July 25, 1939. P. J. COSTIGAN 2,167,274

FOOTWEAR AND METHOD OF MAKING SAME

Filed March 9, 1938

Fig.1.

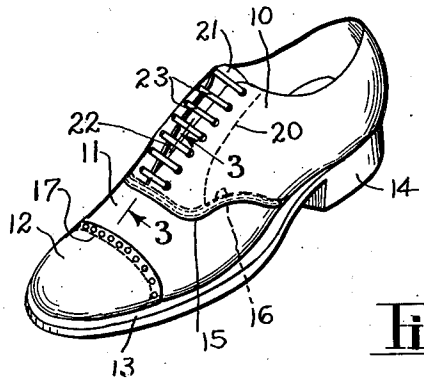


Fig.3.

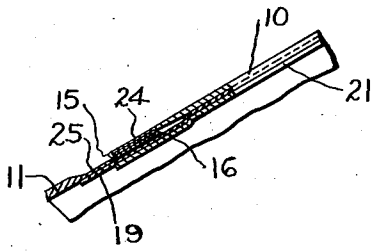


Fig.2.

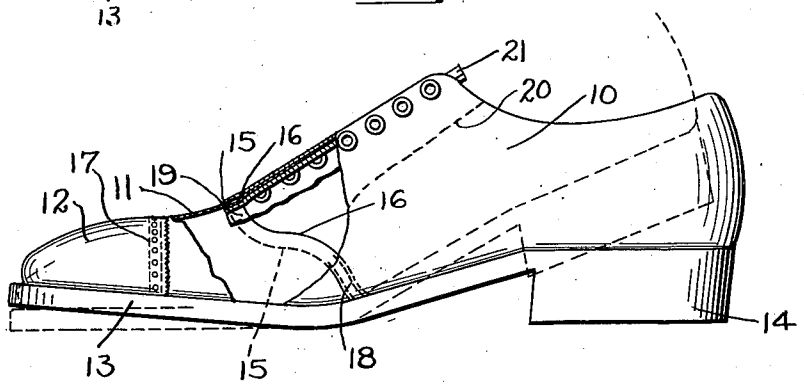


Fig.4.

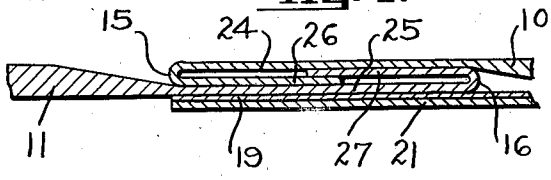


Fig.5.

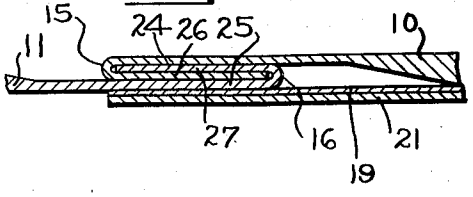


Fig.6.

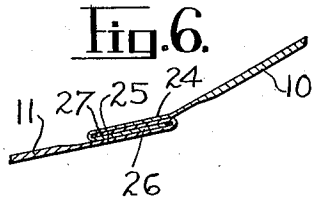


Fig.7.

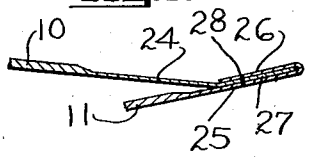
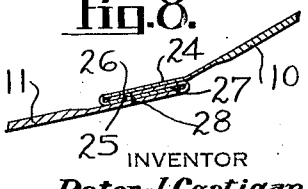


Fig.8.



INVENTOR

Peter J. Costigan.

BY

H. G. Manning

ATTORNEY

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FOOTWEAR AND METHOD OF MAKING SAME

Peter J. Costigan, Waterbury, Conn., assignor to Pliantor Inc., Waterbury, Conn., a corporation of Connecticut

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5 Claims. (Cl. 12—146)

This invention relates to footwear, and more particularly to a shoe of improved construction which will not crease or wrinkle at the vamp when the shoe is flexed.

It is well known that when walking with shoes of the ordinary type, the bending of the foot causes wrinkling to occur at the vamp forcing the leather against the foot, resulting in excessive perspiration, which in turn causes tenderness of the flesh and frequent injury to the foot.

By means of the present invention, the above and other disadvantages have been avoided by providing a shoe having a loose overlapping connection between the quarter and the vamp, so that the quarter will be permitted to slide smoothly over the vamp without causing the development of wrinkles or creases in the latter.

One object of the invention is to provide a shoe of the above nature in which the lower edge of the quarter is slidably interlocked with the upper edge of the vamp, whereby a water-proof and dust-proof seal will be produced at the joint between said quarter and said vamp.

A further object is to provide an improved method for manufacturing the improved shoe described herein.

Another object is to provide a shoe of the above nature which will be simple in construction, inexpensive to manufacture, neat in appearance at all times, and very efficient and durable in use.

With these and other objects in view there has been illustrated on the accompanying drawing one form in which the invention may be conveniently embodied in practice.

In the drawing:

Fig. 1 is a perspective view of a shoe embodying the features of the invention.

Fig. 2 is a side view of the same, partially broken away, and showing in dotted lines the position of the shoe when the same is flexed while walking.

Fig. 3 is an enlarged sectional view taken on the line 3—3 of Fig. 1.

Figs. 4 and 5 are greatly enlarged sections of the joint between the relatively slidable quarter and vamp sections.

Figs. 6, 7 and 8 illustrate three steps in the method of making the shoe.

Referring now to the drawing wherein like reference characters designate like parts throughout the several views, the numerals 10, 11 and 12 indicate respectively a quarter 10, a vamp 11, and a toe cap 12 of a shoe of the "bal" type, said parts being assembled in the usual manner and attached to a sole 13 and a heel 14, as shown in Fig. 2. The central portion of the lower edge 15 of the quarter 10 is adapted to loosely overlie the adjacent upper edge 16 of the vamp 11, but the ends of said quarter are secured to the ends of the vamp adjacent the sole 13 by stitching 18. This construction permits the sections of the quarter 10 to slide freely over the vamp when the shoe is flexed, as shown in dotted lines.

The quarter 10 is provided with a lining 19 which is secured to the quarter 10 by rows of stitching 20 substantially parallel to the lacing eyelets. Provision is also made of a tongue 21 which is secured to the quarter 10 by stitching (not shown) extending along the sides of the lower end of said tongue. The two sides of the quarter 10 are adapted to overlie the tongue 21 with a lacing space 22 therebetween, and the inner edges of said sides are adjustably connected by the usual lacing 23 which passes through the eyelets as shown.

In order to interlock the overlapping edges 15 and 16 of the quarter and vamp, respectively, and thereby form a seal for preventing dirt and water from entering the shoe, said edges are reduced in thickness or "skived" as indicated at 24 and 25, respectively. The skived edges 24 and 25 are then turned backwardly upon themselves (see Figs. 3, 4 and 5) at 26 and 27, and are slidingly interlocked with each other at their central portions.

When the shoe is in its normal unflexed position, as shown by the full lines in Figs. 1 and 2, the interlocking looped edges of the quarter and vamp are disposed relatively to each other, as shown in Fig. 5. When the user takes a step, the shoe will be flexed to the dotted line position shown in Fig. 2, thereby causing the edge 24 of the quarter to slide forwardly with respect to the edge 25 of the vamp, as shown in Fig. 4, leaving said vamp smooth and avoiding the formation of wrinkles therein—thus allowing the shoe to follow the arc formed by the foot in walking. This eliminates the occurrence of irritating pressure from being exerted on the forepart of the foot.

Figs. 6, 7 and 8 illustrate three steps in the method of making the improved shoe of this invention. Thus, Fig. 6 shows the assembled relation of the quarter 10 and the vamp 11 before the shoe is secured to the last for the final lasting process. In order to temporarily secure the quarter 10 to the vamp 11 for preventing possible separation thereof during the lasting operation, the quarter 10 is turned backwardly over the vamp 11 from the position of Fig. 6 to the position shown in Fig. 7, and the overlapping edges

26 and 27 are then secured together by a line of stitches 28.

The quarter 10 will then be swung back to the position shown in Fig. 8 and the shoe will be placed upon a last, not shown, for lasting—the quarter being first centered and tacked to said last at the heel portion. After the shoe has been properly lasted, the stitches 28 will be cut and the cut threads removed.

One advantage of the present invention is that wrinkles in the vamp section of the shoe are eliminated, thus enhancing the attractiveness of the shoe. Moreover, when the shoe is flexed, the vamp will not press into the foot, and the shoe will wear longer due to the absence of repeated bendings of the leather in the vamp. Also, the exercise of walking with such a shoe will be less tiring, as less energy will be required to flex the shoe than was formerly required when creases were formed in the vamp due to the stiff rigid construction of the shoe.

A further advantage of this invention is that a non-rigid shoe construction is provided which permits the foot to bend freely and the bones of the arch and ball of the foot to function in a natural manner. In other words, a much greater ball action of the foot is permitted, resulting in more comfort as well as a better appearing shoe.

This invention will be found especially useful in children's footwear, and shoes for golfing, hiking and athletics.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a shoe, a sole, a quarter and a vamp secured at their lower edges to said sole, the adjacent upper edges of said quarter and said vamp being overlapped and slidingly interlocked to prevent wrinkling of said vamp when the shoe is flexed and to exclude dust and water from entering the joint between said quarter and vamp.

2. In a shoe, a sole, a quarter and a vamp secured at their lower edges to said sole, the top central portions of said quarter and vamp being overlapped and slidingly interlocked and sealed against dust and moisture.

3. In a shoe, a sole, a quarter and a vamp secured at their lower edges to said sole, the top central portions of said quarter and vamp being overlapped and slidingly interlocked and sealed against dust and moisture, said overlapped edges being turned back upon themselves and hooked together to seal the joint therebetween.

4. The method of making a shoe which comprises the steps of bending the edges of the quarter and vamp backwardly upon themselves, overlapping and interlocking said backwardly bent edges, temporarily stitching said interlocked edges together in overlapping relation, stretching said quarter and vamp on a last, then cutting the stitches between the quarter and the vamp at the adjacent edges, and finally securing said quarter and vamp to the sole of the shoe.

5. In a shoe, a sole, a pair of overlapping upper portions secured to said sole, said upper portions being slidingly connected to permit said shoe to bend and follow the arc of said foot when walking, said overlapped edges being turned back upon themselves and hooked together to seal the joint therebetween to exclude dust and moisture.

PETER J. COSTIGAN.