Aug. 16, 1932. S. CAPEZIO 1,872,641

BALLET SLIPPER AND MANUFACTURE OF SAME

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Fig. 1.

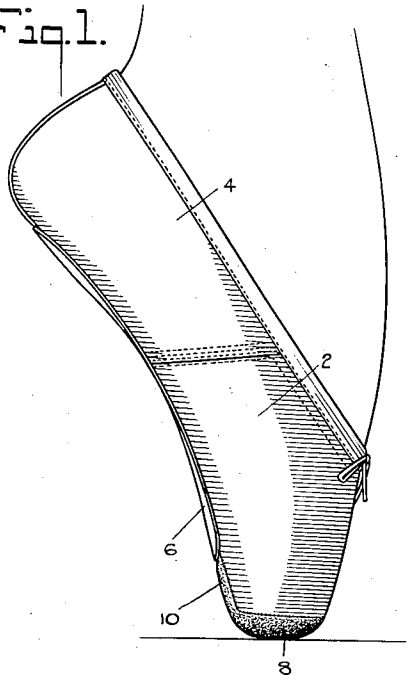


Fig. 2.

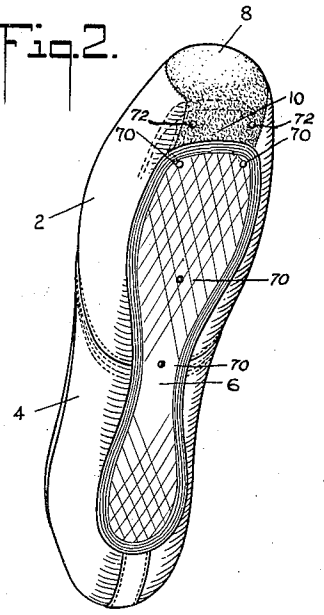


Fig. 3.

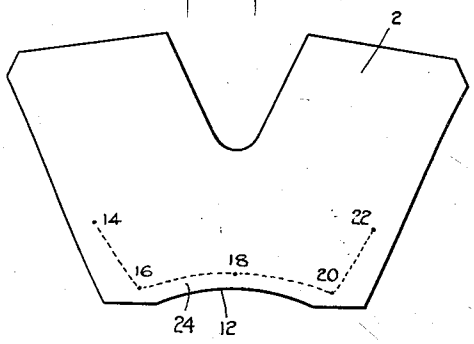


Fig. 5.

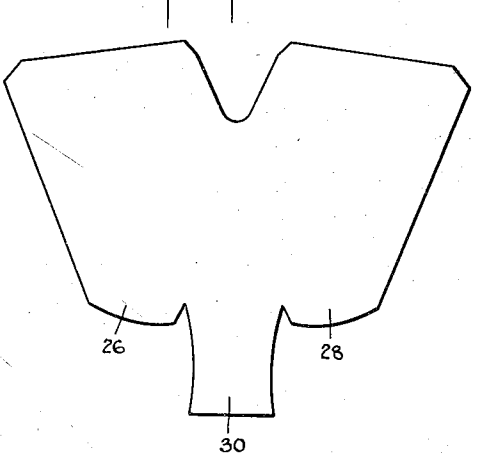
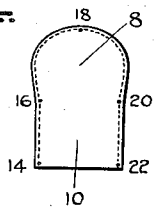


Fig. 4.



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BALLET SLIPPER AND MANUFACTURE OF SAME

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Fig. 6.

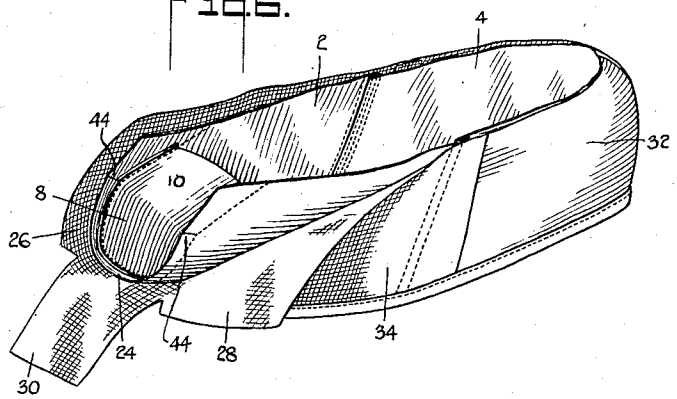


Fig. 7.

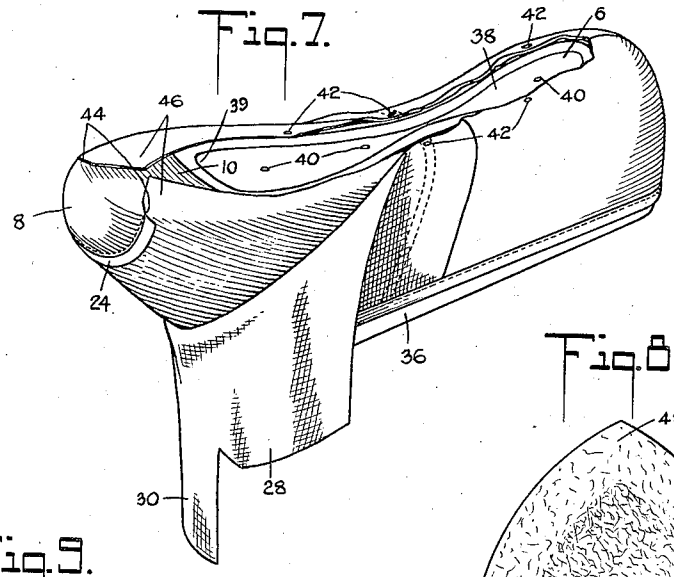


Fig. 8.

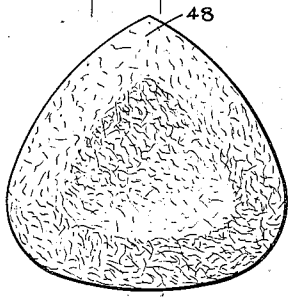
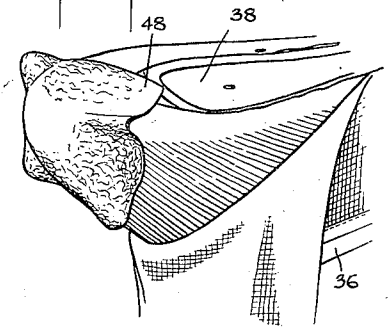


Fig. 9.



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BALLET SLIPPER AND MANUFACTURE OF SAME

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Fig. 10.

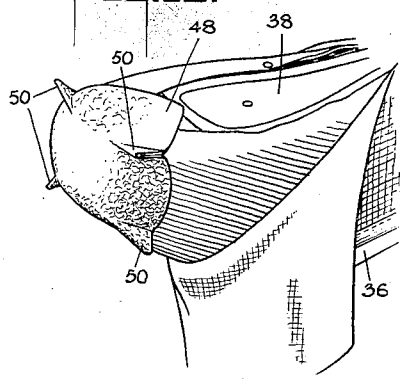


Fig. 11.

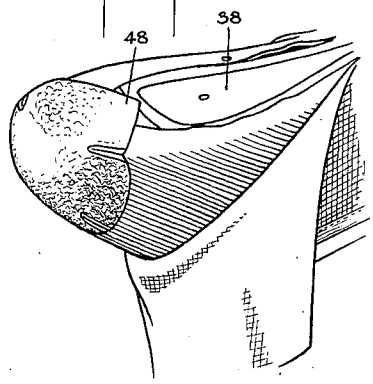


Fig. 12.

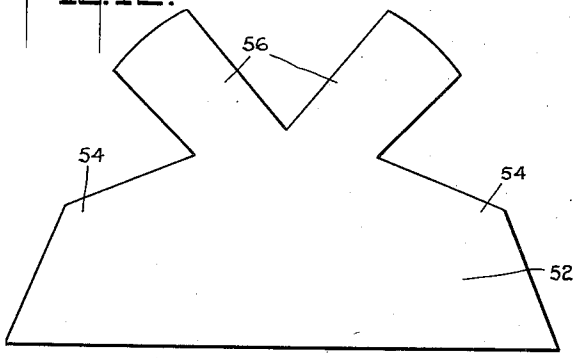


Fig. 13.

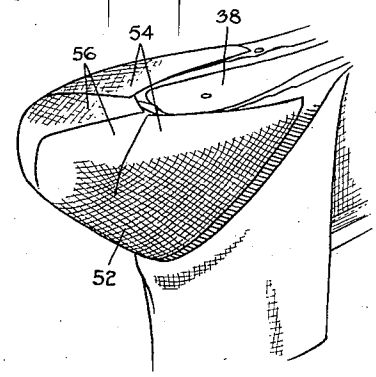


Fig. 14.

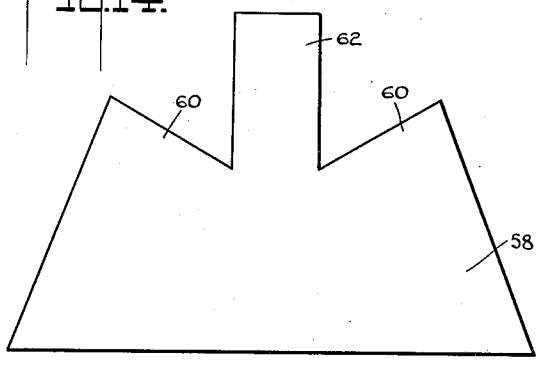
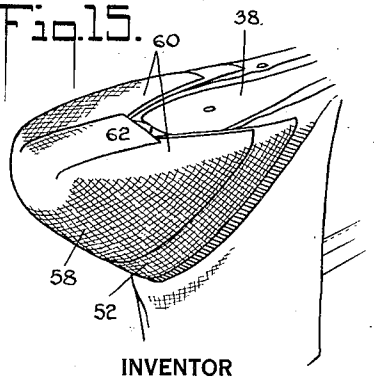


Fig. 15.



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BALLET SLIPPER AND MANUFACTURE OF SAME

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Fig.16.

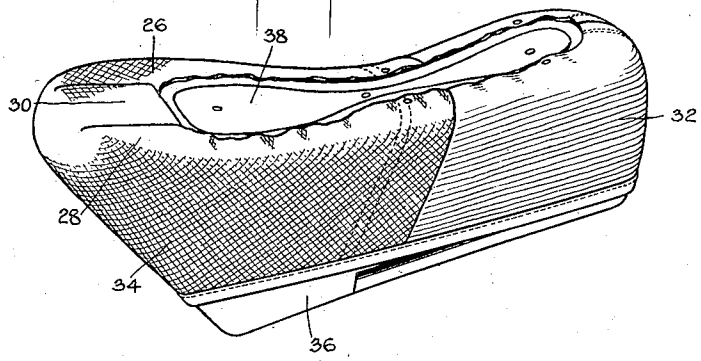


Fig.17.

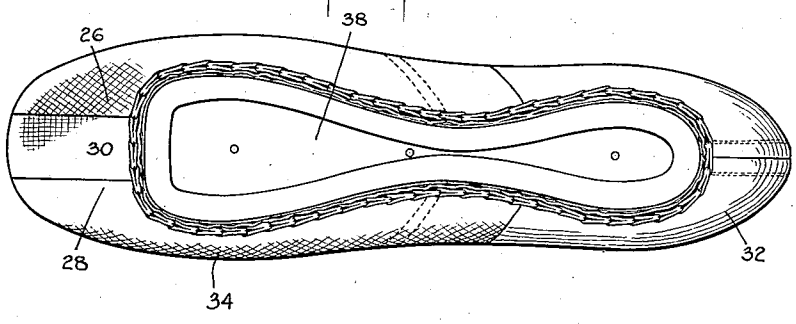
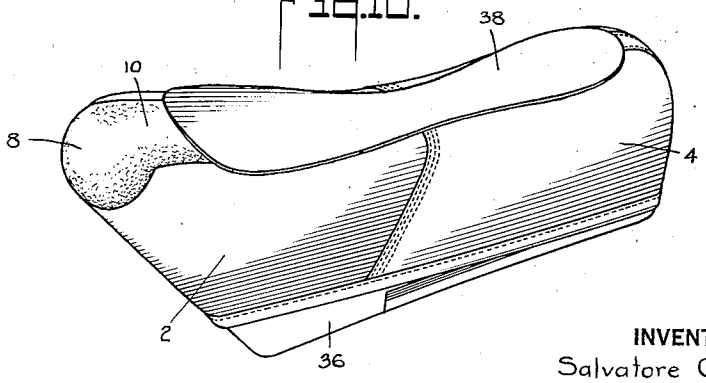


Fig.18.



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Patented Aug. 16, 1932 1,872,641

UNITED STATES PATENT OFFICE

SALVATORE CAPEZIO, OF EAST PATERSON, NEW JERSEY

BALLET SLIPPER AND MANUFACTURE OF SAME

Application filed April 18, 1930. Serial No. 445,261.

This invention relates to ballet slippers and to a method for manufacturing the same.

The upper of an ordinary ballet slipper is made of a fabric such as satin which rapidly wears and frays at the toe of the slipper, making it necessary to discard the same after relatively short useful life. With a view to increasing the wear of these slippers it has been proposed to form at the toe and sole adjacent the toe a solid mass of stitching which is capable of taking the wear. Such a slipper is disclosed in my Patent 1,704,281 issued March 5, 1929, and is eminently satisfactory in use, but it costly to manufacture and must be marketed at a relatively high price because of the expense of stitching the toe portion of the slipper with the numerous necessary lines of stitching.

One object of the present invention is to provide a ballet slipper capable of long wear, and a method for making the same which will permit it to be marketed at a low price. The ballet slipper of the present invention comprises a fabric upper, but the toe and adjacent sole portion thereof is cut out and replaced by a material, preferably suede, which is especially adapted to take long wear.

The toe of an ordinary ballet slipper is formed from an initially flat piece of material which must be drawn in to form the shape of the toe. That is, the excess material is formed into folds or plaits beneath the toe, and these cause considerable trouble during the manufacture of the slipper inasmuch as they must be repeatedly straightened out and hammered into proper shape. Even then, the plaits beneath the toe result in bulky places or projections which fray and become ragged very quickly, in addition to spoiling the trim appearance of the slipper and giving rise to some discomfort to the dancer. Even the stitched toe slipper which is not plaited in the ordinary manner is provided with folds at each side of the stitched toe portion in order to tuck away the excess material.

Another object of my invention is to increase the wear, and improve the appearance of a ballet slipper by avoiding bulges and plaits at the toe portion thereof regardless of the material of which the slipper is made, and to this end I have developed an entirely new technique in the manufacture of ballet slippers, in accordance with which, the material of the upper is patterned at the toe portion in order to obtain the desired shape without folds or plaits. Not only the upper, but also a filler, say thick elkskin, and toe stiffening members, and the inner lining of the slipper are all appropriately patterned to fit smoothly around the toe of the slipper without folds or plaits of any kind. This results in a trim slipper the shape of which is practically permanent for the life of the slipper.

In manufacturing ballet slippers, the upper is usually applied in inverted condition to a last previously provided with a channeled outsole. The upper in machine stitched to the outsole at the sides and heel of the slipper but the toe portion is always stitched by hand. This introduces a manufacturing step which is very costly but which has been necessary because of the bulk of material to be sewed to the sole at the toe of the slipper. In the case of the ordinary plaited slipper, it is necessary to form a plait for each stitch taken, and this is a slow and tedious process.

A still further object of my present invention is to make it possible to machine stitch the upper entirely around the sole, and this is accomplished as above described, for when patterning the material of the upper, and the various filling, stiffening and lining materials, at the toe of the slipper to conform accruately to the toe of the last without folds or plaits, the thickness of material which results is not excessive and can be accommodated by the ordinary sewing machine now used solely for the rear portion of the slipper.

In many ballet slippers, a relatively thick filling material is built into the toe of the slipper in order to stiffen the same. Difficulty arises because this filler must be made small in area inasmuch as it cannot be folded and plaited like the rest of the material of the upper, and yet it must be securely anchored in place in order to guard against movement of the same within the slipper. A further object of this invention is to overcome the foregoing difficulty and to provide a filler which is extensive in area which will

cushion and protect the sole of the slipper adjacent the toe, as well as the toe itself, and yet which will be securely anchored in position. To this end, advantage is taken of the fact that the upper is patterned to proper shape at the toe, instead of being left flat until sewed to the sole, and a filler is cemented about the patterned toe of the upper, the filler itself being properly conformed and trimmed to take the shape of the toe without folds or plaits. With this smooth construction, the filler may be extended along the sole of the slipper sufficient distance to be stitched with the upper and lining materials to the outsole, thereby fixing its location permanently.

To the accomplishment of the foregoing and such other objects as will hereinafter appear, my invention consists in the ballet slipper and method of making the same as hereinafter are more particularly described in the specification and sought to be defined in the claims. The specification is accompanied by drawings in which:

Fig. 1 is an elevation of a ballet slipper made in accordance with the present invention;

Fig. 2 is a perspective view of the bottom of the same;

Fig. 3 is a pattern of the fore part of the upper;

Fig. 4 is a pattern of the toe portion of the upper;

Fig. 5 is a pattern of the fore part of the inner lining of the upper;

Fig. 6 is a perspective view of the assembled inverted upper prior to lasting;

Fig. 7 shows the same applied to a last;

Fig. 8 is a pattern for, and illustration of a toe filler;

Fig. 9 illustrates the same as first applied to the toe of the slipper;

Fig. 10 indicates the excess material resulting from conforming the filler to the toe of the slipper preparatory to trimming;

Fig. 11 shows the same after trimming;

Fig. 12 is a pattern for toe stiffening material;

Fig. 13 illustrates the same applied to the slipper;

Fig. 14 is a pattern for another layer of toe stiffening material;

Fig. 15 illustrates the same applied to the slipper;

Fig. 16 shows the inner lining (Fig. 5) of the slipper cemented thereto;

Fig. 17 represents the same after the material of the upper has been stitched to the outsole; and in

Fig. 18 the slipper has been turned and relasted.

Referring to Figs. 1 and 2 of the drawings, it will be observed that the ballet slipper of my invention comprises an upper made of a forward portion 2, and a heel portion 4, sewed to an outsole 6, in the customary manner, but the toe portion 8, and sole portion 10 adjacent thereto are made of a material different from the balance of the upper. Considered in one aspect, my invention resides in the provision of a toe slipper capable of long wear, and for this purpose the toe portion 8 is made of a material especially adapted for long wear. I find that calf suede is most suitable, because it has a rough surface which prevents slipping and yet which does not retard turns. Kid suede is also suitable. These materials may be obtained in the proper color to match the satin of the upper. A smoothly finished leather may be used but is not so suitable because it chips and shows wear.

Considered in another aspect, my invention consists in a new technique for making ballet slippers, in accordance with which all of the material at the toe portion, as well as at the balance of the slipper, is patterned to take the desired shape without folds or plaits of any kind, and while this technique may be applied to slippers made of any material, it is particularly applicable to the long wearing slipper here illustrated because of the difficulty which would be encountered in an attempt to fold and plait the leather toe portion of the slipper.

It is customary to provide ballet slippers with intermediate, as well as, inner linings. In accordance with one feature of my invention, the desirable patterning and necessary handling of the material of the slipper is greatly simplified by preliminarily backing the satin material from which the slipper is to be made with the intermediate lining. This intermediate lining is preferably a fleecy cloth which is permanently gummed to the back of the satin. For the remainder of the present description it will be understood, therefore, that only one additional lining, the inner lining, need be considered.

To make a ballet slipper in accordance with my improved process, this double material is patterned as illustrated in Fig. 3 to form the forward portion 2, of the upper. The upper part of this pattern is conventional, but the lower part differs from the usual pattern in that the toe portion has been cut away along the line 12. The dotted line running through the points 14, 16, 18, 20, and 22 indicates the path of the line of stitching which will subsequently attach the toe portion 8, to the upper 2, and it will be noted that a considerable margin 24, say a quarter of an inch, is left between the stitching and the edge of the fabric.

The toe portion 8, 10 is cut according to the pattern shown in Fig. 4. If the material selected is suede, it is preferably initially backed with a strong fabric adhesively secured thereto, in order to prevent stretching of the suede. The dotted line intercon-

necting the points 14, 16, 18, 20, and 22 represents the line of stitching corresponding to that shown in Fig. 3 for securing the toe portion to the upper, and it will be noted that the minimum possible margin of material is left between the stitching and the edge of the suede. The points 14, 16, 18, 20, and 22 indicate places on the two pieces of material which are brought into coincidence when they are sewed together. It should be understood that if it is desired to adopt the process of the present invention without making the toe portion of the slipper of a material different from the upper, a suitable pattern may readily be devised which will approximate the patterns of Figs. 3 and 4 put together so that the line of stitching here indicated need be only partially employed.

Fig. 5 is a pattern for the inner lining at the forward portion of the slipper. This lining is made of the usual canvas-like material, and the upper portion of the pattern is conventional, but the lower portion differs in being suitably cut to form side portions 26 and 28, and a center portion 30, which may subsequently take the shape of the toe of the slipper without introducing folds or plaits in the material.

No patterns have been shown for the heel portion of the upper and the quarter heel lining, because these are of conventional form. In the present slipper, however, the quarter heel lining instead of being made of the usual canvas-like material is made of suede cloth in order to prevent slipping of the wheel of the dancer in the slipper.

The assembled upper in inverted condition prior to lasting is illustrated in Fig. 6. In this figure it will be observed that the fleece backed satin material for the forward and heel portions, 2 and 4, of the upper is innermost. The suede cloth quarter heel lining is shown at 32, while the lining for the forward portion of the slipper is shown at 34. The suede toe portion 8, 10 is sewed to the satin upper 2, along the line of stitching indicated in Figs. 3 and 4, and this results in the toe taking the proper toe configuration, instead of being flat in accordance with the usual practice. In fact, the patterns and sizes are so accurately worked out, that the upper in the condition shown in Fig. 6 must be forced onto the proper size of last with the aid of a shoe horn, much as is now the case when the slipper is lasted for the second time after having been turned. It should be noted that the stitching at the toe of the upper does not include the inner lining 34. That is, the side portions 26 and 28, and the center portion 30 of the inner lining are quite free from the upper at this time, and are left so until the slipper has been nearly completely assembled. The stitching of the suede toe portion 8, 10 to the upper may precede, but preferably follows the sewing together of the balance of the upper, and the detailed steps in the latter process need not be described because they are performed in the usual manner.

An appropriate last, 36, is next selected, and the outsole 6, is temporarily tacked thereto, as at 40. The inner side of the sole, marked at 38, is kept on top, and is provided with a stitch channel 39. The upper is next forced onto the last 36, and, if desired, several small tacks, 42, may be used to temporarily hold the sides of the upper to the outsole. Cuts or slits, 44, are made in the material of the upper beyond the line of stitching at the toe portion, (see Fig. 6), to permit the margin 24 to be folded smoothly back against the upper (see Fig. 7) while the remaining material is folded over against the sole of the slipper, as at 46. A suitable adhesive is applied to keep the material tightly in place.

A filler or stiffening member for the toe is next applied. This, like the various other materials already or subsequently to be described, is patterned to take the shape of the toe without folds or plaits, but in this case it is preferred to first conform the material to the toe and thereafter trim the excess material. The filler is a suitable thick material, preferably elkskin having a thickness of about one-eighth of an inch, and this is cut to the shape shown in Fig. 8. The edges are skived to taper the thickness of the filler to an even edge. The elkskin is then coated with a suitable adhesive or cement, and applied to the toe of the slipper with the point 48 uppermost, as is illustrated in Fig. 9. The dimension of the filler is made such that the point 48 overlaps the forward edge of the sole 38 with a safe margin. The filler material is shaped by hand to conform to the toe, and the excess material is confined to four diagonally opposite points, 50, which are finally pinched securely together with the aid of pliers, as is shown in Fig. 10. These points of excess material are next trimmed off, resulting in a smooth, reinforced, and padded toe, as is shown in Fig. 11.

At this point, it may be mentioned that the filler may be made large in area, and may extend over the sole near the toe until it overlaps the outsole 38, because it is made to conform to the shape of the toe, and it may be made to conform to the shape of the toe in the manner set forth, only because the upper has previously been similarly shaped. In the ordinary process in which the upper is brought to shape only by the final stitching thereof to the sole, no such patterning of the filler would be possible.

One or more layers of material may be additionally applied to the toe of the slipper to stiffen the same. In the present case, two such laminations of material are employed, each consisting of fabric of strong but relatively open weave, in order that it may be thorough-

ly impregnated or loaded with cement. The first of these layers is cut in accordance with the pattern shown in Fig. 12, and the resulting piece of material 52 is impregnated or loaded with an adhesive cement and applied to the toe of the slipper, as is indicated in Fig. 13. The cut of the pattern is such that the pieces of material 54 and 56 may be folded smoothly around the toe of the slipper, and their dimension is preferably such as to overlap the outsole 38 of the slipper.

The second piece of stiffening material is preferably cut in accordance with a different pattern, as is indicated in Fig. 14. The resulting piece of material, 58, is impregnated or loaded with cement and applied outside of the layer 52, and preferably lower than the same, as is clearly illustrated in Fig. 15, so that a gradual taper of material away from the toe of the slipper is obtained. The cut portions 60 and 62 of this layer of material are folded smoothly around the toe of the slipper as is evident from the drawings. It should be noted that the patterns are preferably made to differ from one another in the manner illustrated, so that the various seams, which result when folding the stiffening material about the toe, are staggered with relation to one another.

The toe of the slipper now having been sufficiently stiffened and boxed, the lining 34 is next cemented in place. The side portions 26 and 28, and center portion 30, are cemented smoothly in place, as is clearly evident in Fig. 16. Here again, it should be noticed that the lining preferably overlaps the forward portion of the sole 38.

The upper is now stitched to the outsole 38. Because of the patterning of each of the laminations of material at the toe portion of the slipper, the resulting thickness of material may readily be accommodated by the sewing machine which is ordinarily used to sew the upper to the rear portion of the sole. With the present method, the slipper may be applied to the machine and sewed entirely around the sole, resulting in a saving in time which reduces the cost of manufacturing the slipper tremendously, for the hand stitching heretofore employed was tedious and slow. The saving in labor at this point, alone, more than compensates for the additional cost of the suede toe and the various process steps heretofore outlined. The stitching operation locks the filler and stiffening and lining components of the upper securely to the outsole, after which, any slight excess of material above the stitches may be trimmed, leaving the slipper in the condition illustrated in Fig. 17.

The slipper is then removed from the last while still in a soft and pliable condition, and is turned so as to bring the satin or right side of the slipper outermost. The turned slipper is then relasted as is indicated in Fig. 18. During this relasting operation, considerable labor is again saved, for with the present process very little is done at this time other than to roll the sole 38 to accurately fit the last, and slightly iron and smooth the slipper particularly at the toe portion thereof to fit the last, and to smooth out any slight wrinkles and bulges which may have appeared during the turning operation. In the ordinary process, at this time it is necessary to straighten out the plaits at the toe portion of the slipper, and in this work considerable time is spent, for the plaits must be individually shaped and hammered in an attempt to overcome the natural excess bulge which the material tends to take.

The toe slipper is next removed from the last, and a shank or insole is applied thereto. This may be of the plain leather or steel reinforced types, and is cemented in place and tacked from the inside through to the outsole. The insole preferably extends to the very toe of the slipper as is indicated in dotted lines in Fig. 2, in order to stiffen the toe slipper against the weight of the dancer. To obtain the full benefit of this extension of the insole, it is desirable to lock the same against the outsole of the slipper, and for this purpose, in addition to the usual tacks which are applied from the inside of the slipper, I prefer to apply the relatively long nails 70 and 72 through the outside of the slipper, which pass through and are bent over the shank in order to securely lock the outsole and shank together. The nails 70 pass through the outsole 6, and the nails 72 pass through the suede sole portion 10, the latter nails being in a favorable location made possible by the use of suede, for the nails would tear through satin.

The slipper is again lasted, a suitable design being applied to the sole, if desired, such as that shown in Fig. 2, and the slipper is then allowed to dry and set on the last for a period of two day or more. During this time, the adhesive cement, which was liberally used in the formation of the toe of the slipper, sets thoroughly and results in a relatively rigid, stiff, boxed toe formation which is amply capable of taking the weight of the dancer in ordinary use.

The method of practicing my invention, and the many advantages thereof, will, it is believed, be apparent from the foregoing detailed description. The slipper which results from my process assumes a smooth, neat, trim shape which is not altered during use. There is no bulge at the bottom of the slipper, as is the case when the slipper is plaited, and the labor and expense incident to the formation of a plaited slipper is avoided. When the toe portion is made of wear-resisting material as suede, a slipper is obtained which is capable of indefinite wear, and yet which may be manufactured at a cost as low

as, or lower than, the cost of ordinary plaited slippers, and at a far lower cost than that of stitched toe slippers. The suede toe is joined to the satin upper without overlapping seams of any kind, so that a neat joint is obtained which does not mar the appearance of the slipper. The upper may be stitched to the sole entirely by machine, and each of the components of the upper may be stitched to the sole even though machine stitching is employed, and this results in decreased cost and increased strength in the finished slipper.

It will be apparent that while I have shown and described by invention in the preferred form, many changes and modifications may be made in the method and slipper structure disclosed without departing from the spirit of the invention, defined in the following claims.

I claim:

1. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes cutting and patterning the material of the upper at the toe and front sole portion thereof to obtain the proper enclosed or cupped toe shape without folds or plaits, placing the some in inverted condition on a last provided with an outsole which is short as aforesaid, securing the upper including the cupped toe portion thereof to the short outsole, and turning the slipper.

2. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes patterning and sewing the material of the upper including the toe and front sole portion thereof to the proper enclosed or cupped shape without folds or plaits, placing the upper with its cupped toe in inverted condition on a last provided with a channeled outsole which is short as aforesaid, stitching the upper including the cupped toe portion thereof to the outsole with a smooth continuous line of stitching and without plaits, and turning the slipper.

3. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes patterning the material of the upper at the toe and front sole portion thereof to obtain the proper shape without folds or plaits, placing the same in inverted condition on a last provided with a channeled outsole which is short as aforesaid, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, stitching the upper to the outsole, and turning the slipper.

4. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes patterning and sewing the material of the upper including the toe and front sole portion thereof to proper shape, placing the same in inverted condition on a last provided with a channeled outsole which is short as aforesaid, adding to the toe portion a thick toe filler which in the completed shoe is so patterned as to avoid excess material causing folds or plaits, stitching the upper and the filler to the outsole, and turning the slipper.

5. In the manufacture of ballet slippers, the method which includes patterning the upper and a lining therefor and stitching both to form all of the upper except the toe portion, stitching the upper independently of the lining to properly shape the toe portion thereof, placing the resulting upper in inverted condition on a last previously provided with a channeled outsole, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, cementing the patterned lining around the toe portion of the slipper, stitching the upper to the outsole, and turning the slipper.

6. In the manufacture of ballet slippers, the method which includes patterning the upper and a lining therefor and stitching both to form all of the upper except the toe portion, stitching the upper independently of the lining to properly shape the toe portion thereof, placing the resulting upper in inverted condition on a last previously provided with a channeled outsole, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, folding the previously patterned lining around the toe portion of the slipper, stitching the upper and lining to the outsole, and turning the slipper.

7. In the manufacture of ballet slippers, the method which includes patterning the upper and a lining therefor and stitching both to form all of the upper except the toe portion, stitching the upper independently of the lining to properly shape the toe portion thereof, placing the resulting upper on a last previously provided with a channeled outsole, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, cementing to the upper and filler a plurality of toe stiffening members properly patterned to fit around the toe of the slipper, cementing the patterned lining around the toe portion of the slipper, stitching the upper to the outsole, and turning the slipper.

8. In the manufacture of ballet slippers, the method which includes patterning the upper and a lining therefor and stitching both to form all of the upper except the toe portion, stitching the upper independently of the lining to properly shape the toe por-

tion thereof, placing the resulting upper on a last previously provided with a channeled outsole, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, cementing to the upper and filler a plurality of toe stiffening members properly patterned to fit around the toe of the slipper, cementing the previously patterned lining around the toe portion of the slipper, stitching the upper, intermediate material, and lining to the outsole, and turning the slipper.

9. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes preliminarily patterning the material of the upper and the lining materials at the toe and front sole portion of the slipper so as to obtain an enclosed or cupped toe shape which conforms to the toe without folds or plaits or like cause of excessive thickness, assembling said upper with a short outsole, and stitching the upper entirely around the short sole.

10. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, the method which includes patterning the material of the upper and the various filling, stiffening, and lining materials at the toe and front sole portion of the slipper so as to obtain an enclosed or cupped toe shape which conforms to the toe without folds or plaits or like cause of excess thickness, assembling said upper with a short outsole, and stitching the upper entirely around the short sole.

11. In the manufacture of ballet slippers, the method which includes patterning the upper and a lining therefor and stitching both to form all of the upper except the toe portion, stitching the upper independently of the lining to properly shape the toe portion thereof, placing the resulting upper in inverted condition on a last previously provided with a channeled outsole, adding to the toe portion a filler which in the completed shoe is so patterned as to conform thereto without folds or plaits, folding the patterned lining around the toe portion of the slipper, stitching the upper, filler, and lining entirely around the outsole, and turning the slipper.

12. In the manufacture of ballet slippers or toe shoes, the method of increasing the wear obtainable therefrom which includes making the flexible upper with a toe portion made of a flexible material adapted for long wear, performing the toe portion of the upper to give the same an enclosed or cupped toe shape before securing the same to a sole, assembling the preformed upper with an outsole, and stitching the upper entirely around the said outsole.

13. In the manufacture of ballet slippers or toe shoes, the method of increasing the wear obtainable therefrom which includes patterning the upper from pieces of material including a toe portion made of a material adapted for long wear, sewing the material of the upper including the toe portion thereof to pre-formed toe shape, placing the same in inverted condition on a last provided with an outsole, securing the upper including the toe portion to the outsole, and turning the slipper.

14. In the manufacture of ballet slippers comprising a satin upper and a plurality of linings therefor, the method which includes preliminarily backing the satin with an intermediate lining by gumming the same thereto, thereafter patterning and handling the satin upper and intermediate lining as a single piece of material, conforming the satin and intermediate lining to the shape of a last, and separately patterning and conforming the inner lining to the shape of the last.

15. A ballet or toe slipper comprising an upper made of flexible fabric material the toe of which is cut out and replaced by a different flexible material adapted to take long wear, said materials being so secured together at the edges of the cut out portions that the finished outer surface of the slipper is smooth and continuous.

16. A ballet or toe slipper having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, said slipper comprising an upper made of flexible fabric material the toe and adjacent sole portion of which, extending to the outsole, is cut out and replaced by a different flexible material adapted to take long wear, said materials being so secured together at the edges of the cut out portions that the finished outer surface of the slipper is smooth and continuous.

17. A ballet slipper having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, comprising a fabric upper the toe and adjacent sole portion of which is cut out and replaced by a flexible material adapted to take long wear, the said upper and toe portion being suitably cut and patterned to take the shape of the toe of the slipper without folds or plaits.

18. A ballet slipper having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, comprising an upper patterned to take the shape of the toe without folds or plaits, a filler patterned to conform to the toe of the slipper without folds or plaits, an inner lining patterned to conform smoothly to the toe of the slipper, and an outsole to which the upper is stitched.

19. A ballet slipper having an outsole terminating a substantial distance short of the

toe of the slipper in the conventional manner, comprising an upper patterned to take the shape of the toe without folds or plaits, a filler patterned to conform to the toe of the slipper without folds or plaits, a plurality of toe stiffening members properly patterned to fit smoothly around the toe of the slipper, an inner lining patterned to conform smoothly to the toe of the slipper, and an outsole to which the upper is stitched.

20. A ballet slipper comprising an upper and intermediate lining suitably patterned to take the shape of the last without folds or plaits, a filler suitably patterned to conform to the toe of the slipper without folds or plaits, a plurality of toe stiffening members properly patterned to fit smoothly around the toe of the slipper, an inner lining also properly patterned to conform smoothly to the toe of the slipper, and an outsole to which all of the aforesaid components are stitched.

21. A ballet slipper comprising an upper the toe and adjacent sole portion of which is cut out and replaced by a material adapted to take long wear, the said upper and toe portion being patterned to take the shape of the toe of the slipper without folds or plaits, a filler patterned to conform to the toe of the slipper without folds or plaits, a lining patterned to conform smoothly to the toe of the slipper, and an outsole to which the upper is stitched.

22. A ballet slipper comprising a satin upper the toe and adjacent sole portion of which is cut out and replaced by suede in order to take long wear, the said satin upper and toe portion being patterned to take the shape of the toe of the slipper without folds or plaits, a filler patterned to conform to the toe of the slipper without folds or plaits, a plurality of toe stiffening members patterned to fit smoothly around the toe of the slipper, an inner lining also patterned to conform to the toe of the slipper, and an outsole to which one or more of the aforesaid components are stitched.

23. A ballet slipper comprising a satin upper the toe and adjacent sole portion of which is cut out and replaced by a material adapted to take long wear, the said satin upper and toe portion being patterned to take the shape of the toe of the slipper without folds or plaits, filler and stiffening members patterned to fit smoothly around the toe of the slipper, an inner lining the quarter heel lining of which is made of suede cloth to prevent heel slippage, and an outsole to which the upper is stitched.

24. A ballet or toe slipper formed without conventional folds or plaits at the toe portion thereof, said slipper comprising an upper made of flexible material the toe portion of which is cut away, and leather wear resisting material stitched to the lower edge of said upper around the cut-away toe portion of the slipper and along the sole of the slipper, thereby forming a leather sole and a leather wear resisting toe which are in contiguous relation.

25. A ballet or toe slipper formed without conventional folds or plaits at the toe portion thereof, said slipper comprising an upper made of flexible material the toe portion of which is cut away, wear resisting material stitched to the lower edge of said upper around the cut-away toe portion of the slipper and along the sole of the slipper, and a relatively rigid insole mounted inside of the slipper and extending forwardly to the toe, and securing means driven through the insole and wear resisting material to lock the same together.

26. A ballet or toe slipper formed without conventional folds or plaits at the toe portion thereof, said slipper comprising an upper made of flexible material the toe portion of which is cut away, wear resisting material turn-stitched to the lower edge of said upper around the cut-away toe portion of the slipper and along the sole of the slipper, said materials being so secured together at the edges of the cut away toe portion that the finished outer surface of the toe portion is smooth and continuous, and an insole mounted inside of the slipper.

27. A ballet or toe slipper formed without conventional folds or plaits at the toe portion thereof, said slipper comprising an upper made of flexible material the toe portion of which is cut away, leather wear resisting material machine-stitched in inverted or turned condition to the lower edge of said upper around the cut-away toe portion of the slipper and along the sole of the slipper, and a relatively rigid insole mounted inside of the slipper.

28. A ballet or toe slipper formed without conventional folds or plaits at the toe portion thereof, said slipper comprising an upper made of flexible material the toe portion of which is cut away, leather wear resisting material machine-stitched in inverted or turned condition to the lower edge of said upper around the cut-away toe portion of the slipper and along the sole of the slipper, a relatively rigid arch supporting insole cemented inside of the slipper and extending fully to the toe thereof, and nails driven through the leather wear resisting material and the insole at a point near the toe of the slipper to additionally lock the same together.

29. The method of making a ballet or toe slipper, which includes forming a flexible upper the toe portion of which is cut away, stitching wear resisting material to the lower edge of the upper around the cut-away toe portion of the slipper and also along the sole portion of the slipper while the slipper and wear resisting material are in inverted condition, thereafter turning the slipper, and

finally mounting an insole within the slipper.

30. The method of making a ballet or toe slipper which is provided with wear resisting material at the toe portion thereof and which has no folds or plaits of conventional type at the said toe portion, which includes patterning, cutting out, and stitching a flexible upper the toe portion of which is cut away, machine-stitching wear resisting material to the lower edge of the upper around the cut-away toe portion of the slipper and also along the sole portion of the slipper while the slipper and wear resisting material are in inverted condition, thereafter turning the slipper, and finally mounting an insole within the slipper.

31. The method of making a ballet or toe slipper which is provided with wear resisting material at the toe portion thereof and which has no folds or plaits of conventional type at the said toe portion, which includes patterning, cutting out, and stitching a flexible upper the toe portion of which is cut away, machine-stitching leather wear resisting material to the lower edge of the upper around the cut-away toe portion of the slipper and also along the sole portion of the slipper while the slipper and leather material are in inverted condition, thereafter turning the slipper, and finally mounting a relatively rigid arch supporting insole within the slipper.

32. A ballet or toe slipper comprising a leather outsole terminating a substantial distance short of the toe of the slipper, and an upper the toe portion of which is so cut or shaped as to obtain an enclosed or cupped toe shape without folds or plaits or like cause of excessive thickness, said upper being made of fabric but including leather wear resisting material secured to the fabric at the toe portion of the slipper and along the sole of the slipper at the forward end of the aforesaid short outsole, thereby forming leather wear resisting toe and sole portions which are in contiguous relation.

33. A ballet or toe slipper comprising an outsole terminating a substantial distance short of the toe of the slipper, and an upper made of flexible material which is so patterned at the toe and front sole portion as to obtain an enclosed or cupped toe shape which conforms to the toe without folds or plaits or like cause of excessive thickness, the upper being made of fabric, but the exposed toe and front sole portion thereof being made of a different flexible material especially adapted to take long wear, said different upper materials being so secured together that the finished outer surface of the slipper is relatively smooth and continuous.

34. In the manufacture of ballet slippers having an outsole terminating a substantial distance short of the toe of the slipper in the conventional manner, and leather wear resisting material on the toe and front sole portion thereof, the method which includes preliminarily patterning the fabric and leather materials of the upper at the toe and front sole portion of the slipper so as to obtain an enclosed or cupped toe shape which conforms to the toe without folds or plaits or like cause of excessive thickness, applying said upper materials to a last and there assembling the same with a short outsole, and then securing said outsole to the upper.

Signed at New York, in the county of New York and State of New York, this 14th day of April, A. D. 1930.

SALVATORE CAPEZIO.