Jan. 22, 1929.

1,700,067

R. C. MERRIAM

FABRIC BINDING

Filed June 3, 1927

Fig. 1.

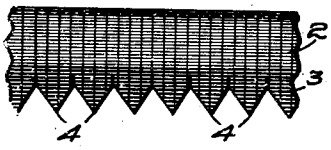


Fig. 2.

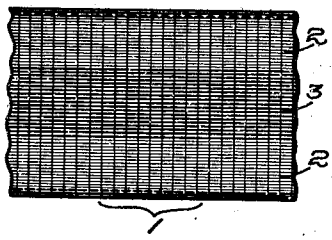


Fig. 3.

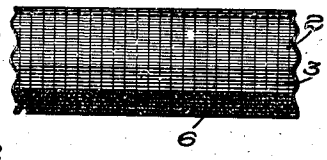


Fig. 4.

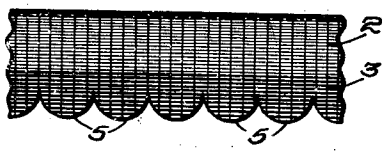


Fig. 5.

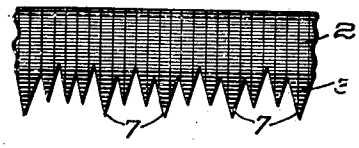


Fig. 6.

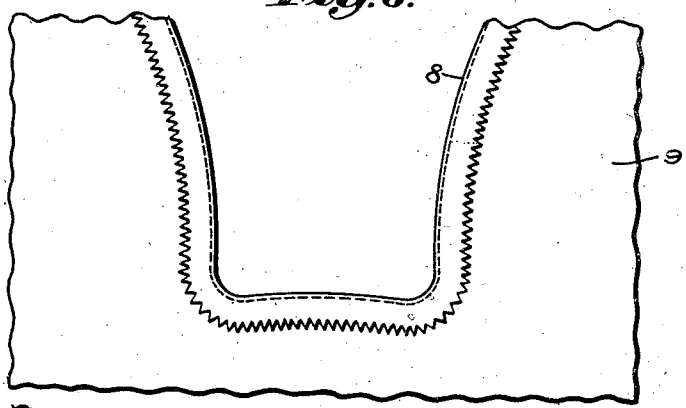


Fig. 7.

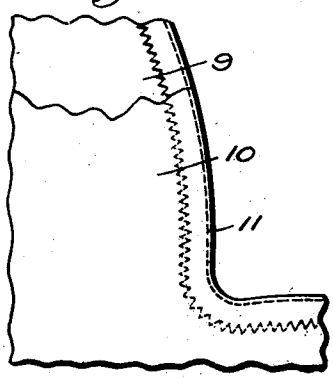
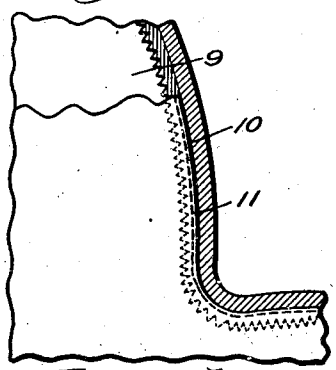


Fig. 8.



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UNITED STATES PATENT OFFICE.

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FABRIC BINDING.

Application filed June 3, 1927. Serial No. 196,263.

This invention relates to bindings, and particularly to fabric bindings suitable for a variety of uses, but especially in connection with boots and shoes.

In the drawings of one embodiment of my invention described and illustrated herein,

Fig. 1 is a plan of a strip of my novel binding;

Fig. 2, a similar view of a strip of fabric from which it may be made;

Fig. 3, a like view of a strip of the fabric partially prepared for the completion of my invention;

Fig. 4, a plan of a modified form of my invention;

Fig. 5, a similar view of a further modified form;

Fig. 6, a partial plan of a shoe vamp showing my novel binding preliminarily stitched thereto along one edge, as the first step in its attachment thereto;

Fig. 7, a similar view of the reverse side of the vamp showing the binding turned over and finally secured thereto; and

Fig. 8, a similar view of the same side of the vamp showing the binder secured thereto further from the edge, showing the different colored cotton warp section of the binding.

My novel binding, Fig. 1, comprises preferably a fabric strip, as a ribbon, of suitable material, preferably largely silk, as grosgrain ribbon. While, as stated, I prefer to use silk, yet good silk is expensive, and much expense may be avoided, where desirable, by using a ribbon made of silk and some cheaper material, as cotton, combined.

Accordingly, in Fig. 2, I have shown a strip of ribbon 1, the warp threads 2 of which along each side are of silk, while a section 3 of the warp threads near the center are of cotton. Usually all the weft threads are of cotton. By this construction, I save a material part of the manufacturing cost of the ribbon. With the ornamental styles of women's shoes now in vogue, a very large amount of binding is necessary for not only the edges of the vamps, but particularly for the edges of the ankle straps, and ornamental straps which are fashioned from and are part of the vamp, and accordingly the cost of the binding is a very material item.

Furthermore, the present styles use materials of many colors and my novel binding may comprise yarn dyed silk of one color and yarn dyed cotton of a different color, as may be desired, to harmonize with the leather of different colors, to great advantage and with little trouble.

Much of the edges of the shoe members, as the vamp, is curved and there are many sharp turns, so that it requires great skill to stitch the binding to the body material smoothly. To facilitate the application of the binding at all times, and particularly when stitching around curves, I have conceived the idea of removing one selvage and then snipping, serrating or slitting the unsecured edge of the binding left thereby to enable it to be more smoothly and readily stitched and to lay flat without strain or fullness when turned over the edge. While this snipping may take many forms as angular or straight cuts, I prefer to do it so that the edge will be serrated, Fig. 1, providing saw teeth 4; or even providing a series of scallops 5 as in Fig. 4, either of which, of course, are cut to an appropriate depth. The teeth may also be further separated by a short straight cut across the binding which I have found sometimes to be an advantage.

Preparatory to this serrating step, however, Fig. 3, I prefer to apply a warp-and-weft-thread-position-retaining material to a face thereof at and adjacent to the serrated non-selvaged edge, whereby the warp and weft threads are held together. In practising my invention I, according to the disclosed embodiment thereof, apply to the back of the ribbon a coat of any suitable sizing material 6, as glue, starch, cement or the like, to prevent the unsecured edge of the binding from ravelling after it has been serrated. The serrating of the edge is preferably done by machinery so that it will be done with precision making all the cuts of predetermined depth. At the present time any snipping of the unsecured edge of the binding is done by the hand with scissors. This hand operation is not only slow and laborious but it very often results in snips of uneven depth. When the snips are not deep enough the binding subtends the arc of the curve, making a wrinkle that greatly detracts from the appearance of the shoe. When the snips are too deep, as is often the case, the binding is so weakened that it breaks across during the lasting or subsequent operations, thus causing "cripples" and "seconds" shoes. The serrated or scalloped binding edge permits the

turning of inside or concave curves more readily, without the teeth or tongues of the binding overlapping and thus results in a better appearing and smoother edge. The convex curves are also more accurately and neatly turned by simply spreading the teeth as required.

While most turns of the edges can be made very satisfactorily with a binding having teeth or snips of even depth, yet in some cases the very sharp, almost right angle turns can be made much better by a binding, part of the teeth of which are of increased depth, permitting a more abrupt bending of the binding without overlapping the serrations or teeth in concave turns and a greater spreading of the teeth on convex curves.

Accordingly, Fig. 5, I may make every third or fourth tooth 7 of the binding of greater length. While in stitching the binding to the work, it is not always the fact that a long tooth will be positioned opposite a sharp turn, yet in many cases, when that does not happen, the operator can, by a little skillful manipulation, crowd or stretch the binding a little so as to cause a long tooth to register with a sharp turn of the edge, and thus gain the advantage which the long tooth provides in such emergencies.

The binding, Fig. 6, is first or preliminarily secured reverse side up on the work, its selvage registering therewith by one row of stitching 8 along its selvage adjacent the outside edge of the material 9, as a vamp. The binding, Fig. 7, is then cemented and turned backwardly over the material edge and pressed down upon the reverse side of the material leaving the face of the binding exposed on the work edge.

If, Fig. 7, the cotton warp section is the same in color as the silk warp section, the lining 10 of the shoe is then positioned on the inside face of the vamp, the lining edge registering therewith and secured by a row of stitching 11 along its edge, and through the cemented binding edge and vamp.

If, however, Fig. 8, the cotton warp section is of a different color from the silk warp section and it is desired to show it, then the lining edge 10 may be placed far enough from the vamp edge 9 to show the different color of the cotton warp section and then the stitching 11 effected as before.

It is even practicable to obtain a substantial part of the advantage arising from my invention by simply removing one selvage and without snipping or serrating the unsecured edge left thereby. This unsecured edge is more or less yielding and may be stretched to permit the application of the binding about a curved edge of the work where the curve is not too sharp. Obviously this stretching of the unsecured edge to carry it about the curve requires some time and effort and this is, therefore, not so effective a form of the invention as that comprising the serrated edge which permits a more rapid application of the binding to the work edge.

This invention is not limited to the precise embodiment thereof described and illustrated herein.

Claims—

1. A fabric binding, especially adapted for use in connection with boots and shoes, consisting of a strip of woven material provided with a selvage along one edge to provide an anchor for the securing line of stitches that pass through said strip adjacent said selvage and having its opposite edge serrated and non-selvaged to admit of ready stretching, said strip having a warp-and-weft-thread-position-retaining material applied to a face thereof at and adjacent to said serrated, non-selvaged edge, whereby the warp and weft threads at said edge are retained in position, the strip along and adjacent to said selvaged edge being left untreated and flexible, so that it may be readily folded lengthwise in the act of securing the strip in position upon the boot or shoe.

2. A fabric binding, especially adapted for use in connection with boots and shoes, consisting of a strip of woven material provided with a selvage along one edge to provide an anchor for the securing line of stitches that pass through said strip adjacent said selvage and having its opposite edge serrated and non-selvaged to admit of ready stretching, said strip having a sizing applied to a face thereof only at and closely adjacent to said serrated, non-selvaged edge, whereby the warp and weft threads at said edge are sized and held together, and whereby adjacent to said selvaged edge the strip is left unsized and flexible, so that it may be readily folded lengthwise in the act of securing the strip in position upon the boot or shoe.

In testimony whereof, I have signed my name to this specification.

ROBERT C. MERRIAM.