SHOE STRAPPING SYSTEM

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ABSTRACT

A strapping system for a split sole ballet shoe having an elastic arch includes at least one elongated strap having first and second ends connected with the shoe upper on opposite sides of the upper. At least one strap end is removably connected with the upper via a fastening assembly including a fastener. A plurality of connectors is provided in longitudinally spaced relation on the upper so that the strap fastener may be connected with a selected connector to adjust the strap and comfortably retain the shoe on the foot of the wearer.
SHOE STRAPPING SYSTEM

[0001] This application is a continuation-in-part of application Ser. No. 13/419,046 filed Mar. 13, 2012.

BACKGROUND OF THE INVENTION

[0002] A ballet shoe must conform to the configuration of a dancer’s foot during dance movements and the shoes are designed to achieve the best possible fit in the foot’s shortest position such as when the toes are brought closest to the heel and the foot is arched. The shoe arch and the flexibility of the materials built into the arch of a ballet or dance shoe are always working together to achieve this optimum fit. However, the arch construction and materials can cause issues with other areas of the shoe that are stretching in an opposing direction and straps are needed to either keep the shoe on the dancer’s foot, to allow the foot to expand and retract in directions opposite the arch, or to keep the shoe from buckling or wrinkling in undesirable locations of the shoe. Ballet dancers are always trying to achieve clean lines and a pronounced arch is one goal in ballet dancing. However, wrinkling, bunching or excess fabric anywhere within the shoe is undesirable and presents an unclean look. It is often difficult to achieve clean lines and a pronounced arch because of the musculoskeletal differences between dancers and between the dancer’s feet.

[0003] Ballet shoes use an ankle instep strap that is typically made of elastic material and is attached to the shoe in a variety of fashions. In some instances, a plurality of straps is provided for each shoe to retain the shoe on the dancer’s foot and keep it in place during dance movements. The straps are either pre-sewn to the shoe or are packaged with the shoe for attachment according to the desires of the wearer.

BRIEF DESCRIPTION OF THE PRIOR ART

[0004] The conventional manner for fastening an ankle strap to a ballet shoe is by stitching the strap to the upper edges of the shoe. Variations in the locations where the straps are connected with the shoe and in the width and thickness of the straps present a variety of obstacles to obtaining an optimum fit of the shoe to the dancer’s foot. Thus, a dancer must try on various shoes in order to find the shoe with the best fit. In addition, in order to alter the fit of the shoe, a dancer may need to detach one end of a strap from the shoe and re-attach it in a different location to improve the fit or accommodate growth of the foot over time. Changing the location of the pre-attached straps may permanently damage the shoe or the user may fasten the strap in the wrong location which prohibits the shoe from being worn properly.

[0005] Thus, there is a need for a ballet shoe having adjustable straps so that the shoe can be properly fitted to the dancer’s foot for improved comfort and performance.

SUMMARY OF THE INVENTION

[0006] Accordingly, it is a primary object of the invention to provide a ballet shoe strapping system including at least one elongated strap having a first end connected with one side portion of the upper of a shoe and a second end connected with a side portion of the shoe upper opposite the portion where the first strap end is connected. Preferably, at least one of the strap ends is removably connected with the shoe upper via a fastening assembly. The fastening assembly includes a plurality of connectors such as button holes arranged in spaced relation on the shoe upper and at least one fastener connected with the strap at or adjacent to the end of the strap. The fastener is removably connected with a selected connector in order to adjust the strap and comfortably retain the shoe on the foot of the wearer. The strap is preferably formed of elastic material and is also adjustable in length.

[0007] In one embodiment, the connectors are recesses such as through openings in the edge of the shoe upper, and the fastener is a button which passes through one of the openings for retention in the shoe upper. The fastener may also be a snap which is snap fit within a recess in the shoe upper.

[0008] In an alternate embodiment, the connectors are loops or eyelets connected with the upper and the fastener is a hook having an end portion which passes through one of the loops for retention on the shoe upper.

[0009] The connectors are preferably provided within an upper edge of the shoe upper and are spaced longitudinally along at least one upper side portion of the upper. A plurality of straps may also be provided, with each strap being adjustable connected with the shoe to provide a custom fit of the shoe to the wearer’s foot.

BRIEF DESCRIPTION OF THE FIGURES

[0010] Other objects and advantages of the invention will become apparent from a study of the following specification when viewed in the light of the accompanying drawing, in which

[0011] FIG. 1 is a front perspective view of a ballet shoe including the strapping system according to the invention;

[0012] FIGS. 2 and 3 are medial and lateral plan views, respectively, of the ballet shoe of FIG. 1;

[0013] FIGS. 4 and 5 are top and bottom plan views, respectively, of a ballet shoe including the strapping system according to the invention;

[0014] FIGS. 6 and 7 are front and rear plan views, respectively, of a ballet shoe including the strapping system according to the invention;

[0015] FIG. 8 is a detailed view of the fastener for the strapping system according to the invention; and

[0016] FIG. 9 is a detailed view illustrating an alternate fastener for the strapping system according to the invention.

DETAILED DESCRIPTION

[0017] Referring to FIGS. 1-7, there is shown an article of footwear such as a ballet shoe 2 having a longitudinal axis, a sole 4, typically of leather, and an upper 6 formed of a flexible, soft, fabric material. The shoe has a toe portion, a heel portion, and an arch portion between the toe and heel portions. The sole can be unitary in the form of a full sole or formed in one or more sections to define a split sole. FIG. 5 shows a split sole shoe including one section beneath the toe and ball portion of the foot and a second section under the heel portion. Between the toe and heel sections of the split sole is an arch section 7. An opening 8 in the top of the shoe upper is provided to receive the foot of the wearer such as a dancer. Surrounding the opening is a stitched reinforcement lip or edge 10. A drawstring (not shown) is preferably included in the lip 10 of the upper.

[0018] The upper may be formed of leather, polyurethane, soft fabric, stretch, mesh or other fabric material. The arch section 7 is formed of a stretch material that is cut so that the arch expands and retracts during dance movements. More particularly, the arch retracts when the dancer is pointing and
expands when the dancer is standing flat. The lip 10 of the upper serves as a binding for the ballet shoe. It can be formed of either elastic or non-elastic material and is arranged opposite the arch so that the lip is longest during point and shortest while flat.

In order to help retain the shoe on the dancer’s foot, a unique strapping system according to the invention is provided. At least one elongated strap 12 is connected with the shoe upper. In one embodiment, one end 12a of the strap is stitched to the upper adjacent to the lip as shown in FIG. 1. The stitching prevents the end 12a of the strap from being removed from the shoe. Thus, the strap end 12a is effectively permanently connected with the shoe. The strap may be in the form of a ribbon or other relatively broad, flat configuration which comfortably passes over the top of the foot as shown in FIGS. 1 and 4. Alternatively, the strap is formed of an elastic material. The free end 12b of the strap includes a fastener 14.

The portion of the shoe upper 6 opposite the portion where the strap end 12a is stitched to the shoe contains a plurality of recesses which are preferably through openings 16. As shown in FIGS. 2 and 3, the openings are preferably arranged in the shoe upper just beneath the lip 10 adjacent to the opening 8 in the top of the upper. The openings are preferably spaced longitudinally and cooperate with the fastener 14 at or near the end of the strap to fasten the strap to the shoe in a selected location. In this manner, the user of the shoe can loosen or tighten a strap by selecting the opening 16 with which the fastener is to be connected.

It will be readily apparent that the end 12a of the strap that is permanently connected with the shoe upper may be connected with either side of the upper adjacent to the opening 8, with the free end of the strap removable connected with the other side of the upper via a fastener. Preferably, the strap is permanently connected with the medial side of the shoe upper and removable connected with the lateral side. In an alternate embodiment, fasteners can be connected with both ends of the strap so that each end is removable connected with the upper. This increases the versatility of the strapping system and provides an optimum fit of the shoe to the wearer’s foot. In addition, while the fasteners are preferably arranged at the ends of the straps, they may be adjustable positioned along the strap length to further adjust the snugness with which the strap is connected with the shoe according to the preferences of the wearer.

While the strapping system works adequately with a single strap, it is preferable to provide a plurality of straps 12 as shown in FIG. 1. Each strap has one end sewn to the shoe upper and a fastener at the free end which is connected with a recess or opening in the opposite instep side of the upper. The straps can be connected with the same opening 16 or with different openings as desired by the user to provide the optimum fit, comfort and retention properties. In a preferred embodiment, multiple straps are provided and both ends of each strap include fasteners which are removable connected with the shoe upper.

The fastener can take any number of forms. In the embodiment shown in FIGS. 1-8, the fastener 14 is a button which can fit through a selected opening 16 which is in the form of a button hole. The button hole allows the strap button to be removable connected with the shoe upper for adjustment. The fastener may also take the form of a snap including a prong (not shown) which engages a recess configured to match the configuration of the prong to provide a snap fit connection.

Referring now to FIG. 9, an alternate fastener 114 is shown. In this embodiment, the fastener 114 is in the form of a metal or synthetic plastic hook including an extension portion 114a which is inserted into a loop 116 or eyelet arranged within the lip 110 of the shoe upper. A plurality of loops is provided in spaced relation along the upper edge of the upper. In order to improve the appearance of the shoe, the loops are provided on the interior surface of the shoe upper beneath the lip. Thus, the loops and straps are not visible from the outside of the shoe. The fasteners 114 include an opening 114b for receiving the second end 112b of each strap 112. The length of the strap can be adjusted by adjusting the position of the fastener opening 114b relative to the strap.

The straps 12 are preferably formed of an elastic material such as nylon but may also be in the form of any taping, webbing or suitable strapping material such as ribbons. Because of the various differences between dancer’s feet, the straps must accommodate different variances of foot length during point and while flat. The adjustability of the elastic arch 7 becomes important to keep the foot snug in the shoe and to accommodate the different position of the foot for dance movements. The straps are adjusted and positioned to achieve a proper fit which is complementary to the arch fit and aesthetic. The adjustability of the elastic straps accounts for differences in body stature, foot width and instep height which all affect the fit of the shoe.

It should be noted that the entire ballet shoe 2 does not have to be elastic or stretchable. It is the combination of the adjustable strapping system and the elastic arch that creates most viable clean, wrinkle-free fit.

The split sole also works with the elastic arch and adjustable elastic straps for optimum fit. A full sole does not work as well because it prevents the arch from stretching. A split sole, where the forepart is separate from the heel, is the preferred embodiment of the arch/strapping system combination.

While the invention has been described for use in connection with a ballet shoe, the strapping system described above may also be used in other types of dance shoes including split sole and full sole shoes. The sole can be formed of suede, polyurethane, leather, or synthetic rubber and the upper can be formed of leather, canvas, or of an elastic material such as nylon or spandex. Suitable binding materials include elastic, cotton, and nylon.

While the preferred forms and embodiments of the invention have been illustrated and described, it will be apparent to those of ordinary skill in the art that various changes and modifications may be made without departing from the inventive concepts set forth above.

What is claimed is:

1. A shoe strapping system, comprising
(a) a ballet shoe having a longitudinal axis and including a flexible upper, spaced sole portions, and an elastic arch section connected with said upper and extending between said sole portions;
(b) at least one elongated strap having first and second ends connected with said shoe upper at opposite side portions thereof;
(c) a fastening assembly for removably connecting at least one of said strap ends with the shoe upper, said fastening assembly including
   (1) a plurality of connectors arranged in spaced relation on the shoe upper; and
(2) a fastener connected with said strap adjacent to said strap one end, said fastener being removably connected with a selected connector to adjust the strap and accommodate the elasticity of said arch section to comfortably retain the shoe on the foot of the wearer.

2. A shoe strapping system as defined in claim 1, wherein said strap is formed of an elastic material.

3. A shoe strapping system as defined in claim 1, wherein said strap has an adjustable length.

4. A shoe strapping system as defined in claim 1, wherein said connectors comprise a plurality of recesses.

5. A shoe strapping system as defined in claim 4, wherein said recesses comprise through openings.

6. A shoe strapping system as defined in claim 5, wherein said fastener comprises a button which passes through one of said through openings and is retained in the shoe upper.

7. A shoe strapping system as defined in claim 4, wherein said fastener comprises a snap which is snap fit within said recess.

8. A shoe strapping system as defined in claim 1, wherein said connectors are connected with an upper edge of the shoe upper and are spaced longitudinally along a lateral portion of the upper.

9. A shoe strapping system as defined in claim 1, wherein said connectors comprise a plurality of loops and said fastener comprises a hook having an end portion which passes through one of said loops and which is retained on the shoe upper.

10. A shoe strapping system as defined in claim 1, wherein a plurality of straps is provided.

11. A shoe strapping system as defined in claim 1, wherein a first end of said strap is permanently connected with a medial side of the shoe upper and said strap includes a fastener adjustably connected with said strap adjacent to a second end for removably and adjustably connecting said second end with the shoe upper.