ROLL-UP SHOE

Inventors: Andrea Padilla Weisner, Encinitas, CA (US); Seth Henry Weisner, Encinitas, CA (US)

Correspondence Address:
ERIC HANSCOM
7395 PORTAGE WAY
CARLSBAD, CA 92011 (US)

Appl. No.: 12/497,674
Filed: Jul. 5, 2009

Related U.S. Application Data
Continuation-in-part of application No. 11/429,596, filed on May 8, 2006, now abandoned.

Publication Classification

Int. Cl.
A43B 3/00
(2006.01)

U.S. Cl. 36/102

ABSTRACT

A flexible shoe that can be rolled up for easy carrying is disclosed. The preferred embodiment of this invention are dancing shoes and can, optionally, be made to resemble an expensive, formal shoe a woman might wear to a wedding or other event in which she might dance, but the invention is also applicable to men's dress shoes, and shoes worn by men, women and children in any activity in which the wearer of standard shoes could develop sore feet. In a preferred embodiment, fabric extends around the entire circumference of the sole to create a ballerina type-shoe with zigzag stitching around the opening to allow for expansions and contraction.
ROLL-UP SHOE

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. patent application Ser. No. 11/429,596 filed on May 8, 2006, the entirety of which is hereby incorporated by reference.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] This invention was not federally sponsored.

BACKGROUND OF THE INVENTION

Field of the Invention

[0003] The invention generally relates to the field of footwear. More particularly, the present invention relates to a flexible shoe that can be rolled up or otherwise compressed for easy carrying. The preferred embodiment of this invention are dancing shoes and can, optionally, be made to resemble an expensive, formal shoe a woman might wear to a wedding or other event in which she might dance, but the invention is also applicable to men’s dress shoes, and shoes worn by men, women and children in any activity in which the wearer of standard shoes could develop sore feet. While a particularly preferred embodiment of this invention used as an example of the invention throughout this patent is a woman’s high heeled shoe, as these are especially uncomfortable and potentially dangerous for dancing, the invention is intended to provide an aesthetically acceptable alternative to uncomfortable shoes in any place of work, living, or entertainment where flexible, comfortable shoes would be desirable. In a preferred embodiment, fabric extends around the entire circumference of the sole to create a ballerina type-shoe with zigzag stitching around the opening to allow for expansions and contractions.

[0004] Dancing is a popular activity at many celebrations, including birthdays, charity events, school functions, formal parties, nightclubs, and weddings. For women in particular, dressing up for such events typically includes wearing fancy and expensive shoes with heels ranging anywhere from one to four inches. While these shoes are very fashionable, high-heeled shoes can be very uncomfortable to wear for extended periods of time and are not well suited for activities requiring fast-paced movement of the feet, such as dancing. Generally, when a woman wearing high-heeled shoes desires to dance at an event, she must either attempt to dance in the shoes, which can be very uncomfortable and increase risk of foot and ankle injury, or go barefoot or in her stockings, neither of which is usually a pleasant or socially desirable option. Since dance floor surfaces are frequently scuffed and dirty, sometimes even with glass and other debris, or wet from drinks being spilled or in the case of an outside setting, recently watered grass, the removal of one’s high heels to dance often leads to dirty feet or dirty and torn stockings.

[0005] Some women try to avoid the problem of dancing in high heels by bringing other shoes, such as tennis shoes or slippers, to dance in. While tennis shoes adequately solve the comfort problem, they rarely match the woman’s dress/outfit as well as the high-heeled shoes she wore into the event. Further, slippers often have similar fashion issues, while not providing the comfort and cushioning like tennis shoes. Also, bringing other shoes presents the additional problem of having to cart around an extra pair of bulky shoes to an event, which can be very inconvenient, especially if a person must leave the event to retrieve the shoes from a hotel room or car. Because the additional shoes are bulky and cannot be easily stored in a small bag or purse, if they are not placed in a readily observable location, they can be left at the event, causing added inconvenience and possibly a loss of the shoes themselves. It is also undesirable in some settings for a woman to remove her expensive, prestigious dress shoes and dance either barefoot, in tennis shoes, or in stockings.

[0006] Previous inventions have attempted to create dance shoes that are comfortable for the wearer. However, the majority of these inventions have not offered the capabilities of being stored in a small bag or purse. The few shoes that are flexible enough to fold up for storage in a small bag or purse, however, do not offer the ability to secure the shoe in the folded position. This creates a problem of the shoes unraveling or unfolding within the bag or purse, which creates more inconvenience, takes up valuable purse space, and may result in damage to the shoes.

[0007] U.S. Pat. No. 1,491,696 to Guinzburg teaches a bathing sandal with a flexible sole. It has both a toe restraining portion and a heel restraining portion.

[0008] U.S. Pat. No. 2,252,315 to Doree discloses slippers that have a front and rear sole portion with a flexible shank, which connects the two sole portions, that allows the slippers to be folded in half.

[0009] U.S. Pat. No. 4,944,099 to Davis teaches an expandable outsole with front and rear semi-rigid sole portions. These sole portions are connected together with an elastic shank. One embodiment includes a unitary upper portion, but is not connected to a single sole.

[0010] U.S. Pat. No. 5,842,290 to Mills discloses a step-in shoe cover with a sole, heal and toe portion. The portions are partially elastically connected and partially directly connected. The configuration of the elements prevents the entire step-in shoe cover from rolling up and being secured in such a position.

[0011] These references, however, fail to teach a shoe capable of being rolled up and secured in such a position for easy and quick storage. They do not disclose a portion of fabric that extends around the entire circumference of the shoe. No zigzag stitching around the fabric opening is taught to allow for the expansion and contraction of the opening to the shoe during donning and removal.

[0012] Therefore, there is a present need for a comfortable shoe that can be worn during various activities, such as dancing, that can be easily and securely rolled-up and stored within a purse or small bag when not in use.

SUMMARY OF THE INVENTION

[0013] The current invention provides just such a solution by having a flexible shoe that can be rolled up or otherwise compressed for easy carrying. The preferred embodiment of this invention are dancing shoes and can, optionally, be made to resemble an expensive, formal shoe a woman might wear to a wedding or other event in which she might dance, but the invention is also applicable to men’s dress shoes, and shoes worn by men, women and children in any activity in which the wearer of standard shoes could develop sore feet. While a particularly preferred embodiment of this invention used as an example of the invention throughout this patent is a woman’s high heeled shoe, as these are especially uncomfortable and potentially dangerous for dancing, the invention is intended to provide an aesthetically acceptable alternative to
uncomfortable shoes in any place of work, living, or entertainment where flexible, comfortable shoes would be desirable. In a preferred embodiment, fabric extends around the entire circumference of the sole to create a ballerina type-shoe with zigzag stitching around the opening to allow for expansions and contraction.

[0014] It is therefore an object of this invention to provide a shoe that can be comfortably worn for various activities, such as dancing.

[0015] It is a further object of this invention to provide a shoe that can be comfortably worn for various activities, such as dancing, that can be easily rolled-up or otherwise compressed and stored within a small bag or purse.

[0016] Another object of this invention to provide a shoe that can be comfortably worn for various activities, such as dancing, that can be secured by an accessory strap attached to the shoe but not serving a functional role by attaching the shoe to the foot of the wearer, and allowing a user to roll-up the shoe and store it within a small bag or purse.

[0017] It is still a further object of this invention to provide a shoe that can be comfortably worn for various activities, such as dancing, that can be economically and efficiently manufactured.

[0018] It is a further object of this invention to provide a fashionable shoe that can be comfortably worn with various formal wear during various activities, such as dancing, that can be secured, rolled-up and stored within a small bag or purse.

[0019] Further objects of the invention include providing a shoe which “mimics” a fashionable, expensive and classy woman’s shoe such that a woman can enter an event that has dancing, discretely slip off her high heels (or other uncomfortable shoes) and put on the roll-up version which mimics the look of the high heels and go dancing with the hope that no one will notice that she has taken off her high heels. It is envisioned that this same approach can be used with men’s shoes as well.

[0020] A further object of the invention is to provide a roll-up shoe which has flexible wires, strips, or springs embedded in the sole portion or attached to the top or bottom portion of the sole such that the shoe automatically unrolls and springs into its uncompressed shape upon a user releasing the heel strap or other means by which the rolled-up shape is maintained.

[0021] It is still yet a further object of this invention to provide a new and unique shoe to the field of footwear that can be worn for various activities and for various purposes such as exercise classes (i.e. yoga, pilates), hospital shoes for medical staff and patients alike, and weight loss clinics.

[0022] A final object of the invention is to provide a roll-up shoe that can be used multiple times and washed if the user so desires.

[0023] There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto. The features listed herein and other features, aspects and advantages of the present invention will become better understood with reference to the following description and appended claims. The accompanying drawings, which are incorporated in and constitute part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention.

**BRIEF DESCRIPTION OF THE FIGURES**

[0024] The accompanying drawings, which are incorporated in and form a part of this specification, illustrate embodiments of the invention and together with the description, serve to explain the principles of this invention.

[0025] FIG. 1 is a perspective view of a pair of roll-up shoes according to the current invention partially within a zippered purse.

[0026] FIG. 2 is a front side perspective view of a roll-up shoe according to the current invention.

[0027] FIG. 3 is a front view of the roll-up shoe.

[0028] FIG. 4 is a back view of the roll-up shoe.

[0029] FIG. 5 is a left side view of the roll-up shoe.

[0030] FIG. 6 is a right side view of the roll-up shoe.

[0031] FIG. 7 is a top view of the roll-up shoe.

[0032] FIG. 8 is a bottom view of the roll-up shoe.

**DETAILED DESCRIPTION OF THE INVENTION**

[0033] Many aspects of the invention can be better understood with the references made to the drawings below. The components in the drawings are not necessarily drawn to scale. Instead, emphasis is placed upon clearly illustrating the components of the present invention. Moreover, like reference numerals designate corresponding parts through the several views in the drawings.

[0034] FIG. 1 is a perspective view of a pair of roll-up shoes according to the current invention partially within a zippered purse. Two roll-up shoes 10 are secured in a rolled up position together using a retention strap 20. The retention strap 20 is also secured to the heel of one of the roll up shoes 10. The two roll-up shoes 10 are shown partially within a zippered purse 90. It is contemplated by the inventor that the pair of roll-up shoes can fit within the purse 90 such that the purse can be zipped shut.

[0035] Turning to FIG. 2, this figure shows a front side perspective view of a roll-up shoe according to the current invention. The shoe 10 includes a sole 40. Around the entire circumference of the sole 40 is a sidewall 30. The sidewall 30 is preferably comprised of a one continuous piece of fabric 31. This creates the appearance of a ballerina-style shoe that can be worn during semi-formal and formal occasions. The sidewall 30 is preferably secured to the sole 40 by means of stitching; however, other means of securing the sidewall 30 to the sole 40 are possible, including glue and tape.

[0036] An opening 36 is formed by the sidewall 30 that allows a user to insert a foot into the shoe. Zigzag stitching 32 is on the sidewall 30 around the circumference of the opening 36. The zigzag stitching 32 connects an elastic band 33 to the sidewall 30 and allows the opening 36 to expand and contract.

[0037] A retention strap 20 is secured to the heel of the shoe 10. The retention strap 20 preferably comprises an elastic material that allows it to wrap around the entire shoe 10 when the shoe is rolled up.

[0038] An accessory 50 can be included with the shoe, preferably attached to the front of the shoe 10 on the sidewall 30. The accessory 50, in a preferred embodiment, includes a ribbon portion 51 and a jewel portion 52. Various means of attachment can be used to secure the accessory 50 to the sidewall 30, including stitching, gluing, and taping. Other accessories are contemplated with the invention, including
brows, stickers, and metals. These accessories, however, should be of such a shape and size to continue to allow the shoe to be rolled up and secured with the retention strap 20. [0039] FIG. 4 shows a back view of the roll-up shoe. The sidewall 30 includes a heel seem 34, where the sidewall 30 is stitched to itself. Heal seam stitching 35 is used to secure the ends of the sidewall 30 together, and can optionally be used to secure the retention strap 20 (not shown in FIG. 4) to the inside of the sidewall at the heel of the shoe 10. [0040] FIGS. 3 and 5 through 8 show additional views of the roll-up shoe as described herein.

[0041] One of the unique features of the current invention is the zigzag stitching around the circumference of the opening that secures an elastic band to the sidewall. Zigzag stitching, also known as double needle stitching, is a relatively expensive compared to other types of stitching and is not commonly thought of, if at all, in these applications. Most other manufacturers of slippers and shoes, if not all, use the single needle stitch. However, the zigzag stitching allows the sidewall around the opening of the shoe to maintain a nice stretch that accommodates the wearer’s foot in a more comfortable manner. In a preferred embodiment, the zigzag stitching to secure the elastic band to the sidewall is in 5 mm x 5 mm increments.

[0042] In fact, by using zigzag stitching, the opening of the shoe is allowed to stretch more than 100%, compared to stretching of around 50% when using single needle stitching. Additionally, zigzag stitching has the added benefit of allowing the sidewall to consist of a single layer, instead of two or more. Thus, while the stitching itself may be more expensive, the overall increase in cost to produce the invention using zigzag stitching is offset by the reduced costs in fabric or other materials used to make the sidewall. A further unexpected benefit of using zigzag stitching is that one shoe can be used for each two shoe sizes. For example, a size 6 roll-up shoe will fit users with size 6 or size 7 feet. This means a single pair of roll-up shoes according to the current invention can be sold to and used by twice as many users as compared to prior art shoes.

[0043] Another unique feature of the current invention is the sole. The sole, while providing support to the user, is extremely flexible. It can be folded in half, thirds, or preferably rolled. The roll-up shoes can even be rolled in both directions, with the soles facing outward or inward after being rolled. To achieve such a result, the inventors have found that using a one-quarter inch thick sole made from 65% PVC (polyvinyl chloride), 25% resin, 7% polyester, and 3% blending agent, all measured by weight. This preferred composition results in a durable yet highly flexible sole that enables the features of the current invention.

[0044] The sole can be secured to the sidewall in various manners. Preferably, the sole is hand sewn to a cotton lining. This cotton lining is then sewn to the sidewall thereby creating the ballerina style roll-up shoe.

[0045] The sidewall should comprise a stretchable fabric. Since the zigzag stitching allows for a single layer for the sidewall, the material used for the sidewall should be durable yet stretchable. The sidewall should fit loosely around a user’s foot when the shoe is worn. As shown in the drawings, additional fabric should be included, especially around the opening, for comfort as well as for enabling the user to easily don and remove the roll-up shoe. Stretch in the sidewall not only enables a user to quickly and easily put on and take off the roll-up shoe, but also provides added comfort during use. A preferred composition of the sidewall is 95% nylon and 5% spandex.

[0046] The roll-up shoe can optionally include several flexible wires positioned within sole portion. The flexible wires are preferably comprised of plastic, metal, composite, springs, or a combination thereof. However, the flexible wires can be comprised of other flexible and durable materials as would be recognized by one with ordinary skill in the art. The wires are preferably positioned to run along the length of sole to facilitate the unrolling of the sole when the shoe is unrestrained by the retention strap. The wires can be stitched, glued, formed within, or otherwise attached within sole. The wires (or in alternative iterations, the flexible strips or springs) serve to not only open the shoe quickly and efficiently upon the release of the strap, but also to maintain a certain amount of rigidity in the shoe. These wires are important to an embodiment of the roll-up shoe where structural rigidity similar to that found in regular shoes is desired.

[0047] The roll-up shoes preferably fit within an associated purse. While various sizes are possible, it has been found that a purse that is 5.25 inches long and 4.5 inches wide includes sufficient space to hold a pair of the roll-up shoes as described in the current invention. For consistency, it is preferable to have the material of the purse to be the same or similar as that of the sidewall of the roll-up shoes.

[0048] It should be understood that while the preferred embodiments of the invention are described in some detail herein, the present disclosure is made by way of example only and that variations and changes thereto are possible without departing from the subject matter coming within the scope of the following claims, and a reasonable equivalency thereof, which claims I regard as my invention.

[0049] All of the material in this patent document is subject to copyright protection under the copyright laws of the United States and other countries. The copyright owner has no objection to the facsimile reproduction by anyone of the patent document or the patent disclosure, as it appears in official governmental records but, otherwise, all other copyright rights whatsoever are reserved.

What I claim is:

1. A roll-up shoe comprising a sole, a sidewall, and elastic band, where the sole has a circumference, where the sole is flexible, where the sidewall is secured to the sole, where the sidewall is secured around the entire circumference of the sole, where the sidewall forms an opening with a circumference, where there is an elastic band secured to the sidewall around the circumference of the opening, where the elastic band is secured to the sidewall using zigzag stitching, whereby a user can place a foot through the opening and within the sidewalls to wear the roll-up shoe, and whereby the roll-up shoe can be rolled up when not in use.

2. The roll-up shoe of claim 1, further comprising a retention strap, where the retention strap can surround and maintain the roll-up shoe in a rolled-up configuration.

3. The roll-up shoe of claim 2, wherein the retention strap is sewn to the heel of the roll-up shoe.

4. The roll-up shoe of claim 1, further comprising an accessory,
5. The roll-up shoe of claim 4, wherein the accessory comprises a ribbon and a jewel.

6. The roll-up shoe of claim 1, wherein the sidewall consists of a single piece of fabric.

7. The roll-up shoe of claim 1, wherein the sidewall comprises a heel seam, where the heel seam connects two ends of the sidewall together.

8. The roll-up shoe of claim 1, wherein the zigzag stitching is done in 5 mm x 5 mm increments.

9. The roll-up shoe of claim 1, wherein the sole comprises 65% PVC.

10. The roll-up shoe of claim 9, wherein the sole further comprises 25% resin.

11. The roll-up shoe of claim 9, wherein the sole further comprises 7% polyester.

12. The roll-up shoe of claim 9, wherein the sole further comprises 3% blending agent.

13. The roll-up shoe of claim 1, wherein the sole is sewn to a cotton lining.

14. A roll-up shoe comprising a sole, a sidewall, elastic band, and a retention strap, where the sole has a circumference, where the sole is flexible, where the sidewall is secured to the sole, where the sidewall is secured to the entire circumference of the sole;

where the sidewall forms an opening with a circumference, where there is an elastic band secured to the sidewall around the circumference of the opening, where the elastic band is secured to the sidewall using zigzag stitching,

where the retention strap can surround and maintain the roll-up shoe in a rolled-up configuration, whereby a user can place a foot though the opening and within the sidewalls to wear the roll-up shoe, and whereby the roll-up shoe can be rolled up when not in use.

15. The roll-up shoe of claim 14, wherein the retention strap is sewn to the heel of the roll-up shoe.

16. The roll-up shoe of claim 14, wherein the sidewall consists of a single piece of fabric.

17. The roll-up shoe of claim 14, wherein the sole comprises 65% PVC and 25% resin.

18. The roll-up shoe of claim 17, wherein the sole further comprises 7% polyester.

19. A roll-up shoe comprising a sole, a sidewall, elastic band, and a retention strap, where the sole has a circumference, where the sole is flexible, where the sidewall is secured to the sole, where the sidewall is secured to the entire circumference of the sole, wherein the sole comprises 65% PVC, 25% resin, and 7% polyester,

where the sidewall forms an opening with a circumference, where there is an elastic band secured to the sidewall around the circumference of the opening, where the elastic band is secured to the sidewall using zigzag stitching,

where the retention strap can surround and maintain the roll-up shoe in a rolled-up configuration, where the retention strap is sewn to the heel of the roll-up shoe,

whereby a user can place a foot though the opening and within the sidewalls to wear the roll-up shoe, and whereby the roll-up shoe can be rolled up when not in use.

20. The roll-up shoe of claim 19, wherein the sidewall consists of a single piece of fabric.

* * * * *