

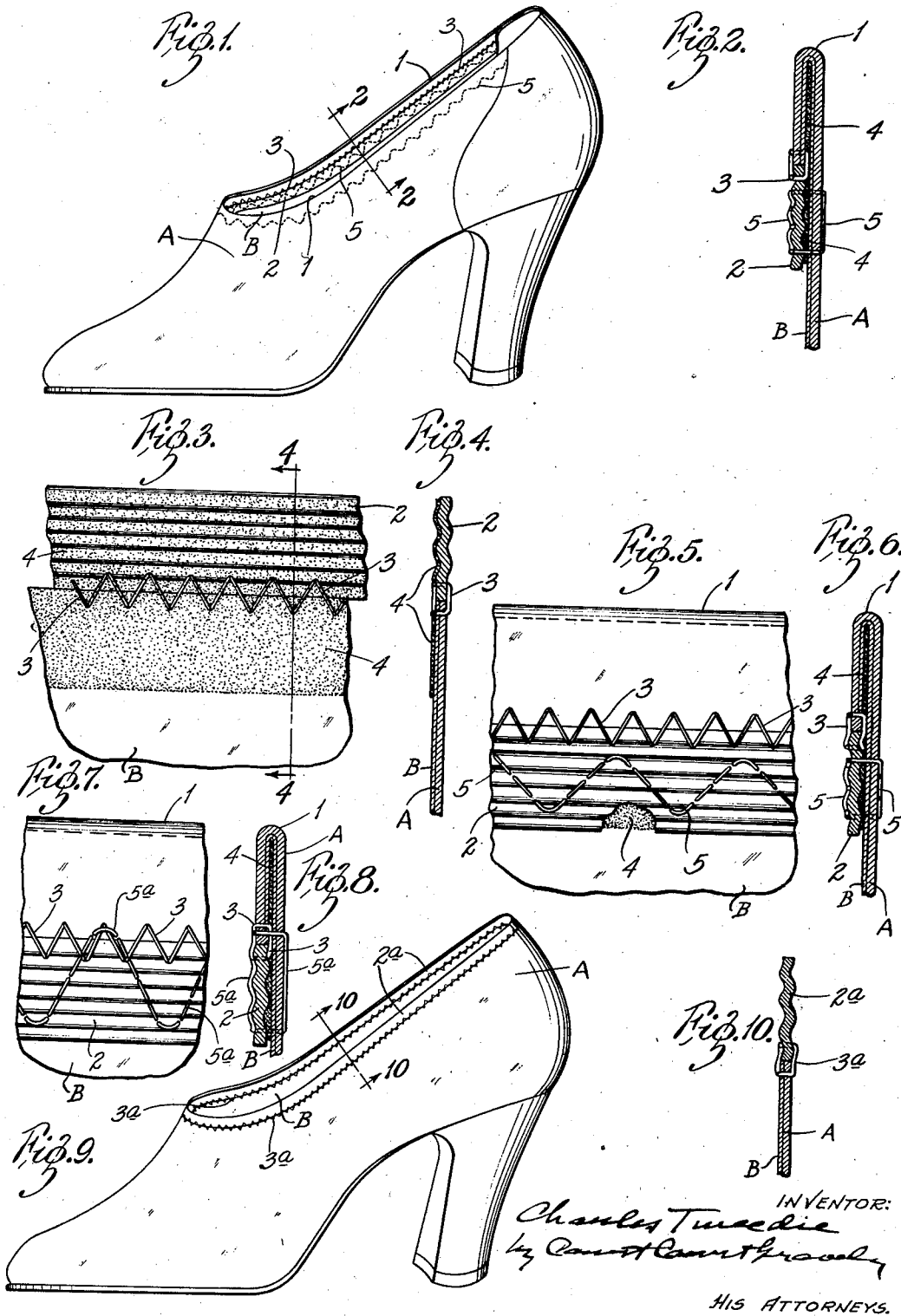
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SHOE

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SHOE

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3 Claims. (Cl. 36—51)

This invention relates to the manufacture of shoes of the pump type having uppers made of material commercially known as "stretchable" or "elasticized" shoe material comprising an outer layer of real or imitation leather or fabric and an inner layer of real or synthetic rubber fabric, commercially known as "lastex," that is adhesively united to the unfinished side of said outer layer. With such material, the desired elasticity is obtained by preshrinking the outer or inner layer or by applying the inner layer to the outer layer in a stretched condition.

In such pump type shoes, it is customary to omit the vamp and quarter linings because they tend to detract from or interfere with the foot conforming qualities of the "stretchable" or "elasticized" upper material. The omission of such linings necessitates use of a binding for the support, protection and ornamentation of the exposed free edges of the upper, particularly the edge which forms the foot opening of the shoe. In some cases this binding consists of a thin and narrow "lastex" tape or webbing stitched to the exposed edge of the upper and additional elastic webbing for rendering the edge more durable. A practical objection to this method of binding is the cost thereof and the stiffness imparted to the upper around said binding.

Another common method is to skive the exposed edge of the upper and to apply a rubber cement thereto, fold the skived margin upon the body of the upper, press the fold and then apply elastic webbing to said folded margin and to said body by means of zigzag stitching. A practical objection to this manner of binding the edge of the upper is that it lacks the desired elasticity, and the skiving weakens the material and is liable to cause it to crack and tear under service conditions. Furthermore, since the elastic webbing is attached to the upper by zigzag stitching, with said webbing overlapping the folded margin of the upper, portions of the edges of the webbing are not stitched, thus causing the exposed finished edges of the upper to present an unsightly or puckered appearance.

The present invention has for its principal objects to provide a shoe upper of the above type with an edge binding that will maintain its shape and elasticity, that will prevent puckering, that will present a well finished and ornamental appearance, and that will be strong and durable and economical to produce. The invention con-

sists in the shoe hereinafter described and claimed.

In the accompanying drawing, which forms part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a perspective view of a pump-type shoe having an upper embodying my invention.

Fig. 2 is an enlarged fragmentary section on the line 2—2 in Fig. 1.

Fig. 3 is a fragmentary face view, showing the webbing disposed in abutting relation to the marginal edge of the upper material and secured thereto by means of zigzag stitching and the cement applied to said margin and webbing,

Fig. 4 is a cross-section on the line 4—4 in Fig. 3.

Figs. 5 and 6 are views similar to Figs. 3 and 4, respectively, showing the margin and the webbing attached thereto folded over and cemented flatwise to the body of the upper and the webbing further secured to said body by a line of zigzag stitching.

Figs. 7 and 8 are views similar to Figs. 5 and 6, respectively, showing a modified construction wherein the line of zigzag stitching that secures the webbing to the body portion of the upper also secures the folded over marginal portion thereto.

Fig. 9 is a view similar to Fig. 1, showing another modification of the invention; and

Fig. 10 is a fragmentary section on the line 10—10 in Fig. 9.

In the accompanying drawing, my invention is shown embodied in a pump-type shoe whose upper comprises a main member A which is made of the commercially known prefabricated "stretchable" or "elasticized" material hereinbefore described which has a fair degree of elasticity and includes a relatively inelastic outer layer A adhesively or otherwise permanently united to an elastic inner or backing layer B.

According to the present invention, the upper has its marginal portion folded inwardly and downwardly, as at 1, around the foot opening, and a strip of elastic webbing 2 extends along the edge of said folded margin and is secured edgewise thereto preferably by means of zigzag stitching 3. The elastic webbing 2 is secured flatwise to the main body portion of the upper below the folded over margin 1 thereof preferably by a line of zigzag stitching 5, which passes through the upper and is exposed on the outer face thereof to constitute an ornamentation around the foot opening. Both the elastic webbing 2 and the folded over margin 1 of the upper

are preferably secured to the body portion thereof by latex or other suitable cement 4. Instead of locating the zigzag stitching 5 entirely below the folded over margin 1 of the upper, said stitching may be applied, as indicated at 5a in Figs. 7 and 8, so as to pass through the edge of said folded margin as well as the elastic webbing.

In the process of manufacture, the elastic webbing 2 is first secured edgewise to the margin of the upper by means of the zigzag stitching 3. The latex cement 4 is then applied to the inner or unfinished side of the margin of the upper and the corresponding side of the webbing and said margin with said webbing attached thereto is then folded over flatwise upon the inner surface of the upper and pressed thereagainst, after which said webbing is further secured to the inner face of the upper by means of the zigzag stitching 5 or 5a which passes through the upper and forms an ornamental line of stitching along the outer face thereof.

In the modification shown in Figs. 9 and 10, the relatively narrow elastic webbing 2a is secured to the top edge of the main member A of the upper by zigzag stitching 3a and constitutes the entire thickness of the shoe upper above the main member A. Said edge and strip are not folded over and further secured to the upper. This arrangement dispenses with the previously described folding, cementing and sewing operations and thus saves the cost thereof. A saving of upper material is also effected by eliminating the material required for folding and by further reducing the area of the pattern or main member A by an amount equal to the area of the webbing 3a.

The hereinbefore described arrangement provides a well finished, ornamental and durable edge along the exposed edge of the upper without appreciably reducing the elasticity of the upper along the said edge and it also maintains

its shape and elasticity under service conditions. The hereinbefore described process of finishing the edge of the upper is simple and inexpensive compared with processes hereinbefore employed for finishing the exposed edges of "stretchable" or "elasticized" uppers.

While the hereinbefore described invention is particularly applicable to shoe material of the kind described, it is also applicable to stretchable leathers for shoe uppers that are fabricated without either vamp or quarter linings.

Reference is hereby made to my copending application Serial No. 380,845 filed February 27, 1941, for subject matter divided out of this application.

What I claim is:

1. In a shoe of the pump type, an upper having a foot opening therein bounded by side, heel, and front edges, said upper adjacent said opening being composed of a prefabricated stretchable material including a relatively inelastic outer layer united to an elastic backing layer, and a separate narrow strip of elastic webbing seated and attached in edgewise abutting relationship upon the side and front edges of said upper and united in the heel portion of said opening to form an elastic binding for holding said upper snugly upon the foot of a wearer of the shoe.

2. In a shoe of the pump type, an upper having an upper edge, and a narrow separate strip of material secured in edgewise abutting relationship to said upper edge of said upper over the entire length thereof, at least a portion of the length of said strip of material being of elastic webbing, the foot opening at the top edge of the webbing in unstretched condition being smaller than the opening at the top of the upper.

3. In a shoe as in claim 2, said narrow strip of material being elastic webbing around the entire periphery of the upper edge of said upper.

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