United States Patent [19]

Harkness

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[54] **BALLET SLIPPER**

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[52] **U.S. Cl.** ..... **36/2.5 AE**

[51] **Int. Cl.** **A43b 00/00**

[58] **Field of Search** ..... 36/2.5 R, 2.5 AE, 2.5 AF, 36/32 R, 3 R, 3 B, 59 R

[56] **References Cited**

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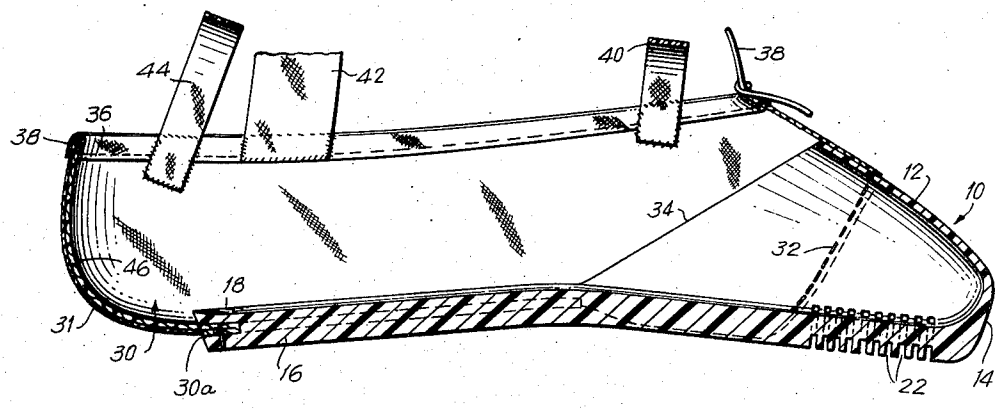
Primary Examiner—Patrick D. Lawson

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[57] **ABSTRACT**

There is disclosed a ballet slipper consisting of two main parts — a fabric upper and a plastic foot support. The plastic foot support is substituted for the conventional last and serves the additional function of replacing the stiffening material which is usually provided in the toe of a ballet slipper. If the plastic has the same color as the upper, there is no need to cover the toe of the slipper with fabric; in such a case, the ballet slipper can have an extraordinarily long life.

10 Claims, 5 Drawing Figures



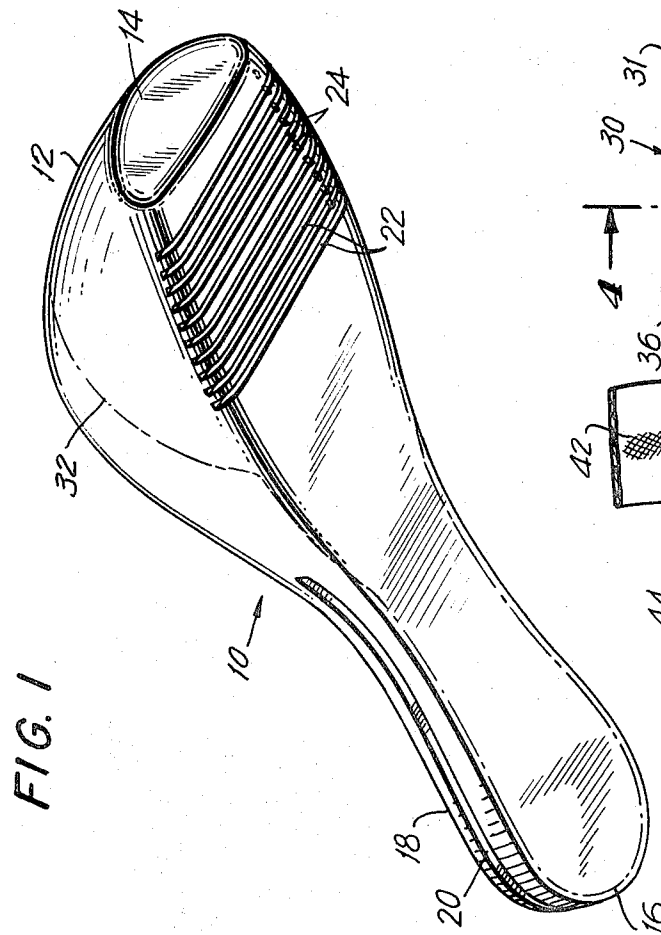

14
12
24
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18
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16

FIG. 1

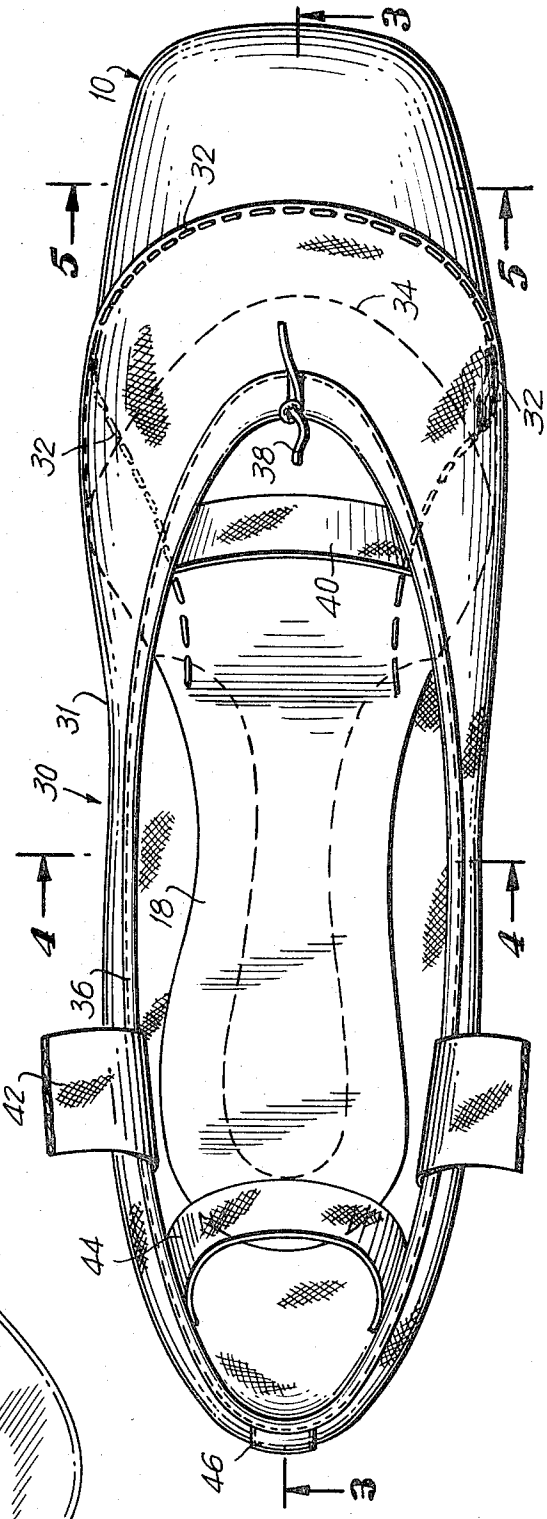

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46
3

FIG. 2

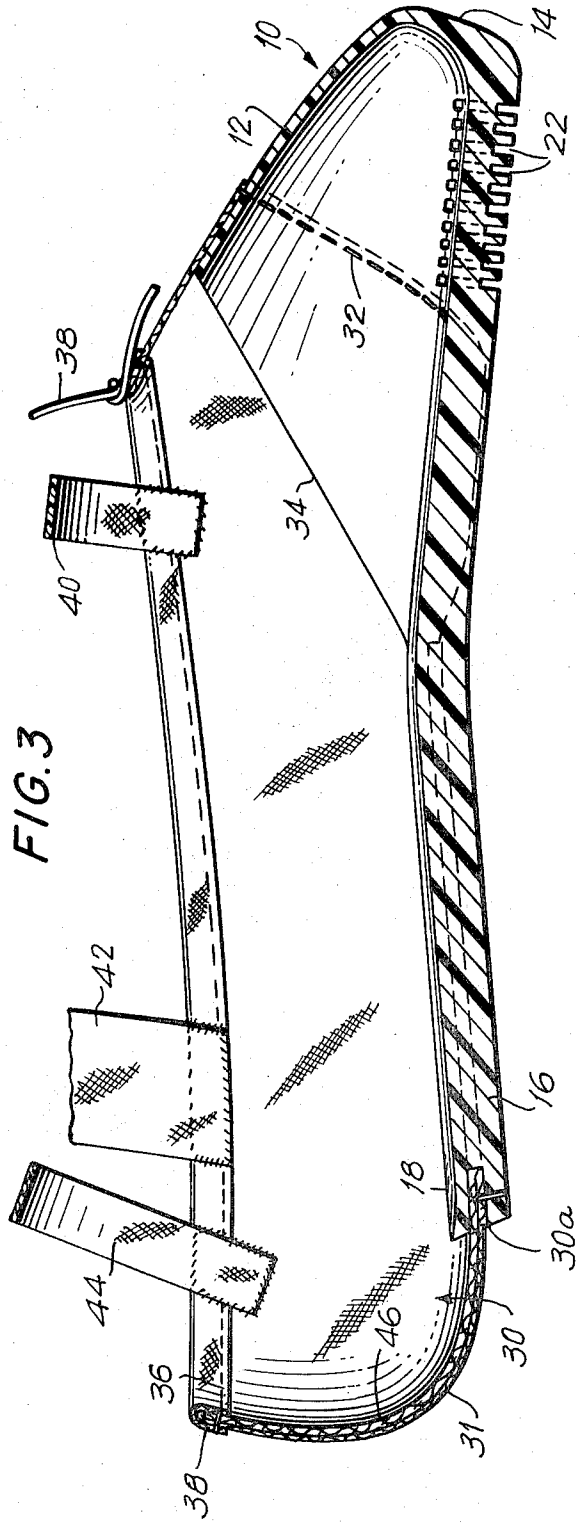


FIG. 3

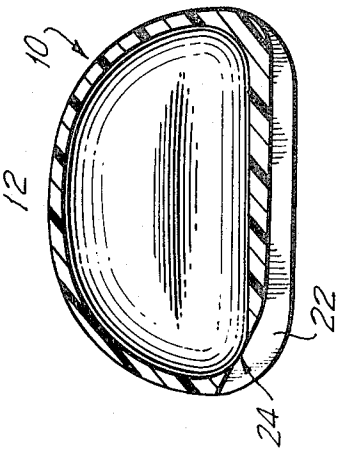


FIG. 5

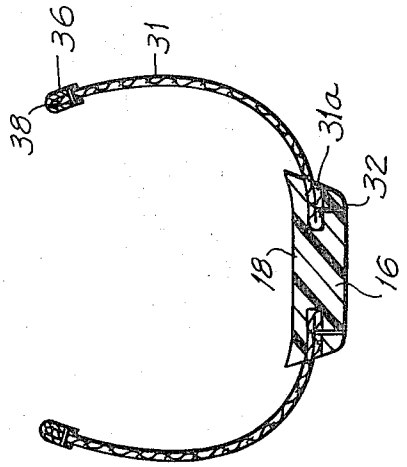


FIG. 4

BALLET SLIPPER

This invention relates to ballet slippers, and more particularly to ballet slippers which do not exhibit the disadvantages of the conventional leather-last prior art constructions.

The art of making ballet slippers is well developed and numerous advances have been made during the course of many years. The constructions of ballet slippers have been disclosed in many prior art patents, such as U.S. Pat. No. 1,891,022 issued to Salvatore Capezio on Dec. 13, 1932. As disclosed in this patent, the conventional slipper consists of several major parts which are sewn together. Included among them are a leather last, a fabric "upper" and a piece of reinforcing material which functions as a toe stiffener. To make a typical prior art ballet slipper there is required a considerable amount of manual labor.

There are many problems with prior art type ballet slippers; while such problems have been recognized, solutions to them have not been forthcoming. For example, prior art slippers have been known to snap while dancers are on their toes, as a result of the leather last being insufficiently flexible. Prior art slippers, despite the considerable effort required to make them, do not really provide maximum support for a dancer because in the usual case a ballet slipper is not built with the foot dimensions of a particular dancer in mind. But the main disadvantage of prior art ballet slippers is that the fabric on the toe becomes abraded during a performance; it is not unusual for a dancer to wear out two or even three pairs of ballet slippers during a single performance. It is also known that as the toe fabric shreds during the course of a performance, the yarn ends can catch on splinters in the floor, and can lead to injuries.

It is a general object of my invention to provide a ballet slipper which overcomes the aforesaid disadvantages of the prior art.

Briefly, in accordance with the principles of my invention, I provide a plastic base section for a ballet slipper. This section replaces the prior art leather last and toe stiffener. To the top of the plastic base there is sewn a fabric upper, the upper including a conventional lining, edge tape and tie string.

In the preferred embodiment of the invention, the fabric upper does not cover the snub-nosed toe of the plastic base section. The plastic is of the same color as the fabric and thus, at least from a distance, the ballet slipper looks no different from a conventional slipper. The use of the plastic base overcomes the disadvantages of the prior art. The plastic is less prone to snap than a conventional leather last, and because there is no fabric over the toe which can become abraded so that it can catch in wood splinters, the slipper is safer to use. The reduced number of component parts makes the slipper relatively easy to construct. Because the plastic piece can be molded, by making an individual mold for a dancer all slippers for that dancer can be designed with individual foot dimensions in mind. But perhaps most important is the fact that because there is no fabric over the toe which can be worn away, the same pair of slippers may be used for many performances.

It is a feature of my invention to provide a plastic base section in lieu of the conventional leather last and toe stiffener to be found in prior art ballet slippers.

Further objects, features and advantages of my invention will become apparent upon consideration of the following detailed description in conjunction with the drawing, in which:

FIG. 1 is a bottom perspective view of the plastic base section of my invention;

FIG. 2 is a top plan view of a ballet slipper constructed in accordance with the principles of my invention;

FIG. 3 is a sectional view through the line 3—3 of FIG. 2;

FIG. 4 is a sectional view through the line 4—4 of FIG. 2; and

FIG. 5 is a sectional view through the line 5—5 of FIG. 2.

The plastic base section **10** of FIG. **1**, designed for the right foot of a dancer, is a unitary piece of plastic such as polyvinylchloride, and preferably the piece is molded in accordance with the foot measurements of a particular dancer. The base includes a forward section **12** into which the toes of the dancer fit, this section terminating in a snub-nosed toe **14.** All around the rear half of the base section, there is a groove **20,** seen most clearly in FIGS. **1** and **4.** The bottom **16** of the plastic base bears against the floor, while the foot of the dancer is actually supported by the upper section **18** of the base.

At the forward lower end of the base section there is provided a plurality of grooves **22,** seen most clearly in FIGS. **1** and **3.** The resulting ridges at the forward end of the slipper prevent sliding. As shown in FIGS. **1** and **5,** on one side of the slipper holes **24** are provided from the grooves through the plastic base. These holes are for "breathing" and provide greater comfort to the dancer. Similar holes can be provided on the other side of the grooves, and even along parts of the plastic base section, e.g., along upper section **12.**

Surface **18** which supports the dancer's foot slopes slightly inwardly from each side, as seen most clearly in FIGS. **3** and **4,** to conform to the foot dimensions. The walls of the plastic base section are of various thicknesses depending on the functions to be performed by each part of the slipper. For example, the base portion (sections **16** and **18**) is thick enough to allow the slipper to flex without breaking, while the toe enclosing portion **12** is thinner since it must provide a lesser support function.

The fabric upper is shaped so that when it is placed on the plastic base section, it extends past sloping edge **34** of the base section but not all the way to the snub-nosed toe **14.** The upper **30** includes two sides **31** as seen most clearly in FIG. **4.** At the lower end of each side, the material is folded and inserted into the groove **20,** as shown by the numeral **31***a*. The fabric upper is secured to the plastic base section by a continuous stitch line **32** which starts on the toe section **12** and slopes downward and rearward on each side of the slipper. The stitching then continues along the lower edge of each side of the plastic base with the fabric material still being on the outside of the base. However, at approximately the center of the base section, the fabric is tucked into the groove **20.** At this point, the stitching extends along the lower surface **16** of the slipper and goes through the lower surface **16** of the base section to be folded edges **31***a* as seen most clearly in FIG. **4.** The stitch lines **32** are shown dotted in FIGS. **2** and **3.** They are also shown in FIG. **1,** even though this figure

does not illustrate the fabric, in order that the continuous stitch line be understood most clearly.

As seen in FIGS. **2** and **3**, at the top of the fabric upper there is provided a conventional folded tape **36**, in which there is contained a tie string **38**. Conventional elastic bands **40** and **44** are also provided as is known in the art. Standard laces **42** are also sewn to the fabric upper. As seen in FIGS. **2** and **3**, at the rear of the fabric upper a strip of stiffening material **46** may be provided. Also, although not shown in the drawing, the fabric upper may be lined as is known in the art. For the most part, the construction of the fabric upper is along conventional lines, although the bottom of the fabric is shaped so that it can be sewn along an edge as shown by the stitch line **32**.

One of the striking advantages of the invention is the simplicity of construction. The conventional leather last and toe stiffener are not required nor is there any need for an inner sole. (For greater comfort, a foam rubber inner sole may be placed along base section **18** of the slipper when it is worn by a dancer.) Not only is it easier to make the lower portion of a ballet slipper by using a plastic base, but by so doing ridges can be provided without requiring any additional steps in order to prevent sliding, and breathing holes may be provided at the same time. Also, after a mold is taken of the foot of an individual dancer, all ballet slippers made with that mold will conform perfectly to the shape of the dancer's foot.

Although, if desired, fabric may be provided even over the snub-nosed toe of the base section, it is not necessary to extend the fabric over the front of the plastic base section in order to provide an aesthetically pleasing ballet slipper. If the plastic has the same color as the fabric, it is very difficult for an audience to discern that the toe portion of the ballet slipper is not actually covered with fabric. Furthermore, by not covering the toe, not only are there no ragged edges which may catch on floor splinters, but also the same pair of ballet slippers may be used for numerous performances.

Although the invention has been described with reference to a particular embodiment, it is to be understood that this embodiment is merely illustrative of the application of the principles of the invention. Numerous modifications may be made therein and other arrangements may be devised without departing from the spirit and scope of the invention.

What I claim is:

1. A ballet slipper comprising a unitary plastic base having a foot supporting section and a toe enclosing section, said toe enclosing section including a toe having an external snub-nosed shape and an internal configuration conforming to the toe dimensions of a dancer, and a fabric upper secured to said plastic base.

2. A ballet slipper in accordance with claim **1** wherein said fabric upper terminates above said snub-nosed shaped toe so that said snub-nosed shape toe is visible, and said plastic and said fabric upper are of the same color.

3. A ballet slipper in accordance with claim **2** wherein the forward lower surface of said plastic base has ridges thereon for preventing sliding on a floor by a dancer wearing the slipper.

4. A ballet slipper in accordance with claim **2** wherein a plurality of ventilation holes extend through said plastic base.

5. A ballet slipper in accordance with claim **2** wherein the rear section of said plastic base includes a groove along the sides thereof for containing an edge of said fabric upper.

6. A ballet slipper in accordance with claim **5** wherein said fabric upper is secured to said plastic base by stitching along an edge thereof.

7. A ballet slipper in accordance with claim **1** wherein the forward lower surface of said plastic base has ridges thereon for preventing sliding on a floor by a dancer wearing the slipper.

8. A ballet slipper in accordance with claim **1** wherein a plurality of ventilation holes extend through said plastic base.

9. A ballet slipper in accordance with claim **1** wherein the rear section of said plastic base includes a groove along the sides thereof for containing an edge of said fabric upper.

10. A ballet slipper in accordance with claim **9** wherein said fabric upper is secured to said plastic base by stitching along an edge thereof.

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