



(19) **United States**

(12) **Patent Application Publication**
El-Dairy et al.

(10) **Pub. No.: US 2023/0284736 A1**

(43) **Pub. Date: Sep. 14, 2023**

(54) **DEVICES FOR PROMOTING LABOUR AND METHODS OF USE**

(52) **U.S. Cl.**
CPC *A43B 7/38* (2013.01); *A63B 23/0464* (2013.01); *A63B 2208/0209* (2013.01)

(71) Applicants: **Maryann El-Dairy**, Hamilton (CA);
David Dawood, Hamilton (CA)

(57) **ABSTRACT**

(72) Inventors: **Maryann El-Dairy**, Hamilton (CA);
David Dawood, Hamilton (CA)

Devices and methods are provided for promoting labour. An example device includes a platform and an upper portion. The platform includes a substantially level upper surface to receive a first foot of the user. The platform is substantially rigid to support the user's weight. The upper surface defines a height that provides an elevation differential between the first foot and a second foot of the user. The elevation differential can cause an uneven gait when the user walks while wearing the device. The upper portion is attached to the platform for releasably securing the platform to the first foot of the user. An example method involves positioning a first foot of a user on an upper surface of a platform device, securing the platform device to the first foot; and walking with the platform device secured to the first foot and a second foot of the user being free.

(21) Appl. No.: **18/119,479**

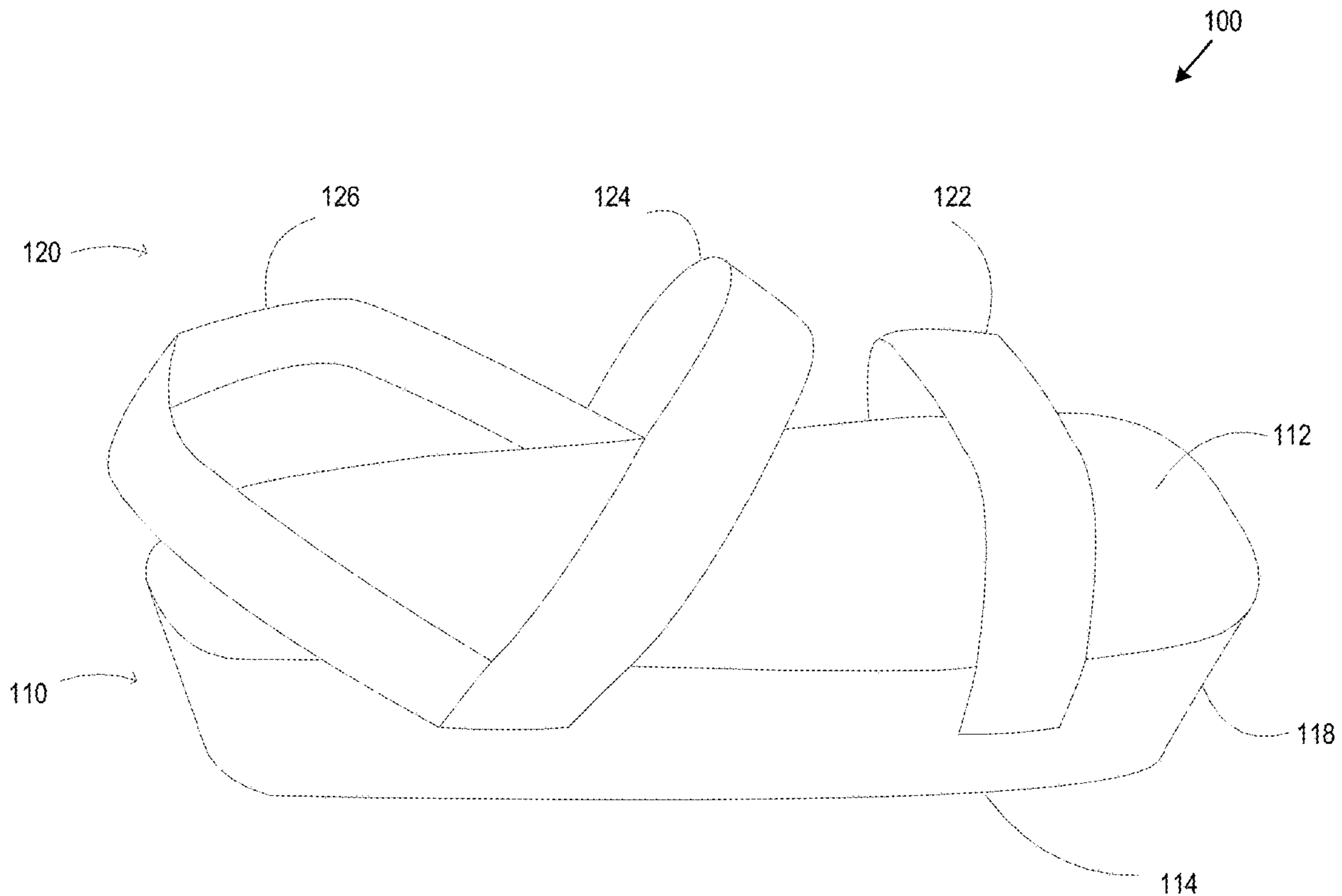
(22) Filed: **Mar. 9, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/318,015, filed on Mar. 9, 2022.

Publication Classification

(51) **Int. Cl.**
A43B 7/38 (2006.01)
A63B 23/04 (2006.01)



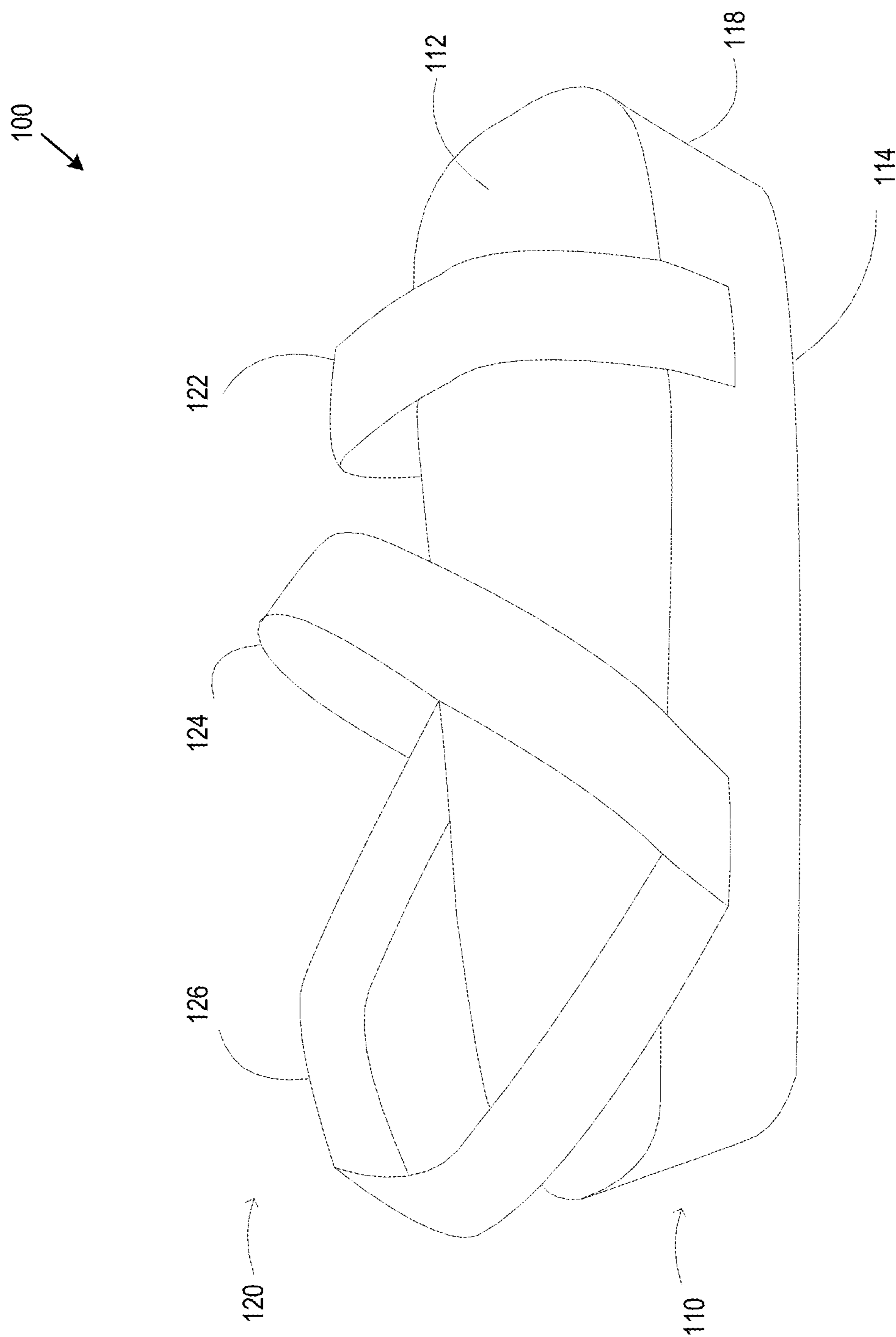


FIG. 1

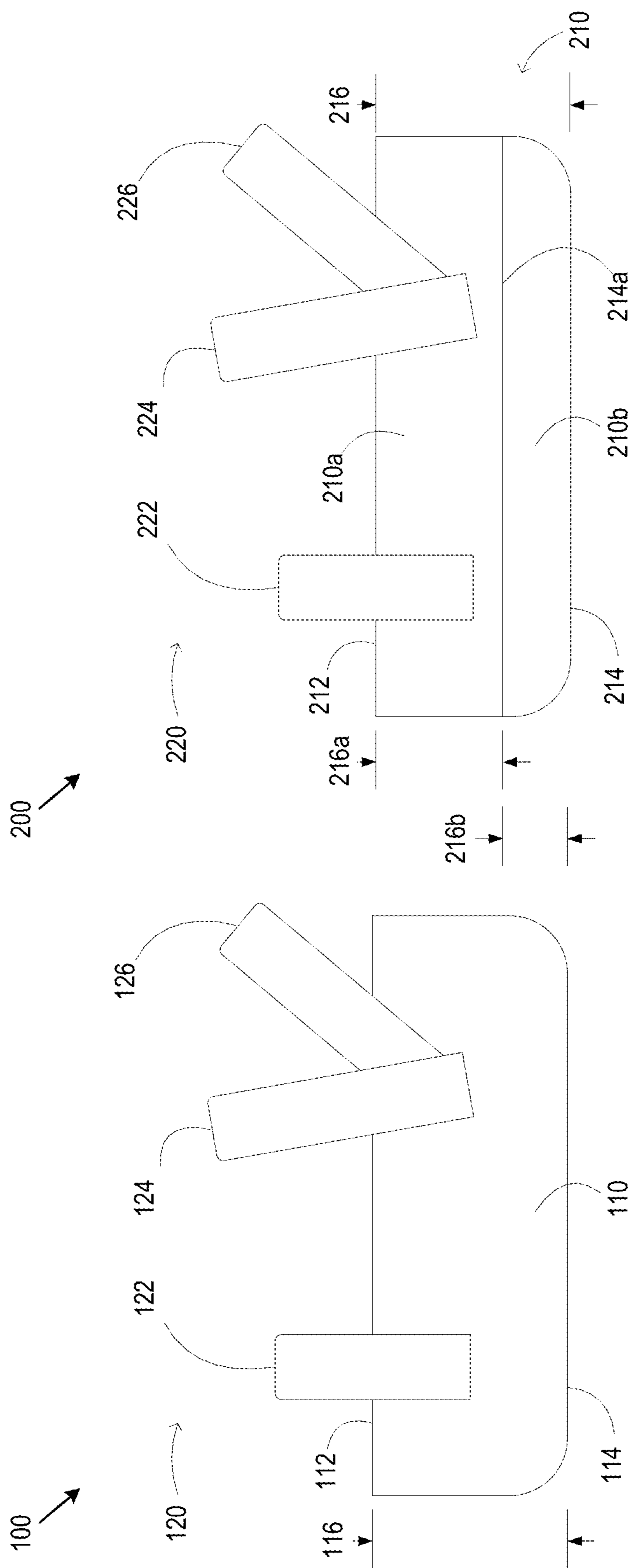


FIG. 3

FIG. 2

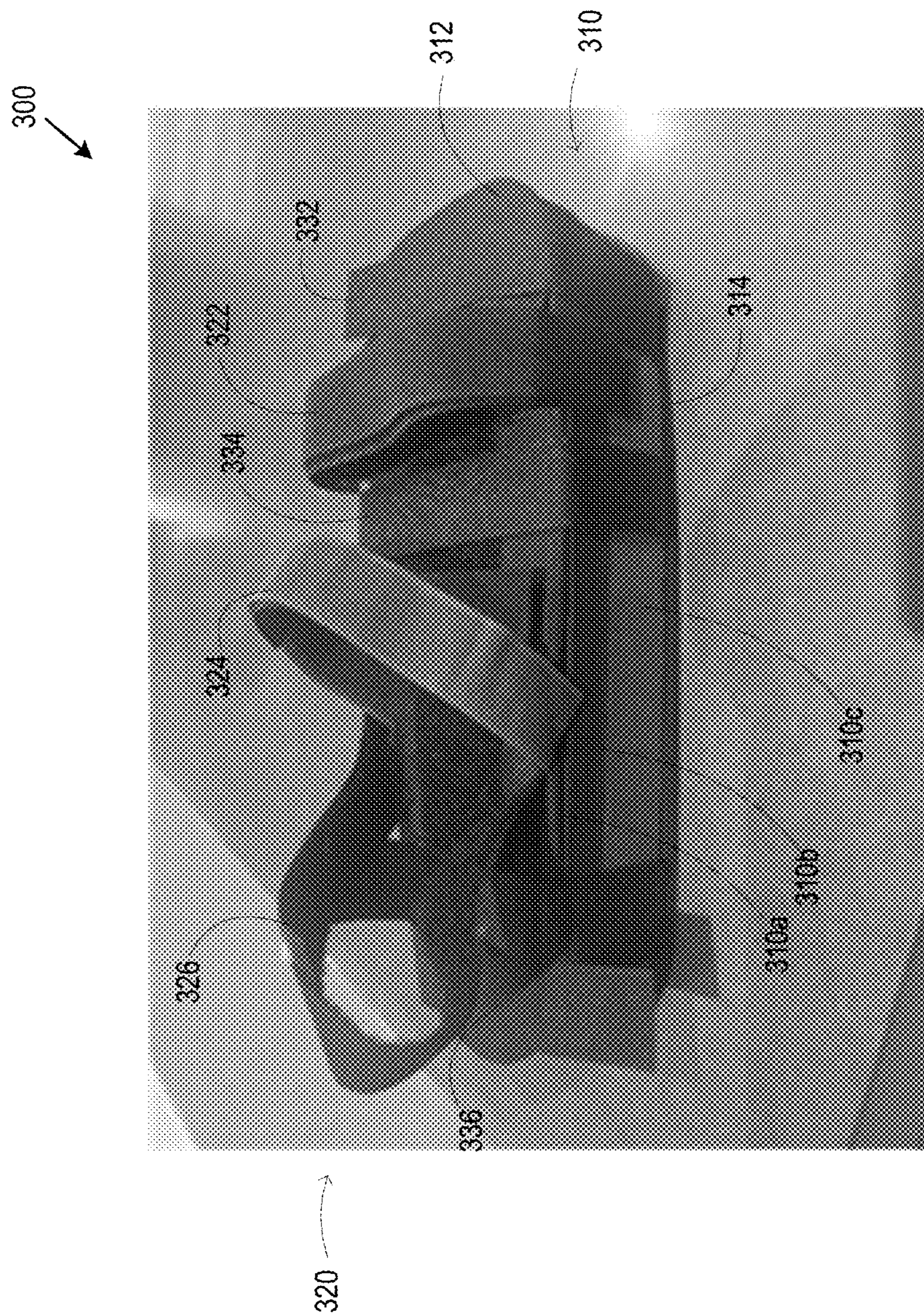


FIG. 4

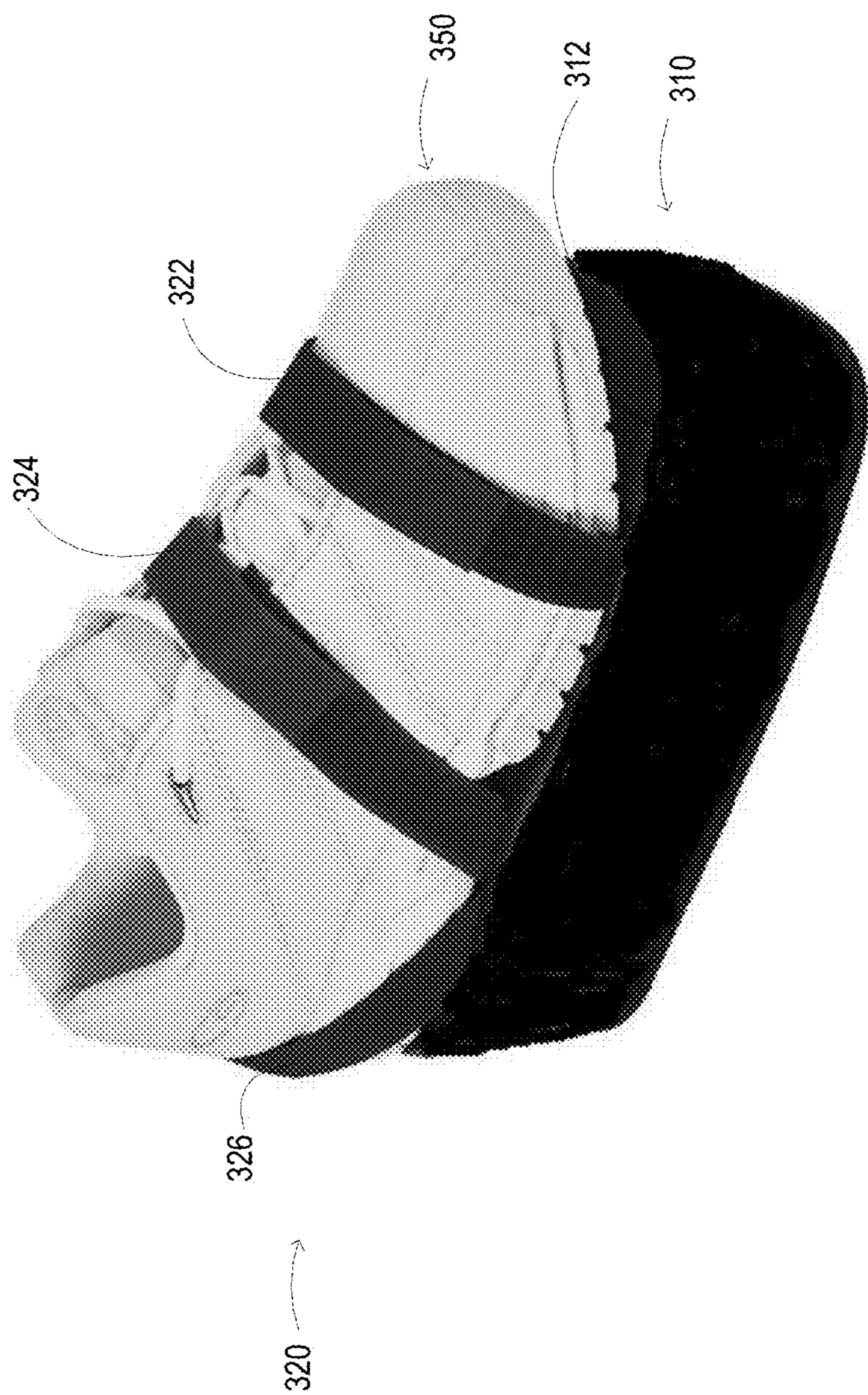


FIG. 5

400

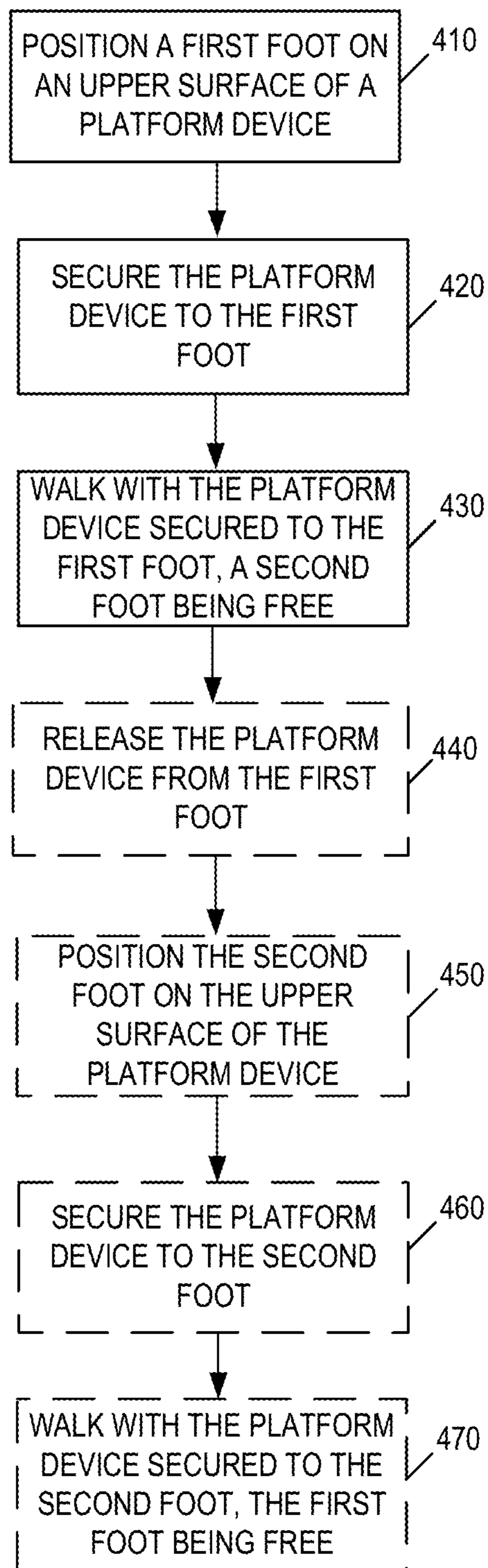


FIG. 6

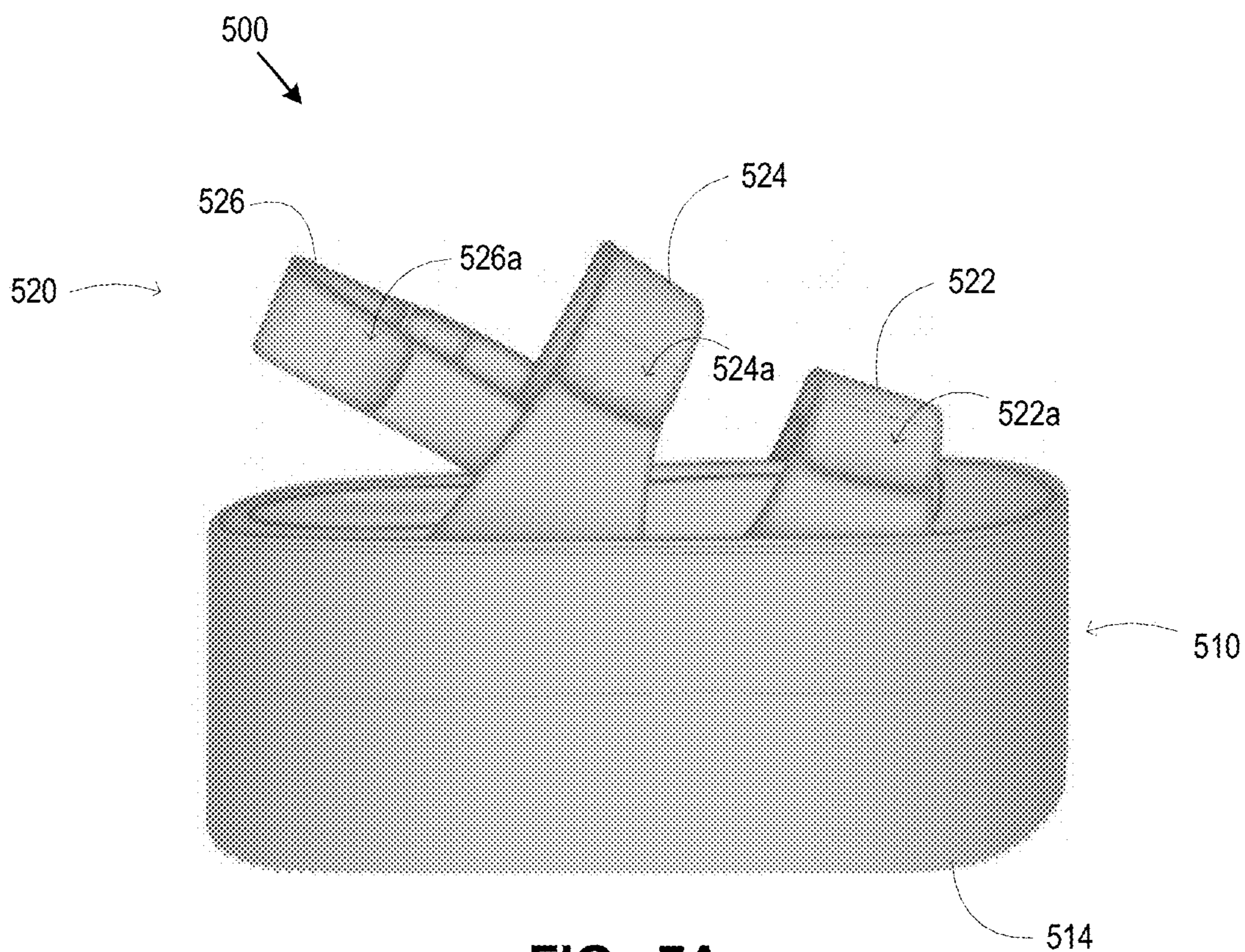


FIG. 7A

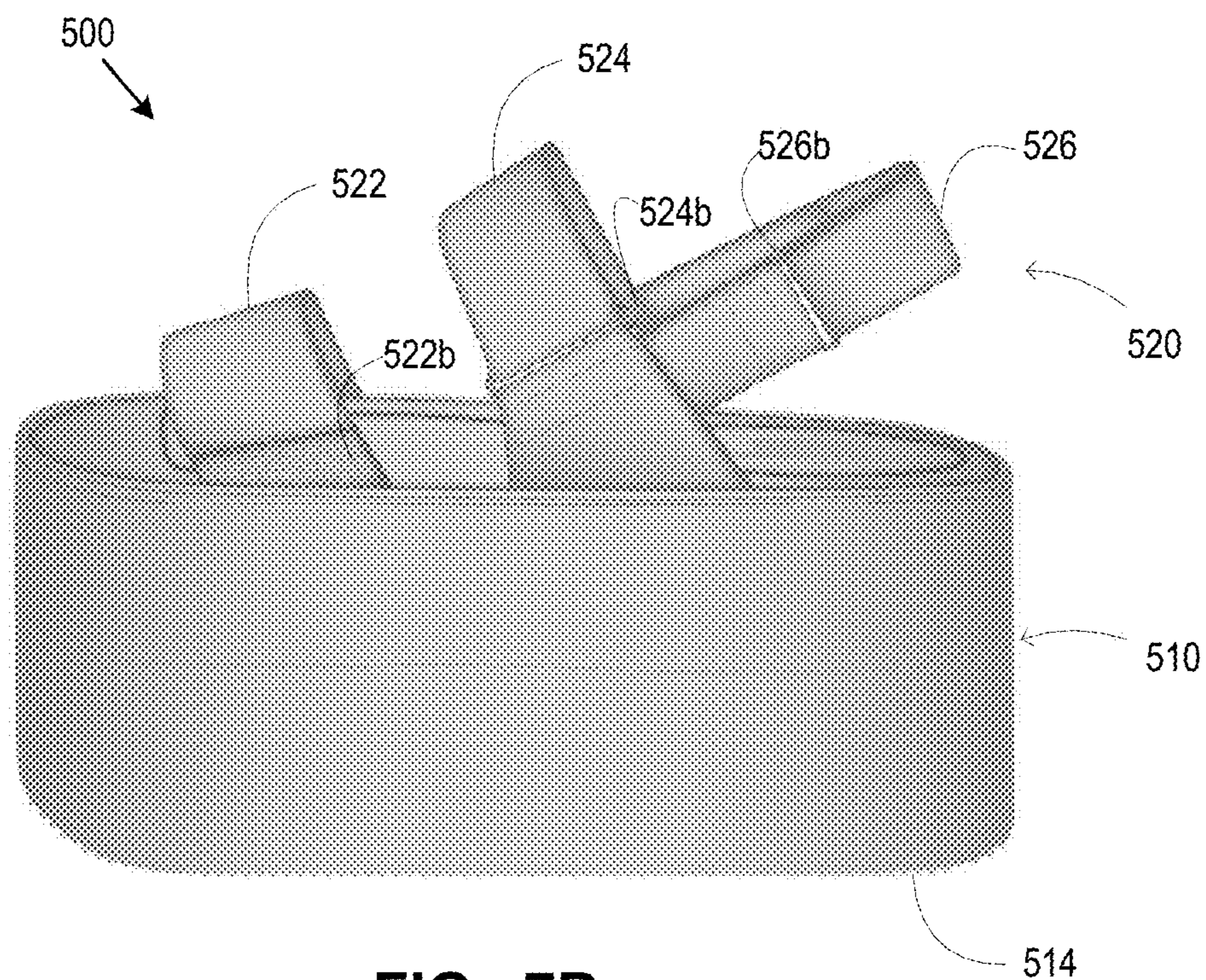
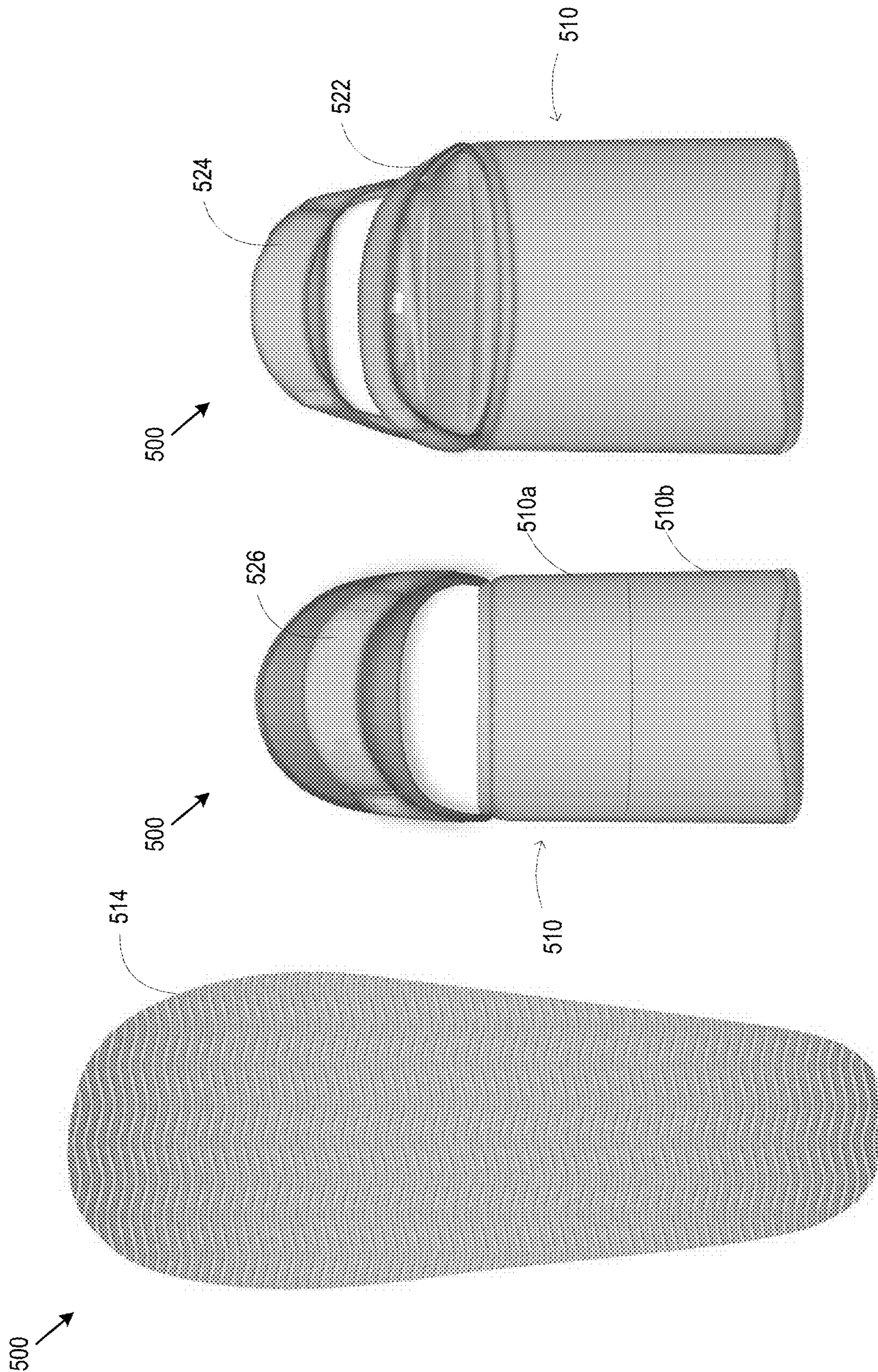


FIG. 7B



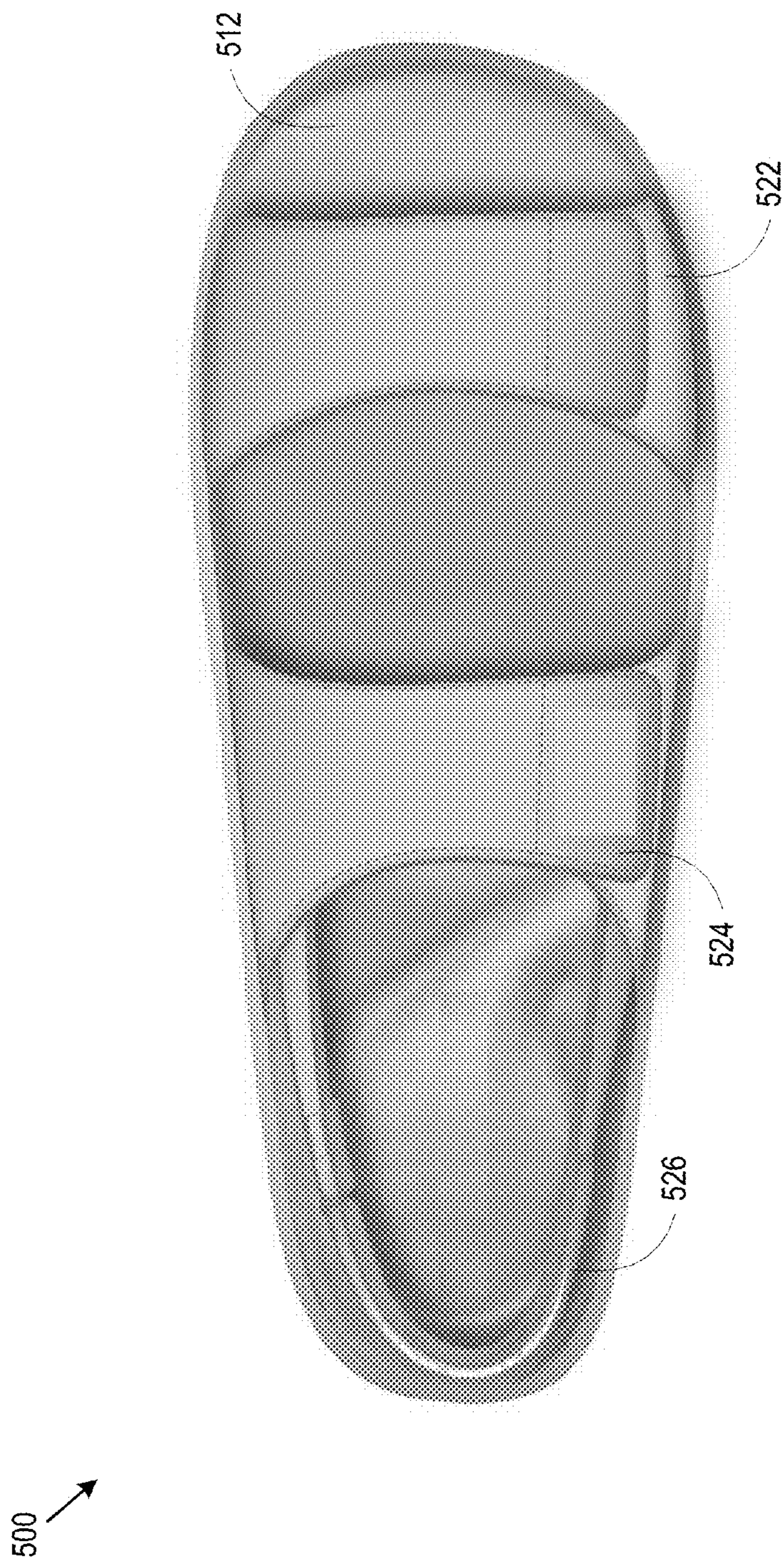


FIG. 7F

DEVICES FOR PROMOTING LABOUR AND METHODS OF USE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application No. 63/318,015 filed Mar. 9, 2022 and titled “DEVICES FOR PROMOTING LABOUR AND METHODS OF USE”, the entire contents of which are hereby incorporated by reference for all purposes.

FIELD

[0002] The described embodiments relate to wearable devices and methods of use. In some example embodiments, the wearable devices can be used for promoting labour.

BACKGROUND

[0003] Most pregnancies culminate in vaginal deliveries. However, a substantial portion culminate in Caesarean sections (i.e., C-sections). There can be risks to the mother’s health associated with C-sections, including uterine rupture and longer post-partum recovery. As such, healthcare providers and pregnant mothers may prefer to avoid C-sections.

[0004] Instead, a vaginal delivery can be sought towards the end of pregnancy with labour induction. Labour can be medically induced for various reasons. A few examples include post-term pregnancies (i.e., pregnancy beyond due date), pre-labour rupture of membranes (i.e., water broken but labour has not naturally begun), fetal growth restriction, gestational diabetes, and placental abruption.

[0005] However, there can also be risks associated with medical labour induction. Medical labour induction can involve medication to cause the uterus to contract and/or medication to ripen the cervix. Such medications can cause contractions to occur too closely together, which can lower the baby’s heart rate and reduce the baby’s oxygen supply. As well, the uterine muscles may not contract correctly after the birth, which can increase the risk of postpartum hemorrhage. As such, many pregnant mothers seek out remedies and methods to induce labour without medical interventions.

SUMMARY

[0006] The various embodiments described herein generally relate to devices and methods of use thereof for promoting labour.

[0007] An example wearable device to promote labour can include a platform and an upper portion. The platform can include a substantially level upper surface to receive a first foot of the user. The platform can be substantially rigid to support the user’s weight. The upper surface can define a height that provides an elevation differential between the first foot and a second foot of the user. The elevation differential can cause an uneven gait when the user walks while wearing the device. The upper portion is attached to the platform for releasably securing the platform to the first foot of the user.

[0008] In at least one embodiment, the height of the upper surface can be in the range from about 3 inches to about 6 inches.

[0009] In at least one embodiment, the height of the upper surface can be about 5 inches.

[0010] In at least one embodiment, the platform can include at least a first layer and a second layer. The second layer can be detachably attached to an underside of the first layer.

[0011] In at least one embodiment, the upper portion can be adjustable for accommodating a range of shoe sizes.

[0012] In at least one embodiment, the upper portion can include a toe strap fixedly attached to a distal portion of the platform for securing a forefoot portion of the user.

[0013] In at least one embodiment, the upper portion can include a bridge strap fixedly attached to a middle portion of the platform for securing a midfoot portion of the user.

[0014] In at least one embodiment, the upper portion can include a plurality of straps.

[0015] In at least one embodiment, the plurality of straps can include a heel strap fixedly attached to the middle portion of the platform for securing a hindfoot portion of the user.

[0016] In at least one embodiment, the upper portion can include hook and loop fasteners.

[0017] In at least one embodiment, the upper surface of the platform can be agnostic to the first foot being a left foot or a right foot.

[0018] In at least one embodiment, a perimeter of the upper surface of the platform can be sufficiently large to accommodate a range of shoe sizes.

[0019] In at least one embodiment, the platform can include a substantially level lower surface to engage with the ground.

[0020] In at least one embodiment, the substantially level lower surface can be textured for increasing friction when in contact with the ground.

[0021] In another broad aspect, a method for promoting labour can involve positioning a first foot of a user on an upper surface of a platform device that is substantially rigid to support the user’s weight. The upper surface can be substantially level. The method can further involve securing the platform device to the first foot; and walking with the platform device secured to the first foot and a second foot of the user being free. The platform device can provide an elevation differential between the first foot and the second foot that causes an uneven gait as the user walks.

[0022] In at least one embodiment, the method can further involve releasing the platform device from the first foot; positioning the second foot on the upper surface of the platform device; securing the platform device to the second foot; and walking with the platform device secured to the second foot and the first foot of the user being free.

[0023] In at least one embodiment, the elevation differential provided by the platform device can be in the range from about 3 inches to about 6 inches.

[0024] In at least one embodiment, the elevation differential provided by the platform device can be about 5 inches.

[0025] In at least one embodiment, the method can further involve, prior to walking with the platform device secured to the foot, adjusting the elevation differential provided by the platform device by adjusting a height of a base of the platform device.

[0026] In at least one embodiment, adjusting the height of the base of the platform device can involve removing at least one layer of a plurality of layers from the base of the platform device.

[0027] In at least one embodiment, adjusting the height of the base of the platform device can involve adding at least one layer to the base of the platform device.

[0028] In at least one embodiment, the method can further involve wearing shoes while using the platform device.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029] Several embodiments will now be described in detail with reference to the drawings, in which:

[0030] FIG. 1 shows a perspective view of a wearable device, in accordance with an example embodiment;

[0031] FIG. 2 shows a schematic of a side view of the wearable device of FIG. 1;

[0032] FIG. 3 shows a schematic of a side view of a wearable device, in accordance with another example embodiment;

[0033] FIG. 4 shows an image of a wearable device, in accordance with another example embodiment;

[0034] FIG. 5 shows an image of an example shoe secured in the wearable device of FIG. 4;

[0035] FIG. 6 is a flowchart of an example method for promoting labour, in accordance with an example embodiment;

[0036] FIG. 7A is a left side view of a wearable device, in accordance with another example embodiment;

[0037] FIG. 7B is a right side view of the wearable device of FIG. 7A;

[0038] FIG. 7C is a bottom view of the wearable device of FIG. 7A;

[0039] FIG. 7D is a rear view of the wearable device of FIG. 7A;

[0040] FIG. 7E is a front view of the wearable device of FIG. 7A; and

[0041] FIG. 7F is a top plan view of the wearable device of FIG. 7A.

[0042] The drawings, described below, are provided for purposes of illustration, and not of limitation, of the aspects and features of various examples of embodiments described herein. For simplicity and clarity of illustration, elements shown in the drawings have not necessarily been drawn to scale. The dimensions of some of the elements may be exaggerated relative to other elements for clarity. It will be appreciated that for simplicity and clarity of illustration, where considered appropriate, reference numerals may be repeated among the drawings to indicate corresponding or analogous elements or steps.

DESCRIPTION OF EXAMPLE EMBODIMENTS

[0043] The various embodiments described herein generally relate to devices (and associated methods for using the devices) for promoting labour. Various remedies, treatments, and methods are said to induce labour without medical interventions—such as particular foods, physiological pressure points, and activities.

[0044] One such method is curb walking, which is performed by walking along the side of a road with one foot on the curb and the other foot on the road. However, curb walking presents multiple accessibility and safety issues. For example, some neighbourhoods, especially rural areas, do not have curbs. Curbs may be blocked by parked vehicles and snowbanks, to name a few. Curb walking can be dangerous due to passing vehicles and bicycles. The risk of collision is particularly great in urban cities with high traffic

volumes. Rain and ice on the surface of the road and/or curb can increase the risk of slipping. Curb walking is also subject to outdoor and weather conditions, such as summer heat and strong sun, which can make curb walking unpleasant.

[0045] Reference is now made to FIG. 1, which illustrates a perspective view of an example device 100. As shown in FIG. 1, the device 100 can include a platform 110 and an upper portion 120. The device 100 can be worn on a user's foot, with or without shoes.

[0046] The platform 110 can have an upper surface 112 to receive a user's foot. The upper surface 112 is substantially level to provide stability for the user. In at least one embodiment, the upper surface 112 of the platform 110 can have a perimeter that is sufficiently large to accommodate a range of shoe sizes. For example, the perimeter can define an elongated shape with a length and a width sufficient to receive a range of foot lengths and widths. Other elongated shapes, such as rectangular or ovular, are possible. In other embodiments, the platform 110 can be specific to a particular foot or shoe size.

[0047] In at least one embodiment, the wearable device 100 can be agnostic to the user's foot being a left foot or a right foot. For example, the upper surface 112 can be shaped to receive either a left foot or a right foot, such as without foot-specific arch support. In other embodiments, the wearable device 100 can be foot-specific. For example, the perimeter of the upper surface 112 can be shaped to follow the curvature of a left foot or a right foot.

[0048] The platform 110 can further include a lower surface 114 to engage with the ground. The lower surface 114 is substantially flat to provide stability for the user. The lower surface 114 can be opposite the upper surface 112, and substantially parallel to the upper surface 112, such that the foot of the user is substantially level when supported by the wearable device 100. The lower surface 114 can be textured for increasing friction when in contact with the ground. This can reduce the risk of slippage while the wearable device 100 is in use. For example, the lower surface 114 can have a pattern, tread, or other non-slip feature for improving friction when in contact with the ground.

[0049] The platform 110 can be substantially rigid to support the user's weight. For example, the platform 110 may not buckle, collapse, or otherwise fail, under the weight of the user while in use. Suitable materials for supporting the weight of the user can include cork, foam rubber, cellular polymer, rubber, polyurethane, polyvinyl chloride, ethylene vinyl acetate, or any combination thereof, for example. Other materials with similar rigidity properties may be possible.

[0050] It should be noted that although the upper surface 112 of the platform 110 is shown as being a solid surface area in FIG. 1, in some embodiments, the upper surface 112 may not be solid. For example, the platform 110 can have recesses and/or through cut outs that do not affect the load bearing capacity of the platform 110.

[0051] As well, the sidewall 118 of the platform 110 can have any appropriate shape. In some embodiments, the sidewall 118 can be substantially perpendicular to the upper surface 112 and the lower surface 114. In at least one embodiment, the sidewall 118 can be tapered outward from the upper surface 112 to the lower surface 114 to enhance stability.

[0052] Referring now to FIG. 2, shown therein is a schematic side view of the wearable device 100 of FIG. 1. The elevation differential between the upper surface 112 and the lower surface 114 of the platform 110 defines a height 116 of the platform 110. The height 116 provides an elevation differential between the user's feet when the wearable device 100 is worn. That is, a first foot of the user can be supported on the platform 110 at a height 116 above ground level, while the second foot of the user is supported by the ground, such that the user's feet are supported at different heights relative to the ground. The elevation differential can cause an uneven gait when the user walks with the wearable device 110. The uneven gait can generate a rocking motion of the pelvis. In turn, the rocking motion of the pelvis can cause the baby to be positioned in a manner that puts pressure on the mother's cervix and triggers the natural physiological labour process.

[0053] In some embodiments, the height 116 can be in the range from about 3 inches to about 6 inches. A platform 110 having a height 116 that is too low may not cause enough of an elevation differential and uneven gait for taller users. Conversely, a platform 110 having a height 116 that is too high may be uncomfortable and/or overly exerting, particularly for shorter users. Further, the pregnancy may have an impact on the user's balance, rendering foot elevation differentials exceeding a certain height to be unsafe. In at least one embodiment, the height 116 of the platform 110 can be about 5 inches.

[0054] Referring again to FIG. 1, the upper portion 120 is attached to the platform for releasably securing the platform 110 to the user's foot. The upper portion 120 can help maintain contact between the user's foot and the upper surface 112 of the platform 110 to reduce the risk of tripping.

[0055] In some embodiments, the upper portion 120 can include at least one strap or band. The at least one strap can include a toe strap 122 fixedly attached to a distal portion of the platform 110 for securing a forefoot portion of the user. In some embodiments, the at least one strap can include a bridge strap 124 fixedly attached to a middle portion of the platform for securing a midfoot portion of the user.

[0056] In some embodiments, the upper portion 120 can include a plurality of straps. For example, both a toe strap 122 and a bridge strap 124 can be included. The plurality of straps can further include a heel strap 126 fixedly attached to the middle portion of the platform for securing a hindfoot portion of the user. Other strap configurations to sufficiently secure the foot of the user to the platform 110 are possible. For example, the straps may intersect or cross over the foot of the user. In another example, the upper portion can include an ankle strap that circles the user's ankle.

[0057] The upper portion 120 can be adjustable for accommodating a range of shoe sizes. For example, the toe strap 122, bridge strap 124, and heel strap 126 can each have a range of adjustability sufficient to accommodate a range of foot sizes and a range of shoe sizes. Accordingly, the wearable device 100 may be worn barefoot, with socks, or with shoes. The wearable device 100 can be worn indoors or outdoors, depending on the user's preference. The range of adjustability of the one or more straps enables the user to wear a shoe with the device 100 for such exemplary purposes as comfortability, cleanliness, increasing the foot elevation differential, or restoring the foot elevation differential that would otherwise be lost when a shoe is worn on the second foot of the user, such as when used outside.

[0058] Other embodiments for the upper portion 120 are possible. In some embodiments, the upper portion can wrap around a shoe or at least a portion of a foot. For example, the upper portion can include a flexible frame that encircles and grips a shoe. In another example, the upper portion can include a fabric that covers the user's midfoot, similar to a clog or a slip-on. In at least one embodiment, the upper portion 120 can be detachable from the platform 110.

[0059] Referring still to FIG. 1, the upper portion 120 can include fastening means. For example, the upper portion 120 can include hook and loop fasteners. Each of the toe strap 122, bridge strap 124, and heel strap 126 can be formed by a pair of straps connectable to each other, one strap of the pair having hook attachment means and the other strap of the pair having loop attachment means. Hook and loop fasteners can be convenient and provide robust adjustability. Other fastening means are possible. For example, the fastening means may be a strap buckle, a side squeeze buckle, a prong buckle, or laces.

[0060] Referring now to FIG. 3, shown therein is a schematic side view of another example device 200. As shown in FIG. 3, the device 200 can include a platform 210 and upper portion 220. Similar to the upper portion 120, the upper portion 220 can include a toe strap 222, bridge strap 224, and heel strap 226. The platform 210 of wearable device 200 includes a first layer 210a and a second layer 210b. The second layer 210b is detachably attached to the underside 214a of the first layer 210a.

[0061] The elevation differential between the upper surface 212 and the underside 214a of the first layer 210a defines a height 216a of the first layer 210a. The elevation differential between the underside 214a of the first layer 210a and the lower surface 214 defines a height 216b of the second layer 210b. The combined height of the first layer 210a and the second layer 210b provides the total height 216 of the platform 210. In turn, the total height 216 of the platform 210 provides the elevation differential between the user's feet when the device 200 is used.

[0062] Platform 210 having a plurality of layers 210a, 210b can allow for customization by the user to achieve a particular elevation differential that is more suitable to their particular needs, such as but not limited to comfort, exertion tolerance, balance, and/or stability. For example, the first layer 210a can provide a height of about 2 inches to about 4 inches, and the second layer 210b can provide a height of about 2 inches. A first user may prefer a total height 216 of about 6 inches and use the device 200 with both the first layer 210a and the second layer 210b. Another user may prefer a total height 216 of about 4 inches and use the device 200 with only the first layer 210a—that is, without the second layer 210b.

[0063] Although platform 210 is shown with two layers 210a and 210b, platform 210 can include additional layers. In another example, the first layer 210a can be about 3 inches, the second layer 210b can be about 2 inches, and a third layer can be about 1 inch. Each layer of the plurality of layers 210a, 210b can have different heights to achieve a range of elevation differentials.

[0064] As shown in FIG. 3, the underside of the second layer 210b provides the lower surface 214 of the device 200. Similar to the lower surface 114, the lower surface 214 can be a textured lower surface for improving friction when in contact with the ground. Furthermore, the underside of each layer of the device 200 can be a textured lower surface for

use without additional layers. For example, the underside **214a** of the first layer **210a** can be textured for use of the device **200** without the second layer **210b**.

[0065] The second layer **210b** can be attached to the underside **214a** of the first layer **210a** by any means. For example, the underside **214a** can have a plurality of recesses and the second layer **210b** can have a plurality of protrusions corresponding to and receivable in the plurality of recesses. As another example, the second layer **210b** can be attached to the first layer **210a** by one or more straps, such as elastic straps or straps with hook and loop attachments. For example, the one or more straps can traverse the lower surface **214** on the second layer **210b** and the upper surface **212** on the first layer **210a** to secure the first layer **210a** and the second layer **210b** together. Other means of attachment are possible.

[0066] Reference is now made to FIG. 4, which is an image of an example device **300**.

[0067] As shown in FIG. 4, the device **300** can include a platform **310** and upper portion **320**. Similar to the upper portions **120** and **220**, the upper portion **320** can include a toe strap **322**, bridge strap **324**, and heel strap **326**. As shown in FIG. 4, toe strap **322**, bridge strap **324**, and heel strap **326** can include hook and loop fasteners.

[0068] The platform **310** of wearable device **300** includes a first layer **310a**, a second layer **310b**, and a third layer **310c**. The second layer **310b** is sandwiched between the first layer **310a** and the third layer **310c**. A lower surface **314** of the third layer **310c** provides the lower surface of the platform **310**. An upper surface **312** of the first layer **310a** provides the upper surface of the platform **310**.

[0069] The total height of the platform **310** shown in FIG. 4 can be about 5 inches. The second layer **310b** can provide a height of about 1 inch and the third layer **310c** can provide a height of about 4 inches. The first layer **310a** can provide relatively little height compared to the second layer **310b** and the third layer **310c**. The first layer **310a** can be formed of a material that is softer than the second layer **310b** and the third layer **310c** to provide comfort for the user.

[0070] Attachment straps **332**, **334**, and **336** can secure the first, second, and third layers, **310a**, **310b**, **310c** together. As shown in FIG. 4, each of attachment straps **332**, **334**, and **336** extend around the lower surface **314** of the third layer **310c** and the upper surface **312** of the first layer **210a** to secure the first, second, and third layers, **310a**, **310b**, **310c** together. Attachment straps **332**, **334**, and **336** of device **300** are formed of hook and loop attachments for releasably securing the first, second, and third layers, **310a**, **310b**, **310c** together.

[0071] Similar to the lower surface **114** and the lower surface **214**, the lower surface **314** can be a textured lower surface for improving friction when in contact with the ground. In this example embodiment, the underside of the first layer **310a** and the underside of the second layer **310b** do not have textured surfaces. The first layer **310a** is generally not used without additional layers to provide height. The third layer **310c** is generally used as the lower layer and any additional layers, such as the second layer **310b**, can be positioned between the first layer **310a** and the third layer **310c**.

[0072] Reference is now made to FIG. 5, which is an image of an example shoe **350** secured in the device **300**. As shown in FIG. 5, the shoe **350** is secured to the upper surface

312 of the platform **310** by the upper portion **320**, namely toe strap **322**, bridge strap **324**, and heel strap **326**.

[0073] As shown in FIG. 4, the shoe **350** can slightly overhang the platform **310**. That is, the perimeter of the sole of the shoe **350** can be greater than the perimeter of the upper surface **312**. Generally, the upper surface **312** of the platform **310** corresponds to at least the heel and the ball of the user's foot to support the user.

[0074] Reference is now made to FIG. 7A to 7E, which show another example device **500**. As shown in FIG. 7A, the device **500** can include a platform **510** and upper portion **520**. Similar to the upper portions **120**, **220**, and **320**, the upper portion **520** can include a toe strap **522**, bridge strap **524**, and heel strap **526**. As shown in FIGS. 7A and 7B, toe strap **522**, bridge strap **524**, and heel strap **526** can include hook and loop fasteners **522a**, **524a**, **526a**, elastic bands **522b**, and buckles **524b**, **526b**. As shown in FIG. 7C, the lower surface **514** of the platform **510** can be textured to increase friction and reduce the risk of slippage. As shown in FIG. 7D, the platform **510** can be formed of two layers **510a** and **510b**. As shown in FIG. 7E, the upper surface **512** of the platform **510** can be debossed or indented to conform to the shape of a user's foot. That is, device **500** can be worn without a shoe.

[0075] Reference is now made to FIG. 6, which shows an example method **400** for promoting labour. To assist with the description of the method **400**, reference will be made simultaneously to the wearable device **100** of FIGS. 1 and 2.

[0076] At **410**, a user's foot can be positioned on an upper surface **112** of the device **100**. In some embodiments, a shoe can be worn on the user's foot while using the platform device **130**. That is, a shoe can be worn on the same foot as is secured to the platform device **130**. This can be facilitated by the shape and size of the upper surface **112**, as well as the adjustability of the upper portion **120**, as disclosed herein.

[0077] At **420**, the device **100** can be secured to the user's foot. This can be completed using the upper portion **120** of the device **100**, such as the toe strap **122**, bridge strap **124**, and heel strap **126**.

[0078] Once secured, at **430**, the user can walk with the device **100** secured to the user's foot while the user's other foot is free. That is, the user can walk with the device **100** secured to a first foot of the user and a second foot of the user is free. The device **100** can provide an elevation differential between the first foot and the second foot, which can cause an uneven gait as the user walks.

[0079] In some embodiments, the device **100** is agnostic to the user's foot being the user's left foot or right foot. In such cases, the method **400** can involve additional steps **440**, **450**, **460**, and **470**, which are optional (indicated by dashed lines). At **440**, the device **100** can be released from the user's first foot. That is, the device **100** can be released from the user's first foot.

[0080] At **450**, the user's other foot can be positioned on the upper surface **112** of the device **100**. That is, the user's second foot can be positioned on the upper surface **112** of the device **100**. At **460**, the device **100** can be secured to the device **100** to the second foot. Once secured, at **470**, the user can walk with the device **100** secured to the user's second foot while the user's first foot is free. Steps **450**, **460**, and **470** are similar to steps **410**, **420**, and **430**, respectively, except they relate to the user's other foot. In this way, the user can alternate the foot to which the platform device **130** is secured. This may be done, for example, to reduce strain

on the legs of the user, as the leg corresponding to the foot to which the platform device **130** is attached may perform more work while walking.

[0081] In some embodiments, the device **200** of FIG. **3** or the device **300** of FIG. **4** can be used in method **400**. In such cases, the method **400** can also involve, adjusting the elevation differential provided by the platform device **200**, **300** by adjusting a height **216** of a base **210** of the platform device **200**.

[0082] In some cases, the height **216** of the base of the platform device **200** can be adjusted after the user has walked with the platform device **200** secured to the foot at **430**. That is, based on walking at **430**, the user can determine that the height **216** of the base requires adjustment. For example, the user may determine that the height **216** of the base is too strenuous. The user can remove a layer, such as second layer **210b** of device **200** or second layer **310b** of device **300**. In another example, the user may determine that the height **216** of the base does not provide enough of an elevation differential to cause a sufficient rocking motion of the pelvis. The user can add a layer to the base **210**, **310** of the device **200**, **300**, respectively. For example, the user may initially use device **200** with only the first layer **210a** and subsequently add the second layer **210b** to the base. Similarly, the user may initially use device **300** with only the first layer **310a** and the third layer **310c** and subsequently add the second layer **310b** in between the first layer **310a** and the third layer **310c**. Adjustment of the height of the base can also be performed before the user has walked with the platform device **200** secured to the user's foot at **430**.

[0083] In another embodiment, a device can be provided without fastening means. That is, the device may not be securable to the user's foot and is thus, non-wearable. The non-wearable device can include a platform. The platform can be elongated lengthwise to facilitate several steps of curb walking in any location convenient to the user. For example, the non-wearable device can be used indoors to allow for curb walking irrespective of weather conditions. In some embodiments, the non-wearable device can have a length of approximately 0.5 to 1 meters.

[0084] Similar to device **200**, **300**, the non-wearable device can have an adjustable height. In some embodiments, the non-wearable device can include a plurality of layers for customization by the user to achieve a particular elevation differential that is more suitable to their particular needs. The upper surface, the lower surface, or both the upper and the lower surfaces of the non-wearable device can be textured, or include some other non-slip surface for increasing friction. In some embodiments, the non-wearable device can be formed of a lightweight material for portability but is sufficiently rigid for supporting the weight of a user. To further improve portability, in some embodiments the non-wearable device can be disassembled or collapsed when not in use.

[0085] It will be appreciated that numerous specific details are set forth in order to provide a thorough understanding of the example embodiments described herein. However, it will be understood by those of ordinary skill in the art that the embodiments described herein may be practiced without these specific details. In other instances, well-known methods, procedures and components have not been described in detail so as not to obscure the embodiments described herein. Furthermore, this description and the drawings are not to be considered as limiting the scope of the embodi-

ments described herein in any way, but rather as merely describing the implementation of the various embodiments described herein.

[0086] It should be noted that terms of degree such as "substantially", "about" and "approximately" when used herein mean a reasonable amount of deviation of the modified term such that the end result is not significantly changed. These terms of degree should be construed as including a deviation of the modified term if this deviation would not negate the meaning of the term it modifies.

[0087] In addition, as used herein, the wording "and/or" is intended to represent an inclusive-or. That is, "X and/or Y" is intended to mean X or Y or both, for example. As a further example, "X, Y, and/or Z" is intended to mean X or Y or Z or any combination thereof.

[0088] It should be noted that the term "coupled" used herein indicates that two elements can be directly coupled to one another or coupled to one another through one or more intermediate elements.

[0089] Various embodiments have been described herein by way of example only. Various modification and variations may be made to these example embodiments without departing from the spirit and scope of the invention, which is limited only by the appended claims.

We claim:

1. A wearable device to promote labour, the device comprising:

a platform including a substantially level upper surface to receive a first foot of the user, the platform being substantially rigid to support the user's weight, the upper surface defining a height that provides an elevation differential between the first foot and a second foot of the user, the elevation differential causing an uneven gait when the user walks while wearing the device; and an upper portion attached to the platform for releasably securing the platform to the first foot of the user.

2. The device of claim 1, wherein the height of the upper surface is in the range from about 3 inches to about 6 inches.

3. The device of claim 2, wherein the height of the upper surface is about 5 inches.

4. The device of claim 1, wherein the platform comprises at least a first layer and a second layer, the second layer being detachably attached to an underside of the first layer.

5. The device of claim 1, wherein the upper portion is adjustable for accommodating a range of shoe sizes.

6. The device of claim 1, wherein the upper portion comprises a toe strap fixedly attached to a distal portion of the platform for securing a forefoot portion of the user.

7. The device of claim 1, wherein the upper portion comprises a bridge strap fixedly attached to a middle portion of the platform for securing a midfoot portion of the user.

8. The device of claim 1, wherein the upper portion comprises a plurality of straps.

9. The device of claim 8, wherein the plurality of straps comprises a heel strap fixedly attached to the middle portion of the platform for securing a hindfoot portion of the user.

10. The device of claim 1, wherein the upper portion comprises hook and loop fasteners.

11. The device of claim 1, wherein the upper surface of the platform is agnostic to the first foot being a left foot or a right foot.

12. The device of claim 1, wherein a perimeter of the upper surface of the platform is sufficiently large to accommodate a range of shoe sizes.

13. The device of claim **1**, wherein the platform includes a substantially level lower surface to engage with the ground.

14. The device of claim **13**, wherein the substantially level lower surface is textured for increasing friction when in contact with the ground.

15. A method for promoting labour, the method comprising:

positioning a first foot of a user on an upper surface of a platform device, the platform device being substantially rigid to support the user's weight, the upper surface being substantially level;

securing the platform device to the first foot; and

walking with the platform device secured to the first foot and a second foot of the user being free, the platform device providing an elevation differential between the first foot and the second foot that causes an uneven gait as the user walks.

16. The method of claim **15**, further comprising: releasing the platform device from the first foot;

positioning the second foot on the upper surface of the platform device;

securing the platform device to the second foot; and

walking with the platform device secured to the second foot and the first foot of the user being free.

17. The method of claim **15**, wherein the elevation differential provided by the platform device is in the range from about 3 inches to about 6 inches.

18. The method of claim **15** comprising adjusting the elevation differential provided by the platform device by adjusting a height of a base of the platform device.

19. The method of claim **18**, wherein adjusting the height of the base of the platform device comprises removing at least one layer of a plurality of layers from the base of the platform device.

20. The method of claim **18**, wherein adjusting the height of the base of the platform device comprises adding at least one layer to the base of the platform device.

* * * * *