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(54) **EXTENDABLE SEATING STRUCTURE WITH STORAGE REGION FOR EXTENDED PORTION**

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A47C 4/00 (2006.01)

(52) **U.S. Cl.**
CPC . *A47C 11/00* (2013.01); *A47C 4/00* (2013.01);
A47B 1/02 (2013.01); *A47B 1/10* (2013.01)

(71) Applicant: **Sunny Designs, Inc.**, Rancho Cucamonga, CA (US)

(72) Inventor: **Sunny Soankyu Hwang**, Rancho Cucamonga, CA (US)

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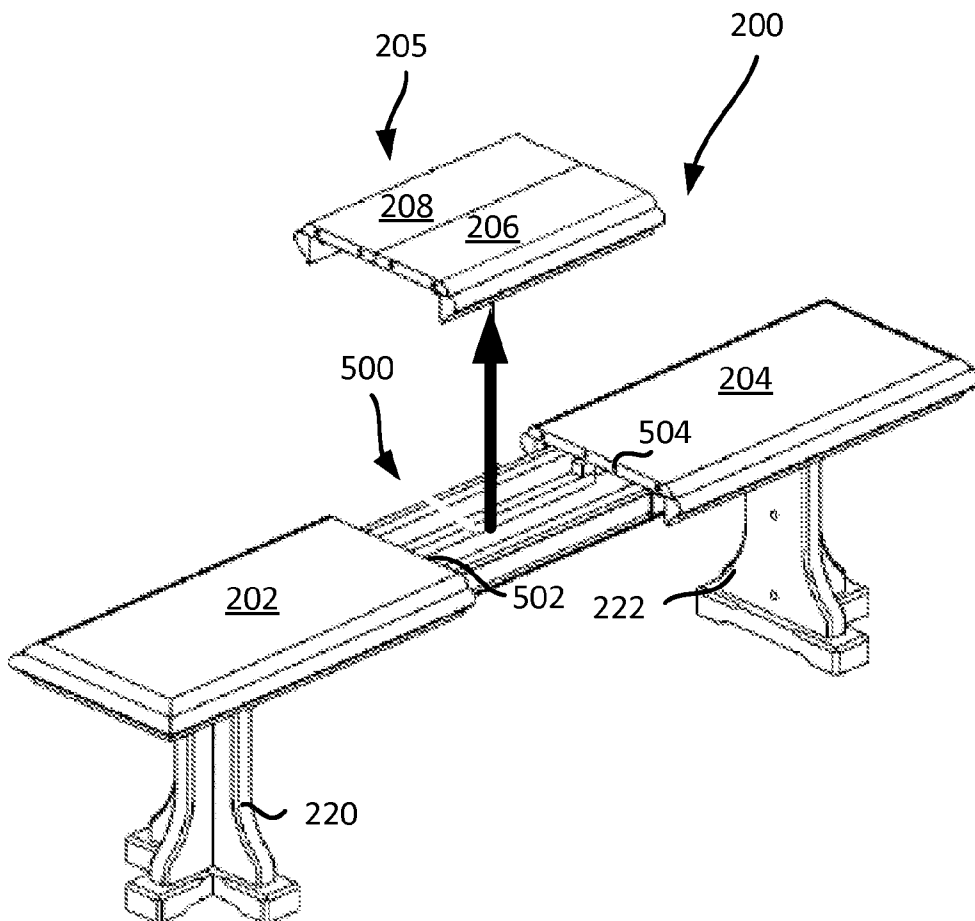
(60) Provisional application No. 61/946,506, filed on Feb. 28, 2014.

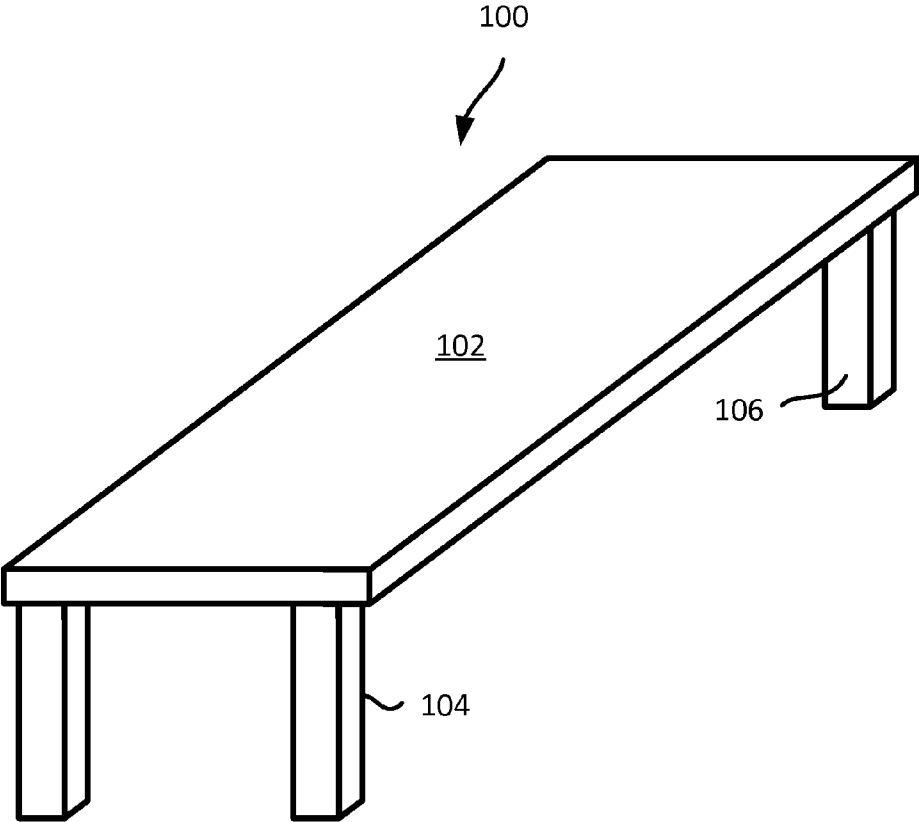
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(57) **ABSTRACT**

An extendable seating structure includes a first portion, a second portion, a coupling structure, and a third seating portion. The first portion includes a first seating portion and legs coupled to the first seating portion. The second portion includes a second seating portion and legs coupled to the second seating portion. The coupling structure is coupled to the first portion and the second portion. The coupling structure is configured to allow the first portion and second portion to move relative to each other. The third seating portion is configured to be positioned in a first position or a second position. The first position is between the first seating portion and the second seating portion when the seating structure is in a first configuration. The second position is a storage region of the seating structure when the seating structure is in a second configuration.





(PRIOR ART)
FIG. 1

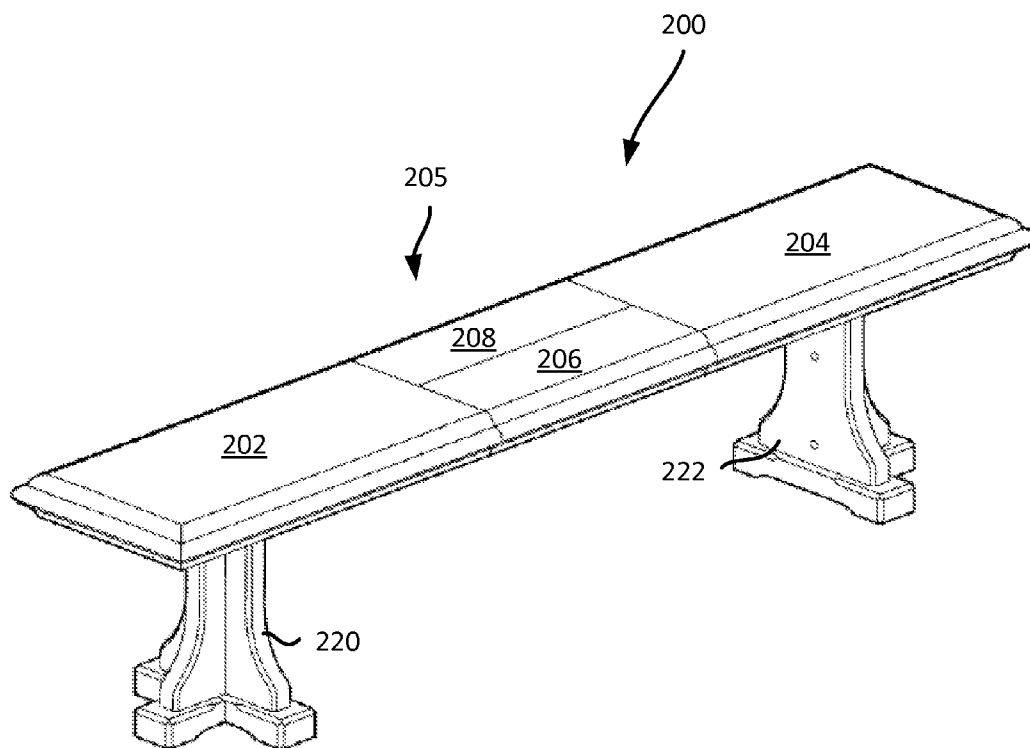
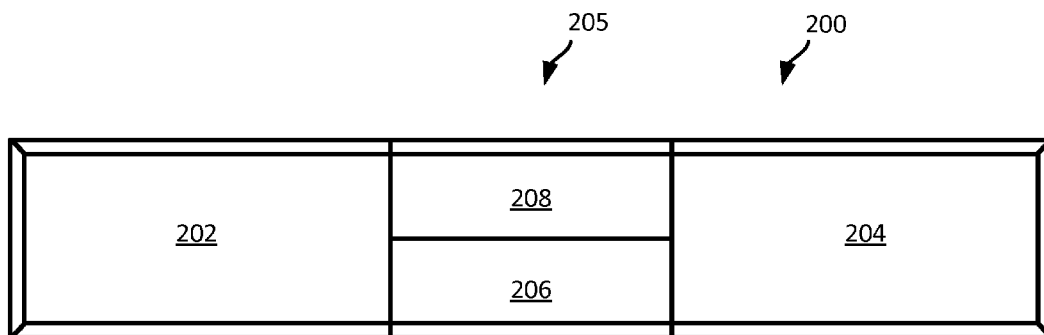
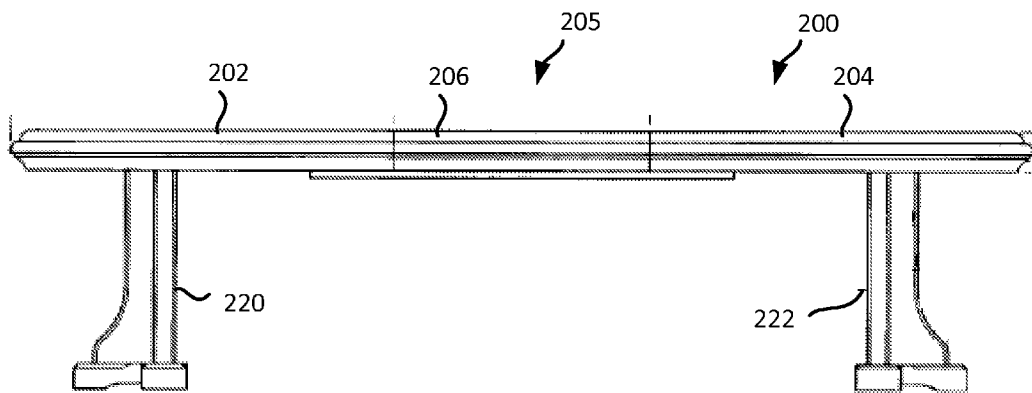


FIG. 2



PLAN VIEW

FIG. 3



PROFILE VIEW

FIG. 4

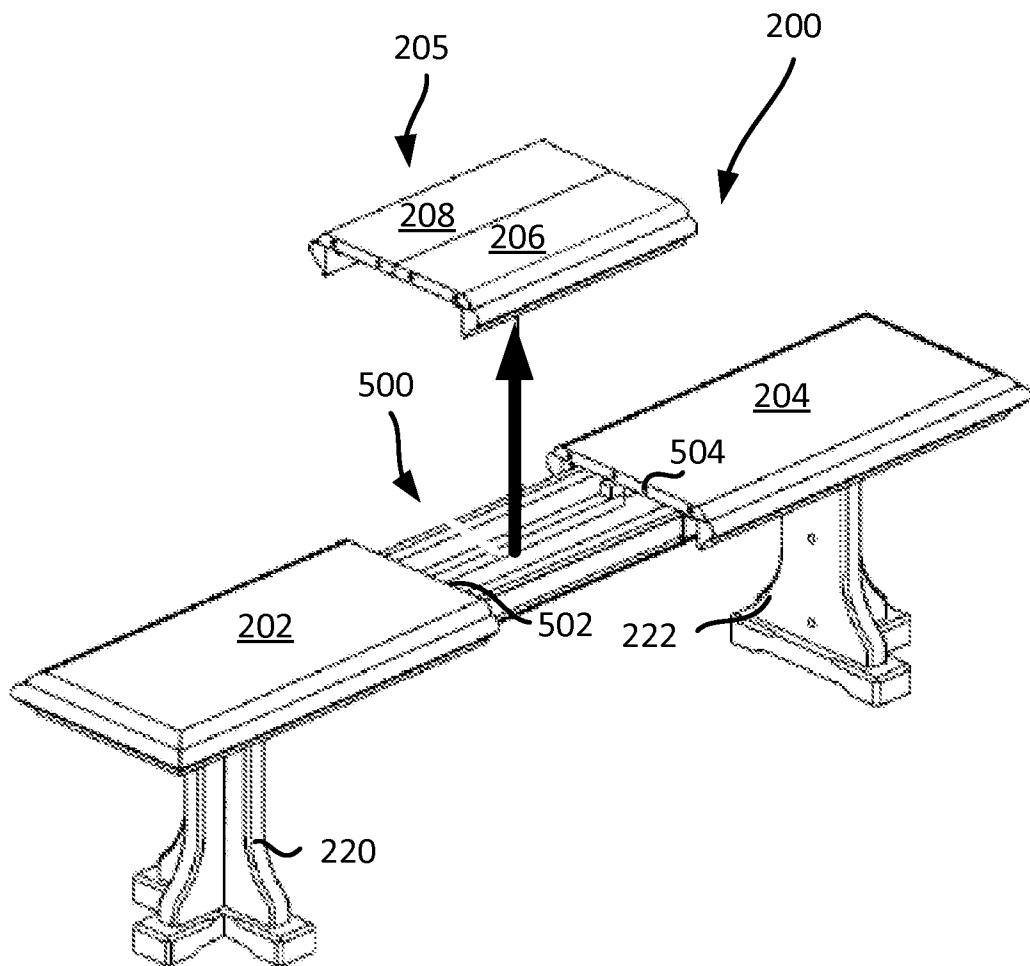


FIG. 5

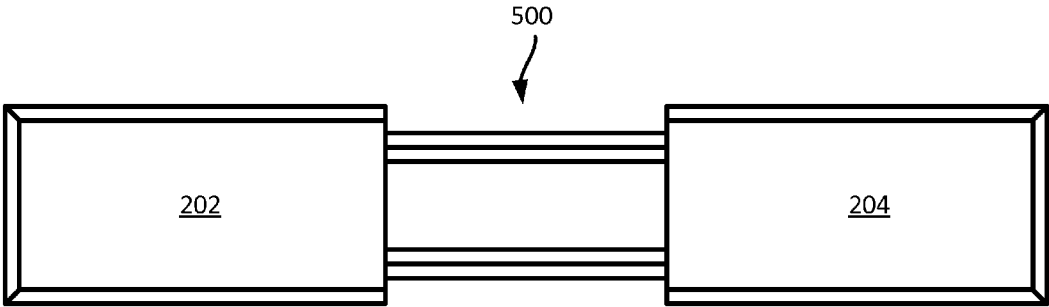


FIG. 6

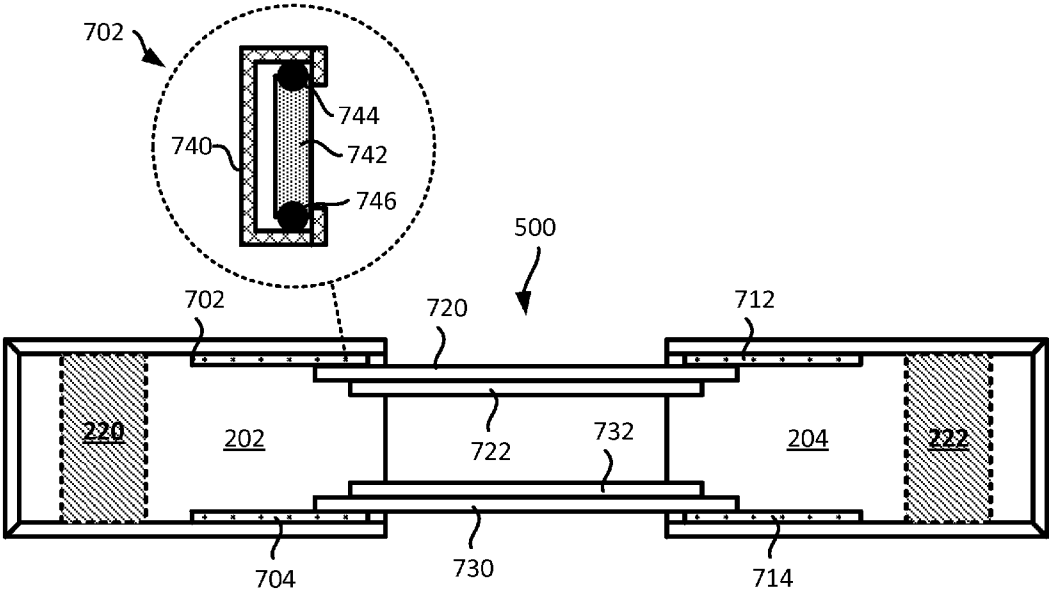


FIG. 7

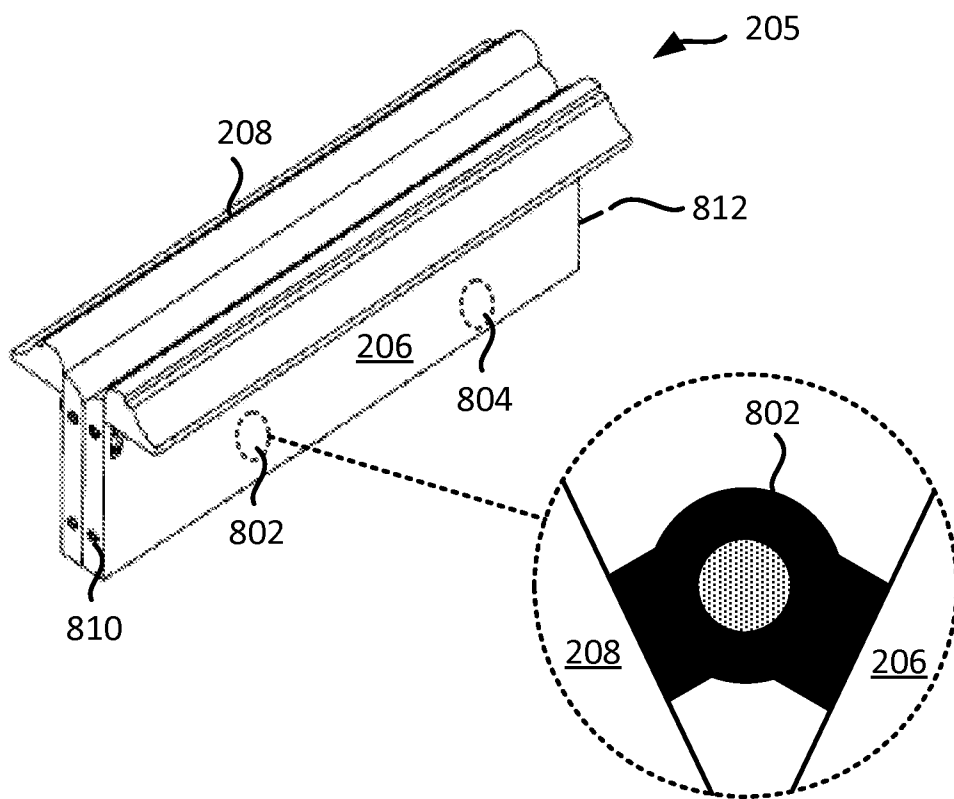


FIG. 8

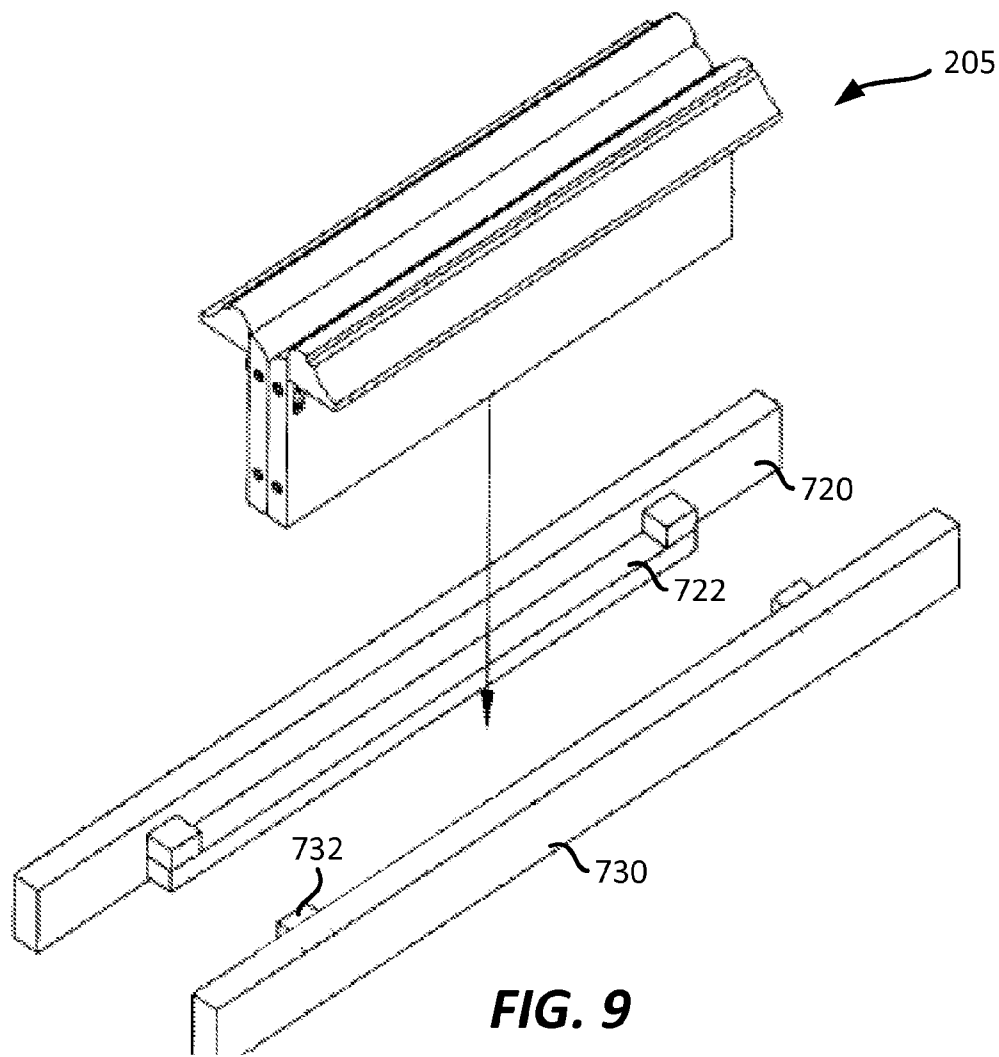


FIG. 9

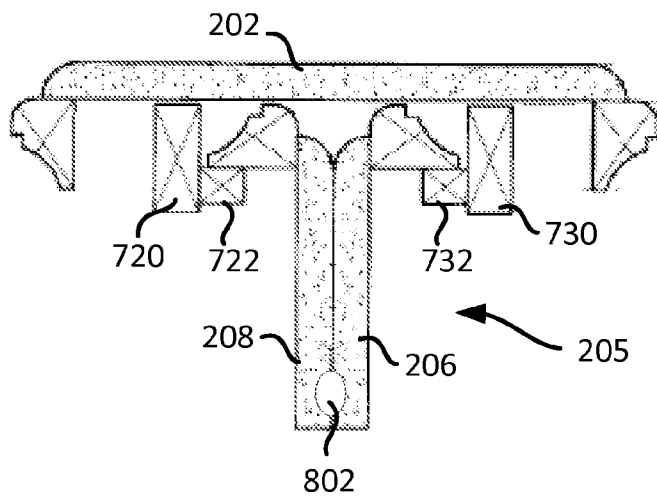


FIG. 10

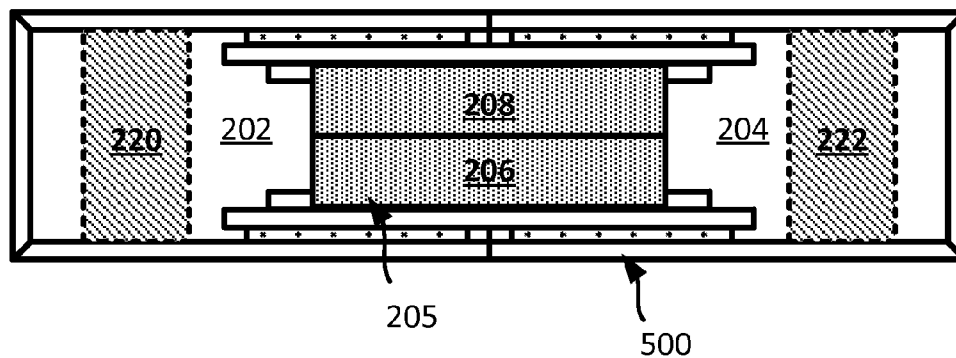


FIG. 11

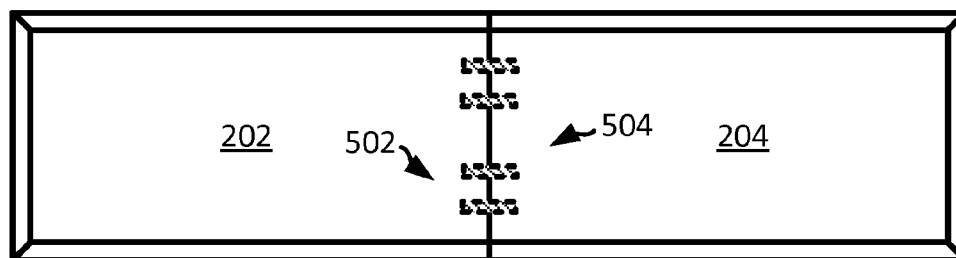


FIG. 12

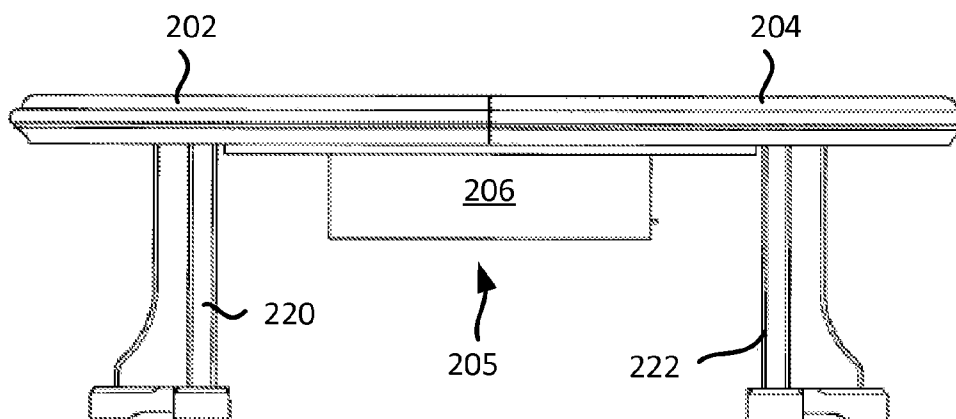


FIG. 13

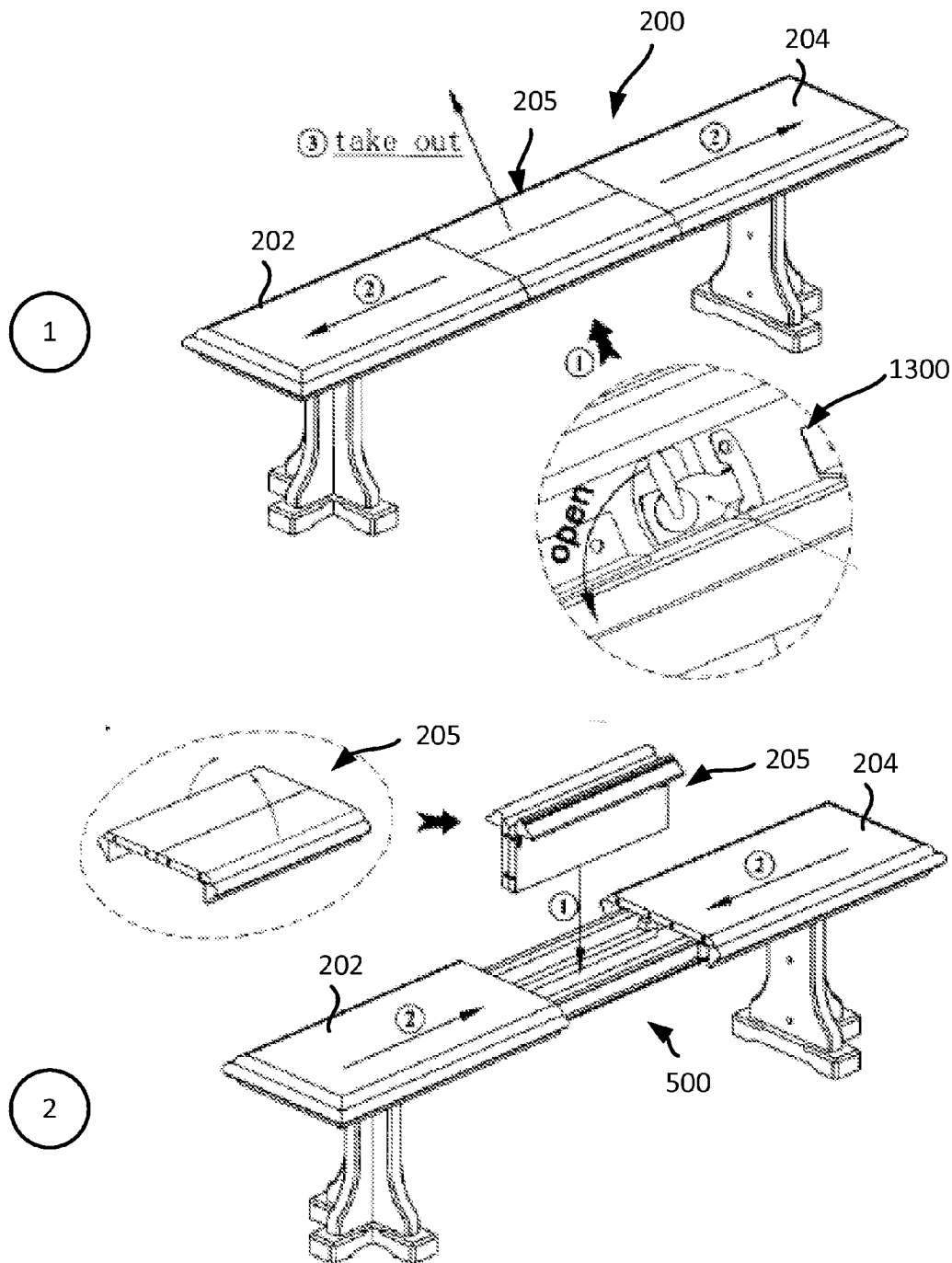


FIG. 14A

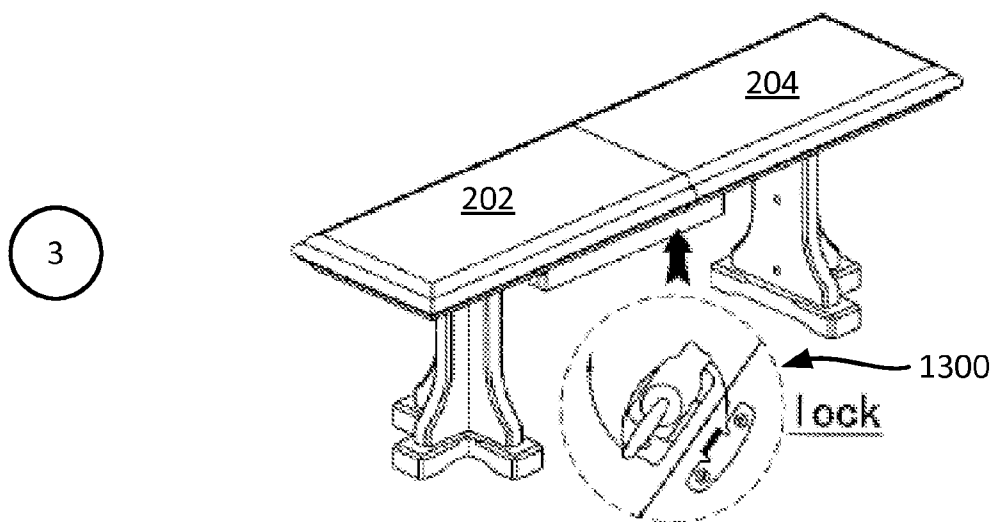


FIG. 14B

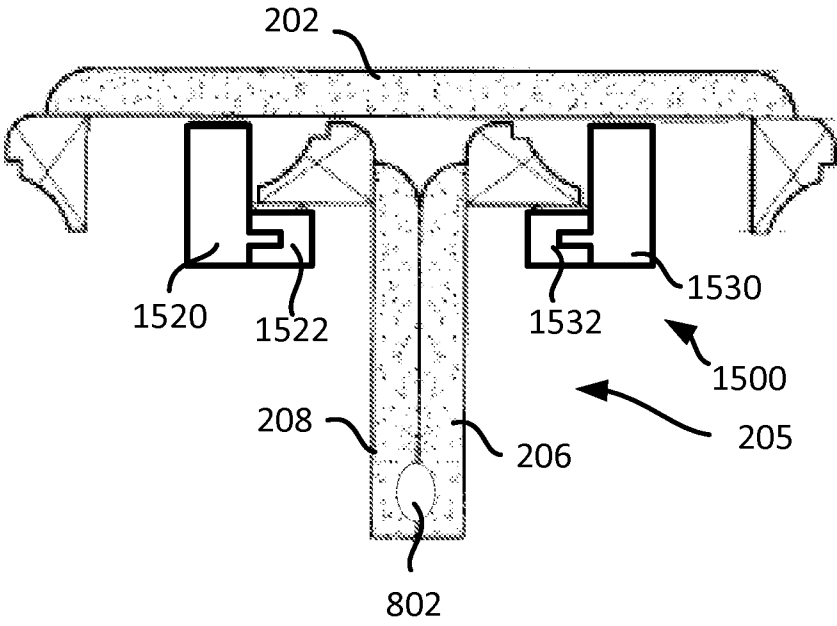


FIG. 15

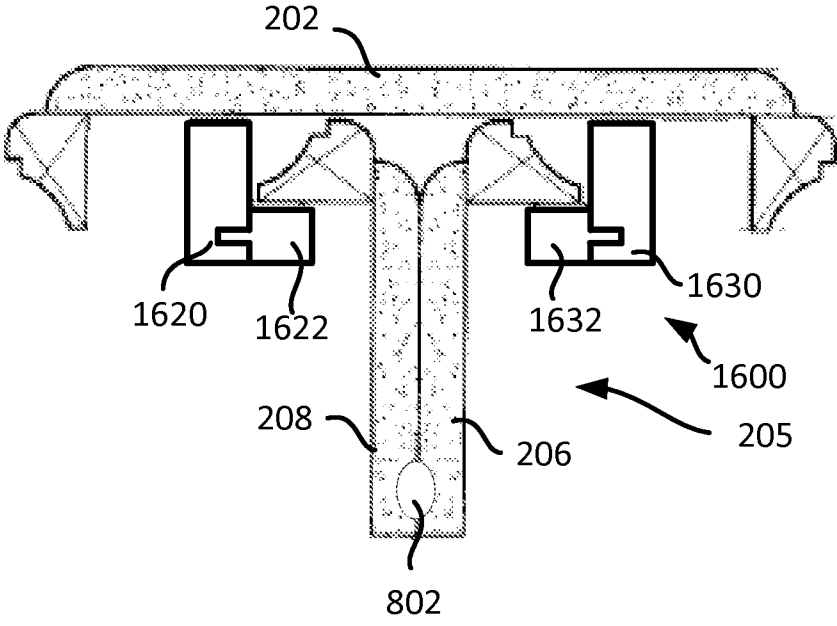


FIG. 16

EXTENDABLE SEATING STRUCTURE WITH STORAGE REGION FOR EXTENDED PORTION

CLAIM OF PRIORITY/CLAIM OF BENEFIT

[0001] The present application claims priority to U.S. Provisional Application No. 61/946,506 titled “Extendable Seating Structure with Storage Region for Extended Portion”, filed Feb. 28, 2014, which is hereby expressly incorporated by reference herein.

BACKGROUND

[0002] 1. Field

[0003] Various features relate to an extendable seating structure with a storage region for extended portion.

[0004] 2. Background

[0005] FIG. 1 illustrates a conventional bench 100. As shown in FIG. 1, the bench 100 includes a seating portion 102, a first set of legs 104, and a second set of legs 106. The seating portion 102 is coupled to the first set of legs 104. The seating portion 102 is also coupled to the second set of legs 106.

[0006] One of the drawbacks of a conventional bench, as shown in FIG. 1, is that they are not adjustable. Therefore, there is a need for an improved design for a bench.

SUMMARY

[0007] Various features relate to an extendable seating structure with a storage region for extended portion.

[0008] A first example provides an extendable seating structure that includes a first seating portion, at least one first leg coupled to the first seating portion, a second seating portion, at least one second leg coupled to the second seating portion, a coupling structure coupled to the first seating portion and the second seating portion, and a third seating portion configured to be positioned in a first position or a second position. The coupling structure is configured to allow the first seating portion and second seating portion to move relative to each other. The first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first configuration. The second position is a storage region of the extendable seating structure when the extendable seating structure is in a second configuration.

[0009] A second example provides an extendable table structure that includes a first table portion, at least one first leg coupled to the first table portion, a second table portion, at least one second leg coupled to the second table portion, a coupling structure coupled to the first table portion and the second table portion, and a third table portion configured to be positioned in a first position or a second position. The coupling structure is configured to allow the first table portion and second table portion to move relative to each other. The first position is between the first table portion and the second table portion when the extendable table structure is in a first configuration. The second position is a storage region of the extendable table structure when the extendable table structure is in a second configuration.

[0010] A third example provides an extendable seating structure that includes a first portion, a second portion, a coupling structure, and a third seating portion. The first portion includes a first seating portion and a first set of legs coupled to the first seating portion. The second portion includes a second seating portion and a second set of legs

coupled to the second seating portion. The coupling structure is coupled to the first portion and the second portion. The coupling structure is configured to allow the first portion and second portion to move relative to each other. The third seating portion is configured to be positioned in a first position or a second position. The first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first configuration. The second position is a storage region of the extendable seating structure when the extendable seating structure is in a second configuration.

[0011] A fourth example provides an extendable table structure that includes a first portion, a second portion, a coupling structure, and a third table portion. The first portion includes a first table portion and a first set of legs coupled to the first table portion. The second portion includes a second table portion and a second set of legs coupled to the second table portion. The coupling structure is coupled to the first portion and the second portion. The coupling structure is configured to allow the first portion and second portion to move relative to each other. The third table portion is configured to be positioned in a first position or a second position. The first position is between the first table portion and the second table portion when the extendable table structure is in a first configuration. The second position is a storage region of the extendable table structure when the extendable table structure is in a second configuration.

[0012] A fifth example provides an extendable seating structure that includes a first portion, a second portion, a coupling means, and a third seating portion. The first portion includes a first seating portion and a first set of legs coupled to the first seating portion. The second portion includes a second seating portion and a second set of legs coupled to the second seating portion. The coupling means is coupled to the first portion and the second portion. The coupling means is configured to allow the first portion and second portion to move relative to each other. The coupling means is further configured to provide a storage region. The third seating portion is configured to be positioned in a first position or a second position. The first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first configuration. The second position is the storage region of the coupling means when the extendable seating structure is in a second configuration.

DRAWINGS

[0013] Various features, nature and advantages may become apparent from the detailed description set forth below when taken in conjunction with the drawings in which like reference characters identify correspondingly throughout.

[0014] FIG. 1 conceptually illustrates a conventional bench.

[0015] FIG. 2 conceptually illustrates an angled view of an extendable seating structure in an extended configuration.

[0016] FIG. 3 conceptually illustrates a top view of an extendable seating structure in an extended configuration.

[0017] FIG. 4 conceptually illustrates a profile view of an extendable seating structure in an extended configuration.

[0018] FIG. 5 conceptually illustrates an angled view of an extendable seating structure in an extended configuration, with an extended portion removed.

[0019] FIG. 6 conceptually illustrates a plan view (e.g., top view) of an extendable seating structure in an extended configuration, with an extended portion removed.

[0020] FIG. 7 conceptually illustrates another plan view (e.g., bottom view) of an extendable seating structure in an extended configuration, with an extended portion removed.

[0021] FIG. 8 conceptually illustrates a view of an extended portion in a folded configuration.

[0022] FIG. 9 conceptually illustrates a view of an extended portion in a folded configuration being positioned in a storage region of the seating structure.

[0023] FIG. 10 conceptually illustrates a profile view of an extended portion in a folded configuration in a storage region of the seating structure.

[0024] FIG. 11 conceptually illustrates a plan view (e.g., bottom view) of an extendable seating structure in a contracted configuration, with an extended portion removed.

[0025] FIG. 12 conceptually illustrates a plan view (e.g., top view) of an extendable seating structure in a contracted configuration, with an extended portion removed.

[0026] FIG. 13 conceptually illustrates a profile view of an extendable seating structure in a contracted configuration, with an extended portion removed.

[0027] FIG. 14 (which includes FIGS. 14A-14B) illustrates a sequence for changing the configuration of the extendable seating structure.

[0028] FIG. 15 illustrates a coupling structure.

[0029] FIG. 16 illustrates another coupling structure.

DETAILED DESCRIPTION

[0030] In the following description, specific details are given to provide a thorough understanding of the various aspects of the disclosure. However, it will be understood by one of ordinary skill in the art that the aspects may be practiced without these specific details.

Overview

[0031] Some implementations provide an extendable seating structure that includes a first portion, a second portion, a coupling structure, and a third seating portion. The first portion includes a first seating portion and a first set of legs coupled to the first seating portion. The second portion includes a second seating portion and a second set of legs coupled to the second seating portion. The coupling structure is coupled to the first portion and the second portion. The coupling structure is configured to allow the first portion and second portion to move relative to each other. The third seating portion is configured to be positioned in a first position or a second position. The first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first configuration. The second position is a storage region of the extendable seating structure when the extendable seating structure is in a second configuration.

[0032] In some implementations, the coupling structure includes a set of railings and a set of sliders. In some implementations, the third seating portion is a foldable seating portion. In some implementations, the third seating portion includes a first fold portion, a second fold portion, and a hinge coupling the first fold portion to the second fold portion.

Exemplary Extendable Seating Structure

[0033] FIGS. 2-4 illustrate an extendable seating structure in an extended configuration. Specifically, FIG. 2 illustrates an angled view of an extendable seating structure 200 in an extended configuration, FIG. 3 illustrates a plan view (e.g.,

top view) of the extendable seating structure 200 in the extended configuration, and FIG. 4 illustrates a profile view of the extendable seating structure 200 in the extended configuration.

[0034] As shown in FIG. 2, the extendable seating structure 200 includes a first seating portion 202, a second seating portion 204, and a third seating portion 205. In some implementations, the third seating portion 205 is a foldable seating portion. In some implementations, the third seating portion 205 includes a first fold portion 206, a second fold portion 208, and a hinge (not shown) coupling the first fold portion 206 to the second fold portion 208. The third seating portion 205 may also include holes and protrusions. The third seating portion 205 will be described in further detail below in at least FIG. 8. The third seating portion 205 may be positioned on a coupling structure (not shown). Examples of coupling structures are further described below in at least FIGS. 5-7 below.

[0035] FIG. 2 also illustrates a first set of legs 220 and a second set of legs 222. A set of legs may include one or more legs. Different implementations may provide legs with different shapes, sizes and/or configurations. The legs illustrated in FIG. 2 are merely exemplary. The first set of legs 220 is coupled (e.g., directly coupled, indirectly coupled) to the first seating portion 202, and the second set of legs 222 is coupled (e.g., directly coupled, indirectly coupled) to the second seating portion 204. As mentioned above, the extendable seating structure 200 is shown in FIG. 2 in an extended configuration. In such a configuration, the third seating portion 205 (which includes the first fold portion 206 and the second fold portion 208) is positioned between the first seating portion 202 and the second seating portion 204. The third seating portion 205 may be positioned on a set of railings (not visible). The set of railings may be coupled (e.g., directly coupled, indirectly coupled) to the first seating portion 202 and the second seating portion 204. In some implementations, the set of railings may be coupled to the first seating portion 202 and the second seating portion 204 through a set of sliders (not visible). A set of railings and a set of sliders are described in further detail below in at least FIG. 7.

[0036] It is noted that first seating portion 202, the second seating portion 204, the third seating portion 205, the legs 220, and/or the legs 222 may be formed by one or more pieces. Thus, the above portions (e.g., seating portion) and/or legs may be defined by one piece (e.g., unibody) or they may be formed by several pieces. In some implementations, an adhesive (e.g., glue) or other mechanism (e.g., nails, screw) may be used to couple the various pieces and/or portions together. A seating portion (e.g., first seating portion 202) may include a seating surface and non-seating surfaces. A seating portion (e.g., first seating portion 202) may include portions and/or pieces that are not configured to be seated on.

[0037] In some implementations, a first portion of the extendable seating structure 200 may include the first seating portion 202 and the set of legs 220. In some implementations, a second portion of the extendable seating structure 200 may include the second seating portion 204 and the set of legs 222.

[0038] FIG. 3 illustrates a plan view (e.g., top view) of the extendable seating structure 200 in the extended configuration. As shown in FIG. 3, the extendable seating structure 200 includes the first seating portion 202, the second seating portion 204, and the third seating portion 205. In some implementations, the third seating portion 205 is a foldable seating portion that includes the first fold portion 206 and the second fold portion 208. As mentioned above, a hinge (not shown)

may couple the first fold portion 206 and the second fold portion 208. The hinge may be configured to allow the third seating portion 205 to be able to fold.

[0039] FIG. 4 illustrates a profile view of the extendable seating structure 200 in the extended configuration. As shown in FIG. 4, the first set of legs 220 is coupled to the first seating portion 202, and the second set of legs 222 is coupled to the second seating portion 204. The third seating portion 205 is positioned between the first seating portion 202 and the second seating portion 204.

[0040] FIG. 5 illustrates an angled view of the extendable seating structure 200 with the third seating portion 205 removed. As shown in FIG. 5, a coupling structure 500 couples the first seating portion 202 to the second seating portion 204. The coupling structure 500 may be coupling means. The coupling structure 500 may include a set of railings and a set of sliders. The coupling structure 500 may provide structure support for the extendable structure 200. The coupling structure 500 may also provide a storage region for the extendable structure 200. The coupling structure 500 will be described in further detail below in at least FIG. 7. FIG. 5 also illustrates that the extendable seating structure 200 includes holes and/or protrusions. More specifically, the first seating portion 202 may include protrusions 502, and the second seating portion 204 may include holes 504. As will be described later in at least FIG. 12, the protrusions 502 may be coupled to the holes 504 when the extendable seating structure 200 is in a second configuration (e.g., contracted configuration).

[0041] FIG. 6 illustrates a plan view (e.g., top view) of the extendable seating structure 200 with the third seating portion 205 removed. As shown in FIG. 6, the coupling structure 500 couples the first seating portion 202 to the second seating portion 204.

[0042] FIG. 7 illustrates another plan view (e.g., bottom view) of the extendable seating structure 200 with the third seating portion 205 removed. As shown in FIG. 6, the coupling structure 500 couples the first seating portion 202 to the second seating portion 204. The first set of legs 220 is coupled to the first seating portion 202, and the second set of legs 222 is coupled to the second set of seating portion 204. It is noted that the first set of legs 220 and the second set of legs 222 shown in FIG. 7 are abstract representations of legs that provide support for the extendable seating structure 200. The legs coupled to extendable seating structure may have different shapes.

[0043] The coupling structure 500 is configured to allow the first seating portion 202 and the second seating portion 204 to move back and forth relative to each other. The coupling structure 500 includes a set of railings (e.g., first set of railings, second set of railings) and a set of sliders (e.g., first set of sliders, second set of sliders). More specifically, the coupling structure 500 includes a first railing 720, a second railing 722, a third railing 730, a fourth railing 732, a first slider 702, a second slider 712, a third slider 704, and a fourth slider 714.

[0044] A set of railings may include one or more railings. In some implementations, a first set of railings includes the first railing 720 and the second railing 722. In some implementations, a second set of sliders includes the third railing 730 and the fourth railing 732. A set of sliders may include one or more sliders. In some implementations, a first set of sliders includes the first slider 702 and the second slider 712. In some

implementations, a second set of sliders includes the third slider 704 and the second slider 714.

[0045] A slider (e.g., first slider 702) may include a first slider portion 740, a second slider portion 742, a first set of bearings 744, and a second set of bearings 746. A set of bearings may include one or more bearings. The first set of bearings 744 and the second set of bearings 746 are coupled to the second slider portion 742. Different implementations may couple the first set of bearings 744 and the second set of bearings 746 to different parts of the second slider portion 742. The second slider portion 742 may move back and forth relative to the first slider portion 740 through the first set of bearings 744 and the second set of bearings 746. In some implementations, this allows the first seating portion 202 and the second seating portion 204 to move back and forth relative to each other. In some implementations, instead of bearings, wheels may be used.

[0046] In some implementations, the first slider portion 740 is coupled to a seating portion (e.g., first seating portion 202), and the second slider portion 742 is coupled to a railing (e.g., first railing 720). However, in some implementations, the first slider portion 740 is coupled to a railing (e.g., third railing 730), and the second slider portion 742 is coupled to a seating portion (e.g., second seating portion 204).

[0047] It is noted that the coupling structure 500 and/or the railings may be formed by one or more pieces. Thus, the above structure and/or railings may be defined by one piece (e.g., unibody) or they may be formed by several pieces. In some implementations, an adhesive (e.g., glue) or other mechanism (e.g., nails, screw) may be used to couple the various pieces and/or portions together.

[0048] In some implementations, a first portion of the extendable seating structure 200 may include the first seating portion 202, the set of legs 220, the first slider 702 and/or the third slider 704. In some implementations, a second portion of the extendable seating structure 200 may include the second seating portion 204, the set of legs 222, the second slider 712 and/or the fourth slider 714.

[0049] FIG. 8 illustrates a view of the third seating portion 205 in a folded configuration. As shown in FIG. 8, the third seating portion 205 is folded such that a surface (e.g., seating surface) of the first fold portion 206 is facing a surface (e.g., seating surface) of the second fold portion 208. The first fold portion 206 is coupled to the second fold portion 208 through a first hinge 802 and a second hinge 804. Different implementations may use hinges with different designs and shapes. The first hinge 802 and the second hinge 804 allow the third seating portion 205 to be foldable. The first fold portion 206 and the second fold portion each have an L-shape. However, different fold portions may have different shapes. The first fold portion 206 may include one or more pieces. Similarly, the second fold portion 208 may include one or more pieces.

[0050] FIG. 8 also illustrates holes 810 and protrusions 812 in the third seating portion 205. The holes 810 may be located in a side portion of the first fold portion 206 and/or a side portion of the second fold portion 208. The protrusions 812 may be located on a side portion of the first fold portion 206 and/or a side portion of the second fold portion. The holes 810 may be configured to couple to protrusions from the first seating portion 202 and/or the second seating portion 204. Similarly, the protrusion 812 may be configured to couple to holes in the first seating portion 202 and/or the second seating portion 204. For example, the holes 810 of the third seating portion 205 may be coupled to protrusions 502 of the first seating

portion 202, when in an extended configuration of the extendable seating structure 200. Similarly, the protrusions 812 of the third seating portion 205 may be coupled to holes 504 of the second seating portion 204, (e.g., when in an extended configuration of the extendable seating structure 200) in some implementations.

[0051] It is noted that the first fold portion 206 and/or the second fold portion 208 may be formed by one or more pieces. Thus, the above portions may be defined by one piece (e.g., unibody) or they may be formed by several pieces. In some implementations, an adhesive (e.g., glue) or other mechanism (e.g., nails, screw) may be used to couple the various pieces and/or portions together.

[0052] FIG. 9 illustrates a view of the third seating portion 205 in a folded configuration being positioned in a storage region of the extendable seating structure 200. In some implementations, the storage region may be defined by the set of railings (e.g., first set of railings, second set of railings) of the extendable seating structure 200. For example, the storage region may be defined and/or formed by the first railing 720, the second railing 722, the third railing 730, and the fourth railing 732. As shown in FIG. 9, the third seating portion 205 is being positioned on the railings (e.g., second railing 722, fourth railing 732).

[0053] FIG. 10 illustrates a profile view of the third seating portion 205 in a folded configuration in a storage region of the extendable seating structure 200. More specifically, FIG. 10 illustrates the third seating portion 205 positioned on a first set of railings and/or a second set of railings. The first fold portion 206 is positioned on the fourth railing 732 and the second fold portion 208 is positioned on the second railing 722. However, different implementations may position the fold portions on different railings. A railing may include several railings and/or portions of a railing. In some implementations, two or more railings may be formed as one unibody railing. For example, the first railing 720 and the second railing 722 may be formed as one unibody railing having a shape and/or design that is similar to the combined first railing 720 and the second railing 722. In some implementations, the unibody railing may have a portion on a first level (e.g., upper level) and a second portion on a second level (e.g., lower level). One railing (or portions of a railing) may be on a lower level than another railing (or portions of a railing).

[0054] For example, the second railing 722 is located on a lower level than the first railing 720. Similarly, the fourth railing 732 is located on a lower level than the third railing 730. In some implementations, these different levels of railings and/or different levels of portions of railings provide the storage region in the coupling structure 500.

[0055] When the extendable seating structure 200 is in an extended configuration, the third seating portion 205 (e.g., unfolded third seating portion) may be positioned on the first railing 720 and the third railing 730 in a similar manner as how the first seating portion 202 is on the first railing 720 and the third railing 730.

[0056] FIG. 11 illustrates a plan view (e.g., bottom view) of the third seating portion 205 in a folded configuration in a storage region of the extendable seating structure 200, when the extendable seating structure 200 is in a first configuration (e.g., contracted configuration). More specifically, FIG. 11 illustrates that the third seating portion 205 is positioned on the coupling structure 500, which includes a first set of railings and/or a second set of railings.

[0057] FIG. 12 illustrates another plan view (e.g., top view) of the third seating portion 205 in a folded configuration in a storage region of the extendable seating structure 200. From this plan view, the third seating portion 205 is positioned in a storage region, and covered by the first seating portion 202 and the second seating portion 204. That is, the third seating portion 205 is underneath the first seating portion 202 and the second seating portion 204. In the contracted configuration of the extendable seating structure 200, the protrusions 502 may be coupled to the holes 504.

[0058] FIG. 13 illustrates a profile view of the extendable seating structure 200 in a contracted configuration. In the contracted configuration, the third seating portion 205 is positioned in the storage area (e.g., which may be defined by the coupling structure, the railings, as mentioned above). Moreover, in the contracted configuration, the third seating portion may be underneath the first seating portion 202 and/or the second seating portion 204. For example, the third seating portion may be underneath a seating surface of the first seating portion 202 and/or a seating surface of the second seating portion 204.

Exemplary Sequence for Configuring an Extendable Seating Structure

[0059] FIG. 14 (which includes FIGS. 14A-14B) illustrates a sequence for configuring an extendable seating structure. The sequence of FIG. 14 may be used to change the configuration of the extendable seating structure from an extended configuration to a contracted configuration.

[0060] Stage 1 illustrates a state when the first seating portion 202 and the second seating portion 204 are pulled apart. In some implementations, this uncouples the third seating portion 205 from the first seating portion 202 and the second seating portion 204. Before this is done however, in some implementations, a lock mechanism 1300 (e.g., lock) is unlocked to allow the uncoupling of the third seating portion. The lock mechanism 1300 is optional. The lock mechanism 1300 may be coupled to the coupling structure 500, the first seating portion 202, the second seating portion 204, and/or the third seating portion 205 in some implementations. Once, unlocked, the third seating portion 205 can be removed (e.g., pulled out) from the extendable seating structure 200.

[0061] Stage 2 illustrates a state after the third seating portion 205 is folded (e.g., as described in FIG. 8) and then positioned in the storage area of the extendable seating structure 200. More specifically, the third seating portion 205 is positioned on the coupling structure 500. In some implementations, the third seating portion is positioned on at least one railing of the coupling structure 500.

[0062] Stage 3 illustrates a state after the first seating portion 202 and the second seating portion 204 are moved (e.g., pushed) towards each other. This movement covers the third seating portion 205 such that the third seating portion 205 is located underneath a seating surface of the first seating portion 202 and/or a seating surface of the second seating portion 204. In some implementations, the locking mechanism 1300 may be located to ensure that the extendable seating structure 200 is in a contracted configuration. Thus, in some implementations, the locking mechanism 1300 is configured to lock and unlock the extendable seating structure in the first configuration (e.g., extended configuration) and/or the second configuration (e.g., contracted configuration).

[0063] In some implementations, the order of the above sequence may be reversed to change the configuration of the

extendable seating structure **200** from a contracted configuration to an extended configuration.

Exemplary Coupling Structures

[0064] Different implementations may use different coupling structures. FIGS. **15-16** illustrate different coupling structures. FIG. **15** illustrates a coupling structure **1500** that includes a first set of railings and a second set of railings. The first set of railings may include the first railing **1520** and the second railing **1522**. The second set of railings may include the third railing **1530** and the fourth railing **1532**. The first railing **1520** includes a first protrusion and the second railing **1522** includes a first cavity. The first railing **1520** is coupled to the second railing **1522** such that the first protrusion is coupled to the first cavity. The first railing **1520** may be a male railing, and the second railing **1522** may be a female railing. The first railing **1520** may be able to move back and forth relative to the second railing **1522**. In some implementations, the first railing **1520** and/or the second railing **1522** may be coupled to a respective slider (e.g., first slider **702**, second slider **712**). In some implementations, the first railing **1520** and/or the second railing **1520** may bypass the sliders, and may be coupled to a respective seating portion without the slider. For example, the first railing **1520** may be coupled to the first seating portion **202**, and the second railing **1522** may be coupled to the second seating portion **204**.

[0065] The third railing **1530** includes a first protrusion and the fourth railing **1532** includes a first cavity. The third railing **1530** is coupled to the fourth railing **1532** such that the first protrusion is coupled to the first cavity. The third railing **1530** may be a male railing, and the fourth railing **1532** may be a female railing. The third railing **1530** may be able to move back and forth relative to the fourth railing **1532**. In some implementations, the third railing **1530** and/or the fourth railing **1532** may be coupled to a respective slider (e.g., first slider **702**, second slider **712**). In some implementations, the third railing **1530** and/or the fourth railing **1530** may bypass the sliders, and may be coupled to a respective seating portion without the slider. For example, the third railing **1530** may be coupled to the first seating portion **202**, and the fourth railing **1532** may be coupled to the second seating portion **204**.

[0066] FIG. **16** illustrates another coupling structure **1600** that includes a first set of railings and a second set of railings. The first set of railings may include the first railing **1620** and the second railing **1622**. The second set of railings may include the third railing **1630** and the fourth railing **1632**. The first railing **1620** includes a second cavity and the second railing **1622** includes a second protrusion. The first railing **1620** is coupled to the second railing **1622** such that the second cavity is coupled to the second protrusion. The first railing **1620** may be a female railing, and the second railing **1622** may be a male railing. The first railing **1620** may be able to move back and forth relative to the second railing **1622**. In some implementations, the first railing **1620** and/or the second railing **1622** may be coupled to a respective slider (e.g., first slider **702**, second slider **712**). In some implementations, the first railing **1620** and/or the second railing **1620** may bypass the sliders, and may be coupled to a respective seating portion without the slider. For example, the first railing **1620** may be coupled to the first seating portion **202**, and the second railing **1622** may be coupled to the second seating portion **204**.

[0067] The third railing **1630** includes a second cavity and the fourth railing **1632** includes a second cavity. The third

railing **1630** is coupled to the fourth railing **1632** such that the second cavity is coupled to the second protrusion. The third railing **1630** may be a female railing, and the fourth railing **1632** may be a male railing. The third railing **1630** may be able to move back and forth relative to the fourth railing **1632**. In some implementations, the third railing **1630** and/or the fourth railing **1632** may be coupled to a respective slider (e.g., first slider **702**, second slider **712**). In some implementations, the third railing **1630** and/or the fourth railing **1630** may bypass the sliders, and may be coupled to a respective seating portion without the slider. For example, the third railing **1630** may be coupled to the first seating portion **202**, and the fourth railing **1632** may be coupled to the second seating portion **204**.

[0068] One or more of the above railings may form and/or define a storage region for the extended seating structure as described above in at least FIG. **10**. Thus, at least one of the above railings may be configured such that a third seating portion **205** can be positioned on them as illustrated in FIGS. **15-16** and/or as described in FIG. **10**.

[0069] One or more of the elements, steps, features, and/or functions illustrated in FIGS. **2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14A-14B, 15**, and/or **16** may be rearranged and/or combined into a single component, step, feature or function or embodied in several components, steps, or functions. Additional elements, components, steps, and/or functions may also be added without departing from the invention.

[0070] The word “exemplary” is used herein to mean “serving as an example, instance, or illustration.” Any implementation or aspect described herein as “exemplary” is not necessarily to be construed as preferred or advantageous over other aspects of the disclosure. Likewise, the term “aspects” does not require that all aspects of the disclosure include the discussed feature, advantage or mode of operation. The term “coupled” is used herein to refer to the direct or indirect coupling between two objects. For example, if object A physically touches object B, and object B touches object C, then objects A and C may still be considered coupled to one another—even if they do not directly physically touch each other.

[0071] It should be noted that the above disclosure describes an extendable seating structure. However, in some implementations, the above disclosure can be implemented on a table. Thus, in some implementations, the above extendable structure may be configured as an extendable table structure that includes table portions instead of seating portions, table surfaces instead of seating surfaces.

[0072] For example, an extendable table structure may include a first portion, a second portion, and a third table portion. The first portion includes a first table portion, a first set of legs coupled to the first table portion, and a first set of railings coupled to the first table portion. The second portion includes a second table portion, a second set of legs coupled to the second table portion, and a second set of railings coupled to the second table portion. The second set of railings is coupled to the first set of railings. The first set of railings and second set of railings are configured to allow the first portion and second portion to move relative to each other. The third table portion is configured to be positioned in a first position or a second position. The first position is between the first table portion and the second table portion when the extendable table structure is in a first configuration (e.g., extended configuration). The second position is a storage region of the table structure when the table structure is in a

second configuration (e.g., contracted configuration). In some implementations, the third table portion is a foldable table portion. In some implementations, the third table portion includes a first fold portion, a second fold portion, and a hinge coupling the first fold portion to the second fold portion.

[0073] The various features of the invention described herein can be implemented in different systems without departing from the invention. It should be noted that the foregoing aspects of the disclosure are merely examples and are not to be construed as limiting the invention. The description of the aspects of the present disclosure is intended to be illustrative, and not to limit the scope of the claims. As such, the present teachings can be readily applied to other types of apparatuses and many alternatives, modifications, and variations will be apparent to those skilled in the art.

What is claimed is:

1. An extendable seating structure comprising:
 - a first seating portion;
 - at least one first leg coupled to the first seating portion;
 - a second seating portion;
 - at least one second leg coupled to the second seating portion;
 - a coupling structure coupled to the first seating portion and the second seating portion, wherein the coupling structure is configured to allow the first seating portion and second seating portion to move relative to each other; and
 - a third seating portion configured to be positioned in a first position or a second position, wherein the first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first configuration, wherein the second position is a storage region of the extendable seating structure when the extendable seating structure is in a second configuration.
2. The extendable seating structure of claim 1, wherein the coupling structure comprises:
 - a first set of sliders; and
 - a first set of railings coupled to the first set of sliders.
3. The extendable seating structure of claim 2, wherein the storage region is formed by the first set of railings.
4. The extendable seating structure of claim 2, wherein the third seating portion is positioned on the first set of railings when the extendable seating structure is in a contracted configuration.
5. The extendable seating structure of claim 1, wherein the coupling structure comprises:
 - a first slider coupled to the first seating portion;
 - a second slider coupled to the second seating portion; and
 - a first railing coupled to the first slider and the second slider, wherein the first slider, the second slider and the first railing are configured to allow the first seating portion and the second seating portion to move relative to each other.
6. The extendable seating structure of claim 5, wherein the coupling structure further comprises:
 - a third slider coupled to the first seating portion;
 - a fourth slider coupled to the second seating portion; and
 - a second railing coupled to the third slider and the fourth slider, wherein the third slider, the fourth slider and the second railing are configured to allow the first seating portion and the second seating portion to move relative to each other.

7. The extendable seating structure of claim 6, wherein the third seating portion is positioned on the first railing when the extendable seating structure is in a first configuration, and the third seating portion is positioned on the second railing when the extendable seating structure is in a second configuration, wherein the first railing and the second railing are on different levels.

8. The extendable seating structure of claim 1, wherein the first configuration is an extended configuration, and the second configuration is a contracted configuration.

9. The extendable seating structure of claim 1, wherein the third seating portion is a foldable seating portion.

10. The extendable seating structure of claim 1, wherein the third seating portion comprises:

- a first fold portion;
- a second fold portion; and
- a hinge coupling the first fold portion to the second fold portion.

11. The extendable seating structure of claim 1 further comprising a locking mechanism configured to lock and unlock the extendable seating structure in the first configuration and/or the second configuration.

12. An extendable table structure comprising:

- a first table portion;
- at least one first leg coupled to the first table portion;
- a second table portion;
- at least one second leg coupled to the second table portion;
- a coupling structure coupled to the first table portion and the second table portion, wherein the coupling structure is configured to allow the first table portion and second table portion to move relative to each other; and
- a third table portion configured to be positioned in a first position or a second position, wherein the first position is between the first table portion and the second table portion when the extendable table structure is in a first configuration, wherein the second position is a storage region of the extendable table structure when the extendable table structure is in a second configuration.

13. The extendable seating structure of claim 12, wherein the coupling means comprises:

- a first set of sliders; and
- a first set of railings coupled to the first set of sliders.

14. The extendable seating structure of claim 13, wherein the storage region is formed by the first set of railings.

15. The extendable seating structure of claim 13, wherein the third seating portion is positioned on the first set of railings when the extendable seating structure is in a contracted configuration.

16. An extendable seating structure comprising:

- a first portion comprising:
 - a first seating portion; and
 - a first set of legs coupled to the first seating portion;
- a second portion comprising:
 - a second seating portion; and
 - a second set of legs coupled to the second seating portion;
- a coupling structure coupled to the first portion and the second portion, wherein the coupling structure is configured to allow the first portion and second portion to move relative to each other; and
- a third seating portion configured to be positioned in a first position or a second position, wherein the first position is between the first seating portion and the second seating portion when the extendable seating structure is in a first

configuration, wherein the second position is a storage region of the extendable seating structure when the extendable seating structure is in a second configuration.

17. The extendable seating structure of claim **16**, wherein the coupling structure comprises:

- a first set of sliders; and
- a first set of railings coupled to the first set of sliders.

18. The extendable seating structure of claim **17**, wherein the storage region is formed by the first set of railings.

19. The extendable seating structure of claim **16**, wherein the coupling structure comprises:

- a first railing comprising a protrusion; and
- a second railing comprising a cavity, the second railing coupled to the first railing through the cavity and the protrusion.

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