July 27, 1954 O. G. BEESTRUM 2,684,539

SHOE CONSTRUCTION

Filed May 5, 1950

Fig. 1.

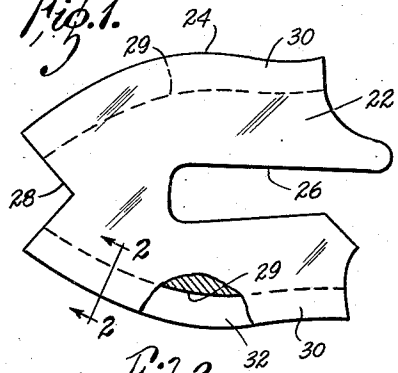


Fig. 2.

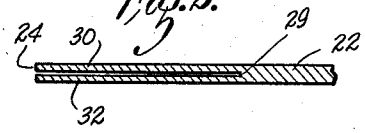


Fig. 3.

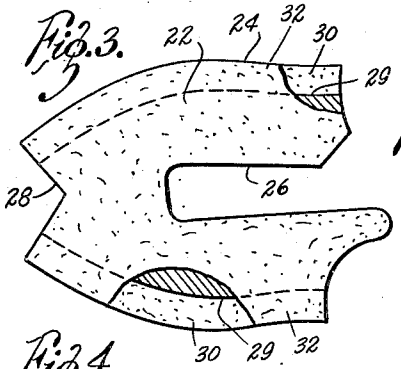


Fig. 4.

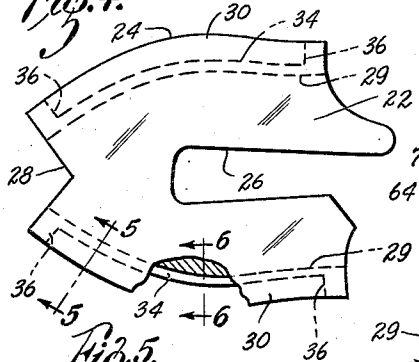


Fig. 5.

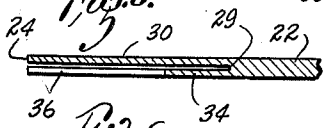


Fig. 6.

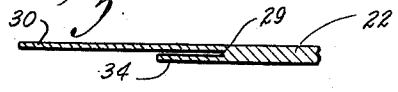


Fig. 7.

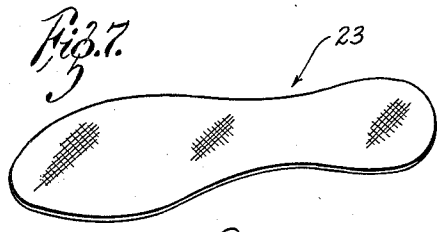


Fig. 8.

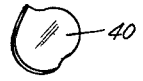


Fig. 9.

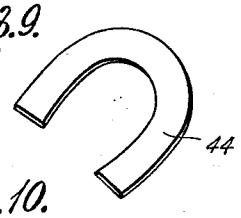


Fig. 10.

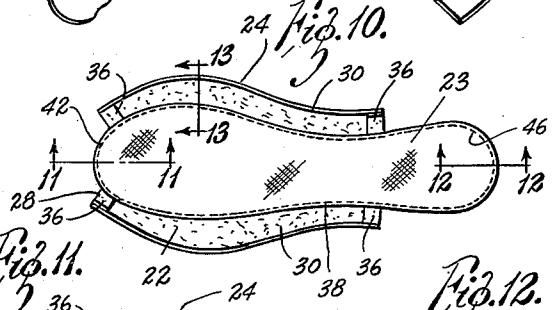


Fig. 11.

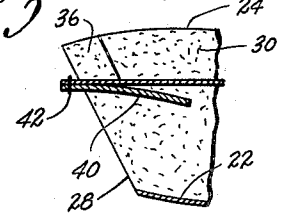


Fig. 12.

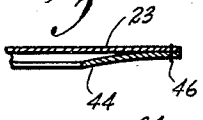


Fig. 13.

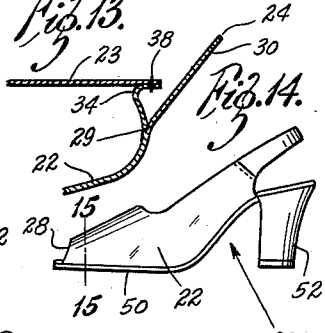


Fig. 14.

Fig. 16.

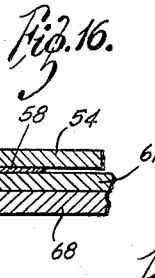
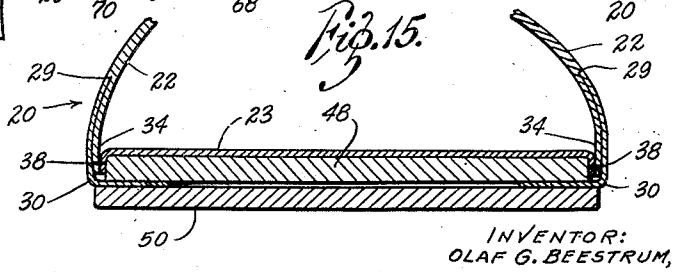


Fig. 15.



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UNITED STATES PATENT OFFICE

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SHOE CONSTRUCTION

Olaf G. Beestrum, St. Louis County, Mo.

Application May 5, 1950, Serial No. 160,298

2 Claims. (Cl. 36—19.5)

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The present invention relates generally to the shoe art and more particularly to a novel shoe construction and an upper therefor having a split marginal edges.

In one form, the invention comprises an upper having the lower edge thereof split upwardly a predetermined distance to form an inner marginal portion and an outer marginal portion. The bottom part of the inner marginal portion is stitched to the marginal portion of an insole so as to fasten them together and provide a seam. A midsole is disposed adjacent the outer surface of the insole and is smaller than the latter so as to fit within the seam. The outer marginal portion is pulled inwardly around the midsole and fastened to its outer surface so as to confine the seam firmly between it and the midsole, and an outsole is fastened to the outer surface of the midsole and the inwardly extending part of the outer marginal portion.

As is well known in the art, there are many shoe constructions which require a marginal portion separate from the lower edge of the body of the shoe upper, which can be turned inwardly and fastened under the insole. Because the inner surface of the upper must be free from seams and ridges it has heretofore been necessary to use a lining with these particular constructions. However, a lining has many disadvantages. Not only is it expensive but oft-times the lining wrinkles so as to cause objectionable ridges within the shoe.

It is an object of the present invention, therefore, to provide a novel construction which can be used with all shoe constructions requiring a lining, and particularly the construction disclosed in my prior Patent No. 2,384,431, and which has substantially all the advantages of such a shoe without the extra cost incident thereto. More particularly, it is an object of the present invention to provide a marginal portion adjacent the lower edge of the body of an upper, which can be turned inwardly away from the lower edge of said body and yet provide a smooth surface for the interior of the finished shoe.

Specifically, it is an object to provide an upper of leather or like material which has the lower edge thereof split upwardly for a predetermined distance so as to provide a pair of separate depending flange-like portions.

Another object is to provide an improved shoe construction which is strong, light in weight and exceedingly comfortable.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing, wherein a preferred embodiment of the present invention is shown, in which:

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Fig. 1 is a top plan view of an upper having the outer edge thereof formed according to the teachings of the present invention;

Fig. 2 is an enlarged vertical sectional view taken on the line 2—2 in Fig. 1;

Fig. 3 is a bottom plan view of the upper shown in Fig. 1;

Fig. 4 is a top plan view of the upper after a part of the inner marginal element has been removed, part of the outer marginal element being cut away to better illustrate the construction;

Figs. 5 and 6 are enlarged vertical sectional views taken on the lines 5—5 and 6—6 respectively in Fig. 4;

Fig. 7 is a perspective view of a flexible insole embodied in the construction;

Fig. 8 is a perspective view of a toe tab which is used to cover the toe end of the insole;

Fig. 9 is a perspective view of a heel strip which is used to cover the heel end of the insole;

Fig. 10 is a bottom plan view showing the upper, toe tab, and heel strip stitched to the insole prior to the application of the midsole;

Figs. 11, 12 and 13 are enlarged vertical sectional views taken on the lines 11—11, 12—12 and 13—13, respectively, in Fig. 10.

Fig. 14 is a side elevational view of a shoe constructed in accordance with the teachings of the present invention;

Fig. 15 is an enlarged vertical sectional view taken on the line 15—15 in Fig. 14; and

Fig. 16 is a fragmentary vertical sectional view showing a modified form of shoe construction embodying the teachings of the present invention.

Referring to the drawing more particularly by reference numerals, specifically Figs. 1 to 14, 20 indicates generally an open-toe, open-heel shoe constructed in accordance with the teachings of the present invention, and which includes an upper 22 of leather or like material and a flexible insole 23.

The upper 22 is initially cut in the form shown in Fig. 1 and contains an outer edge 24 and an inner edge 26. For open-toed shoes a notch 28 is contained in the front end of the upper 22. The outer edge 24 is split inwardly for a predetermined distance to the line 29 (Figs. 1 and 3) so as to form an outer marginal element 30 and an inner marginal element 32 (Fig. 2). As will appear, the outer marginal element 30 is equivalent to the lower portion of the upper in an ordinary shoe construction, and the inner marginal ele-

ment 32 is equivalent to the lower portion of the lining.

Elongated notches are cut from the inner marginal element 32 (Figs. 4, 5, and 6) to provide a shortened inner marginal portion 34 and tabs 36 adjacent each end thereof. The tabs 36 provide an edge of the same thickness as the body of the upper at the exposed ends of the upper and facilitate the lasting operation.

The insole 23 is made of fabric or like material and is formed in the shape shown in Fig. 7.

The insole 23 is disposed adjacent the upper 22 (Fig. 13) so that the marginal portion thereof is against the out-turned portion of the inner marginal portion 34, and the two members are fastened together by a row of stitches 38.

A toe tab 40 of leather or like material and formed in the shape shown in Fig. 8 is fastened to the inner surface of the insole 23 adjacent the front edge thereof by stitches 42 (Fig. 11).

A U-shaped heel strip 44 (Fig. 9) of leather or like material is fastened to the inner surface of the insole 23 about its rear edge by stitches 46 (Fig. 12).

After the upper 22, the toe tab 40 and the heel strip 44 have been fastened to the insole 23 (Fig. 10), a last (not shown) of conventional construction is slipped into the assembly.

A midsole 48 (Fig. 15), which is similar in shape to the insole 23 but somewhat smaller, is fastened to the outer surface thereof so as to fit within the row of stitches 38. If desirable, the member 48 could be of resilient material so as to be a cushioning member, or it can be made considerably thicker than the one shown so as to form a platform type shoe.

If desirable, a shank piece and shank brace (not shown) can be disposed against the midsole in the manner shown and described in my Patent No. 2,384,431.

The outer marginal element 30 is then pulled over and lasted to the midsole 48 so that the row of stitches 38, joining the insole 23 and the inner marginal portion 34, is fastened firmly between it and the outer marginal element 30 (Fig. 15). Manifestly, this operation can be performed by either tack, staple or cement lasting. If the tabs 36 are used, these are first lasted to the midsole prior to the lasting of element 30 which facilitates the lasting of this element and also strengthens the shoe.

The toe tab 40 and the heel strip 44 are also pulled over and lasted in the normal manner.

An outsole 50 is then fastened to the midsole 48 and the inturned portions of the outer marginal elements 30 using any of the known means but preferably by cementing.

A heel 52 is then attached to the shoe in any suitable manner such as by a screw (not shown) which extends through the shank piece and shank brace (not shown) and into the heel 52.

It is to be understood that this invention is not limited to the type of shoe just described, but that it can be used with substantially all the known constructions which employ a lining with the upper.

Another construction in which it is especially applicable is the type known as a three-sole stitch-down. A fragmentary sectional view of such a construction is shown in Fig. 16. In fabricating such a shoe, an insole 54 is tacked temporarily to the bottom of a last (not shown). An upper 56 is provided which has been split as previously described to provide an inner marginal element 58 and an outer marginal element 60. The upper 56 is placed on the last and pulled over in the usual manner and the inner marginal element 58 at the back and forepart drawn tightly around the last and fastened, preferably by cement, to the outer surface of the insole 54.

The outer marginal element 60 is then turned outwardly and the tacks used to hold the insole 54 in place are withdrawn.

A midsole 62 containing a marginal portion 64 which extends outwardly beyond the upper 56 is cemented to the insole 54 whereby the out-turned outer marginal element 60 is superimposed on the marginal portion 64.

The toe portion of the shoe is then formed and the out-turned outer marginal element 60 lasted to the midsole 62 by a row of thread or staples 66.

An outsole 68 of substantially the same size as the midsole 62 is fastened thereto by a row of stitches 70 which pass through the outsole 68, the midsole 62 and the outer marginal portion 60.

If desirable, a welt strip 72 can be stitched on above the out-turned outer marginal portion 60 at the same time that the outsole 68 is fastened to the assembly. The welt strip 72 is advantageous in that it protects and reinforces the outer marginal element 60.

Thus it is apparent that there has been provided a novel upper and shoe construction containing said upper which fulfills all of the objects and advantages sought therefor.

The construction has all of the advantages of a shoe which contains a lining without the additional cost of providing such a lining. A flange-like element is provided which is separate from the body of the upper whereby it can be employed in the same manner as a conventional lining and there is no possibility of having a ridge or wrinkle form within the shoe upper. Furthermore, a shoe employing the teachings of this invention is lighter in weight than a conventional shoe with a lining.

It is to be understood that the foregoing description and the accompanying drawing have been given only by way of illustration and example, and that changes and alterations in the present disclosure, which will be readily apparent to one skilled in the art, are contemplated as within the scope of the present invention, which is limited only by the claims which follow.

What is claimed is:

1. A shoe construction comprising an integral upper having at least a part of the lower portion thereof split about its periphery upwardly a distance to provide an inner marginal portion and an outer marginal portion, said inner marginal portion having a part shorter than the outer marginal portion and tabs formed by the inner marginal portion which are of a length greater than said inner portion; an inner sole fastened adjacent the bottom edge of the inner marginal portion; and a midsole adjacent the outer surface of the insole, the outer marginal portion and said tabs extending inwardly and being fastened to and enclosing the outer surface of the midsole.

2. A shoe construction comprising an integral upper having at least a part of the lower portion thereof split about its periphery upwardly a distance to provide an inner marginal portion and an outer marginal portion, said inner marginal portion having a part shorter than the outer marginal portion and tabs formed by the inner marginal portion which are of a length greater than said inner portion; a flexible insole having its marginal portion stitched to the lower marginal part of the inner marginal portion; and a midsole

positioned adjacent the outer surface of the insole, said midsole being of a size to fit within the seam formed by the stitching of the insole to the inner marginal portion, the outer marginal portion and the tabs extending over the seam and the edge of the midsole to encase the same and being secured to and enclosing the outer surface of the midsole with the edges forming the seam firmly confined between the edge of the midsole and the outer marginal portion and the tabs.

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