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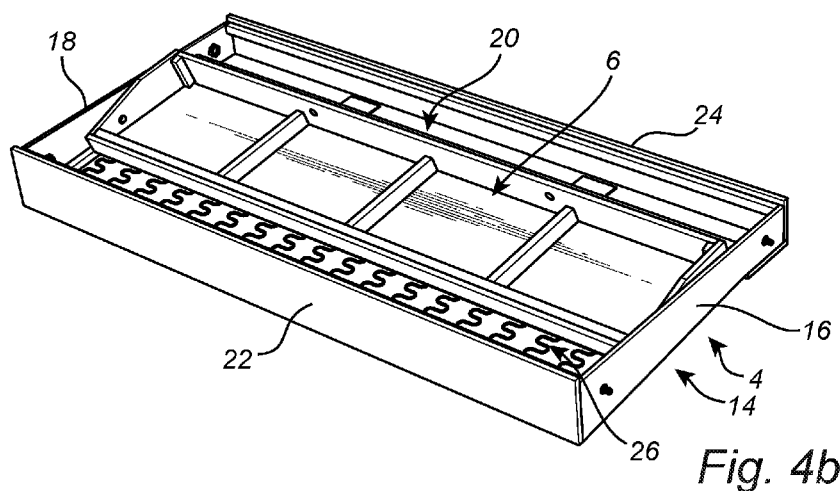


Fig. 4b

(57) Abstract: The invention relates to a kit of parts for a piece of furniture, wherein the kit of parts comprises a seat unit (4), a backrest unit (6) and at least one armrest unit, wherein each one of the seat unit and the backrest unit has an extension in a longitudinal direction and a transverse direction perpendicular to the longitudinal direction, wherein the seat unit (4) and the backrest unit (6) are adapted to be arranged so that their longitudinal directions are in parallel with a width direction of the piece of furniture in an assembled state, wherein the at least one armrest unit is adapted for being arranged adjacent to the seat unit (4) and to the backrest unit (6) in the width direction of the piece of furniture, wherein a first one of the seat unit (4) and the backrest unit comprises a support structure (14) that comprises at least two support structure members (16, 18) arranged in a spaced relationship in the longitudinal direction so that a space (20) is defined between the two support structure members (16, 18), wherein a second one of the seat unit and the backrest unit (6)

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has such an extension in the longitudinal direction that it may be received in the space (20) defined by the support structure members (16, 18) in a non-assembled compact state of the piece of furniture, wherein the kit of parts further comprises a compensating structure for compensating for a difference in the longitudinal extensions between the seat unit and the backrest unit in the width direction of the piece of furniture in the assembled state.

**A KIT OF PARTS FOR A PIECE OF SITTING FURNITURE ALLOWING
FOR COMPACT TRANSPORTATION IN A NON-ASSEMBLED STATE**

TECHNICAL FIELD

The invention relates to a kit of parts for a piece of furniture and more specifically for a sofa or armchair or other similar type of furniture having a seat unit, a backrest unit and at least one armrest unit.

The term “kit of parts” regards a collection of discrete building components that are pre-engineered and/or designed to be assembled in a certain way to define a finished product, in this case the piece of furniture.

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To facilitate transportation and storage, it is common that furniture is shipped in a disassembled state that occupies a smaller volume than the assembled furniture. The furniture is designed so that the disassembled components can be compactly packed into a smaller container than otherwise would be possible.

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US2021/274942 regards a sofa that may be arranged in a compact disassembled way for transport. The sofa comprises a seat unit, a backrest unit and two armrest units. The seat unit comprises a support structure in the form of a hollow shell in which the armrest units and seat back cushions are stored in the compact state inside of a packing box.

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SUMMARY

An object of the invention is to achieve a kit of parts for a piece of furniture that creates conditions for an especially compact arrangement in a disassembled state and provides for a steady furniture in the assembled state.

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The object is achieved by a device according to claim 1. Thus, it is achieved by a kit of parts for a piece of furniture, wherein the kit of parts comprises a seat unit, a backrest unit and at least one armrest unit, wherein each one of the seat unit and the backrest unit has an extension in a longitudinal direction and a transverse direction perpendicular to the longitudinal direction, wherein the seat unit and the backrest unit are adapted to be arranged so that their longitudinal directions are in parallel with a width direction of the piece of furniture in an assembled state, wherein the at least one armrest unit is adapted for being arranged adjacent to the seat unit and to the backrest unit in the width direction

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of the piece of furniture, wherein a first one of the seat unit and the backrest unit comprises a support structure that comprises a first and second support structure member arranged in a spaced relationship in the longitudinal direction so that a space is defined between the first and second support structure members, wherein a second one of the seat unit and the backrest unit has such an extension in the longitudinal direction that it may be received in the space defined by the first and second support structure members in a non-assembled compact state of the piece of furniture, wherein the kit of parts further comprises a compensating structure for compensating for a difference in the longitudinal extensions between the seat unit and the backrest unit in the width direction of the piece of furniture in the assembled state.

According to one example, the seat unit may be arranged so that its longitudinal direction and transverse direction define a plane that is generally horizontal in the assembled state of the piece of furniture. According to one example, the seat unit has a generally rectangular shape in a main extension plane defined by its longitudinal direction and transverse direction. Further, the backrest unit may be arranged so that its longitudinal direction and transverse direction define a plane that is arranged with an acute angle relative to a vertical plane in the assembled state of the piece of furniture. Accordingly, the backrest unit may be arranged so that it leans backwards from its lower end towards its upper end in the assembled state of the piece of furniture. According to one example, the backrest unit has a generally rectangular shape in a main extension plane defined by its longitudinal direction and transverse direction. Further, the at least one armrest unit may have a generally flat shape, wherein a main extension plane of the armrest unit is generally vertical in the assembled state of the piece of furniture. More specifically, the armrest unit may have a generally rectangular shape in its main extension plane. More specifically, the at least one armrest unit may be termed an armrest panel.

The inventive idea is based on a piece of furniture, such as a sofa, with a design that creates conditions for a cost-efficient production, transport and accordingly an attractive price for a customer. Especially, each one of the seat unit, the backrest unit and the armrest unit may comprise a support structure that defines a generally rectangular shape in its main extension plane with a certain thickness, i.e. extension perpendicular to the main extension plane. The support structure may be formed by a frame in wood-based support structure members. Further, a plurality of spaced spring units may be arranged spanning a distance between the support structure members, especially with regard to the

seat unit, for providing comfort in use. The support structure may in turn be covered by a padding and/or a textile.

Especially in a context of such a piece of furniture that is cost-efficient in production, costs
5 for transport and storage are significant for a final price for a customer. Accordingly, any improvement in reducing a size of the package for the piece of furniture is desirable.

The kit of parts creates conditions for such a reduced size of the package for the piece of furniture in that the seat unit and the backrest unit are especially adapted to one another
10 in size so that one of them fits at least partly within the other. According to one example, the support structure of the first one of the seat unit and the backrest unit forms a rectangular frame extending along the sides of the unit. The support structure frame members have a certain depth defining a thickness of the unit. Further, a front main face of the unit may be covered by a textile, whereas a rear main face of the unit may be open
15 so that a space defined by the frame is accessible from the rear face of the unit. Further, the seat unit and the backrest unit may be specifically adapted in size so that the second one of the seat unit and the backrest unit may be received in the space defined by the frame. Especially, the seat unit and the backrest unit may be specifically adapted so that they may be arranged with their main extension planes in parallel with each other in a
20 state where one of them is received in the space defined by the frame of the other. Accordingly, in the compact state, a total height of the seat unit and the backrest unit is smaller than a sum of the individual heights of the seat unit and the backrest unit.

Turning now to the piece of furniture in its assembled state, in addition to the width
25 direction, the piece of furniture defines a height direction and a depth direction. The width direction and depth direction extend horizontally in the assembled state of the piece of furniture in an intended use state of the piece of furniture. The height direction extends vertically in the assembled state of the piece of furniture in the intended use state of the piece of furniture.

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According to one example, in the non-assembled compact state of the piece of furniture, the seat unit, the backrest unit and the at least one armrest unit are not attached to one another. Accordingly, the seat unit, the backrest unit and the at least one armrest unit are freely movable in relation to one another.

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Further, according to one example, each one of the armrest units may be arranged so that their main extension planes are in parallel with the main extension planes of the seat unit and the backrest unit in the compact disassembled state. Each one of the armrest units may have an extension in the depth direction of the piece of furniture in the assembled state that is about half the length of the seat unit, or less than half the length of the seat unit, wherein the two armrest units may be arranged next to one another on top of the seat unit and the backrest unit in the compact disassembled state without projecting longitudinally. Further, each one of the armrest units may have an extension in the height direction of the piece of furniture in the assembled state that is smaller than the transverse extension of the seat unit, wherein the two armrest units may be arranged next to one another on top of the seat unit and the backrest unit in the compact disassembled state without projecting transversally.

The difference in lengths of the seat unit and the backrest unit, that is a consequence of the specific packing of the units in the compact disassembled state, needs to be compensated for in order to achieve a steady furniture. More specifically, the compensating structure creates conditions for bridging a distance/gap between the armrest unit and the shorter one of the seat unit and the backrest unit in the width direction of the piece of furniture in the assembled state. In other words, the compensating structure creates conditions for a mechanical connection between the armrest unit and the shorter one of the seat unit and the backrest unit in the width direction of the piece of furniture in the assembled state.

According to a further example, the kit of parts comprises a fastening arrangement for rigidly attaching the armrest unit to at least one of the seat unit and the backrest unit, and preferably to both of the seat unit and the backrest unit. According to one example, the fastening arrangement is associated to the compensating structure.

According to one embodiment example, the compensating structure comprises at least one projection at a position corresponding to an interface between the armrest unit and the second one of the seat unit and the backrest unit and/or a recess at a position corresponding to an interface between the armrest unit and the first one of the seat unit and the backrest unit.

Thus, according to one alternative, the projection is arranged as an extension of the shorter one of the seat unit and the backrest unit for compensating for the length difference. In other words, the projection is adapted to bridge the gap between the shorter one of the seat unit and the backrest unit and the armrest unit. Accordingly, a total length
5 of the projection and the shorter one of the seat unit and the backrest unit may be generally equal to a length of the longer one of the seat unit and the backrest unit.

According to another alternative, the recess that may be formed in the armrest unit is adapted for receipt of an end portion of the longer one of the seat unit and the backrest
10 unit for compensating for the length difference. Accordingly, a total length of the shorter one of the seat unit and the backrest unit may be generally equal to a length of a portion of the longer one of the seat unit and the backrest unit that extends from the recess. The shorter one of the seat unit and the backrest unit may then as a consequence be arranged in contact with the armrest unit and preferably attached to the armrest unit.

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According to a further embodiment example, the compensating structure is formed as a separate unit that is adapted to be arranged between the armrest unit and the seat unit and/or the backrest unit in the width direction of the piece of furniture in the assembled state. Forming the compensating structure as a separate unit creates conditions for a
20 cost-efficient production of the piece of furniture. More specifically, the main building elements, such as the seat unit, backrest unit and the armrest unit may be produced in a way without any compensation for the difference in lengths resulting from the desire to pack one of the seat unit and the backrest unit within the other. Accordingly, the separate compensating structure unit may be produced separately as a one-piece body formed as
25 a block or other type of distance member that may be produced in a cost-efficient way.

According to a further embodiment example, that is an alternative to the embodiment example just mentioned, the compensating structure is formed integral with the armrest. Such an integration of the compensating structure with the armrest results in fewer total
30 number of parts and thereby creates conditions for a facilitated assembly for an end user.

According to a further embodiment example, the armrest unit comprises a panel with a main flat surface that is adapted to face the seat unit and/or the backrest unit and wherein the main flat surface is adapted to extend perpendicularly to the width direction of the
35 piece of furniture in the assembled state. Such a design of the armrest unit creates

conditions for a cost-efficient production. Further, such a design creates conditions for connecting a fastener to the panel for attachment of the projection forming the compensating structure. Further, such a design creates conditions for providing a cutout in the panel for forming the compensating structure, wherein the longer one of the seat unit and the backrest unit may be inserted into a space in the armrest unit via the cutout.

According to one example, the armrest unit comprises a support structure forming a frame extending in a plane, wherein one panel is provided on each side of the support structure frame.

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According to a further embodiment example, each one of the seat unit and the backrest unit comprises a panel with a main flat surface that is adapted to face the armrest unit and extend perpendicularly to the longitudinal direction of the seat unit and the backrest unit, respectively. Such a design creates conditions for connecting a fastener to the panel for attachment of the projection forming the compensating structure.

According to a further embodiment example, each one of the first and second support structure members has a height in a direction perpendicular to a plane defined by the longitudinal direction and the transverse direction, wherein the height is larger than a total height of the second one of the seat unit and the backrest unit in a direction perpendicular to a plane defined by its respective longitudinal direction and transverse direction. Thanks to this design, the shorter one of the seat unit and the backrest unit may in its entirety be received in the space between the first and second support structure members. In other words, the shorter one of the seat unit and the backrest unit may be received in the space between the first and second support structure members in a way that it does not project out from the space perpendicular to the plane defined by the longitudinal direction and the transverse direction of the longer one of the seat unit and the backrest unit. Accordingly, the design creates conditions for a further improved space-efficiency in the compact disassembled state.

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According to a further embodiment example, each one of the first and second support structure members is arranged adjacent to an edge of the first one of the seat unit and the backrest unit in the longitudinal direction. It creates conditions for a minimum of difference in lengths between the seat unit and the backrest unit. Such a minimum of difference in lengths between the seat unit and the backrest unit creates conditions for an aesthetically

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attractive solution in that any gap formed between the shorter one of the seat unit and the backrest unit and the armrest unit is minimized.

According to a further embodiment example, the space defined by the support structure is
5 open in a direction perpendicular to a plane defined by the longitudinal direction and the transverse direction of the first one of the seat unit and the backrest unit. This design creates conditions for an easy insertion and/or removal of the shorter one of the seat unit and the backrest unit to/from the support structure space.

10 According to a further embodiment example, the second one of the seat unit and the backrest unit has such an extension in the longitudinal direction between its opposite peripheral edges in the longitudinal direction that it fits snugly in the space defined by the first and second support structure members in the non-assembled compact state of the piece of furniture. It creates conditions for a minimum of difference in lengths between the
15 seat unit and the backrest unit. Further, seat unit and the backrest unit may be designed in relation to one another so that opposite ends of the shorter one of the seat unit and the backrest unit in its longitudinal direction may contact corresponding inner surfaces of the support structure members in the non-assembled compact state. It creates conditions for that the seat unit and the backrest unit do not move in relation to one another in the non-
20 assembled compact state during transport without any further means required, wherein the risk of wear or damage during transport is reduced.

According to a further embodiment example, the support structure comprises a third and fourth support structure member arranged in a spaced relationship in the transverse
25 direction of the first one of the seat unit and the backrest unit, wherein the third and fourth support structure member define the space in the transverse direction. Accordingly, the support structure comprises two pairs of support structure members; a first pair extending in the transverse direction of the unit and spaced from each other in the longitudinal direction and a second pair extending in the longitudinal direction of the unit and spaced
30 from each other in the transverse direction. Accordingly, the third and fourth support structure members are arranged perpendicular to the first and second support structure members. The four support structure members may form a rectangular frame. Thus, adjacent ends of the support structure members are connected to each other, for example by means of a bracket or other fitting or fastener. It creates conditions for a rigid
35 construction.

According to a further embodiment example, each one of the third and fourth support structure members is arranged adjacent to an edge of the first one of the seat unit and the backrest unit in the transverse direction. It creates conditions for a large extension of the space in the transverse direction, wherein the shorter one of the seat unit and the backrest unit may be designed with a transverse extension accordingly for fitting in the space.

According to a further embodiment example, the support structure members defining the space in the longitudinal direction and in the transverse direction define a rectangular shape around the space. It creates conditions for a rigid construction.

According to a further embodiment example, the second one of the seat unit and the backrest unit defines a generally rectangular shape in a plane defined by the longitudinal direction and the transverse direction, wherein an extension of the second one of the seat unit and the backrest unit in the transverse direction is smaller than a distance between the third and fourth support structure members in the transverse direction. It creates conditions for the shorter one of the seat unit and the backrest unit to fit in the space with regard to the plane defined by the longitudinal direction and the transverse direction of the longer one of the seat unit and the backrest unit.

According to a further embodiment example, the second one of the seat unit and the backrest unit comprises a support structure that defines a rectangular shape, wherein the support structure comprises four support structure members that are arranged adjacent opposite edges in the longitudinal direction and in the transverse direction. Accordingly, the seat unit and the backrest unit may be designed with a similar type of support structure. It creates further conditions for a cost-efficient production.

According to a further embodiment example, the support structure of at least one of the seat unit and the backrest unit is formed in wood. It creates further conditions for a cost-efficient production. Each one of the support structure members may be formed by an elongated member with a rectangular cross section. It creates conditions for a time- and cost-efficient joining for creating a support structure frame.

According to a further embodiment example, the seat unit and the backrest unit are arranged in a non-attached state in relation to each other in the non-assembled compact state of the piece of furniture. It creates conditions for an easy separation of the seat unit and the backrest unit as the kit of parts are unpacked.

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Further advantages and advantageous features of the invention are disclosed in the following description and in the dependent claims.

BRIEF DESCRIPTION OF THE DRAWINGS

10 With reference to the appended drawings, below follows a more detailed description of embodiments of the invention cited as examples.

In the drawings:

Fig. 1 is a perspective front view of a piece of furniture in the form of a sofa according to a
15 first embodiment,

Fig. 2 is a perspective rear view of the sofa according to the first embodiment,

Fig. 3 is an exploded perspective view of a kit of parts adapted for forming the sofa according to the first embodiment,

Fig. 4a is a schematic perspective view of a seat unit and a backrest unit in the kit of parts
20 adapted for forming the sofa according to the first embodiment, wherein the seat unit and the backrest unit are shown in a state for being arranged one inside of the other in a compact state of the piece of furniture,

Fig. 4b is a schematic perspective view of the seat unit and the backrest unit in fig. 4a, wherein they are shown in a state one inside of the other in the compact state of the piece
25 of furniture,

Fig. 5a is an exploded perspective view of a kit of parts adapted for forming a sofa according to a second embodiment,

Fig. 5b is a close-up and partly cut perspective view of a portion of the sofa according to the second embodiment,

30 Fig. 6a and fig. 6b are further perspective views of a portion of the sofa according to a third embodiment, and

Fig. 7 is an exploded and partly cut perspective view of a portion of the sofa according to a fourth embodiment.

35 DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

Fig. 1 is a perspective front view of a piece of furniture 2 in the form of a sofa according to a first embodiment. The sofa 2 will be described in the following with regard to a coordinate system having a first axis in a width direction W, a second axis in a depth direction D and a third axis in a height direction H of the sofa 2. The sofa 2 comprises a seat unit 4, a backrest unit 6 and two armrest units 8, 10. The two armrest units 8, 10 are arranged on either side of and adjacent to the seat unit 4 and the backrest unit 6 in the width direction W of the sofa 2. The seat unit 4 has a length L1 in a longitudinal direction of the seat unit 4 that is in parallel with the width direction W of the sofa 2. Further, the backrest unit 6 has a length L2 in a longitudinal direction of the backrest unit 6 that is in parallel with the width direction W of the sofa 2. The length L1 of the seat unit 4 is longer than the length L2 of the backrest unit 6. Further, two seat cushions are shown which rest on the seat unit 4 and two backrest cushions are shown which rest on the backrest unit 6.

Fig. 2 is a perspective rear view of the sofa 2 according to the first embodiment. The seat unit 4 has a transverse extension T1 in a transverse direction of the seat unit 4 that is perpendicular to its longitudinal direction. Further, the backrest unit 6 has a transverse extension T2 in a transverse direction of the seat unit 4 that is perpendicular to its longitudinal direction. The transverse extension T1 of the seat unit 4 is longer than the transverse extension T2 of the backrest unit 6.

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More specifically, each one of the seat unit 4 and the backrest unit 6 has a main extension plane defined by its respective longitudinal direction and the transverse direction. Further, each one of the seat unit 4 and the backrest unit 6 has a generally rectangular peripheral shape in the main extension plane.

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The main extension plane of the seat unit 4 is generally horizontally when the sofa 2 is positioned for use as shown in fig. 1. The main extension plane of the backrest unit 6 is inclined backwards with an acute angle in relation to a vertical direction when the sofa 2 is positioned for use as shown in fig. 1 for a comfortable sitting posture for a user.

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Fig. 3 is an exploded perspective view of a kit of parts 12 adapted for forming the sofa 2 according to the first embodiment. The seat unit 4 comprises a support structure 14 that comprises a first and second support structure member 16, 18 arranged in a spaced relationship in the longitudinal direction so that a space 20 is defined between the two support structure members 16, 18. The backrest unit 6 has such an extension L2 in the

longitudinal direction that it may be received in the space 20 defined between the support structure members 16, 18 in a non-assembled compact state of the piece of furniture, see also fig. 4a and fig. 4b. Each one of the first and second support structure members 16, 18 is arranged adjacent to an edge of the seat unit 4 in the longitudinal direction. Each one of the support structure members 16, 18 has a straight elongated shape. Further, the first and second support structure members 16, 18 are arranged in parallel with each other. Further, each one of the two support structure members 16, 18 is formed by a panel and the panels are positioned so that their main extension planes are in parallel with each other. Each one of the two support structure members 16, 18 has a height in a direction perpendicular to the main extension plane, wherein the height is larger than a total height of the backrest unit 6 in a direction perpendicular to its respective main extension plane.

The support structure 14 further comprises a third and fourth support structure member 22, 24 arranged in a spaced relationship in the transverse direction of the seat unit 4, wherein the third and fourth support structure members 22, 24 define the space 20 in the transverse direction. Each one of the third and fourth support structure members 22, 24 is arranged adjacent to an edge of the seat unit 4 in the transverse direction. The backrest unit 6 has such an extension T2 in the transverse direction that it may be received in the space 20 defined between the third and fourth support structure members 22, 24 in the non-assembled compact state of the piece of furniture, see also fig. 4a and fig. 4b. More specifically, the backrest unit 6 defines a generally rectangular shape in the main extension plane. Each one of the third and fourth support structure members 22, 24 has a straight elongated shape. Further, the support structure members 22, 24 are arranged in parallel with each other. Further, each one of the support structure members 22, 24 is formed by a panel and the panels are positioned so that their main extension planes are in parallel with each other. Each one of the support structure members 22, 24 has a height in a direction perpendicular to the main extension plane, wherein the height is larger than a total height of the backrest unit 6 in a direction perpendicular to the main extension plane.

The four support structure members 16, 18, 22, 24 are arranged with their longitudinal extensions in the same plane and are interconnected forming a rectangular rigid frame, which is the skeleton of the seat unit 4. Thus, the four support structure members 16, 18, 22, 24 defining the space 20 in the longitudinal direction and in the transverse direction

define a rectangular shape around the space 20. The space 20 defined by the support structure 14 is open in a direction perpendicular to the main extension plane of the seat unit 4. Further, adjacent ends of the support structure members 16, 18, 22, 24 are interconnected by means of a fitting/bracket/fastener (not shown). The support structure 14 of the seat unit 4 is formed in wood. In other words, the first and second support structure members 16, 18 comprise a pair of longitudinal beams spaced in the transverse direction and the third and fourth support structure members 22, 24 comprises a pair of transverse beams spaced in the longitudinal direction.

10 The seat unit 4 further comprises a spring structure 26 for providing comfort for a user. The spring structure 26 comprises a plurality of spring elements 28 that extend between opposite support structure members 22, 24. Each one of the spring elements 28 is formed by a wire that has a zigzag shape extending in a plane. More specifically, the spring elements 28 are arranged in a spaced relationship in the longitudinal direction of the seat unit 4. More specifically, the spring elements 28 are attached at either end to the opposite support structure members 22, 24 so that they extend from the front to the back of the seat unit 4. Further, the spring elements 28 are generally arranged in a plane. Further, the spring elements 28 define the space 20 in a direction perpendicular to the main extension plane of the set unit 4. More specifically, the spring structure 26 is arranged in an upper portion of the seat unit 4, wherein the space 20 is provided below the spring structure 26.

Further, the backrest unit 6 comprises a support structure that defines a rectangular shape, wherein the support structure comprises four support structure members that are arranged adjacent opposite edges in the longitudinal direction and in the transverse direction in a similar fashion as has been described above with regard to the support structure 14 of the seat unit 4. The support structure of the backrest unit 6 is also formed in wood.

The kit of parts 12 further comprises a compensating structure 30 for compensating for a difference in the longitudinal extensions L1, L2 between the seat unit 4 and the backrest unit 6 in the width direction W of the sofa 2 in the assembled state. The compensating structure 30 comprises at least one projection 32 at a position corresponding to an interface between the armrest unit 10 and the backrest unit 6. The projection 32 is adapted to bridge a distance between the armrest unit 10 and the backrest unit 6 in the assembled state. More specifically, the compensating structure 30 is integral with the

armrest unit 10. More specifically, the projection 32 forming the compensating structure 30 comprises a panel portion 34. The armrest unit 10 comprises a panel 36 with a main flat surface that is adapted to face the seat unit 4 and the backrest unit 6 and wherein the main flat surface is adapted to extend perpendicularly to the width direction W of the piece of furniture in the assembled state. Further, each one of the seat unit 4 and the backrest unit 6 comprises a panel 18, 35 with a main flat surface that is adapted to face the armrest unit 10 and extend perpendicularly to the longitudinal direction of the seat unit 4 and the backrest unit 6, respectively. The panel portion 34 is rigidly attached to the panel 36 in a parallel relationship. A thickness t_1 of the panel portion 34 corresponds to a length difference between the seat unit 4 and the backrest unit 6. More specifically, the thickness t_1 of the panel portion 34 corresponds to a thickness t_2 of the panel 18 that forms the adjacent support structure member of the seat unit 4. A similar length difference compensating arrangement is provided at the opposite armrest unit 8.

Further, the kit of parts 12 comprises a fastening arrangement 37 that is adapted to connect the backrest unit 6 to the armrest unit 10. The fastening arrangement 37 is associated to the compensating structure 30. More specifically, the fastening arrangement 37 comprises a nut portion 39 that is rigidly attached to the armrest unit 10, wherein the nut portion has an axis perpendicular to a main extension plane of the armrest unit 10. Further, each one of the panel portion 36 and the panel 35 comprises a through hole for receipt of the nut portion 39. The fastening arrangement 37 further comprises a screw 41 with an external threading adapted for engagement with an internal threading of the nut portion 39. Accordingly, in an assembled state, the panel portion 32 will be sandwiched between the panel 35 of the backrest unit 6 and the panel 36 of the armrest unit 10.

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Fig. 4a is a schematic perspective view of the seat unit 4 in an upside down state, wherein the space 20 is accessible from above. More specifically, the space 20 is defined between the first and second support structure members 16, 18 in the longitudinal direction of the seat unit 4 and between the third and fourth support structure members 22, 24 in the transverse direction of the seat unit 4. The space 20 has a length L_{11} in the longitudinal direction of the seat unit 4 that is the same as or somewhat longer than the total length L_2 of the backrest unit 6. Thanks to such relative dimensions, the backrest unit 6 fits between the first and second support structure members 16, 18 in the longitudinal direction of the seat unit 4. Further, the space 20 has a length T_{11} in the transverse direction of the seat unit 4 that is the same as or somewhat longer than the

transverse extension T2 of the backrest unit 6. Thanks to such relative dimensions, the backrest unit 6 fits between the third and fourth support structure members 22, 24 in the transverse direction of the seat unit 4.

5 The space 20 is further defined by the spring structure 26 in a direction perpendicular to the main extension plane of the seat unit 4. It may be noted that the spring structure 26 is provided at an upper end of the seat unit 4, wherein the space 20 is accessible from a lower end of the seat unit 4. Further, a height of the space 20 is defined between a first plane defined by the spring structure 26 and a second plane defined by a free edge of the
10 panels defining the support structure members 16, 18, 22, 24. Further, the backrest unit 6 has a height that is similar to or somewhat smaller than the height of the space 20 in the seat unit 4. In other words, the backrest unit 6 has an extension perpendicular to its main extension plane that at least to a substantial extent, and preferably in its entirety, may be received in the space 20 defined by the support structure 14. Further, the backrest unit 6
15 is shown in a state for being moved from above and downwards towards the seat unit 4 in order to be positioned inside of the seat unit 4 in a compact state of the piece of furniture.

Fig. 4b is a schematic perspective view of the seat unit 4 and the backrest unit 6 in fig. 4a, wherein they are shown in a state where the backrest unit 6 is positioned in the space 20
20 in the seat unit 4 in the compact state of the piece of furniture. It may be noted that the backrest unit 6 has such an extension in the longitudinal direction between its opposite peripheral edges in the longitudinal direction that it fits snugly in the space 20 defined by the first and second support structure members 16, 18 in the non-assembled compact state of the piece of furniture. Further, the backrest unit 6 is arranged in the seat unit 4 in
25 a state where the main extension planes of the seat unit 4 and the backrest unit 6 are at least substantially in parallel with each other. Further, the seat unit 4 and the backrest unit 6 are arranged in a non-attached state in relation to each other in the non-assembled compact state of the piece of furniture.

30 Fig. 5a is an exploded perspective view of a kit of parts 112 adapted for forming a sofa according to a second embodiment. The kit of parts 112 comprises a seat unit 104, a backrest unit 106 and two armrest units 108, 110. For ease of presentation, only the main differences in relation to the first embodiment will be described. The kit of parts 112 comprises a compensating structure 130 for compensating for a difference in the
35 longitudinal extensions between the seat unit 104 and the backrest unit 106 in the width

direction of the sofa in the assembled state. The compensating structure 130 comprises at least one projection 132, 133, or distancing member, at a position corresponding to an interface between the armrest unit 110 and the backrest unit 106. More specifically, the compensating structure 130 is formed as two separate units that are adapted to be
5 arranged between the armrest unit 110 and the backrest unit 106 in the width direction of the sofa in the assembled state.

More specifically, the two projections 132, 133 are arranged in a spaced relationship in the transverse direction of the backrest unit 106. Each one of the projections has a main
10 body 135 that has an extension t1, wherein the projection 132, 133 is adapted to be oriented so that the main body 135 is arranged between the armrest unit 110 and the backrest unit 106 for bridging the gap. The main body 135 has a circular cylindrical shape. Further, each one of the projections has a tubular element 137 that is arranged coaxial with the circular cylindrical main body 135. More specifically, the projections 132, 133
15 form a one-piece body that may be formed in plastic. Further, the projection 132, 133 define an axial through-opening 139 in the tubular element 137. The axial through-opening 139 is adapted for receipt of an elongated pin 141 that has a first external threaded section 143. The pin 141 is adapted for engagement with a correspondingly threaded opening in the armrest unit 110. Further the backrest unit 106 comprises a
20 support structure member 147 at an end of the backrest unit 106 in its longitudinal direction facing the armrest unit 110. The support structure member 147 has a through hole 149 for receipt of the elongated pin 141. The elongated pin 141 has a second external threaded section 145. Further, a fastener 151 is provided with an internal threading corresponding to the second external threaded section 145. In assembling the
25 sofa, the elongated pin 141 is received in the axial through-opening 139 of the projection 132 and in the through hole 149 in the support structure member 147. Further, a first end of the elongated pin 141 is then attached to the threaded opening in the armrest unit 110 and the fastener 151 is fastened to the other end of the elongated pin 141 so that the distancing element 135 is secured between the backrest unit 106 and the armrest unit
30 110. In fig. 5a, an alternative design of a fastener 153 is disclosed.

Fig. 5b is a close-up and partly cut perspective view of a portion of the sofa according to the second embodiment.

Fig. 6a and fig. 6b are further perspective views of a kit of parts 212 adapted for forming a sofa according to a third embodiment. The kit of parts 212 comprises a seat unit 204, a backrest unit 206 and an armrest unit 210. For ease of presentation, only the main differences in relation to the second embodiment will be described. The kit of parts 212
5 comprises a compensating structure 230 for compensating for a difference in the longitudinal extensions between the seat unit 204 and the backrest unit 206 in the width direction of the sofa in the assembled state. The compensating structure 230 comprises one single projection 232 at a position corresponding to an interface between the armrest unit 210 and the backrest unit 206. More specifically, the compensating structure 230 is
10 formed as a separate unit that is adapted to be arranged between the armrest unit 210 and the backrest unit 206 in the width direction of the sofa in the assembled state. The projection 232 is formed by a panel portion that is adapted to be arranged in parallel with an adjacent panel 247 defining an end of the backrest unit 206 in the longitudinal direction of the backrest unit 206. The panel portion 232 comprises two spaced through openings
15 for receipt of two pins similar to the ones according to the second embodiment. It may be noted that the single panel portion 232 spans substantially the complete transverse extension of the backrest unit 6. Further, the single panel portion 232 has a thickness t_1 that corresponds to the thickness t_2 of an end panel defining the support structure member of the seat unit 204.

20

Fig. 7 is a perspective view of a kit of parts 312 adapted for forming a sofa according to a fourth embodiment. The kit of parts 312 comprises a seat unit 304, a backrest unit 306 and an armrest unit 310. For ease of presentation, only the main differences in relation to the first embodiment will be described. The kit of parts 312 comprises a compensating
25 structure 330 for compensating for a difference in the longitudinal extensions between the seat unit 304 and the backrest unit 306 in the width direction of the sofa in the assembled state. The compensating structure 330 comprises a recess 332 in the armrest unit 310 at a position corresponding to an interface between the armrest unit 310 and the seat unit 304. Accordingly, the compensating structure 330 is formed integral with the armrest 310.
30 The recess 332 is adapted to receive an end portion of the seat unit 304. More specifically, a cross section of the recess 332 has a similar shape and size as a cross section of the end portion of the seat unit 304. More specifically, a depth d_1 of the recess 332 in a direction perpendicular to the main extension plane of the armrest unit 310 corresponds to a thickness d_2 of an end panel defining the support structure member of
35 the seat unit 304.

The support structure of each one of the seat unit and the backrest unit may be made of fibre board like MDF (Medium Density Fibre board) or HDF (High Density Fibre board) or plywood.

5

It is to be understood that the present invention is not limited to the embodiments described above and illustrated in the drawings; rather, the skilled person will recognize that many changes and modifications may be made within the scope of the appended claims.

10

According to the embodiment example described above, the seat unit and the backrest unit are designed in such a way relative to one another that the backrest unit fits in a space inside of a support structure of the seat unit. According to an alternative, the seat unit and the backrest unit are designed in such a way relative to one another that the seat

15 unit fits in a space inside of a support structure of the backrest unit.

CLAIMS

1. A kit of parts (12, 112, 212, 312) for a piece of furniture, wherein the kit of parts comprises a seat unit (4, 104, 204, 304), a backrest unit (6, 106, 206, 306) and at least one armrest unit (8, 10, 110, 210, 310), wherein each one of the seat unit and the backrest unit has an extension in a longitudinal direction and a transverse direction perpendicular to the longitudinal direction, wherein the seat unit (4, 104, 204, 304) and the backrest unit (6, 106, 206, 306) are adapted to be arranged so that their longitudinal directions are in parallel with a width direction (W) of the piece of furniture in an assembled state, wherein the at least one armrest unit (8, 10, 110, 210, 310) is adapted for being arranged adjacent to the seat unit (4, 104, 204, 304) and to the backrest unit (6, 106, 206, 306) in the width direction of the piece of furniture, wherein a first one of the seat unit (4) and the backrest unit comprises a support structure (14) that comprises a first and second support structure member (16, 18) arranged in a spaced relationship in the longitudinal direction so that a space (20) is defined between the first and second support structure members, wherein a second one of the seat unit and the backrest unit (6) has such an extension in the longitudinal direction that it may be received in the space (20) defined by the first and second support structure members (16, 18) in a non-assembled compact state of the piece of furniture, wherein the kit of parts further comprises a compensating structure (30, 130, 230, 330) for compensating for a difference in the longitudinal extensions between the seat unit and the backrest unit in the width direction of the piece of furniture in the assembled state.
2. A kit of parts according to claim 1, wherein the compensating structure (30, 130, 230, 330) comprises at least one projection (32, 132, 232) at a position corresponding to an interface between the armrest unit (10) and the second one of the seat unit and the backrest unit (6) and/or a recess (332) at a position corresponding to an interface between the armrest unit (10) and the first one of the seat unit (304) and the backrest unit.
3. A kit of parts according to claim 1 or 2, wherein the compensating structure (130, 230) is formed as a separate unit that is adapted to be arranged between the

armrest unit (110, 210) and the seat unit (104, 204) and/or the backrest unit (106, 206) in the width direction of the piece of furniture in the assembled state.

4. A kit of parts according to claim 1 or 2, wherein the compensating structure (30, 330) is formed integral with the armrest (10, 310).
5
5. A kit of parts according to any preceding claim, wherein the armrest unit (8, 10, 110, 210, 310) comprises a panel (36) with a main flat surface that is adapted to face the seat unit (4, 104, 204, 304) and the backrest unit (6, 106, 206, 306) and wherein the main flat surface is adapted to extend perpendicularly to the width direction of the piece of furniture in the assembled state.
10
6. A kit of parts according to any preceding claim, wherein each one of the seat unit (4, 104, 204, 304) and the backrest unit (6, 106, 206, 306) comprises a panel (18, 35) with a main flat surface that is adapted to face the armrest unit (8, 10, 110, 210, 310) and extend perpendicularly to the longitudinal direction of the seat unit and the backrest unit, respectively.
15
7. A kit of parts according to any preceding claim, wherein each one of the first and second support structure members (16, 18) has a height in a direction perpendicular to a plane defined by the longitudinal direction and the transverse direction, wherein the height is larger than a total height of the second one of the seat unit and the backrest unit (6, 106, 206, 306) in a direction perpendicular to a plane defined by its respective longitudinal direction and transverse direction.
20
25
8. A kit of parts according to any preceding claim, wherein each one of the first and second support structure members (16, 18) is arranged adjacent to an edge of the first one of the seat unit (4, 104, 204, 304) and the backrest unit in the longitudinal direction.
30
9. A kit of parts according to any preceding claim, wherein the space (20) defined by the support structure (14) is open in a direction perpendicular to a plane defined by the longitudinal direction and the transverse direction of the first one of the seat unit (4, 104, 204, 304) and the backrest unit.

10. A kit of parts according to any preceding claim, wherein the second one of the seat unit and the backrest unit (6, 106, 206, 306) has such an extension in the longitudinal direction between its opposite peripheral edges in the longitudinal direction that it fits snugly in the space (20) defined by the first and second support structure members (16, 18) in the non-assembled compact state of the piece of furniture.
11. A kit of parts according to any preceding claim, wherein the support structure (14) comprises a third and fourth support structure member (22, 24) arranged in a spaced relationship in the transverse direction of the first one of the seat unit (4, 104, 204, 304) and the backrest unit, wherein the third and fourth support structure members define the space in the transverse direction.
12. A kit of parts according to claim 11, wherein each one of the third and fourth support structure members (22, 24) is arranged adjacent to an edge of the first one of the seat unit (4, 104, 204, 304) and the backrest unit in the transverse direction.
13. A kit of parts according to claim 11 or 12, wherein the support structure members (16, 18, 22, 24) defining the space (20) in the longitudinal direction and in the transverse direction define a rectangular shape around the space.
14. A kit of parts according to any one of claims 11-13, wherein the second one of the seat unit and the backrest unit (6, 106, 206, 306) defines a generally rectangular shape in a plane defined by the longitudinal direction and the transverse direction, wherein an extension of the second one of the seat unit and the backrest unit (6, 106, 206, 306) in the transverse direction is smaller than a distance between the third and fourth support structure members (22, 24) in the transverse direction.
15. A kit of parts according to any preceding claim, wherein the second one of the seat unit and the backrest unit (6, 106, 206, 306) comprises a support structure that defines a rectangular shape, wherein the support structure comprises four support

structure members that are arranged adjacent opposite edges in the longitudinal direction and in the transverse direction.

5 16. A kit of parts according to any preceding claim, wherein the support structure (14) of at least one of the seat unit (4, 104, 204, 304) and the backrest unit (6, 106, 206, 306) is formed in wood.

10 17. A kit of parts according to any preceding claim, wherein the seat unit (4, 104, 204, 304) and the backrest unit (6, 106, 206, 306) are arranged in a non-attached state in relation to each other in the non-assembled compact state of the piece of furniture.

15

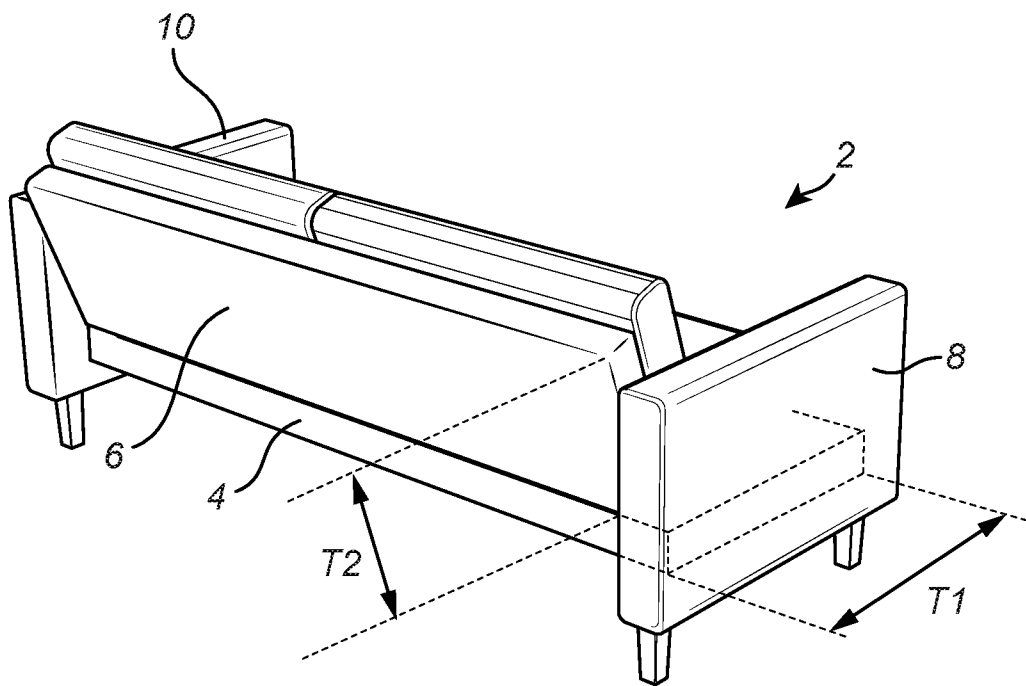
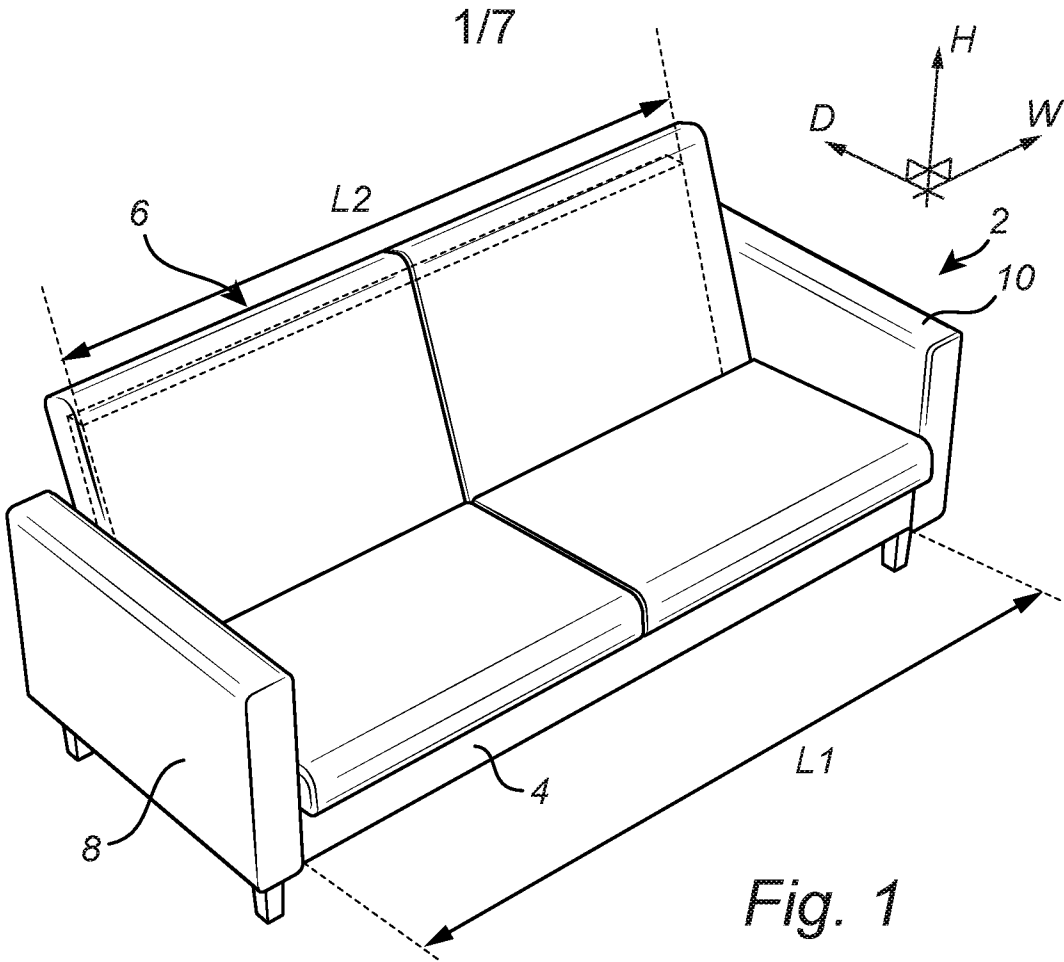


Fig. 2

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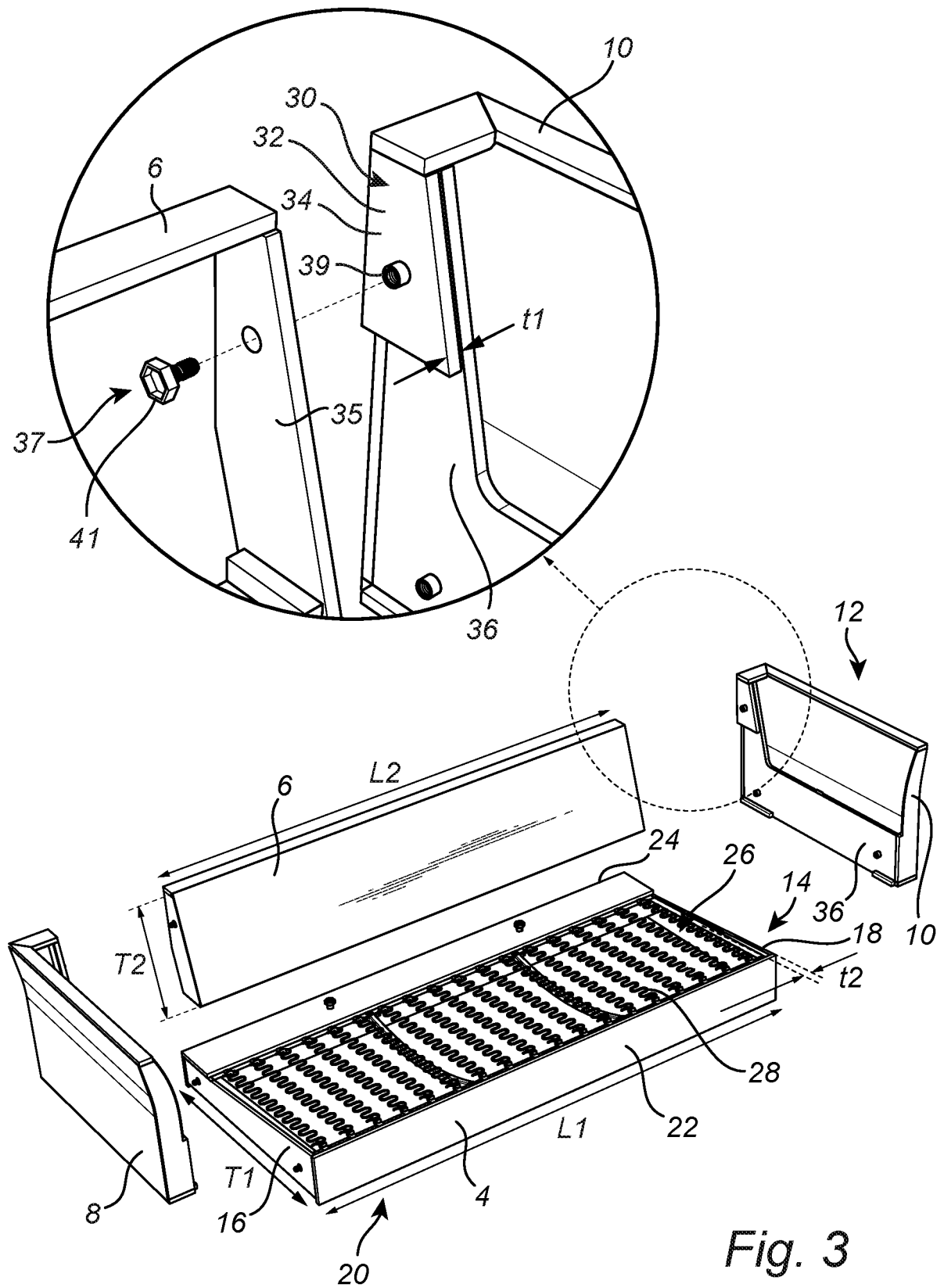
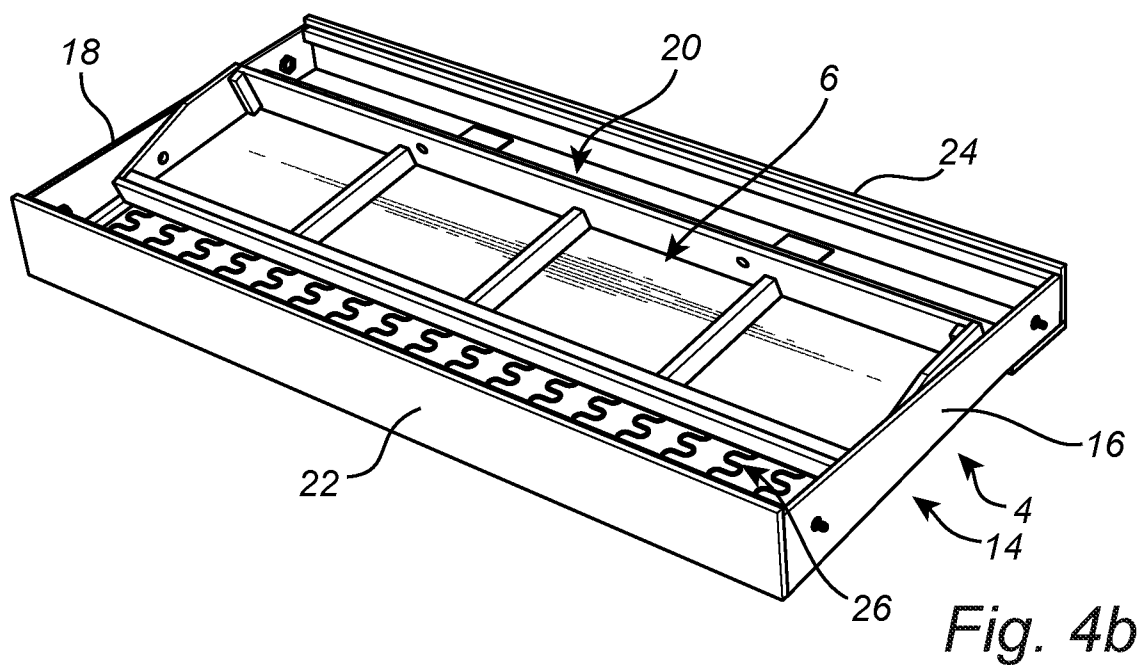
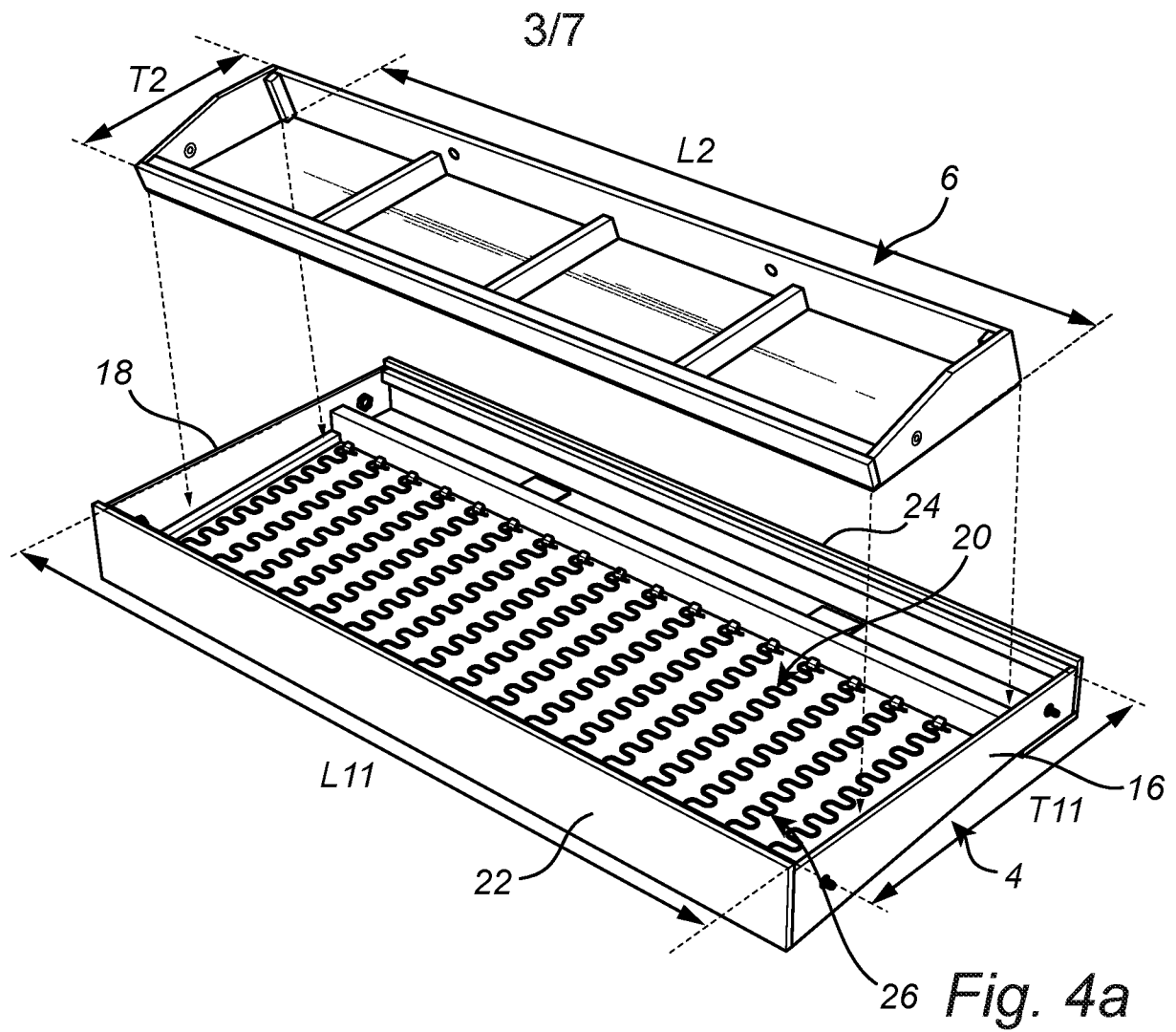


Fig. 3



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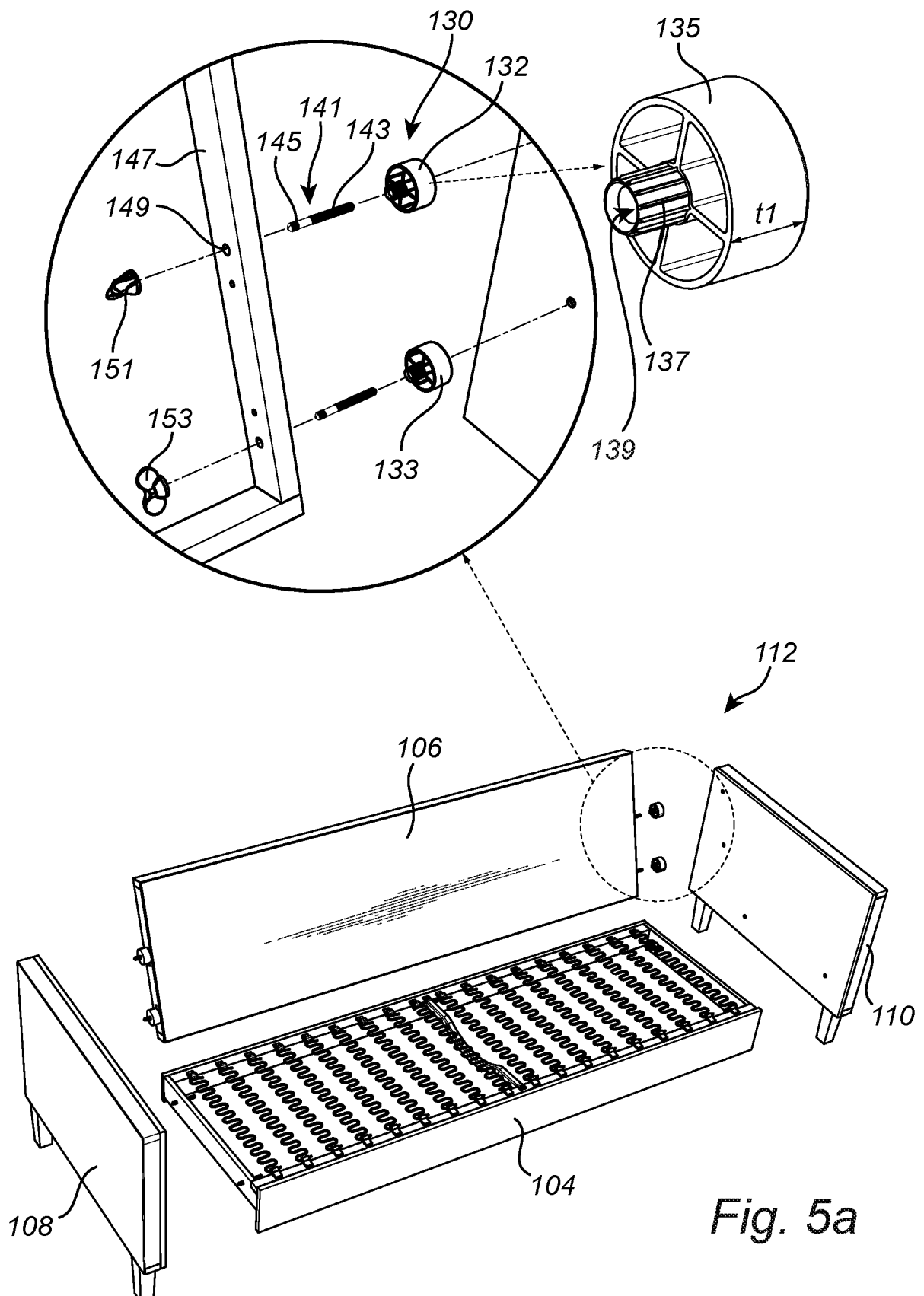


Fig. 5a

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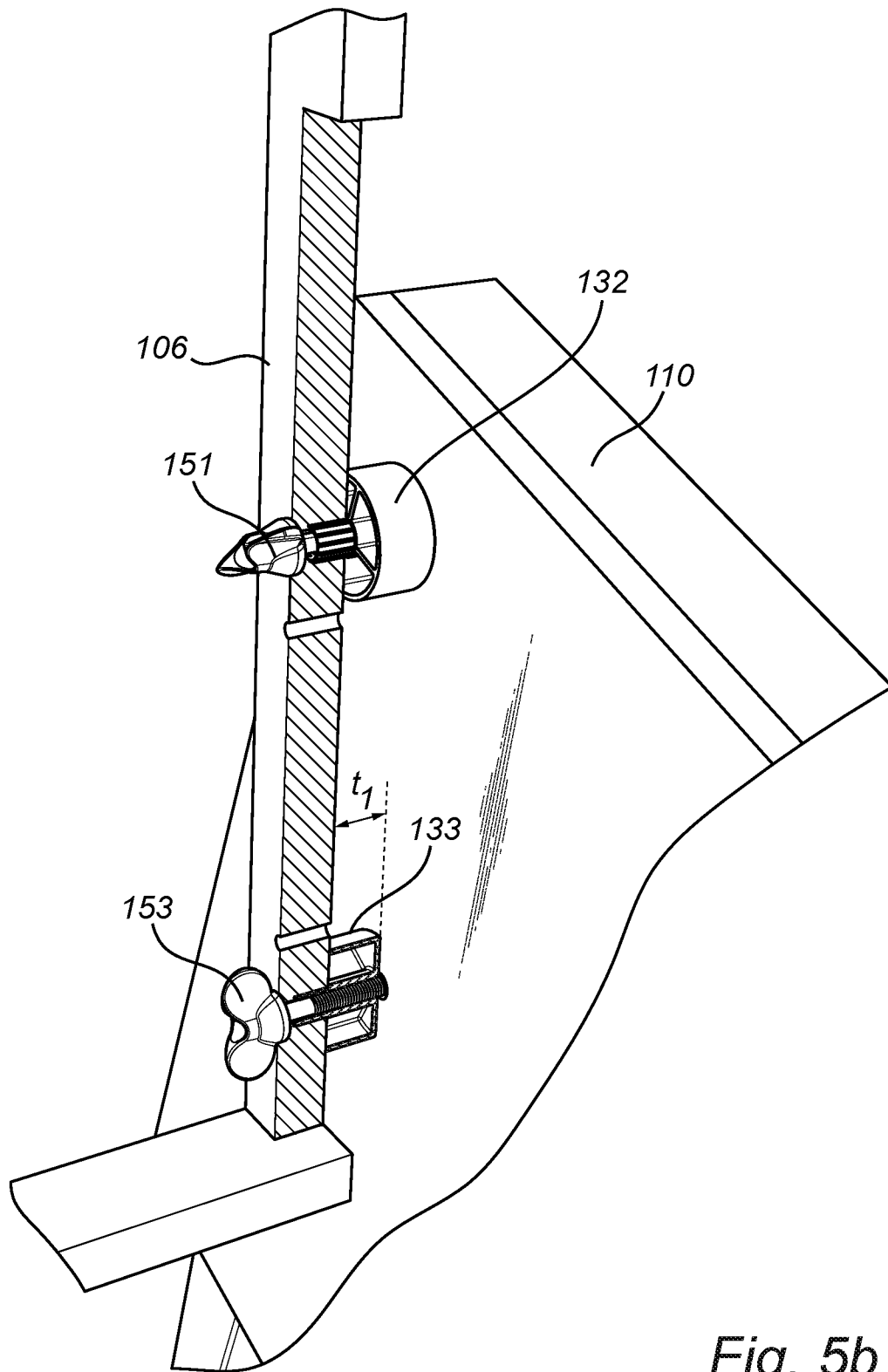


Fig. 5b

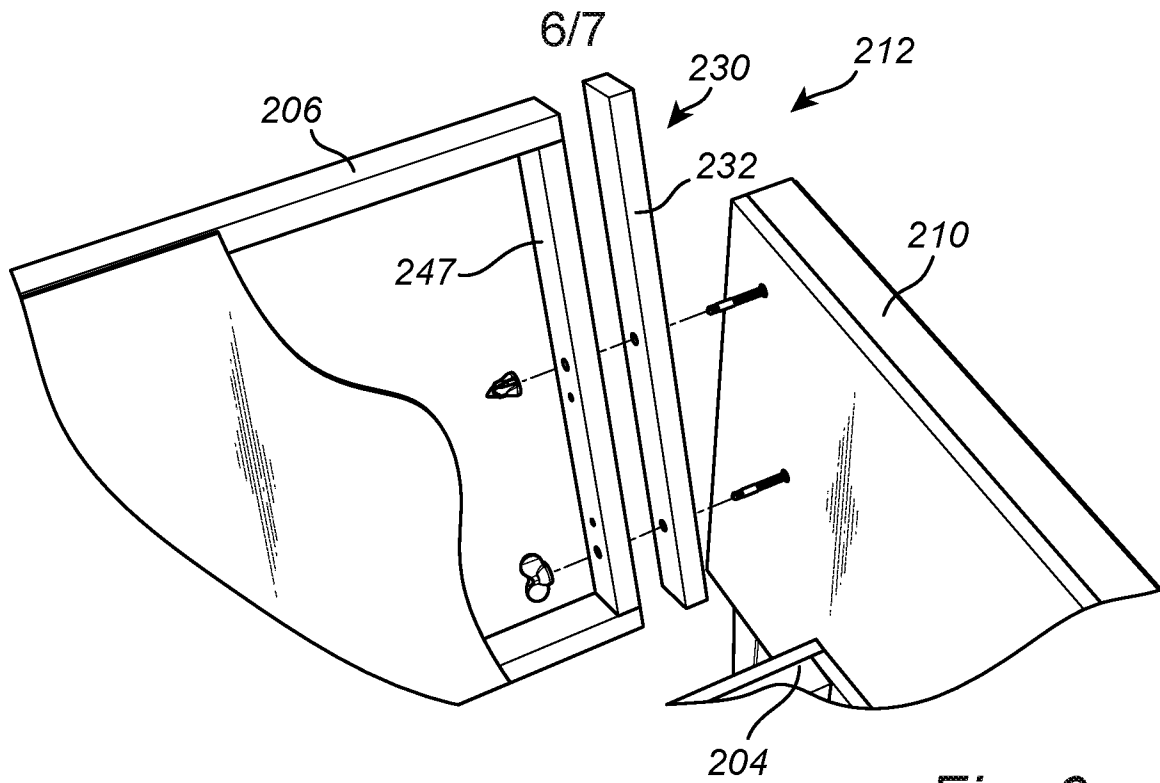


Fig. 6a

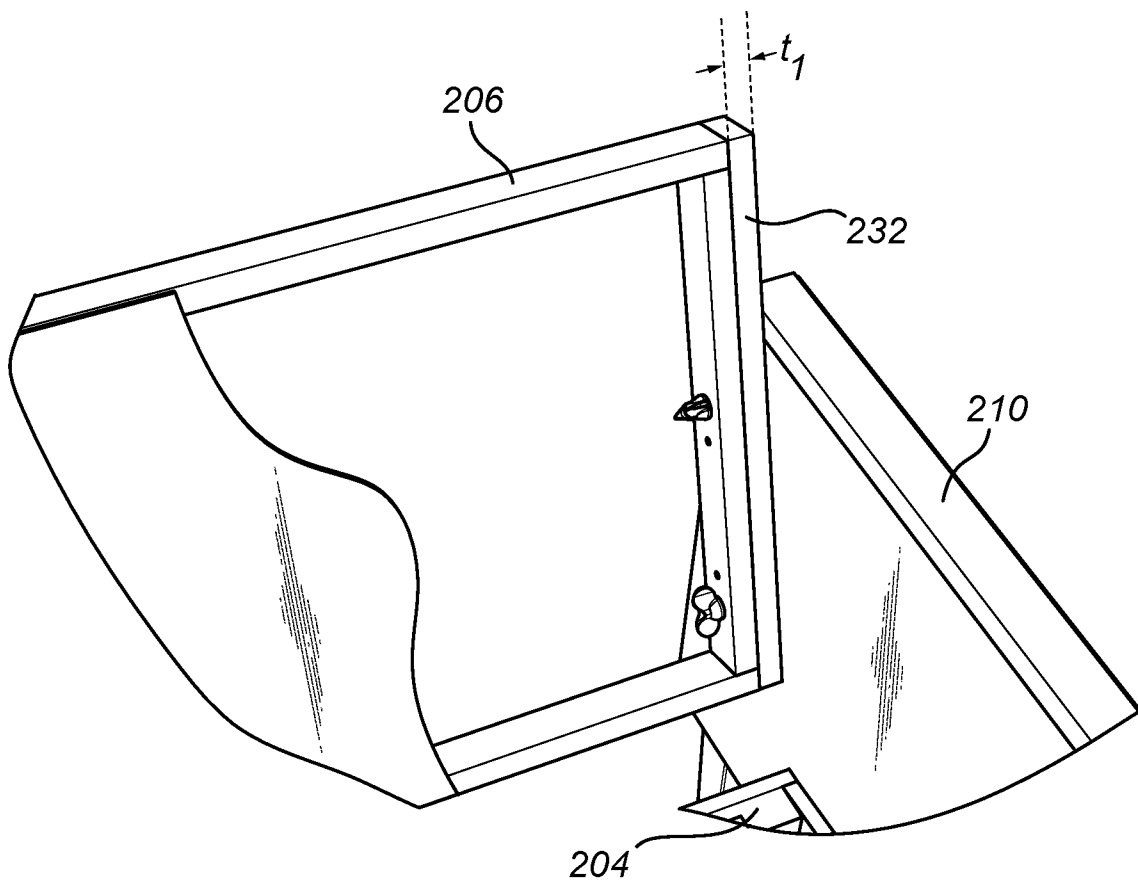


Fig. 6b

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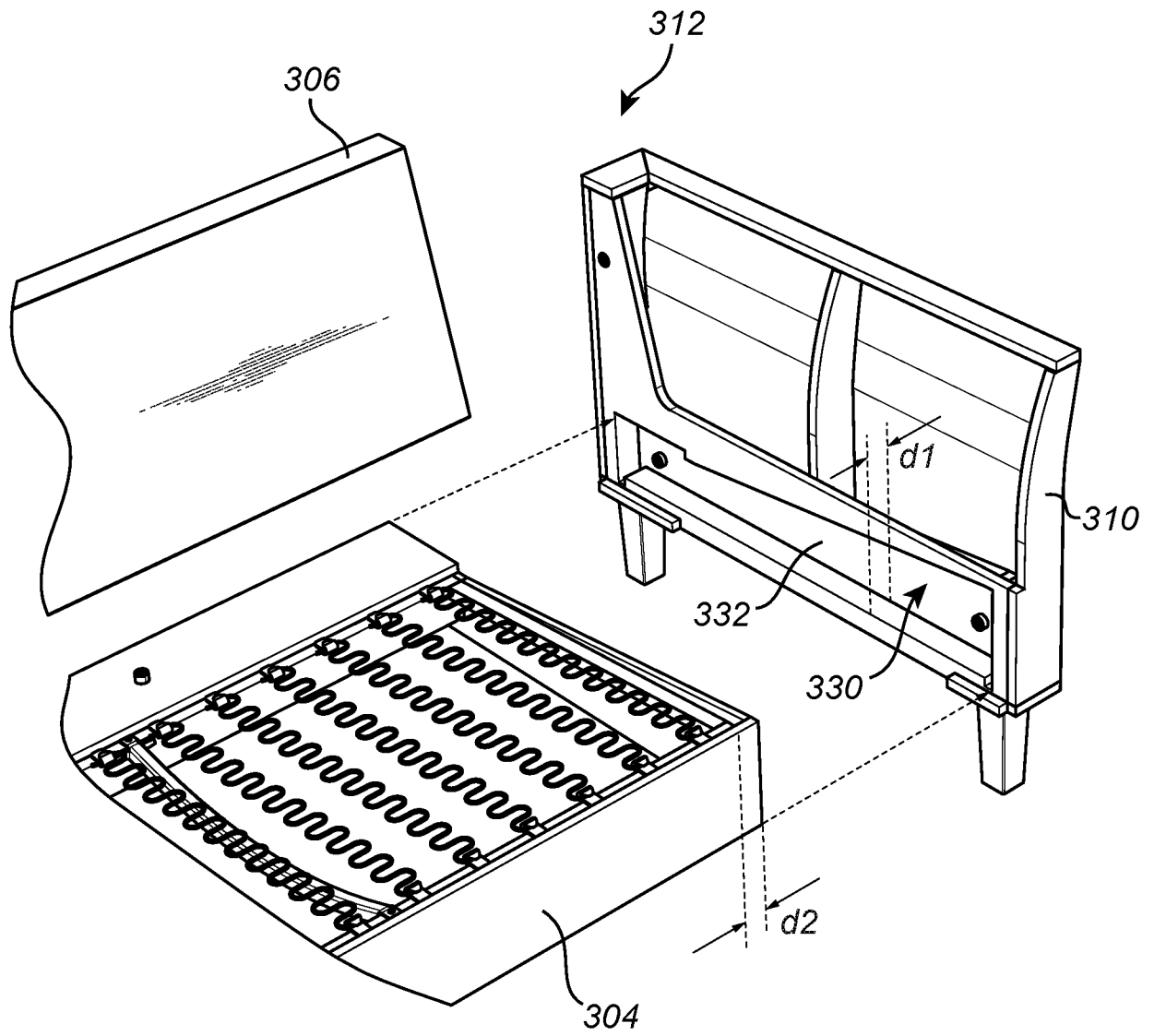


Fig. 7

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE2024/051102

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

KIME

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
D, A	US 20210274942 A1 (HA JONGWAN ET AL), 9 September 2021 (2021-09-09); figure 5; claim 13 --	1-17
A	CN 209450171 U (SHENZHEN PG CENTURY FURNITURE CO LTD), 1 October 2019 (2019-10-01); whole document; figure 4 --	1-17
A	ES 2384857 T3 (KETER PLASTIC LTD), 13 July 2012 (2012-07-13); whole document; figure 4 -- -----	1-17

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
07-01-2025

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Continuation of: second sheet

International Patent Classification (IPC)

A47C 17/02 (2006.01)

A47C 17/04 (2006.01)

A47C 17/86 (2006.01)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/SE2024/051102

US	20210274942 A1	09/09/2021	US	12016461 B2	25/06/2024
			US	20240292954 A1	05/09/2024
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ES	2384857 T3	13/07/2012	NONE		