Sept. 6, 1966 B. BURSHTYN 3,270,359

METHOD OF SHOE PRODUCTION

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Fig. 1

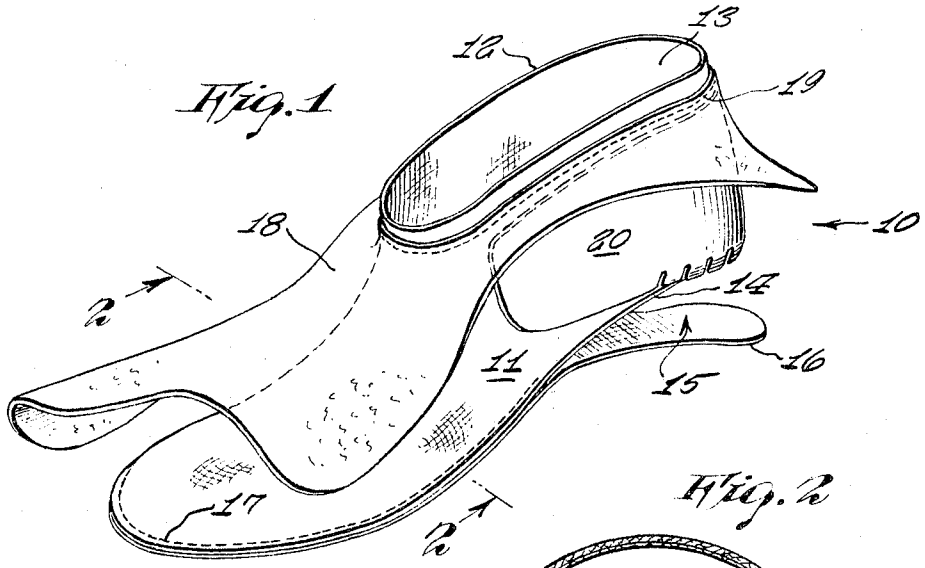


Fig. 2

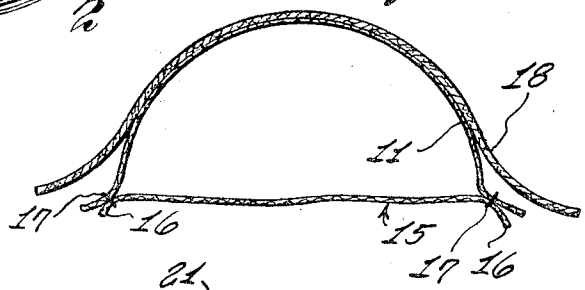
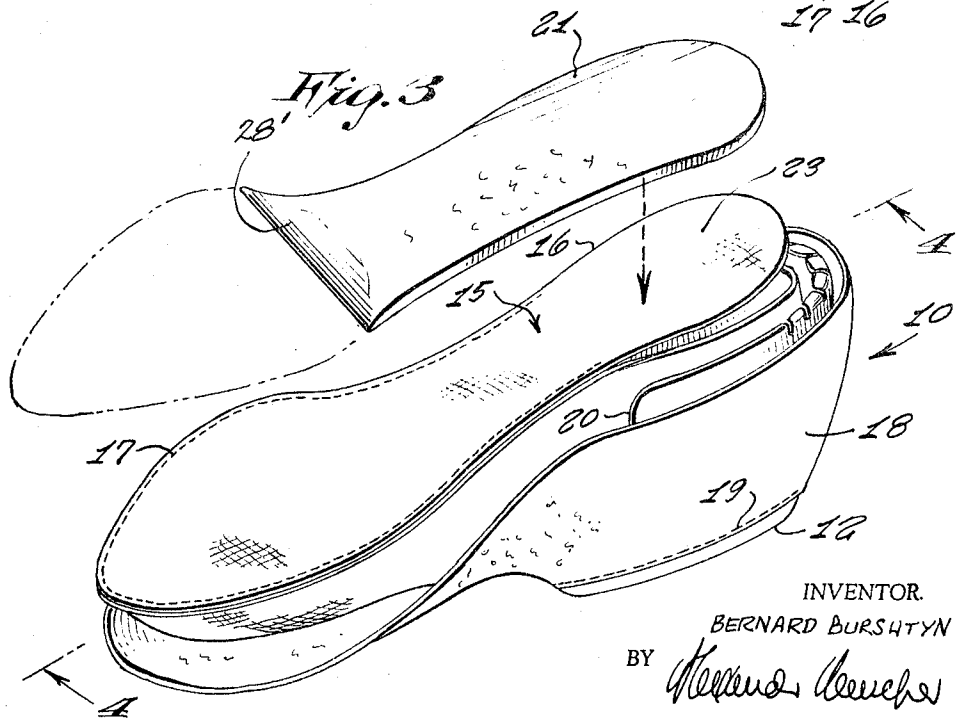


Fig. 3



INVENTOR.
BERNARD BURSHTYN
BY
ATTORNEY

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Fig. 4

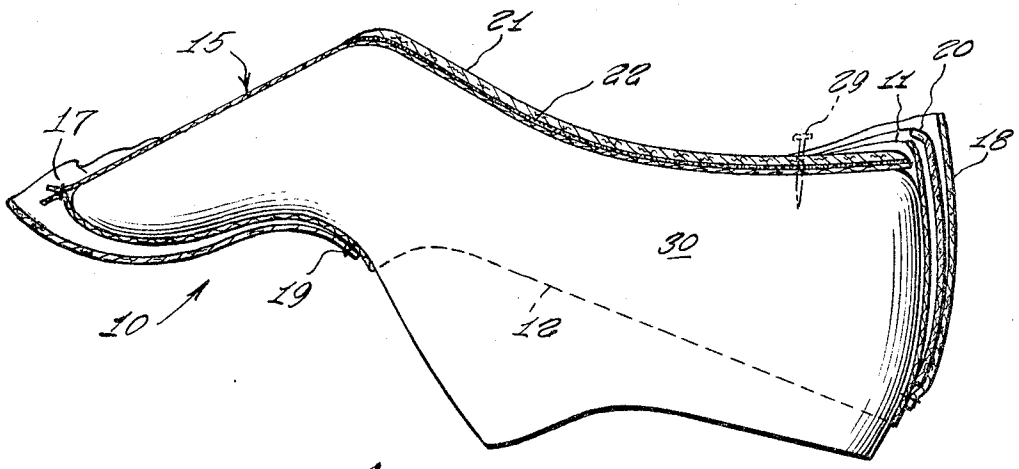


Fig. 6

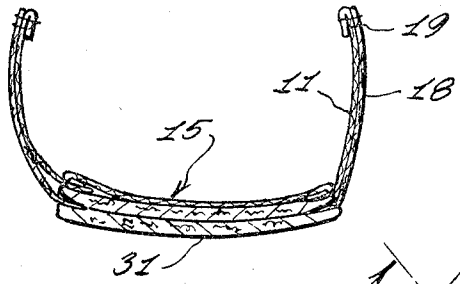


Fig. 5

INVENTOR.
BERNARD BURSHTYN
BY
ATTORNEY

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Fig. 7

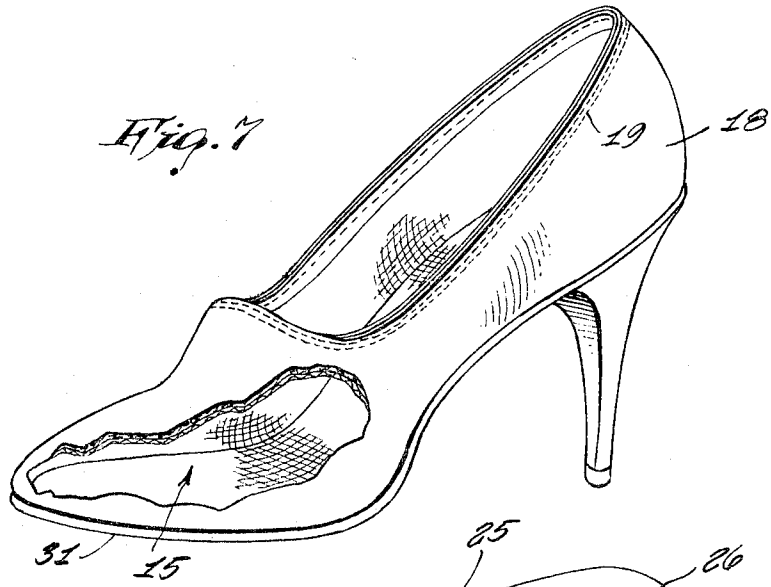
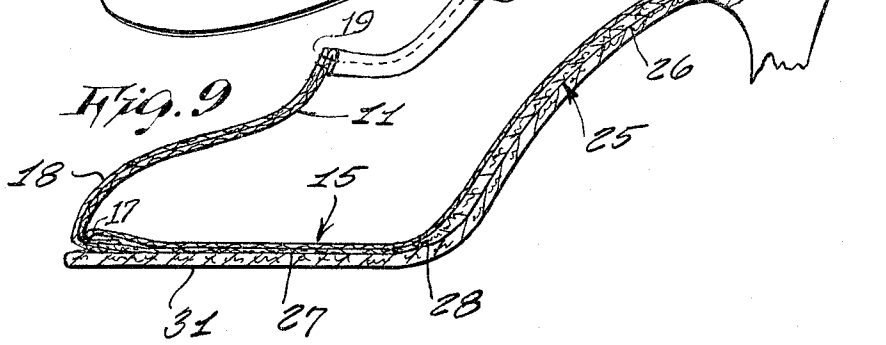


Fig. 8



Fig. 9



INVENTOR.
BERNARD BURSHTYN
BY
ATTORNEY

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3,270,359

METHOD OF SHOE PRODUCTION

Bernard Burshtyn, New York, N.Y.
(1944 Unionport Road, Bronx, N.Y.)

Filed Apr., 23, 1963, Ser. No. 275,086
2 Claims. (Cl. 12—142)

This invention relates generally to shoes and to the method of making the same and is a continuation-in-part of applicant's copending application Ser. No. 62,409 and now abandoned.

An object of the invention is to produce a shoe, including and particularly a ladies' shoe, having a sole assembly which has differential and selective flexibility and which can be made efficiently and cheaply by the slip-last method wherein specific upper and innersole elements after being secured together about their margins are adapted to have a last forced into place therebetween.

Another object of the invention resides in the construction of a shoe having a stiffener element forming part of the shoe sole assembly and adapted by its length and affixation to and along the outer face of the innersole to control the area and place of differential flexibility of said assembly. Such structure lends to comfort of wear, economy in commercial production, and equivalency to custom-made products.

A further object of the invention resides in the method of production utilizing the slip-last method and involving the steps of applying and affixing a stiffener element of selective extension to the outer face of the innersole and pulling the shoe upper outer over the upper lining and securing its in-turned margin to the innersole and stiffener elements wherever exposed, and then cementing an outersole in position.

These objects and other incidental ends and advantages of the invention will hereinafter appear in the progress of the disclosure and as pointed out in the appended claims.

Accompanying this specification are drawings showing a form of the invention and method of production wherein:

FIG. 1 is a view in perspective of the upper assembly of a shoe showing an upper lining and an upper outer, the lining being secured to the innersole.

FIG. 2 is an enlarged cross-sectional view of FIG. 1 through the plan 2—2 thereof;

FIG. 3 is a view in perspective showing the assembly of FIG. 1 ready to receive a stiffening element at the outer face of the innersole;

FIG. 4 is a cross-sectional view of FIG. 3 through the plane 4—4 thereof showing the assembly of FIG. 3 with the stiffener element attached, with a last forced in between the lining and innersole and the upper outer turned in for securement to the exposed elements of the lining and stiffener;

FIG. 5 is a longitudinal cross-sectional view of a finished shoe incorporating the invention;

FIG. 6 is a cross-sectional view of FIG. 5 across the plane 6—6 thereof;

FIG. 7 is a view in perspective of the finished shoe, partly cut-away, to illustrate the smooth peripheral edge detail therewithin;

FIG. 8 is a perspective view of a modified form of stiffener element; and

FIG. 9 is a fragmentary and side cross-sectional view similar to FIG. 5 showing a shoe having a modified form of construction incorporating the stiffener element illustrated in FIG. 8.

In accordance with the invention and the preferred form shown, numeral **10** indicates generally an upper shoe assembly having an upper lining **11** of relatively

soft material and having a configuration conforming to the sides of the foot. However, an open toe may be provided to conform to required styles. Lining **11** has an upper edge **12** defining an opening **13** and a lower peripheral edge **14**. An innersole **15** of similar or other soft material as lining **11** is secured along its marginal edge **16** to the marginal edge of **11** by suitable means as stitching **17**, the said stitching being shown at the fore part, and omitted rearwardly or at the heel area as shown for economic or other reasons.

The upper outer element **18** of the shoe is of conventionally used material such as leather, composition, plastic or the like and is secured as by stitching **19** along the upper peripheral edge to edge **12** of lining **11**. The usual stiffening counter **20** may be inserted between the upper **18** and lining **11** at the rear part which defines the heel area.

In order to permit forcing of a last **30** between lining **11** and innersole **15** as stitched together, at least one of the two materials thereof must be stretchable.

A stiffener element **21** of a preselected length of extension from heel to toe which may be of leather, composition, plastic or other relatively rigid material forms part of the sole assembly of the invention. As shown, the stiffener follows the contour of innersole **11** adjacent the edge of stitching **17** either along the full length as shown in FIG. 8 or partially as shown in FIG. 3 and is attached to the outer side by cement as shown. It may be reduced or scrived along its peripheral edges to accommodate the turning in of outer **18** as will appear.

In the modified stiffener shown in FIG. 8, member **25** includes a rear or heel part **26** of relatively thicker material and a fore or toe part **27** of relatively thinner material. Member **25** may be formed from a single piece scrived or reduced at its peripheral edges and at the fore part as at **28**.

In the manufacture of a shoe incorporating the invention herein, the marginal areas of lining **11** and innersole **15** are first stitched together as at **17** in FIG. 1 after which the stiffener **21** or **28** is affixed or cemented thereto. Stiffener **21** or **28** extends across the width of innersole **15** and along the said marginal areas. Stiffener **21** or **28** if preferred may be applied before or after a last **30** is forced between the stitched lining **11** and innersole **15**. Such stiffener may even be secured to the innersole **15** before even being stitched to lining **11**. It is to be noted that the terminal edge of stiffener **21** at the fore part is scrived or reduced as at **28'** for smooth junction with innersole **11**.

After last **30** is forced between upper or lining **11** and innersole **15** secured together as by stitching **17**, stiffener **21** or **28** is applied and affixed to the outer face of **15** if not already done before the lasting as previously mentioned. Thereafter, the upper outer **18** (secured to lining **11** as at stitching **19**) is pulled over the lining and turned in at the margin peripherally for temporary securement to the sole area as against the outer face of stiffener **21** at the heel area as by tacks **20**, and at the foreshortened area at the toe region against innersole **15**. Thereafter outer sole **31** is applied and cemented over the outer faces of the turned-in margins of outer **18**, the stiffener **21** and part of lining **15** or the stiffener **28** covering the full lining area.

It is to be noted as stated that at least one of the upper lining **11** and innersole **15** materials is resiliently stretchable so that a designer is in a position to vary sizes and widths to conform to corresponding sizes and widths of the last without too many variations in sizes and shapes of said lining and innersole.

From the foregoing description, it is understood that minor changes and variations in the invention may be

made with respect to the steps of operations and the materials used in the product as to sizes, shapes and integration thereof.

I claim:

1. In the method of making a shoe, the steps which comprise securing together the marginal portions of a shoe upper lining and an innersole at least about the fore part, forcing a last between said upper lining and innersole, applying and cementing a stiffener sole of selective length from the heel toward the toe against the outer face of said innersole and across the width and along the margins thereof, pulling the shoe upper over the lining, turning and securing the margin of the shoe upper to the sole area, and cementing an outer sole in position.

2. In the method of making a shoe, the steps which comprise securing together the marginal portions of a shoe upper lining and an innersole at least about the fore part, applying and cementing a stiffener of selective length from the heel toward the toe against the outer face of said innersole and across the width and along the margins

thereof, forcing a last between said upper lining and innersole, pulling the shoe upper over the lining, turning and securing the margin of the shoe upper to the sole area, and cementing an outer sole in position.

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JORDAN FRANKLIN, *Primary Examiner.*

D. J. WILLIAMOWSKY, *Examiner.*

F. J. COHEN, P. D. LAWSON, *Assistant Examiners.*