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FLEXIBLE MOLDED FLANGED COUNTER STIFFENER HAVING A VENTILATING OPENING

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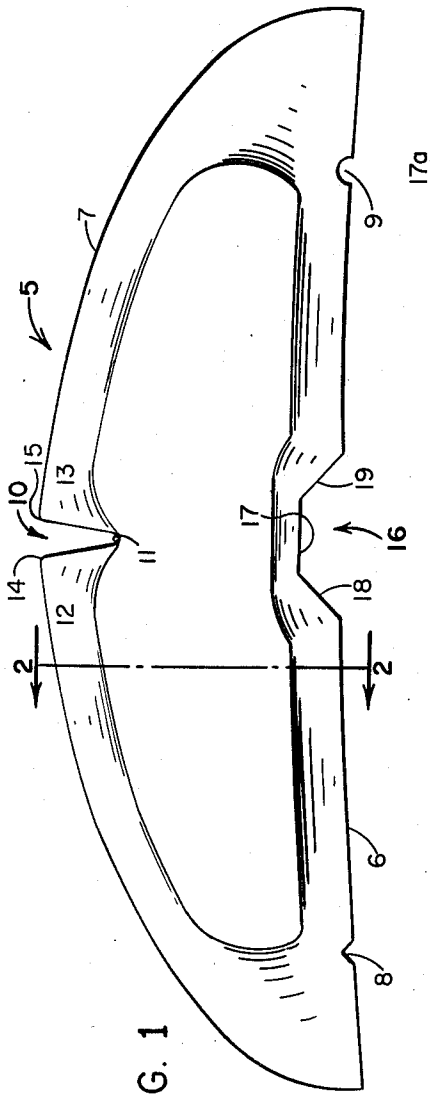


FIG. 1

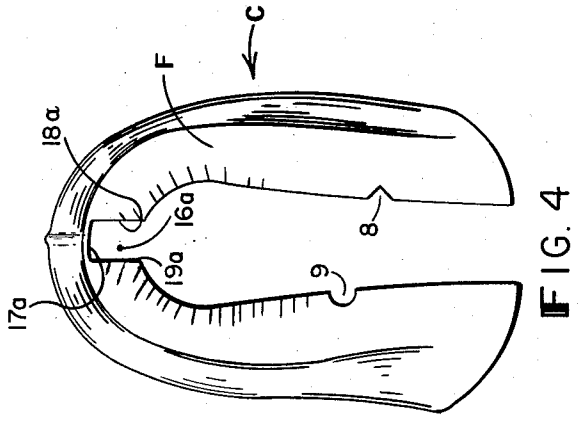


FIG. 4

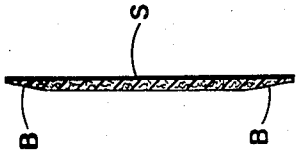


FIG. 2

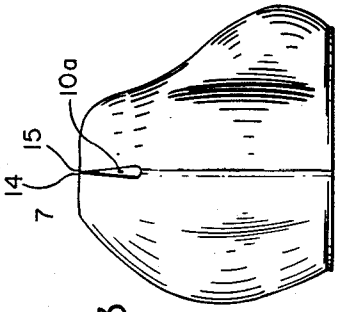


FIG. 3

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FLEXIBLE MOLDED FLANGED COUNTER STIFFENER HAVING A VENTILATING OPENING

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1 Claim. (Cl. 36—68)

This invention pertains to footwear and relates more especially to a flexible molded flanged counter stiffener having a ventilating opening.

Counter stiffeners are customarily made from fiberboard or similar material which, after molding, must necessarily be stiff and shape retaining in order that it may perform its intended function of preserving the shape imparted to the quarter portion of the shoe upper during the lasting operation. Such a counter stiffener usually comprises an upstanding wall portion which embraces the back of the heel of the wearer and usually extends forwardly to or, in some styles of shoe, beyond the breastline of the shoe, and a substantially horizontal bottom flange which provides means for anchoring the counter stiffener to the bottom structure of the shoe. During the molding operation, the rear part, in particular, of the blank shrinks laterally due to the compressive force; and the upper margin of the counter stiffener, at its extreme rear end, usually assumes a U-shaped contour of small radius, so that this particular portion of the counter stiffener is especially rigid, and in lasting it is sometimes quite difficult to conform this part of the stiffener to the last with the desired accuracy. Since the upper margin of the blank is usually reduced, by skiving, to a sharp edge, and since this edge comes at the place where the greatest movement of the material of the shoe occurs during walking, the constant play of the leather back and forth against this sharp stiff upper edge of the counter has a tendency to break the leather at this point. Moreover, this upper rear portion of the counter stiffener does not readily adapt itself to the shape of the heel of the wearer, often causing discomfort or even the formation of blisters. Because of this well-known fact, it is customary for the shoe salesman, before trying on a shoe, to press the upper end portion of the counter inwardly with his thumbs so as to "break it down" and thus make it more flexible, so that the customer will not refuse to purchase because of discomfort in this locality when the shoe is tried on, but such "breaking," while perhaps making the shoe more comfortable during the trying on, is a make-shift procedure at best, and often results in a permanent distortion of the stiffener. Since this portion of the counter stiffener hugs the heel of the wearer very closely, even though of the proper shape, it effectually prevents any movement of air between the wearer's foot and the inner surface of the shoe, and thus increases the possibility of irritation and the formation of blisters. Furthermore, in molding the counter (which is usually done by the employment of twin jaws or dies), the counter may have a ridge on its outer surface where the dies come together, and this added thickness, beneath the back seam, may add to the discomfort of the wearer, particularly in the upper part of the quarter where contact with the foot is the closest.

In most types of shoe, the right and left quarters are joined by a sewed seam which extends down along the back of the heel, and which continues down into that portion of the lasting margin of the upper which underlies the counter flange, being interposed between the latter, and the rear end of the insole. This seam is usually of some thickness, so that, where it extends beneath the counter flange, it necessarily elevates the latter to some extent from the insole, and thus forms a ridge or lump at the interior of the shoe beneath the wearer's heel and also makes the heel seat portion of the shoe bottom uneven.

The above disadvantages of the usual molded counter have been long recognized and attempts have heretofore been made to improve a molded counter to overcome some, at least, of the above undesirable characteristics; for example, by forming a V-shaped notch in the upper edge of the counter or a similar V-shaped notch in the counter flange, the notch in the upper edge making the upper edge more flexible and providing some ventilation, while the notch in the flange provides some clearance for the back seam. However, such prior suggestions for the improvement of a counter have not been entirely successful, and so far as is known, have not been generally adopted.

As just suggested, the notch formed at the upper edge of the counter stiffener, as heretofore suggested, has usually been V-shaped with its sharp apex directed downwardly, with the result that the upper edge of the molded counter is discontinuous, having a gap of greater or less width at its rear part at the very place where it is most desirable to maintain the lasted shape of the upper. Moreover, when the notch in the flange is of V-shape with the apex of the V directed upwardly, it fails to provide adequate space for the back seam of the upper or to eliminate the lump at the rear of the heel seat surface, because, as above noted, the back seam is of substantial width and thickness, and a V-shaped notch does not accommodate the entire width of the seam and thus fails to accomplish the desired result.

An object of the invention is to provide a blank such that when it has been molded, for example by the employment of usual counter-molding dies, the resultant counter will have an upper edge which is devoid of any gap at its center, although the upper marginal portion of the counter will be more flexible than that of a counter molded of similar material and by the use of a blank of customary shape, so that the counter need not be broken down prior to the wearing of the shoe in order to assure comfort to the wearer. A further object is to provide a blank such that, when it has been molded in customary fashion, the resultant counter will be devoid of any ridge at its upper part at the junction of the jaws of the molding dies, and will have a ventilating opening located downwardly from its upper edge at its rear. A further object is to provide a blank which, when molded in the usual fashion, will have the customary horizontal flange at its bottom, said flange having, at the center of its rear end, a substantially rectangular notch of uniform width such as to receive the full width of the rear seam of the upper. A further object is to provide a blank having a downwardly directed notch at the center of its upper edge, which is of substantial width at its lower end and of such shape that, during the molding operation, the opposite corners at the upper end of the notch will substantially contact so that the upper edge of the counter will be continuous, although the marginal portion, at the upper edge, will be flexible. A further object is to provide a blank having an upwardly directed notch at the center of its lower edge, said notch being of truncated triangular shape with its upper edge substantially parallel to the lower edge proper of the blank and of a width such that, when the blank has been molded, the

upper end of the notch, in the resultant bottom flange, will be of the full width of the back seam of the upper, the side edges of the notch in the blank diverging downwardly at an angle of approximately 90° so that, when the blank has been molded, the notch in the rear end of the resultant bottom flange will be of substantially uniform width and rectangular in shape. A further object is to provide an improved counter stiffener. Other and further objects and advantages of the invention will be pointed out in the following, more detailed description and by reference to the accompanying drawings wherein:

Fig. 1 is a plan view of a counter blank, according to the present invention;

Fig. 2 is a section substantially on the line 2—2 of Fig. 1;

Fig. 3 is a more or less diagrammatic rear elevation of a counter such as results from the molding of the blank of Fig. 1; and

Fig. 4 is a diagrammatic bottom view of the counter resultant from the molding of the blank shown in Fig. 1.

Referring to the drawings, the numeral 5 indicates a blank embodying the present invention, and which may be made of sheet material S (Fig. 2) for example fiberboard, such as is commonly employed in the manufacture of counter stiffeners. This blank, as here shown, is of customary contour, except with respect to the features of the present invention hereinafter to be described, having the substantially straight lower edge 6 and the curved upper edge 7; the marginal portion of the blank being beveled (as indicated at B, Fig. 2) at that side which will be the exterior surface of the stiffener after molding; and the lower edge of the blank being provided with the usual notches 8 and 9 for use in properly assembling it with the other parts of the shoe upper.

In accordance with the present invention, the upper margin of the blank is provided, at its mid-portion, with a downwardly directed notch 10 which, as here shown, is of a depth, measured from the upper edge of the blank, approximating one-fourth the maximum height of the blank, this proportion having been found useful in the formation of a molded counter stiffener in accordance with the present invention, although this dimension may be varied in accordance with the size and style of the stiffener. The lower edge of this notch 10 is here shown as arcuate and upwardly concave, and as merging with substantially straight side edges 12 and 13 which, in the blank, diverge upwardly to a slight degree, for example, to form an included angle of approximately 20°, although this angle may vary in accordance with the character of the material of the blank. These side edges 12 and 13 merge with the upper edge 7 to form the corners 14 and 15, which may be sharp although preferably slightly rounded.

At the mid-portion of the lower edge of the blank, there is provided an upwardly directed notch 16 of truncated, triangular shape having the straight upper edge 17, which is parallel with the lower edge proper of the blank. The side edges 18 and 19 of this notch 16 diverge downwardly, making an angle of approximately 90° with each other, so that the included angle between each of these edges and lower edge 6 of the blank is approximately 135°, although this angle may be varied slightly in accordance with the characteristics of the material of the blank.

The upper edge 17 of this notch is spaced from the plane of the lower edge 6 of the blank a distance substantially equal to the width of the flange which is to be formed at the lower part of the counter stiffener during the molding operation, and the transverse width of the edge 17 is such that, after the molding operation during which the material of the blank is crowded together at its rear part, the length of this edge 17 in the completed molded stiffener will approximate the width of the back seam of the shoe upper with which the counter stiffener is to be employed. The blank is so compressed during molding that its upper and lower edges decrease in length, with the result that the molded stiffener C (as shown in Fig. 3) has the corners 14 and 15 of the original notch 10 in substantial contact or, in some instances, slightly overlapping with the result that the notch 10 now has the shape of a teardrop (as shown at 10*a*, Fig. 3) and the upper edge 7 is substantially continuous, that is devoid of any appreciable opening at the position of the original notch 10. However, the upper marginal portion of the molded counter (made by the use of the blank of the present invention) is much more flexible than that of a counter made in accordance with the usual practice, since it is possible for the corners 14 and 15 to move in and out relatively to each other, to move away from each other or to move into overlapping relation in accordance with the motion of the foot of the wearer of the shoe. This arrangement provides a flexibility at the upper margin of the counter stiffener which is far greater to that found in the usual counter, and which provides comfort to the wearer and reduces wear upon the upper material of the shoe. At the same time, the opening 10*a* provides for ventilation at this point, thus further adding to the comfort of the wearer.

During the molding operation, the notch 16 is also changed in shape so that, in the flange F of the molded counter C (as shown in Fig. 4), there is a recess 16*a* of substantially rectangular form having the parallel side edges 18*a* and 19*a* and the rear edge 17*a*, this recess being of the full front-to-rear depth of the counter flange and being of such transverse width as to accommodate the full width of the back seam of the shoe throughout the entire front-to-rear width of the flange, so that the back seam forms no such lump beneath the foot of the wearer of the shoe, as is usual when the back seam must underlie the flange or even a portion of the flange, as is true when, as heretofore proposed, the flange is provided merely with a V-shaped notch at this point.

While one desirable embodiment of the invention has herein been disclosed by way of example, it is to be understood that the invention is broadly inclusive of any and all modifications falling within the scope of the appended claim.

I claim:

A molded counter stiffener for incorporation in a shoe upper and whose upper edge is substantially continuous, but which has at its center rear portion a ventilating opening of teardrop shape whose side edges converge upwardly and meet at the upper edge of the counter, the counter having a marginal bottom flange of generally conventional type except that it has, at the center of its rear portion, a recess of rectangular shape extending inwardly from its forward edge to its rear edge and of a transverse width to accommodate the entire width of the back seam of a shoe upper with which the counter stiffener may be employed.

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