Jan. 3, 1928. 1,655,397

W. T. HORNE

SHOE

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Fig. 1,

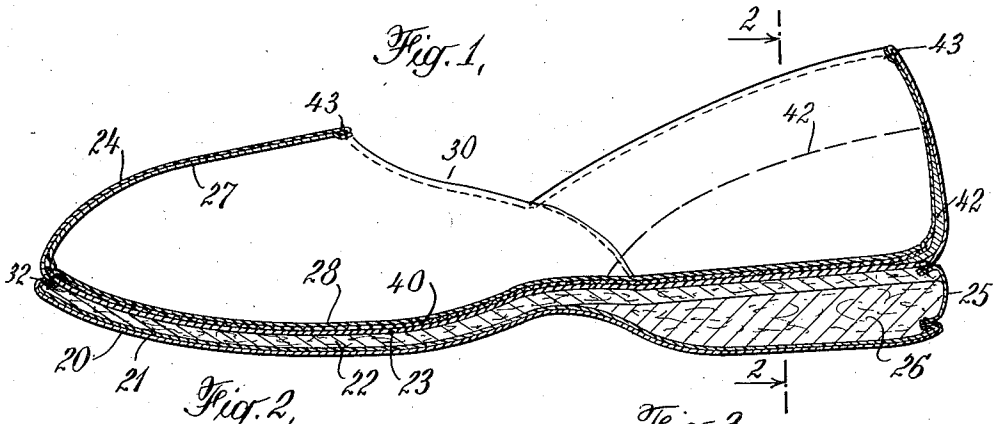


Fig. 2,

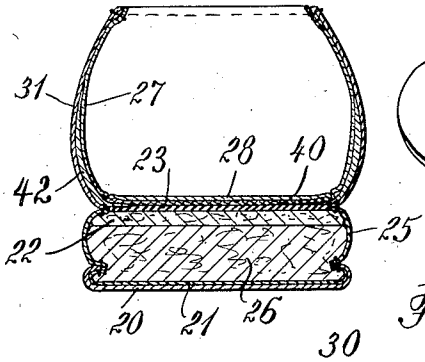


Fig. 3,

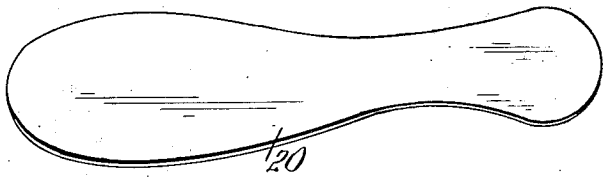


Fig. 4,

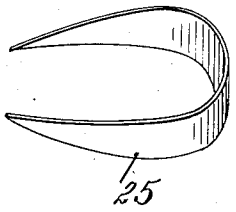


Fig. 5,

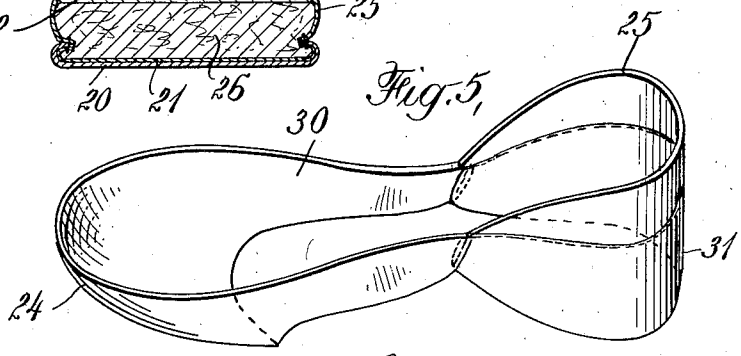
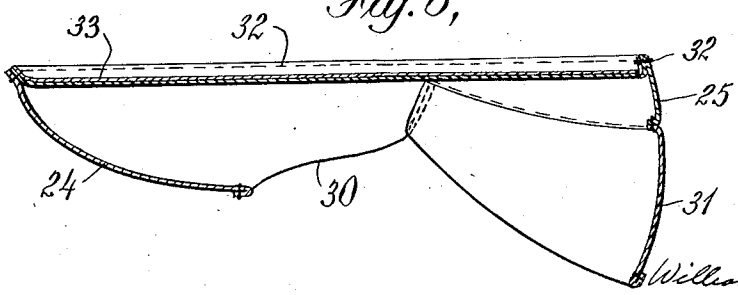


Fig. 6,



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SHOE

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Fig. 7,

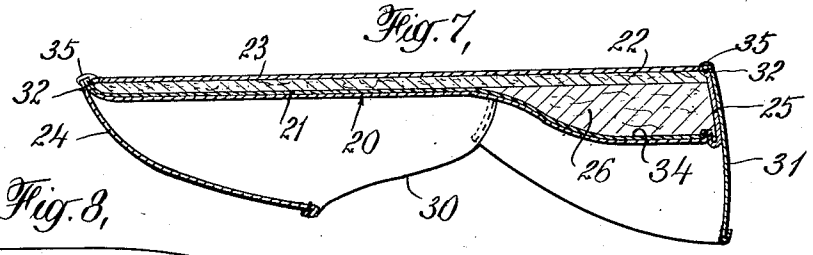


Fig. 8,

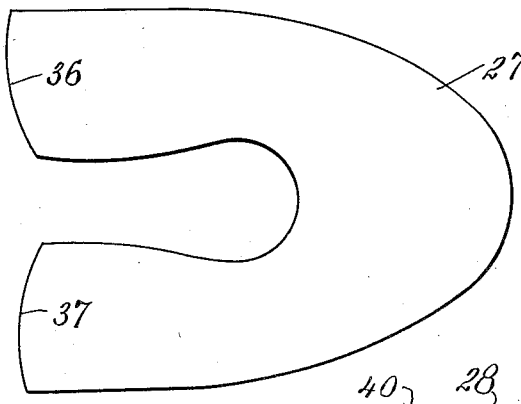


Fig. 9,

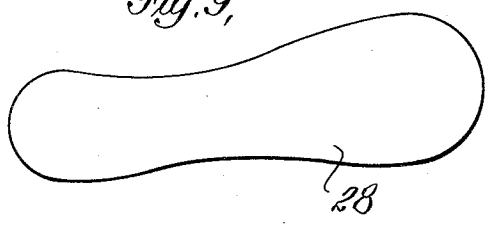


Fig. 10.

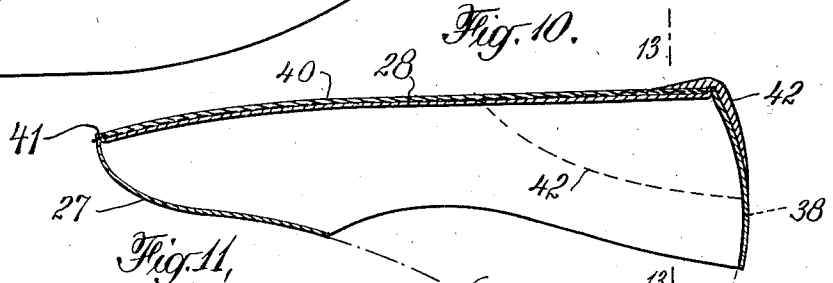


Fig. 11,

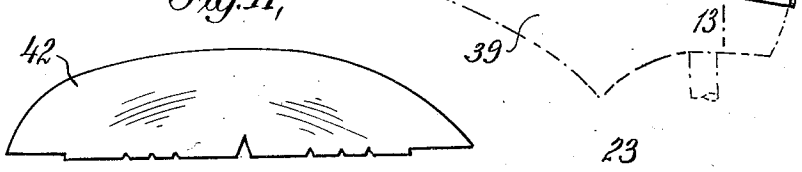


Fig. 13,

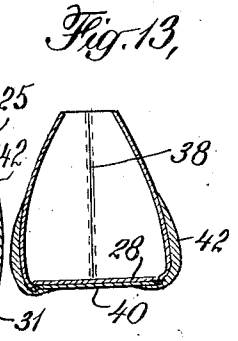


Fig. 12,

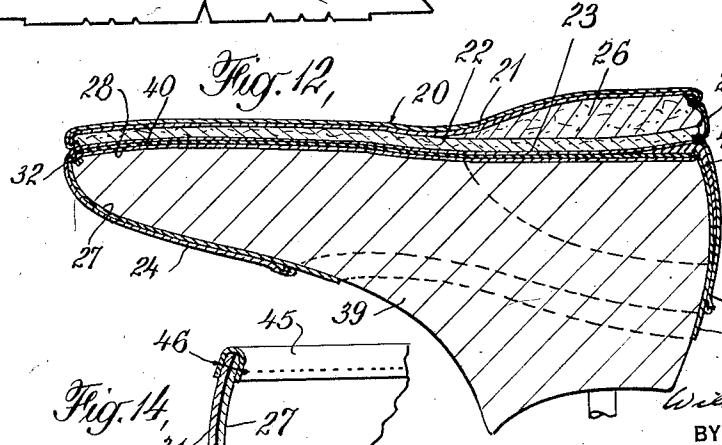


Fig. 14,

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Patented Jan. 3, 1928. 1,655,397

UNITED STATES PATENT OFFICE.

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SHOE.

Application filed December 15, 1925. Serial No. 75,544.

This invention relates to shoes and particularly to shoes having flexible bottoms, such for example, as house or lounging shoes or slippers, and the object of the invention is the provision of a shoe of this type of improved construction, and an improved method of making such shoes.

In constructing shoes of this general type, considerable difficulty has heretofore been experienced in securing the inner portion or lining of the shoe in position in such manner that it will remain in place permanently. The sole of the lining, or sock lining, is usually separate from the upper portion of the lining and such sock lining in a great majority of cases is worked loose by the motion of the foot in a relatively short time. This loosened sock lining is many times ripped out and discarded by the user of the shoe because it tends to wrinkle and become extremely uncomfortable. Moreover, the upper portions of these linings of the prior art as commonly made do not conform to the shape of the outer portion of the shoe and are inadequately secured in position so that there is a tendency for them to pucker or wrinkle, which seriously injures the appearance and sometimes the wearing properties of the shoe, thus impairing its selling qualities.

The improved shoe of the present invention comprises an outer portion having a lining or inner portion which consists of a unitary structure secured therein. The lining is preferably secured in place by causing the outer portion and the lining to adhere to one another throughout substantially their entire contacting surfaces.

In constructing the outer portion of the shoe according to the invention, material for the upper of the shoe is first cut out in the appropriate shape, stitching together one or more pieces for this purpose if necessary or desirable. A flexible resilient heel contributes greatly to the comfort of a house or lounging shoe and, accordingly, a heel side piece for such flexible heel is provided and may conveniently be stitched to the heel portion of the upper. The upper is then turned inside out with the heel side piece projecting outwardly therefrom, and the periphery of the out-sole is stitched, partly to the periphery of the upper, and partly to the periphery of the heel side piece. The heel side piece is then reversed in position so as to lie within the upper portion which still remains in the reversed or wrong-side-out position, and the flexible heel, in-sole and any desired additional lining pieces are put in place. The reversal of the heel side piece provides a pocket for the reception of the resilient heel material, and leaves the periphery of the upper in a single plane so that all of the inserted pieces just mentioned are now conveniently sewed in place, preferably by an overhand stitch. The returning of the upper to the normal or right-side-out position and the usual or customary lasting thereof completes the making of the outer portion of the shoe.

The inner portion or lining of the improved shoe is made, according to the invention, from appropriate material such as soft leather or satin and stretched upon a last or form of the size and shape to which it is desired to make the shoe. If desired to make a shoe which is stiff around the heel a counter is cemented to this lining while on the last. The entire exposed portion of the lining thus formed is then covered with suitable adhesive material and the outer portion of the shoe is stretched over the lining portion while it remains on the last, and the two portions of the shoe are brought into intimate contact with one another so as to cause them to adhere to each other securely throughout substantially their entire contacting surfaces.

The invention will be better understood by referring to the accompanying drawings which illustrate by way of example an improved shoe made in accordance with the invention, and the more important steps in the improved method of making the shoe. In these drawings:

Fig. 1 is a longitudinal section taken centrally through the shoe;

Fig. 2 is a transverse section through the heel portion taken on line 2—2 of Fig. 1;

Figs. 3, 4 and 5 are separate perspective views respectively of the out-sole, the heel side piece, and the upper, prior to assembly;

Fig. 6 is a longitudinal section illustrating the manner of assembling the parts shown in Figs. 3, 4 and 5;

Fig. 7 is a sectional view similar to Fig.

6 but with the heel in-sole and in-sole lining in place;

Fig. 8 is a plan view showing the development of the side portion of the lining of the shoe;

Fig. 9 is a plan view of the sole portion of the lining;

Fig. 10 is a longitudinal section of the lining members shown in Figs. 8 and 9 assembled upon a last with the lining sole filler and heel stiffening piece or counter in position;

Fig. 11 is a view showing the development of the heel stiffening piece or counter;

Fig. 12 is a view similar to Fig. 10 showing the outer portion of the shoe applied over the lining while it remains on the last;

Fig. 13 is a transverse section taken on line 13—13 of Fig. 10; and

Fig. 14 is a fragmentary section through the upper seam of the shoe showing the intimate engagement between the outer portion of the shoe and the inner portion or lining, and also showing a modified form of finish for the upper seam.

Referring now to these drawings, the shoe illustrated in Figs. 1 and 2 comprises an outer portion, such for example as is illustrated in Fig. 7, the shoe being shown inside-out in Fig. 7 or in other words with the upper thereof turned down over the bottom, and an inner portion or lining as illustrated in Figs. 10 or 12. The outer portion of the shoe consists as usual of a bottom and upper and in Figs. 1, 2 and 7 the bottom includes a flexible out-sole 20 of leather or of other suitable material, an out-sole lining 21 usually of soft felt, an in-sole 22 of felt, and an in-sole lining 23 of soft felt. These members are all stitched together throughout their peripheries and stitched to the upper 24. These members each extend from the toe to the heel of the shoe, but at the heel portion the heel side piece 25 is inserted between the upper and the out-sole, and a thick heel 26 of hard felt is interposed between the out-sole lining 21 and the in-sole 23.

The inner portion or lining of the shoe comprises an upper portion 27 and a sole portion 28 securely stitched together throughout their meeting edges thus giving rigidity to the structure and forming in reality a separate shoe of self-sustaining form and of flexible material. This inner portion or lining of the shoe and the outer portion are secured tgether in proper relation as may be seen in Fig. 1 in a manner to be hereinafter described. A heel stiffening piece may be inserted between the inner and outer portions of the shoe when it is desired to construct a shoe having a stiff counter.

In constructing the outer portion of the shoe, two pieces of leather of suitable shape to form the toe portion 30 and the heel portion 31 of the upper 24 are appropriately sewed together as shown in Fig. 5. The heel side piece 25 is then stitched either to the heel portion 31, or to the out-sole 20. Let us assume that it is sewed to the heel portion 31 as shown in Fig. 5. The upper 24, as illustrated in Fig. 5, is then turned inside out and the out-sole 20 is sewed to the upper 24 and to the heel side piece 25 by the stitching 32 as shown in Fig. 6. In Fig. 6, therefore, the upper 24 is turned inside out and the heel side piece 25 projects outwardly from the heel portion 31 of the upper 24. During the sewing together of these parts by the stitching 32 an out-sole lining 33 of felt, cloth or other appropriate material may be included if desired.

Referring now to Fig. 7 of the accompanying drawings, the heel piece 25 is here shown as having been reversed from the outward position which it occupies in Fig. 6, and it now projects inwardly and lies next to the inner surface of the heel portion 31. Inasmuch as the heel side piece 25 is of a tapering or wedge shape as clearly seen in Fig. 4, this operation of turning it inwardly within the upper 24 which still remains in the inside out position, forms a pocket 34 at the heel which tapers toward the front of the shoe, leaving the periphery of the upper along the stitching 32 in a substantially flat position, or in other words, in a single plane. The heel piece 26 of felt or other desirable material is now inserted in the pocket 34; the in-sole 22 is also placed in position on top of the out-sole lining 21 as seen in Fig. 7, and on top of this there is laid the in-sole lining 23. With the several parts in this position the in-sole 23 is now sewed to the upper 24 throughout its periphery, preferably by means of an overhand stitch 35 and, inasmuch as the periphery of the upper has been caused to lie flat, this overhand stitch can conveniently be made by machine.

The toe portion 30 and heel portion 31 of the upper 24 are now folded upwardly from the position shown in Fig. 7 so as to turn the shoe right-side-out, and after pulling the shoe over a last in the ordinary manner the outer portion of the shoe is ready for application to the inner portion or lining of the shoe as will presently be described.

The inner portion or lining of the shoe itself is constructed as follows. The pieces 27 and 28 are first cut out in appropriate configuration as shown in Figs. 8 and 9. The rear margins 36 and 37 of the upper piece 27 are then sewed together, forming a rear seam 38 (see Figs. 10 and 13) and the bottom or sole 28 of the lining is sewed to the upper piece 27 as in Fig. 10. The unitary inner portion or lining thus constructed is now stretched over a last 39 also as shown in Fig. 10, and the leather being

in a moist or damp condition as is customary, is thereby stretched to conform to the shape of the last.

A filler 40 of felt or other appropriate material is now preferably cemented to the bottom 28 so as to bring the lower surface of the bottom of the lining even with the projecting peripheral edge 41 which results from the stitching of the bottom 28 to the upper piece 27. The purpose of making the bottom of the lining flat and even in this manner is to facilitate the securing of the lining to the outer portion of the shoe as will appear later.

If it is desired to make a shoe having a stiff counter a heel stiffening piece 42 is now cemented or vulcanized to the exterior surface of the heel of the lining as shown in Fig. 10. This stiffening piece is first properly skived so that it will not cause any abrupt change in the outline of the exterior surface of the shoe, and it is also appropriately notched as shown in Fig. 11 to facilitate the bending thereof around the curved surfaces of the last.

In assembling the shoe, the inner portion or lining remaining stretched on the last 39, and having the filler 40, and if desired the heel stiffening piece 42, in place as shown in Fig. 10, is covered over its entire exposed surface with an adhesive material such for example as cement or glue and the outer portion of the shoe which has been completed as described above, is now stretched over the inner portion or lining as may be seen in Fig. 12. This stretching operation brings the entire area of the interior surface of the outer portion of the shoe into intimate contact with the outer area of the lining of the shoe, with the result that the lining is secured in place within the shoe as shown in Figs. 1 and 2. Moreover, this operation also brings the outer portion of the shoe into conformity with the shape of the last so that the lines of the shoe are regular and even.

After the outer portion has been thus applied to the lining of the shoe while it remains on the last 39, the edge of the lining which projects above the edge of the outer portion of the shoe is trimmed off even with the outer portion and the two portions are stitched together along the finishing seam 43 as seen in Fig. 1. The intimate relation between the inner and outer parts of the shoe is shown in Figs. 1 and 2 and particularly in Fig. 14 where the heel portion 31 of the upper of the shoe is seen united to the upper 27 of the lining by means of the layer of cement 44.

As shown in Fig. 1 and several of the other figures of the drawings, the top edge of the upper 24 of the outer portion is folded inwardly at the finishing seam 43 to provide a smooth rounding edge. This method of making the finishing seam is used particularly in making men's shoes. A modified form of finishing seam is illustrated in Fig. 14 which is used more particularly in the case of women's shoes. In this modification neither of the uppers are folded over at the top edge but are cemented together flat and a strip of binding material 45 is folded over the cemented edges and sewed in place by means of the stitcihng 46.

Although it is desirable that the adhesive material be applied on the bottom as well as on the sides of the exposed surface of the lining before the outer portion of the shoe is stretched over the lining on the last 39, nevertheless it is not absolutely necessary that the cement be applied to the bottom of the inner portion of the shoe since the bottom of the lining is securely held in place throughout the entire periphery thereof through its attachment to the upper portion 27 of the lining. It is essential, however, that the upper portion 27 be firmly secured to the outer portion of the shoe throughout substantially their entire contacting areas so that the bottom of the lining will be firmly held down, and so the lining will remain smooth and will lie in place against the walls of the shoe without puckering or wrinkling.

The making of shoes in accordance with the present invention has a number of advantages. The unitary lining structure is superior to the insertion of lining in separate portions because the unitary structure is adapted to be more firmly and uniformly held in the desired position within the shoe. The unitary lining may be made upon a last thus making the lining in the same way that the shoe proper is ordinarily made. The stretching of the outer portion over the lining upon the same last positively insures an accurate fit between the two portions of the shoe.

I claim:

1. A slipper comprising an inner shoe of self-sustaining form, and an outer shoe, the inner contour of the outer shoe accurately conforming to the outer contour of the inner shoe, and the two shoes being secured together throughout substantially their entire opposed surfaces.

2. A slipper comprising an inner shoe of self-sustaining form, an outer shoe, the inner contour of the outer shoe accurately conforming to the outer contour of the inner shoe, and a counter interposed between the inner and outer shoes, the two shoes and the counter being secured together throughout substantially their entire opposed surfaces.

3. A slipper comprising an inner shoe consisting of an upper portion of appropriate form and a sole portion, the two being secured to one another along the lower margin of the upper portion and constituting an

inner shoe of sufficient rigidity to sustain itself when unsupported, and an outer shoe, the inner contour of the outer shoe accurately conforming to the outer contour of the inner shoe, the said inner shoe being inserted within the outer shoe and the two shoes secured together throughout substantially the entire opposed surfaces of the uppers of said shoes.

4. A slipper comprising an inner shoe consisting of an upper portion of appropriate form and a sole portion pre-shaped to a last and attached thereto, the sole portion and the upper being secured to one another along the lower margin of the upper portion and constituting an inner shoe of sufficient rigidity to sustain itself when unsupported, and an outer shoe, the inner contour of the outer shoe accurately conforming to the outer contour of the inner shoe and the inner shoe being within the outer shoe and the two shoes secured together throughout substantially the entire opposed surfaces of the uppers of said shoes.

5. A slipper comprising an inner shoe consisting of an upper portion of appropriate form and a sole portion pre-shaped to a last and attached to the upper portion, and constituting an inner shoe of sufficient rigidity to sustain itself when unsupported, and an outer shoe, the inner contour of the outer shoe accurately conforming to the outer contour of the inner shoe and the inner shoe being within the outer shoe and the two shoes secured together throughout substantially the entire opposed surfaces of the uppers of said shoes.

6. A slipper comprising an inner shoe consisting of an upper portion of appropriate form, and a sole portion pre-shaped to a last and attached to the upper portion, an outer shoe, the interior of the outer shoe accurately conforming to the outer contour of the inner shoe and a counter interposed between the inner and outer shoes, the pre-shaped sole portion and the upper of the inner shoe being of sufficient rigidity to sustain itself when unsupported, the two shoes and the counter being secured together by an adhesive binder throughout substantially the entire opposed surfaces of said shoes.

7. A slipper comprising an inner shoe of self-sustaining form consisting of an upper portion of appropriate form and a sole portion, the inner sides of the upper and sole portions being secured to one another along the lower margin of the upper portion, and an outer shoe, the inner contour of the outer shoe conforming to the outer contour of the inner shoe, the said inner shoe being inserted within the outer shoe and the two shoes secured together.

In testimony whereof I affix my signature.

WILLIAM T. HORNE.