May 5, 1959 V. KEARNS 2,884,718

COMPOSITE SOLES FOR THE MANUFACTURE OF CUSTOM MADE SHOES

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FIG. 1.

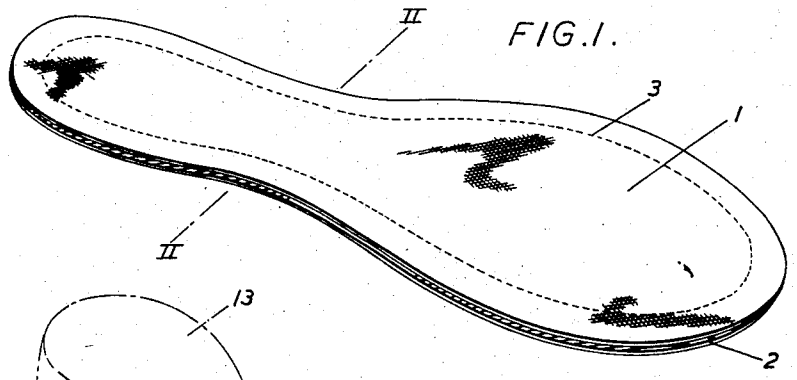


FIG. 2.

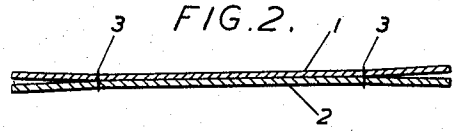
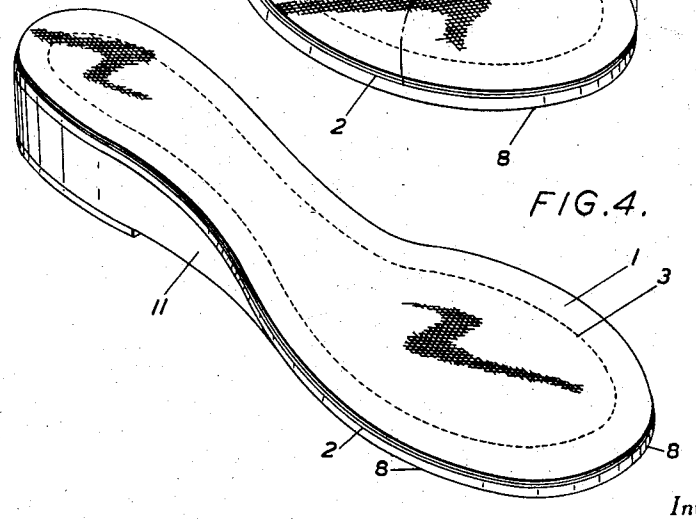


FIG. 3.

FIG. 4.



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FIG. 5.

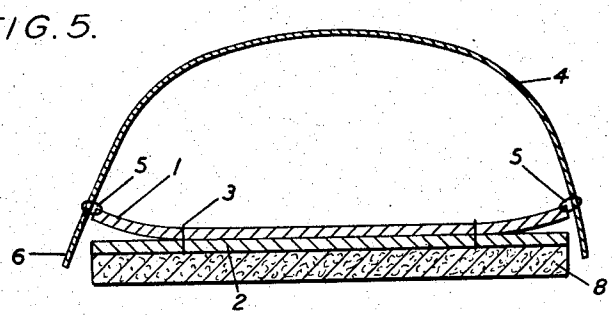


FIG. 6.

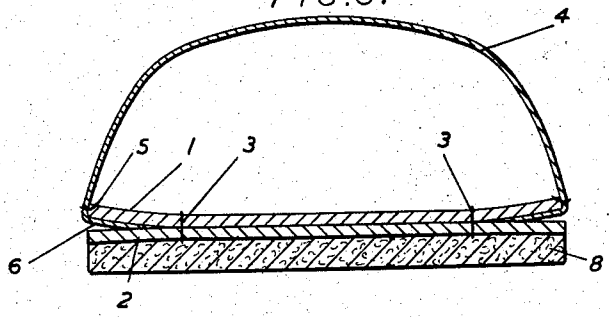


FIG. 7.

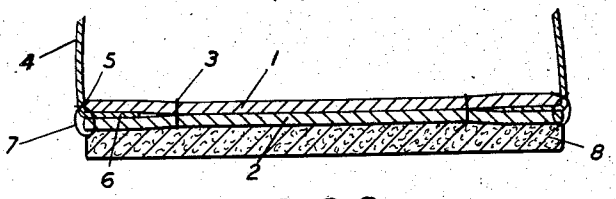


FIG. 8.

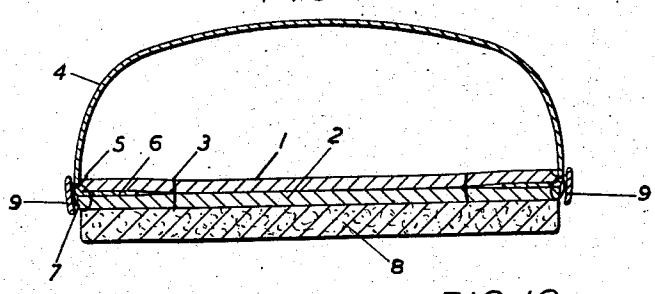


FIG. 9.

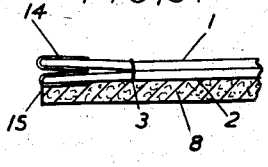
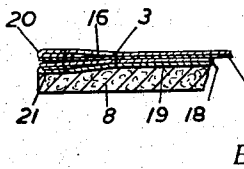


FIG. 10.



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United States Patent Office 2,884,718 Patented May 5, 1959

2,884,718

COMPOSITE SOLES FOR THE MANUFACTURE OF CUSTOM MADE SHOES

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Application November 9, 1953, Serial No. 390,988

Claims priority, application Great Britain November 17, 1952

3 Claims. (Cl. 36—30)

When buying a dress or selecting material for one, women always have the problem of finding suitable shoes to match. It is a great advantage to be able to obtain shoes which not only harmonize with the material of a dress, but which actually have uppers made of the same material so that they exactly match the dress. Obviously, however, it is impracticable for a shoe maker to manufacture cheaply and by mass production, complete shoes to a variety of styles and having uppers corresponding to the great range of materials on the market. The present invention, however, enables the individual dressmaker, whether she be an amateur or professional, without heavy sewing or machining, to make shoes to any chosen style having uppers of any chosen material, so that they match any particular dress perfectly and exactly fit the foot of the wearer.

According to the invention, such a shoe has a composite sole consisting of a main or outer sole surmounted by two inner soles, the bottom inner sole or midsole of which is secured to the outer main sole at least at the edges thereof, and the top inner sole or insole of which is attached to the mid-sole so as to leave a strip of the insole all the way round the edge free of the mid-sole, the upper being sewn to the insole by stitching along the edge of the insole, and the raw bottom edge of the upper being accommodated in the space between the edges of the insole and mid-sole, the two inner soles and the upper then being sewn together along their edges. The stitched edge may be covered with braid along the edge if it is desired to conceal the sewing.

The midsole and insole may be laminated and made of any suitable material such as felt piped along the edges with strong binding tape. The sole may be a simple flat finished sole with a heel attached, may have a high heel, or may have any other desired shape such as, for instance, a wedge heel.

Two examples of shoes according to the invention are shown in the accompanying drawings in which:

Figure 1 shows a perspective view of an insole stitched upon a midsole;

Figure 2 is a transverse section of Figure 1 on the line II, II;

Figure 3 shows the insole, midsole and outer sole and heel in a high heeled shoe;

Figure 4 is a similar view of an insole, midsole and outer sole and heel for a wedge heel type of shoe;

Figures 5, 6 and 7, show in cross section three stages in the attachment of the upper to the insole and midsole;

Figure 8 is a similar view to Figure 7, with the shoe finished;

Figures 9 and 10 show alternative forms of insole and midsole with outsole attached.

In Figure 1, the insole 1 and midsole 2 respectively consist of material such as thin stiff felt, stitched together by stitching 3, the line of which extends completely round the two inner soles at a distance of from a quarter to half an inch from the edge of the in-sole,

thus leaving the edges of both soles free, so that they can be separated. Referring to Figures 5, 6 and 7, the upper 4 is of suitable material, such as the material of the dress which is to be matched, and is cut to shape according to any chosen pattern, which may be a paper pattern or a template. When the shoe is made, the upper 4 is fitted to the insole either around the foot of the person who is to wear the shoe or around a light reproduction of the foot made, for instance, of plastic. The upper 4 is first stitched to the edge of the insole 1 as shown at 5, leaving a raw edge thus, which is then tucked into the space between the insole 1 and the midsole 2 as shown in Figure 6. The edges of the two inner soles 1 and 2 are then stitched together by neat, close, stitching passing through both inner soles and through the upper 4, as shown at 7 in Figure 7.

The midsole is attached in any convenient way, such as by stitching or by a strong adhesive, to a strong outer sole 8, as shown in Figure 8. This is done before the upper 4 is sewn to the insole. The outer sole 8 provides the necessary strength and rigidity in the shoe. The stitching 5 and 7, if done neatly, may be left exposed or, if desired, may be covered as shown in Figure 8 with any suitable form of trimming such as braid 9. The remainder of the upper 4 is finished as desired. Should the upper 4 wear out, due to the flimsiness of the material, before the sole, the same sole can be used again with other material to make a fresh pair of shoes. To produce a satisfactory shoe it is very important that the midsole is very firmly attached to the outer sole 8 right to the edge.

In Figure 3, the outer sole 8 is joined to a high heel 10, the two being connected together to form the backbone of the shoe in the usual way. In Figure 4, a wedge heel 11 is provided and the outer sole 8 runs the full length of the shoe between the wedge heel and the midsole. In Figure 3, the use of blocked toe and heel stiffening 12, 13 is shown. This is sewn into the upper and to the insole as the shoe is made. The lower edges of the blocking are tucked into the gap between the insole and midsole and sewn into position at the same time that the upper 4 is sewn to the insole. Of course, the upper 4 may be of several thicknesses and comprise, for instance, an outer material and a lining.

In Figure 9 the insole 1 and midsole 2, are of felt, bound at the edges with bias binding 14, 15 respectively. In Figure 10, the insole is laminated in two layers 16, 17, of leather cloth or thin leather, and the midsole is laminated likewise, consisting of two similar layers 18, 19. The uppermost and lowermost layers 16 and 19 are turned inwards at the edges as shown at 20 and 21, and the turned in edge 20 and the edge of the layer 17, and the turned in edge 21 and edge of the layer 18 are respectively sewn together.

I claim:

1. A composite sole for attachment to an upper to complete a shoe comprising an outer sole securely attached to a midsole at least at the edge of the latter, and an insole of the same size as the midsole securely fastened to the latter inwards of the edges thereof with a strip of the insole free of the midsole all the way around the edge thereof, said insole and midsole each comprising a leather layer which is turned in at the edge with such turned in edges lying between the edge portions of the respective layers.

2. A composite sole for attachment to an upper to complete a shoe comprising an outer sole securely attached to a midsole at least at the edge of the latter, and an insole of the same size as the midsole securely fastened to the latter inwards of the edges thereof with a strip of the insole free of the midsole all the way

around the edge thereof, said insole and midsole each comprising a plurality of layers, one of which is turned in at the edge with such turned in edges lying between the edge portions of the respective layers.

3. A composite sole for attachment to an upper to complete a shoe, said composite sole comprising an outer sole of relatively strong rigid material securely attached to a midsole at least at the edge of the latter, and an insole of relatively flexible material the same size as the midsole securely fastened to the latter inwards of the edges thereof with a strip of the insole free of the midsole all the way around the edge of the insole and separable at its edge from the midsole to receive the turned in edge of the upper between said strip and midsole, the insole and midsole each consisting of material easily sewn through to enable the insole to be sewn to the upper and to the edge of the midsole to provide strength and rigidity in the finished shoe.

References Cited in the file of this patent

UNITED STATES PATENTS

113,773	Johnson	Apr. 18, 1871
146,992	Doty	Feb. 3, 1874
553,422	Preble et al.	Jan. 21, 1896
871,891	Roosa	Nov. 26, 1907
1,675,206	Bell	June 26, 1928
1,712,387	Kajiyama	May 7, 1929
2,022,455	Bernstein	Nov. 26, 1935
2,117,183	Lumbard	May 10, 1938
2,134,259	Moore	Oct. 25, 1938
2,150,895	Leone et al.	Mar. 21, 1939
2,154,135	Moore	Apr. 11, 1939
2,180,924	Dunbar	Nov. 21, 1939
2,297,594	Weinstat	Sept. 29, 1942
2,349,866	Heck	May 30, 1944
2,380,577	Calderazzo	July 31, 1945
2,400,243	Maling	May 14, 1946
2,408,736	Codish	Oct. 8, 1946
2,419,629	Colella	Apr. 29, 1947
2,457,082	Fennessy	Dec. 21, 1948

FOREIGN PATENTS

563,258	Great Britain	Aug. 4, 1944
657,081	France	Jan. 11, 1929