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(54) **CYCLING SHOE WITH COVER HAVING CLOSURE ACCESS**

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(57) **ABSTRACT**

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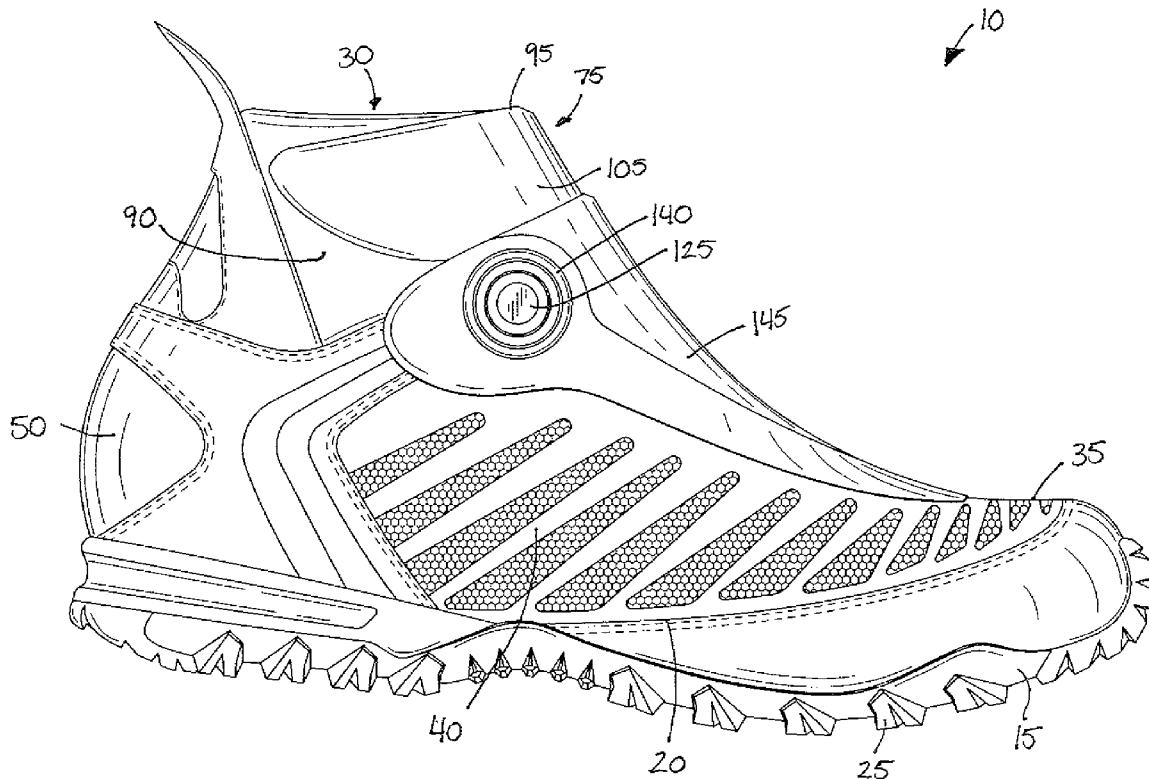
A shoe including a sole for supporting a foot and an upper coupled to the sole. The upper defines an opening for receiving the foot and includes a first side panel and a second side panel movable in relation to the first side panel. The shoe also includes a closure mechanism that is coupled between the first side panel and the second side panel, and a tightening mechanism that is engaged with the closure mechanism to selectively draw the first side panel and the second side panel closer to each other and to selectively permit the first side panel and the second side panel to move apart from each other. A cover provides access to the tightening mechanism while enclosing the closure mechanism.

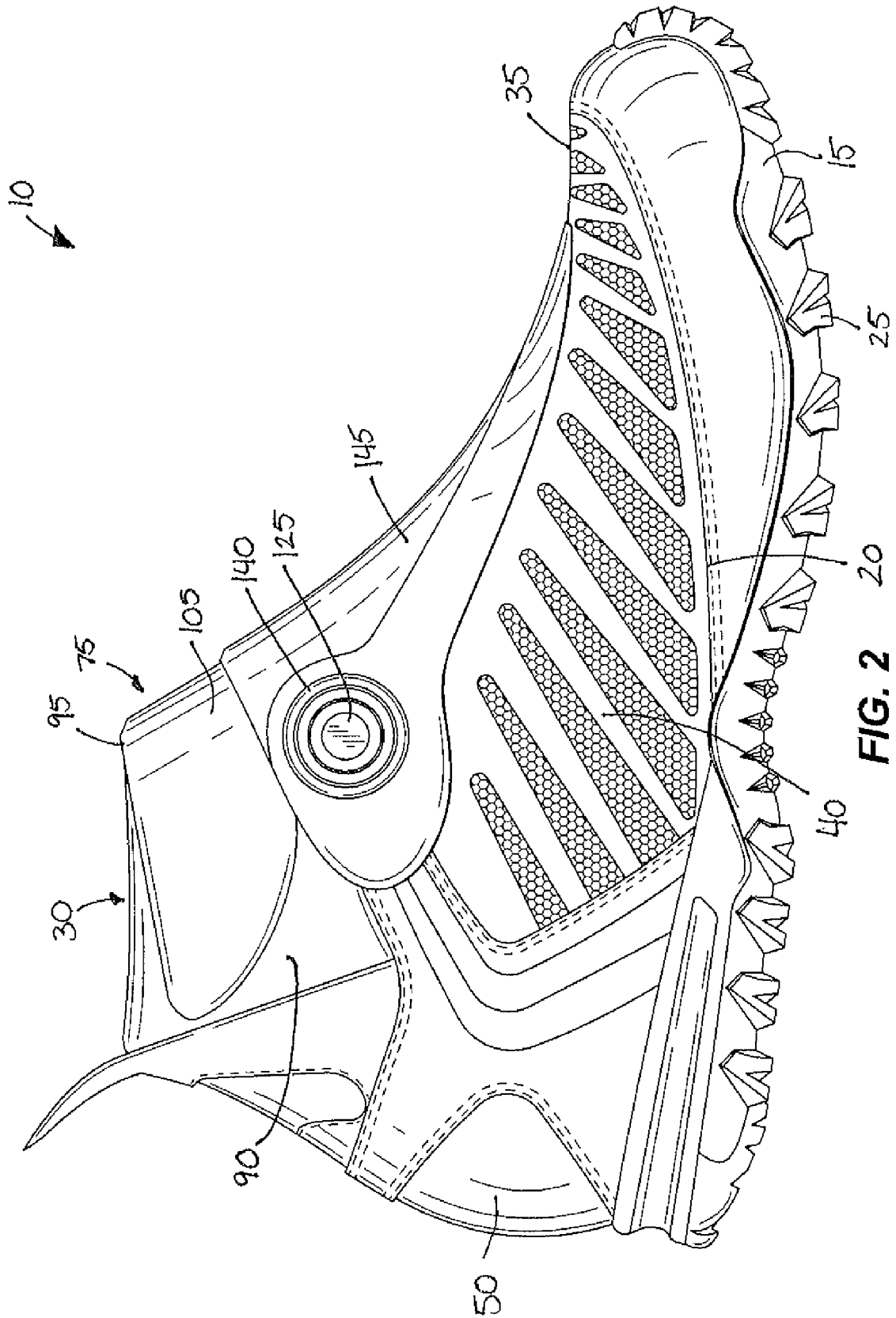
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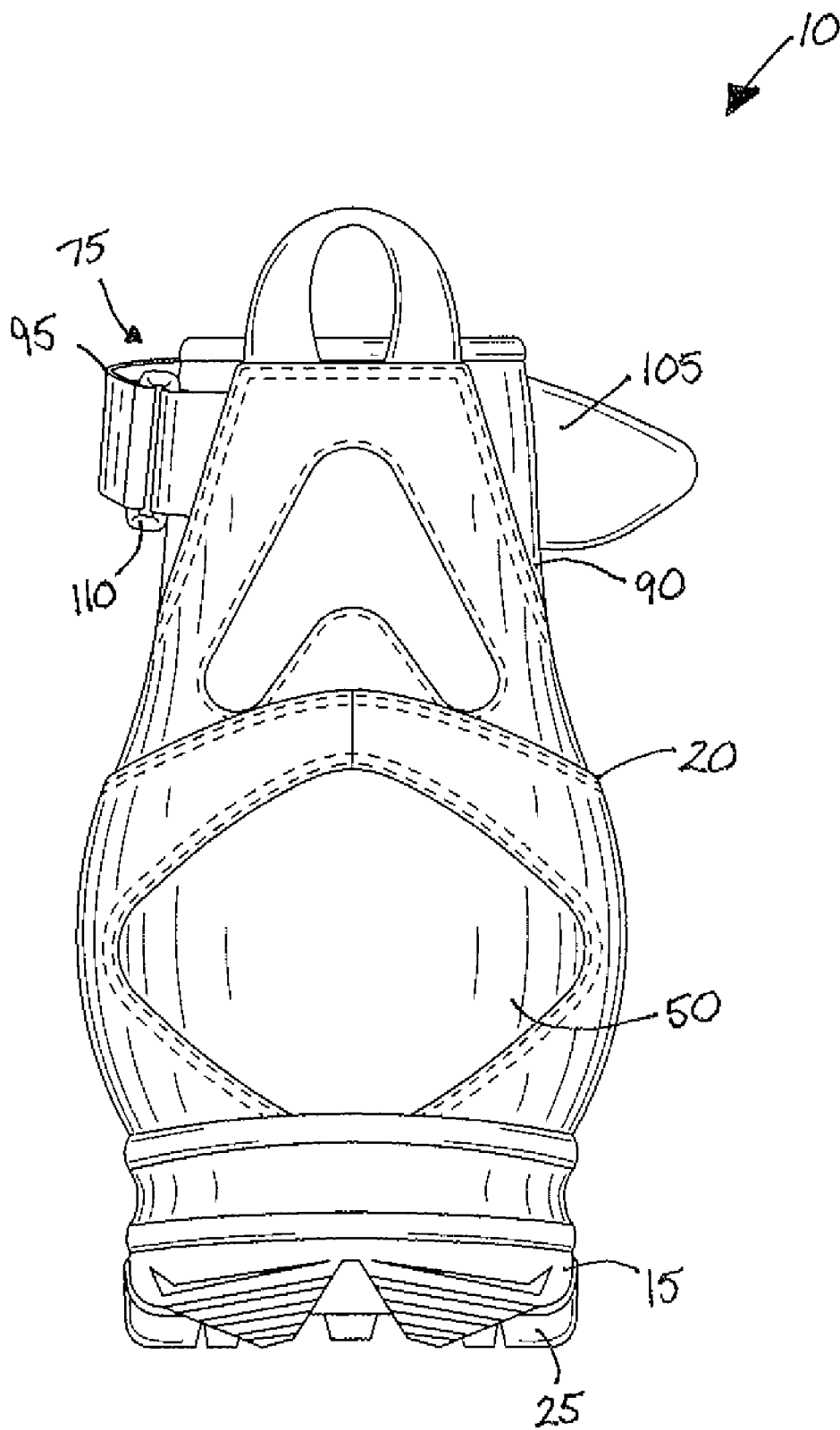


FIG. 3

CYCLING SHOE WITH COVER HAVING CLOSURE ACCESS

BACKGROUND

[0001] The present invention relates to cycling shoes, and more particularly to a cover for cycling shoes.

[0002] Cycling shoes can be worn by a rider of a bicycle to couple the rider's feet to the pedals of the bicycle. Generally, a cycling shoe includes a cleat on the bottom of the sole that engages a pedal of the bicycle to couple the shoe to the pedal. Cycling shoes typically include a closure system such as laces, hook and loop fastener (e.g., Velcro straps), a ratchet mechanism, or other similar closure mechanisms to secure the shoe to the rider's foot. Some cycling shoes include covers that completely enclose the closure system such that the cover must be removed to tighten or loosen the shoe relative to the rider's foot.

SUMMARY

[0003] In some constructions, the present invention provides a shoe including a sole for supporting a foot and an upper coupled to the sole. The upper defines an opening for receiving the foot and includes a first side panel and a second side panel movable in relation to the first side panel. The shoe also includes a closure mechanism that is coupled between the first side panel and the second side panel, and a tightening mechanism that is engaged with the closure mechanism to selectively draw the first side panel and the second side panel closer to each other and to selectively permit the first side panel and the second side panel to move apart from each other. A cover provides access to the tightening mechanism while enclosing the closure mechanism.

[0004] In another construction, the invention provides a shoe including a sole for supporting a foot and an upper coupled to the sole and defining an opening for receiving the foot. The includes a first side panel and a second side panel, and a closure mechanism is coupled between the first side panel and the second side panel. The shoe also includes a tightening mechanism that is engaged with the closure mechanism to selectively tighten the closure mechanism and to selectively loosen the closure mechanism. A cover is coupled to the upper and is movable between an open position exposing at least a portion of the closure mechanism and a closed position covering more of the closure mechanism and at least partially exposing the tightening mechanism to provide access to the tightening mechanism when the cover is in the closed position.

[0005] The upper defines an opening for receiving the foot and includes a toe box, a heel opposite the toe box, a first side panel, and a second side panel spaced laterally apart from the first side panel to define a throat portion extending from the toe box toward the heel and in communication with the opening. The closure mechanism is coupled between the first side panel and the second side panel. The tightening mechanism is engaged with the closure mechanism to selectively tighten the closure mechanism to narrow the throat portion and to selectively loosen the closure mechanism to widen the throat portion. The shoe also includes a cover that is coupled to the upper and that is movable between an open position exposing at least a portion of the closure mechanism and a closed position covering the closure mechanism and at least partially exposing the tightening mechanism to provide access to the closure mechanism when the cover is in the closed position.

[0006] In another construction, the invention provides a shoe including a sole for supporting a foot, an upper coupled to the sole, laces, and a tightening mechanism. The upper defines an opening for receiving the foot and includes a toe box, a heel opposite the toe box, a first side panel, and a second side panel spaced laterally apart from the first side panel to define a throat portion extending from the toe box toward the heel and in communication with the opening. The laces are alternately engaged between the first side panel and the second side panel. The tightening mechanism is coupled to opposed ends of the laces for increasing and decreasing tension on the laces. A cover extends from one of the first side panel and the second side panel toward the other of the first side panel and the second side panel and is configured to overlap and conceal the laces while at least partially exposing the tightening mechanism to provide access to the tightening mechanism when the laces are concealed by the cover.

[0007] Other aspects of the invention will become apparent by consideration of the detailed description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a top view of a bicycle shoe including a closure system and a cover embodying the present invention.

[0009] FIG. 2 is a side view of the shoe of FIG. 1 with the cover in a secured state.

[0010] FIG. 3 is a rear view of the shoe of FIG. 2.

[0011] Before any embodiments of the invention are explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the following drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways.

DETAILED DESCRIPTION

[0012] FIG. 1 illustrates a cycling shoe 10 that can be worn by a rider of a bicycle (not shown). While the illustrated shoe 10 is described herein as a cycling shoe 10, the shoe 10 may take other forms (e.g., ski boots, skates, football cleats, running shoes, tennis shoes, basketball shoes, etc.).

[0013] The shoe 10 includes a sole 15 for supporting a user's foot and an upper 20 that is coupled to the sole 15. The sole 15 can be integrally formed with or coupled to the upper 20 using any suitable method (e.g., gluing, bonding, riveting, fastening, or any suitable mechanism or combination thereof). As illustrated in FIGS. 1-3, the sole 15 includes treads 25 that extend from the sole 15. Alternatively, the sole 15 can be relatively flat and may omit the treads 25. Although not illustrated, the sole 15 can include an exposed or recessed cleat that couples the shoe 10 to a pedal of a bicycle.

[0014] FIGS. 1-3 show that the upper 20 defines an opening 30 for receiving a user's foot. The upper 20 includes a toe box 35, a first lateral or outside panel 40 extending upward from the sole 15, a second lateral or medial side panel 45 extending upward from the sole 15, and a heel 50. The toe box 35 is located at the front of the shoe 10 and connects the first and second side panels 40, 45. The heel 50 is located at the rear of the shoe 10 and connects the first and second side panels 40, 45 at an end of the shoe 10 opposite the toe box 35. The first side panel 40 includes an inner edge or upper portion 55, and the second side panel 45 includes an inner edge or upper

portion 60. The upper portions 55, 60 of the first and second side panels 40, 45 are spaced apart from each other to cooperatively define a gap or throat portion 65 extending from the toe box 35 toward the heel 50 and in communication with the opening 30.

[0015] With reference to FIGS. 1 and 2, the shoe 10 further includes a tongue flap 70 and a strap mechanism 75 located outward from the tongue flap 70. The tongue flap 70 has a fixed end 80 coupled to the upper 20 adjacent the toe box 35, and extends toward the heel 50 to a free end 85 that is opposite the fixed end 80 and that is located adjacent the opening 30. The tongue flap 70 substantially encloses the throat portion 65 without covering the opening 30. The tongue flap 70 can also be attached or affixed along sides of the tongue flap 70 to the first and/or second side panels 40, 45 adjacent the respective upper portions 55, 60.

[0016] The strap mechanism 75 is defined by a boot element 90 and a strap 95 that is coupled to an upper part of the boot element 90. The boot element 90 extends upward from the upper 20 adjacent a periphery of the opening 30 and generally toward the toe box 35 over at least a portion of the tongue flap 70. As illustrated, the boot element 90 is coupled to the upper 20 and surrounds the opening 30 above the upper 20 to protect the user's foot and ankle.

[0017] The strap 95 extends from adjacent the upper portion 55 of the first side panel 40 toward the upper portion 60 of the second side panel 45 over the throat portion 65. The strap 95 includes a first portion 100 extending from adjacent the upper portion 55 of the first side panel 40 around the opening 30 adjacent the heel 50 and toward the second side panel 45. The strap 95 also includes a second or free end portion 105 that extends from adjacent the upper portion 55 of the first side panel 40 around the opening 30 adjacent the throat portion 65 and toward the second side panel 45. A connector 110 is coupled to an end of the first portion 100, and the second portion 105 passes through the connector 110 such that the second portion 105 extends back over the upper part of the throat portion 65 and the second portion 105 overlays itself. The second portion 105 is attachable to itself in any suitable manner (e.g., via a hook and loop system such as Velcro).

[0018] The shoe 10 also includes a closure system 115 that selectively draws the first side panel 40 and the second side panel 45 toward each other to tighten the shoe 10 around the user's foot. With reference to FIGS. 1 and 2, the closure system 115 includes a closure mechanism 120 and a tightening mechanism 125 that is engaged with the closure mechanism 120. The closure mechanism 120 is coupled between the upper portion 55 of the first side panel 40 adjacent the tongue flap 70 and the upper portion 60 of the second side panel 45 adjacent the tongue flap 70. The illustrated closure mechanism 120 includes laces 130, although other mechanisms (e.g., hook and loop mechanisms such as Velcro, zippers, straps, etc.) are also possible and considered herein. As understood by one of ordinary skill in the art, the laces 130 alternately engage the first side panel 40 and the second side panel 45 from adjacent the toe box 35 toward the opening 30. In particular, the laces 130 interweave between the first and second side panels 40, 45 over the tongue flap 70 and engage hooks or hoops 135 in a criss-cross pattern.

[0019] The tightening mechanism 125 is coupled to opposed ends of the laces 130. Generally, the tightening mechanism 125 is adjustable so that the user can selectively draw the first side panel 40 and the second side panel 45

toward or closer to each other or permit the first side panel 40 and the second side panel 45 to move apart from each other via the closure mechanism 120. The illustrated tightening mechanism 125 includes a rotatable dial or ratchet 140 that is coupled to the first side panel 40 and that is adjustably engaged with the closure mechanism 120 to adjust the fit of the shoe 10 on the user's foot. In other constructions, the tightening mechanism 125 can be coupled to the second side panel 45, or to both the first side panel 40 and the second side panel 45 depending on the type of closure mechanism 120 that is used with the shoe 10.

[0020] The tightening mechanism 125 receives opposed free ends of the laces 130, and the tightening mechanism 125 is adjustable (e.g., rotatable) so that tension on the laces 130 can be increased or decreased to achieve the appropriate fit of the shoe 10 on the user's foot or to permit the user to remove the shoe 10. As is understood by one of skill in the art, the tightening mechanism 125 can utilize ridges or other similar ratchet means to advance or release the closure mechanism 120 as desired. In some constructions, the tightening mechanism 125 can also include a ratchet release mechanism (e.g., by reversing the rotation direction of the ratchet 140).

[0021] The shoe 10 also includes a cover 145 that is coupled to the upper 20. In some constructions, the cover 145 can be formed as part of the upper 20. The cover 145 wraps around a portion of the upper 20 (e.g., the toe box 35, the heel 50, and one or both of the first side panel 40 and the second side panel 45) and can be defined as an outer flap that bridges the throat portion 65. As illustrated in FIGS. 1 and 2, the cover 145 extends from the second side panel 45 toward the first side panel 40 to enclose the closure mechanism 120 while providing access to the tightening mechanism 125. Alternatively, the cover 145 can extend from the first side panel 40 toward the second side panel 45. Generally, the cover 145 overlaps the closure mechanism 120 without completely overlapping or enclosing the tightening mechanism 125 to protect the closure mechanism 120 from the elements (e.g., dirt, water, debris, etc.) and to provide an aerodynamic profile for the shoe 10.

[0022] The cover 145 is movable between an open position (FIG. 1) exposing at least a portion of the closure mechanism 120 and a closed position (FIG. 2) covering at least a portion of the closure mechanism 120 and at least partially exposing the tightening mechanism 125 to provide access to the tightening mechanism 125 when the cover 145 is in the closed position. In particular, the cover 145 includes an aperture 150 through which the tightening mechanism 125 is exposed. The tightening mechanism 125 and the aperture 150 have a similar shape such that the tightening mechanism 125 can extend through the aperture 150 to secure the cover 145 to the upper 20 over the closure mechanism 120 when the cover 145 is moved to the closed position. As illustrated in FIGS. 1 and 2, the upper 20 and the cover 145 can include respective attachment areas 155 (e.g., a cooperative hook and loop system such as Velcro, buttons, snaps, etc.) so that the cover 145 can be secured to the upper 20 when the cover 145 is in the closed position.

[0023] In operation, the user places their foot in the shoe 10 and uses the closure mechanism 120 and the tightening mechanism 125 to secure the shoe 10 to their foot. When the cover 145 is in the open position, the user can directly operate the tightening mechanism 125, and in some cases the closure mechanism 120, to tighten the shoe 10 around the user's foot as desired. The strap mechanism 75 can be adjusted by

manipulating the strap **95** to further achieve a comfortable fit between the shoe **10** and the user's foot and ankle while reducing discomfort relative to non-adjustable strap mechanisms.

[0024] In the open position, the cover **145** defines a V-shaped opening relative to the first side panel **45** that provides direct access to the closure mechanism **120** so that the closure mechanism **120** can be directly accessed or manipulated to adjust the fit of the shoe **10** on the user's foot. The tightening mechanism **125** also is exposed or not enclosed by the cover **145** when the cover **145** is in the open position.

[0025] In the closed position, the illustrated cover **145** overlays and conceals the closure mechanism **120** and is looped over the tightening mechanism **125**. In this manner, the tightening mechanism **125** is at least partially exposed through the aperture **150** so that the user can access the tightening mechanism **125** to adjust the closure mechanism **120** as needed when the closure mechanism **120** is concealed by the cover **145**. In other words, the tightening mechanism **125** can be manipulated to adjust the closure mechanism **120** without having to move the cover **145** back to the open position. The cover **145** can be further secured to the upper **20** via the attachment areas **155**.

[0026] Various features and advantages of the invention are set forth in the following claims.

What is claimed is:

- 1.** A shoe comprising:
 - a sole for supporting a foot;
 - an upper coupled to the sole and defining an opening for receiving the foot, the upper including a first side panel and a second side panel movable in relation to the first side panel;
 - a closure mechanism coupled between the first side panel and the second side panel;
 - a tightening mechanism engaged with the closure mechanism to selectively draw the first side panel and the second side panel closer to each other and to selectively permit the first side panel and the second side panel to move apart from each other; and
 - a cover providing access to the tightening mechanism while enclosing the closure mechanism.
- 2.** The shoe of claim **1**, wherein the tightening mechanism includes a ratchet coupled to one of the first side panel and the second side panel.
- 3.** The shoe of claim **1**, wherein the closure mechanism includes laces alternately engaging the first side panel and the second side panel, and wherein the tightening mechanism is coupled to opposed ends of the laces to selectively draw the first side panel and the second side panel toward each other.
- 4.** The shoe of claim **1**, wherein the cover includes an aperture through which the tightening mechanism is exposed.
- 5.** The shoe of claim **4**, wherein the tightening mechanism extends through the aperture to at least partially secure the cover over the closure mechanism.
- 6.** The shoe of claim **1**, wherein the cover is attached to the upper at least in part by a hook and loop system.
- 7.** The shoe of claim **1**, wherein the first side panel and the second side panel cooperatively define a throat portion in communication with the opening, the shoe further comprising a tongue flap positioned to substantially enclose the throat portion, and a strap coupled to the upper and at least partially surrounding the opening, wherein the strap extends from adjacent the first side panel to the second side panel over the tongue flap.

8. The shoe of claim **7**, further comprising a toe box and a heel opposite the toe box, wherein the strap includes a first portion extending from adjacent the first side panel to the second side panel around the heel, a second portion extending from adjacent the first side panel to the second side panel over the tongue flap, a strap ring through which the second portion of the strap extends, and a third portion extending from adjacent the second side panel to the first side panel such that the third portion overlaps and is coupled to the second portion.

9. The shoe of claim **1**, wherein the sole is adapted to engage a bicycle pedal.

10. The shoe of claim **1**, wherein the cover extends from one of the first side panel and the second side panel toward the other of the first side panel and the second side panel to overlap the closure mechanism.

11. The shoe of claim **1**, wherein the first side panel and the second side panel cooperatively define a throat portion in communication with the opening, and wherein the cover includes an outer flap that bridges the throat portion.

12. A shoe comprising:

- a sole for supporting a foot;
- an upper coupled to the sole and defining an opening for receiving the foot, the upper including a first side panel and a second side panel;
- a closure mechanism coupled between the first side panel and the second side panel;
- a tightening mechanism engaged with the closure mechanism to selectively tighten the closure mechanism and to selectively loosen the closure mechanism; and
- a cover coupled to the upper and movable between an open position exposing at least a portion of the closure mechanism and a closed position covering more of the closure mechanism and at least partially exposing the tightening mechanism to provide access to the tightening mechanism when the cover is in the closed position.

13. The shoe of claim **12**, wherein the closure mechanism includes laces alternately engaging the first side panel and the second side panel, and wherein the tightening mechanism is coupled to opposed ends of the laces to selectively draw the first side panel and the second side panel toward each other.

14. The shoe of claim **12**, wherein the tightening mechanism includes a ratchet coupled to one of the first side panel and the second side panel.

15. The shoe of claim **12**, wherein the cover includes an aperture through which the tightening mechanism is exposed.

16. The shoe of claim **12**, wherein the cover extends from one of the first side panel and the second side panel toward the other of the first side panel and the second side panel to overlap the closure mechanism.

17. The shoe of claim **12**, wherein the cover is formed as part of the upper.

18. A shoe comprising:

- a sole for supporting a foot;
- an upper coupled to the sole and defining an opening for receiving the foot, the upper including a toe box, a heel opposite the toe box, a first side panel, and a second side panel spaced laterally apart from the first side panel to define a throat portion extending from the toe box toward the heel and in communication with the opening;
- laces alternately engaged between the first side panel and the second side panel;
- a tightening mechanism coupled to opposed ends of the laces for increasing and decreasing tension on the laces; and
- a cover extending from one of the first side panel and the second side panel toward the other of the first side panel

and the second side panel and configured to overlap and conceal the laces while at least partially exposing the tightening mechanism to provide access to the tightening mechanism when the laces are concealed by the cover.

19. The shoe of claim **18**, wherein the cover includes an aperture through which the tightening mechanism is exposed,

and wherein the tightening mechanism extends through the aperture to at least partially secure the cover over the laces.

20. The shoe of claim **18**, wherein the cover is attached to the upper by a hook and loop system when the cover overlaps the laces.

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