US 20170216121A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2017/0216121 A1**

White (43) **Pub. Date: Aug. 3, 2017**

(54) **MODULAR PATIENT POSITIONING SYSTEM**

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(21) Appl. No.: **15/015,109**

(22) Filed: **Feb. 3, 2016**

Publication Classification

(51) **Int. Cl.**

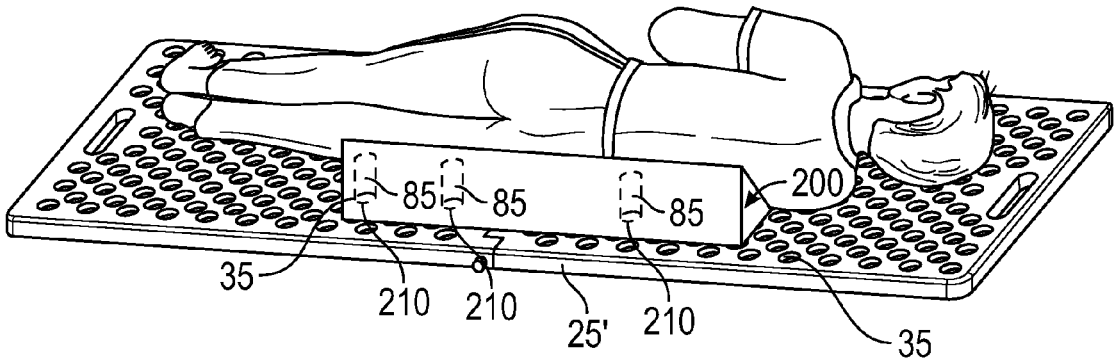
A61G 13/08	(2006.01)
A61B 6/04	(2006.01)
A61G 13/12	(2006.01)

(52) **U.S. Cl.**

CPC ***A61G 13/08*** (2013.01); ***A61G 13/1235*** (2013.01); ***A61B 6/0407*** (2013.01); ***A61G 13/12*** (2013.01); ***A61G 13/121*** (2013.01)

(57) **ABSTRACT**

Multiple embodiments of a modular patient positioning system for use during surgical procedures are disclosed. In one exemplary embodiment the system comprises two hinged-together pegboards that can be used to support different portions of a patient's body in different planes. Pegs can be further used to retain portions of the patient's body in desired surgical positions. Additionally, a positioning member, such as a pad or cushion may be positioned over several pegs.



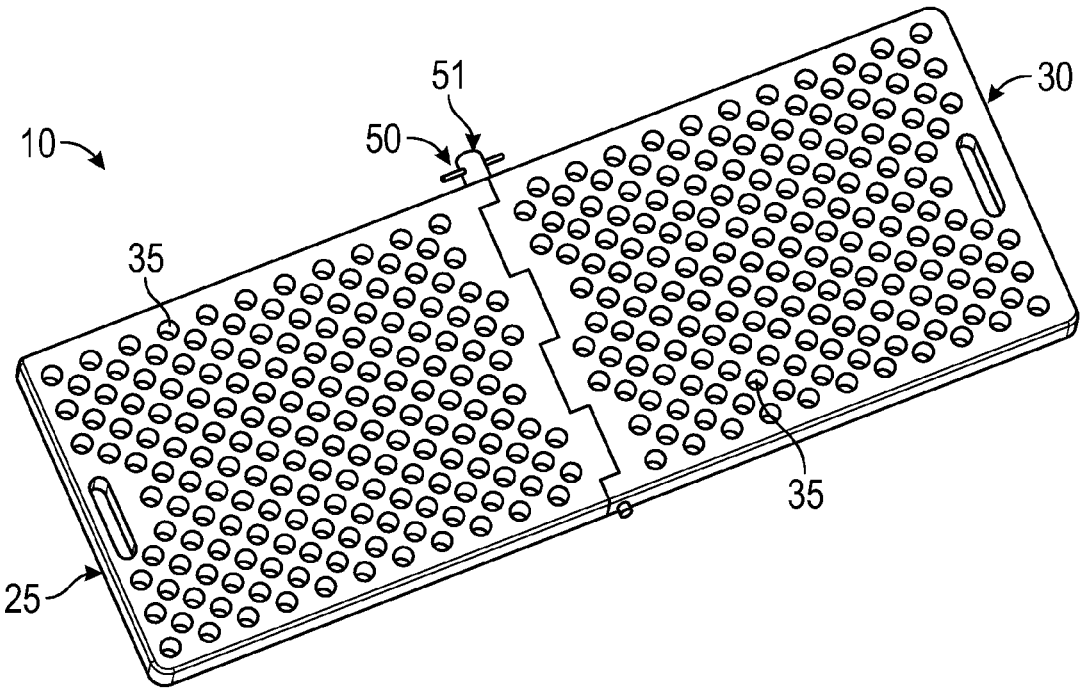


FIG. 1A

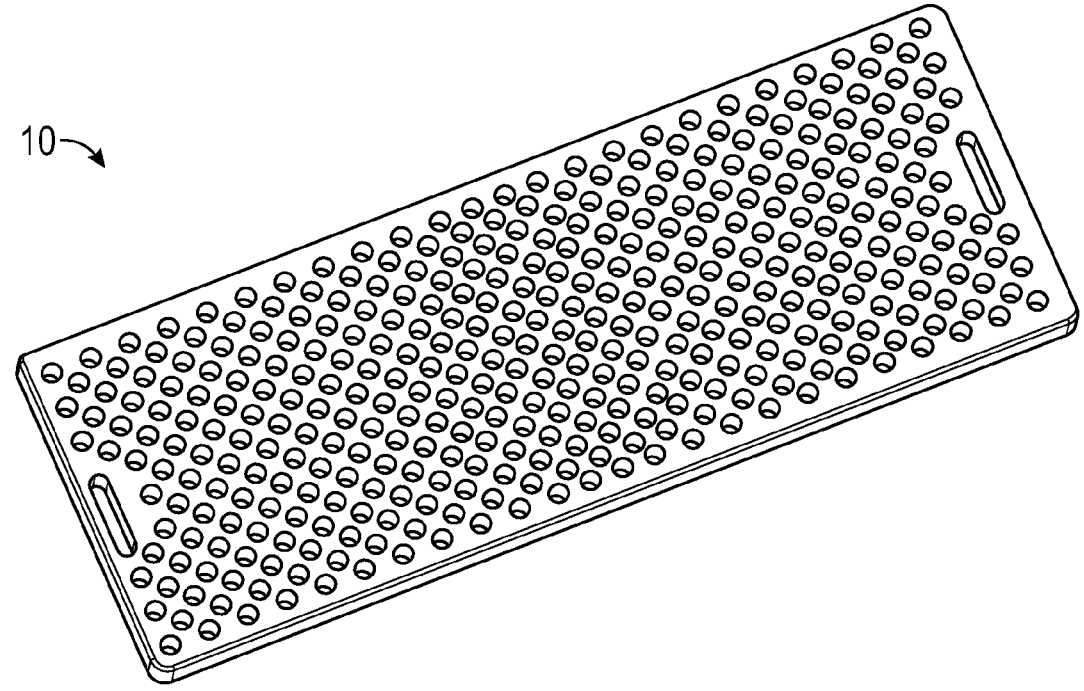


FIG. 1B

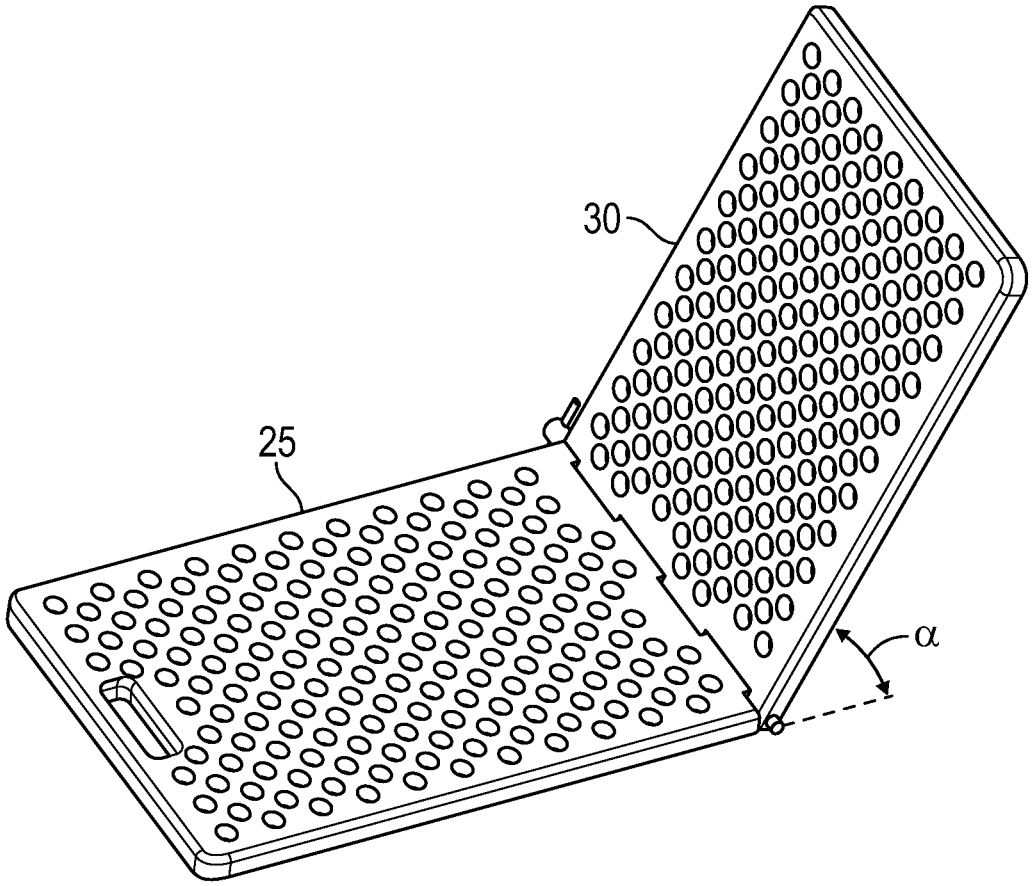


FIG. 2

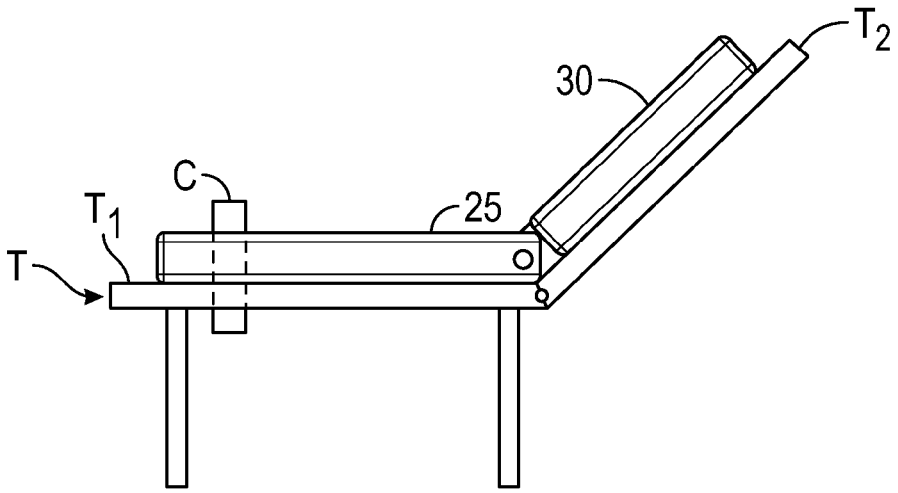


FIG. 3A

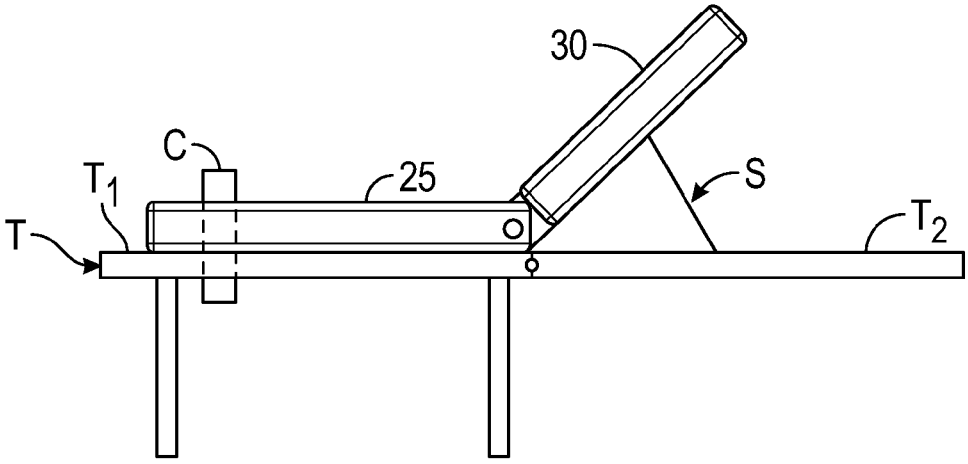


FIG. 3B

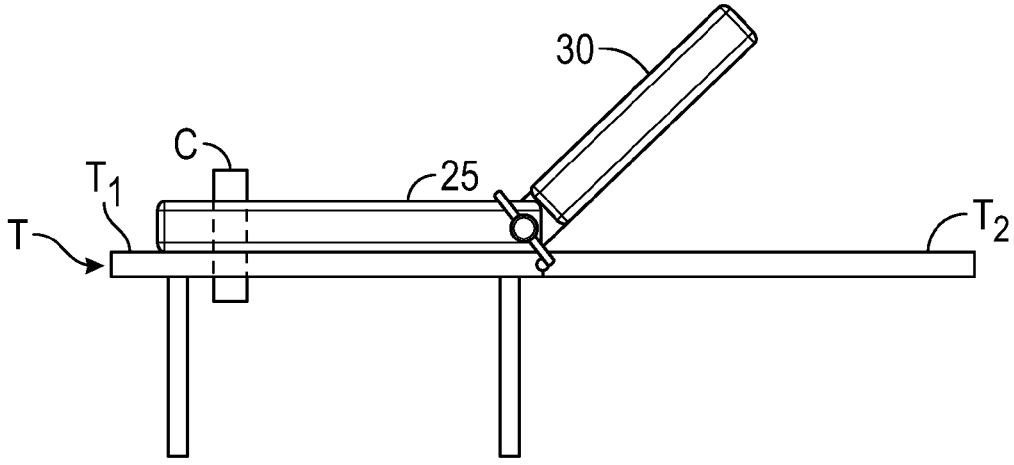


FIG. 3C

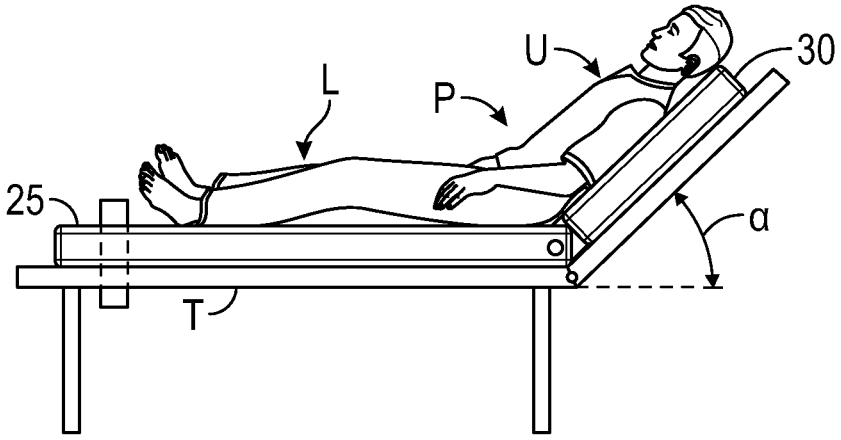


FIG. 4

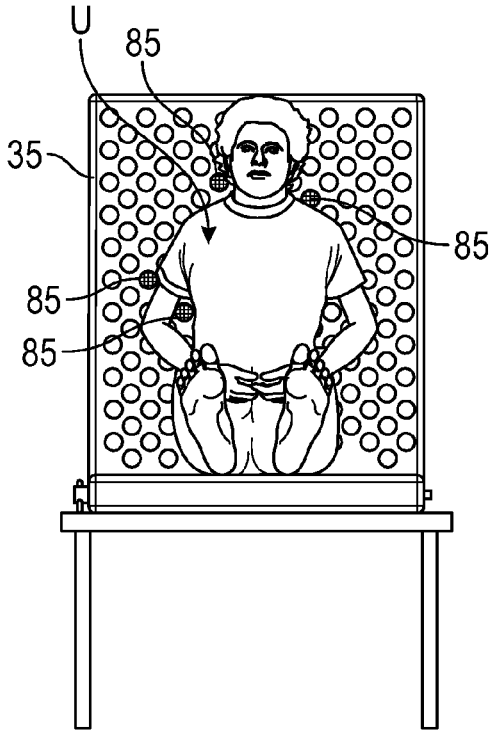


FIG. 5A

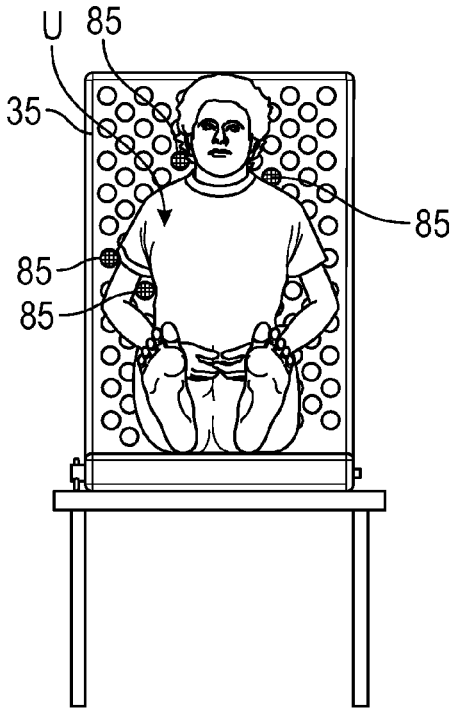


FIG. 5B

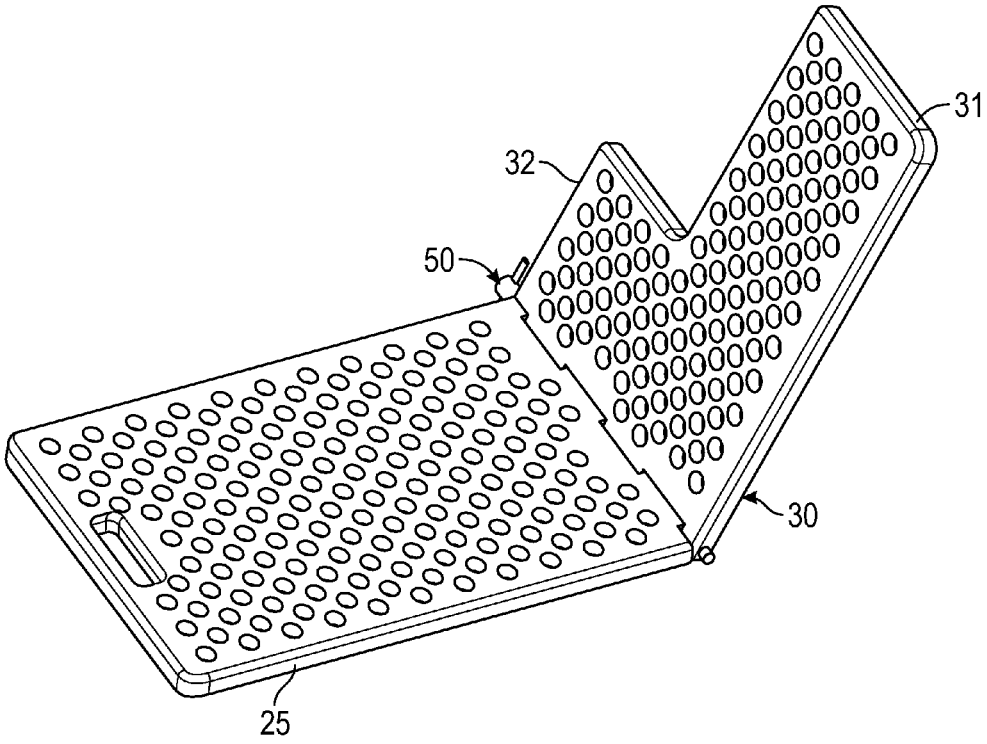


FIG. 6

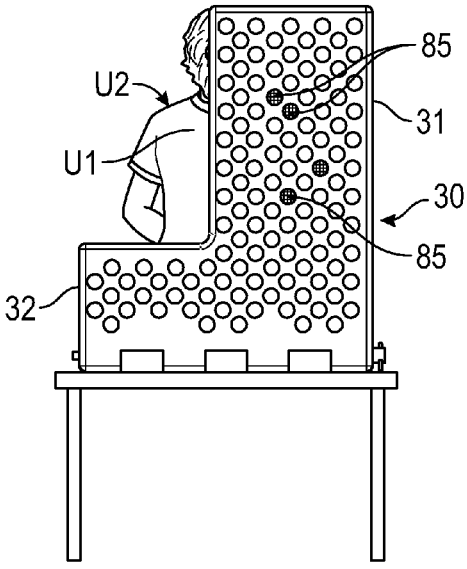


FIG. 7A

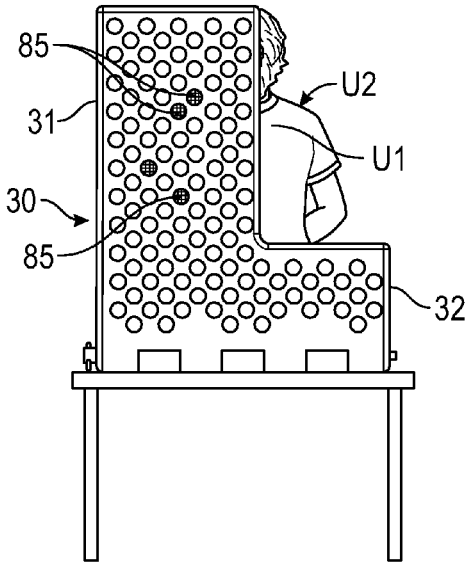


FIG. 7B

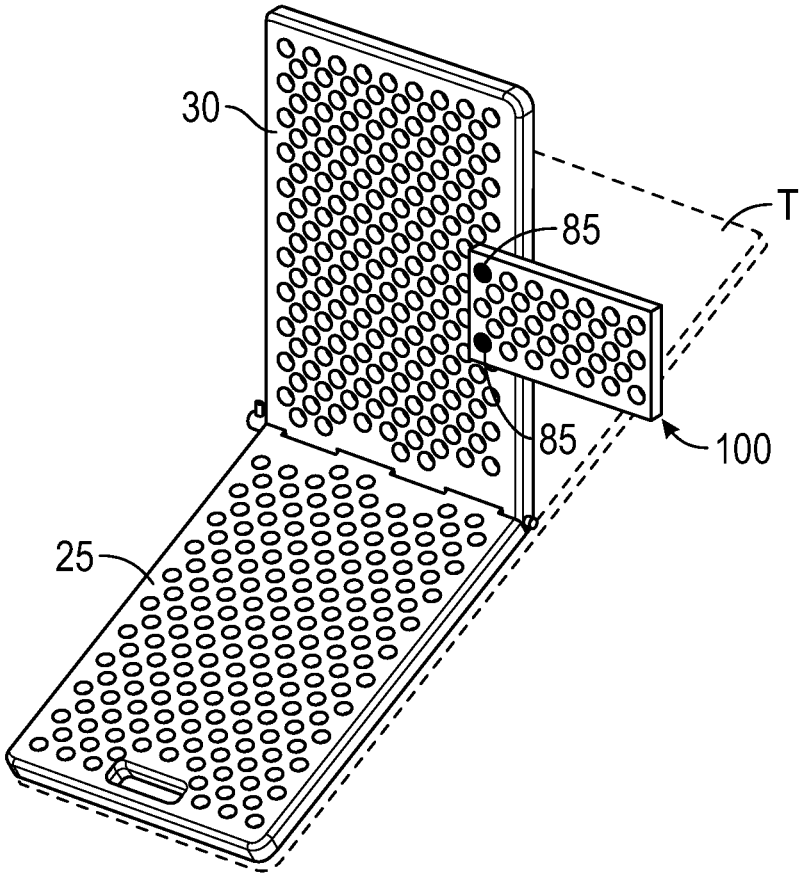


FIG. 8

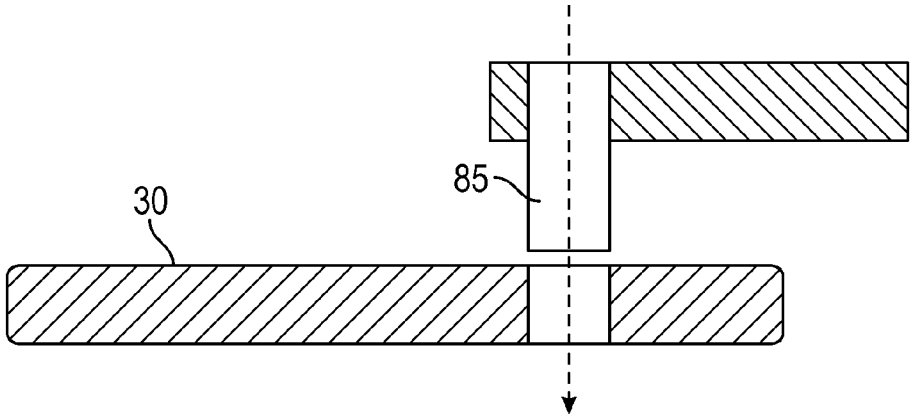


FIG. 9A

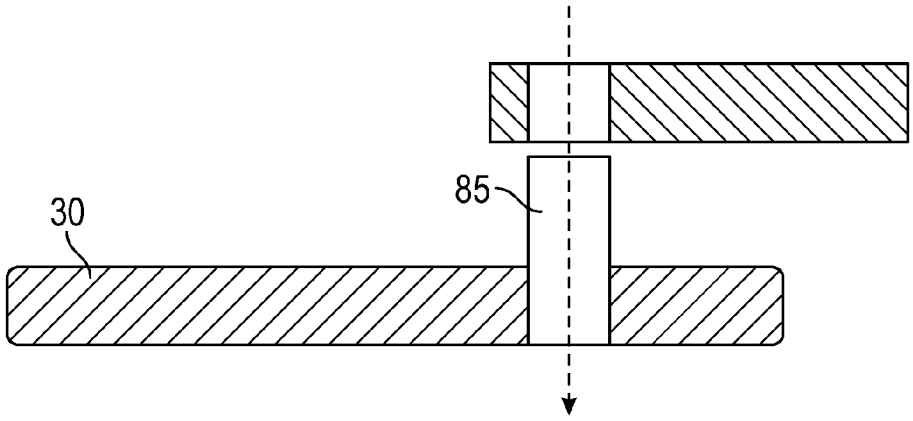


FIG. 9B

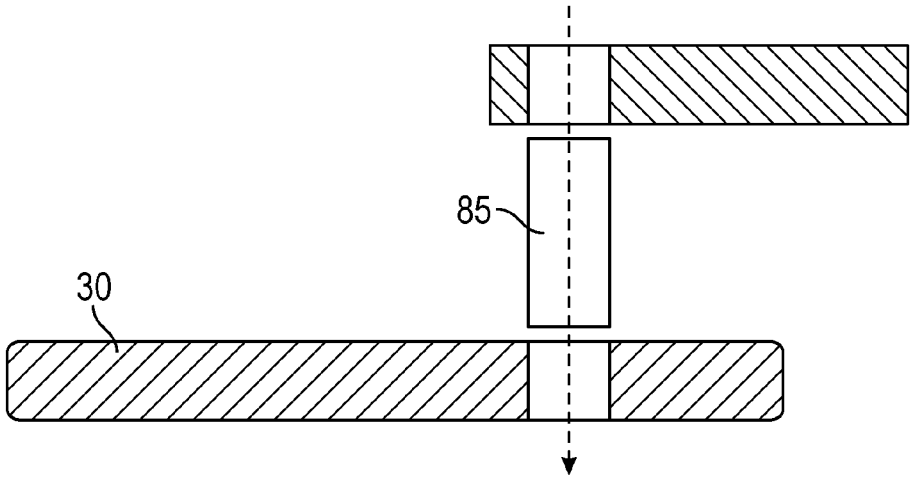


FIG. 9C

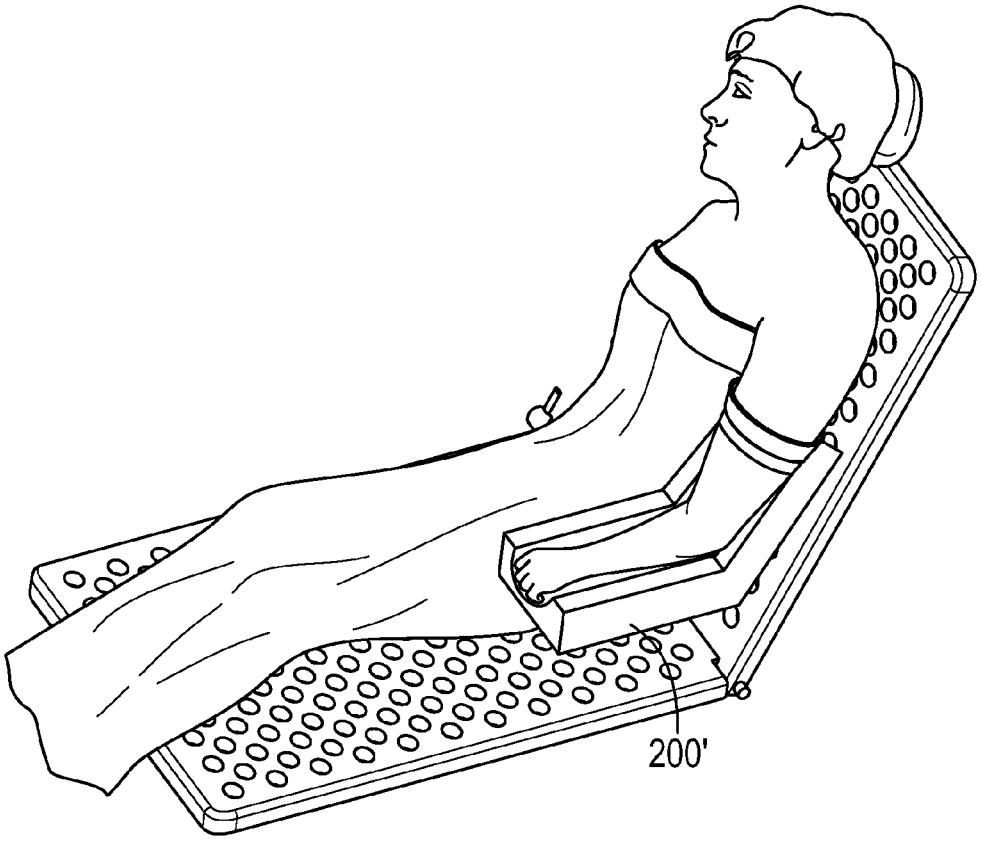


FIG. 10A

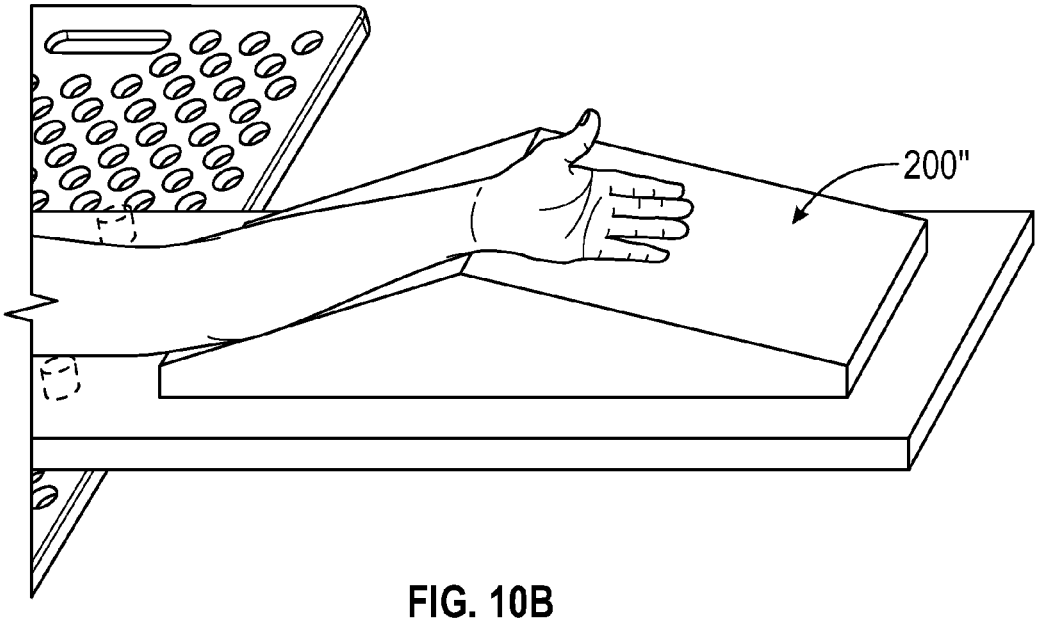


FIG. 10B

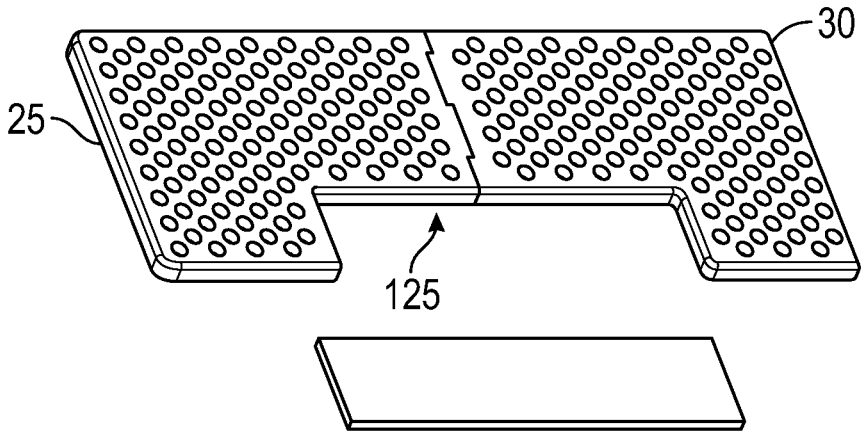


FIG. 11A

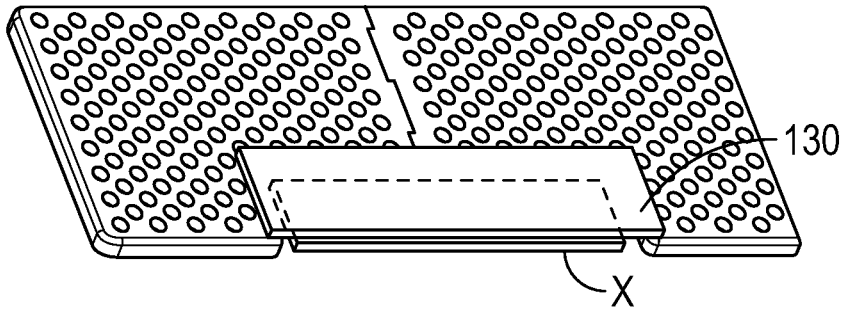


FIG. 11B

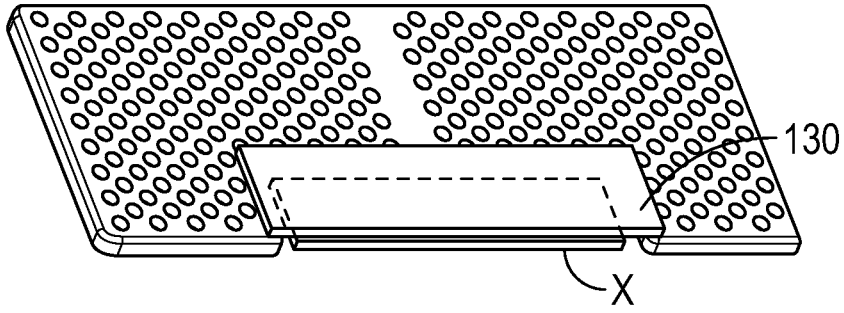


FIG. 11C

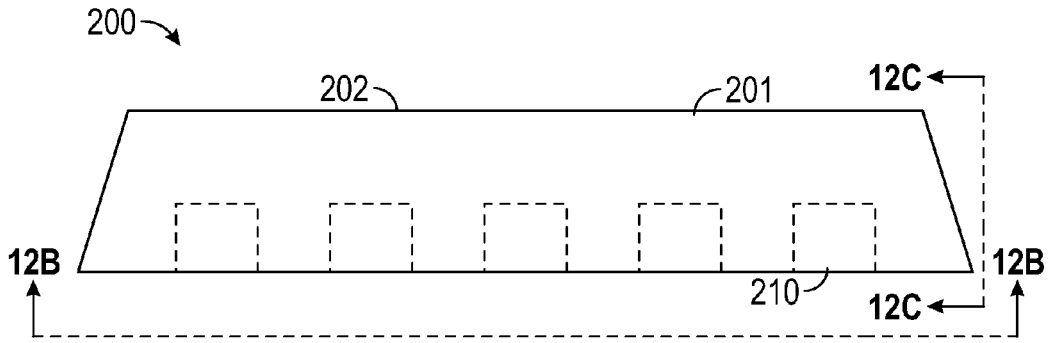


FIG. 12A

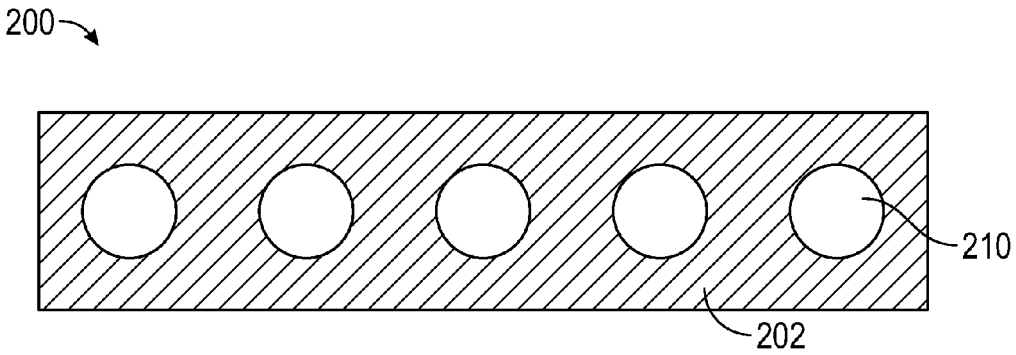


FIG. 12B

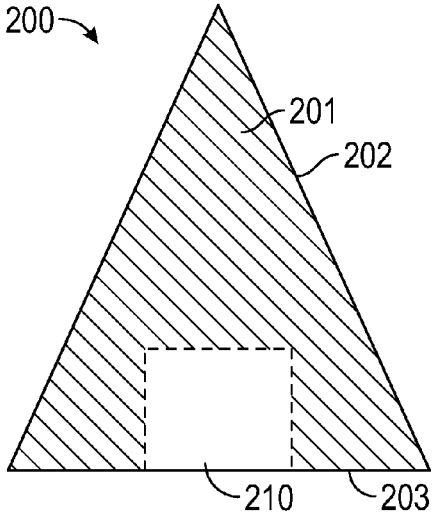


FIG. 12C

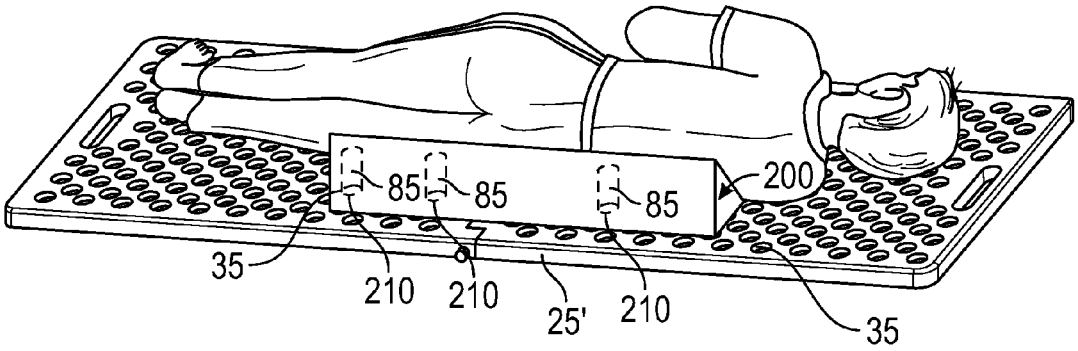


FIG. 13

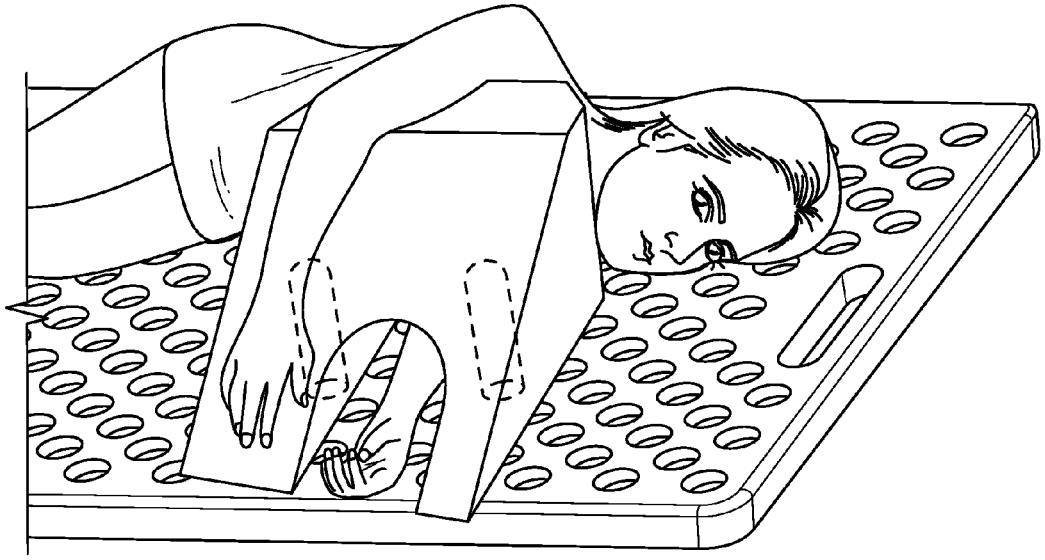


FIG. 14A

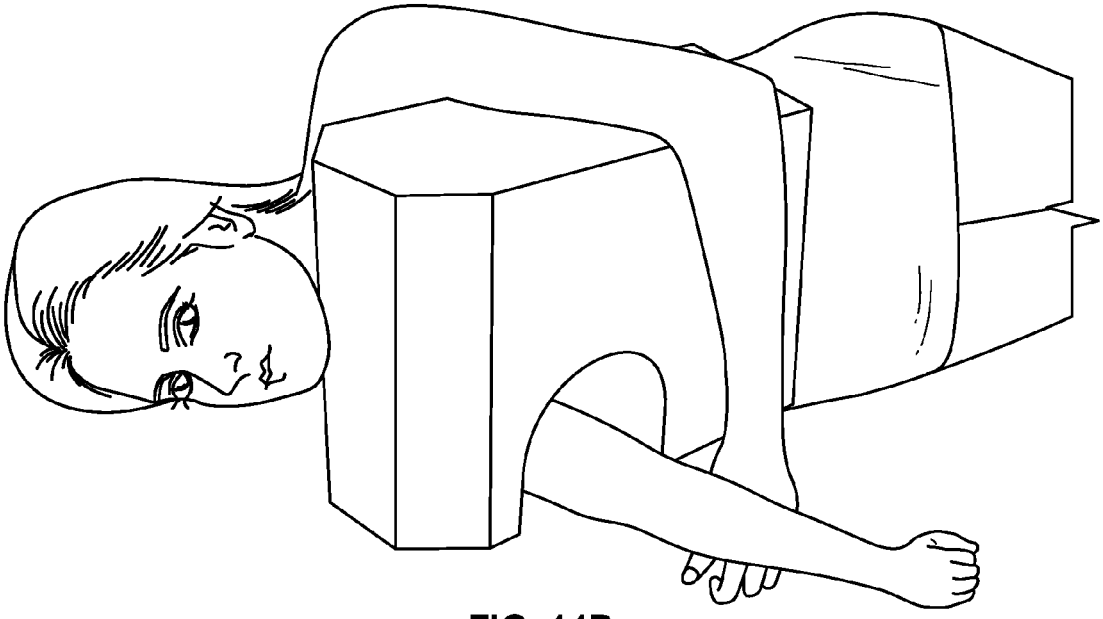


FIG. 14B

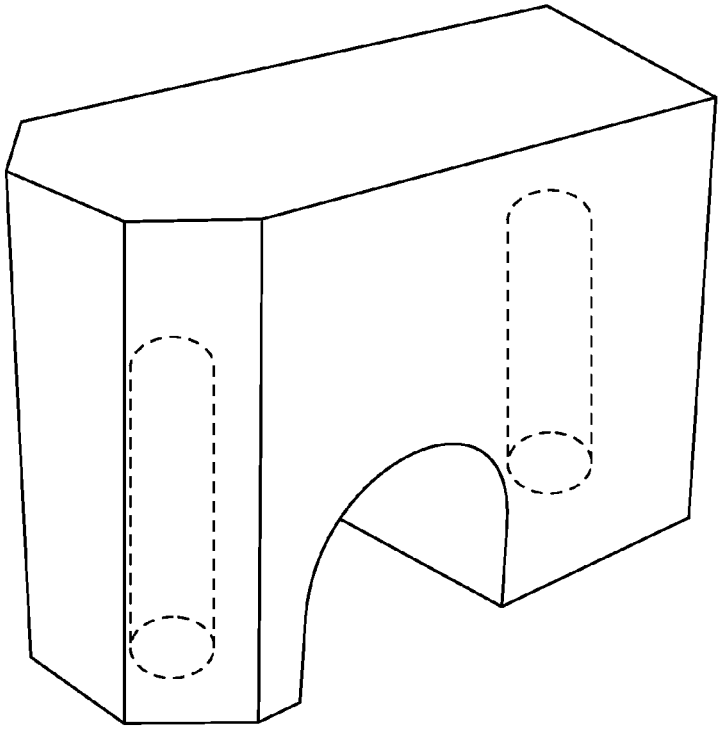


FIG. 14C

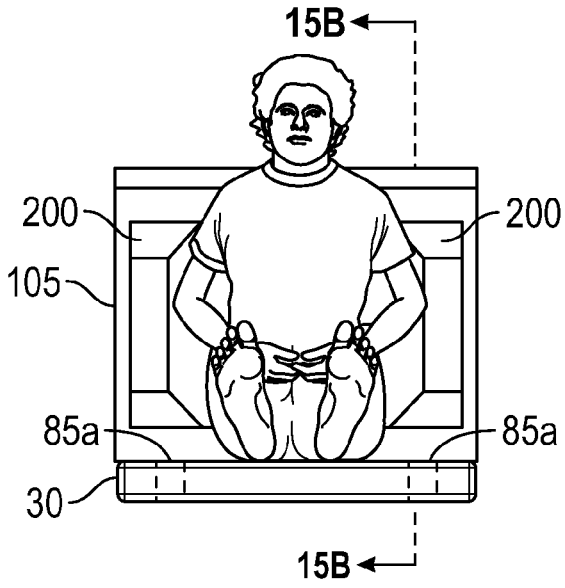


FIG. 15A

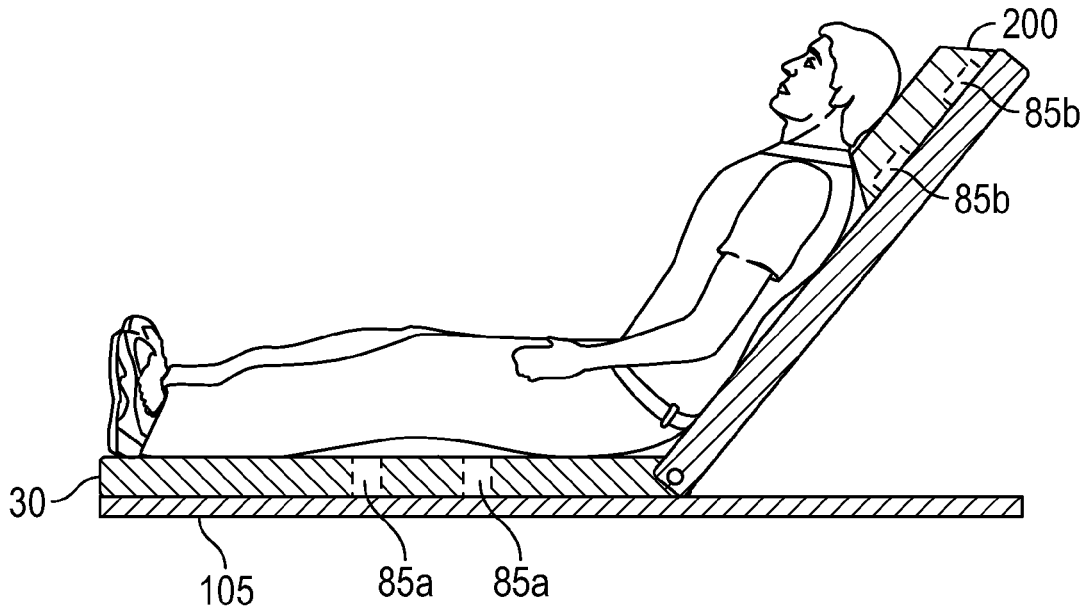


FIG. 15B

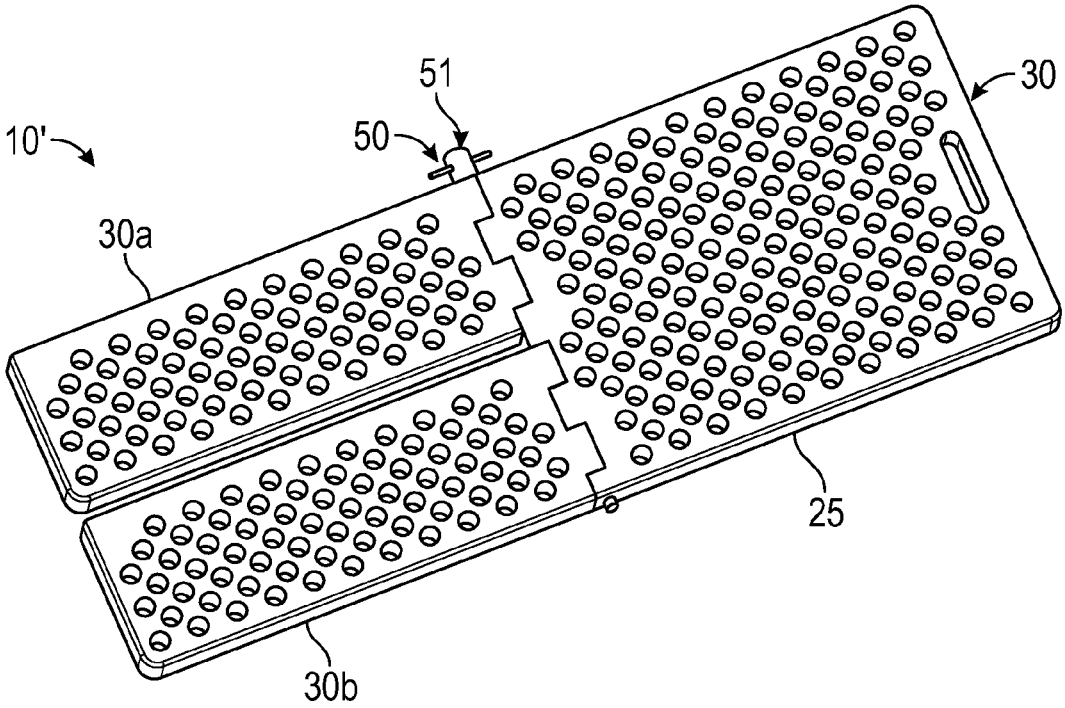


FIG. 16A

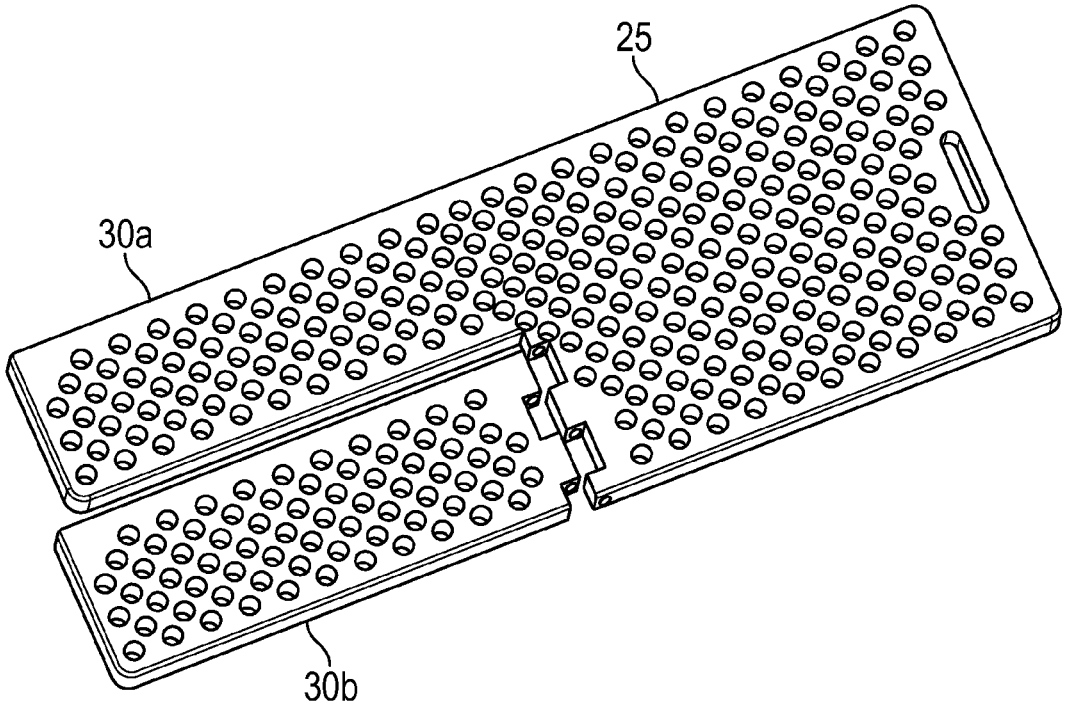


FIG. 16B

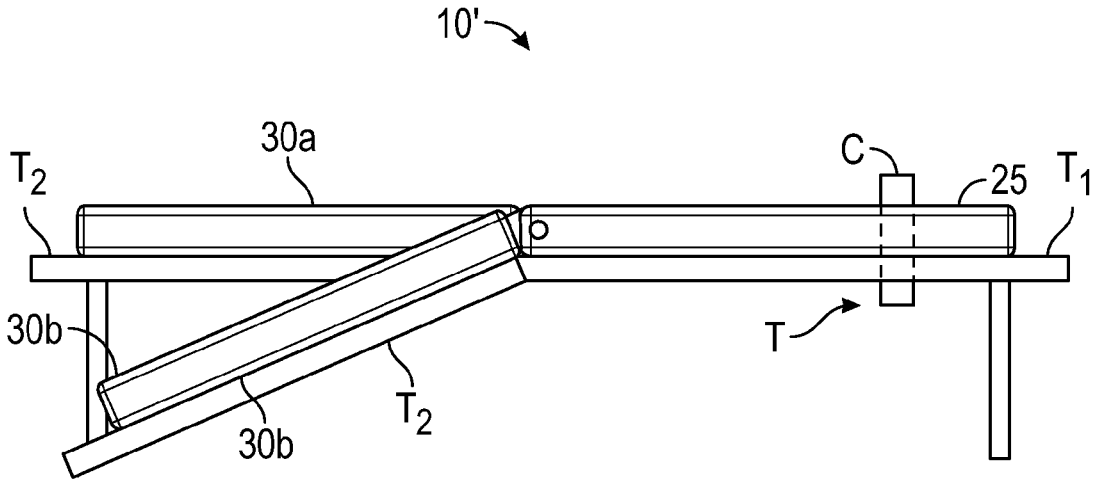


FIG. 17

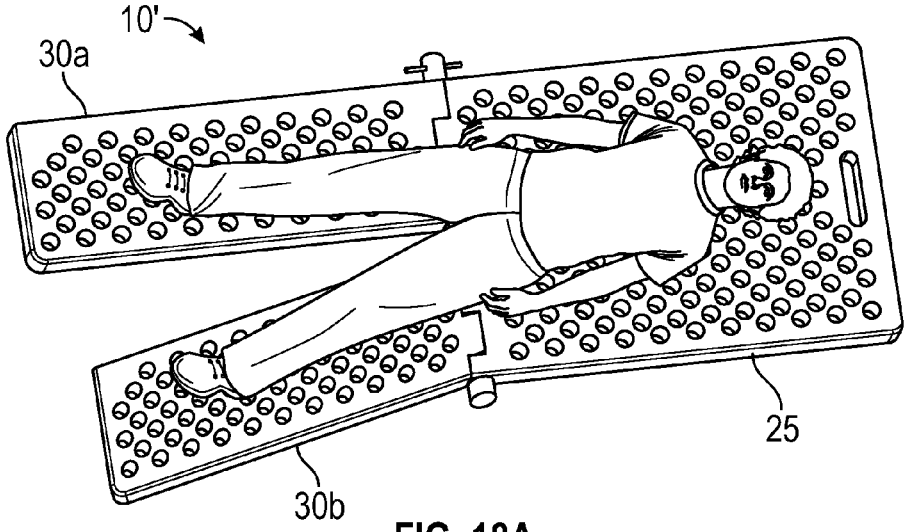


FIG. 18A

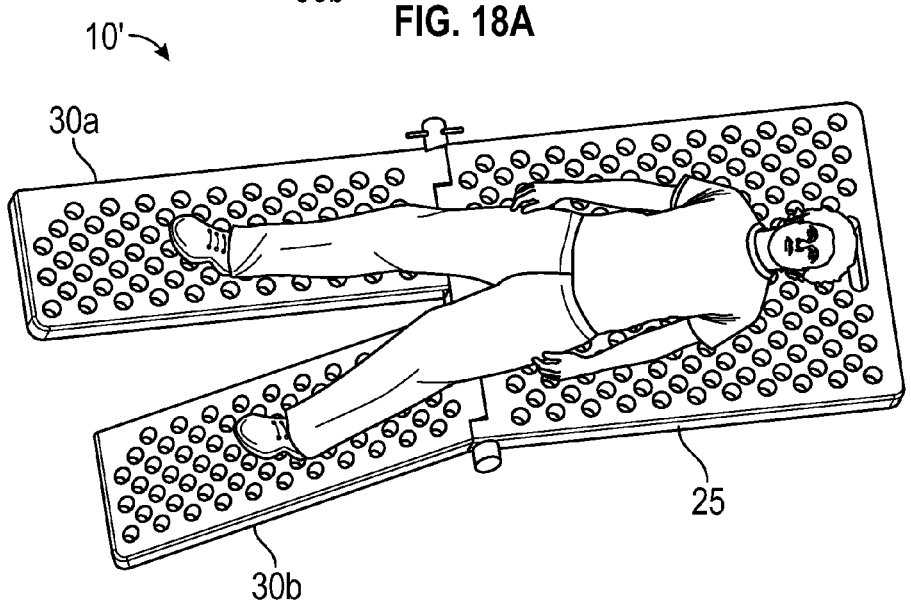


FIG. 18B

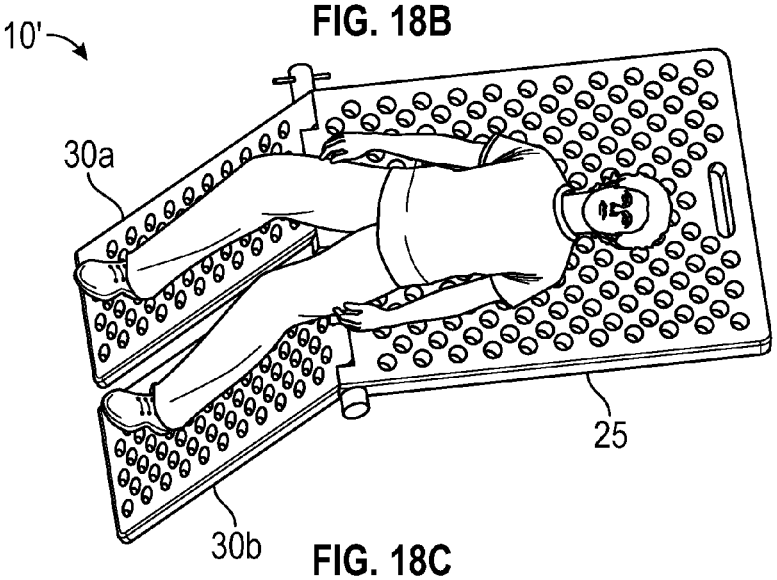


FIG. 18C

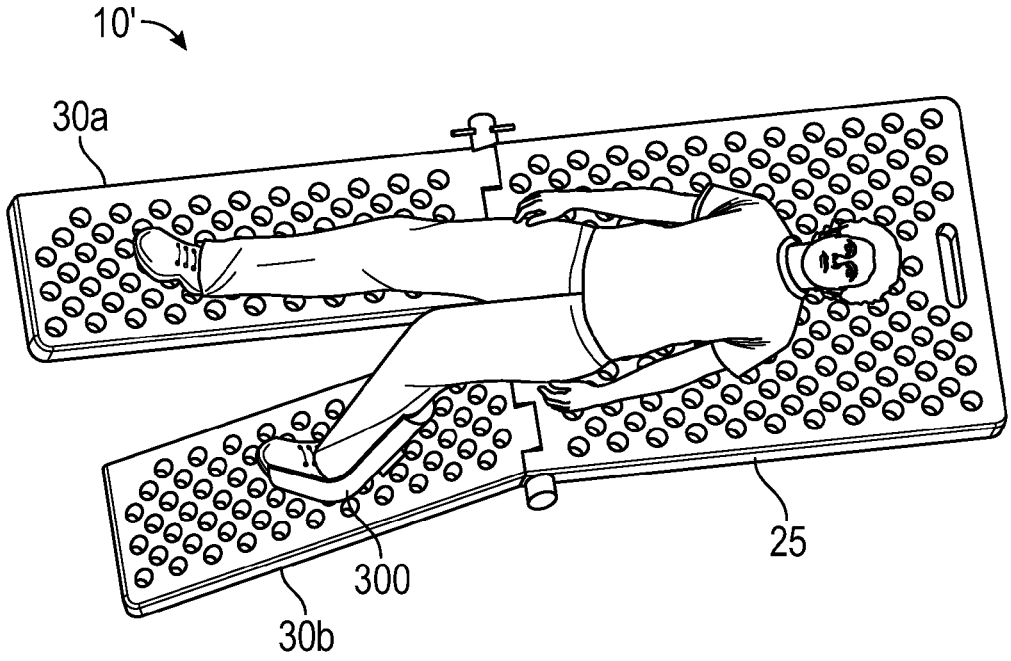


FIG. 18D

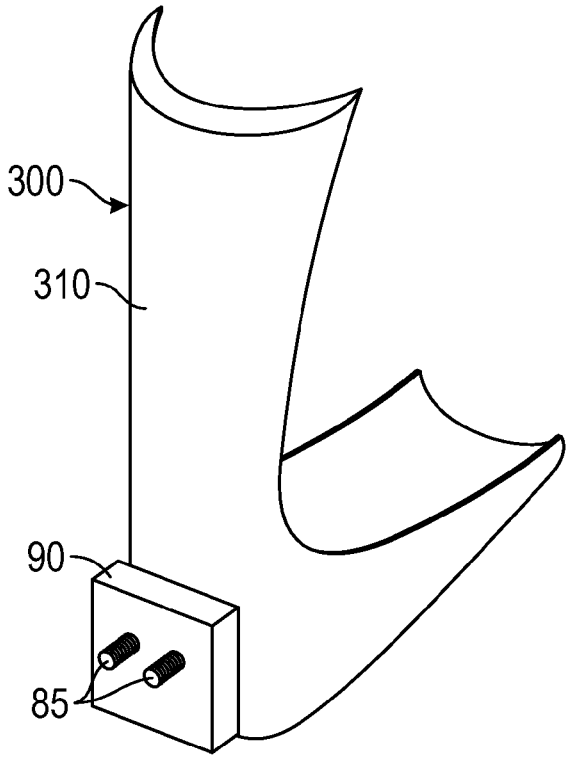


FIG. 18E

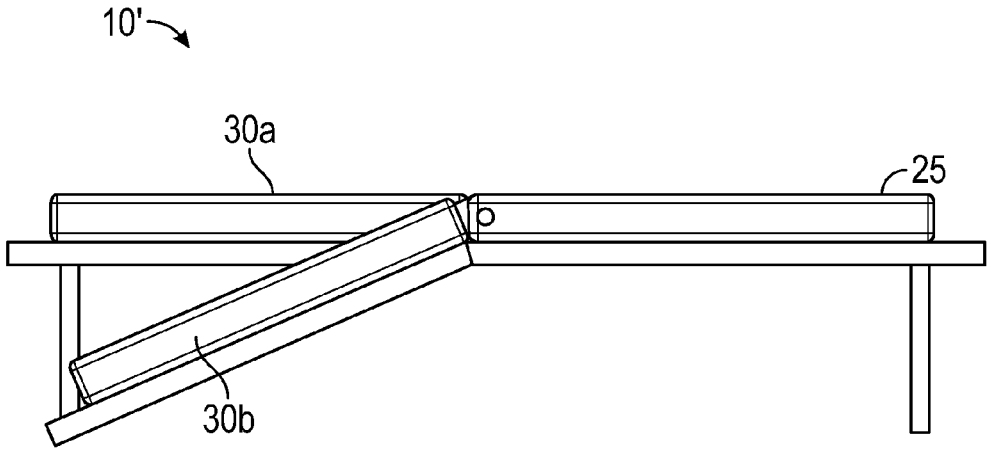


FIG. 19A

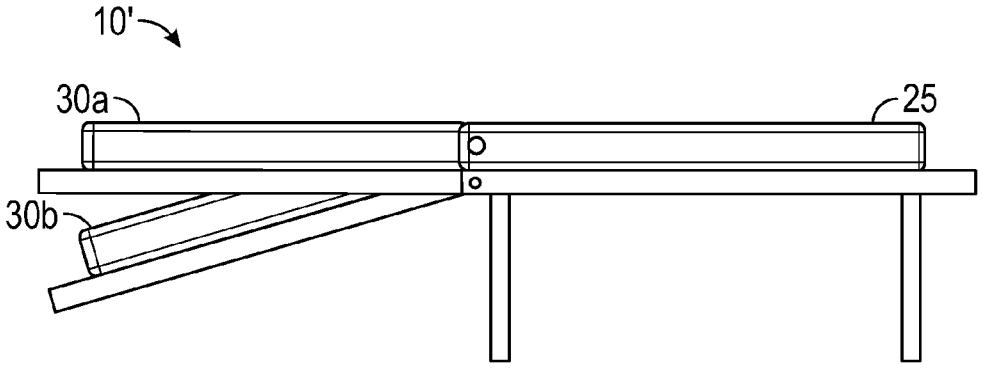


FIG. 19B

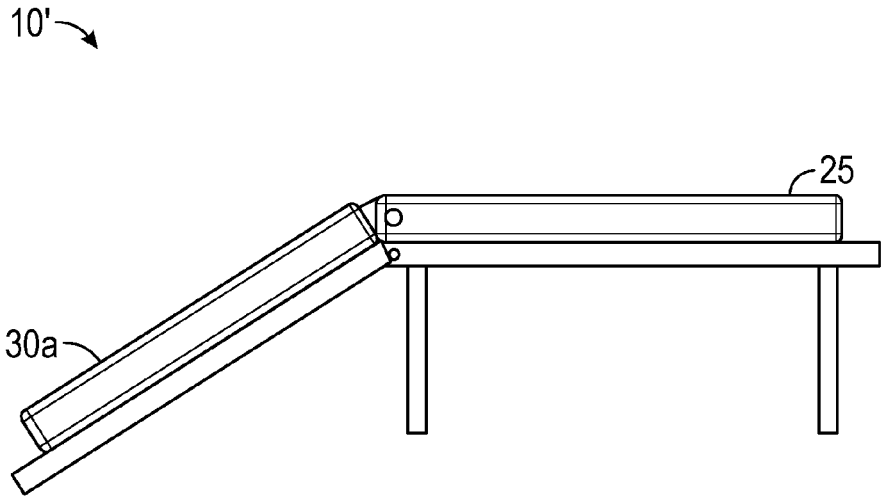


FIG. 19C

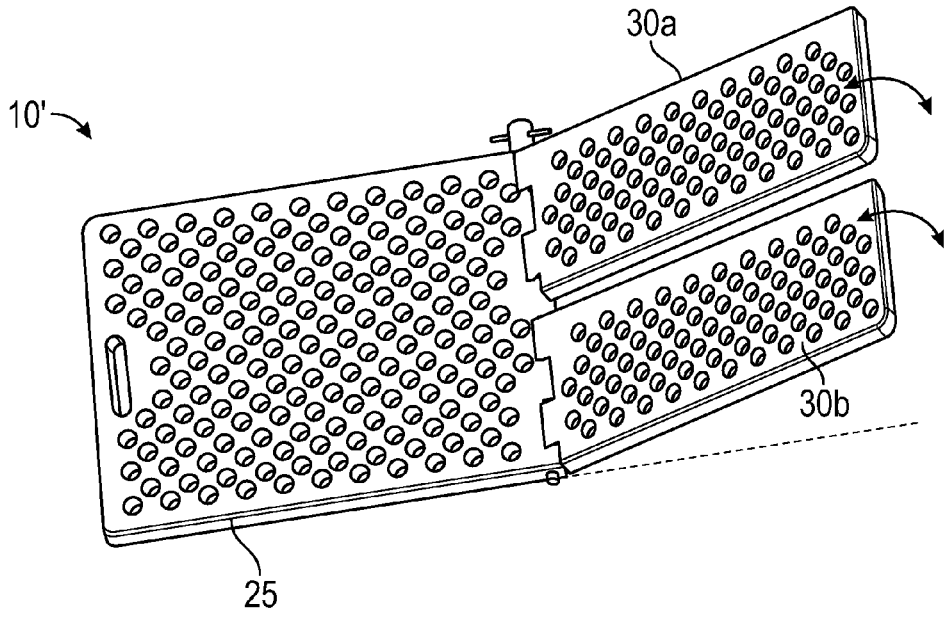


FIG. 20

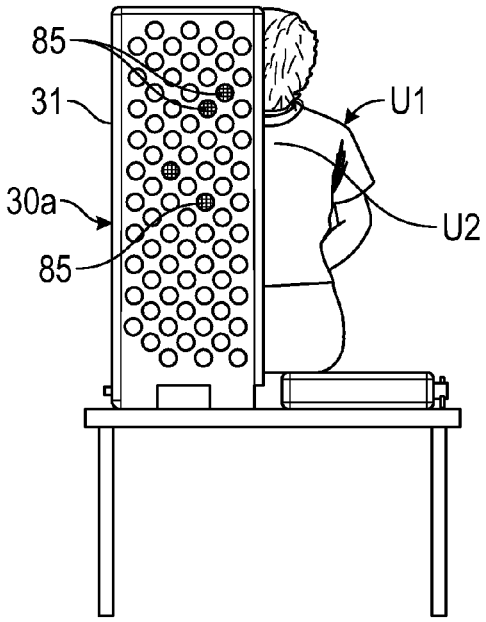


FIG. 21A

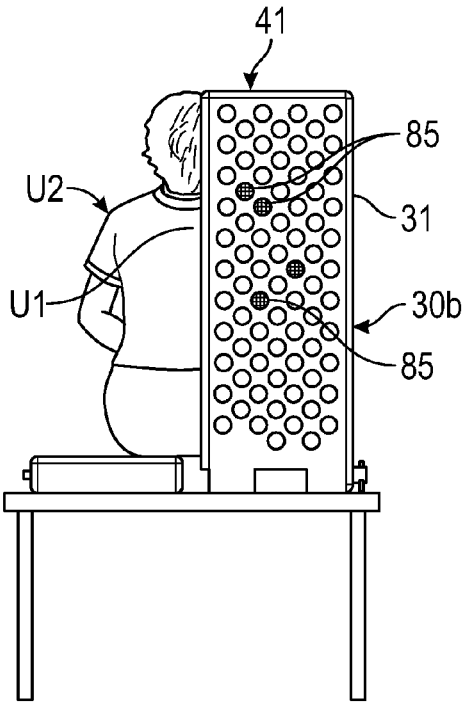


FIG. 21B

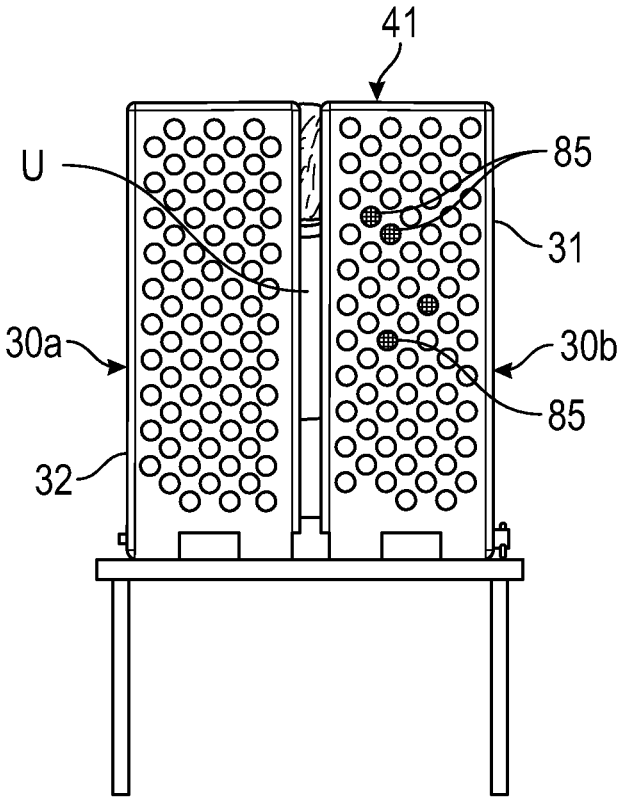


FIG. 22

MODULAR PATIENT POSITIONING SYSTEM

FIELD OF DISCLOSURE

[0001] The disclosure is generally directed to the field of modular patient positioning systems (referred to herein as "MPPS"). In particular, the disclosure is directed to the field of MPPSs for use in orthopedic surgery and conveniently positioning or extending different body portions to be operated upon in different positions. The system of the current disclosure allows surgeons and operating room staff to use a reduced amount of hardware in combination with a foundational device to position, support, and improve the results of the surgical procedure. Moreover, small movements that can cause joint misalignment are preventable with the system. The modularity of the system also allows one system to be used for posterior or anterior hip surgery, knee surgery, extremity surgery, as well as a sit-up position for neck or shoulder surgery.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] FIG. **1**A shows a first exemplary embodiment of an MPPS, which comprises two separate pegboards and in a first configuration. FIG. **1**B shows another exemplary embodiment of an MPPS that comprises one pegboard.

[0003] FIG. **2** shows the first exemplary embodiment of the MPPS of FIG. **1**A in a second configuration.

[0004] FIG. **3**A, FIG. **3**B, FIG. **3**C show various exemplary ways that the MPPS of FIG. **1**A may be used during surgery.

[0005] FIG. **4** shows how when the MPPS of FIG. **1**A is in the second configuration, the patient's upper body is in a raised position that makes surgery on the upper portion of the patient's upper body easier.

[0006] FIG. **5**A and FIG. **5**B show other exemplary embodiments of an MPPS; in these exemplary embodiments, pegs are shown for retaining a portion of a patient's body in an operating position. The embodiment of FIG. **5**A is wider than the embodiment of FIG. **5**B.

[0007] FIG. **6** shows another embodiment of the MPPS; in this exemplary embodiment, the MPPS is for supporting a first part of the patient's upper body and providing unobstructed access to a second part of the patient's upper body, on which surgery is to be performed.

[0008] FIG. **7**A, FIG. **7**B are rear views, showing how the exemplary embodiment of FIG. **6** allows unobstructed access to either of the left or right side parts of the patient's upper body, on which surgery is to be performed.

[0009] FIG. **8** shows another exemplary embodiment of the MPPS; in this exemplary embodiment, an arm pegboard extends outwardly beyond side edges of the second pegboard and a surgical table.

[0010] FIG. **9**A, FIG. **9**B, FIG. **9**C show different exemplary ways in which additional pegboards, such as the arm pegboards of FIG. **8**, may be connected to the rest of the MPPS.

[0011] FIG. **10**A and FIG. **10**B show examples of performing arm surgeries with the the exemplary embodiments of FIG. **1**A and FIG. **8** respectively.

[0012] FIG. **11**A, FIG. **11**B, FIG. **11**C show additional exemplary embodiments of the MPPS; in these exemplary embodiments, the MPPS includes an x-ray facilitating cutout.

[0013] FIG. **12**A, FIG. **12**B, and FIG. **12**C show another exemplary embodiment of the MPPS; in this exemplary embodiment, a generic positioning member for retaining a portion of the patient's body that is to be operated on in a desired surgical position using pegs as a supporting/holding mechanism is included.

[0014] FIG. **13** shows the exemplary generic positioning member of FIGS. **12**A, **12**B, and **12**C, in use positioning a patient body in a laterally upright configuration.

[0015] FIG. **14**A-**14**C, show other exemplary embodiments of an MPPS, these exemplary embodiments including positioning members for use on surgery on different specific body parts.

[0016] FIG. **15**A and FIG. **15**B show an exemplary embodiment of an MPPS for facilitating surgery on a patient's neck and/or shoulder area.

[0017] FIG. **16**A and FIG. **16**B show additional exemplary embodiment of an MPPS.

[0018] FIG. **17** shows the exemplary embodiment of the MPPS of FIG. **16** in a configuration for surgery on a portion of a patient's lower body and positioned on a surgical table, similar to FIG. **3**A, FIG. **3**B, and FIG. **3**C.

[0019] FIG. **18**A, FIG. **18**B, FIG. **18**C, FIG. **18**D, FIG. **18**E show the exemplary embodiment of the MPPS of FIG. **16** in positions for conducting surgery on one of a patient's legs (FIG. **18**A), a patient's knee (FIG. **18**B), and/or both of a patient's legs (FIG. **18**C). FIGS. **18**C and **18**D show the use of a leg positioner for flexing, e.g., a knee, during surgery thereon.

[0020] FIG. **19**A, FIG. **19**B, and FIG. **19**C, show the exemplary embodiments of FIGS. **18**A, **18**B, and **18**C, respectively in side view.

[0021] FIG. **20** shows the exemplary embodiment of the MPPS of FIG. **16**A in a configuration for performing surgery on an upper portion of a patient's body.

[0022] FIG. **21**A and FIG. **21**B are rear views similar to those of FIG. **7**A and FIG. **7**B, respectively, where different portions of the patient's upper body are supported and different portions of the patient's upper body are unobstructed for surgery thereon.

[0023] FIG. **22** is a rear view, similar to the rear views of FIG. **21**A and FIG. **21**B, but showing where the MPPS is configured to support substantially the entire upper body.

DETAILED DESCRIPTION

[0024] It will be appreciated that for simplicity and clarity of illustration, numerous specific details are set forth in order to provide a thorough understanding of the embodiments described herein. However, it will be understood by those of ordinary skill in the art that the embodiments described herein can be practiced without these specific details. In other instances, methods, procedures and components have not been described in detail so as not to obscure the related relevant feature being described. Also, the description is not to be considered as limiting the scope of the embodiments described herein. The drawings are not necessarily to scale and the proportions of certain parts have been exaggerated to better illustrate details and features of the present disclosure. Similar reference numerals are used to refer to structures similar to the various exemplary embodiments.

[0025] The embodiments shown and described above are only examples. Therefore, many such details are neither shown nor described. Even though numerous characteristics and advantages of the present technology have been set forth

in the foregoing description, together with details of the structure and function of the present disclosure, the disclosure is illustrative only, and changes may be made in the detail, especially in decorative and structural matters of shape, size and arrangement of the parts within the principles of the present disclosure up to, and including the full extent established by the broad general meaning of the terms used in the claims. It will therefore be appreciated that the embodiments described above may be modified within the scope of the claims.

[0026] FIG. **1**A shows a first exemplary embodiment of a modular patient positioning system ("MPPS") **10** and in a first configuration. This exemplary embodiment of the MPPS **10** includes at least first pegboard **25** and second pegboard **30**. Typically, though not necessarily, the first pegboard **25** and the second pegboard **30** are generally the same size. The first pegboard **25** and the second pegboard **30** have peg holes **35** therein, for reasons discussed below. The at least first pegboard **25** and second pegboard **30** may be connected together, such that the first pegboard **25** and second pegboard **30** can be rotated relative to each other between different configurations. In the exemplary embodiment of the MPPS of FIG. **1**A; the first pegboard **25** and second pegboard **30** are connected together by a hinge **50**. Hinge **50** may comprise a removable hinge pin **51**. However, as exemplified in FIG. **16**B, hinges are not necessary.

[0027] In a first configuration, as shown in FIG. **1**A, the first pegboard **25** and second pegboard **30** lie along a common plane. In FIG. **1**B, the MPPS comprises a single pegboard.

[0028] In a second configuration, as shown in FIG. **2**, the first pegboard **25** and second pegboard **30** lie along different planes at an angle α. The second configuration allows for different parts of a patient's body to be positioned and supported in different planes. The second configuration usually includes one pegboard lying flat (e.g. substantially horizontally) or parallel to a top surface of a surgical table and the other pegboard being at a positive or negative angle α relative to the flat pegboard (see discussions of FIGS. **3**A-**3**C below). For ease of reference and not intended to be limiting in any way, this disclosure will refer to the "second pegboard" as the pegboard that is raised or lowered, as discussed further below.

[0029] FIGS. **3**A-**3**C show various exemplary ways by which the second pegboard **30** can be supported in a raised position relative to the first pegboard **25**.

[0030] As shown in FIG. **3**A, the MPPS **10** may be supported on (by) a surgical/operating table T (schematically shown). First pegboard **25** may be clamped to a first, typically fixed-positioned part T**1** of the surgical table T by a clamp C. The second pegboard **30** is supported in the raised position by a rotatable portion T**2** of the surgical table T and may or may not be clamped to rotatable portion T**2**.

[0031] As shown in FIG. **3**B, the MPPS **10** may be supported on (by) a surgical/operating table T (schematically shown). First pegboard **25** may be clamped to a first, typically fixed-positioned part T**1** of the surgical table T by a clamp C. The second pegboard **30** is moved into the raised position and supported in the raised position by a support member S, such as a bar, frame, or wedge, between the top of the surgical table and an underside of the second pegboard **30**.

[0032] As shown in FIG. **3**C, the MPPS **10** may be supported on (by) a surgical/operating table T (schematically shown). First pegboard **25** may be clamped to a first, typically fixed-positioned part T**1** of the surgical table T by a clamp C. The second pegboard **30** is moved into the raised position and supported in the raised position by hinge pin **51** comprising a locking hinge pin.

[0033] The ability for the first pegboard **25** and second pegboard **30** to rotate relative to each other and receive pads/cushions and pegs makes it easier for a doctor to position different patient's in different body positions using pegs, pegboards, and pads to perform surgery on, for example, upper portions U of a patient's body P. For example, as shown in FIG. **4**, when the MPPS is in the second configuration: the first pegboard **25** lies substantially flat on a surgical table T and the second pegboard **30** is rotated upward and away from the plane of the first pegboard **25**. In this second configuration, the patient's lower body L lies generally flat on the first pegboard **25** substantially parallel with the surgical table T and the patient's upper body U is supported at a raised angle α above the plane of the first pegboard, to present the patient's upper body U in a raised position that makes surgery on an upper portion U of the patient's upper body U easier.

[0034] Thus, when the part of the patient's upper body U to be operated on comprises a shoulder, a doctor may use pads/cushions and pegs (see discussion about FIGS. **5**B, **5**B, below) to specifically position different patient's in different body positions using pegs. This reduces doctor fatigue during the surgical procedure and maintains desired patient positioning.

[0035] The angle α at which the second pegboard supports the patient's upper body relative to the plane of the first pegboard can vary, but generally depends on the heights of the surgical table and the doctor, so that the area of the patient to be operated on is at a position where the surgeon need not lean over the patient, stand in any awkward postures, etc.

[0036] As shown in FIG. **5**A and FIG. **5**B, one or more pegs **85** may be inserted into peg holes **35** and protrude outwardly to retain a portion of the patient's upper body U in a desired surgical position.

[0037] As shown in the exemplary embodiment of FIG. **1**, the first pegboard **25** and second pegboard **30** are generally identical in structure, allowing ease of installation and replacement of broken parts. However, the first pegboard **25** and second pegboard **30** need not be identical in structure.

[0038] For example, as shown in FIG. **6**, the second pegboard **30** is L-shaped having a narrow portion **31** and a wide portion **32**. Wide portion **32** includes the hinge portion of second pegboard **30**. The first pegboard **25** is generally rectangular and equal in width to the wide portion **32** of the second pegboard **30**. Thus, the hinge portion of wide portion **32** of the second pegboard **30** can be conveniently connected to the hinge portion of the first pegboard **25** by the hinge pin **51**.

[0039] As shown in the rear views of FIG. **7**A and FIG. **7**B, the narrow portion **31** of the second pegboard **30** supports a first part of the patient's upper body U**1** and provides unobstructed access to a second part of the patient's upper body U**2**, on which surgery is to be performed. For example, as shown in rear view FIG. **7**A, the patient's left shoulder is supported by narrow portion **31** of the second pegboard **30** and the patient's right shoulder is unobstructed for surgery. As shown in rear view FIG. **7**B, the second, L-shaped pegboard may be disconnected from the

first pegboard, reversed in configuration, and then reconnected to the first pegboard, whereby the second, L-shaped pegboard may be positioned to provide unobstructed access to the left side of the patient's upper body.

[0040] MPPS **10** can be used to raise or lower a patient's legs for surgery thereon, rather than the upper body by merely reversing the positioning of the first pegboard portion and the second pegboard portion. This is described in more detail below. For example, as described below, raising or lowering the second pegboard portion can be used to flex or relax a patient's knee or hip.

[0041] In another exemplary embodiment, as shown in FIG. **8**, the MPPS **10** may include additional pegboards for supporting various other body portions. For example, in FIG. **8** an arm pegboard **100** is shown that can be connected to the second pegboard **30**. In FIG. **8**, the arm pegboard **100** extends outwardly beyond side edges of the second pegboard **30** and surgical table T, and may support an arm positioning member **200"** and a patient's arm for being operated on as shown in FIG. **10**B. As shown in FIG. **10**A, an arm positioning member **200'** that can be connected to the pegboard by pegs can support the patient's arm outwardly.

[0042] As shown in FIG. **9**A, pegs **85** may be permanently affixed to the arm (or other additional) pegboard to be received in the peg holes **35** of the first pegboard **25** or second pegboard **30**. As shown in FIG. **9**B, pegs **85** may be permanently affixed to the first pegboard **25** or second pegboard **30** to be received in the peg holes **35** of the additional pegboard **100**. Yet further, as shown in FIG. **9**C, the pegs **85** may be separate elements that are received in the peg holes **35** of the first pegboard **25** or second pegboard **30** and peg holes **35** in the additional pegboard **100**.

[0043] As shown in FIG. **10**A, when a first exemplary arm pegboard with a first exemplary positioning member **200'** does not extend beyond the edges of the second pegboard **30** and the surgical table T, a patient's arm may be supported/stabilized in a first operating position while surgery on the supported arm or opposite shoulder is performed. As shown in FIG. **10**B, when a second exemplary arm pegboard with a second exemplary positioning member **200"** extends beyond the edges of the second pegboard **30** and the surgical table T, the patient's arm may be supported in a different operating position and/or flexed or relaxed. These multiple positions allow for proper positioning and support on a patient's arm/wrist/hand during surgery thereon. For sake of convenience, as used in the disclosure and claims "arm" shall be construed to be any body portion below the shoulder, including but not limited to, upper arm, elbow, lower arm, wrist, hand, or fingers. Similarly "leg" shall be construed to cover any body portion between the tips of the toes and the hip/pelvis.

[0044] Another feature that the MPPS may include is schematically shown in FIGS. **11**A, **11**B, **11**C, wherein at least one of the pegboards **25**, **30** has a cut-out **125** therein. This cutout allows an x-ray film (or cassette) X to be inserted into the area of the cut-out **125** for taking an unobstructed x-ray of the patient, i.e., without the blocking of the dense solid portions of the pegboard. As shown in FIG. **11**B, a thin radiolucent cover **130** may be positioned over the cut-out **125** for receiving the x-ray film X thereunder while supporting the patient's body so there is no contact between the x-ray film X and the patient's skin. In FIG. **11**C, the single pegboard of FIG. **1**B is provided with cutout **125**.

[0045] Another feature that the MPPS may include is shown in FIG. **12**A, FIG. **12**B, FIG. **12**C. This feature includes a generic patient positioning member **200** used to cover at least two pegs **85** being used to retain the portion of the patient's upper body that is to be operated on in a desired surgical position. Conventionally, in prior art methods, one peg, in combination with tape, is used to position the pad and retain it in its proper position. As shown in FIG. **12**A, FIG. **12**B, FIG. **12**C the positioning member **200** comprises a positioning pad **201** (also known in the art as cushion or pillow). The positioning pad **201** has an upper portion **202** and a lower portion **203**; the upper portion **202** for contacting a portion of the patient's body; and the lower portion **203** having a plurality of blind holes **210** for receiving pegs **85**.

[0046] The positioning member **200** can be used either in combination with an MPPS having a first pegboard **25** and second pegboard **30** or with a conventional full-sized pegboard (FIG. **1**B). For example, as shown in FIG. **13**, the MPPS may include at least one pegboard **25'** for positioning on a surgical table and supporting a portion of a patient. Positioning member **200** aligns a portion of a patient's body in a surgical position. The positioning member has a plurality of holes **210** in a lower portion thereof. A plurality of pegs **85** are positioned in peg holes **35** at locations where it is desired to position the positioning member **200**. The positioning member **200** is then placed over the plurality of pegs **85**, by the pegs **85** being received in the holes **210** in the lower portion of the positioning member **200**. Conventionally, in prior art methods, positioning pads are fixed with tape to the table or pegboard to retain it in its proper position, or pads are wrapped around a single peg when the patient is fixed in a lateral position. FIG. **14**A, FIG. **14**B, and FIG. **14**C show other exemplary configurations for positioning member **200**, useful with different and specific surgical procedures on various body parts.

[0047] FIG. **15**A and FIG. **15**B show an exemplary embodiment of an MPPS for facilitating surgery on a patient's neck and/or shoulder areas. In this exemplary embodiment, a first set of pegs **85***a* are used to attach another (e.g., neck) pegboard **105** to the upper portion/free end of the second pegboard **30**. A second set of pegs **85***b* protrude from the neck pegboard **105** on each side of the patient's neck. Finally, positioning members **200** are placed over pegs **85***b*, as previously described. This configuration allows for a neck/shoulder positioning that is comfortable to both the doctor and patient.

[0048] FIG. **16**A shows another exemplary embodiment of an MPPS. In FIG. **16**A, MPPS **10'** is similar to the MPPS **10** of FIG. **1**. The difference between MPPS **10'** and MPPS **10** is that MPPS **10'** has one of pegboards **25**, **30**, divided into two, separately rotatable pegboard parts, e.g., **30***a*, **30***b*. Furthermore, in FIG. **16**B, pegboard part **30***b* is not hinged to the rest of the pegboard **25**. In FIG. **16**B, pegboard parts **30***b* may be clamped to the surgical table T in manners previously described. Typically pegboard parts **30***a*, **30***b* will each have substantially the same width, and their combined width will be substantially equal to the width of the other pegboard, e.g., **25**.

[0049] FIG. **17** shows the exemplary embodiment of the MPPS of FIG. **16**A in a configuration for surgery on a portion of a patient's lower body and positioned on a surgical table, similar to FIG. **3**A, FIG. **3**B, and FIG. **3**C. In FIG. **17**, MPPS **10'** is supported on (by) a surgical table T (schematically shown). First pegboard **25** may be clamped

to a first, typically fixed-position part T1 of the surgical table T by a clamp C. The second pegboard portions **30***a*, **30***b*, are supported in a raised or lowered position by a rotatable portion T2 of the surgical table T and may or may not be clamped to rotatable portion T2.

[0050] FIG. **18**A, FIG. **18**B, FIG. **18**C each schematically show the exemplary embodiment of the MPPS **10'** of FIG. **16** in positions for conducting surgery on one of a patient's legs (FIG. **18**A), a patient's knee (FIG. **18**B), and/or both of a patient's legs (FIG. **18**C). Note that this functionality is useful because often, when a leg is being operated on, it may be angled in an up or down positioning to check rotation, provide visibility to all portions of the joint, and extend or relax muscles and ligaments. For clarity, FIG. **19**A, FIG. **19**B, and FIG. **19**C, show the exemplary embodiments of FIGS. **18**A, **18**B, and **18**C, respectively in side view.

[0051] In FIG. **18**A, the patient's hip is generally aligned with the pivot axis between the first pegboard and the second pegboard. Therefore, pivoting of the pegboards cause either tensioning or extension (extend or relax) of the hip muscles. In FIG. **18**B, the patient's knee is generally aligned with the pivot axis between the first pegboard and the second pegboard. Therefore, pivoting of the pegboards cause either tensioning or extension (extend or relax) of the knee muscles. To further accurately position a knee during surgery, a leg positioner **300** may be used. This leg positioner structure is shown in FIG. **18**D and FIG. **18**E. Leg positioner **300** includes a boot **310** for receiving the foot and lower portion of the leg whose knee is being operated on. Pegs **85** are attached to the boot so that the boot can be fixed to pegboard **30***b* in a desired position that provides the desired flexion on the knee, when pegboard **30***b* is adjusted. While not necessary, a stabilization block **90** may also be provided to ease the shearing forces on pegs **85**. While not shown, it is possible that a surgical boot having a peg attached thereto can be used to attach the foot to the pegboard to assist in flexing or extending the knee. The leg positioner **300** and arm positioner **200'** (FIG. **10**A) can be attached to the pegboards in substantially the same ways.

[0052] FIG. **20** shows the exemplary embodiment of the MPPS of FIG. **16** in a configuration for performing surgery on an upper portion of a patient's body. The details of this embodiment are generally the same as those of FIG. **1**, except for the fact that second pegboard **25** is formed by two second pegboards **30***a*, **30***b*.

[0053] FIG. **21**A and FIG. **21**B are rear views similar to those of FIG. **7**A and FIG. **7**B, respectively, where different portions of the patient's upper body U2 are supported and different portions of the patient's upper body U1 are unobstructed for surgery thereon. Reference to FIG. **7**A and FIG. **7**B will generally inform the reader of the features and functionality of FIG. **21**A and FIG. **21**B.

[0054] FIG. **22** is a rear view, similar to the rear views of FIG. **21**A and FIG. **21**B, but showing where MPPS **10'** is configured to support substantially the entire upper body U. Again, reference to FIG. **7**A and FIG. **7**B will generally inform the reader of the features and functionality of FIG. **22**.

[0055] The embodiments shown and described above are only examples. Therefore, many such details are neither shown nor described. Even though numerous characteristics and advantages of the present technology have been set forth in the foregoing description, together with details of the structure and function of the present disclosure, the disclosure is illustrative only, and changes may be made in the detail, especially in decorative and structural matters of shape, size and arrangement of the parts within the principles of the present disclosure up to, and including the full extent established by the broad general meaning of the terms used in the claims. It will therefore be appreciated that the embodiments described above may be modified within the scope of the claims.

That which is claimed:

1. A modular patient positioning system, comprising:

at least a first pegboard and a second pegboard, the first pegboard and second pegboard can be rotated relative to each other; wherein:

in a first configuration, the first pegboard and second pegboard lie along a common plane; and

in a second configuration, the first pegboard and second pegboard lie along different planes, whereby different parts of the patient's body may be positioned and supported in different planes.

2. The modular patient positioning system of claim **1**, wherein the first pegboard and second pegboard are connected together by a hinge.

3. The modular patient positioning system of claim **2**, wherein the hinge includes a locking pin for preventing movement between the first pegboard and second pegboard after the first pegboard and second pegboard are positioned in a desired second configuration.

4. The modular patient positioning system of claim **2**, wherein the hinge comprises a removable hinge pin.

5. The modular patient positioning system of claim **1**, wherein when the system is in the second configuration:

the first pegboard lies substantially flat on a surface of a surgical table; and

the second pegboard is supported at an angle above the plane of the first pegboard; whereby:

a first portion of a patient's body lies on the first pegboard substantially parallel with the surgical table: and

a second portion of a patient's body is supported at a raised angle above the plane of the first pegboard by the second pegboard, to present the patient's second body portion in a raised position that makes surgery on a portion of the patient's second body portion easier.

6. The modular patient positioning system of claim **1**, wherein when the system is in the second configuration:

the first pegboard lies substantially flat on a surface of a surgical table; and

the second pegboard is supported at an angle below the plane of the first pegboard; whereby:

a first portion of a patient's body lies on the first pegboard substantially parallel with the surgical table: and

a second portion of a patient's body is supported at an angle below the plane of the first pegboard by the second pegboard, to present the patient's second body portion in a lowered position that makes surgery on a portion of the patient's second body portion easier.

7. The modular patient positioning system of claim **5**, wherein the second pegboard is supported at an angle above the plane of the first pegboard by a movable portion of the surgical table.

8. The modular patient positioning system of claim **5**, wherein the second pegboard is supported at an angle above the plane of the first pegboard by a support between the top of the surgical table and an underside of the second pegboard.

9. The modular patient positioning system of claim **5**, wherein the second pegboard is supported at an angle above the plane of the first pegboard by a locking hinge pin.

10. The modular patient positioning system of claim **5**, wherein the first body portion comprises a lower body portion and the second body portion comprises an upper body portion.

11. The modular patient positioning system of claim **6**, wherein the first body portion comprises an upper body portion and the second body portion comprises a leg portion.

12. The modular patient positioning system of claim **11**, further comprising a leg positioner, the leg positioner including a boot portion for receiving a foot and lower portion of a leg whose knee is being operated on; the boot portion further comprising pegs for being received in the pegboard holes to maintain the leg positioner in a desired fixed position.

13. The modular patient positioning system of claim **10**, wherein the second pegboard is L-shaped having a narrow portion and a wide portion, such that:

the wide portion of the second pegboard is connected to the first pegboard; and

the narrow portion of the second pegboard supports a first part of the patient's upper body and provides unobstructed access to a second part of the patient's upper body, on which surgery is to be performed.

14. The modular patient positioning system of claim **13**, wherein the second, L-shaped pegboard may be disconnected from the first pegboard, reversed in configuration, and then reconnected to the first pegboard, whereby the second, L-shaped pegboard may be positioned to provide unobstructed access to either of the left or right side of the patient's upper body.

15. The modular patient positioning system of claim **13**, wherein the part of the patient's upper body to be operated on comprises a neck or shoulder.

16. The modular patient positioning system of claim **1**, further comprising an additional pegboard that can be connected to one of the first pegboard or second pegboard by pegs, and support a body portion being operated on.

17. The modular patient positioning system of claim **16**, wherein the additional pegboard comprises an arm pegboard and the body portion for being operated on comprises an arm.

18. The modular patient positioning system of claim **17**, wherein the arm pegboard extends outwardly beyond side edges of the second pegboard and a surgical table, and supports an arm for being operated on.

19. The modular patient positioning system of claim **18**, wherein the arm pegboard does not extend outwardly beyond side edges of the second pegboard and a surgical table, and supports an arm for being operated on.

20. The modular patient positioning system of claim **1**, wherein at least one of the pegboards has a cut-out therein, whereby an x-ray film may be inserted into the cut-out and an unobstructed x-ray taken of the patient.

21. The modular patient positioning system of claim **20**, further comprising a radiolucent cover positioned over the cut-out.

22. The modular patient positioning system of claim **1**, wherein each of the pegboards has a cut-out therein, whereby a single x-ray film may be inserted into the cut-outs and an unobstructed x-ray taken of the patient.

23. The modular patient positioning system of claim **22**, further comprising a radiolucent cover positioned over the cut-out.

24. The modular patient positioning system of claim **5**, further comprising wherein one or more pegs are inserted into peg holes to retain the portion of the patient's upper body in the desired surgical position.

25. The modular patient positioning system of claim **24**, wherein a single positioning member is used to cover at least two pegs being used to retain the portion of the patient's upper body that is to be operated on in a desired surgical position.

26. The modular patient positioning system of claim **25**, wherein the positioning member comprises a positioning pad, the positioning pad having an upper portion and a lower portion:

the upper portion for contacting a portion of the patient's body; and

the lower portion having a plurality of holes for receiving the pegs.

27. The modular patient positioning system of claim **10**, further comprising a neck pegboard for use when performing neck or shoulder surgery.

28. The modular patient positioning system of claim **1**, further comprising wherein at least one of the first pegboard and second pegboard are formed into two, substantially identical pegboards that can be rotated relative to each other.

29. The modular patient positioning system of claim **28**, wherein when the system is in the second configuration:

the first pegboard lies substantially flat on a surface of a surgical table; and

at least of the second pegboard parts is supported at an angle above or below the plane of the first pegboard; whereby:

a first portion of a patient's body lies on the first pegboard substantially parallel with the surgical table: and

a second portion of a patient's body is supported at a raised or lowered angle relative to the plane of the first pegboard by the second pegboard part, to present the patient's second body portion in a desired position that makes surgery on a portion of the patient's second body portion easier.

30. The modular patient positioning system of claim **29**, wherein the second pegboard part is supported at an angle above or below the plane of the first pegboard by a movable portion of the surgical table.

31. The modular patient positioning system of claim **29**, wherein the first body portion comprises a lower body portion and the second body portion comprises an upper body portion.

32. The modular patient positioning system of claim **29**, wherein the first body portion comprises a upper body portion and the second body portion comprises a lower body portion.

33. The modular patient positioning system of claim **10**, wherein the second pegboard is L-shaped having a narrow portion and a wide portion, such that:

the wide portion of the second pegboard is connected to the first pegboard; and

the narrow portion of the second pegboard supports a first part of the patient's upper body and provides unobstructed access to a second part of the patient's upper body, on which surgery is to be performed.

34. The modular patient positioning system of claim **33**, wherein the second, L-shaped pegboard may be disconnected from the first pegboard, reversed in configuration, and then reconnected to the first pegboard, whereby the second, L-shaped pegboard may be positioned to provide unobstructed access to either of the left or right side of the patient's upper body.

35. The modular patient positioning system of claim **34**, wherein the part of the patient's upper body to be operated on comprises a neck or shoulder.

36. A modular patient positioning system, comprising:

at least a first pegboard for positioning on a surgical table and supporting a portion of a patient;

a positioning member for aligning a portion of a patient's body in a surgical position, the positioning member having a plurality of holes in a lower portion thereof;

a plurality of pegs; the pegs positioned in peg holes at locations where it is desired to position the positioning member; and

the positioning member placed over the plurality of pegs, by the pegs being received in the holes in the lower portion of the positioning member.

37. The modular positioning patent positioning system of claim **36**, wherein the positioning member is a positioning pad.

38. The modular patient positioning system of claim **36**, further comprising an arm pegboard that can be connected to the pegboard by pegs, and support an arm for being operated on.

39. The modular patient positioning system of claim **36**, wherein the arm pegboard extends outwardly beyond side edges of the pegboard and a surgical table, and supports an arm for being operated on.

40. The modular patient positioning system of claim **36**, wherein the arm pegboard does not extend outwardly beyond side edges of the pegboard and a surgical table, and supports an arm for being operated on.

41. The modular patient positioning system of claim **36**, wherein the at least first pegboard has a cut-out therein, whereby a single x-ray film may be inserted into the cut-outs and an unobstructed x-ray taken of the patient.

42. The modular patient positioning system of claim **41**, further comprising a radiolucent cover positioned over the cut-out.

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