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(71) Applicant 597164356

Suminosuke KAWASE

29, Tamoncho, Nara-shi, Nara

(72) Inventor Suminosuke KAWASE

29, Tamoncho, Nara-shi, Nara

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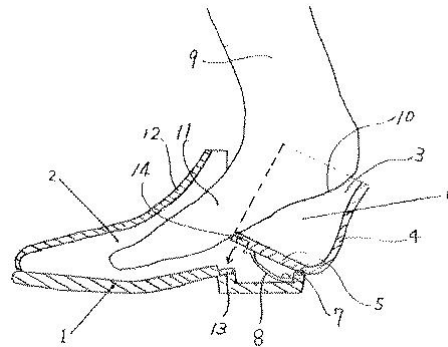
(54) [Title of the Invention] Footwear Put On Without Using a Shoehorn

(57) [Abstract]

[Problem] To provide footwear that can be put on while standing, without bending, squatting, or using the hands or a shoehorn, and that does not slip off or slide sideways once put on. To provide footwear that is easy to put on and safe for elderly people with physical disabilities.

[Solution] A heel portion of the footwear, in which the sides, rear, and bottom are integrally separated from other portions, opens and closes while centered on the rear end of the footwear sole. When the foot is inserted, the heel portion closes with the sole pressed against the heel of the foot, forming the shape of ordinary footwear. When closed, the heel portion is secured by magnets.

[Selected Diagram] FIG. 1



[Claims]

[Claim 1]

Footwear put on without using a shoehorn, the footwear comprising:

a sole portion of the footwear;

a front securing portion attached to the sole portion of the footwear for securing the front portion of the foot to the sole portion of the footwear;

a movable heel portion supported along an axis extending in the lateral direction at the rear end of the sole portion of the footwear and including a base plate portion for supporting the rear portion of the sole of the foot, side portions making contact with both sides of the rear portion of the foot, and a rear

10 portion making contact with the rear side of the foot.

[Claim 2]

The footwear put on without using a shoehorn according to claim 1, wherein the movable heel portion is biased in a direction that lifts the front section of the movable heel portion away from the sole portion of the footwear.

[Claim 3]

The footwear put on without using a shoehorn according to claim 1, wherein the movable heel portion is biased in a direction that presses the front section of the movable heel portion against the sole portion of the footwear.

[Claim 4]

20 The footwear put on without using a shoehorn according to claim 1, wherein the movable heel portion is opened and closed by a spring, operating in the opening direction when at an angle that is open beyond the approximate center of the rotation angle and operating in the closing direction when at an angle that is closed beyond the approximate center of the rotation angle.

[Detailed Description of the Invention]

[0001]

[Technical Field of the Invention]

The present invention relates to footwear with a heel portion that can be opened and closed.

[0002]

[Prior Art]

30 Shoes with heels that open and close vertically or horizontally require the wearer to squat down and manually manipulate them. (See, for example, Utility Model Documents 1 and 2.)

Meanwhile, sandals and similar footwear that can be put on without a shoehorn lack protection against lateral slippage and slippage to the rear. (See Patent Document 3.)

[0003]

[Utility Model Document 1]

JP S56-171702 U

[Utility Model Document 2]

JP H07-20812 U

[Patent Document 3]

40 JP H10-14602 A

[0004]

[Problem to Be Solved by the Invention]

For elderly individuals with physical limitations, safe footwear is essential. However, bending over or squatting to put on shoes while using one's hands can be difficult. Safe footwear that can be put on while standing without using a shoehorn and that does not slip off or slip sideways while walking is desired. However, easy-to-wear sandals and slip-ons without heels can be dangerous.

[0005]

An object of the present invention is to provide footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating

50 concerns about slipping sideways or coming off while walking.

[0006]

[Means for Solving the Problem]

In order to solve the problem described above, the heel portion of the footwear of the present invention, which makes contact with four sides of the rear portion of the foot (both lateral sides, the rear side, and the sole side), is pivotally supported along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole.

[0007]

If the front section of the heel portion is biased upward by a spring, it becomes easier to insert the foot when putting on the footwear.

[0008]

If the heel portion is biased by a spring to press the front section of the heel portion against the sole of the footwear, the foot must be inserted against the spring action when putting on the footwear, but once inserted, the heel portion closes securely to provide stability.

[0009]

10 If the spring that rotates the heel portion acts in the opening direction when opened beyond the approximate center of the angle of rotation and in the closing direction when closed beyond the approximate center of the angle of rotation, the fit is comfortable both when putting on the shoe and once it has been put on.

[0010]

[Embodiment of the Invention]

20 An embodiment of the invention will now be described with reference to the drawings based on an example. In FIG. 1, relative to the sole 1 of the shoe and the front securing portion 2 attached to the sole for securing the front portion of the foot to the sole 1, the movable heel portion 6, consisting of side portions 3, a rear portion 4, and a sole portion 5, is integrally separated from the shoe at the rear end of the sole 1 of the shoe and pivotally supported along an axis 7 extending in the lateral direction at the rear end of the sole 1 of the shoe. The axis 7 may take the form of a hinge or may be integrally formed from plastic or connected by leather. The spring 8, which is biased to lift the front portion of the sole portion 5, lifts the movable heel portion 6, causing it to open wide to the rear. This enables the foot 9 to be inserted into the shoe easily, as shown in FIG. 2, without requiring the use of a shoehorn. Once the foot has been fully inserted, the heel 10 of the foot presses against the sole portion 5, causing the movable heel portion 6 to rotate forward and snugly embrace the heel 10 of the foot. The upper 12 covering the instep portion 11 of the foot is sufficiently deep and envelops the instep portion 11 of the foot. Because the shoe snugly wraps around the foot in this manner, there are no concerns about the foot slipping sideways or the shoe coming off while walking. Once the foot has been inserted, a magnet 13 fixed on one side and an iron plate 14 fixed on the opposite side come together, securing the movable heel portion 6 in place. The shoe is removed by simply pulling the foot backward while holding the other shoe against it. This causes the magnet 13 to disengage, allowing the movable heel portion 6 to open and the shoe to come off. In modified examples, the upper 12 may be replaced with a sandal foot strap or geta thong to effectively obtain the effects of the present invention.

[0011]

40 In this example, as shown in FIG. 3, the pulling direction of the spring is opposite to that of the example as shown in FIG. 1. Rubber cords 15 pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe. When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot. As a result, the heel portion 6a needs to be made somewhat sturdier to prevent crushing and needs to be shaped to push the movable heel portion 6a rearward when the foot is inserted. Use of a magnet is preferred. Instead of elastic cords, a spring pulling the sole portion 5a may be located in the same position as the spring 8 in FIG. 1.

[0012]

In this example, as shown in FIG. 4, the movable heel portion 6b uses a spring-loaded hinge 16 common in the art, and if the spring acts in the opening direction when opened beyond the approximate center of the angle of rotation and in the closing direction when closed beyond the approximate center of the angle of rotation, the fit is comfortable both when putting on the shoe and once it has been put on.

[0013]

[Effect of the Invention]

50 The present invention, which is configured in the manner described above, realizes the effects described below.

[0014]

Because the heel portion of the footwear pivots open at the rear end of the sole portion of the footwear, putting on the footwear while standing requires no bending, squatting, or use of hands or a shoehorn. Once put on, the footwear is secured to the foot, eliminating concerns about sideways slippage or coming off while walking. While particularly suited for elderly individuals with physical limitations, the present invention can also serve as a convenient shoe for ordinary, healthy people.

[Brief Description of the Drawings]

[FIG. 1] FIG. 1 is a cross-sectional view of the shoe, showing the heel portion opened by a spring as the foot is being inserted.

[FIG. 2] FIG. 2 shows the foot after it has been fully inserted into the shoe in FIG. 1.

[FIG. 3] FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.

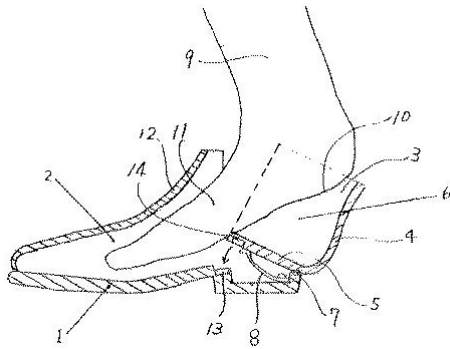
[FIG. 4] FIG. 4 shows the spring-loaded hinge attached to the rear end of the sole portion, which operates in the opening direction when opened beyond the approximate center of the angle of rotation and in the closing direction when closed beyond the approximate center of the angle of rotation.

10 [Reference Numbers]

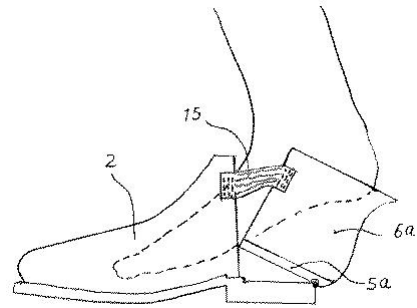
- 1 Shoe sole
- 2 Front securing portion
- 3, 3a Side portion
- 4 Rear portion
- 5, 5a Sole portion
- 6, 6a, 6b Movable heel portion
- 7 Axis
- 8 Spring
- 9 Foot

- 20 10 Heel of the foot
- 11 Instep portion of the foot
- 12 Upper
- 13 Magnet
- 14 Iron plate
- 15 Rubber cord
- 16 Spring-loaded hinge

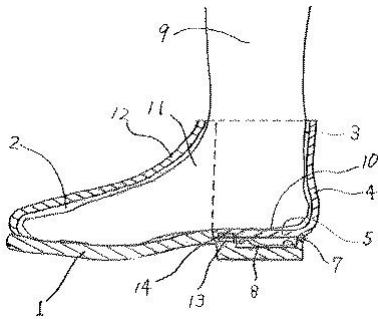
[FIG. 1]



[FIG. 3]



[FIG. 2]



[FIG. 4]

