear welt shoe with the BARUWAY process and the multi-ply laminated lasting elements are also illustrated in FIG. 11. A combination of dash and dotted lines is used in FIG. 11 to indicate those steps which are specifically applicable to the manufacture of a Goodyear welt shoe. After shaping the laminated plies into the final size and contour for incorporation in the structurally completed shoe, a peripheral sewing rib is secured to the lasting element ply by conventional means, such as, adhesive or stitching.

The multi-ply construction provides sufficient rigidity to permit sewing rib attachment using existing shoe machine equipment.

Looking at the right hand portion of FIG. 11, after the upper has been positioned on the last, at least a portion of the upper is lasted to the sewing rib on the lasting element ply. Thereafter, a Goodyear welt is secured to the sewing rib on the lasting element ply. The shoe is then structurally completed and the remaining steps are performed in the same manner as described above.

In some instances it may be desirable to employ a cushion element in the finished shoe. This can be accomplished easily in the BARUWAY process by using the laminated version of the lasting element illustrated in FIG. 13. In this case, the intermediate ply 52 is formed from a cushioning material and is adhesively laminated to both the lasting element ply 40 and the socklining ply 48 by means of adhesive layers 54 and 56 respectively. Looking back at FIG. 11, after sizing and contouring the laminated plies and securing the peripheral sewing rib 46 to the lasting element ply 40, the socklining ply 48 is separated from the intermediate or cushion element ply 52 and the lasting element ply 40. The laminated intermediate ply 52 and lasting element ply 40 are then temporarily adhesively secured to the sheath on the last bottom with the intermediate ply 52 in contact with the sheath. The laminated cushion element and lasting ply are treated in the same way as a single lasting element ply in the subsequent shoemaking operations.

In the case of Goodyear welt shoes it also may be desirable to compensate for the volume occupied by the socklining and/or cushion ply. In order to provide room for the subsequent insertion of the socklining ply, the

multi-ply laminated construction shown in FIG. 13 can be used with the intermediate ply 52 constituting a throwaway ply. The thickness of the intermediate ply corresponds to the thickness of the socklining or the combined thickness of the socklining and cushion if a cushion is used. The three plies are laminated together as described above and then the socklining ply 48 is separated from the intermediate ply 52 which remains in lamination with the lasting element ply 40. The intermediate ply 52 and lasting ply 40 are then temporarily adhesively secured in lamination to the sheath on the last bottom with the intermediate ply 52 in contact with the sheath. The subsequent shoemaking steps are the same as described before down through the point where the sheath is withdrawn. At this stage in the shoemaking process, the intermediate ply 52 is removed from the shoe if it did not come out with the sheath. Thereafter, the socklining ply 48 and the cushion, if used, are inserted in the shoe and occupy the space previously filled by the throwaway intermediate ply 52.

FIG. 14 illustrates in diagrammatic form and cross-section a shoe constructed by means of the BARUWAY process using a lasting element which fulfills the longitudinal and lateral flexibility requirements set forth above. As shown in FIG. 14, the upper 58 is lasted to a lasting element 60 with a sole element 62 secured to the exterior portion of the upper lasting margin. A suitable cushion or filler 64 may be used to fill the void defined by the inner surfaces of the lasting element 60 and sole element 62 and the inner edges of the inturned lasting margin of the upper 58.

Having described in detail the preferred embodiment of our invention, what we claim and desire to protect by Letters Patent of the United States is:

1. A method of shoemaking comprising the steps of:
 1. covering at least a portion of a last bottom with a sheath;
 2. temporarily adhesively securing a lasting element to the sheath on the last bottom;
 3. securing a tuck or a heel tuck with respect to the sheath;

4. positioning an upper on the last;
5. adhesively lasting at least the forepart of the upper to the lasting element;
6. structurally completing the shoe;
7. pulling the last;
8. withdrawing the sheath; and,
9. finishing the shoe.

2. A method of shoemaking comprising the steps of:
 1. covering at least a portion of a last bottom with a sheath;
 2. temporarily adhesively securing a lasting element having a peripheral sewing rib to the sheath on the last bottom;
 3. positioning an upper on the last;
 4. lasting at least a portion of the upper to the sewing rib;
 5. securing a Goodyear welt to the sewing rib;
 6. structurally completing the shoe;
 7. pulling the last;
 8. withdrawing the sheath; and,
 9. finishing the shoe.

3. The method of claim 1 further characterized by inserting a socklining before finishing the shoe.
4. The method of shoemaking comprising the steps of:

- 1. temporarily adhesively laminating at least a socklining ply and a lasting element ply;
- 2. shaping the laminated plies into the final size and contour for incorporation in a structurally completed shoe;
- 3. separating the socklining and lasting element plies;
- 4. covering at least a portion of a last bottom with a sheath;
- 5. temporarily adhesively securing the lasting element ply to the sheath on the last bottom;
- 6. positioning an upper on the last;
- 7. adhesively lasting at least the forepart of the upper to the lasting element ply;
- 8. structurally completing the shoe;
- 9. pulling the last;
- 10 withdrawing the sheath;
- 11. inserting the socklining ply; and,
- 12. finishing the shoe.
- 5. The method of shoemaking comprising the steps of:
 - 1. temporarily adhesively laminating at least a socklining ply and a lasting element ply;
 - 2. shaping the laminated plies into the final size and contour for incorporation in a structurally completed shoe;
 - 3. securing a peripheral sewing rib to the lasting element ply;
 - 4. separating the socklining and lasting element plies;
 - 5. covering at least a portion of a last bottom with a sheath;
 - 6. temporarily adhesively securing the lasting element ply to the sheath on the last bottom;
 - 7. positioning an upper on the last;
 - 8. lasting at least a portion of the upper to the sewing rib on the lasting element ply;
 - 9. securing a Goodyear welt to the sewing rib on the lasting element ply;
 - 10. structurally completing the shoe;
 - 11. pulling the last;
 - 12. withdrawing the sheath;
 - 13. inserting the socklining ply; and,
 - 14. finishing the shoe.
- 6. The method of shoemaking comprising the steps of:
 - 1. temporarily adhesively laminating a socklining ply, an intermediary ply, and a lasting element ply;
 - 2. shaping the laminated plies into the final size and contour for incorporation in a structurally completed shoe;
 - 3. separating the socklining ply from the intermediate and lasting element plies;
 - 4. covering at least a portion of a last bottom with a

- sheath;
- 5. temporarily adhesively securing the laminated intermediate and lasting element plies to the sheath on the last bottom with the intermediate ply in contact with the sheath;
- 6. positioning an upper on the last;
- 7. adhesively lasting at least the forepart of the upper to the lasting element ply;
- 8. structurally completing the shoe;
- 9. pulling the last;
- 10. withdrawing the sheath;
- 11. inserting the socklining ply; and,
- 12. finishing the shoe.
- 7. The method of claim 6 wherein said intermediate ply comprises a cushion material.
- 8. The method of claim 6 further characterized by removing the intermediate ply from the shoe before inserting the socklining ply.
- 9. The method of shoemaking comprising the steps of:
 - 1. temporarily adhesively laminating a socklining ply, an intermediate ply and a lasting element ply;
 - 2. shaping the laminated plies into the final size and contour for incorporation in a structurally completed shoe;
 - 3. securing a peripheral sewing rib to the lasting element ply;
 - 4. separating the socklining ply from the intermediate and lasting element plies;
 - 5. covering at least a portion of a last bottom with a sheath;
 - 6. temporarily adhesively securing the laminated intermediate and lasting element plies to the sheath on the last bottom with the intermediate ply in contact with the sheath;
 - 7. positioning an upper on the last;
 - 8. lasting at least a portion of the upper to the sewing rib on the lasting element ply;
 - 9. securing a Goodyear welt to the sewing rib on the lasting element ply;
 - 10. structurally completing the shoe;
 - 11. pulling the last;
 - 12. withdrawing the sheath;
 - 13. inserting the socklining ply; and,
 - 14. finishing the shoe.
- 10. The method of claim 9 wherein said intermediate ply comprises a cushion material.
- 11. The method of claim 9 further characterized by removing the intermediate ply from the shoe before inserting the socklining.

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