June 15, 1943. C. D. TURNER 2,321,713

SHOE AND SHOE BOTTOM UNIT AND METHOD OF MAKING THE SAME

Filed May 8, 1941

Fig.9

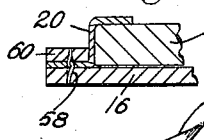


Fig1

Fig.2

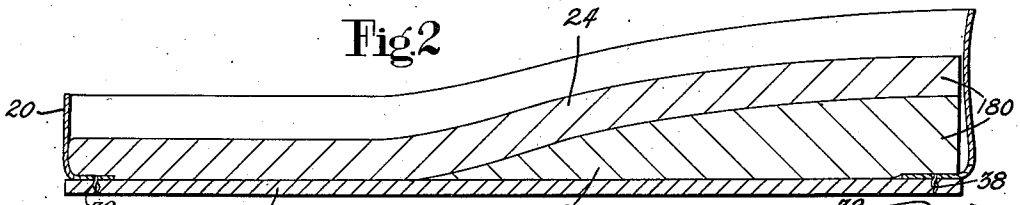


Fig3

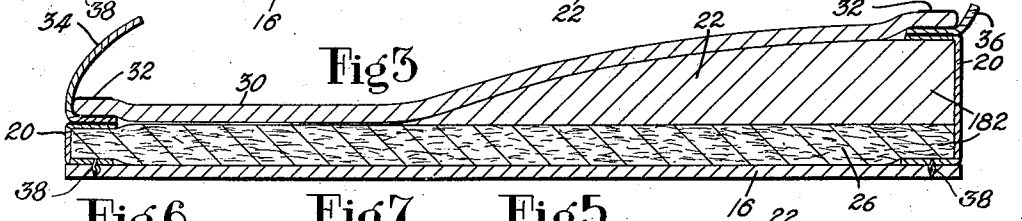


Fig.6

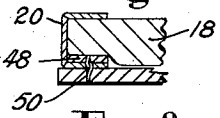


Fig.7

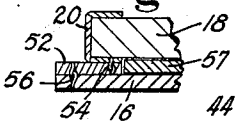


Fig.5

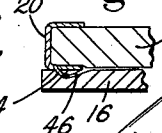


Fig.8

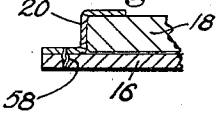


Fig.4

Fig10

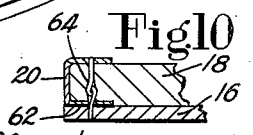


Fig11

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SHOE AND SHOE BOTTOM UNIT AND METHOD OF MAKING THE SAME

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10 Claims. (Cl. 12—146)

This invention relates to improvements in shoes and shoe bottom units and to improvements in methods of making the same.

The invention is concerned more especially with the manufacture of shoes of the type known to the trade as platform shoes wherein a middle or "platform" sole is located between the overlasted margin of the upper and an outer or tread sole. In accordance with a well-known method of making such shoes, an upper is assembled with an insole on a last and the lower margin of the upper is secured in overlasted position upon the insole, thereafter a platform sole is attached to the shoe, and finally an outsole is attached to the platform sole. This method involves two distinct sole-attaching operations and in many instances a third operation analogous to that of sole attaching is performed in the incorporation of a so-called wedge heel or heel and shank piece in the shoe bottom. These separate attaching operations are time consuming and add substantially to the cost of making the shoes, and, moreover, unless each operation is performed with considerable care, the several shoe bottom elements will not be properly located relatively to each other and to the shoe bottom to insure the desired neat and attractive appearance in the shoe.

One object of the present invention is to improve the appearance and reduce the cost of manufacture of platform shoes.

With this object in view the invention provides improvements in outsole-platform units for shoes and methods of making such units hereinafter described and claimed, the advantages of which will be obvious to those skilled in the art.

The invention will now be explained with reference to the accompanying drawing, in which

Fig. 1 is a view, partially in side elevation and partially in longitudinal section, of a platform shoe having a middle or platform sole and an outsole which were attached together to form an outsole platform unit before being attached to the shoe;

Fig. 2 is a longitudinal sectional view of an outsole platform unit in which a separate heel wedge piece is combined with a full length middle sole to constitute the platform element of the unit;

Fig. 3 is a fragmentary view in longitudinal section of a platform shoe having an outsole platform unit comprising an alternative middle sole and heel wedge piece assembly;

Fig. 4 is a perspective view of the outsole platform unit shown in Fig. 3;

Figs. 5 to 10, inclusive, are detailed cross-sectional views of outsole platform units of modified constructions; and

Fig. 11 is a fragmentary cross-sectional view of the rear of the heel portion of the unit shown in Fig. 10.

For use in making a platform shoe in accordance with my invention, I provide a flat outsole or tread sole 16 of leather or other suitable material which has been rounded or otherwise cut to outsole size and shape, a full length platform or middle sole 18, and an edge binding strip 20 for covering the edge of the platform sole. The platform sole 18 may be made of any suitable inexpensive substance, such as felt, wood, cork or composition material, and cut or otherwise shaped to correspond in marginal contour to that of the outsole, although it may be made sufficiently smaller than the outsole so that after its edge has been covered it will be substantially flush with the edge of the outsole. The platform sole may be made of uniform thickness throughout its length or its shank and heel portions may be made thicker than its forepart, its shank portion tapering in thickness from the heel to the ball portion of the sole. As shown in Fig. 1 the platform sole may be made of a single integral piece of sole material, or, as in Figs. 2 and 3, it may comprise a full length sole member of uniform thickness and a separately formed heel and shank wedge or filler piece 22, the latter being secured to the sole piece as by means of cement. The wedge or filler piece 22 may be secured to the lower side of a platform sole member 24, as illustrated in Fig. 2, thereby providing a composite platform sole 180, or it may be secured to the upper side of a platform sole member 26, as shown in Fig. 3, thereby providing a composite platform sole 182. The edge binding strip 20 may consist of leather, fabric or other binding material and preferably it will be cut long enough to extend entirely around the platform sole and to provide a lapped joint at its meeting ends and wide enough to cover the edge and overlap the marginal portions of the upper and lower sides of the platform sole. It will be apparent that if the shank and heel portions of the platform sole are thicker than the forepart, the portions of the binding strip which are to cover the sole edge in the shank and heel portions should be cut wider than the rest of the strip.

The parts above described are utilized to construct an outsole-platform combination adapted for attachment as a unit to the bottom of a shoe which, as shown in Figs. 1 and 3, may comprise

an insole 30 having an edge binding 32 thereon, and an upper comprising a vamp 34 the lower margin of which is secured in overlasted position upon the insole in the forepart and shank portions of the shoe and a quarter or back part 36 the lower margin of which is secured in overlasted position upon the insole in the rear portion of the shoe.

In making my improved outsole-platform combination or unit, I first secure one lateral margin of the binding strip 20 to the upper side of the outsole 16 by a marginal line of through-and-through stitches 38. Conveniently this may be accomplished, as illustrated in Fig. 2, by laying the marginal portion of the binding strip which is to be lowermost in the finished shoe upon the upper marginal surface of the outsole and stitching this portion of the strip to the sole progressively around the margin of the sole, allowing the opposite end portions of the binding strip to overlap more or less, as indicated at 40 in Fig. 4. After this stitching operation has been completed the body portion of the binding strip will be disposed in an upstanding position with respect to the outsole, as indicated in Fig. 2, while the attached lower margin of the binding strip will be disposed in inturned relation upon the upper surface of the outsole. The platform sole is then laid upon the upper side of the outsole inside the upstanding body portion of the binding strip 20, the marginal portion of the platform sole overlying the inturned margin of the binding strip. Advantageously, the platform sole is secured to the outsole and/or to the inturned margin of the binding strip by means of cement which is preliminarily applied to the surfaces of these parts which are to be opposed to one another. If the platform sole is to include a separately formed heel and shank wedge piece, the wedge piece and the full length sole member may be assembled and secured together by cement in the operation of assembling these parts with the outsole, or they may be preliminarily secured together in the proper relative positions and the attached parts then applied as a unit to the outsole. The upper marginal portion of the edge binding strip 20 is then turned inwardly and secured by means of cement to the adjacent marginal portions of the upper side of the platform sole, thus completing the manufacture of an outsole-platform combination for application as a unit to a shoe.

The above-described outsole-platform unit is adapted to be attached to a shoe by means of cement, the attachment being advantageously effected while the shoe is on its last by the use of a cement sole attaching press of any well-known commercial type. In preparation for the attachment of the unit to the shoe it is desirable to roughen the overlasted margins of the upper of the shoe and the marginal portion of the binding strip 20 which is overlaid upon the upper side of the unit and to apply a suitable cement, for example, pyroxylin cement, to these roughened margins, allowing the units to dry, and subsequently activating them with a suitable solvent just prior to the assembly of the unit with the shoe in the attaching press.

In making my improved outsole-platform unit the binding strip 20 for the platform sole, instead of being secured to the outsole 16 by through-and-through stitches as above described, may be secured as by stitches 44 (Fig. 5) to a lip 46 formed by cutting an inner marginal channel in the upper face of the outsole. For the purpose of insuring a more secure attachment of the binding strip to the outsole a reinforcing piece or welt 48 (Fig. 6) may be overlaid upon the lower inturned margin of the binding strip before the latter is stitched to the outsole, in which case the outsole-attaching seam will be sewn so that the stitches 50 will extend through the welt 48 as well as through the binding strip. As shown in Fig. 7, a welt 52 may be preattached by inseam stitches 54 to the binding strip 20 and the welt secured by outseam stitches 56 to the outsole 16. In this construction a filler piece 57 is preferably employed to fill the space between the platform sole and the outsole inwardly of the welt 52. In Figs. 8 and 9 I have shown an outsole-platform unit of modified construction in which the margin of the outsole 16 extends outwardly beyond the platform sole 18 and the lower margin of the binding strip 20 is disposed in outturned relation to the platform sole and is secured to the extension edge of the outsole by means of through-and-through stitches, as shown at 58. A reinforcing strip or welt 60 may be overlaid upon the outturned lower margin of the binding strip 20 and secured in place by the stitches 58, as shown in Fig. 9.

It is within the scope of my invention to preattach the platform sole binding strip to the outsole 16 otherwise than by stitches, as for example by means of cement, as indicated at 62 in Figs. 10 and 11. In such cases a secure and permanent attachment of the outsole to the platform sole may be effected after the binding strip has been applied to cover the edge and overlie the upper marginal surface of the platform sole by sewing a line of through-and-through stitches 64 through both soles, the stitches extending also through the inturned upper and lower margins of the binding strip. In case the platform sole comprises a heel and shank wedge 22 which is formed separately from a full length sole member 26 and is arranged relatively to the sole member, as shown in Figs. 3 and 11, the stitches 64 may be sewn through the sole member 26 before the wedge piece 22 is applied to the latter, the stitches appearing as indicated in Fig. 11.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. That improvement in the manufacture of bottom units for platform shoes which consists in disposing in superimposed face-to-face relation an outsole, a welt and one lateral marginal portion of an edge binding strip and securing said parts together by means of stitches extending through the welt from its upper to its lower side, disposing a platform sole in superimposed relation to said outsole, and securing said strip to said platform sole by means of adhesive to cover the edge and the upper marginal surface portion of the latter and to secure said soles together.

2. That improvement in the manufacture of bottom units for platform shoes which consists in disposing one lateral marginal portion of a binding strip between a welt and the margin of an outsole with the edge of said portion spaced inwardly from the edge of the outsole and with said portion extending outwardly from said edge, securing said parts together in said relation by means of stitches extending from the upper side of the welt to the lower side of the outsole, superimposing a platform sole upon said outsole with the margin of said platform sole overlying said welt, and adhesively securing the unattached portion of said strip in overlying position upon

the edge and upon the upper side of said platform sole thereby securing said platform sole to said outsole to form a bottom unit.

3. That improvement in the manufacture of bottom units for platform shoes which consists in stitching a welt to one lateral margin of a binding strip, stitching said welt to an outsole, laying a platform sole over said outsole in overlying relation to said margin of said binding strip, laying said strip over the edge of said platform sole, and securing the opposite lateral margin of said strip to the upper side of said sole thereby providing a bottom unit for a platform shoe.

4. That improvement in the manufacture of bottom units for platform shoes which consists in disposing one lateral marginal portion of a binding strip between a welt and the margin of an outsole with the edge of said portion in line with the edge of the outsole and with said portion extending inwardly from said edge and stitching said parts together in said relation, superimposing a platform sole upon said outsole inwardly of said welt, and securing the unattached portion of said strip in overlying position upon the edge and upon the upper side of said platform sole thereby securing said platform sole to said outsole to form a bottom unit.

5. As an article of manufacture and sale, a composite bottom structure adapted for attachment as a unit to a shoe, said structure comprising an outsole, a platform sole, an edge binding strip for said platform sole having one lateral marginal portion disposed above said outsole in a plane parallel to the attaching face of the outsole, said binding strip covering the edge face of said platform sole and being secured by adhesive to the upper side of said sole, a welt disposed in face-to-face relation to said marginal portion of said binding strip, and stitches securing said welt, said binding strip and said outsole together, said stitches extending through said welt from its upper side to its lower side.

6. As an article of manufacture and sale, a composite bottom structure adapted for attachment as a unit to a shoe comprising an outsole, an edge binding strip having one lateral marginal portion overlying the upper face of the outsole with its edge spaced inwardly from the edge of the outsole and with said portion extending outwardly from said edge, a welt overlying said portion of said strip, stitches extending through said welt, said strip and said outsole and securing said parts together, and a platform sole overlying said outsole and said welt and having its edge covered by and its upper marginal surface portion adhesively secured to said binding strip.

7. As an article of manufacture and sale, a composite bottom structure adapted for attachment as a unit to a shoe comprising an outsole, a welt secured to said outsole by an outer line of stitches, an edge binding strip having one lateral marginal portion thereof secured to said welt by an inner line of stitches, and a platform sole having its margin overlying said portion of said binding strip and having its edge and its upper marginal surface portion covered by and secured to said binding strip.

8. As an article of manufacture and sale, a composite bottom structure adapted for attachment as a unit to a shoe comprising an outsole, an edge binding strip having one lateral marginal portion overlying said outsole with its edge in line with the edge of the outsole and with said portion extending inwardly from said edge, a welt overlying said portion of said binding strip, stitches extending through said welt, said binding strip and said outsole and securng said parts together, and a platform sole superimposed upon said outsole inwardly of said welt and said binding strip and having its edge and its upper marginal surface portion covered by and secured to said binding strip.

9. That improvement in the manufacture of bottom units for platform shoes which consists in assembling a welt and one lateral marginal portion of a binding strip in superimposed relation upon the marginal surface at the attaching side of an outsole and securing said parts together by means of stitching, disposing a full length platform sole above said outsole and securing it to the outsole by adhesive, securing a forwardly tapering wedge piece to the upper side of the heel and shank portion of said platform sole, wrapping said binding strip over the edge faces of said platform sole and said wedge piece, and adhesively securing the other lateral margin of said binding strip to upper marginal surface portions of said platform sole and said wedge piece.

10. As an article of manufacture and sale, a composite bottom structure adapted for attachment as a unit to a shoe, said structure comprising an outsole, a full length platform sole in overlying engagement with said outsole, a forwardly tapering wedge piece secured to the upper side of the heel and shank portion of said platform sole, a binding strip having one lateral marginal portion disposed above said outsole in a plane parallel to the attaching face of the outsole, said strip covering the edge faces of said platform sole and said wedge piece and having its other lateral marginal portion secured by adhesive to upper marginal surface portions of said parts, a welt disposed in face-to-face relation to the first-mentioned marginal portion of said binding strip, and a single line of stitches extending from the upper face of the welt to the tread face of the outsole and securing together the binding strip, the welt and the outsole.

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