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(54) **BED ASSEMBLY WITH FOAM-BASED HEADBOARD HAVING READILY INTERCHANGEABLE OUTER COVERINGS**

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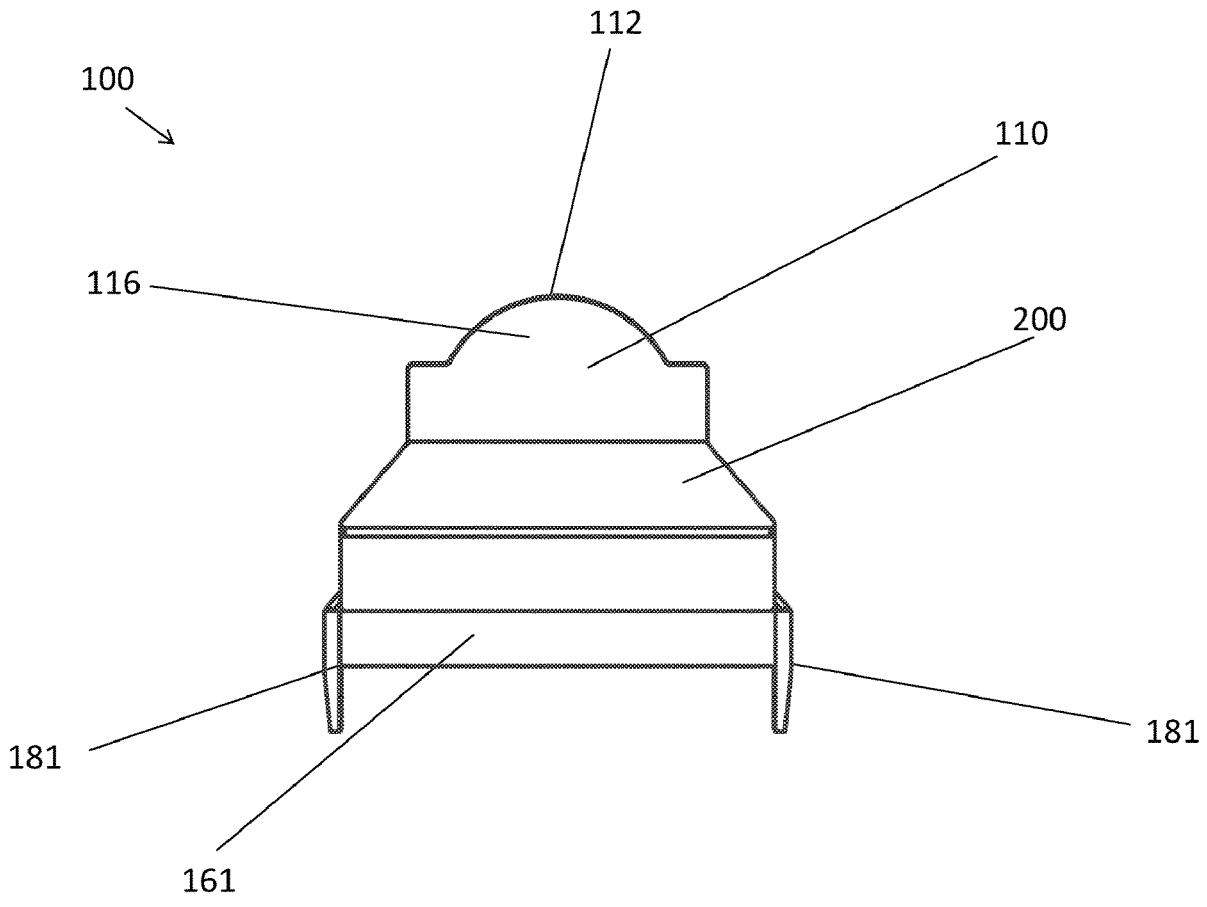
(57) **ABSTRACT**

A bed assembly including (a) a foam headboard having a protective outer covering positioned thereon; (b) one or more slip covers configured to be positioned on the foam headboard, each slip cover having a releasable fastening mechanism to temporarily securely position the slip cover on the foam head board; and (c) a bed frame assembly including (i) a plurality of legs, (ii) a plurality of side rails that are configured to be positioned and securely fastened between two separate legs of the plurality of legs; (iii) a plurality of securing brackets, each bracket configured to be positioned on the securing member of each leg, to concurrently grip two separate side rails, and to securely fasten the separate side rails to the leg by biasing the securing bracket in a direction towards the exterior of the bed frame assembly when assembled; and (iv) a support beam configured to be positioned within the interior of the bed frame assembly when the bed frame assembly is assembled.



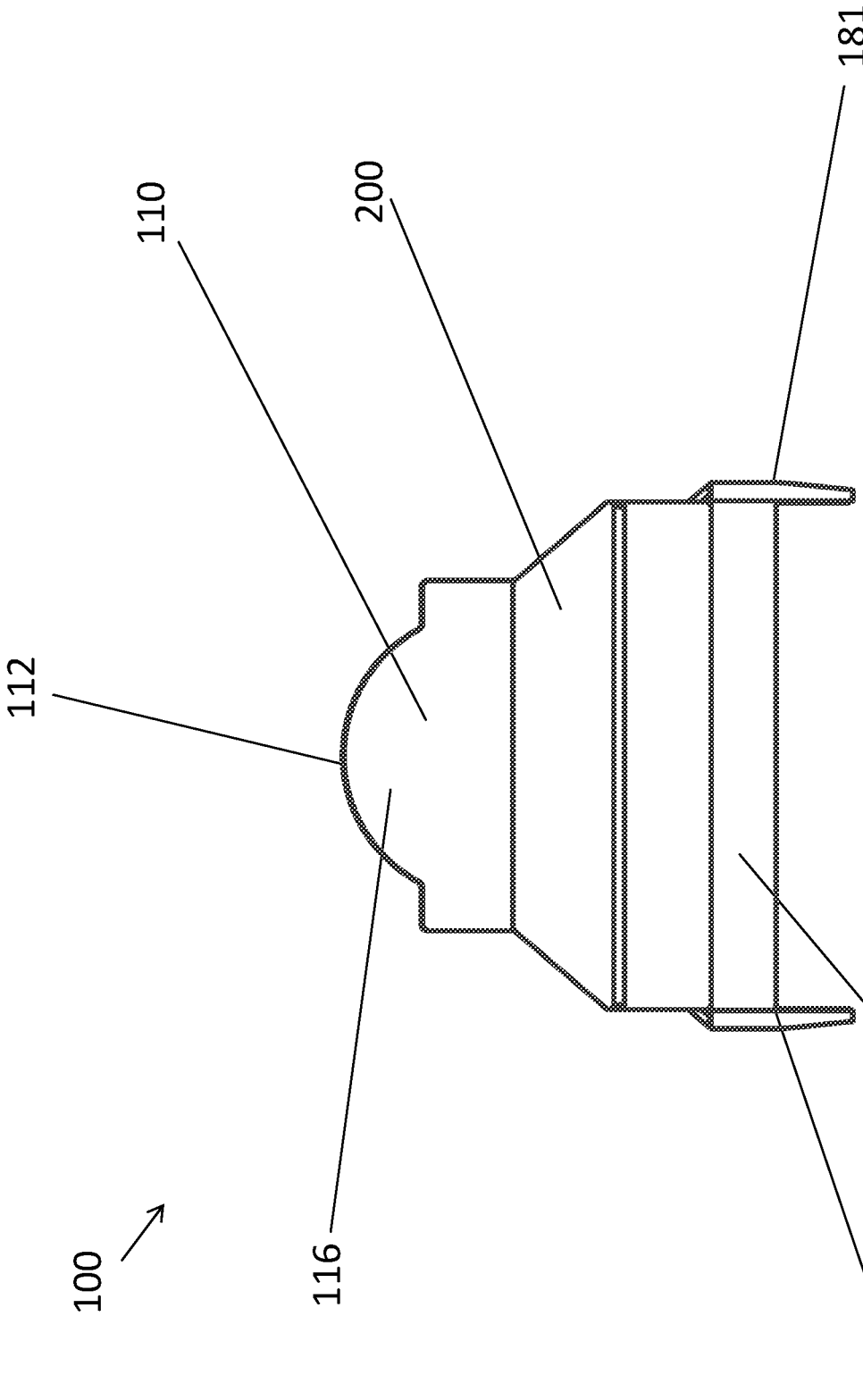


FIG. 1

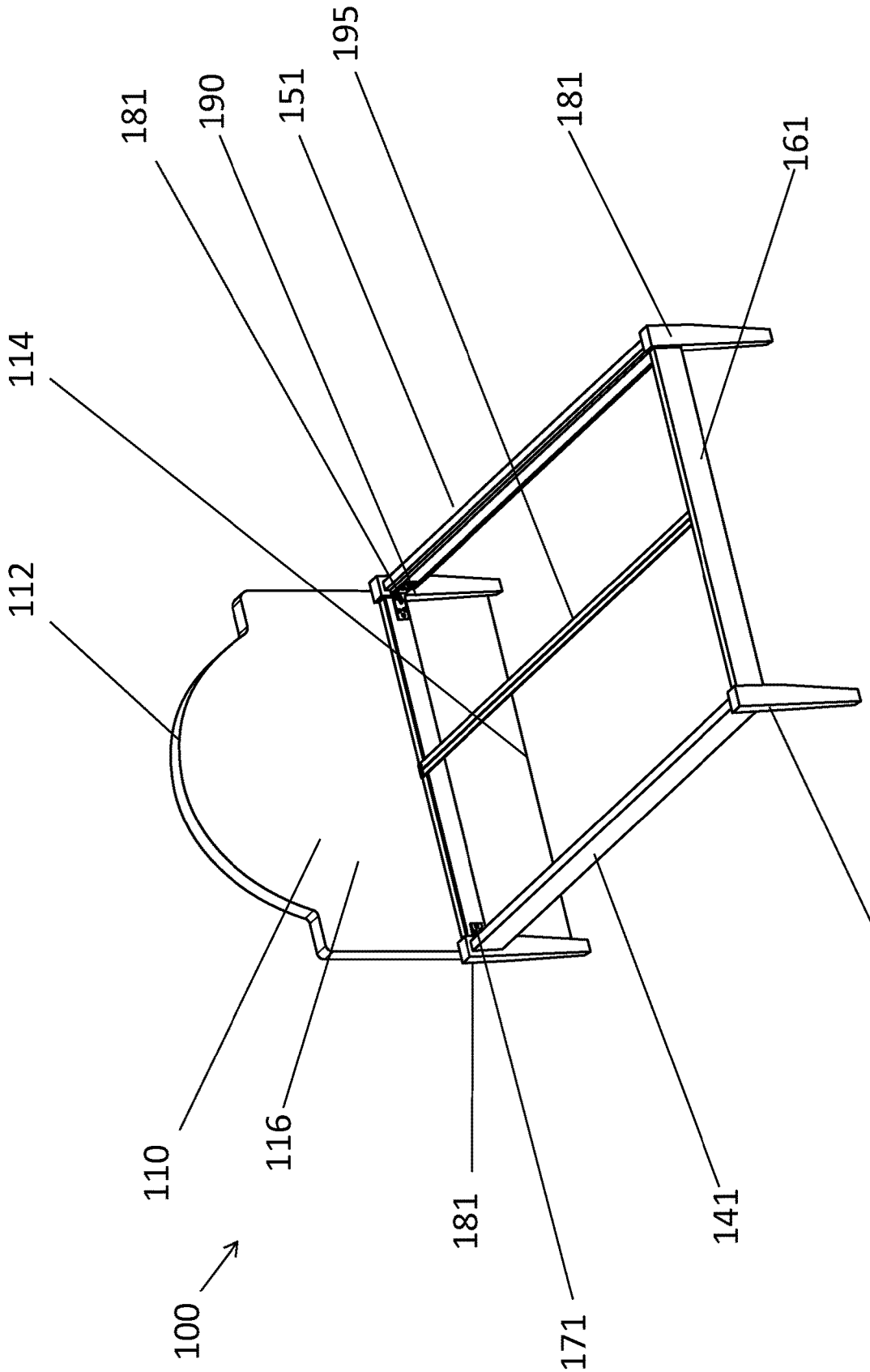


FIG. 2

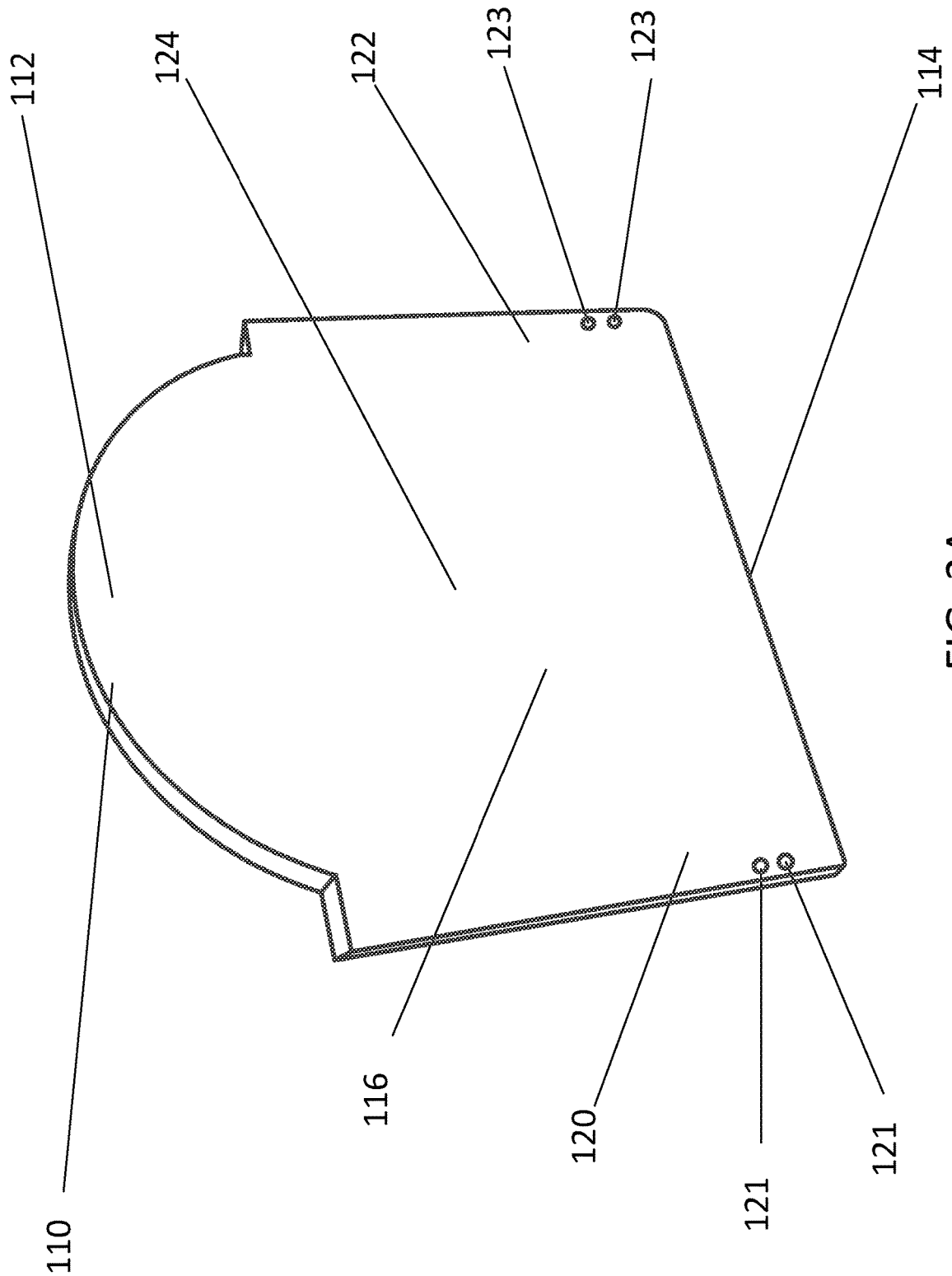


FIG. 3A

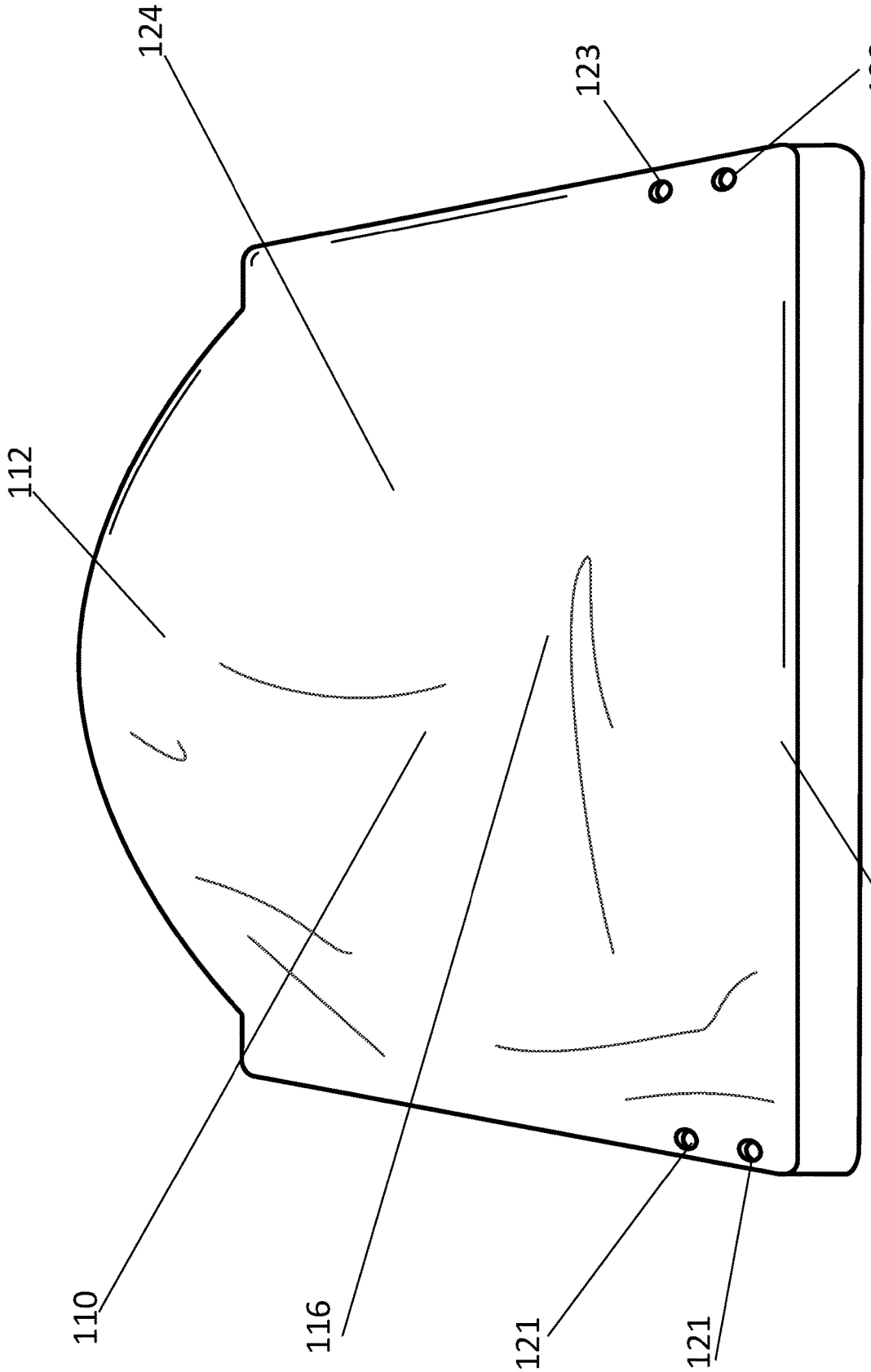


FIG. 3B

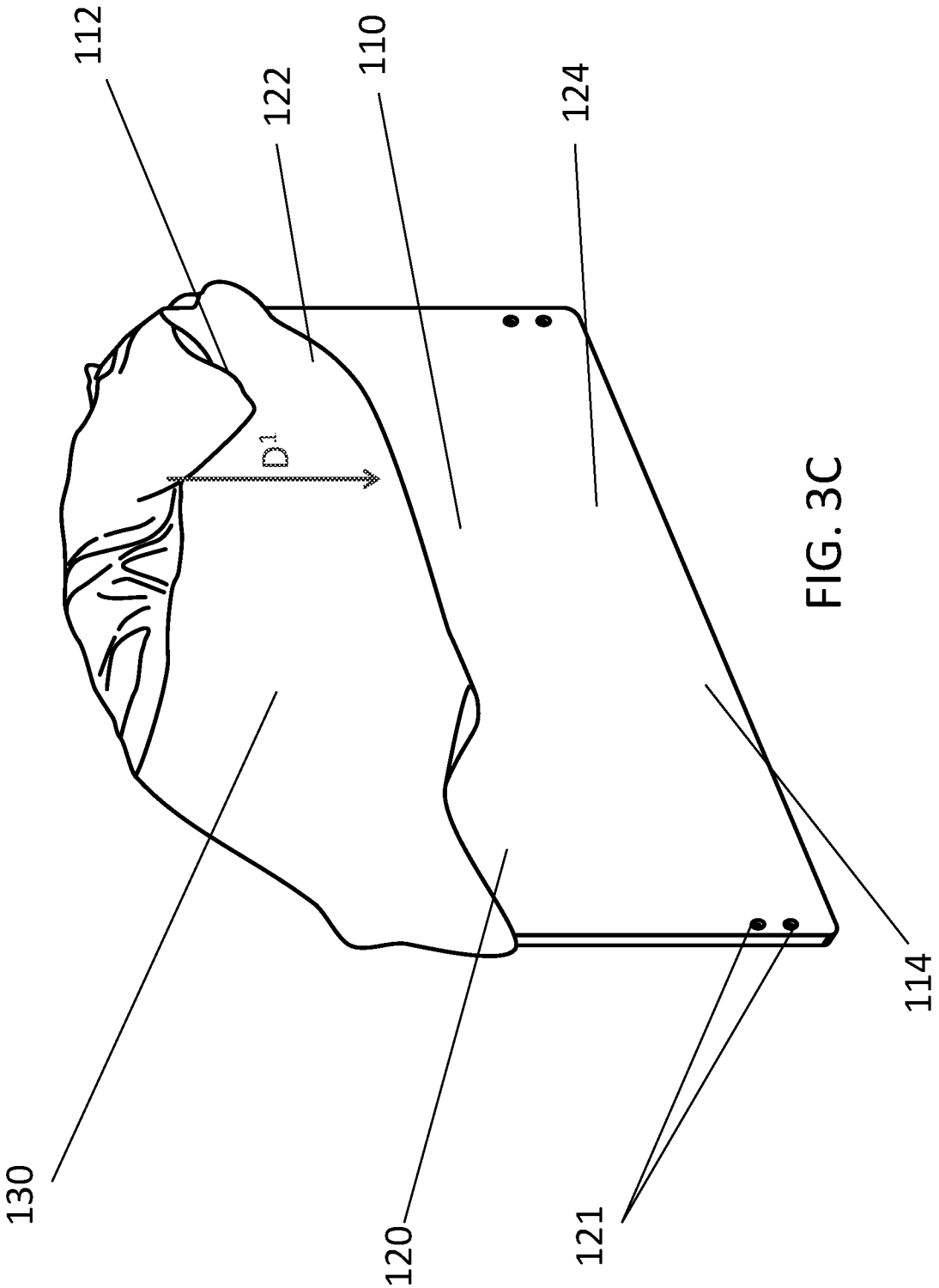


FIG. 3C

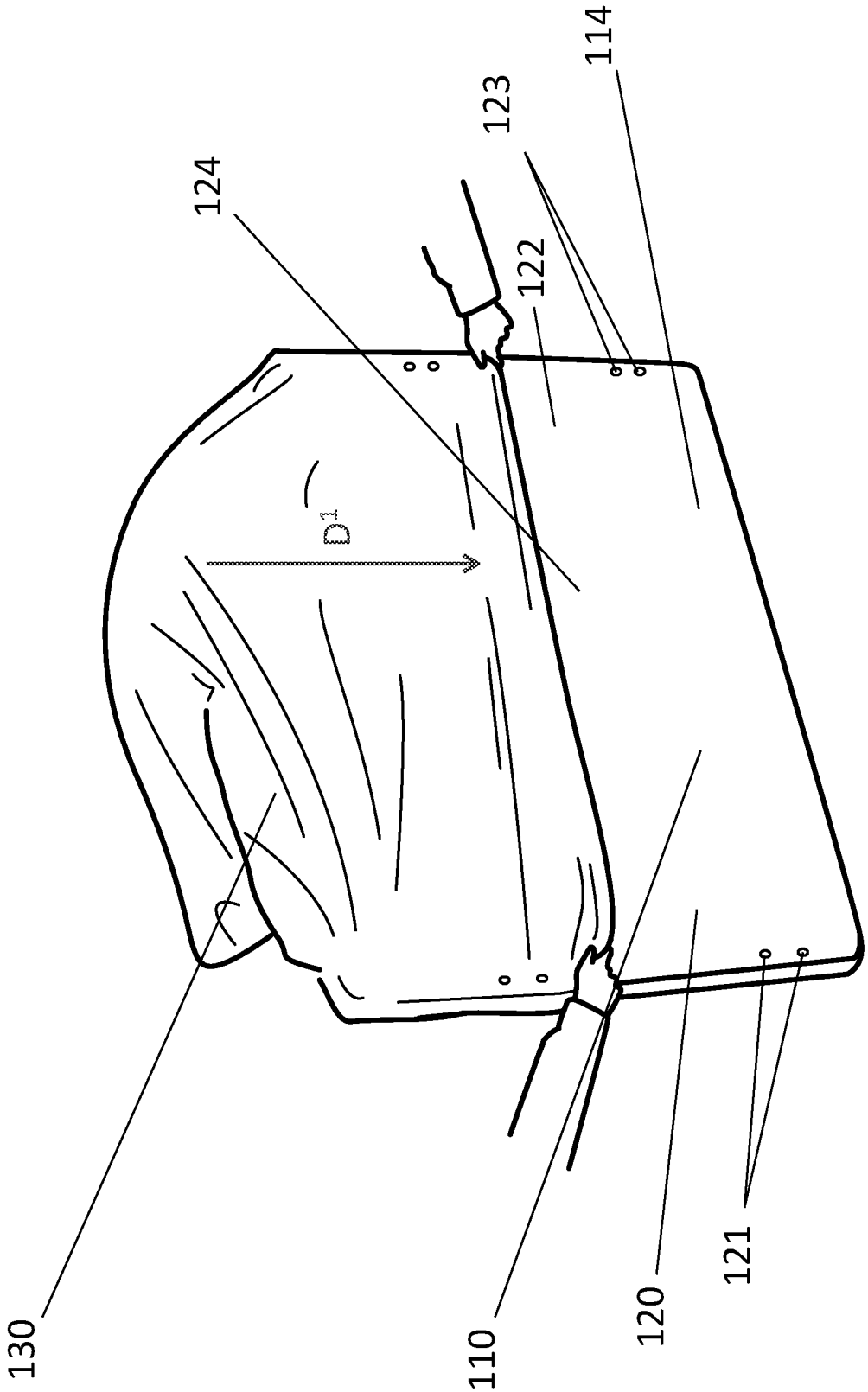


FIG. 3D

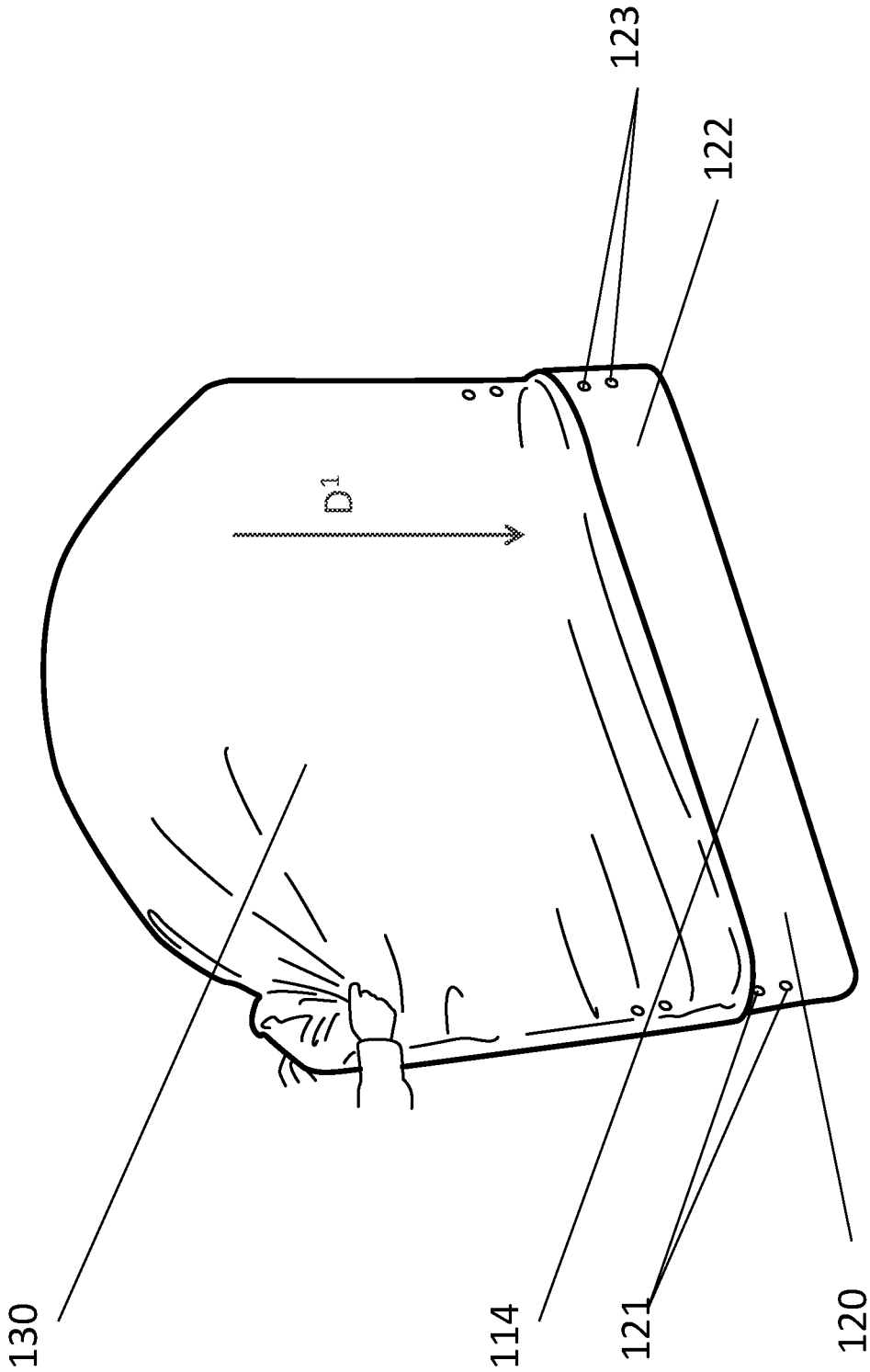


FIG. 3E

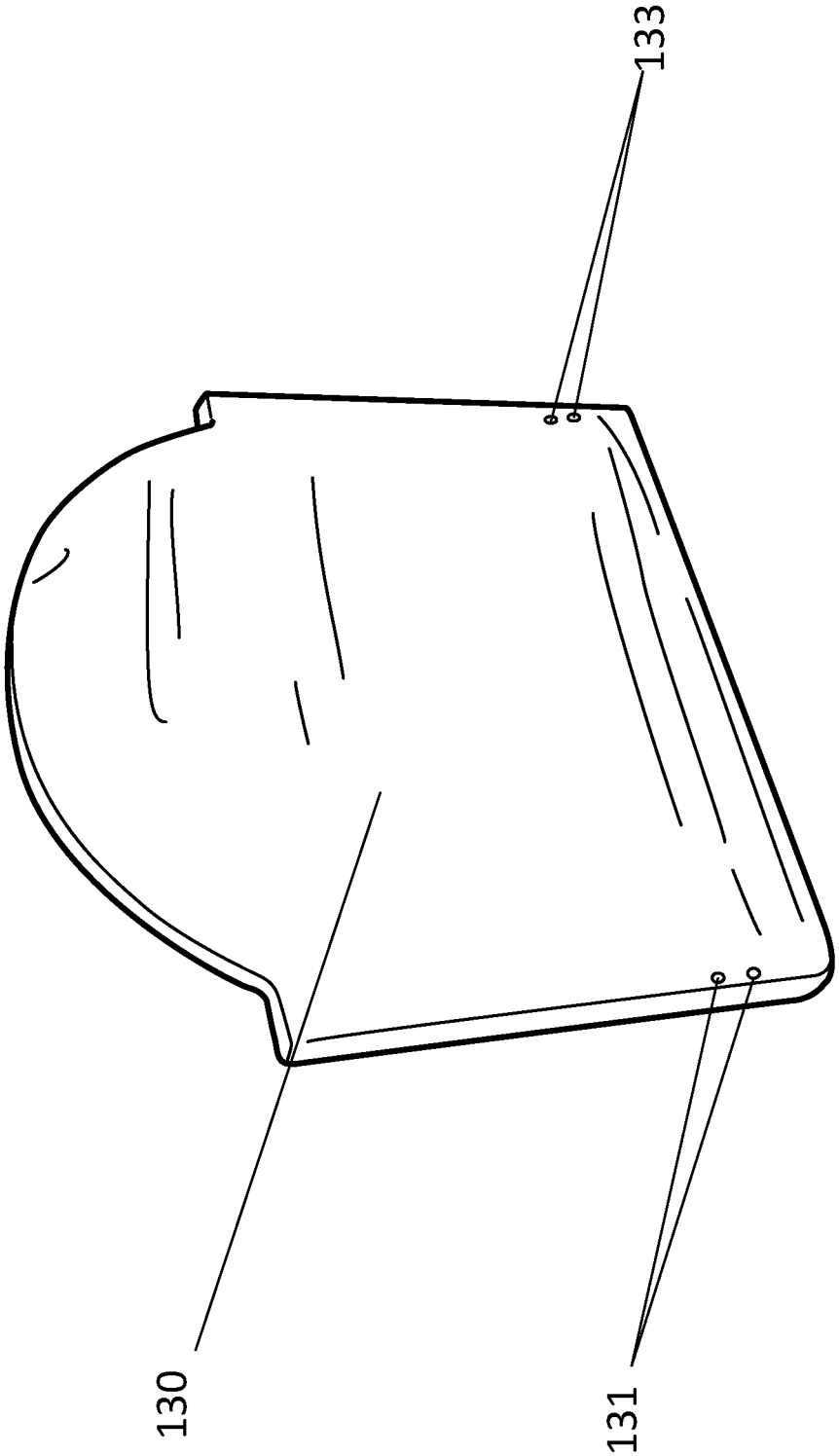


FIG. 3F

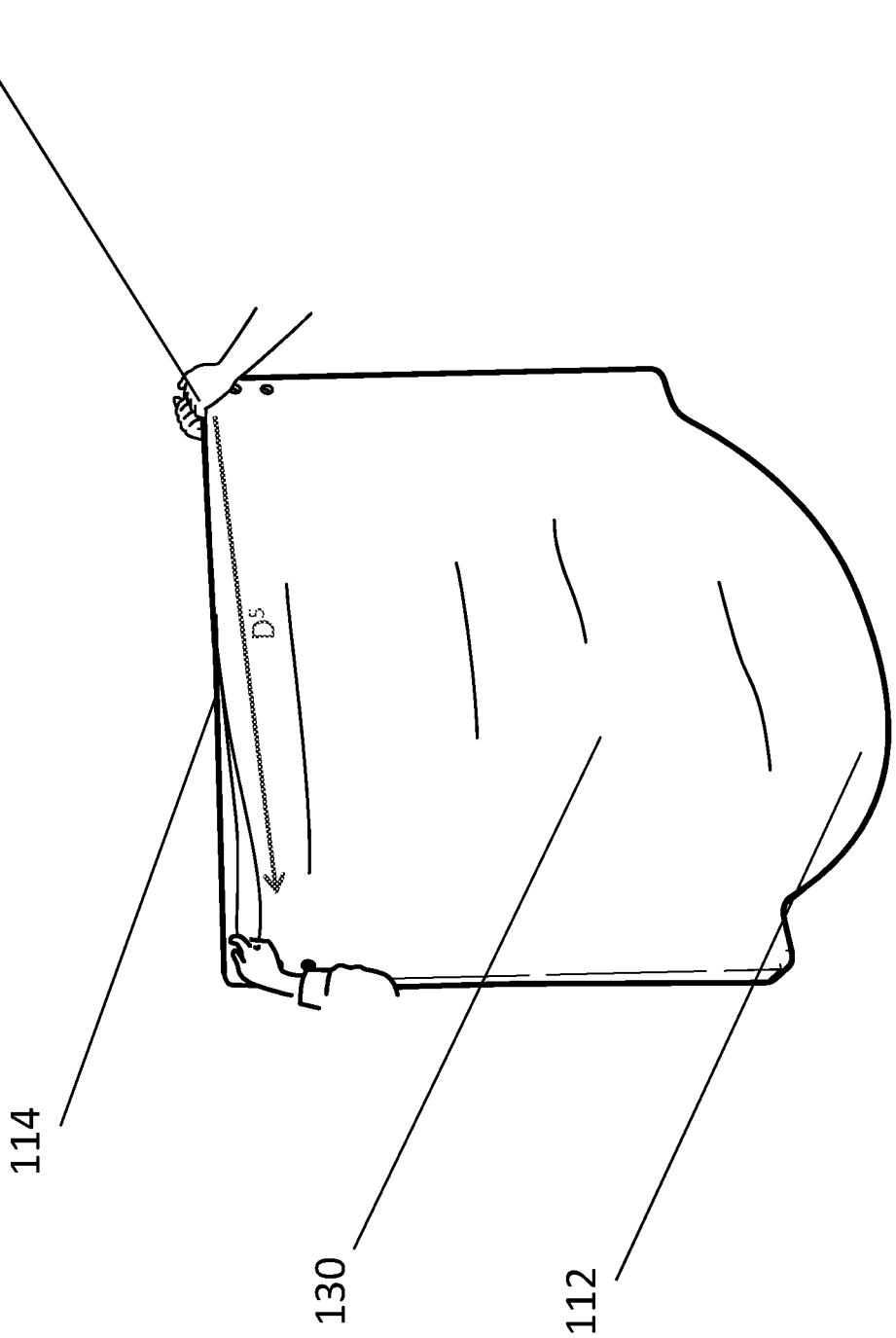


FIG. 3G

FIG. 3H

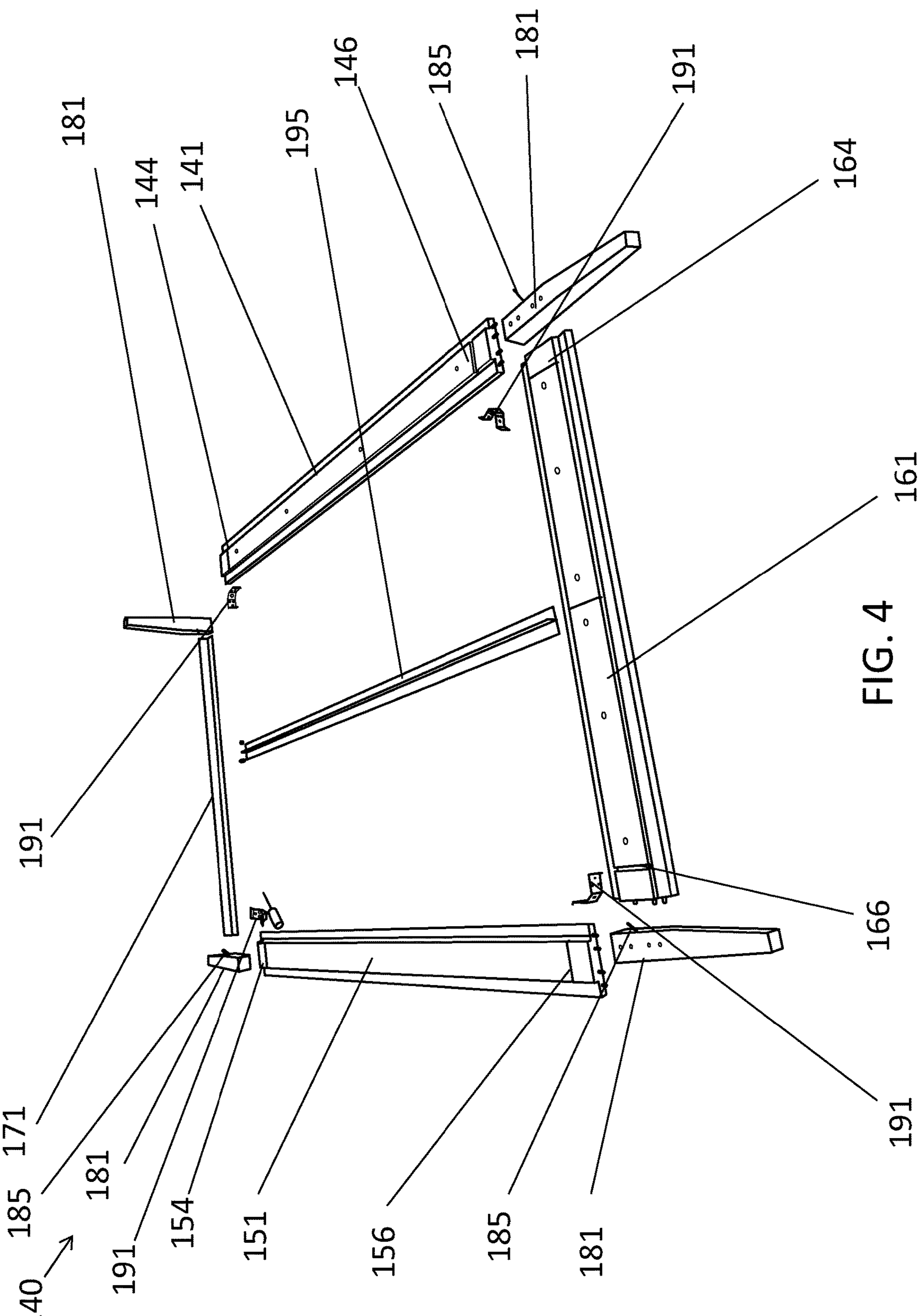

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FIG. 4

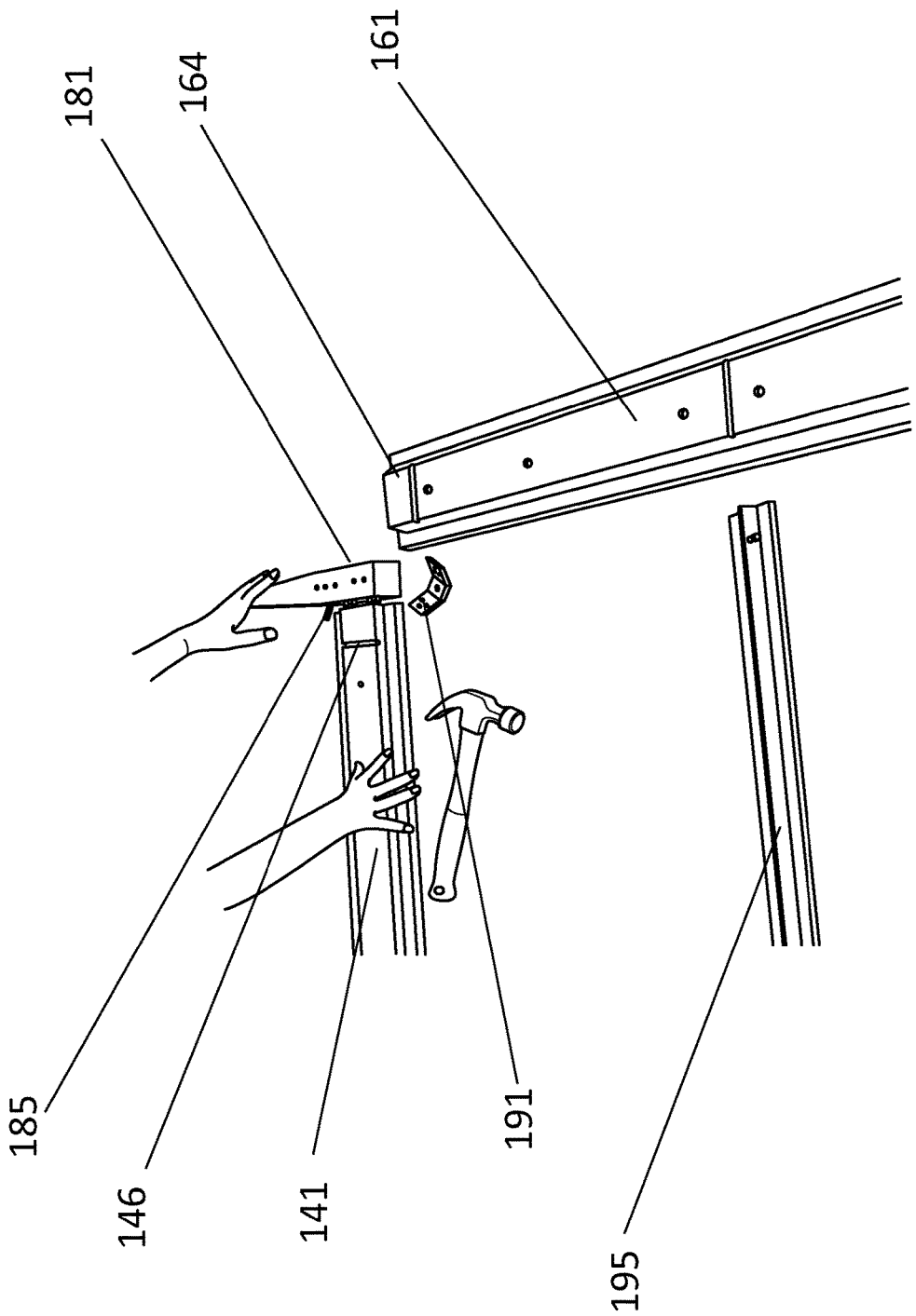

FIG. 5A

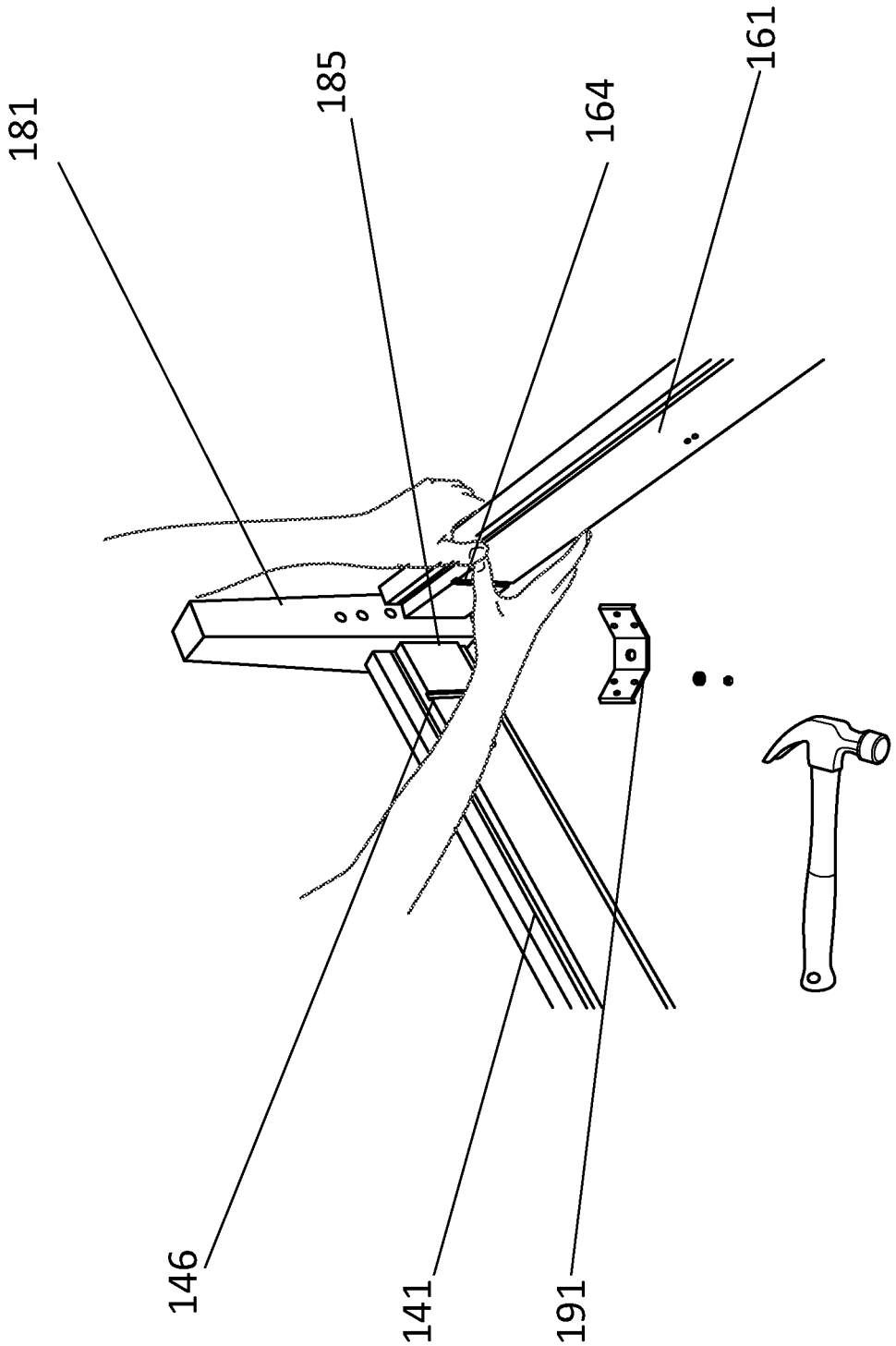

FIG. 5B

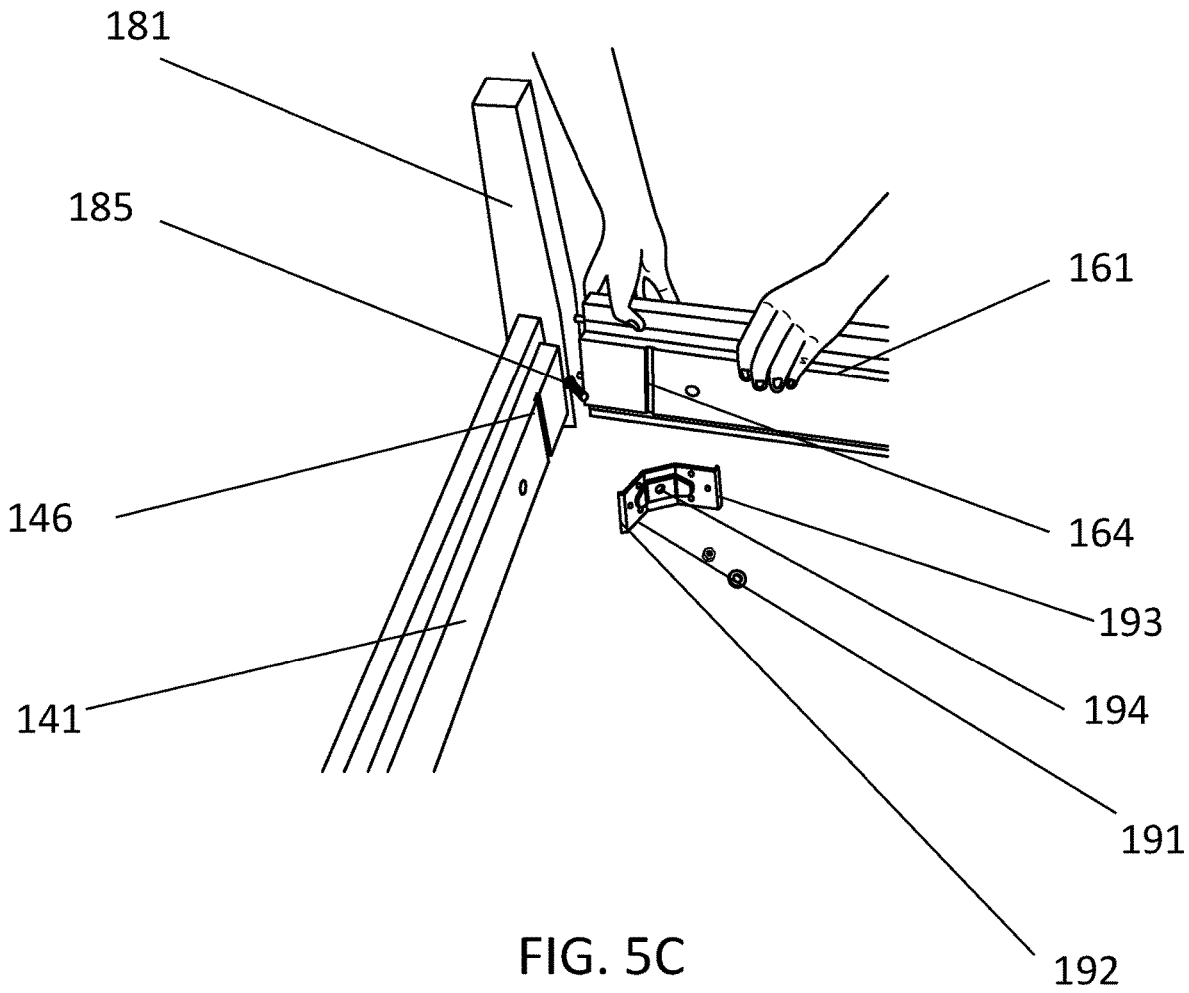

FIG. 5C

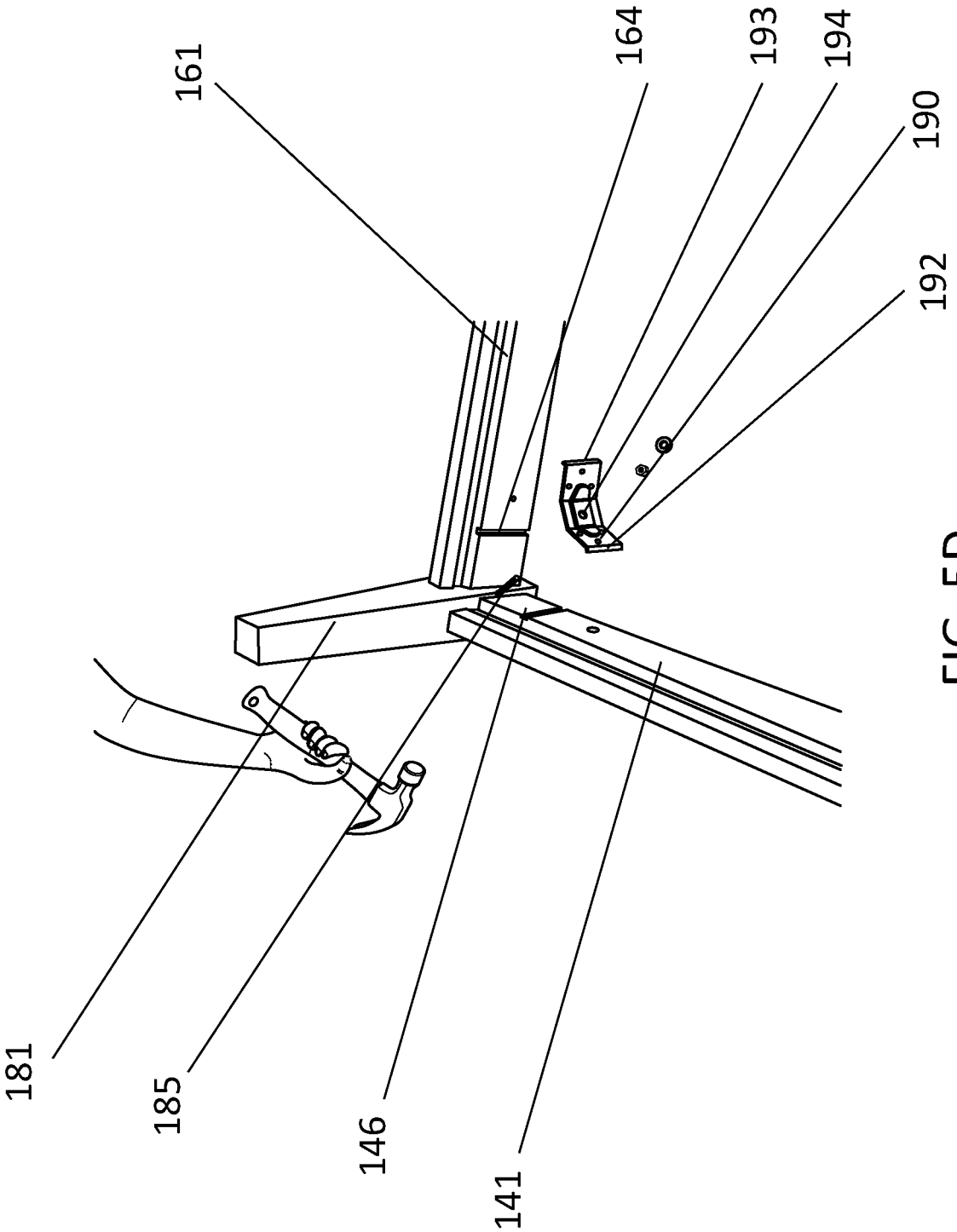

FIG. 5D

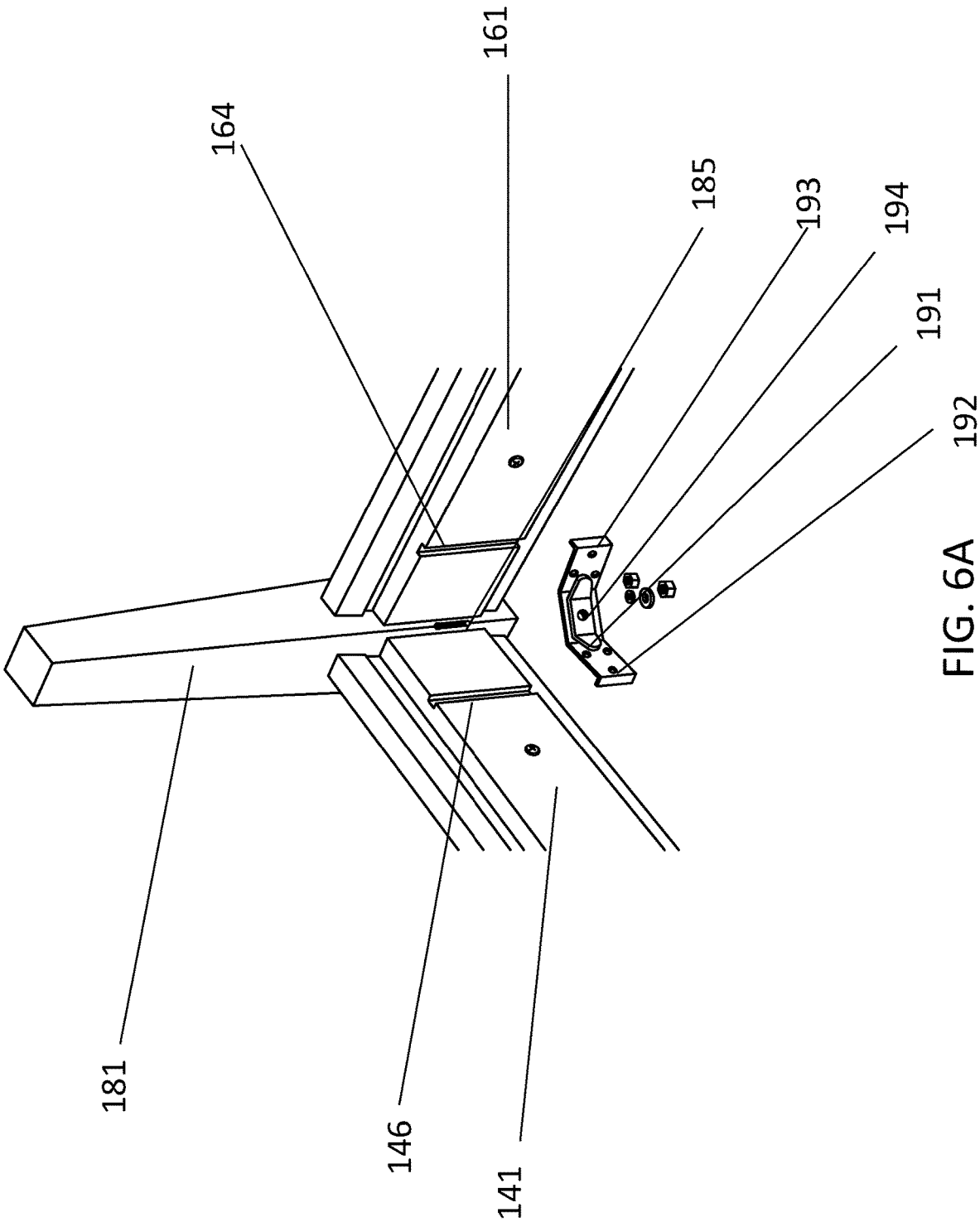

FIG. 6A

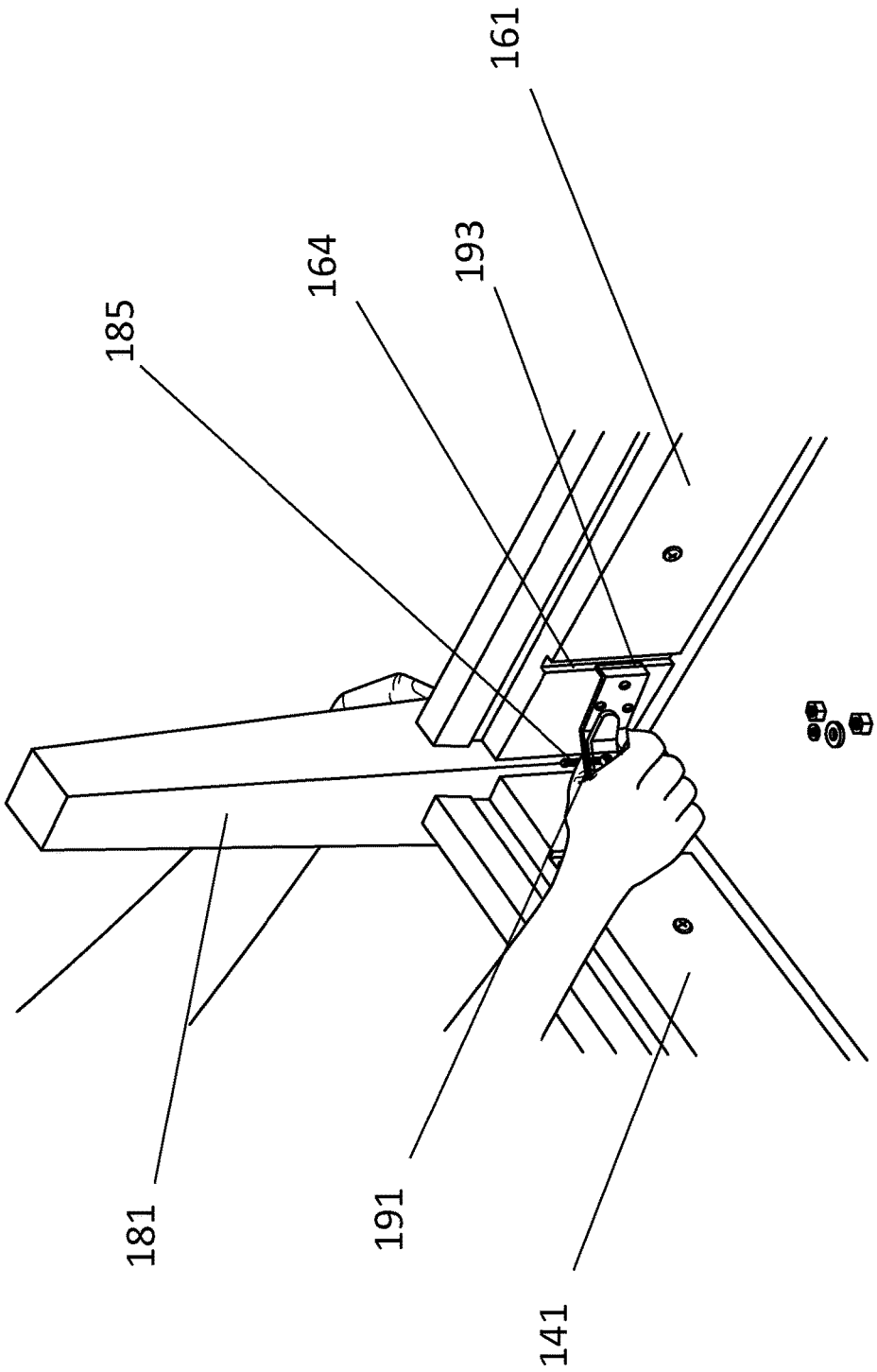

FIG. 6B

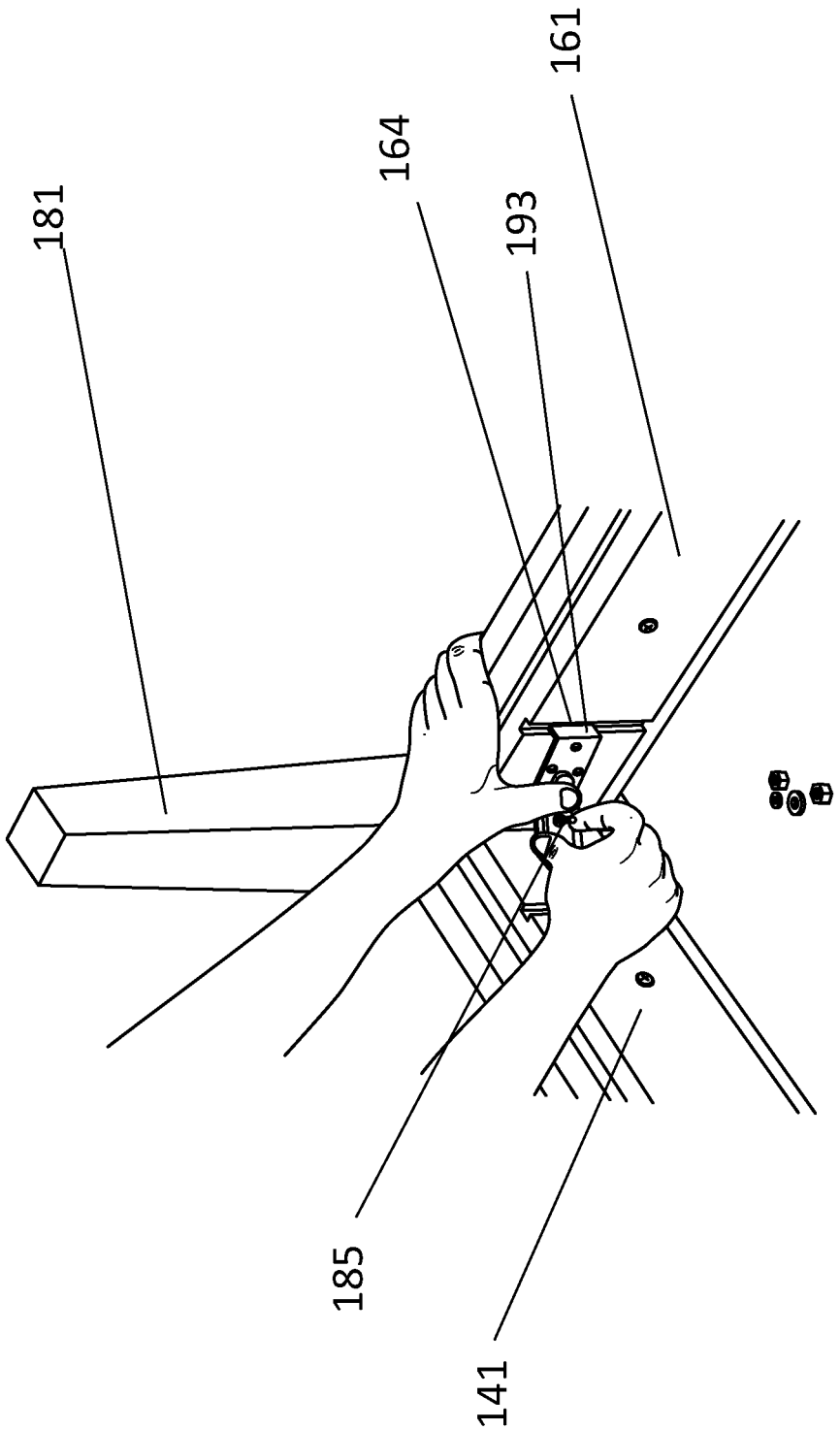

FIG. 6C

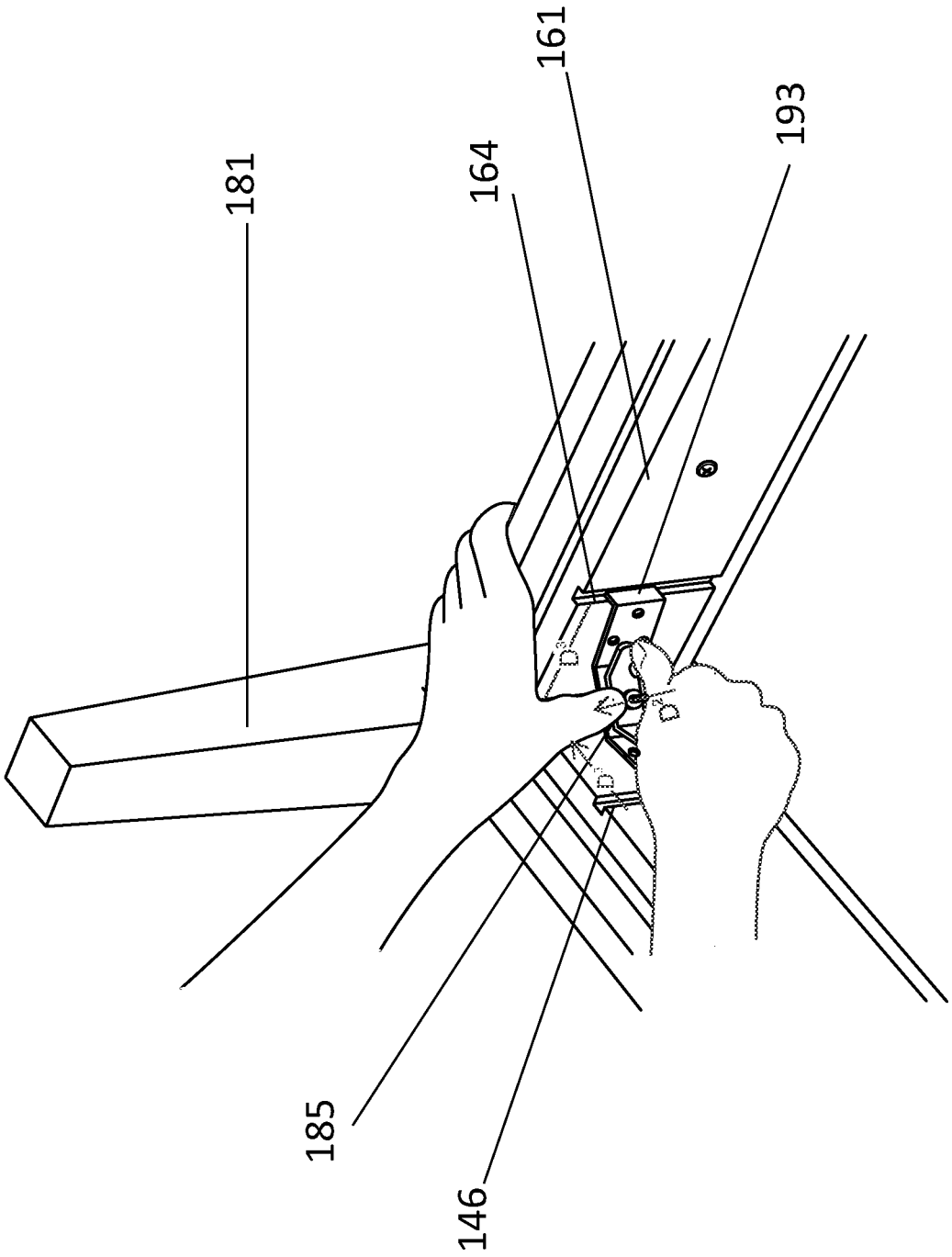

FIG. 6D

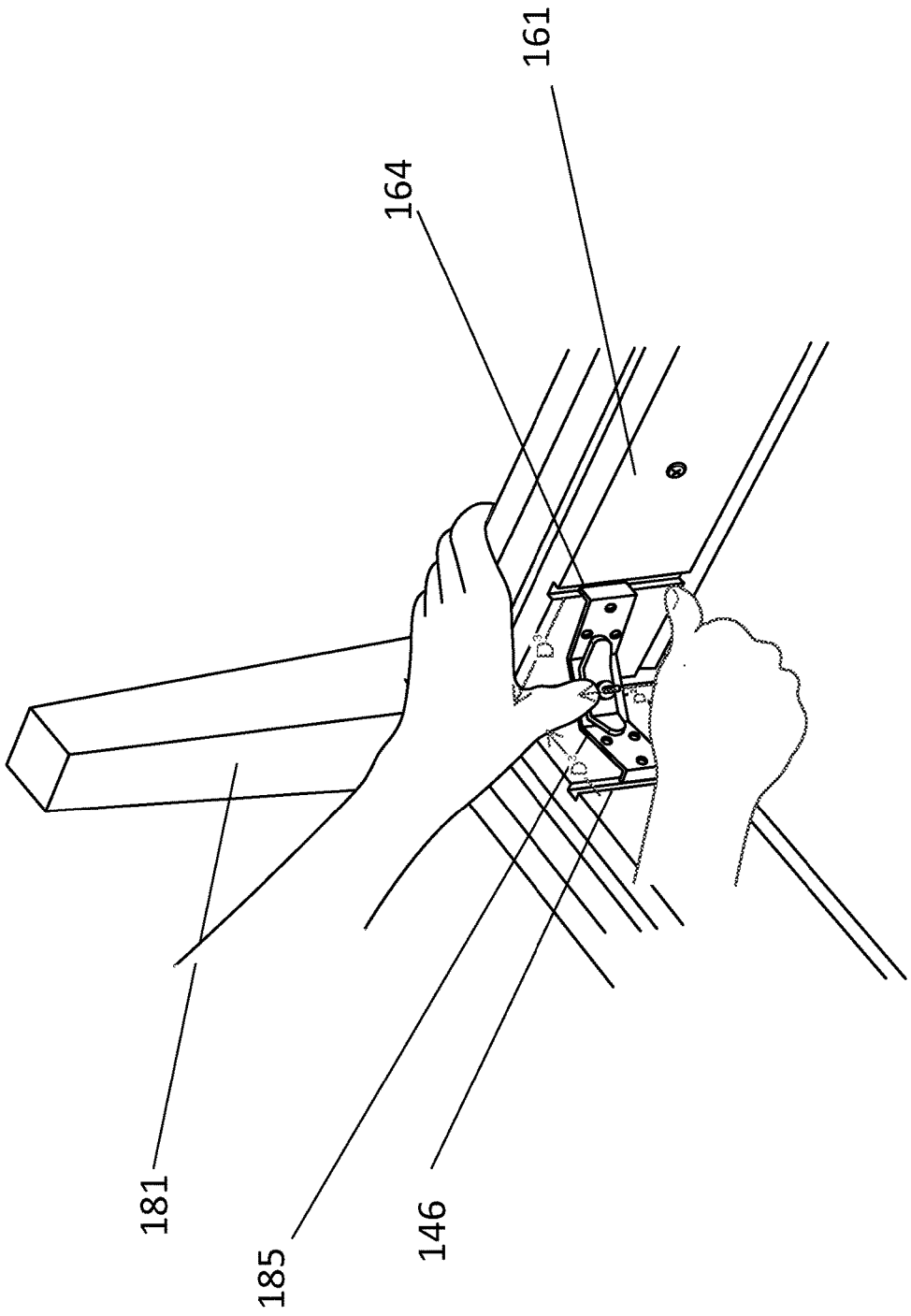

FIG. 6E

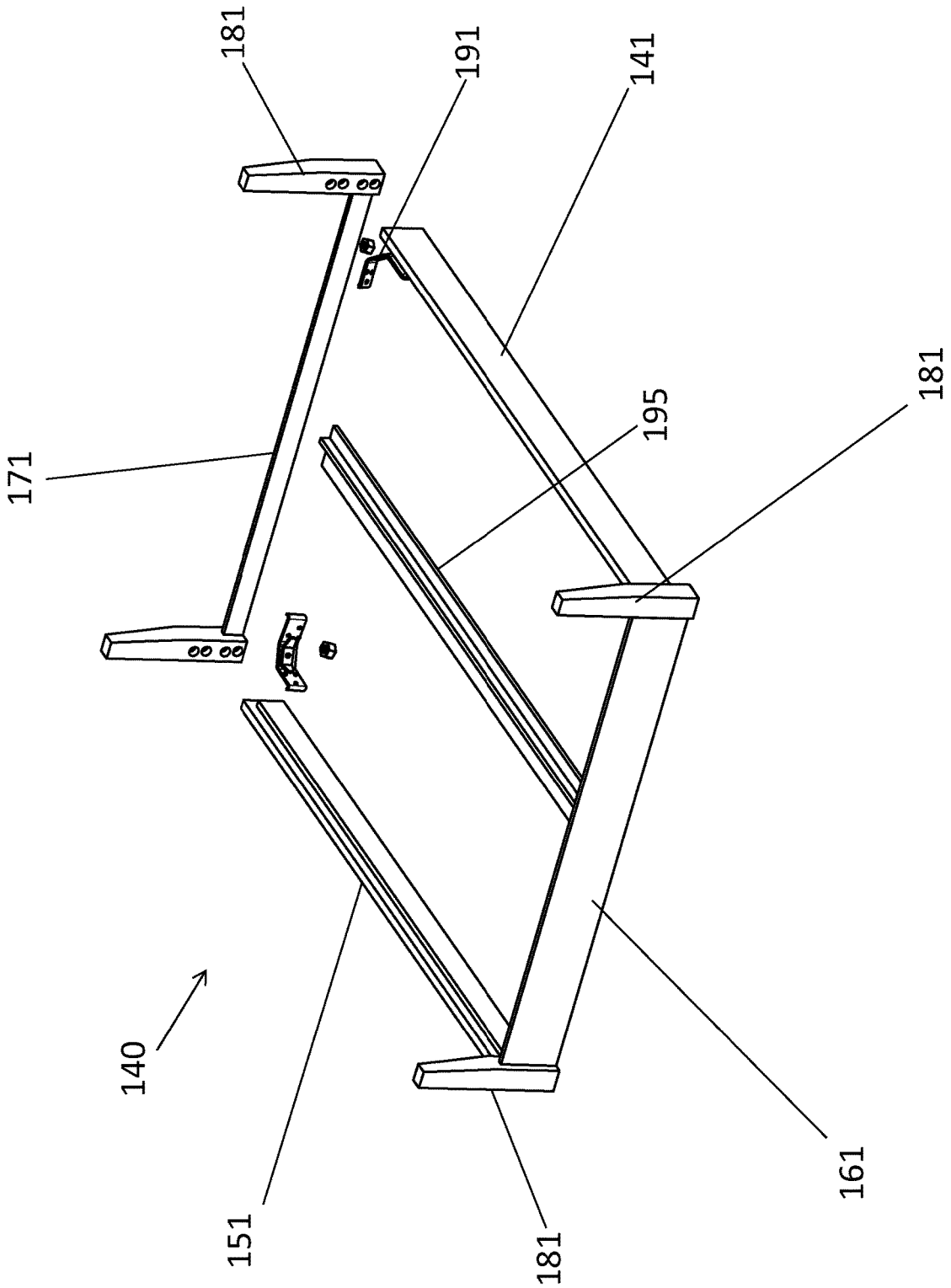

FIG. 7A

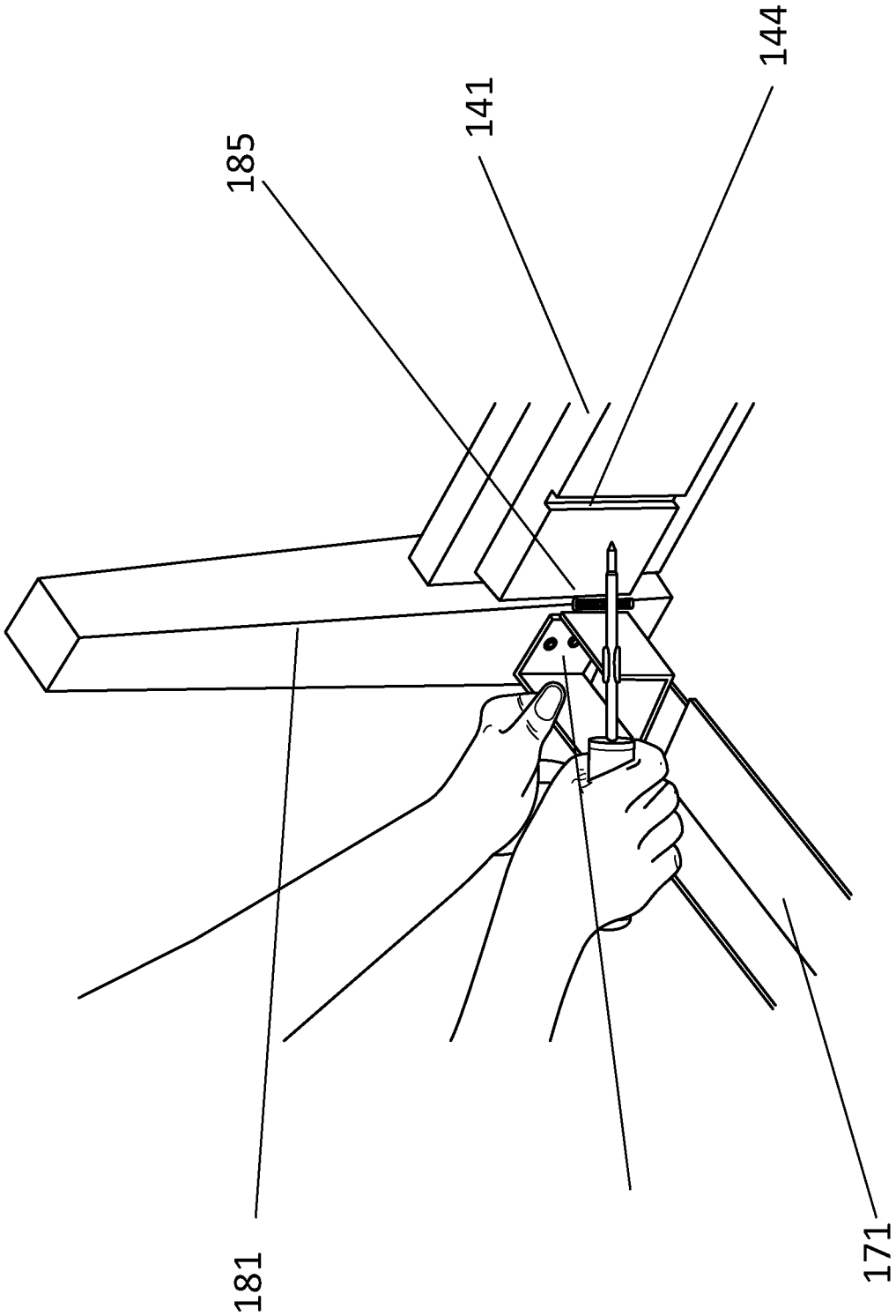

FIG. 7B

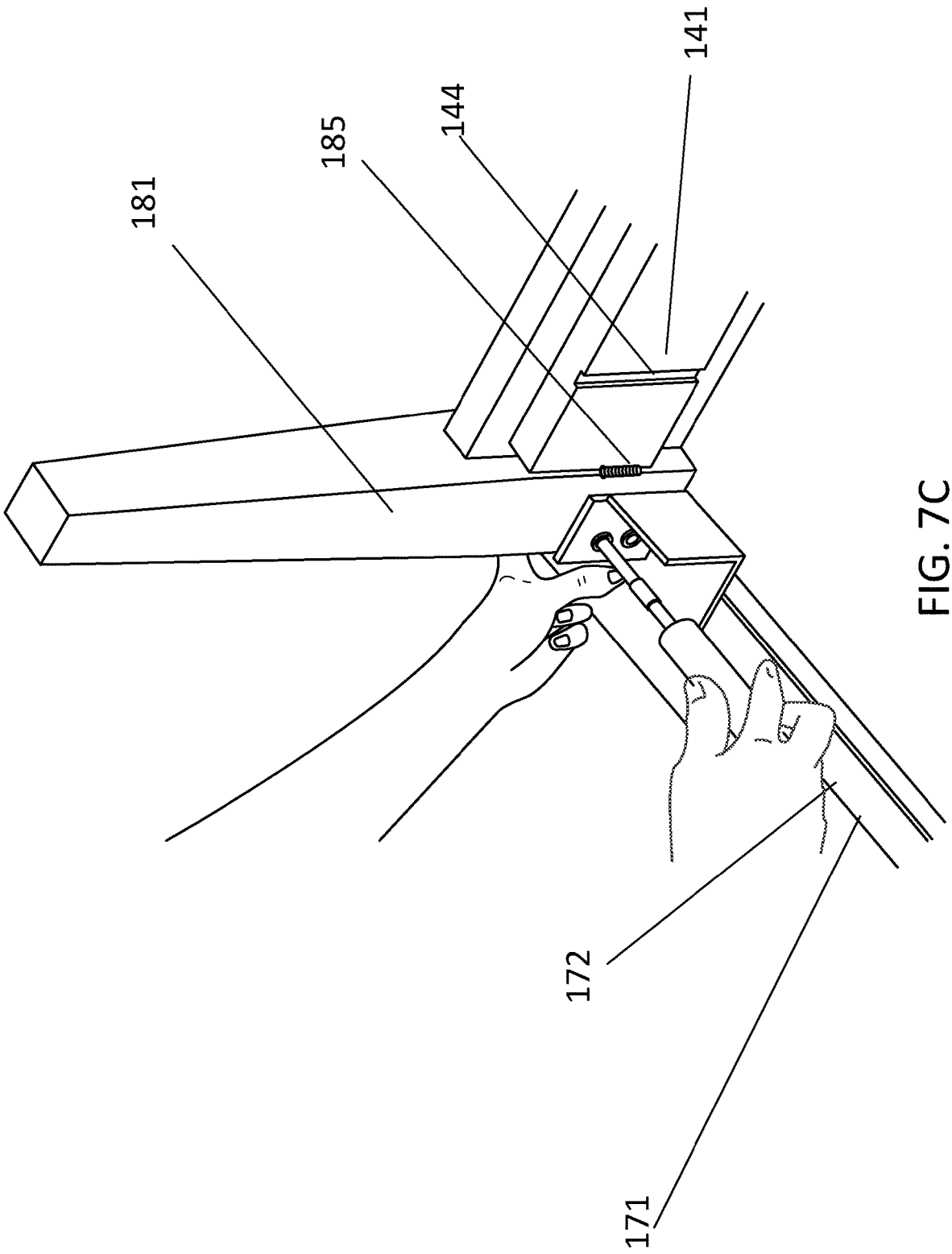

FIG. 7C

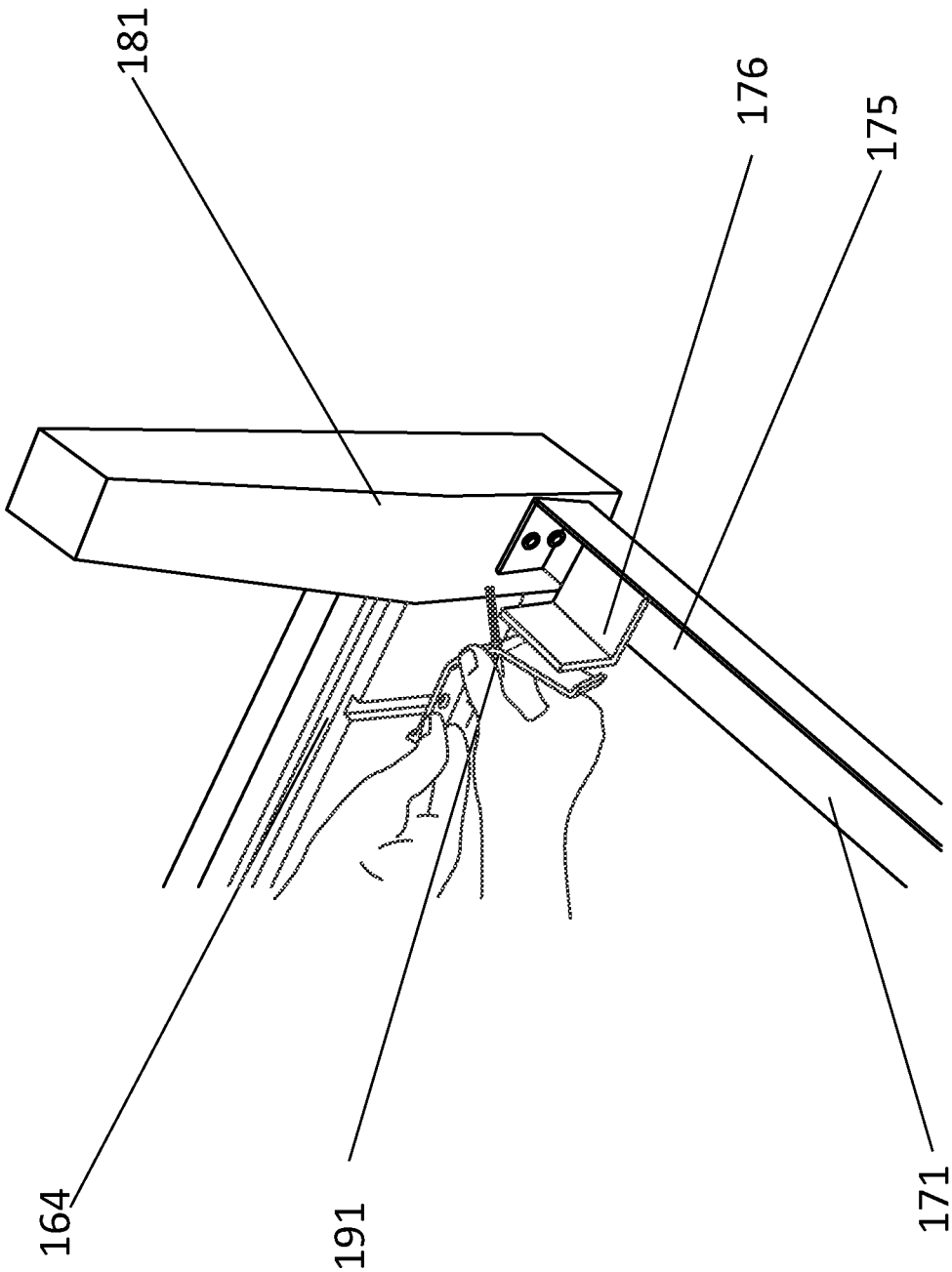

FIG. 7D

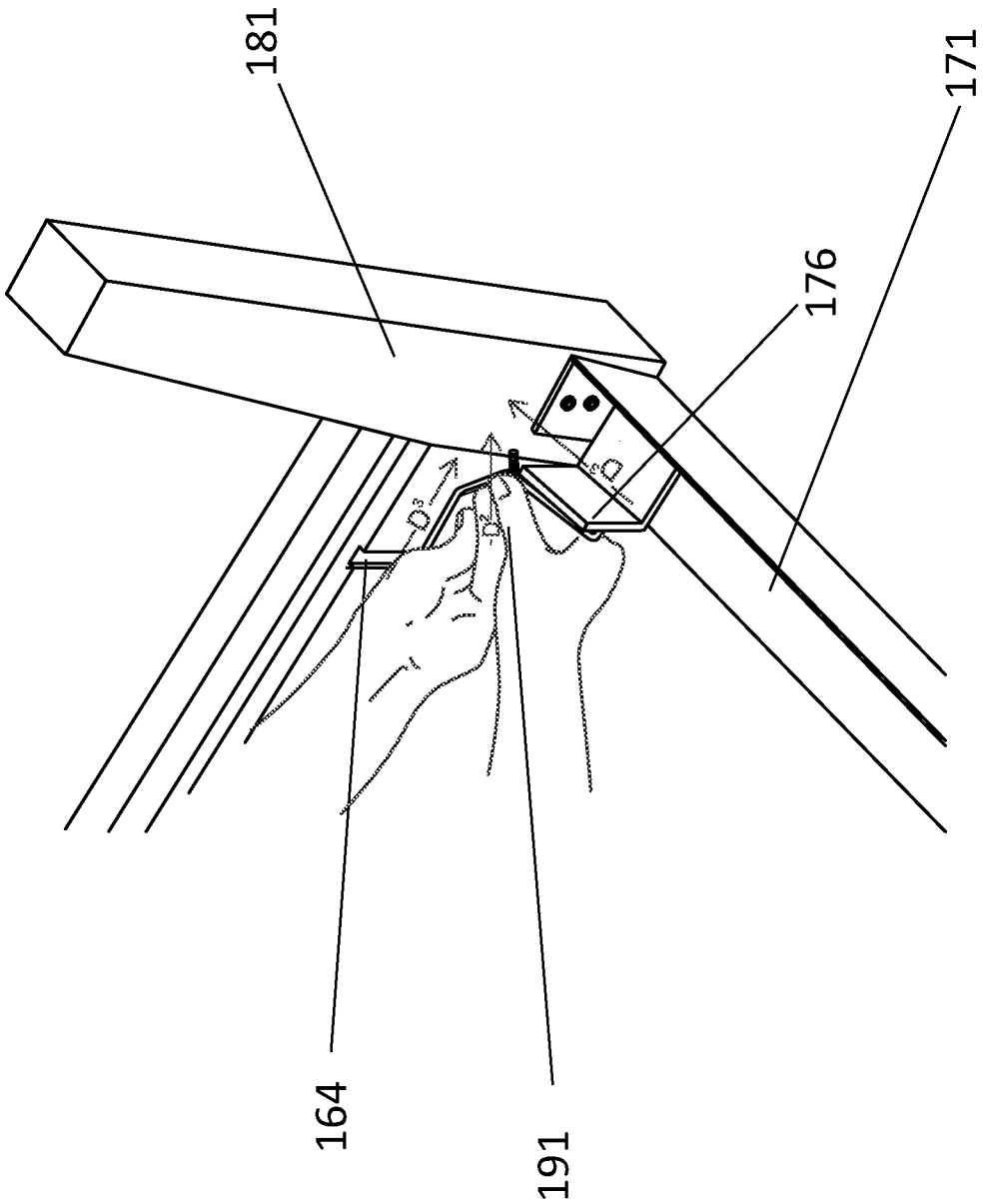

FIG. 7E

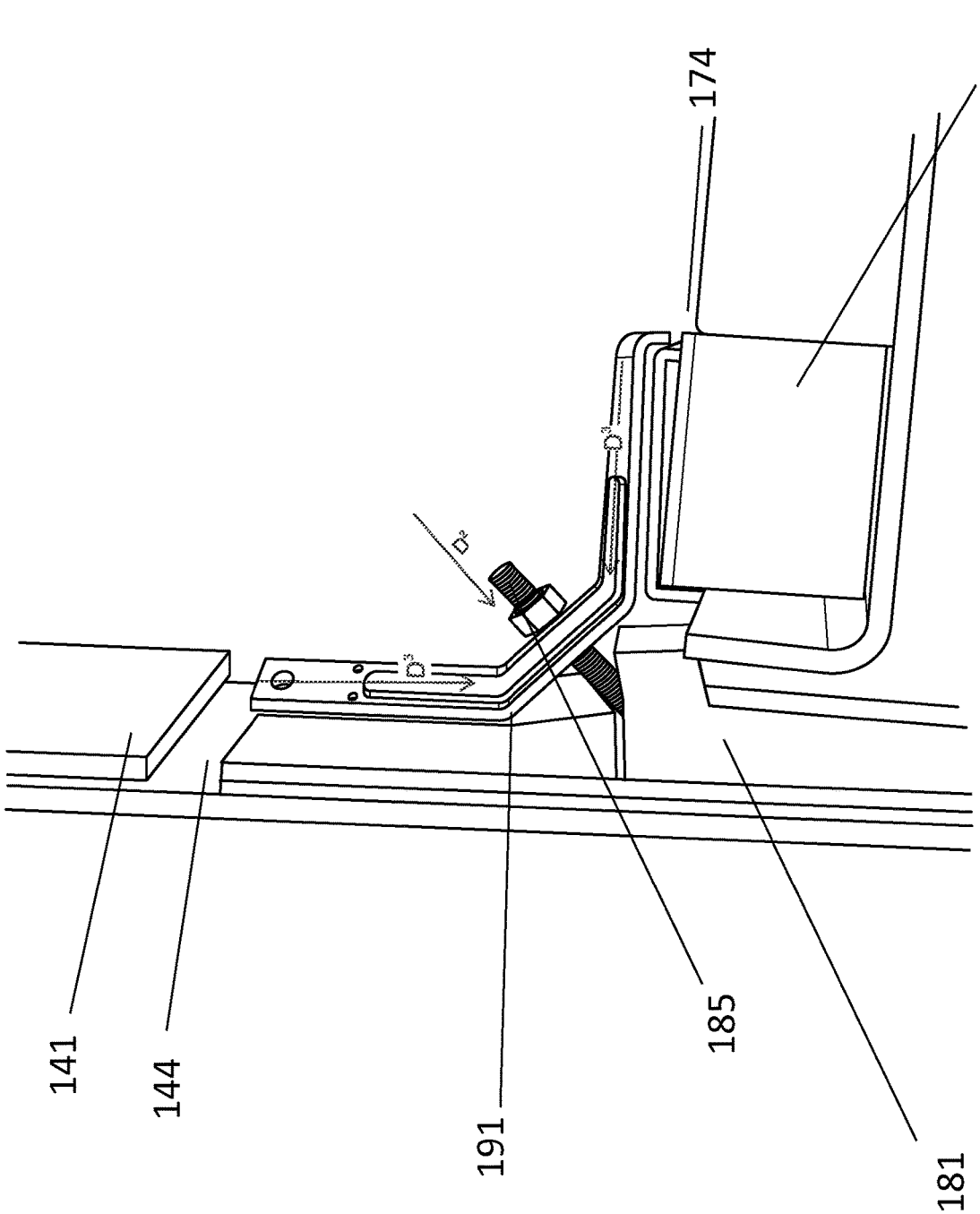

FIG. 7F

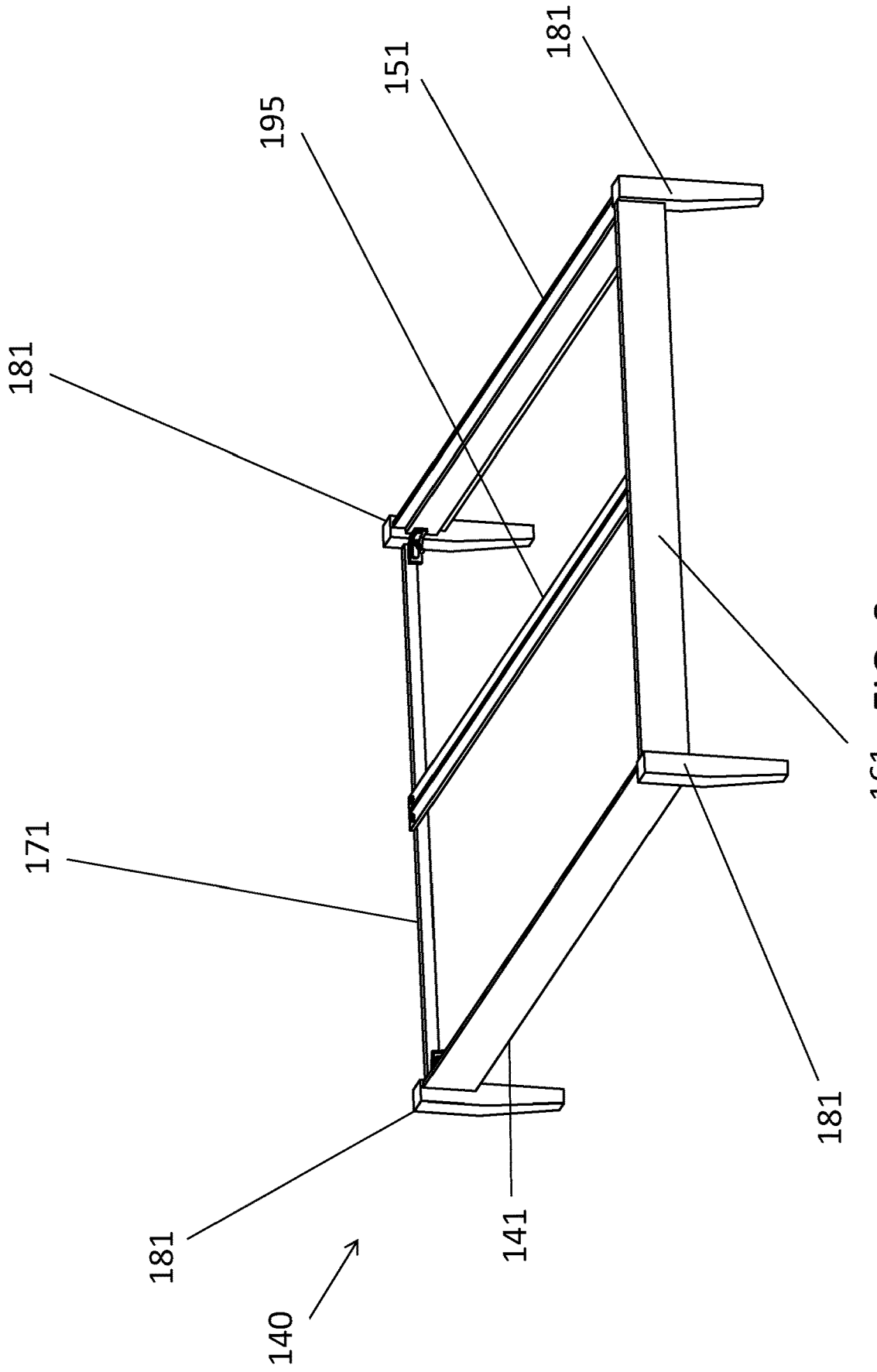

FIG. 8

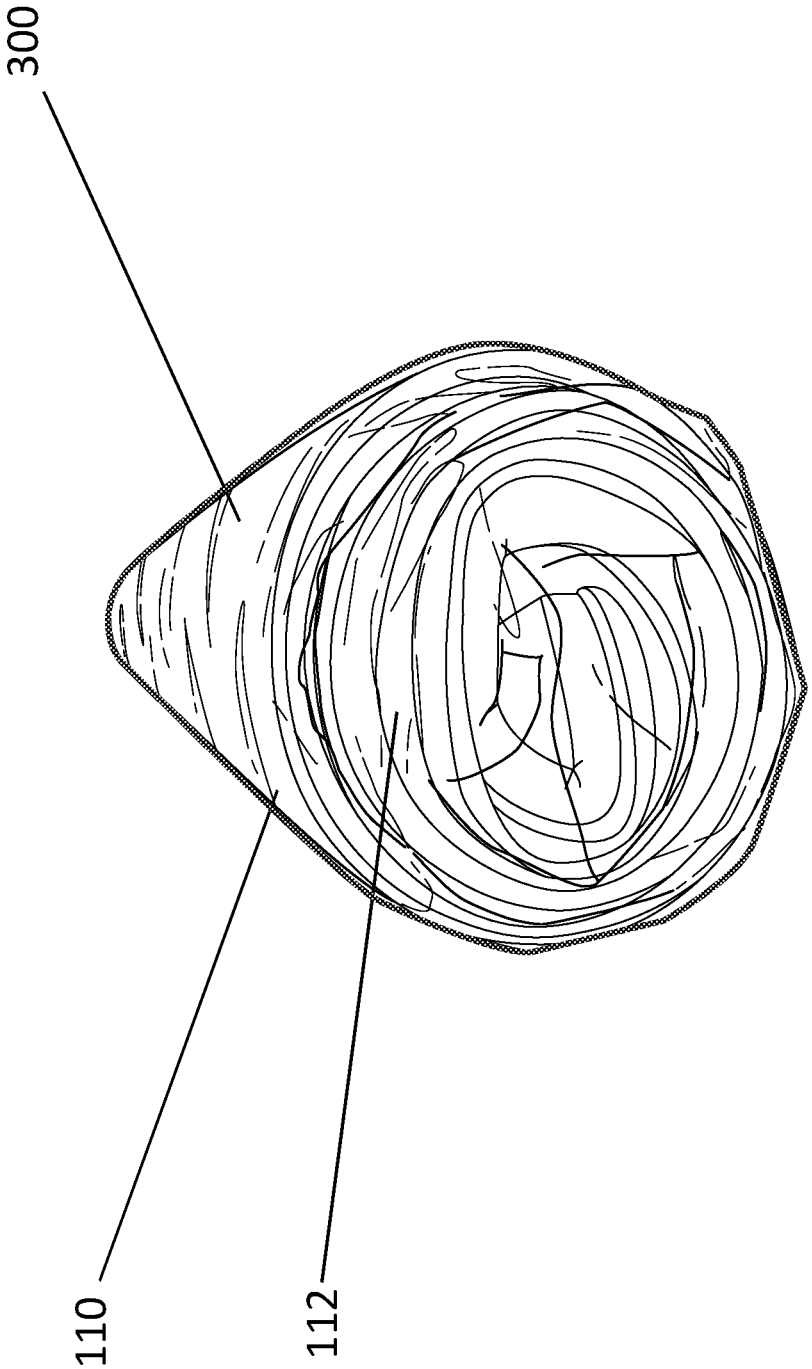

FIG. 9A

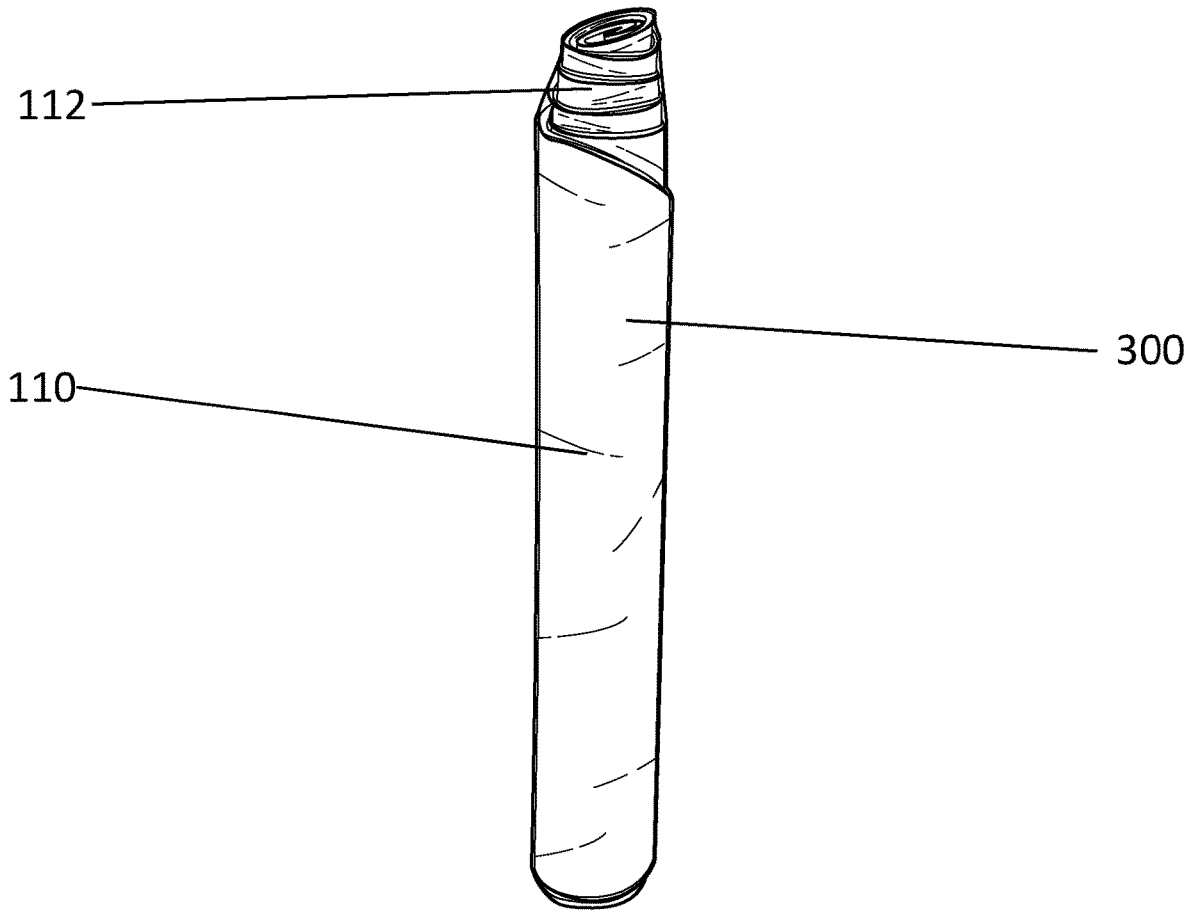

FIG. 9B

BED ASSEMBLY WITH FOAM-BASED HEADBOARD HAVING READILY INTERCHANGEABLE OUTER COVERINGS

TECHNICAL FIELD

[0001] The present invention relates generally to the field of beds and bed assemblies, and more particularly, to bed assemblies with foam-based headboard(s) that have easily interchangeable outer coverings to quickly vary headboard appearance as aesthetically desired and/or as needed due to wear and tear.

BACKGROUND

[0002] Bed assemblies and bed frames/bed frame assemblies have made drastic improvements in ease of assembly over the past several decades. However, mid-grade and high quality bed assemblies, bed frames, and bed frame assemblies remain quite difficult to assemble—often requiring specialized tools and multiple people when assembling the various parts. Furthermore, most (if not all) mid-grade and high quality bed assemblies are quite heavy, cumbersome, and cannot easily be re-purposed without an expensive and lengthy re-upholstering process. Thus, many problems remain with mid-grade and high quality bed assemblies, and a need exists to provide a solution to these numerous problems.

SUMMARY

[0003] Disclosed herein are easy to assemble bed assemblies that are lightweight, can be assembled in a matter of minutes, and can be further quickly re-purposed (e.g., with a different slip cover) within seconds and/or minutes. These bed assemblies include foam and/or foam-based headboard (s) that have easily interchangeable outer coverings to vary the headboard appearance as aesthetically desired and/or as needed due to wear and tear.

[0004] More specifically disclosed are bed assemblies including: (a) a foam headboard having a protective outer covering positioned thereon; (b) one or more slip covers configured to be positioned on the foam headboard, each slip cover having a releasable fastening mechanism to temporarily securely position the slip cover on the foam head board and having a pocket that conceals portions of the fastening mechanism when the slip cover is positioned on the foam head board; and (c) a bed frame assembly, the bed frame assembly including: (i) a plurality of legs, each leg having a first side and second side that are each configured to securely attach to separate side rails and each leg having a securing member positioned on a corner of the leg between the first side and second side of the leg that extends away from the leg towards the interior of the bed frame assembly when assembled; (ii) a plurality of side rails that are configured to be positioned and securely fastened between two separate legs of the plurality of legs; (iii) a plurality of securing brackets, each bracket configured to be positioned on the securing member of each leg, to concurrently grip two separate side rails and securely fasten the separate side rails to the leg by biasing the securing bracket in a direction towards the exterior of the bed frame assembly when assembled; and (iv) a support beam configured to be completely positioned within the interior of the bed frame assembly between two separate side rails when the bed frame assembly is assembled to provide further support and rigidity to the bed frame assembly and to further support a mattress when positioned on the assembled bed frame assembly.

[0005] In certain aspects, the foam headboard of the bed assembly includes a polyurethane foam.

[0006] In certain aspects, the polyurethane foam of the foam headboard of the bed assembly includes at least one of a castable polyurethane or a thermoplastic polyurethane with the proviso that a millable polyurethane is not present. In certain aspects, the polyurethane foam is either a closed cell or open cell foam. In certain aspects, the polyurethane foam has an R-value as a measure of hardness ranging from 1.6 lbs. per cubic foot to 2.1 lbs. per cubic foot at ambient conditions. In certain aspects, the polyurethane foam comprises a compression modulus ranging from 75 lbs. to 80 lbs. at ambient conditions. In certain aspects, the polyurethane foam has a cell density ranging from 1.6 to 1.8 cells/cm^3 ($\times 10^{10}$) and more preferably from 1.65 to 1.75 cells/cm^3) ($\times 10^{10}$). In certain aspects, the polyurethane foam is a closed cell polyurethane foam. In certain aspects, the foam head board has two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends, each through hole of the plurality of through holes are configured to align with and receive posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

[0007] In a further aspect, the slip cover of the one or more slip covers of the bed assembly includes two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends of the slip cover with each through hole of the plurality of through holes of the slip cover configured to align with each through hole of the foam head board such that posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

[0008] In certain aspects, also disclosed is a kit comprising the above discussed bed assembly. In certain aspects, the kit may further include a mallet, fastening tool(s), and/or fasteners that are configured to fasten the side rails, legs, support beam, and/or securing bracket(s) to one another when assembling the bed frame assembly.

[0009] In another aspect, also disclosed is a headboard assembly including: (a) a foam headboard having a protective outer covering positioned thereon; and (b) one or more slip covers configured to be positioned on the foam headboard, each slip cover having a releasable fastening mechanism to temporarily securely position the slip cover on the foam head board and having a pocket that conceals portions of the fastening mechanism when the slip cover is positioned on the foam head board.

[0010] In certain aspects, the foam headboard of the headboard assembly comprises a polyurethane foam. In certain aspects, the polyurethane foam is at least one of a castable polyurethane or a thermoplastic polyurethane with the proviso that a millable polyurethane is not present. In certain aspects, the polyurethane foam is either a closed cell or open cell foam. In certain aspects, the polyurethane foam has an R-value as a measure of hardness ranging from 1.6 lbs. per cubic foot to 2.1 lbs. per cubic foot at ambient conditions. In certain aspects, the polyurethane foam comprises a compression modulus ranging from 75 lbs. to 80 lbs at ambient conditions. In certain aspects, the polyurethane foam has a cell density ranging from 1.6 to 1.8 cells/cm^3) ($\times 10^{10}$) and more preferably from 1.65 to 1.75 cells/cm^3)

($\times 10^{10}$). In certain aspects, the polyurethane foam is a closed cell polyurethane foam. In certain aspects, the foam head board has two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends, each through hole of the plurality of through holes are configured to align with and receive posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

[0011] In a further aspect, a slip cover of the one or more slip covers of the foam headboard assembly comprises two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends of the slip cover with each through hole of the plurality of through holes of the slip cover configured to align with each through hole of the foam head board such that posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

[0012] Embodiments of the invention can include one or more or any combination of the above features and configurations.

[0013] Additional features, aspects and advantages of the invention will be set forth in the detailed description which follows, and in part will be readily apparent to those skilled in the art from that description or recognized by practicing the invention as described herein. It is to be understood that both the foregoing general description and the following detailed description present various embodiments of the invention, and are intended to provide an overview or framework for understanding the nature and character of the invention as it is claimed. The accompanying drawings are included to provide a further understanding of the invention, and are incorporated in and constitute a part of this specification.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] These and other features, aspects and advantages of the present invention are better understood when the following detailed description of the invention is read with reference to the accompanying drawings, in which:

[0015] FIG. **1** depicts the fully assembled bed assembly with a mattress positioned thereon;

[0016] FIG. **2** depicts the fully assembled bed assembly without a mattress positioned thereon;

[0017] FIGS. **3**A, **3**B, **3**C, **3**D, **3**E, **3**F, **3**G, and **3**H sequentially depict positioning and securing the slip cover on the foam based headboard;

[0018] FIG. **4** depicts the disassembled bed frame assembly;

[0019] FIGS. **5**A, **5**B, **5**C, and **5**D sequentially depict assembling portions of the bed frame assembly together;

[0020] FIGS. **6**A, **6**B, **6**C, **6**D, and **6**E sequentially depict positioning and securing a securing bracket to two separate bedframe assembly side rails and leg;

[0021] FIGS. **7**A, **7**B, **7**C, **7**D, **7**E, and **7**F sequentially depict securing the head side rail between two legs at the head of the bedframe assembly and subsequently positioning and securing a securing bracket to the head side rail, another side rail, and leg;

[0022] FIG. **8** depicts a fully assembled bed frame assembly; and

[0023] FIGS. **9**A and **9**B depict two separate views of the foam based headboard within packaging in a rolled and compressed state.

DETAILED DESCRIPTION

[0024] The present invention will now be described more fully hereinafter with reference to the accompanying drawings in which exemplary embodiments of the invention are shown. However, the invention may be embodied in many different forms and should not be construed as limited to the representative embodiments set forth herein. The exemplary embodiments are provided so that this disclosure will be both thorough and complete, and will fully convey the scope of the invention and enable one of ordinary skill in the art to make, use and practice the invention. Like reference numbers refer to like elements throughout the various drawings.

[0025] Disclosed herein are bed assemblies **100** with foam-based headboard(s) **110** that have easily interchangeable coverings (slip covers) to vary the headboard appearance as aesthetically desired and/or as needed due to wear and tear. Specifically shown in FIG. **1** is the assembled bed assembly **100** with a mattress **200** thereon, and FIG. **2** further shows the assembled bed assembly **100** without a mattress positioned thereon.

[0026] FIGS. **1**, **2**, **3**A, and **8** specifically depict bed assemblies **100** including: (a) a foam headboard **110** having a protective outer covering **112** positioned thereon; (b) one or more slip covers **130** configured to be positioned on the foam headboard **110**, each slip cover **130** having a releasable fastening mechanism **135** to temporarily securely position the slip cover on the foam head board and having a pocket **137** that conceals portions of the fastening mechanism when the slip cover is positioned on the foam head board; and (c) a bed frame assembly **140**, the bed frame assembly including: (i) a plurality of legs, each leg **181** having a first side **182** and second side **183** that are each configured to securely attach to separate side rails and each leg having a securing member **185** positioned on a corner of the leg between the first side and second side of the leg that extends away from the leg towards the interior of the bed frame assembly when assembled; (ii) a plurality of side rails **141**, **151**, **161**, **171** that are configured to be positioned and securely fastened between two separate legs of the plurality of legs; (iii) a plurality of securing brackets **191**, each bracket **191** configured to be positioned on the securing member of each leg, to concurrently grip two separate side rails, and to securely fasten the separate side rails to the leg by biasing the securing bracket in a direction towards the exterior of the bed frame assembly when assembled; and (iv) a support beam **195** configured to be completely positioned within the interior of the bed frame assembly between two separate side rails when the bed frame assembly **140** is assembled to provide support and rigidity to the bed frame assembly and to further support a mattress when positioned on the assembled bed frame assembly.

[0027] With specific reference to FIGS. **3**A-**3**H, FIGS. **3**A-**3**H sequentially depict positioning and securing a slip cover **130** on the foam based headboard **110**. In certain aspects and as specifically shown in FIGS. **3**A and **3**B, the foam based headboard **110** may be completely formed of a resiliently deformable material such as an open cell (e.g., reticulated foam), partially open cell, or closed cell polyurethane-based foam, and in certain instances the headboard **110** may be completely formed of a low-resilience polyurethane foam and/or a high density polyurethane. In certain instances, this the headboard **110** is formed of either a closed cell or open cell polyurethane (e.g., high density polyurethane) having a compression modulus ranging from 75 lbs.

to 80 lbs at ambient conditions and more preferably from 77.5 lbs. to 82.5 lbs at ambient conditions. Furthermore, the headboard **110** being formed of either a closed cell or open cell polyurethane (e.g., high density polyurethane) preferably has an R-value (as a measure of hardness) ranging from 1.6 lbs. per cubic foot to 2.1 lbs. per cubic foot at ambient conditions, and more preferably from 1.7 lbs per cubic foot to 1.8 lbs per cubic foot at ambient conditions. In certain aspects, the polyurethane foam has a cell density ranging from 1.6 to 1.8 cells/cm^3) ($\times 10^{10}$) and more preferably from 1.65 to 1.75 cells/cm^3) ($\times 10^{10}$). In certain aspects, the headboard **110** is a closed cell polyurethane having the above mentioned hardness and compressibility characteristics, which allow for ease of shipping the headboards in a compressed while concurrently and advantageously providing high rigidity while the headboard is in use such that if remains durable throughout the lifespan of the product even under heavy and frequent use (e.g., daily use). Moreover, the polyurethanes disclosed herein are either castable or thermoplastic polyurethanes but are not millable polyurethanes. Both castable and thermoplastic polyurethanes have a segmented structure, where the polyurethane portions formed from diisocyanate represents the hard segments, while the polyurethane portions formed from polyether or the polyester polyols represent the soft segments. The elasticity comes from the segregation of the segments. Chain extenders are typically short-chain molecules used to increase the molecular weight and thus improve polyurethane strength. The majority of the head board **110** (or, in preferred aspects, the headboard is completely) comprised of these materials for packaging and handling purposes. For example and as specifically shown in FIGS. **9**A and **9**B, the headboards **110** may be compressed, vacuumed sealed (e.g., hermetically sealed), and packaged in a headboard packaging wrapper **300** for shipping purposes, and when assembling the bed assemblies **100** as disclosed further below, the headboard **110** may be removed from the packaging **300** and allowed to expand achieving a fully decompressed state (i.e., shown as headboard **110** in FIG. **3**A).

[0028] As shown in FIGS. **3**A and **3**B, the headboard **110** includes a top/upper end **112**, a bottom/lower end **114**, a front **116**, a back **118**, a left side **120**, optional through holes (on left side) **121** for attachment to the bed frame assembly if desired, a right side **122**, and optional through holes (on right Side) **123** for attachment to the bed frame assembly if desired. Also, the headboard **110** further includes an outer covering **124** (protective outer covering) positioned over and permanently attached to the foam based material comprising the headboard.

[0029] As alluded to above, the bed assemblies **100** disclosed herein include both the foam based headboard **110** and one or more slip covers **130** configured for positioning on the headboard. FIGS. **3**C-**3**H specifically depict the slip cover **130** being positioned on and secured to the foam based headboard **110**. For example, FIG. **3**C specifically shows the slip cover **130** initially positioned over the top/upper end **112** of the headboard **110** in anticipation of advancing the slip cover in direction (D^1) towards the bottom/lower end **114** of the headboard and securing the slip cover thereto. FIG. **3**D depicts the slip cover **130** advanced approximately mid-way along the length of the headboard in a downward direction (D^1) towards the bottom/lower end **114** of the headboard. FIG. **3**D depicts the slip cover **130** advanced the majority of the length of the headboard in a downward direction (D^1) towards the bottom/lower end **114** of the headboard, and FIG. **3**F depicts the slip cover **130** advanced substantially completely the entire length of the headboard along the bottom/lower end **114** of the headboard with slip cover through holes **131**, **133** being substantially aligned with headboard through holes **121**, **123**, with these through holes being configured for attachment to the bed frame assembly if desired. As shown in FIG. **3**G (and after advancing the slip cover **130** substantially the entire length of the headboard), the slip cover **130** is securely pulled over and attached to the bottom/lower end **114** of the head board by engaging/fastening a fastening mechanism **135** (e.g., a zipper, hook and loop fasteners, and/or buttons) positioned on the slip cover **130**. FIG. **3** G specifically depicts the fastening mechanism being advanced in direction D^5 along the bottom peripheral edge of the bottom/lower end **114** of the head board, and FIG. **3**H further depicts the fastening mechanism **135** (e.g., zipper) being placed within and concealed by pocket **137**. In certain aspects, the slip cover **130** may be removed by reversing the order of steps discussed immediately above, and various different slip covers having different indicia, printing, fabric(s), and/or textures may be interchangeably positioned on and/or removed as discussed immediately above. The interchangeability of the disclosed slip covers advantageously allows a user to change the headboard's aesthetic appearance as desired and/or as needed due to wear and tear. After fastening the slip cover **130** on the headboard, the headboard may be propped/rested on a wall surface ("free floating") and positioned adjacent to an assembled bed frame assembly, or alternatively, may be secured to the assembled bed frame assembly via fasteners advanced through the through holes **121**, **123**, which are configured to fasten the headboard to the bed frame assembly.

[0030] FIG. **4** depicts the disassembled bed frame assembly **140**, and FIG. **8** depicts the completely assembled bed frame assembly **140**. In view of FIGS. **4** and **8** and as further previously discussed, bed frame assembly **140** comprises (i) a plurality of legs **181**, each leg having a first side and second side that are each configured to securely attach to separate side rails and each leg having a securing member **185** positioned on a corner of the leg between the first side and second side of the leg that extends away from the leg towards the interior of the bed frame assembly when assembled; (ii) a plurality of side rails (left side rail **141**, right side rail **151**, foot side rail **161**, head side rail **171**) that are configured to be positioned and securely fastened between two separate legs of the plurality of legs; (iii) a plurality of securing brackets, each bracket **191** configured to be positioned on the securing member **185** of each leg, to concurrently grip two separate side rails, and to securely fasten the separate side rails to the leg by biasing the securing bracket in a direction towards the exterior of the bed frame assembly when assembled; and (iv) a support beam **195** configured to be completely positioned within the interior of the bed frame assembly between two separate side rails when the bed frame assembly is assembled to provide support and rigidity to the bed frame assembly and to further support a mattress when positioned on the assembled bed frame assembly.

[0031] FIGS. **5**A-**5**C sequentially depict attaching a leg **181** to at least the foot side rail **161** and to either the right side rail **151** or left side rail **141**. It should be noted that when assembled within the bed frame assembly **140**, the

right **151** and left **141** side rails are mirror images of one another and substantially attach to the leg(s) **181** disclosed herein in an identical manner. FIG. **5**A specifically depicts the left side rail **141** being initially aligned and affixed to one of a first side (or second side) of the leg, and FIG. **5**B shows the leg and the other side rail being aligned and affixed to the other side of the leg **181**. In certain aspects, each end of the side rails (**141**, **151**, **161**, **171**) include one or more recesses (e.g., holes) formed on the end(s) of each side rail. These recesses (holes) are configured to align with corresponding recesses (holes) formed in the first **182** and second **183** sides of each leg **181**. Either the recesses (holes) formed in the ends of the side rails (**141**, **151**, **161**, **171**) or the recesses (holes) formed in each of the first **182** and second **183** sides of each leg **181** are fitted (e.g., friction fitted therein) with solid, rigid elongate structures (e.g., dowels/dowel rods) that are configured to fit into the corresponding recesses (holes) formed on the leg (and/or side rails) such the ends of the side rails may be securely advanced and fixedly positioned flush to the first **182** and/or second **183** sides of each leg. This process is substantially shown in FIGS. **5**B and **5**C.

[0032] As shown in, for example, FIGS. **4**-**6**E, each side rail (**141**, **151**, **161**, **171**) has a linear slot positioned internally along a length of each side rail and laterally adjacent to each end of each side rail. For example, the left side rail **141** has a first end **142** with linear slot **144** positioned internally along the length of the left side rail and adjacent to the first end **142**, and a second end **145** with a linear slot **146** positioned internal along the length of the left side rail and adjacent to the second end **145**. The right side rail **151** has a first end **152** with a linear slot **154** positioned internal along the length of the left side rail and adjacent to the first end **152**, and a second end **155** with a linear slot **156** positioned internally along the length of the left side rail and adjacent to the second end **155**. The foot side rail **161** also has a linear slot **164** positioned internal along the length of the left side rail and adjacent to its first end **162** and a second end **165** with a linear slot **166** positioned internal along the length of the left side rail and adjacent to its second end **165**. Likewise, the head side rail **171** has a first end **172** with a linear slot **174** positioned internal along the length of the left side rail and adjacent its first end **172** and a second end **175** with a linear slot **176** positioned internal along the length of the left side rail and adjacent its second end **175**.

[0033] After aligning and securing/affixing two side rails to the first and second sides of the leg **181** (as discussed above), the rails and legs are further secured to one another via the securing brackets **191** disclosed herein. With specific reference to FIGS. **6**A-**6**C, a securing bracket **191** having a first end **192**, a spaced apart second end **193**, and a through hole **194** positioned mid-span along a length of the securing bracket is provided. As further shown in FIGS. **6**A-**6**C, the first and second ends **192**, **193** of the each securing bracket are configured to be fitted within and grip a corresponding linear slot formed on the side rails (e.g., **146** and **164** respectively in FIGS. **6**A-**6**C) while the through hole **194** is configured to receive the securing member **185** extending away from the leg there through. As further shown in FIGS. **6**C-**6**E, in certain aspects, an end of the securing member **185** protrudes through the through hole **194** and preferably includes threaded portions. In order to further secure the side rails to the corresponding leg, a threaded fastener may be advanced on the securing member **185** in a direction D^2, as shown in FIGS. **6**D and **6**E, to exert force (bias/tension) in a direction towards the exterior of the bed frame assembly **140** such that each linear slot is concurrently gripped and concertedly tensioned in a direction D^3 towards the leg **181** by the first and second ends **192**, **193** of the securing bracket thereby securely fastening the separate side rails to the leg.

[0034] FIGS. **7**A, **7**B, **7**C, **7**D, **7**E, and **7**F sequentially depict securing the head side rail **171** between two legs **181** at the head of the bedframe assembly **100**. As shown in FIGS. **7**A-**7**F, in certain aspects, the head side rail is slightly different than the left, right, and foot side rails **141**, **151**, **161**. For example, the head side rail may be a metal beam instead of being formed of wood in order to further improve rigidity and overall structural integrity of the frame. In addition and as further shown in FIGS. **7**B and **7**C, the head side rail **171** has two spaced apart ends that terminate with a planar shaped plate(s) having through holes extending there through. These through holes are configured to align with recesses (holes) formed on the legs **181** and are further configured to receive fasteners (e.g., screws) there through to securely fasten each end of the head side rail to a side of the adjacent leg. As further shown in FIGS. **7**D and **7**E (and magnified view FIG. **7**F), a securing bracket may be positioned on securing member **185** and may grip, tension, and secure the head side rail **171**, leg, and corresponding side rail in a manner substantially similar to that disclosed above regarding FIGS. **6**C-**6**E. More particularly, FIG. **7**F depicts the direction D^2 in which force may be placed on the securing bracket such that slots are concurrently gripped and concertedly tensioned in a direction D^3 towards the leg **181** by the first and second ends of the securing bracket **191** to further securely fasten the separate side rails to the leg.

[0035] Upon assembling each side rail to the plurality of legs in the manner discussed above and in further view of FIGS. **4** and **8**, support beam **195** may be securely attached between and to the head side rail **171** and foot side rail **161** to provide further structural support and rigidity to the bed frame assembly and to further support a mattress when positioned on the fully assembled bed frame assembly. In certain aspects and as further shown in FIGS. **4** and **8**, support beam **195** may have a "T" shaped configuration when viewed in cross-section, and both the foot side rail **161** and head side rail **171** may include linear slots formed mid-span along their length that are axially aligned with one another when the bed frame assembly is assembled. To secure the support beam to the foot side rail **161** and head side rail **171**, the support beam (having a "T" shaped conformation) may be advanced into each of the slots positioned mid-span along the foot side rail **161** and head side rail **171** until the upper portion of the support beam is substantially flush and rests on portions of the foot side rail **161** and head side rail **171**. In this aspect, the support beam **195** is completely positioned and secured within the interior of the bed frame assembly when fully assembled.

[0036] In certain aspects, also disclosed is a kit comprising the above discussed bed assembly. In certain aspects, the kit may only include the headboard(s), slip cover(s), bed frame assemblies, and/or any combination thereof.

[0037] In certain aspects, the kit may further include a mallet, fastening tool(s), and/or fasteners that are configured to fasten the side rails, legs, support beam, and/or securing bracket(s) to one another when assembling the bed frame assembly.

[0038] The foregoing description provides embodiments of the invention by way of example only. It is envisioned that

other embodiments may perform similar functions and/or achieve similar results. Any and all such equivalent embodiments and examples are within the scope of the present invention and are intended to be covered by the appended claims.

PARTS LIST

[0039] Bed Assembly **100**
[0040] Headboard **110**
[0041] Top/Upper End **112**
[0042] Bottom/Lower End **114**
[0043] Front **116**
[0044] Back **118**
[0045] Left Side **120**
[0046] Through holes (on Left Side) **121**
[0047] Right Side **122**
[0048] Through holes (on right Side) **123**
[0049] Outer Covering **124**
[0050] **130** Slip Cover (configured to be advanced in direction D^1 from top to the bottom of head board and secured on the bottom of the headboard)
[0051] Through holes **131**, **133** that align with headboard through holes **121**, **123** respectively
[0052] **135** Fastening Mechanism/Zipper
[0053] **137** Pocket (that conceals portions of the fastening mechanism)
[0054] Bed frame assembly **140** comprising:
[0055] **141** Left Side Rail configured to be secured between two legs (one at foot of bed frame assembly and one at head of bed frame assembly)
[0056] First end **142**
[0057] Linear Slot **144** positioned internal along the length of the left side rail but adjacent to the first end **142**
[0058] Second end **145**
[0059] Linear Slot **146** positioned internal along the length of the left side rail but adjacent to the second end **145**
[0060] **151** Right Side Rail
[0061] First end **152**
[0062] Linear Slot **154** positioned internal along the length of the left side rail but adjacent to the first end **152**
[0063] Second end **155**
[0064] Linear Slot **156** positioned internal along the length of the left side rail but adjacent to the second end **155**
[0065] **161** Foot Side Rail configured to be secured between two legs (both legs at foot of bed frame assembly)
[0066] First end **162**
[0067] Linear Slot **164** positioned internal along the length of the left side rail but adjacent to the first end **162**
[0068] Second end **165**
[0069] Linear Slot **166** positioned internal along the length of the left side rail but adjacent to the second end **165**
[0070] **171** Head Side Rail configured to be secured between two legs (both legs at head of bed frame assembly)
[0071] First end **172**
[0072] Linear Slot **174** positioned internal along the length of the left side rail but adjacent to the first end **172**
[0073] Second end **175**
[0074] Linear Slot **176** positioned internal along the length of the left side rail but adjacent to the second end **175**
[0075] Plurality of Legs, Each Leg **181** being substantially identical
[0076] First Side **182** (configured to securely attach to a side rail)
[0077] Second Side **183** (configured to securely attach to a side rail)
[0078] Securing member **185** Positioned on a corner of each leg between the first and second sides **182**, **183** that are configured to securely attach to a side rail (Securing member **185** can be a dowel rod friction fitted within on opening on the corner of the leg; dowel may be threaded on one end such that a bracket may be affixed thereon by advancing a fastener (e.g., a nut) in a direction towards the leg/towards the exterior of the bed assembly when assembled).
[0079] Plurality of Securing Brackets, Each Bracket **191** having a
[0080] First end **192** and opposing send end **193** formed as hooks that are configured to be fitted within vertical slots and a through hole **194** configured to receive the securing member **185** there through such that the bracket may be biased/tension in a direction towards the leg to further secure each side rail to each corresponding leg
[0081] **195** Support Beam configured to be securely attached to the head side rail **171** and foot side rail **161**
[0082] **300** Headboard Packaging Wrapper

What is claimed is:

1. A bed assembly comprising:

(a) a foam headboard having a protective outer covering positioned thereon;

(b) one or more slip covers configured to be positioned on the foam headboard, each slip cover having a releasable fastening mechanism to temporarily securely position the slip cover on the foam head board and having a pocket that conceals portions of the fastening mechanism when the slip cover is positioned on the foam head board; and

(c) a bed frame assembly, the bed frame assembly comprising:

(i) a plurality of legs, each leg having a first side and second side that are each configured to securely attach to separate side rails and each leg having a securing member positioned on a corner of the leg between the first side and second side of the leg that extends away from the leg towards the interior of the bed frame assembly when assembled;

(ii) a plurality of side rails that are configured to be positioned and securely fastened between two separate legs of the plurality of legs;

(iii) a plurality of securing brackets, each bracket configured to be positioned on the securing member of each leg, to concurrently grip two separate side rails, and to securely fasten the separate side rails to the leg by biasing the securing bracket in a direction towards the exterior of the bed frame assembly when assembled; and

(iv) a support beam configured to be completely positioned within the interior of the bed frame assembly between two separate side rails when the bed frame assembly is assembled to provide support and rigidity to the bed frame assembly and to further support a mattress when positioned on the assembled bed frame assembly.

2. The bed assembly of claim **1**, wherein the foam headboard comprises a polyurethane foam.

3. The bed assembly of claim 2, wherein the polyurethane foam is at least one of a castable polyurethane or a thermoplastic polyurethane with the proviso that a millable polyurethane is not present.

4. The bed assembly of claim 3, wherein the polyurethane foam is either a closed cell or open cell foam.

5. The bed assembly of claim 4, wherein the polyurethane foam has an R-value as a measure of hardness ranging from 1.6 lbs. per cubic foot to 2.1 lbs. per cubic foot at ambient conditions.

6. The bed assembly of claim 5, wherein the polyurethane foam comprises a compression modulus ranging from 75 lbs. to 80 lbs at ambient conditions.

7. The bed assembly of claim 6, wherein the polyurethane foam comprises a cell density ranging from 1.6 to 1.8 cells/cm^3) ($\times 10^{10}$).

8. The bed assembly of claim 7, wherein the polyurethane foam is a closed cell polyurethane foam.

9. The bed assembly of claim 8, wherein the foam head board has two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends, each through hole of the plurality of through holes are configured to align with and receive posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

10. The bed assembly of claim 9, wherein a slip cover of the one or more slip covers comprises two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends of the slip cover with each through hole of the plurality of through holes of the slip cover configured to align with each through hole of the foam head board such that posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

11. A kit comprising the bed assembly of claim 1.

12. The kit of claim 11, further comprising a mallet and/or fastening tool.

13. A headboard assembly comprising:

(a) a foam headboard having a protective outer covering positioned thereon; and

(b) one or more slip covers configured to be positioned on the foam headboard, each slip cover having a releasable fastening mechanism to temporarily securely position the slip cover on the foam head board and having a pocket that conceals portions of the fastening mechanism when the slip cover is positioned on the foam head board.

14. The headboard assembly of claim 13, wherein the foam headboard comprises a polyurethane foam.

15. The headboard assembly of claim 14, wherein the polyurethane foam is at least one of a castable polyurethane or a thermoplastic polyurethane with the proviso that a millable polyurethane is not present.

16. The headboard assembly of claim 15, wherein the polyurethane foam is either a closed cell or open cell foam.

17. The headboard assembly of claim 16, wherein the polyurethane foam has an R-value as a measure of hardness ranging from 1.6 lbs. per cubic foot to 2.1 lbs. per cubic foot at ambient conditions.

18. The headboard assembly of claim 17, wherein the polyurethane foam comprises a compression modulus ranging from 75 lbs. to 80 lbs at ambient conditions.

19. The headboard assembly of claim 18, wherein the polyurethane foam comprises a cell density ranging from 1.6 to 1.8 cells/cm^3) ($\times 10^{10}$).

20. The headboard assembly of claim 19, wherein the polyurethane foam is a closed cell polyurethane foam.

21. The headboard assembly of claim 20, wherein the foam head board has two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends, each through hole of the plurality of through holes are configured to align with and receive posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

22. The headboard assembly of claim 21, wherein a slip cover of the one or more slip covers comprises two spaced apart ends with a plurality of through holes arranged on each of the two spaced apart ends of the slip cover with each through hole of the plurality of through holes of the slip cover configured to align with each through hole of the foam head board such that posts attached to and extending away from the bed frame assembly therein to securely affix the foam head board to the bed frame assembly.

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