

**(12) STANDARD PATENT**  
**(19) AUSTRALIAN PATENT OFFICE**

(11) Application No. **AU 2015303831 B2**

(54) Title  
**Adaptable shoe**

(51) International Patent Classification(s)  
**A43B 3/24** (2006.01) **A43B 13/36** (2006.01)

(21) Application No: **2015303831** (22) Date of Filing: **2015.08.11**

(87) WIPO No: **WO16/023078**

(30) Priority Data

(31) Number	(32) Date	(33) Country
<b>2014903115</b>	<b>2014.08.11</b>	<b>AU</b>

(43) Publication Date: **2016.02.18**

(44) Accepted Journal Date: **2019.08.01**

(71) Applicant(s)  
**Chandni Sethi**

(72) Inventor(s)  
**Sethi, Chandni**

(74) Agent / Attorney  
**IP GATEWAY PATENT & TRADE MARK ATTORNEYS PTY LTD, PO Box 1321, SPRINGWOOD, QLD, 4127, AU**

(56) Related Art  
**WO 2012/045977 A1**  
**US 8065821 B1**  
**US 7111416 B2**  
**US 2013/0139408 A1**



- (51) International Patent Classification:  
A43B 3/24 (2006.01) A43B 13/36 (2006.01)
- (21) International Application Number:  
PCT/AU2015/050454
- (22) International Filing Date:  
11 August 2015 (11.08.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2014903115 11 August 2014 (11.08.2014) AU
- (72) Inventor; and
- (71) Applicant : SETHI, Chandni [AU/AU]; c/- Level 32,  
239 George Street, Brisbane, Queensland 4000 (AU).
- (74) Agent: CULLENS; Level 32, 239 George Street, Bris-  
bane, Queensland 4000 (AU).
- (81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

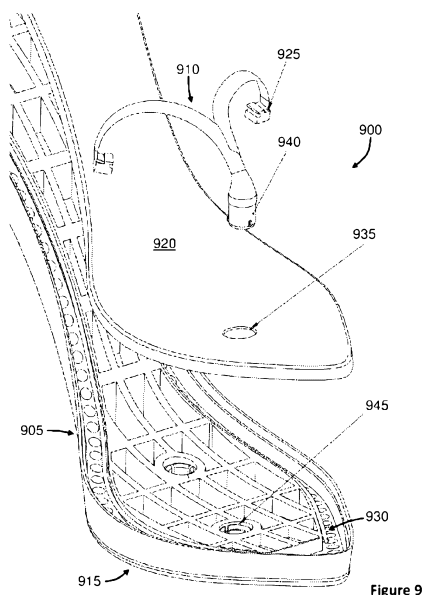
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,  
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,  
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,  
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,  
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,  
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,  
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,  
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,  
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,  
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,  
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, KM, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report (Art. 21(3))

(54) Title: ADAPTABLE SHOE



(57) Abstract: A first item of footwear is provided including a midsole; an upper, releasably coupled to the midsole; and a sole releasably coupled to the midsole. A second item of footwear is provided including a sole; an upper, releasably coupled to the sole; and a toe support releasably coupled to the sole. A third item of footwear is provided including: a sole; a first upper portion attached to the sole; and a second upper portion releasably coupled to first upper portion, such that the second upper portion can be coupled to the first upper portion while the shoe is being worn.



## ADAPTABLE SHOE

### TECHNICAL FIELD

[0001] The present invention relates to footwear that can be adapted.

### BACKGROUND ART

[0002] Footwear was initially provided as a means for protecting the feet, and providing comfort when walking or running. For example, shoes can protect a wearer's feet from sharp objects, provide grip, and provide comfort when walking or running.

[0003] More recently, fashion has had a great influence on footwear. High heels are an example of shoes that serve little functional purpose, other than appearing to increase the height of the wearer.

[0004] A problem with footwear of the prior art is that fashion changes, at times rapidly. As such, shoes that are still in good condition are often discarded for shoes of a new style, which is both costly and bad for the environment.

[0005] Furthermore, different shoes are generally provided for different seasons. For example, winter footwear may comprise high boots, whereas summer footwear may comprise shoes or low boots.

[0006] Certain attempts have been made to provide shoes that can be adapted to suit a particular fashion or purpose. However, such shoes are generally uncomfortable, difficult to modify, or very limited in how they can be modified.

[0007] It will be clearly understood that, if a prior art publication is referred to herein, this reference does not constitute an admission that the publication forms part of the common general knowledge in the art in Australia or in any other country.

### SUMMARY OF INVENTION

[0008] The present invention is directed to footwear, which may at least partially overcome at least one of the abovementioned disadvantages or provide the consumer with a useful or commercial choice.

[0009] With the foregoing in view, according to a first aspect, the present invention resides broadly in an item of footwear including:

a midsole;

an upper, releasably coupled to the midsole; and a sole releasably coupled to the midsole wherein the upper comprises a locking member, configured to be received and locked into a channel of the midsole, the locking member held in place by an insole, which fits over the midsole and over the locking member and channel.

[0010] According to certain embodiments, the item of footwear is very versatile as different sections of the shoe can be changed for style, comfort and wear and tear.

[0011] The sole may comprise an insole or an outer sole.

[0012] The item of footwear may comprise a boot, a shoe, a sandal or a wedge.

[0013] The upper may be releasably coupled to the midsole by a plurality of retaining members. Similarly, the sole may be releasably coupled to the midsole by a plurality of retaining members.

[0014] The retaining members may be press-fit retaining members.

[0015] The retaining members may comprise bulbous heads and retaining slots for receiving the bulbous heads. The retaining slots may include retaining arms for retaining the bulbous heads.

[0016] The midsole may include at least a portion of the retaining slots. The upper may include a portion of the bulbous heads. Similarly, the sole may include a portion of the bulbous heads. The midsole may include all of the retaining slots.

[0017] The bulbous heads of the upper and the bulbous heads of the sole may be arranged on the upper and the sole such that they attach to the midsole in an alternate arrangement along a perimeter of the midsole.

[0018] The sole may comprise a forward sole, for supporting a front portion of the item of footwear, and a heel for supporting a rear portion of the item of footwear.

[0019] The sole may comprise an insole, for supporting a foot of a wearer of the item of footwear. The insole may further provide a means for attachment of the upper. As such, the upper may be indirectly coupled to the midsole by the insole.

[0020] A receptacle may be provided in the midsole. The receptacle may be configured to store components of the shoe. The shoe may include a near field communication device, in the receptacle. The receptacle may be configured to receive a shank, for supporting the midsole.

[0021] The bulbous heads may be formed of metal or plastic. The retaining slots may comprise metal tracks.

[0022] The upper may comprise leather, canvas, or any other suitable natural or man-made material. The sole can comprise resin, rubber, leather, or any other suitable material.

[0023] The upper may comprise a first upper portion and a second upper portion. The first upper portion may extend from a first side of the midsole to a second side of the midsole.

[0024] The first upper portion may comprise bulbous heads, and an intermediate portion extending between the bulbous heads. The intermediate portion may comprise a leather portion from which metallic bulbous heads extend. Alternatively, the first upper portion may be integrally formed.

[0025] The midsole may be adjustable in length.

[0026] The heel may comprise first and second heel portions, releasably coupled to each other.

[0027] Preferably, the upper comprises a locking member, configured to be received by and locked into a channel of the midsole.

[0028] According to a second aspect, the present invention resides broadly in an item of footwear including:

a sole;

an upper, releasably coupled to the sole; and a toe support releasably coupled to the sole.

[0029] The toe support enables the item of footwear to be adapted from a shoe, for example, to a flip-flop.

[0030] The toe support may comprise a boss. The boss may prevent the foot from lifting away from the sandal.

[0031] The sole may comprise a midsole, coupled to the upper, and an outer sole releasably coupled to the midsole.

[0032] The sole may comprise a midsole and an insole, wherein the insole is releasably

coupled to the midsole.

[0033] The upper may be releasably coupled to the sole using the retaining members of the first aspect.

[0034] According to a third aspect, the present invention resides broadly in an item of footwear including:

a sole;

a first upper portion attached to the sole; and

a second upper portion releasably coupled to first upper portion, such that the second upper portion can be coupled to the first upper portion while the shoe is on.

[0035] The first and second upper portions enable the item of footwear to be adapted heightwise, for example from a shoe to a boot.

[0036] The first upper portion may be releasably attached to the sole.

[0037] The sole may comprise a midsole, coupled to the first upper portion, and an outer sole releasably coupled to the midsole. The sole may comprise a midsole, and an insole coupled to the midsole.

[0038] The second upper portion may include an internal pocket.

[0039] The first upper portion may comprise a shoe-like upper portion, enclosing a foot of a wearer, and the second upper portion may comprise a tube-like portion, enclosing a calf of the wearer.

[0040] The second upper portion may be releasably coupled to first upper portion by a zipper. Alternatively, the second upper portion may be releasably coupled to first upper portion by a shoelace, a hook and loop fastener, studs or buttons

[0041] According to a fourth aspect, the present invention resides broadly in a kit including: a midsole;

a sole for releasably coupling to the midsole; and

a plurality of uppers, each upper for releasably coupling to the midsole,

wherein the midsole, the sole and an upper of the plurality of uppers form a shoe according to the first aspect.

[0042] The kit may further comprise an insole, wherein the insole is releasably coupled to the midsole. The uppers may be indirectly coupled to the midsole by the insole.

[0043] The kit may further comprise a shank, for supporting the midsole.

[0044] The kit may comprise a heel and a shank, wherein the shank is configured to support the midsole at the height of the heel.

[0045] Any of the features described herein can be combined in any combination with any one or more of the other features described herein within the scope of the invention.

[0046] The reference to any prior art in this specification is not, and should not be taken as an acknowledgement or any form of suggestion that the prior art forms part of the common general knowledge.

#### BRIEF DESCRIPTION OF DRAWINGS

[0047] Various embodiments of the invention will be described with reference to the following drawings, in which:

[0048] Figure 1a illustrates an exploded view of an item of footwear in the form of a shoe, according to an embodiment of the present invention;

[0049] Figure 1b illustrates the shoe of Figure 1 in an assembled form;

[0050] Figure 2a illustrates an exploded cross sectional view of a portion of the shoe of Figure 1;

[0051] Figure 2a illustrates a cross sectional view of a portion of the shoe of Figure 1 in an assembled form;

[0052] Figure 3a illustrates a top view of a sandal, according to an embodiment of the present invention;

[0053] Figure 3b illustrates a side view of the sandal of Figure 3a;

[0054] Figure 3c illustrates a front view of the sandal of Figure 3a;

[0055] Figure 3d illustrates a first upper portion of the sandal of Figure 3a, according to an embodiment of the present invention;

[0056] Figure 4 illustrates an alternate configuration of the sandal of Figure 3a, according to an embodiment of the present invention;

[0057] Figure 5a illustrates a side view of a boot, according to an embodiment of the present invention;

[0058] Figure 5b illustrates a front view of a boot of Figure 5a;

[0059] Figure 6 illustrates a second upper portion of the boot of Figure 5a;

[0060] Figure 7a illustrates a midsole, according to an alternative embodiment of the present invention;

[0061] Figure 7b illustrates the midsole of Figure 7a, in an extended form, including a spacer element;

[0062] Figure 8a illustrates a sandal, according to an embodiment of the present invention;

[0063] Figure 8b illustrates the sandal of FIG. 8a, including an additional heel portion;

[0064] Figure 9 illustrates an exploded view of an item of footwear in the form of a shoe, according to an embodiment of the present invention;

[0065] Figure 10a illustrates a close-up view of a front of the shoe of Figure 9 illustrating a channel thereof;

[0066] Figure 10b illustrates a close-up view of a locking member of the shoe of Figure 9;

[0067] Figure 11 illustrates a cross sectional view of the toe member of the shoe of Figure 9 engaged with the mount;

[0068] Figure 12 illustrates a cross section of the heel 915a of the shoe 900, according to an embodiment of the present invention;

[0069] Figure 13 illustrates an exploded lower perspective view of a shoe 1300, according to an embodiment of the present invention; and

[0070] Figure 14 illustrates a portion of a shoe 1400 according to an embodiment of the present invention.

[0071] Preferred features, embodiments and variations of the invention may be discerned from the following Detailed Description which provides sufficient information for those skilled in the art to perform the invention. The Detailed Description is not to be regarded as limiting the scope of the preceding Summary of the Invention in any way.



## DESCRIPTION OF EMBODIMENTS

[0072] Figure 1a illustrates an exploded view of an item of footwear in the form of a shoe 100, according to an embodiment of the present invention. Figure 1b illustrates the shoe 100 in an assembled form.

[0073] The shoe 100 is versatile and can be changed for style, comfort and wear and tear, as discussed further below. In particular, components of the shoe 100 can be interchanged to form different types of shoes.

[0074] The shoe 100 includes an upper 105, a midsole 110 and a sole 115. The upper 105 can comprise leather, canvas, or any other suitable natural or man-made material, and can include decoration. The sole 115 comprises a forward sole 115a and a heel 115b. The forward sole 115a and heel 115b are, in use, in direct contact with the ground. The sole 115 can comprise resin, rubber, leather, or any other suitable material.

[0075] The upper 105 is releasably coupled to the midsole 110, and the sole 115 is releasably coupled to the midsole 110. As such, the upper 105 can be replaced to change the appearance or function of the shoe 100. Similarly, the sole 115 can be replaced, for example due to wear, or to change the style of the shoe, e.g. increase a heel height of the shoe.

[0076] The upper 105 is releasably coupled to the midsole 110 by a plurality of retaining members 120a, as discussed below. Similarly, the sole 115 is releasably coupled to the midsole 110 by a plurality of retaining members 120b, as discussed below.

[0077] Figure 2a illustrates an exploded cross sectional view of the shoe 100, illustrating the retaining members 120a, 120b, according to an embodiment of the present invention. Figure 2b illustrates a cross sectional view of the shoe 100 in assembled form.

[0078] The retaining members 120a comprise upper bulbous heads 205a, upper retaining slots 210a, and upper pairs of retaining arms 215a, inside the upper retaining slots 210a, for retaining the upper bulbous heads 205a. Similarly, the retaining members 120b comprise lower bulbous heads 205b, lower retaining slots 210b, and lower pairs of retaining arms 215b, inside the lower retaining slots 210b, for retaining the lower bulbous heads 205b.

[0079] In use, the upper 105 is press fitted to the midsole 110 by the retaining members 120a, and the sole 115 is press fitted to the midsole 110 by the retaining members 120a. The upper and lower pairs of retaining arms 215a, 215b bend outwardly to enable the

bulbous heads 205a, 205b to enter the retaining slots 210a, 210b, and partially surround the bulbous heads 205a, 205b.

[0080] If either the upper 105 or sole 115 is to be removed from the shoe 100, it is firmly pulled from the shoe in a direction substantially perpendicular to the midsole 110. This causes the pairs of retaining arms 215a, 215b to bend outwardly to enable the bulbous heads 205a, 205b to exit from the midsole 110.

[0081] In the embodiment illustrated in Figure 2a-2b, the midsole 110 includes the retaining slots 210a, 210b, and the upper 105 and sole 115 include the bulbous heads 205a, 205b. This enables a thickness/height of the shoe to be reduced, as a thickness of the midsole can be reduced.

[0082] In particular, the bulbous heads 205a, 205b may be arranged on the upper 105 and the sole 115 such that they attach to the midsole 110 in an alternate arrangement along a perimeter of the midsole 110. As such, the midsole can be approximately twice a height 220 of the bulbous heads 205a, 205b, while maintaining rigidity of the midsole 110. According to certain embodiments, a height of the midsole 110 is less than twice a height 220 of the bulbous heads 205a, 205b.

[0083] The bulbous heads 205a, 205b may, for example, be formed of metal or plastic. The retaining slots 210a, 210b can, for example, comprise metal tracks on the midsole 110. Such an arrangement provides a strong attachment that will be able to withstand normal wear and tear during usage, and will prevent the upper 105 and sole 115 from inadvertently detaching from the midsole 110.

[0084] According to certain embodiments, a receptacle is provided in the midsole 110. As such, components of the shoe, such as the toe piece discussed below, may be stored in the receptacle. The receptacle is advantageously accessible when the midsole 110 and upper 105 are separated, or when the midsole 110 and sole 115 are separated, and not accessible when the midsole 110 is connected to the upper 105 and sole 115. The receptacle may also be configured to receive a shank, to support the midsole 110.

[0085] A cushioned inner sole may clip onto the midsole and be easily removable and replaceable. In such case, access to the receptacle may be provided by removing (or partially removing) the cushioned inner sole.

[0086] According to certain embodiments, the receptacle includes a wireless device. For example, the receptacle may include a near field communication device (not illustrated), for detecting a proximity of the shoe 100 to a receiver. Such configuration may be particular

advantageous for use by children, such that a parent is alerted if the child/shoe leaves a proximity of the parent.

[0087] Preferably, the retaining slots 210a, 210b are at least partially (or fully) concealed when the shoe 100 is assembled.

[0088] The item of footwear is illustrated as the shoe 100, however the skilled addressee will readily appreciate that the item of footwear may comprise a boot, a shoe, a sandal, a slipper, safety footwear, a wedge, any other suitable item of footwear, or a combination thereof, without deviating from the present invention.

[0089] Figure 3a illustrates a top view of a sandal 300, according to an embodiment of the present invention. Figure 3b illustrates a side view of the sandal 300, and figure 3c illustrates a front view of the sandal 300.

[0090] The sandal 300 comprises a sole 305, a toe piece 310 releasably coupled to the sole 305, and first and second upper portions 315a, 315b releasably coupled to the sole 305 by a plurality of retaining slots 320. The toe piece 305 provides support for a foot of a wearer, and in particular prevents the foot from sliding forward in the sandal 300 by engaging between the innermost toe (also known as the hallux or "big toe"), and the second toe (also known as the "long toe").

[0091] The toe piece may comprise a boss. The boss may prevent the foot from lifting away from the sandal 300. The toe piece may comprise a toe ring, for receiving a toe of the user. The toe piece may include an aperture, for receiving a portion of the upper, such as a strap that extends across the foot.

[0092] The first and second upper portions 315a, 315b are similar to the upper 105 of the shoe 100, and provide outer support to the foot of the wearer. Similarly, the sole 305 is similar to the midsole 110/sole 115 of the shoe 100.

[0093] Figure 3d illustrates the first upper portion 315a of the shoe 300, according to an embodiment of the present invention.

[0094] The first upper portion 315a comprises bulbous heads 205a, and an intermediate portion 320 extending between the bulbous heads 205a. The intermediate portion 320 can, for example, comprise a leather portion from which metallic bulbous heads 205a extend. Alternatively, the first upper portion 315a integrally formed, e.g. plastic or rubber based material.

[0095] According to certain embodiments (not illustrated), the sole 305 comprises a midsole and a sole, similar to the midsole 110 and sole 115 of the shoe 100.

[0096] The shoe 300 is illustrated as a sandal. However, as discussed above, various different uppers can be attached to the sole, which can form an open shoe, a closed shoe, a boot or the like. In particular, the toe piece 305 may be used to prevent a foot from slipping forward and out of high heels.

[0097] Figure 4 illustrates an alternate configuration of the sandal 300, according to an embodiment of the present invention.

[0098] The sandal 300 includes first and second upper portions 405, extending from retaining slots 320 on respective sides of sandal 300 to the toe piece 310. As such, the sandal 300 has been transformed into a flip-flop (or thong in Australian English).

[0099] Figure 5a illustrates a side view of a boot 500, according to an embodiment of the present invention, and Figure 5b illustrates a front view of the boot 500.

[00100] The boot 500 comprises a sole 505, in the form of a forward sole 505a and a heel 505b, a first upper portion 510 attached to the sole 505, and a second upper portion 515 releasably attachable to first upper portion. The second upper portion 515 is releasably attachable to first upper portion 510 such that the second upper portion 515 can be coupled to the first upper portion 510 while the boot 500 is on.

[00101] The first upper portion 510 comprises a shoe-like upper portion, enclosing the foot, and the second upper portion 515 comprises a tube-like portion, enclosing a calf of the wearer. The boot 500 can thus be converted between an ankle boots/shoe and a high boot, without taking the boot off. In particular a first zipper 520 enables the first upper portion 510 to be releasably connected to the second upper portion 515.

[00102] The second upper portion 515 includes a second zipper 525 that enables the second upper portion 515 to be wrapped around the leg rather than slid onto the leg, as is typically done with boots. This in turn enables the second upper portion 515 to be wrapped around the leg while the first portion 510 is already on a foot of the wearer.

[00103] When not attached to the first upper portion 510, the second upper portion 515 of the boot 500 can be unrolled into a flat sheet. Figure 6 illustrates the second upper portion 515 of the boot 500, in an unrolled form. The unrolled second upper portion 515 can be compactly stored in a handbag or the like.

[00104] The boot 500 further includes a pocket 605, on an inside of the second upper portion 515. The pocket 605 is advantageously sized to receive a credit or debit card (not shown), or to store cash, a key or the like.

[00105] As the second upper portion 515 can be removed without removing the boot 500, access to the pocket 605 can be achieved without removing the boot 500, while safely protecting the contents of the pocket 605 when the second upper portion 515 is attached. As such, the boot 500 can provide a convenient and safe alternative to carrying a purse.

[00106] The boot 500 is illustrated with zips connecting the first and second upper portions 510, 515, and along the second upper portion 515. However, the skilled addressee will readily appreciate that other attachment means may be used, without deviating from the present invention, including use of shoelaces, hook and loop fasteners, studs, snap buttons, buckles, hooks, clips or the like.

[00107] Similarly, the boot 500 may include third and fourth upper portions coupled to the second upper portion 515. In particular, several upper portions may be joined together to extend a height of a leg portion of the boot 500. In such case, the upper portions can be attached to the second upper portion 515 and/or to each other in a similar manner to that described above with reference to the first and second upper portions 510, 515

[00108] Figure 7a illustrates a midsole 700, according to an alternative embodiment of the present invention. The midsole 700 is adjustable in length.

[00109] The midsole 700 comprises a first portion 705 and a second portion 710, wherein the first portion 705 and the second portion 710 join at a central portion of the midsole. As such, the first portion 705 and the second portion 710 may be separated to increase a length of the midsole 700.

[00110] Figure 7b illustrates the midsole 700, in an extended form, including a spacer element 715. In particular, the first portion 705 and the second portion 710 have been separated, and the spacer element 715 has been placed between the first portion 705 and the second portion 710, to increase a length of the midsole 700.

[00111] The first portion 705 and the second portion 710 may be joined to each other, or to the spacer element 715. Alternatively, the first portion 705 and the second portion 710 may be held in place by an outer sole and/or an upper, such as the sole 115 or the upper 105 of Figure 1.

[00112] The skilled addressee will readily appreciate that the midsole 700 can be adapted to be adjustable in width, for example in the first portion 705 or the second portion 710 of the midsole.

[00113] Alternatively or additionally, the width of the shoe may be adjustable by the upper 105. In particular, the upper may be adjustable in width, for example by increasing an overlap of upper portions to reduce a width of the shoe or decreasing the overlap of upper portions to increase the width of the shoe.

[00114] Furthermore, uppers in various sizes may be provided to accommodate different foot sizes and leg lengths. As an illustrative example, a child may replace an upper of a shoe as the child's foot grows or needs change, while keeping the midsole 700. As such, a substantial portion of the shoe can be reused.

[00115] Figure 8a illustrates a sandal 800, according to an embodiment of the present invention. The sandal 800 includes a sole 805, straps 810 coupled to an upper side of the sole 805, and a first heel portion 815 coupled to an underside of the sole 805.

[00116] The first heel portion 815a may be releasably coupled to the sole 805, for example by using a similar mechanism to that discussed above with reference to Figure 2a and 2b.

[00117] A second heel portion 815b may be releasably coupled to the first heel portion 815a, as illustrated in Figure 8b, in order to increase a height of a heel portion of the sandal 800.

[00118] According to certain embodiments, more than two heel portions 815a, 815b may be coupled to the sandal 800 to increase a height of the shoe. For example, three, four or five heel portions may be joined together to increase a height of a heel.

[00119] According to certain embodiments, the first heel portion 815a is coupled to the sole by a screw, a bolt or the like. In such case, a tool may be provided in a receptacle of the sole to remove and or replace the first heel portion 815a. The second heel portion 815b may be coupled to the first heel portion 815a in a similar manner.

[00120] According to other embodiments, the first heel portion 815a is coupled to the sole by a clip, press-fit retainer, or the like. In such case, no tools may be required to remove and or replace the first heel portion 815a.

[00121] Figure 9 illustrates an exploded view of an item of footwear in the form of a shoe 900, according to an embodiment of the present invention. The shoe is similar to the shoe 100 of Figure 1a and 1b.

[00122] The shoe 900 includes an upper 905, a midsole 910 and a sole 915 and an insole 920. The upper 905, the midsole 910 and the insole 920 are all releasably coupled to each other, as outlined in further detail below. Furthermore, the sole 115 includes a heel 915a (illustrated in Figure 12), which is releasably engageable with the midsole 910.

[00123] The upper 905 is releasably coupled to the midsole 910 by a locking member 925, which slides along and locks into a channel 930, as further detailed in Figure 10a and 10b below. The locking member 925 is then held in place by the insole 920, which fits over the midsole 910 and thus over the locking member 925 and channel 930.

[00124] The insole 920 further includes an aperture 935, through which a toe member 940 of the upper 910 extends and locks into a mount 945 of the midsole 910. In particular, the toe member 940 can be slotted into the mount 945 and locked into place by rotating the toe member 940 relative to the mount 945, as discussed in further detail with reference to Figure 11.

[00125] Figure 10a illustrates a close-up view of a front of the shoe 900 illustrating the channel 930, and Figure 10b illustrates a close-up view of the locking member 925.

[00126] The channel 930 is defined by a floor 1005, opposing sidewalls 1010a, 1010b extending upwardly from the floor 1005, and a rail 1015, extending inwardly from the sidewall 1010a. The locking member 925 is defined by a base 1020, opposing sidewalls 1025a, 1025b extending upwardly from the base 1020 and a channel 1030.

[00127] The locking member 925 is configured to slide along the channel 930, while lateral movement is prevented by the rail 1015 and sidewalls 1010a, 1010b. In particular, the sidewalls 1025a, 1025b of the locking member 925 (abut) the sidewalls 1010a, 1010b of the channel 930, preventing rotation of the locking member 925 in the channel 930, and the rail 1015 engages with the channel 1030 to prevent lateral translation of the locking member 925.

[00128] The floor 1005 of the channel 930 includes a plurality of depressions 1035, spaced periodically along a length of the channel 930. The locking member 925 includes a protuberance (not illustrated) extending downwardly from the base 1020, which engages with a depression of the plurality of depressions 1035 to prevent the locking member 925 from sliding freely along the channel 930. As such, the upper is held in place by the locking

member 925.

[00129] Figure 11 illustrates a cross sectional view of the toe member 940 engaged with the mount 945.

[00130] The toe member 940 comprises a metallic or plastic boss with three lobes 1105 that align with corresponding slots of the mount 940 when the boss is twisted 30 degrees from center. The toe member 940 is pushed into the mount 945 such that the lobes 1105 travel along the channels, and is then rotated into a locking position such that the lobes no longer align with the slots to prevent inadvertent removal of the toe member 940.

[00131] The mount 945 comprises a moulded ridge that extends around a periphery of the mount, through which the slots extend. As such, the moulded ridge prevents removal of the toe member 940 together with the lobes 1105.

[00132] A tubular mount of the sole 915 extends upward into the mount 945, and includes a front sole mount clip ridge 1115, which seats against the moulded ridge of the midsole, and prevents removal of the toe member 940 from the shoe.

[00133] Figure 12 illustrates a cross section of the heel 915a of the shoe 900, according to an embodiment of the present invention.

[00134] The heel includes a securing pin 1205, partially overmoulded, and configured to extend into and engage with a mount of the midsole 905. An upper portion of the securing pin 1205 is hollow, and is configured to receive a securing pin 1210 of the insole 920. The securing pin 1210 biases a fastening channel 1215 of the securing pin 1205 against a fastening ridge 1220 of the mount of the midsole 905.

[00135] The insole 920 is releasably coupled to the midsole 905 by rivets. In particular, a male rivet 1225 of the insole 920 engages with a female rivet 1230 of the midsole in a press-fit like action.

[00136] Finally, the midsole includes a square-shaped locating boss 1235, which assists the user in locating the heel 915a onto the shoe 900. In particular, the heel 915a includes a corresponding recess, which ensures that the heel 915a, and in particular the securing pin 1205 is aligned with the mount when attaching the heel 915a.

[00137] Figure 13 illustrates an exploded lower perspective view of a shoe 1300, according to an embodiment of the present invention. The shoe 1300 includes an inner sole 1305, a support shank 1310, a midsole 1315, and a sole in the form of a front sole 1320a and a heel 1320b, and is similar to the shoe 900.



[00138] The inner sole 1305 includes a plurality of ball studs 1325 that engage with corresponding recesses of the midsole 1315 in a snap-fit like manner.

[00139] Uppers, such as straps and vamps, and upper accessories, such as bands, ribbons, flowers, chains or the like, may include holes such that they may attach to the shoe 1300 by pushing a part of the accessory over one or more ball studs 1325. This negates the need for an extra system to secure uppers or upper accessories to the shoe, and simplifies assembly.

[00140] The shank 1310 is received in a recess of the midsole 1315, and below the inner sole 1305, and provides support to the midsole 1315 and gives the shoe 1300 shape. The midsole 1315 is generally formed of semi soft material, and may be configured to conform to different shanks 1310, to provide different shapes for different heel heights.

[00141] The items of footwear disclosed above are incredibly versatile, and may be adapted to suit changing fashions, changing requirements (e.g. through the addition of safety requirements, or due to weather changes), or due to growth of a foot, particular in the case of children. The items of footwear also enable longevity as different sections of the shoe can be replaced due to wear and tear.

[00142] According to certain embodiments, the retaining members may include a soft internal overlay to increase wearer comfort.

[00143] Figure 14 illustrates a portion of a shoe 1400 according to an embodiment of the present invention. The shoe 1400 can be adapted in length and/or width, as outlined in further detail below.

[00144] The shoe 1400 comprises a midsole having a front midsole portion 1405a, and a rear midsole portion 1405b, which are held together and supported by a shank 1410. The rear midsole portion 1405b includes first and second pins 1415, which engage with corresponding portions of the front midsole portion 1405a, to provide lateral support between the front midsole portion 1405a and the rear midsole portion 1405b.

[00145] The shank 1410 includes front and rear apertures 1420, which engage with circular clips 1425 of the front midsole portion 1405a and the rear midsole portion 1405b. As such, the shank 1410 not only provides support for the midsole, but also prevents the front midsole portion 1405a from disengaging with the rear midsole portion 1405b.

[00146] The shoe 1400 may be made wider and/or longer by replacing the front midsole portion 1405a, or adjusted in any way through the selection of matching front and rear

midsole portions 1405a, 1405b.

[00147] The items of footwear disclosed above may be provided as a kit. In particular, a kit may be provided including several upper portions, several heel portions, and/or several sole portions, for changing an appearance or function of the shoe. The upper portions may be provided in different materials, colours, sizes, lengths, styles and thicknesses, to change a style or function of the footwear. Similarly, heels and/or soles of different heights, colours or styles may be provided.

[00148] The items of footwear may include toe and heel uppers that have attachment points on inner and/or outer sides that can be used to attach the front toe and back heel sections together with straps/ribbons/laces/scarves or other means to enhance comfort and style.

[00149] An upper strip may be used to cover the track/retaining slots on the midsole when not used.

[00150] The items of footwear illustrated above are primarily ladies shoes. However, the skilled addressee will readily appreciate that the shoes disclosed herein can be easily modified to become men's, children's, or unisex shoes.

[00151] In the present specification and claims (if any), the word 'comprising' and its derivatives including 'comprises' and 'comprise' include each of the stated integers but does not exclude the inclusion of one or more further integers.

[00152] Reference throughout this specification to 'one embodiment' or 'an embodiment' means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, the appearance of the phrases 'in one embodiment' or 'in an embodiment' in various places throughout this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner in one or more combinations.

[00153] In compliance with the statute, the invention has been described in language more or less specific to structural or methodical features. It is to be understood that the invention is not limited to specific features shown or described since the means herein described comprises preferred forms of putting the invention into effect. The invention is, therefore, claimed in any of its forms or modifications within the proper scope of the appended claims (if any) appropriately interpreted by those skilled in the art.

## CLAIMS:

1. An item of footwear, the item of footwear comprising:  
a midsole;  
an upper, releasably coupled to the midsole;  
and a sole releasably coupled to the midsole wherein the upper comprises a locking member, configured to be received and locked into a channel of the midsole, the locking member held in place by an insole, which fits over the midsole and over the locking member and channel.
2. The item of footwear of claim 1, comprising a boot, a shoe, a sandal or a wedge.
3. The item of footwear of claim 1, wherein the upper is releasably coupled to the midsole by a plurality of locking members.
4. The item of footwear of claim 1, wherein the sole is releasably coupled to the midsole by a plurality of retaining members.
5. The item of footwear of claim 4, wherein the retaining members comprise press-fit retaining members.
6. The item of footwear of claim 1, wherein the sole comprises a forward sole, for supporting a front portion of the item of footwear, and a heel for supporting a rear portion of the item of footwear.
7. The item of footwear of claim 1, wherein the insole is for supporting a foot of a wearer of the item of footwear.
8. The item of footwear of claim 1, further comprising a receptacle in the midsole, wherein the receptacle is configured to store either a) components of the shoe, b) a shank for supporting the midsole, or c) a near field communication device.
9. The item of footwear of claim 1, wherein the upper may comprise a first upper portion and a second upper portion.
10. The item of footwear of claim 1, wherein the midsole is adjustable in length.
11. The item of footwear of claim 1, further comprising;  
a toe support releasably coupled to the midsole.

12. The item of footwear of claim 11, wherein the toe support comprises a boss.
13. The item of footwear of claim 1 further comprising;  
a second upper portion releasably coupled to the upper, such that the second upper portion can be coupled to the upper while the shoe is being worn.
14. The item of footwear of claim 13, wherein the second upper portion includes an internal pocket.
15. The item of footwear of claim 13, wherein the second upper portion is releasably coupled to upper by a zipper, a shoelace or a hook and loop fastener.
16. A kit for assembling an item of footwear, the kit comprising:  
a midsole;  
a sole for releasably coupling to the midsole;  
a plurality of uppers, each upper for releasably coupling to the midsole; and  
wherein the midsole, the sole and an upper of the plurality of uppers are configured to form a shoe according to claim 1.
17. The kit of claim 16, further comprising a heel, and a shank, and wherein the shank is configured to support the midsole at the height of the heel.

1/9

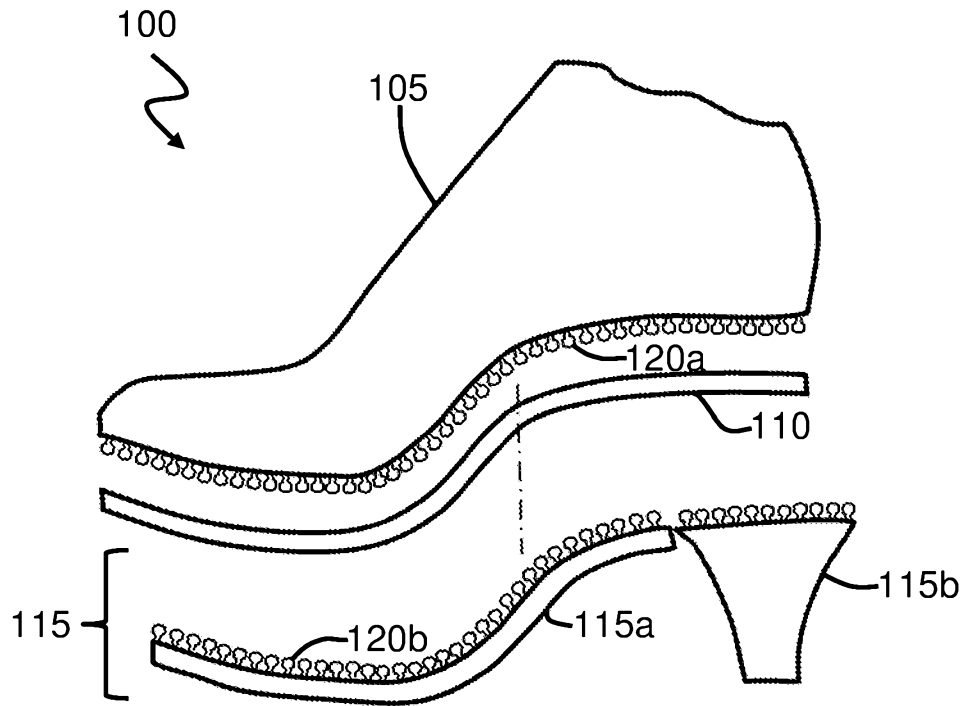


Figure 1a

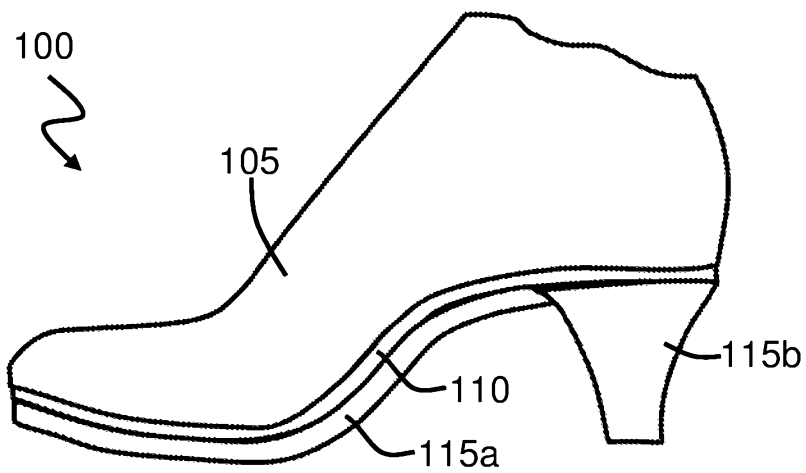
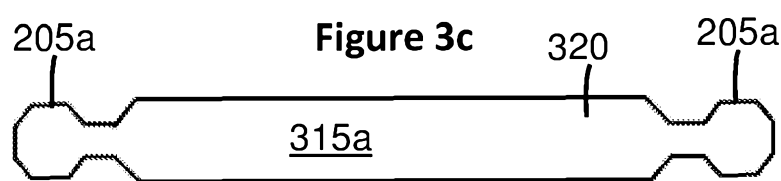
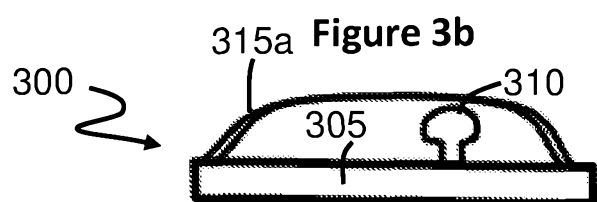
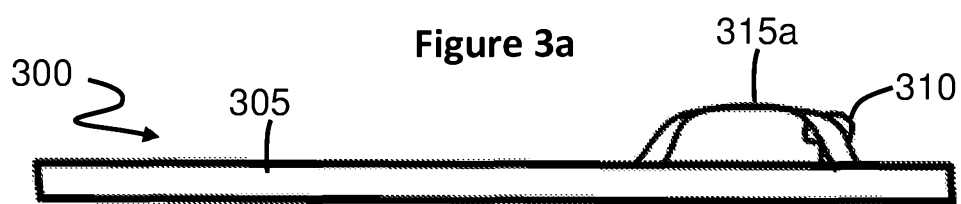
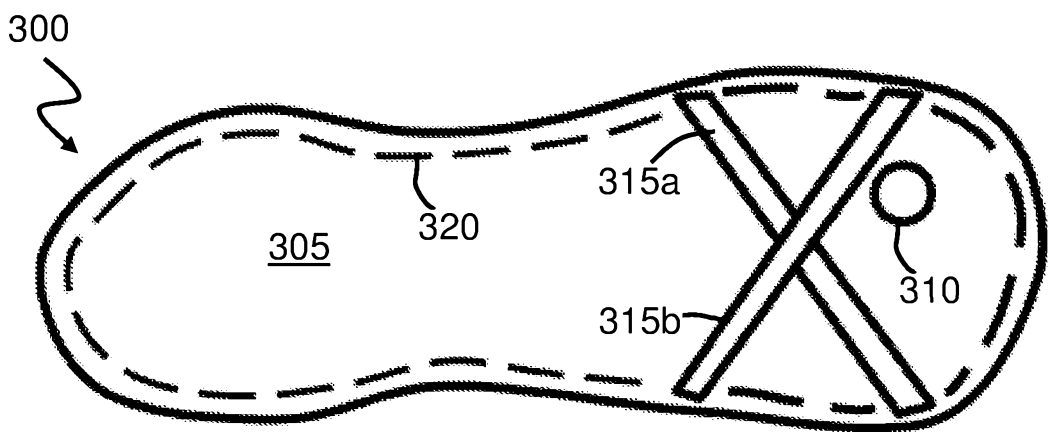
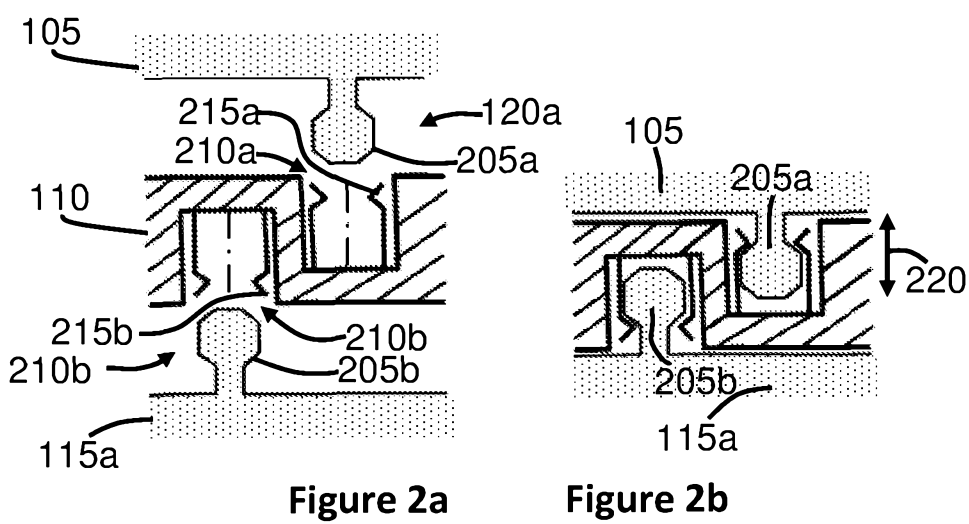


Figure 1b



3/9

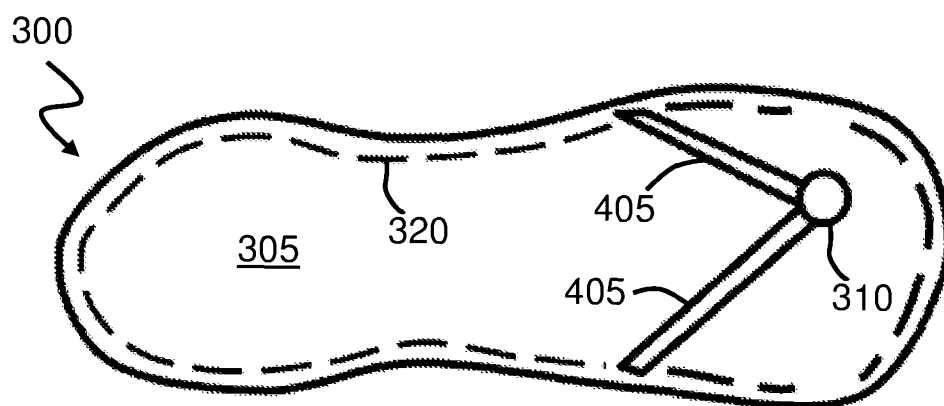


Figure 4

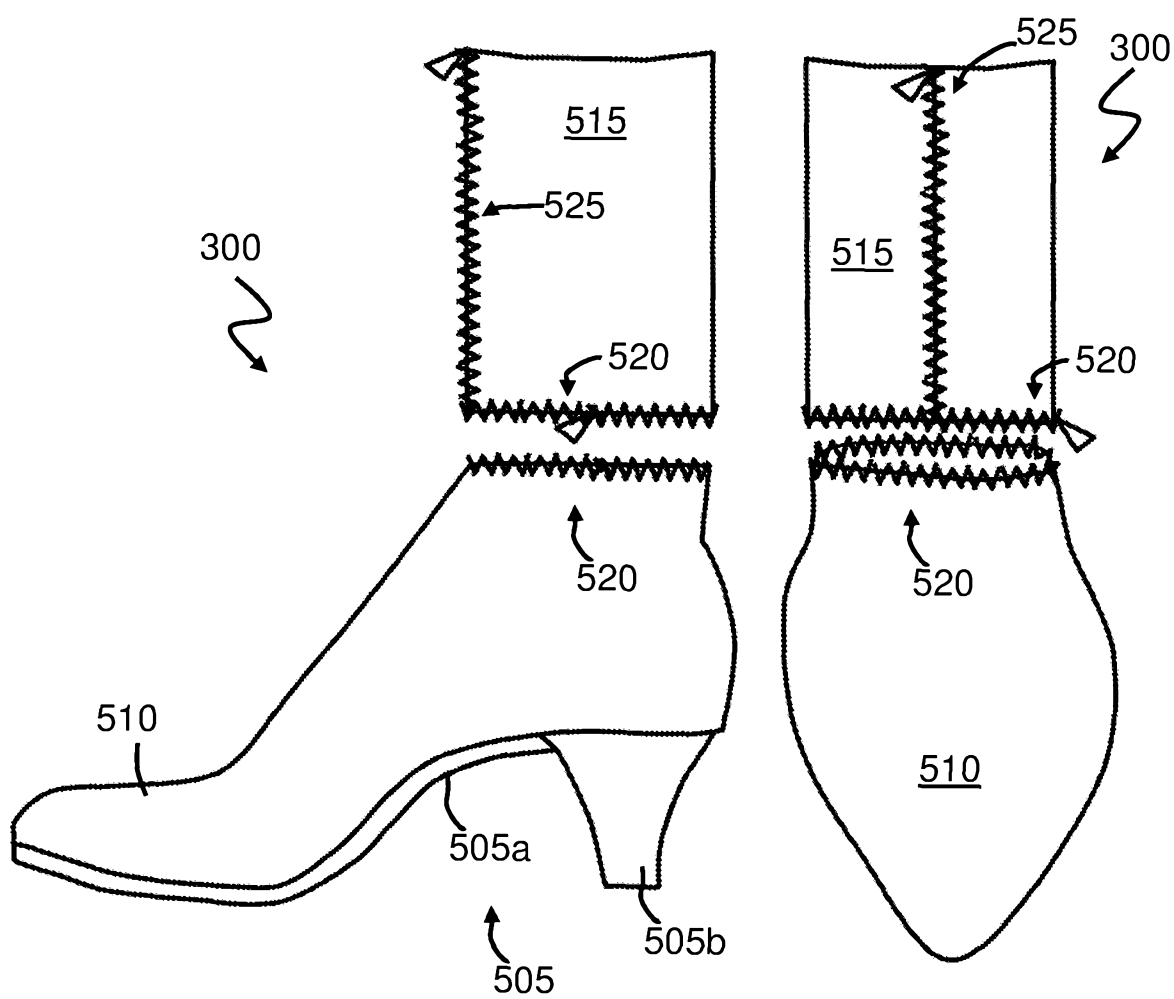


Figure 5a

Figure 5b

4/9

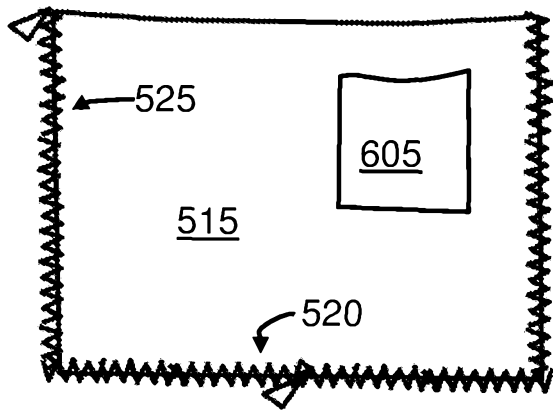


Figure 6

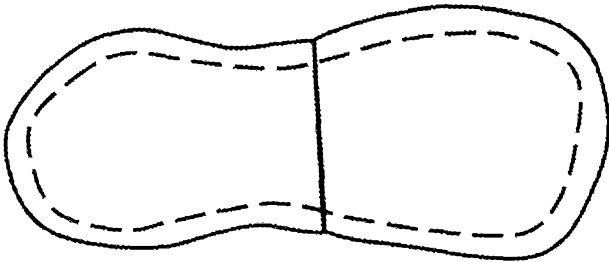


Figure 7a

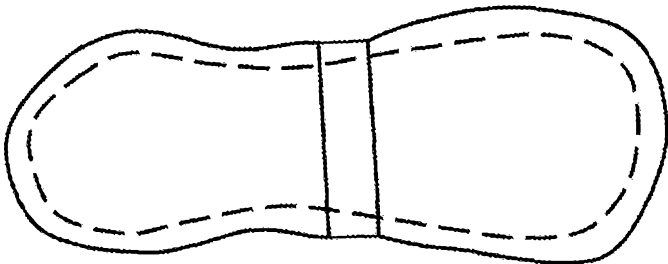


Figure 7b



Figure 8a



Figure 8b



5/9

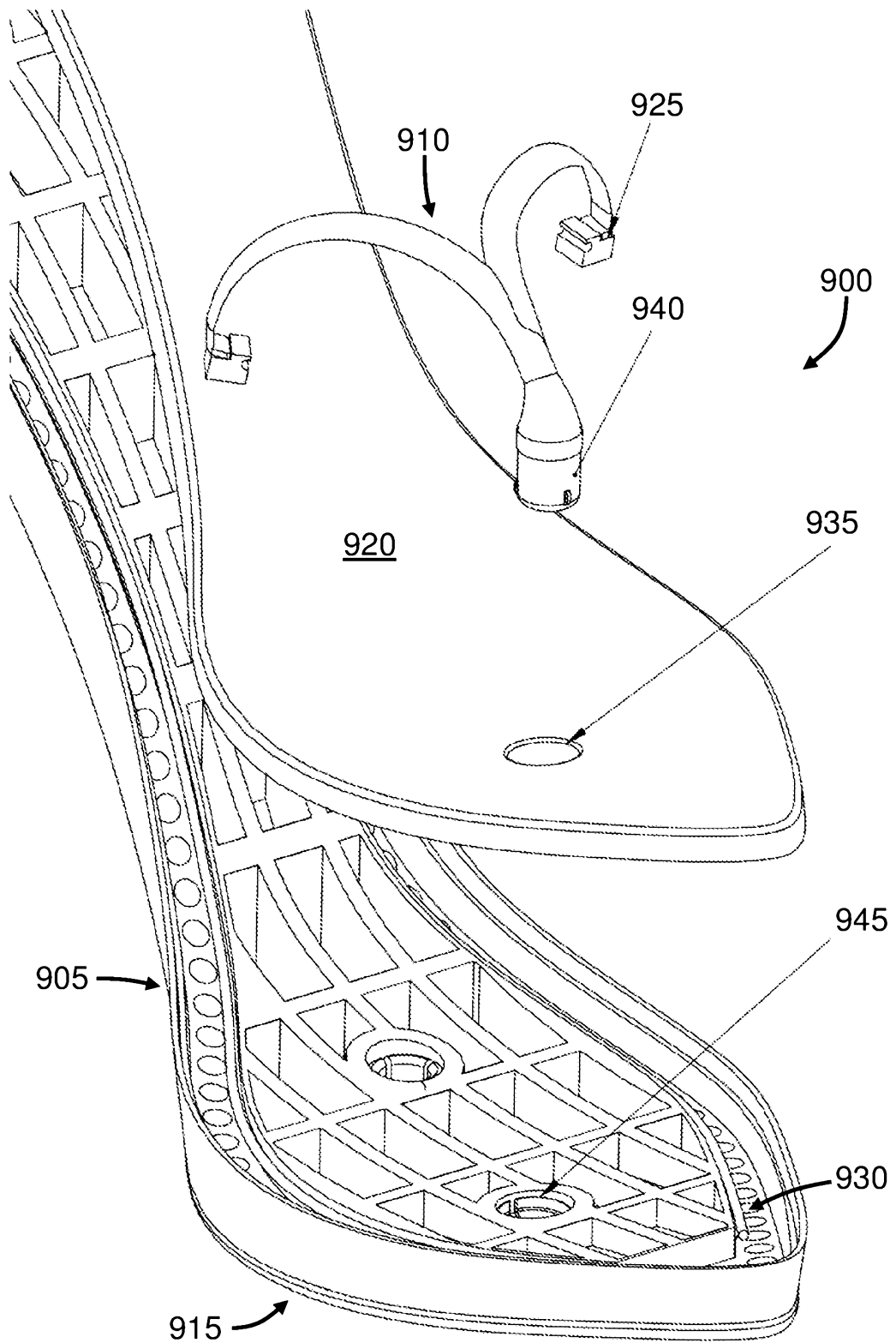


Figure 9

6/9

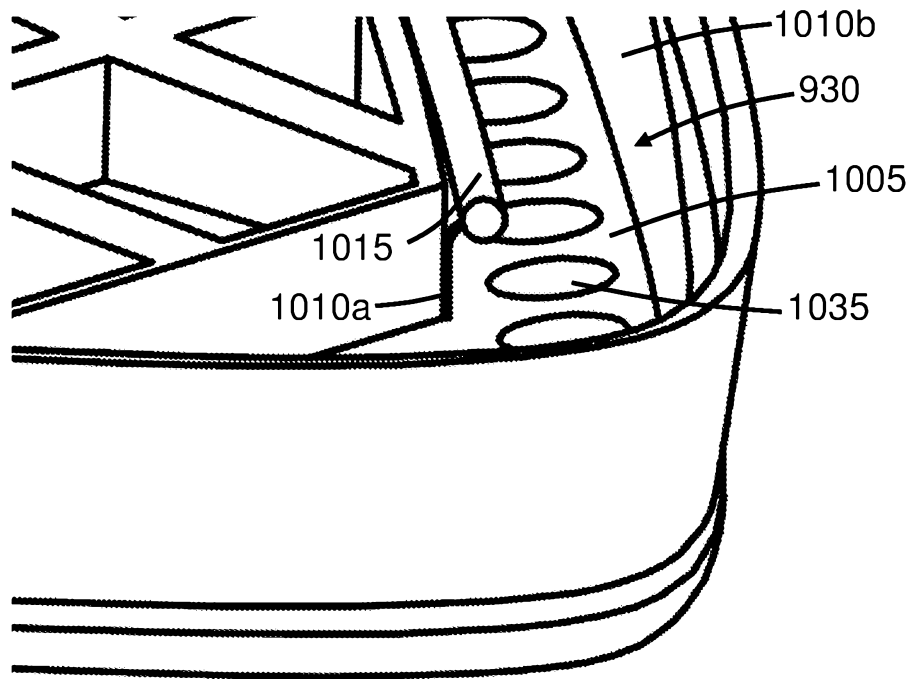


Figure 10a

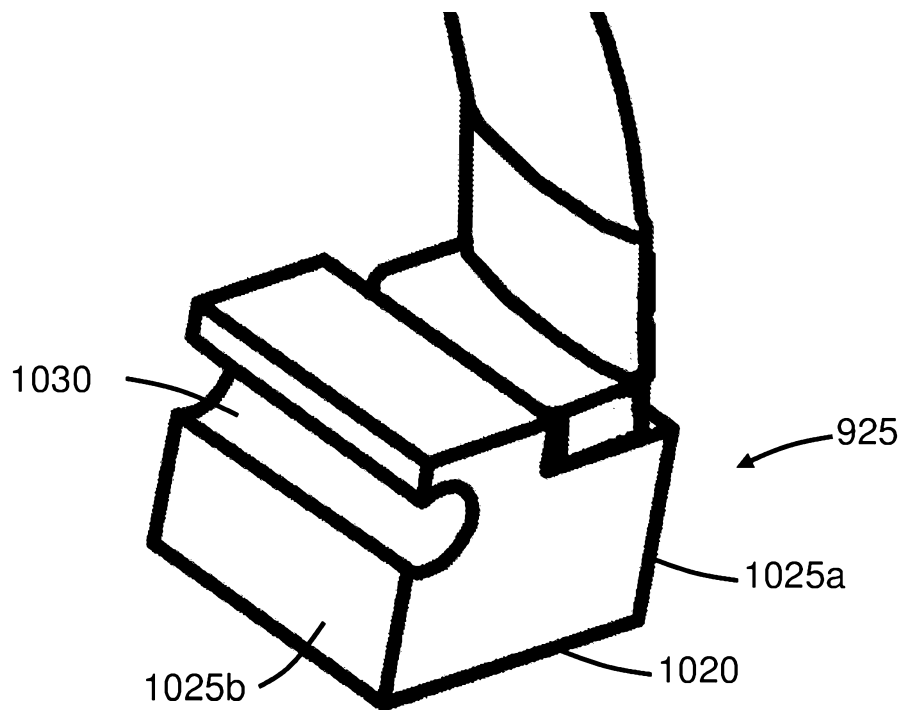


Figure 10b

7/9

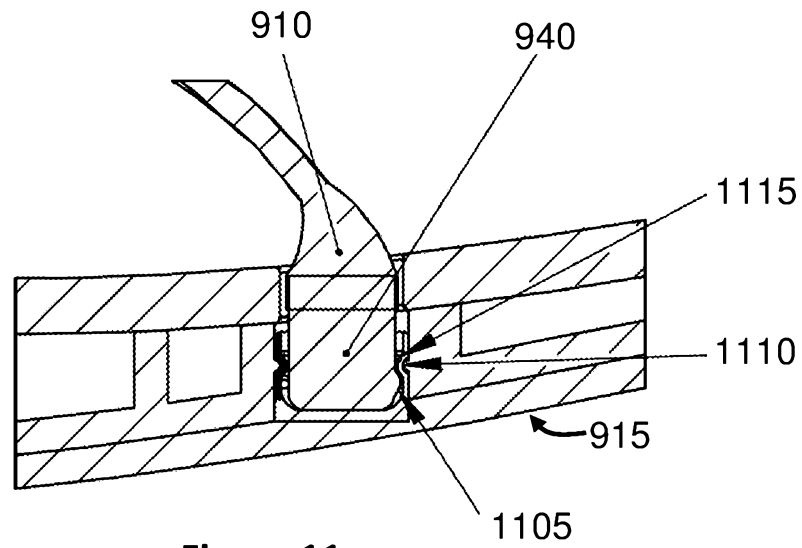


Figure 11

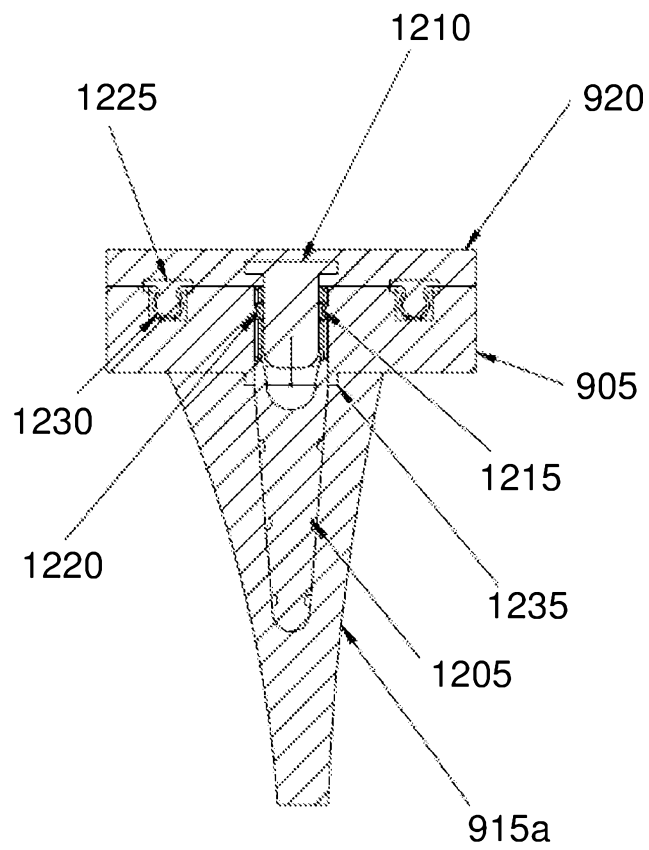


Figure 12

8/9

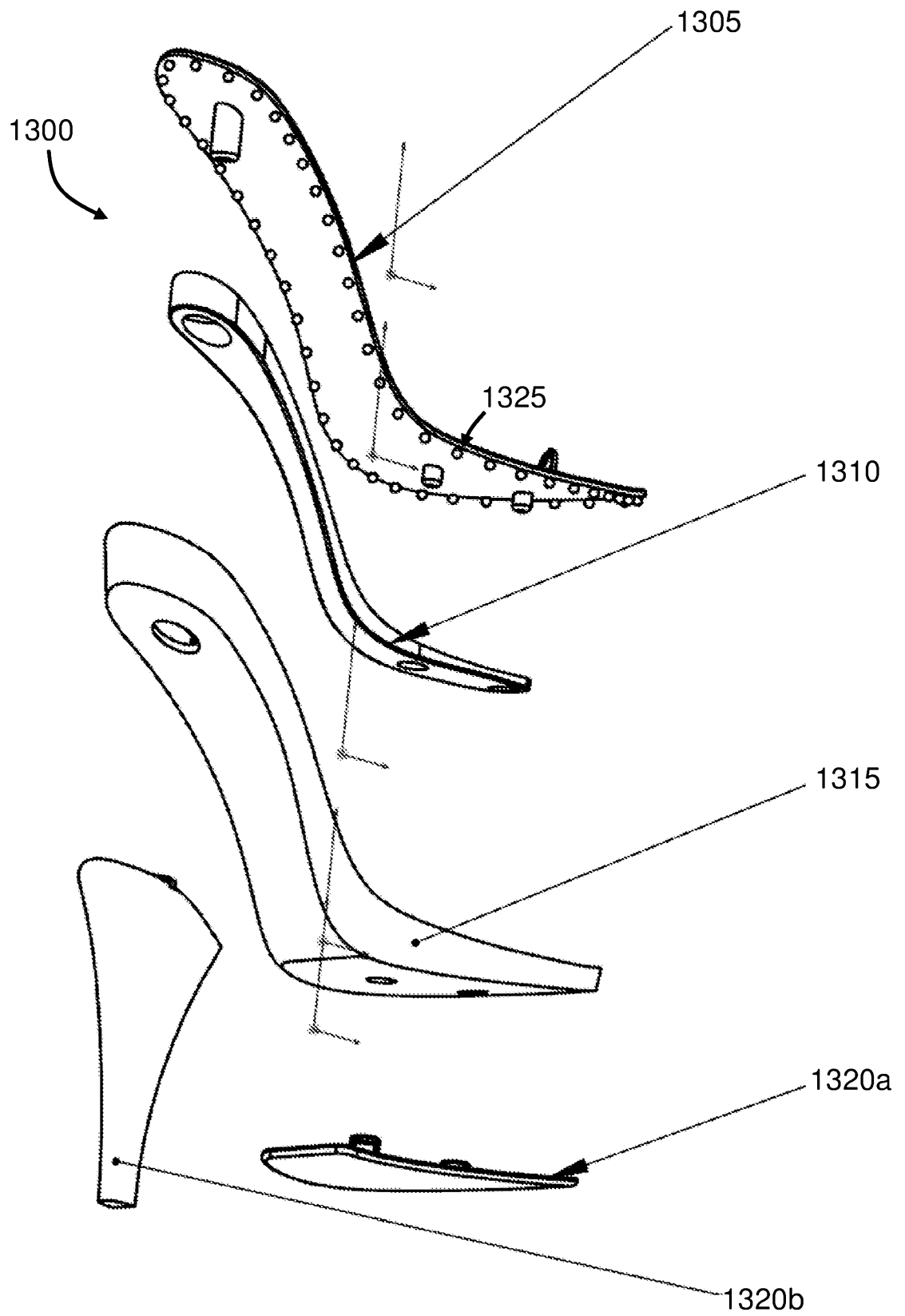


Figure 13

9/9

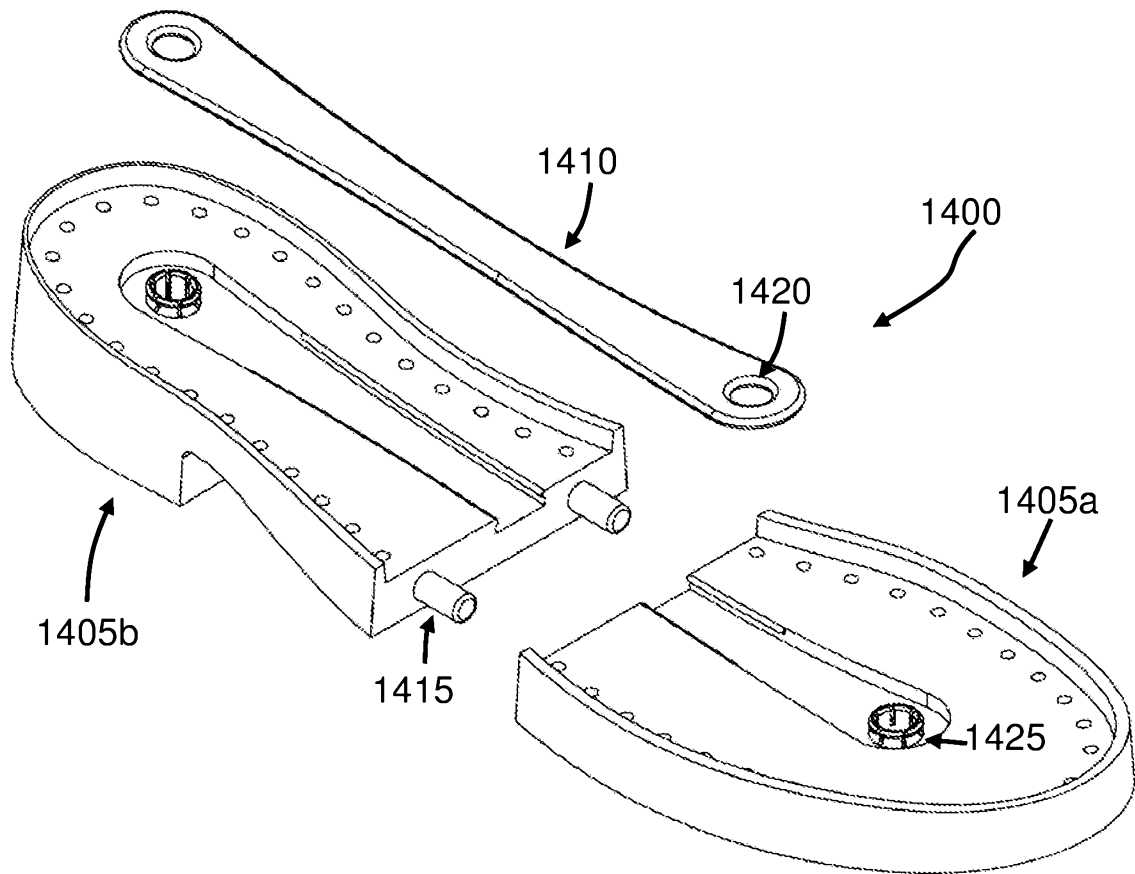


Figure 14