

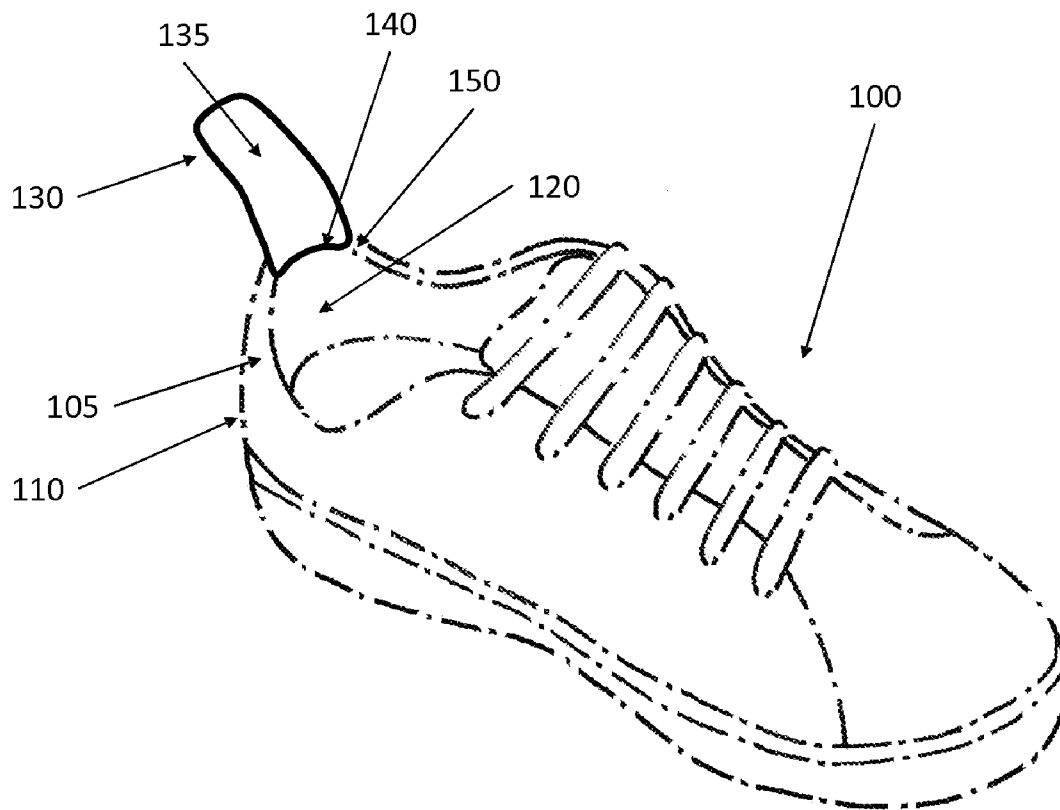


US 20120160883A1

(19) **United States**(12) **Patent Application Publication**  
**Kasravi**(10) **Pub. No.: US 2012/0160883 A1**(43) **Pub. Date: Jun. 28, 2012**(54) **INTEGRATED SHOE HORN ADAPTED FOR A SHOE****Publication Classification**(51) **Int. Cl.**  
**A47G 25/82** (2006.01)  
(52) **U.S. Cl.** ..... **223/118**  
(57) **ABSTRACT**(75) Inventor: **Kas Kasravi**, West Bloomfield, MI (US)(73) Assignee: **Kas Kasravi**, West Bloomfield, MI (US)(21) Appl. No.: **13/338,400**(22) Filed: **Dec. 28, 2011****Related U.S. Application Data**

(60) Provisional application No. 61/460,216, filed on Dec. 28, 2010.

An integrated shoe horn in the form of a tab adapted for a shoe. The tab is made of a resilient, flexible, and low friction material. The tab is securely attached to the top rim of a shoe's counter at one end, and compliant at the other end. The compliant end provides an easy-grip feature, such as a finger loop, grip, or ring. The compliant end of the tab folds outwards and temporarily attaches to the back of the shoe counter via a mechanism such as VELCRO, snap-button, magnets, or ring/hook. The tab assists the user to easily wear the shoe by pulling it outward and backward when wearing a shoe, and sliding the heel into the shoe. After wearing the shoe, the tab folds back and attaches to the back of the shoe's counter. Thus, the integrated shoe horn is present when needed, but hidden when not needed.



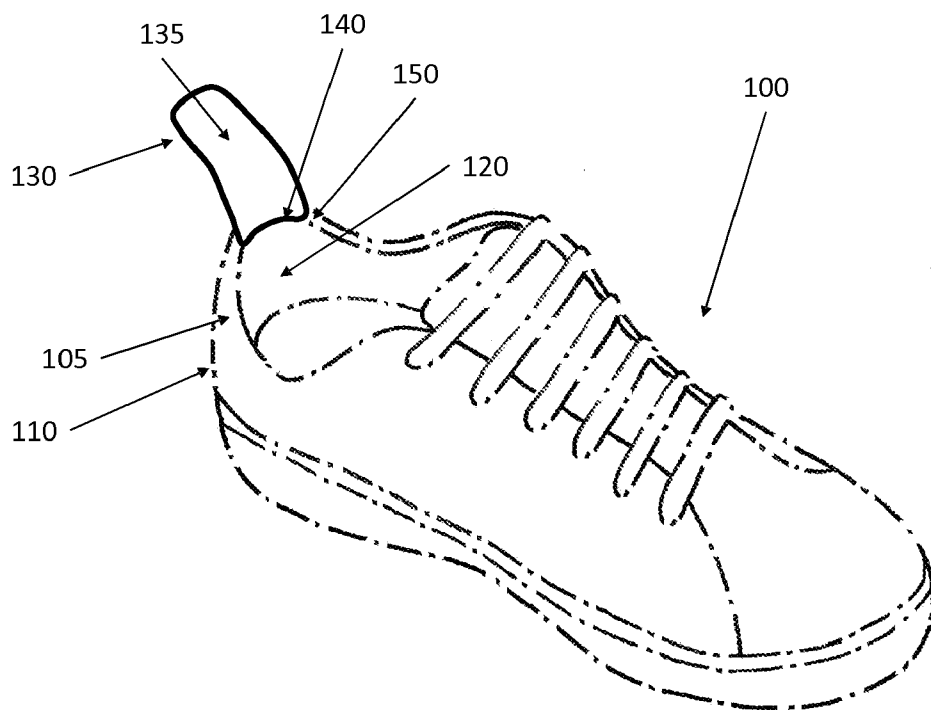


Fig. 1

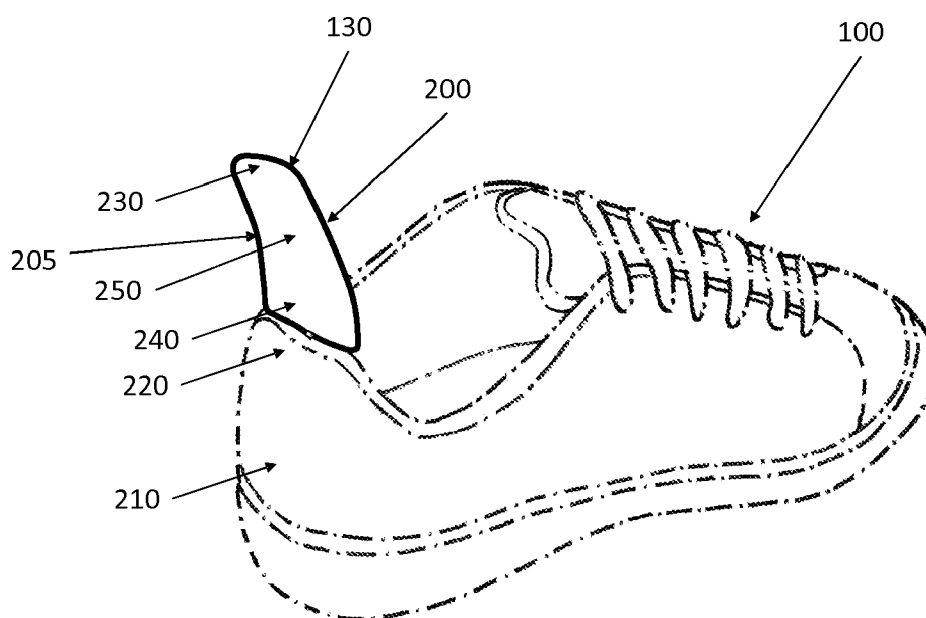


Fig. 2

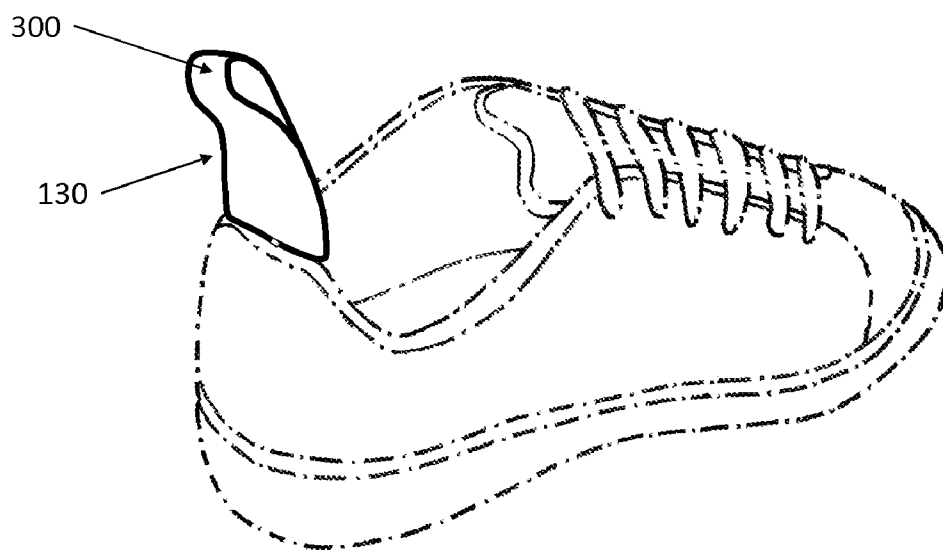


Fig. 3

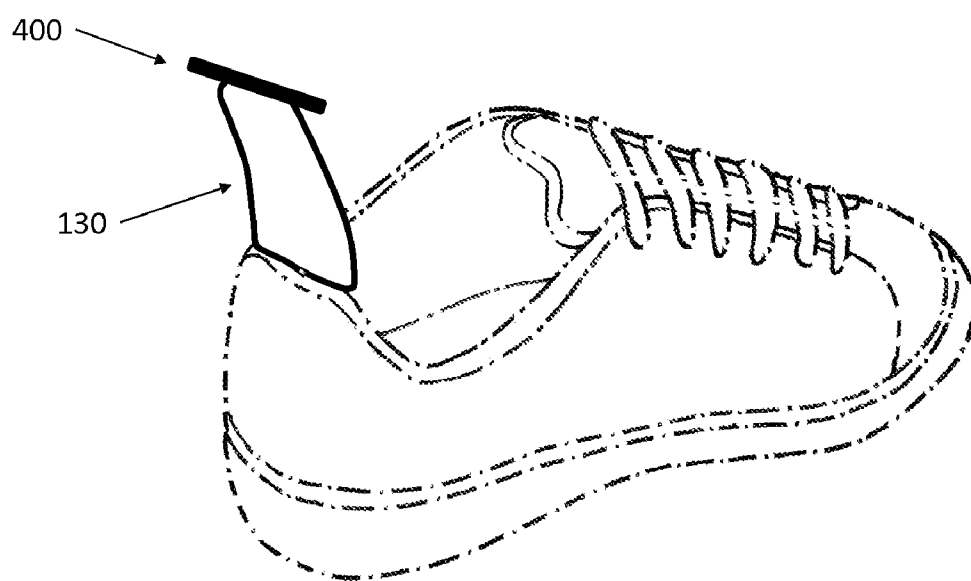


Fig. 4

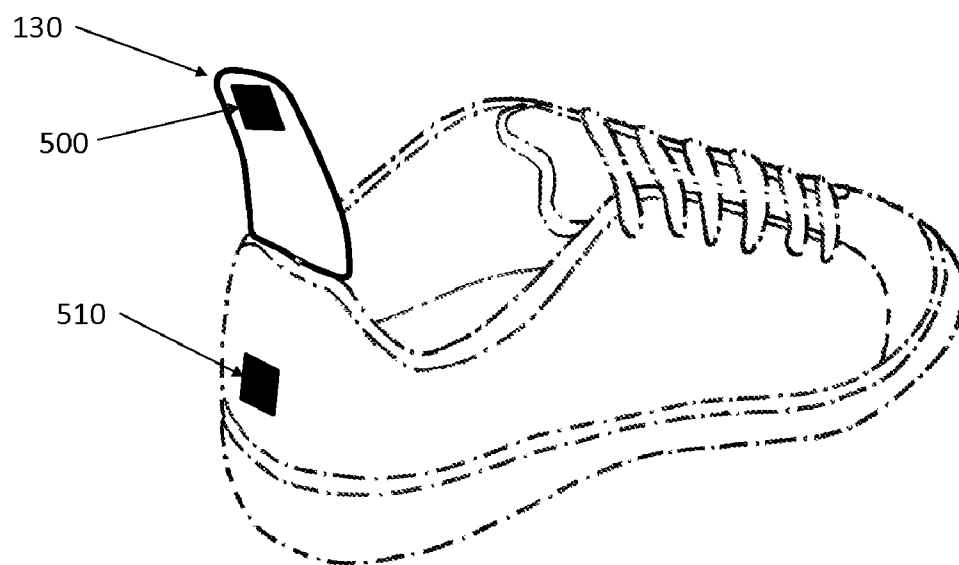


Fig. 5

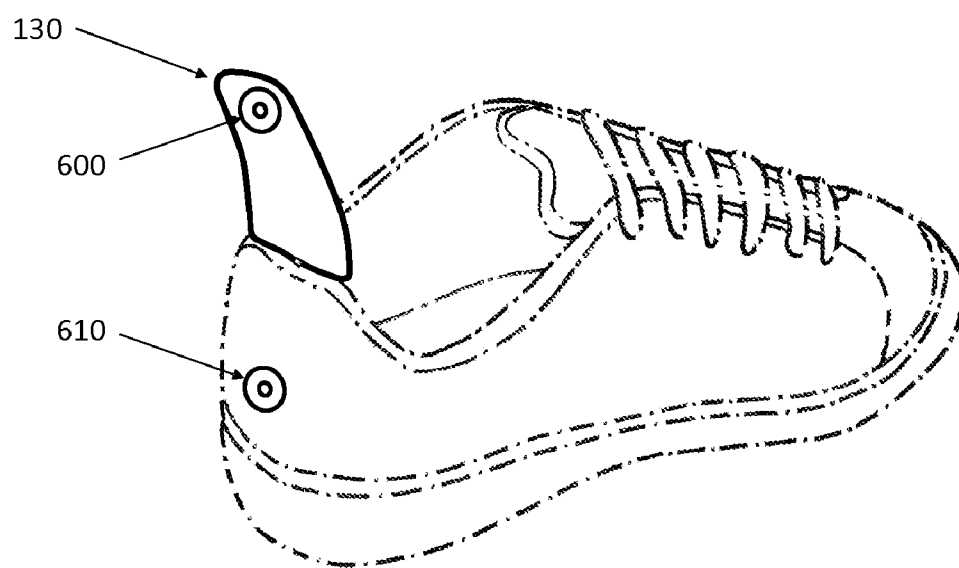


Fig. 6

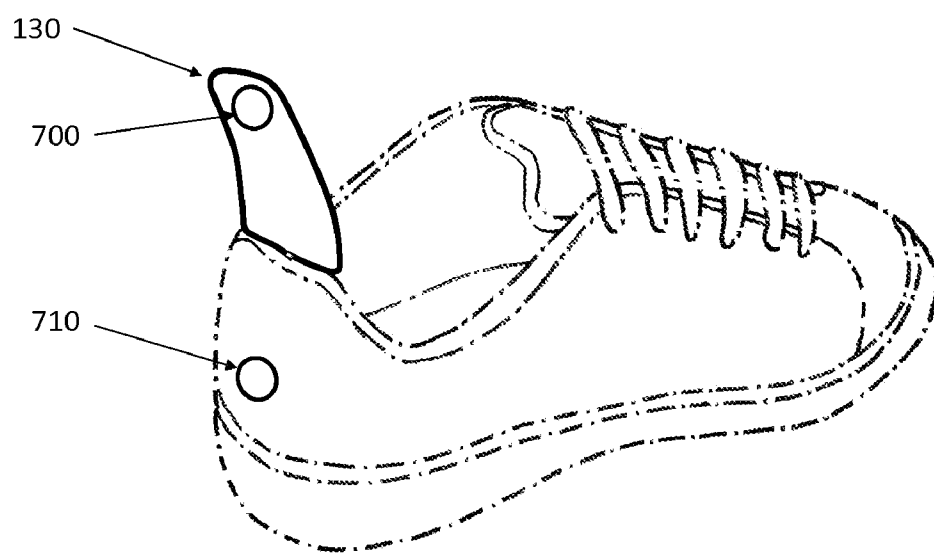


Fig. 7

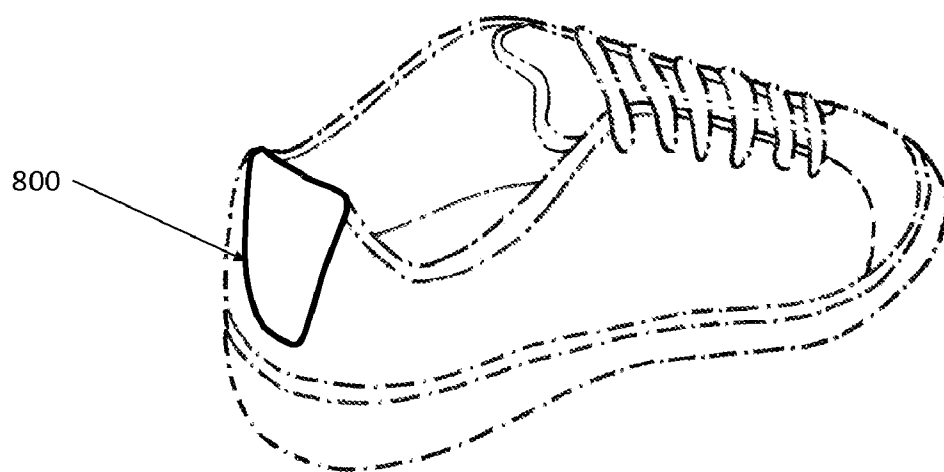


Fig. 8

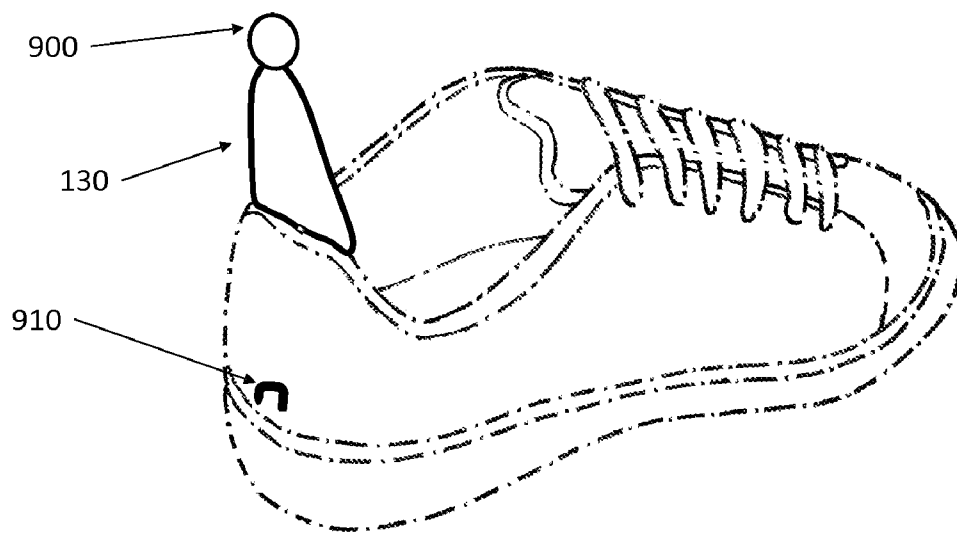


Fig. 9

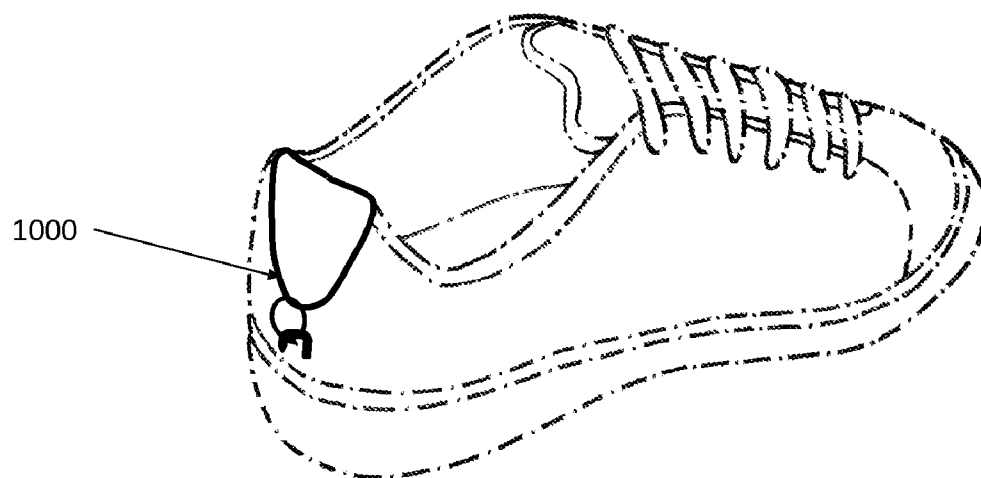


Fig. 10

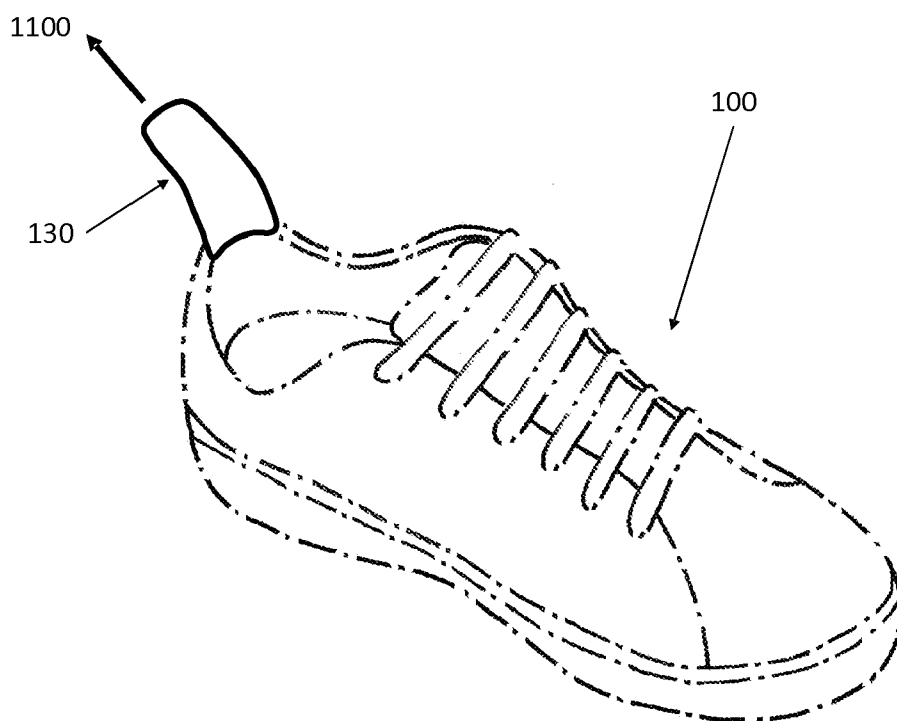


Fig. 11

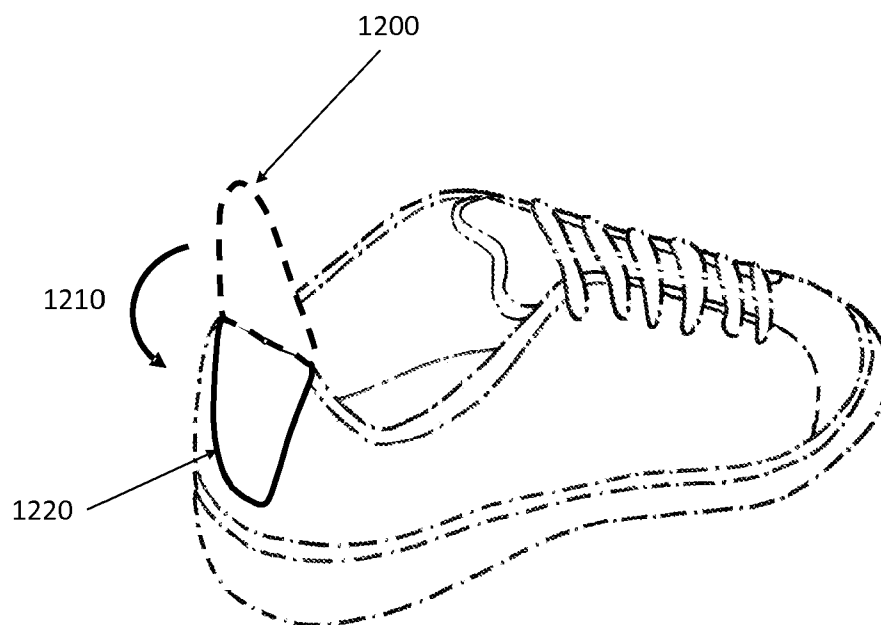


Fig. 12

## INTEGRATED SHOEHORN ADAPTED FOR A SHOE

### PRIORITY STATUS

**[0001]** This application claims the benefit of the filing date of corresponding U.S. Provisional Patent Application No. 61/460,216, entitled "Integrated Shoehorn Adapted for a Shoe" filed Dec. 28, 2010. The content of U.S. Provisional Patent Application No. 61/460,216 is incorporated herein by reference for all purposes.

### TECHNICAL FIELD AND INDUSTRIAL APPLICATION OF THE INVENTION

**[0002]** The present invention relates generally to shoehorns and footwear. The present invention relates particularly to a shoehorn integrated with a shoe.

### BACKGROUND OF THE INVENTION

**[0003]** A shoe requires a tight fit against a foot to ensure protection of the foot from the elements, provide adequate grip with the ground, and other benefits offered by a shoe. The required tight fit leads to difficulties wearing a shoe, resulting in the use of shoe laces, elastic bands, straps, hook and loop fasteners ("VELCRO", a trademark), and other mechanisms for loosening the shoe while inserting a foot into the shoe, and then tightening the shoe to adequately grab the foot. Further, for proper support, the shoe's counter must be stiff, which presents additional challenges for easily wearing a shoe. The elderly are greatly affected by the above problems, as they may suffer from physical limitations and lack of dexterity, which may prevent them from manipulating the shoe as required. Young children are also affected by above problems, as they don't typically possess the knowledge, strength, dexterity, or the patience to manipulate the shoe as needed when inserting a foot into the shoe. The latter typically results in the crushing of the back of the shoe, as the child forces his/her foot into the shoe, leading to either the child or an adult having to kneel down and typically use a finger to guide the heel into the shoe while holding the shoe's counter back.

**[0004]** Currently, there are a number of solutions for assisting a person to wear a shoe. Some of these solutions are independent tools or implements, such as conventional or extended shoehorns, that fail to meet the needs of the industry because they are additional tools that must be carried by the person wearing the shoe, which is often not the case. Another solution offers a small loose tab at the back of the shoe's counter that aids in pulling back the shoe's counter, thus helping avoid the crushing of the shoe's counter, but these tabs are generally ineffective and fail to guide the heel into the shoe. Other solutions offer shoe inserts for guiding the heel into the shoe, but these are typically complex devices that adversely affect the fit of the shoe, as well as the aesthetics of the shoe via unsightly protrusions from the back of the shoe. Yet other solutions offer inserts, or changes and extensions to the insole of a shoe, resulting in additional expense, complexity, and adversely affect the fit of the shoe. These solutions fail to meet industry needs due to lack of efficacy, cost, and the need for extra implements and tools.

**[0005]** It is desirable to have a shoehorn that is readily available to the user when needed, easy to use, and simple in construction. Furthermore, it would be desirable to have a shoehorn that always stays attached to the shoe without interfering with the appearance, comfort, fit, and the functionality

of the shoe. Therefore, there currently exists a need in the industry for an integrated shoehorn that helps shoe wearers, especially children and the elderly, to easily wear a shoe without undue hardship, or having to carry an extra device such as a conventional shoehorn.

### SUMMARY OF THE INVENTION

**[0006]** The present invention advantageously fills the aforementioned deficiencies by providing an integrated shoehorn adapted for a shoe, which provides an easier way to wear a shoe.

**[0007]** The present invention is an integrated shoehorn. The core components of the invention are a tab, and a mechanism for attaching the tab to the back of the shoe's counter, which generally speaking is configured as follows: a tab having an upper surface, a lower surface, a fixed side, a compliant side, and a plurality of free sides, wherein, the fixed side of the tab is permanently attached to the rim of the shoe's counter, and the compliant side is removably fastened to the exterior side of the shoe's counter.

**[0008]** The present invention may also have one or more of the following: a finger loop/grip/ring at the compliant side of the tab, a smooth seam between the fixed side of the tab and the rim of the shoe's counter, upper surface of the tab having a generally low coefficient of friction, the tab is flexible and resilient, and a fastening mechanism between the compliant side of the tab and the lower side of the exterior of the shoe's counter. The latter mechanism may use an arrangement such as VELCRO, snap-button, magnets, or a ring and a hook arrangement.

**[0009]** The present invention is unique when compared with other known devices and solutions, because the present invention provides: (1) a shoehorn that is integrated with the shoe; and (2) a shoehorn that is available when needed, and hidden when not needed; without affecting other parts of the shoe, such as the insole or the outsole.

**[0010]** Further, the present invention is unique in that it is structurally different from other known devices or solutions. More specifically, the present invention is unique due to the presence of: (1) a tab that simultaneously holds the shoe's counter back and guides the heel into the shoe while wearing the shoe; (2) a relatively simple and inexpensive design; (3) does not affect the fit of the shoe; (4) does not require changes to the insole; (5) does not require shoe inserts; (6) does not require separate implements not attached to the shoe; (7) easily hides out of sight via temporary attachment to the back of the shoe, remaining unobtrusive until the shoehorn is needed again.

**[0011]** Among other things, it is an object of the present invention to provide an integrated shoehorn adapted for a shoe that does not suffer from any of the problems or deficiencies associated with prior solutions.

**[0012]** The present invention now will be described more fully hereinafter with reference to the accompanying drawings, which are intended to be read in conjunction with both this summary, the detailed description and any preferred and/or particular embodiments specifically discussed or otherwise disclosed. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided by way of illustration only and so that this



disclosure will be thorough, complete and will fully convey the full scope of the invention to those skilled in the art.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Preferred embodiments of the present invention will now be described by way of illustrative example with reference to the accompanying figures in which:

[0014] FIG. 1 is a front perspective view of a shoe fitted with an integrated shoehorn.

[0015] FIG. 2 is a rear perspective view of a shoe fitted with the integrated shoehorn.

[0016] FIG. 3 is a rear perspective view of a shoe fitted with the integrated shoehorn with a finger loop.

[0017] FIG. 4 is a rear perspective view of a shoe fitted with the integrated shoehorn with a finger grip.

[0018] FIG. 5 is a rear perspective view of a shoe fitted with the integrated shoehorn with a mating pair of VELCRO fasteners.

[0019] FIG. 6 is a rear perspective view of a shoe fitted with the integrated shoehorn with a mating pair of snap-buttons.

[0020] FIG. 7 is a rear perspective view of a shoe fitted with the integrated shoehorn with a mating pair of magnets.

[0021] FIG. 8 is a rear perspective view of a shoe fitted with the integrated shoehorn in the closed configuration using VELCRO, snap-buttons, or magnets.

[0022] FIG. 9 is a rear perspective view of a shoe fitted with the integrated shoehorn with a ring and corresponding hook.

[0023] FIG. 10 is a rear perspective view of a shoe fitted with the integrated shoehorn in the closed configuration using the ring and the hook.

[0024] FIG. 11 is a front perspective view of a shoe with the integrated shoehorn, illustrating the pull direction of the integrated shoehorn when wearing the shoe.

[0025] FIG. 12 is a rear perspective view of the shoe with the integrated shoehorn, illustrating the closure of the integrated shoehorn.

#### DETAILED DESCRIPTION OF THE INVENTION

[0026] The present invention is directed at an integrated shoehorn adapted for a shoe.

[0027] In its most complete version, the present invention is made up of the following components, a tab with a fixed side, a compliant side, the plurality of free sides, an upper surface, and a lower surface; a finger loop at the compliant side of the tab, a mating pair of VELCRO fasteners on the lower surface of the compliant side of the tab and the lower side of the shoe's counter. These components are connected as follows, the fixed side of the tab is permanently attached to the rear rim of the shoe's counter, and the compliant side of the tab is removably attached to the exterior of the shoe's counter via the mating pair of VELCRO fasteners. It should be further noted that the attachment between the fixed side of the tab and the rim of the shoe's counter is smooth, the upper surface of the tab has a generally low coefficient of friction, and the tab is flexible.

[0028] Referring to the figures, FIG. 1 shows a shoe 100 having a shoe counter 105 in the back of shoe 100. Shoe counter 105 has exterior surface 110 and interior surface 120. Further, tab 130 is provided, which is permanently attached to the top of the shoe counter's rim 150 via seam 140. Tab 130 is shown in open position, where upper surface 135 of tab 130 is exposed. Seam 140 is smooth, to facilitate sliding and guiding the user's heel into shoe 100. The upper surface of tab 130

preferably has a generally low coefficient of friction, to facilitate sliding the heel into shoe 100. The person of ordinary skill in the art of shoe making would recognize that materials such as, but not limited to, leather, vinyl, or tarpaulin are examples of suitable materials for tab 130.

[0029] FIG. 2 shows the compliant side 230 of tab 130, fixed side 240 of tab 130, free sides 200 and 205 of tab 130, and lower surface 250 of tab 130. Also shown are upper surface of shoe counter 220, and lower surface of shoe counter 210.

[0030] FIG. 3 shows finger loop 300 at the compliant side of tab 130. The finger loop 300 may be introduced via folding tab 130 over itself. Optionally, the finger loop may be provided as an attachment to a single piece tab 130.

[0031] FIG. 4 shows a finger grip 400 at the compliant side of tab 130. The finger grip is a stiff element permanently attached to tab 130, which promotes easy grip of tab 130 via two fingers, such as the index and middle fingers. This grip method is superior to other methods requiring the thumb and index fingers, especially by making the gripping action easier for children and the elderly who lack adequate physical strength and dexterity.

[0032] FIG. 5 shows a mating pair of VELCRO fasteners 500 and 510 permanently attached to the upper exterior surface of the compliant side of tab 130, and the lower exterior surface of the lower side of the shoe's counter. The VELCRO 500 and 510 facilitates removably attaching tab 130 to the lower side of the shoe counter 210.

[0033] FIG. 6 shows a mating pair of snap-button fasteners 600 and 610 permanently attached to the upper exterior surface of the compliant side of tab 130, and the lower exterior surface of the lower side of the shoe's counter. Snap-button fasteners 600 and 610 facilitate removably attaching tab 130 to the lower side of the shoe counter 210.

[0034] FIG. 7 shows a mating pair of magnets 700 and 710 permanently attached to the upper exterior surface of the compliant side of tab 130, and the lower exterior surface of the lower side of the shoe's counter. Magnets 700 and 710 facilitate removably attaching tab 130 to the lower side of the shoe's counter 210. Magnets 700 and 710 are positioned such that the polarities cause the magnets 700 and 710 to attract each other. Optionally, magnets 700 and 710 may be hidden by being embedded within tab 130 and the shoe's counter 130, or covered by shoe's surface material, for aesthetic purposes.

[0035] FIG. 8 shows tab 130 is closed position. The closure of tab 130 is obtaining via VELCRO 500 and 510, snap-buttons 600 and 610, or magnets 700 and 710 on a temporary basis. The person wearing the shoe, or one assisting the wearer, may open or close tab 130 by pulling it apart or pushing it back in place. Optionally, tab 130 is slightly stretchable, to facilitate a tight fit of tab 130 when closed.

[0036] FIG. 9 shows an alternative embodiment, where ring 900 is provided at the compliant side of tab 130. The size of ring 900 is such that the person wearing shoe 100, or the person assisting the wearer, could insert a finger into ring 900 or easily grab it. Hook 910 is provided at the lower side of the exterior surface of the shoe counter 210. Hook 910 points downwards as shown, to facilitate the latching of ring 900. Ring 900, hook 910, and the length of tab 130 are configured to promote the closure of the tab by engaging ring 900 with hook 910.

[0037] FIG. 10 shows tab 130 in closed position 1000 via engagement of ring 900 with hook 910. In this configuration,

tab **130** is preferably made of a slightly stretchable material sufficient to promote taut engagement of ring **900** with hook **910**.

**[0038]** FIG. **11** shows the general direction along which the wearer, or the person assisting the wearer, opens tab **130** and pulls it obliquely up and away from the back of shoe **100** as shown in direction **1100**, causing tab **130** to simultaneously provide a sliding surface for the heel and keeping the shoe's counter as open as possible. The wearer inserts foot into shoe **100**, by resting the heel on tab **130**, applying downward pressure via the heel, and sliding the heel over tab **130** down into shoe **100**, thus easily inserting foot into shoe **100**.

**[0039]** Subsequently, as shown in FIG. **12**, tab **130** is returned from open position **1200** via rotation along direction **1210**, to closed position **1220**, and fastened via any of the means provided earlier.

**[0040]** In the preferred embodiment, the compliant side of the tab has a finger loop, wherein the lower surface of the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with VELCRO type fastening elements. Alternatively, the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with a snap-buttons or magnets.

**[0041]** In another embodiment, the compliant side of the tab has a finger grip, wherein the lower surface of the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with VELCRO type fastening element. Alternatively, the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with a snap-buttons or magnets.

**[0042]** In yet another embodiment, the compliant side of the tab has a ring, wherein the ring removably attaches to the exterior surface of the shoe's counter with a hook attached to the lower side of the exterior surface of the shoe's counter, and preferably the tab is stretchable to ensure a taut fit.

**[0043]** The present invention can be used by detaching the compliant side of the tab from the lower side of the exterior surface of the shoe's counter, obliquely stretching the tab up and away from the shoe, inserting the foot into the shoe, resting the heel on the upper surface of the tab, applying downward pressure with the heel, resulting in the heel and the foot easily sliding into the shoe. Subsequently, the compliant side of the tab is lowered against the lower side of the exterior surface of the shoe's counter, and attached to the shoe's counter via fastening means described earlier.

**[0044]** Furthermore, it should be noted that the design of tab **130**, including color and shape, may be created to achieve aesthetically pleasing results for the appearance of the shoe. The primary users of this invention are expected to be young children and the elderly who have difficulty wearing shoes; however, the invention can easily be adapted for shoes worn by other age groups.

**[0045]** While the present invention has been described above in terms of specific embodiments, it is to be understood that the invention is not limited to these disclosed embodiments. Many modifications and other embodiments of the invention will come to mind of those skilled in the art to which this invention pertains, and which are intended to be and are covered by both this disclosure and the appended claims. It is indeed intended that the scope of the invention should be

determined by proper interpretation and construction of the appended claims and their legal equivalents, as understood by those of skill in the art relying upon the disclosure in this specification and the attached drawings.

What is claimed is:

1. An integrated shoehorn, comprising:
  - a) a tab, having an upper surface, a lower surface, a fixed side, a compliant side, and a plurality of free sides,
  - b) wherein, the fixed side of the tab is permanently and securely fastened to the rear rim of a shoe's counter along a seam, and
  - c) wherein, the compliant side of the tab is temporarily fastened to the lower exterior side of the shoe's counter.
2. The integrated shoehorn of claim 1, wherein the seam between the fixed side of the tab and the rim of the shoe's counter is smooth.
3. The integrated shoehorn of claim 2, wherein the upper surface of the tab has a generally low coefficient of friction.
4. The integrated shoehorn of claim 3, wherein the tab is generally flexible.
5. The integrated shoehorn of claim 4, wherein the tab is generally resilient.
6. The integrated shoehorn of claim 5, wherein the compliant side of the tab has a finger loop.
7. The integrated shoehorn of claim 6, wherein the lower surface of the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with a VELCRO fastening element.
8. The integrated shoehorn of claim 6, wherein the lower surface of the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with a snap-button fastening element.
9. The integrated shoehorn of claim 6, wherein the lower surface of the compliant side of the tab removably fastens to the lower side of the exterior surface of the shoe's counter with a pair of magnets.
10. The integrated shoehorn of claim 5, wherein the compliant side of the tab has a finger grip.
11. The integrated shoehorn of claim 10, wherein the lower surface of the compliant side of the tab removably attaches to the lower side of the exterior surface of the shoe's counter with a VELCRO fastening element.
12. The integrated shoehorn of claim 10, wherein the lower surface of the compliant side of the tab removably attaches to the lower side of the exterior surface of the shoe's counter with a snap-button fastening element.
13. The integrated shoehorn of claim 10, wherein the lower surface of the compliant side of the tab removably attaches to the lower side of the exterior surface of the shoe's counter with a pair of magnets.
14. The integrated shoehorn of claim 5, wherein a ring is attached to the compliant side of the tab.
15. The integrated shoehorn of claim 14, wherein a hook is positioned centrally and downwardly pointing on the lower end of the exterior surface of the shoe's counter.
16. The integrated shoehorn of claim 15, wherein the tab is stretchable.
17. The integrated shoehorn of claim 16, wherein the ring removably attaches to the hook.

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