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(71) Applicant: **Decoriginals B.V.**
5221 EB 's-Hertogenbosch (NL)

(72) Inventor: **DE LEIJER, Arnoldus Adrianus Josephus Maria**
5221 EB 's-Hertogenbosch (NL)

(74) Representative: **V.O.**
P.O. Box 87930
2508 DH Den Haag (NL)

(54) **ROOM DIVIDER SYSTEM AND METHOD OF ASSEMBLY**

(57) A room divider system (100) comprises a set of wall panels (10). Adjacent wall panels (10) are interconnected by coupling pieces (13). The frame panels (10) comprise elongate frame bars (11) interconnected by corner pieces (12). The frame bars (11) comprise hollow end sections (11a, 11b). The corner pieces (12) have an L-shape formed by a first protruding tube section (12a) perpendicularly connected to a second protruding tube section (12b). The protruding tube sections (12a,12b) fit inside respective openings of the respective hollow end sections (11a, 11b) of a pair of perpendicularly oriented frame bars (11). The corner pieces (12) are provided with a corner piece opening (12c) on an opposite side to one of the protruding tube sections (12b). The coupling pieces (13) comprise a plate structure (13d) which covers the corner pieces (12) when the coupling piece (13) is fit inside the respective corner piece openings (12c).

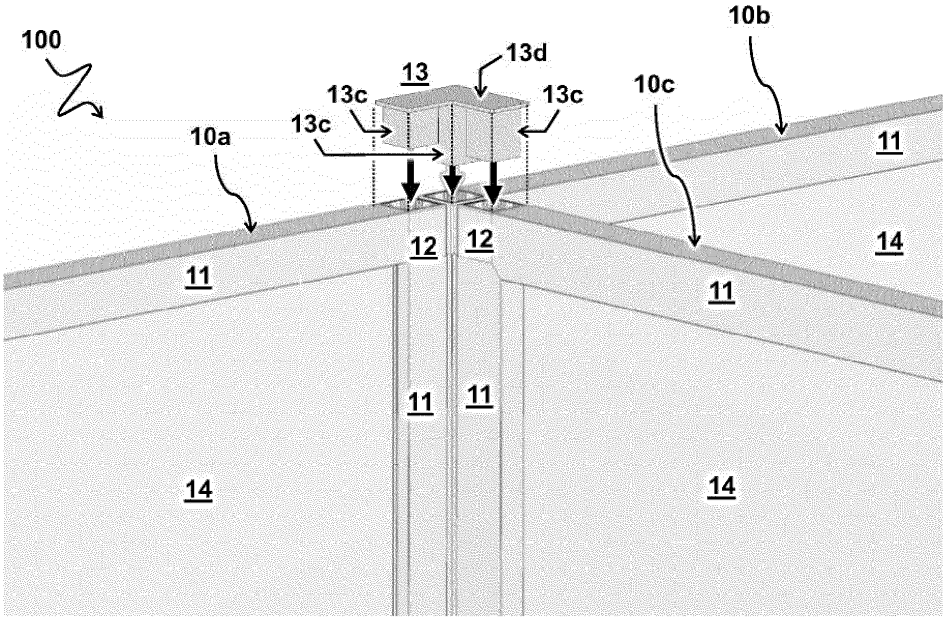

FIG 3A

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Description

TECHNICAL FIELD AND BACKGROUND

[0001] The present invention relates to a room divider system comprising interconnected wall panels, a method for assembling such system.

[0002] A room divider system comprises a set of wall panels that can placed in a (large) room or hallway to create one or more smaller spaces. This can also be referred to as a stand construction system. The wall panels can be placed to form a corner area and/or form an at least partial separation between different areas. For example, this can be used create a more intimate atmosphere and/or provide separate (work or private) areas. Alternatively, or in addition to dividing the room, the wall panels can also have other or further functions. For example, the wall panels can be used to dampen sound between the separated areas and/or provide a decorative or signaling function.

[0003] There is a need for a room divider system that can be easily and quickly assembled to provide various desired layouts, preferably without sacrificing a decorative appearance.

SUMMARY

[0004] Some aspects of the present invention relate to a room divider system, e.g. stand construction system, comprising a set of wall panels. The wall panels each comprises a set of elongate frame bars interconnected by corner pieces. An area enclosed by the frame bars can be filled, e.g. using a canvas or other feature. The frame bars comprise hollow end sections. The corner pieces have an L-shape formed by perpendicularly connected tube sections. The tube sections fit inside respective openings of a pair of perpendicularly oriented frame bars to form a respective corner of the frame. The corner pieces are furthermore provided with an opening opposite one of the tube sections. These openings can be used to accommodate coupling pieces and/or support structures. For example, adjacent wall panels can be interconnected by the coupling pieces. Preferably, the coupling pieces comprise a plate structure interconnecting a set of parallel protruding sections that fit inside the openings of adjacent corner pieces. Advantageously, the plate structure can cover the adjacent corner pieces when the coupling piece is fit inside the adjacent corner pieces. In this way the frame panels can be interconnected in various ways while the constructive elements can remain hidden to maintain decorative appearance.

[0005] Other or further aspects of the invention relate to a method of assembling the system. The method comprises assembling each wall panel by interconnecting respective frame bars using the corner pieces. The tube sections of a respective corner piece are inserted to fit inside the hollow end sections of perpendicularly oriented frame bars to form a respective interconnection between the frame bars at each corner of the respective wall panel. Adjacent wall panels are interconnected using the coupling pieces. In particular, the protruding sections of a respective coupling piece are inserted to fit inside respective corner piece openings of adjacent corner pieces while the respective plate structure of the coupling piece abuts and covers the adjacent corner pieces.

[0006] Other or further aspects of the invention relate to a kit of parts configured to be assembled and thereby form the room divider system. For example, the kit of part comprises the set of elongate frame bars, the corner pieces configured to interconnect the frame bars, and the coupling pieces to interconnect the corner pieces. The kit of parts may also include one or more screens to fill a respective area of an assembled frame panel.

BRIEF DESCRIPTION OF DRAWINGS

[0007] These and other features, aspects, and advantages of the apparatus, systems and methods of the present disclosure will become better understood from the following description, appended claims, and accompanying drawing wherein:

FIG 1 illustrates a room divider system comprising a set of wall panels;
FIGs 2A-2C illustrate parts of a room divider system and a method of assembling the room divider system;
FIGs 3A and 3B illustrates a room divider system comprising a set of three interconnected wall panels;
FIGs 4A and 4B illustrate further configurations of a room divider system;
FIGs 5A and 5B illustrate views of a support structure for the room divider system;
FIGs 6A and 6B illustrate views of corner piece for the room divider system;
FIG 7A illustrates connecting part of a screen to a respective frame bar;
FIG 7B illustrates a cross-section profile of a frame bar;
FIGs 8A and 8B illustrate photographs of respective room divider systems.

DESCRIPTION OF EMBODIMENTS

[0008] Terminology used for describing particular embodiments is not intended to be limiting of the invention. As used herein, the singular forms "a", "an" and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. The term "and/or" includes any and all combinations of one or more of the associated listed items. It will be understood that the terms "comprises" and/or "comprising" specify the presence of stated features but do not preclude the presence or addition of one or more other features. It will be further understood that when a particular step of a method is referred to as subsequent to another step, it can directly

follow said other step or one or more intermediate steps may be carried out before carrying out the particular step, unless specified otherwise. Likewise it will be understood that when a connection between structures or components is described, this connection may be established directly or through intermediate structures or components unless specified otherwise.

[0009] The invention is described more fully hereinafter with reference to the accompanying drawings, in which embodiments of the invention are shown. In the drawings, the absolute and relative sizes of systems, components, layers, and regions may be exaggerated for clarity. Embodiments may be described with reference to schematic and/or cross-section illustrations of possibly idealized embodiments and intermediate structures of the invention. In the description and drawings, like numbers refer to like elements throughout. Relative terms as well as derivatives thereof should be construed to refer to the orientation as then described or as shown in the drawing under discussion. These relative terms are for convenience of description and do not require that the system be constructed or operated in a particular orientation unless stated otherwise.

[0010] FIG 1 illustrates a room divider system 100 comprising a set of wall panels 10. In some embodiments, each respective wall panel 10 in the set of wall panels 10 comprises a set of elongate frame bars 11 interconnected by a set of corner pieces 12. In other or further embodiments, adjacent wall panels 10 in the set of wall panels 10 are interconnected by a respective set of coupling pieces 13. Preferably, at least one wall panel 10 comprises a screen 14, e.g. canvas or cloth, spanning an area enclosed between the frame bars 11. Also other or further features can be provided to partially or completely fill an area between the frame bars 11. Some or all frame panels can also be left open.

[0011] In some embodiments, the set of coupling pieces 13 comprises a first coupling piece forming a top side interconnection between the adjacent wall panels 10, and a second coupling piece forming a bottom side interconnection between the adjacent wall panels 10. In one embodiment, the bottom side interconnection is disposed on a bottom side of a vertically extending elongate frame bar and the top side interconnection is disposed on a top side of the vertically extending elongate frame bar, opposite the bottom side. In other or further embodiments, the system 100 comprises at least one set of coupling pieces 13 configured to interconnect two adjacent wall panels 10. For example, a first wall panel 10a of the two adjacent wall panels 10 is arranged in a first plane, and a second wall panel 10b of the two adjacent wall panels 10 is arranged in a second plane, wherein the second plane is perpendicular to the first plane.

[0012] Typically, each wall panel 10 has a height and/or width of at least one meter, e.g. between two and five meters, or more. Typically, each wall panel 10 has a thickness between one and five centimeter, e.g. up to ten centimeter, or more. Preferably, each of the panels has the same dimensions to facilitate modularity. Also other or different sized panels can be used. Most preferably some or all components forming the frame panel 10 are interchangeable to further improve modularity. For example, the elongate frame bars 11 can be all the same. For example, the corner pieces 12 can be all the same. The coupling pieces 13 can also be the same, or different coupling pieces can be used to form different connections, e.g. depending on whether two or three panels are interconnected.

[0013] FIGs 2A-2C illustrate parts of a room divider system 100 and a method of assembling the room divider system 100. In some embodiments, each frame bar 11 in the set of elongate frame bars 11 comprises a pair of hollow end sections 11a, 11b. In one embodiment, each corner piece 12 in the set of corner pieces 12 has an L-shape formed by a first protruding tube section 12a perpendicularly connected to a second protruding tube section 12b. In another or further embodiment, the protruding tube sections 12a, 12b are configured to tightly fit inside respective openings of the respective hollow end sections 11a, 11b of a pair of perpendicularly oriented frame bars 11 in the respective wall panel 10. In this way a (durable) interconnection can be formed between the frame bars 11 at a corner of the respective wall panel 10.

[0014] In some embodiments, at least some of the corner pieces 12 are provided with a corner piece opening 12c on an opposite side to one of the protruding tube sections 12b. For example, the opening can be provided on the top or bottom side. In one embodiment, the corner piece opening 12c provides an entry into said one of the protruding tube sections 12b. For example, an elongate section 13c of the coupling piece 13 can slide at least partially from the backside into the protruding section 12b. In another or further embodiment, each coupling piece 13 in the set of coupling pieces 13 comprises a plate structure 13d interconnecting a set of (parallel) protruding sections 13c. In one embodiment, the protruding sections 13c are configured to (tightly) fit inside respective corner piece openings 12c of adjacent corner pieces 12 at respective corners of the adjacent wall panels 10. In another or further embodiment, the plate structure 13d of a respective coupling piece 13 is configured to abut and/or cover the adjacent corner pieces 12 when the set of parallel protruding sections 13c is fit inside the respective corner piece openings 12c.

[0015] Some embodiments of assembling the room divider system 100 comprise assembling each wall panel 10 by interconnecting respective frame bars 11 using the corner pieces 12. In one embodiment, the perpendicularly oriented protruding tube sections 12a, 12b of a respective corner piece are inserted to fit inside respective openings of the respective hollow end sections 11a, 11b of a pair of perpendicularly oriented frame bars 11 to form a respective interconnection between the frame bars 11 at each corner of the respective wall panel 10. Other or further embodiments of assembling the room divider system 100 comprise interconnecting adjacent wall panels

10 using the coupling pieces 13. In one embodiment, the parallel protruding sections 13c of a respective coupling piece 13 are inserted to fit inside respective corner piece openings 12c of adjacent corner pieces 12 at respective corners of the adjacent wall panels 10. In another or further embodiment, the plate structure 13d of the respective coupling piece 13 abuts and covers the adjacent corner pieces 12.

[0016] In some embodiments, an outer cross-section profile of the L-shape at the corner matches an outer cross-section profile of the frame bars 11 to form a flush interconnection therewith. In one embodiment, an outer cross-section profile of the protruding tube sections 12a, 12b matches an inner cross-section profile of the frame bars 11. In another or further embodiment, the protruding tube sections 12a, 12b of the corner pieces 12 are tapered with a cross-section profile decreasing along the protruding tube sections 12a, 12b away from the corner of the L-shape.

[0017] In some embodiments, the elongate frame bars 11 have a rectangular profile. In one embodiment, the hollow end sections 11a, 11b of the frame bars 11 have rectangular openings. In another or further embodiment, the protruding tube sections 12a, 12b of the corner pieces 12 have a rectangular outer cross-section profile fitting inside the rectangular openings at the hollow end sections 11a, 11b of the frame bars 11. In another or further embodiment, the corner piece opening 12c has a rectangular inner cross-section profile. In another or further embodiment, the parallel protruding sections 13c of the coupling pieces 13 have a rectangular outer cross-section profile fitting inside the rectangular inner cross-section profile of the corner piece openings 12c. For example, the parallel protruding sections 13c are formed by a set of parallel rectangular tubes or bars. While the rectangular profile is preferable, e.g. preventing rotation, also other shape profiles can be used.

[0018] FIGs 3A and 3B illustrates a room divider system 100 comprising a set of three interconnected wall panels 10a, 10b, 10c. In some embodiments, the system 100 comprises at least one set of coupling pieces 13 configured to interconnect three adjacent wall panels 10. In one embodiment, two wall panels 10a, 10b of the three adjacent wall panels 10 are in plane and parallel to each other, and a third panel 10c of the three adjacent wall panels 10 is arranged perpendicularly with respect to the two wall panels 10a, 10b. In another or further embodiment, at least one coupling piece 13 (configured to interconnect three adjacent wall panels 10a, 10b, 10c) comprises an L-shaped plate structure 13d interconnecting a set of three parallel protruding sections 13c configured to tightly fit inside respective corner piece openings 12c of three adjacent corner pieces 12 at respective corners of the three adjacent wall panels 10a, 10b, 10c.

[0019] FIGs 4A and 4B illustrate further configurations of a room divider system 100. In some embodiments, the system 100 comprises at least three wall panels in a U-shaped configuration for partially enclosing a spacing there between. In one embodiment, a first wall panel 10a is arranged in a first plane and a second wall panel 10b is interconnected to the first wall panel 10a and arranged in a second plane, perpendicular to the first plane. In another or further embodiment, a third wall panel 10c is interconnected to the second wall panel 10b in a third plane parallel but offset with respect to the first plane.

[0020] In other or further embodiments, the system 100 comprises at least five wall panels in a double U or W-shaped configuration for partially enclosing two separated spacings there between. In one embodiment, a first wall panel 10a is arranged in a first plane and a second wall panel 10b is interconnected to the first wall panel 10a and arranged in a second plane, perpendicular to the first plane. In another or further embodiment, a third wall panel 10c is interconnected to the second wall panel 10b and arranged in a third plane parallel but offset with respect to the first plane and a fourth wall panel 10d is interconnected to the second and third wall panels 10b, 10c, and arranged in a fourth plane coinciding with the second plane. In another or further embodiment, a fifth wall panel 10e is interconnected to the fourth wall panel 10d and arranged in a fifth plane, parallel but offset with respect to the first and third planes, and perpendicular to the second and fourth planes.

[0021] In other or further embodiments, e.g. as shown, the system 100 comprises a set of support structures 15 to support a respective end of a wall panel. In one embodiment, each support structure 15 comprises a bottom plate extending perpendicular to a plane of the respective wall panel 10. For example, FIGs 5A and 5B illustrate views of a support structure 15 for a room divider system 100. In some embodiments, e.g. as shown, the support structure 15 comprises a vertically extending bar 15c connected on top of the bottom plate 15d and configured to fit inside the corner piece opening 12c of a respective corner piece 12. In one embodiment, the bottom plate 15d comprises openings, e.g. for fastening to a floor. While the embodiments, e.g. as shown in the figures, preferably include interconnected multiple wall panels extending in different planes, e.g. forming at least one corner between the wall panels, it can also be envisaged that the system is formed only of one or more wall panels extending in a single plane. For example, one or more support structures 15 can be used to support the one or more wall panels. For example, a single wall panel can be supported by two support structures on either end.

[0022] FIGs 6A and 6B illustrate views of corner piece 12 for a room divider system 100. In some embodiments, e.g. as shown in FIG 6a, an outer profile of each of the protruding tube sections 12a, 12b of a respective corner piece 12, comprises an external fastening structure 12e. For example, the external fastening structure 12e is configured to maintain the respective interconnection with the end sections of the frame bars (e.g. shown in FIG 2A). In one embodiment, the external fastening structure 12e comprises a resilient and/or elastic fastening structure. For example, the resilient and/or elastic fastening

structure is configured to press against an inner profile inside a respective end section of a frame bar 11.

[0023] In other or further embodiments, e.g. as shown in FIG 6B, an inner profile of a respective corner piece 12 comprises an internal fastening structure 12i. For example, the internal fastening structure 12i is configured to maintain the respective interconnection with one of the parallel protruding sections of a respective coupling piece (e.g. shown in FIGs 2B and 3A) and/or the vertically extending bar of a respective support structure (e.g. shown in FIGs 5A and 5B). In one embodiment, the internal fastening structure 12i comprises a resilient and/or elastic fastening structure. For example, the resilient and/or elastic fastening structure is configured to press against an outer profile of said one of the parallel protruding sections 13c and/or vertically extending bar 15c of a respective support structure 15.

[0024] In some embodiments, parts of the system are configured to be electrically grounded. For example, the grounding may increase safety in a system that is also configured to be provided with electrical equipment such as lighting. In one embodiment, the frame bars comprise or essentially consist of an electrically conducting material, e.g. metal. Preferably, the frame bars are made of aluminum. In some embodiments, the corner pieces 12 comprise or are mainly formed of a non-conductive material, preferably plastic. This allows to easily fabricate relatively complex shapes (at least compared to the frame bars). In other or further embodiments, each corner piece 12 comprises an electrically conducting material. In one embodiment, the electrically conducting material in a corner piece 12 is configured to conduct electricity between the frame bars which are connected to the respective protruding tube sections 12a, 12b. In another or further embodiment, the electrically conducting material in a corner piece 12 is configured to conduct electricity between a respective support structure 15 and one or both of the connected frame bars 11. For example, the support structure 15, as shown e.g. in FIG 5B comprises an electrically conducting (e.g. metal) rod 15c mounted to an electrically conducting (e.g. metal) plate 15d. Accordingly, a wall panel can be easily grounded by grounding the plate 15d. In another or further embodiment, the electrically conducting material in a corner piece is configured to conduct electricity between different wall panels 10a, 10b. In one embodiment, the coupling pieces 13 comprise or essentially consist of electrically conducting material. For example, the coupling pieces 13 may comprise or be formed of the same material as the frame bars 11. By interconnecting each of the frame bars by electrically conducting corner pieces 12, coupling pieces 13, and/or support structures 15, the whole system can be easily grounded by grounding any point, e.g. a plate 15d of one of the support structures.

[0025] In some embodiments, the external and/or internal fastening structures 12e, 12i are formed by electrically conducting material, e.g. metal. In one embodiment, the external and/or internal fastening structures 12e, 12i are formed by springs, preferably leaf springs as shown in FIGs 6A and 6B. In another or further embodiment, the external and internal fastening structures 12e, 12i are electrically interconnected with each other. For example, the interconnected fastening structures 12e, 12i can be made of interconnected metal leaf springs, as shown, while the rest of the corner piece can be made of plastic. In this way electrical grounding can be provided between each of the frame bars 11 and/or support structures 15 and/or between different frame panels (via the coupling pieces 13 and/or via the support structures).

[0026] FIG 7A illustrates connecting part of a screen 14 to a respective frame bar 11. FIG 7B illustrates a cross-section profile 11p of a frame bar 11. In some embodiments, at least one of the frame bars 11 forming a respective wall panel 10 comprises a screen fastening profile 11s for connecting a corresponding profile 14s at a side of the screen 14. Preferably, each of the four frame bars surrounding the screen comprises a respective screen fastening profile 11s. Alternatively, the screen fastening profile can be provided e.g. on two opposing sides of the frame with the screen spanned there between.

[0027] In some embodiments, the screen fastening profile 11s is provided an inside of the respective wall panel 10. In one embodiment, the screen fastening profile 11s comprises an elongate slot and the profile 14s of the screen is configured to be inserted into the elongate slot. For example, the sides of the screen comprise a thickening configured to maintain connection with the respective slots. In another or further embodiment, the profile 14s of the screen comprises a bar configured to slide into the elongate slot. For example, the screen 14 can be inserted into the screen fastening profiles of the frame bars, before or after interconnecting the frame bars.

[0028] FIGs 8A and 8B illustrate photographs of respective room divider systems. For example, as shown, the room divider system can provide a full or partial separation between different spaces. In some embodiments, e.g. as shown in FIG 8A, the wall panels are filled by a screen, e.g. canvas or cloth. While the screen can be of a uniform color, the screen can also be provided with a decoration, e.g. aesthetic or advertisement. In other or further embodiments, e.g. as shown in FIG 8B, one or more wall panels are provided with another type of separation such as lines or ropes. For example, this can provide a partial separation and/or decorative function.

[0029] In interpreting the appended claims, it should be understood that the word "comprising" does not exclude the presence of other elements or acts than those listed in a given claim; the word "a" or "an" preceding an element does not exclude the presence of a plurality of such elements; any reference signs in the claims do not limit their scope; several "means" may be represented by the same or different item(s) or implemented structure or function; any of the disclosed devices or portions thereof may be combined together or separated into further portions unless specifically stated otherwise.

Claims

1. A room divider system (100) comprising a set of wall panels (10),

   wherein each respective wall panel (10) in the set of wall panels (10) comprises a set of elongate frame bars (11) and a set of corner pieces (12) configured to interconnect the frame bars (11);
   wherein each frame bar (11) in the set of elongate frame bars (11) comprises a pair of hollow end sections (11a, 11b);
   wherein each corner piece (12) in the set of corner pieces (12) has an L-shape formed by a first protruding tube section (12a) perpendicularly connected to a second protruding tube section (12b);
   wherein the protruding tube sections (12a, 12b) are configured to tightly fit inside respective openings of the respective hollow end sections (11a, 11b) of a pair of perpendicularly oriented frame bars (11) in the respective wall panel (10) to form an interconnection between the frame bars (11) at a corner of the respective wall panel (10);
   wherein the corner pieces (12) are provided with a corner piece opening (12c) on an opposite side to one of the protruding tube sections (12b), wherein the corner piece opening (12c) provides an entry into said one of the protruding tube sections (12b).

2. The system according to claim 1, comprising a set of coupling pieces (13);

   wherein adjacent wall panels (10) in the set of wall panels (10) are configured to be interconnected by one or more of coupling pieces (13) in the set of coupling pieces (13);
   wherein each coupling piece (13) in the set of coupling pieces (13) comprises a plate structure (13d) interconnecting a set of parallel protruding sections (13c) configured to fit inside respective corner piece openings (12c) of adjacent corner pieces (12) at respective corners of the adjacent wall panels (10);
   wherein the plate structure (13d) of a respective coupling piece (13) is configured to abut and cover the adjacent corner pieces (12) when the set of parallel protruding sections (13c) is fit inside the respective corner piece openings (12c).

3. The system according to any of the preceding claims, wherein an outer profile of each of the protruding tube sections (12a, 12b) of a respective corner piece (12), comprises an external fastening structure (12e) configured to maintain the respective interconnection with the end sections (11a, 11b) of the frame bars (11), wherein the external fastening structure (12e) comprises a resilient and/or elastic fastening structure configured to press against an inner profile inside a respective end section of a frame bar (11).

4. The system according to any of the preceding claims, wherein an inner profile of a respective corner piece (12) comprises an internal fastening structure (12i) configured to maintain the respective interconnection with one of the parallel protruding sections (13c) of a respective coupling piece (13) and/or the vertically extending bar (15c) of a respective support structure (15), wherein the internal fastening structure (12a) comprises a resilient and/or elastic fastening structure configured to press against an outer profile of said one of the parallel protruding sections (13c) and/or vertically extending bar (15c) of a respective support structure (15).

5. The system according to claims 3 and 4, wherein the external fastening structure (12e) and the internal fastening structure (12i) comprise respective metal leaf springs that are electrically interconnected with each other, wherein a rest of the respective corner piece (12) is made of plastic, wherein the frame bars (11) are made of metal, preferably aluminum, and configured to be electrically contacted and interconnected by the metal leaf springs in the respective corner piece (12).

6. The system according to claims 2 and 5, wherein the one or more of coupling pieces (13) in the set of coupling pieces (13) are made of metal and configured to electrically interconnect the adjacent wall panels (10) via the metal leaf springs of the internal fastening structures (12i), configured to connect to the respective coupling piece (13) inside the adjacent corner pieces (12), and the metal leaf springs of the external fastening structure (12e), configured to connect to respective metal frame bars (11) of the adjacent wall panels (10).

7. The system according to any of the preceding claims, wherein an outer cross-section profile of the L-shape of the respective corner piece (12), at a respective corner of the wall panel (10), matches an outer cross-section profile of the frame bars (11) to form a flush interconnection therewith, wherein an outer cross-section profile of the protruding tube sections (12a, 12b) matches an inner cross-section profile of the frame bars (11), wherein the protruding tube sections (12a, 12b) of the corner pieces (12) are tapered with a cross-section profile decreasing along the protruding tube sections (12a, 12b) away from the corner of the L-shape.

8. The system according to any of the preceding claims,

wherein the elongate frame bars (11) have a rectangular profile, wherein the hollow end sections (11a, 11b) of the frame bars (11) have rectangular openings, wherein the protruding tube sections (12a, 12b) of the corner pieces (12) have a rectangular outer cross-section profile fitting inside the rectangular openings at the hollow end sections (11a, 11b) of the frame bars (11), wherein the corner piece opening (12c) has a rectangular inner cross-section profile to fit parallel protruding sections (13c) of coupling pieces (13) having a rectangular outer cross-section profile.

9. The system according to any of the preceding claims, comprising a first coupling piece (13) forming a top side interconnection between adjacent wall panels (10), and a second coupling piece (13) forming a bottom side interconnection between the adjacent wall panels (10), wherein the bottom side interconnection is disposed on a bottom side of a vertically extending elongate frame bar and the top side interconnection is disposed on a top side of the vertically extending elongate frame bar, opposite the bottom side.

10. The system according to any of the preceding claims, comprising at least one set of coupling pieces (13) configured to interconnect two adjacent wall panels (10), wherein a first wall panel (10a) of the two adjacent wall panels (10) is arranged in a first plane, and a second wall panel (10b) of the two adjacent wall panels (10) is arranged in a second plane, wherein the second plane is perpendicular to the first plane.

11. The system according to any of the preceding claims, comprising at least one set of coupling pieces (13) configured to interconnect three adjacent wall panels (10), wherein two wall panels (10a, 10b) of the three adjacent wall panels (10) are in plane and parallel to each other, and a third panel (10c) of the three adjacent wall panels (10) is arranged perpendicularly with respect to the two wall panels (10a, 10b), wherein each coupling piece in the set of coupling pieces (13) configured to interconnect three adjacent wall panels (10a, 10b, 10c) comprises an L-shaped plate structure (13d) interconnecting a set of three parallel protruding sections (13c) configured to tightly fit inside respective corner piece openings (12c) of three adjacent corner pieces (12) at respective corners of the three adjacent wall panels (10a, 10b, 10c).

12. The system according to any of the preceding claims, comprising a set of support structures (15) configured to support a respective end of a wall panel, wherein each support structure (15) comprises a bottom plate extending perpendicular to a plane of the respective wall panel (10), a vertically extending bar (15c) connected on top of the bottom plate (15d) and configured to fit inside the corner piece opening (12c) of a respective corner piece (12).

13. The system according to any of the preceding claims, comprising a screen (14) spanning an area enclosed between the frame bars (11) of a respective wall panel (10), wherein each of the frame bars (11) forming said respective wall panel (10) comprises a screen fastening profile (11s) for connecting a corresponding profile (14s) at a respective side of the screen (14), wherein the screen fastening profile (11s) comprises an elongate slot at an inside edge of the respective wall panel (10) and the profile (14s) of the screen is configured to be inserted into, and held by, the elongate slot.

14. The system according to any of the preceding claims, wherein each wall panel (10) has a height and width between two and five meters, and a thickness between one and ten centimeter.

15. A method of assembling the room divider system (100) according to any of the preceding claims, the method comprising

assembling each wall panel (10) by interconnecting respective frame bars (11) using the corner pieces (12), wherein the perpendicularly oriented protruding tube sections (12a, 12b) of a respective corner piece are inserted to fit inside respective openings of the respective hollow end sections (11a, 11b) of a pair of perpendicularly oriented frame bars (11) to form a respective interconnection between the frame bars (11) at each corner of the respective wall panel (10); and

interconnecting adjacent wall panels (10) using coupling pieces (13), wherein parallel protruding sections (13c) of a respective coupling piece (13) are inserted to fit inside respective corner piece openings (12c) of adjacent corner pieces (12) at respective corners of the adjacent wall panels (10), wherein a plate structure (13d) of the respective coupling piece (13) abuts and covers the adjacent corner pieces (12).

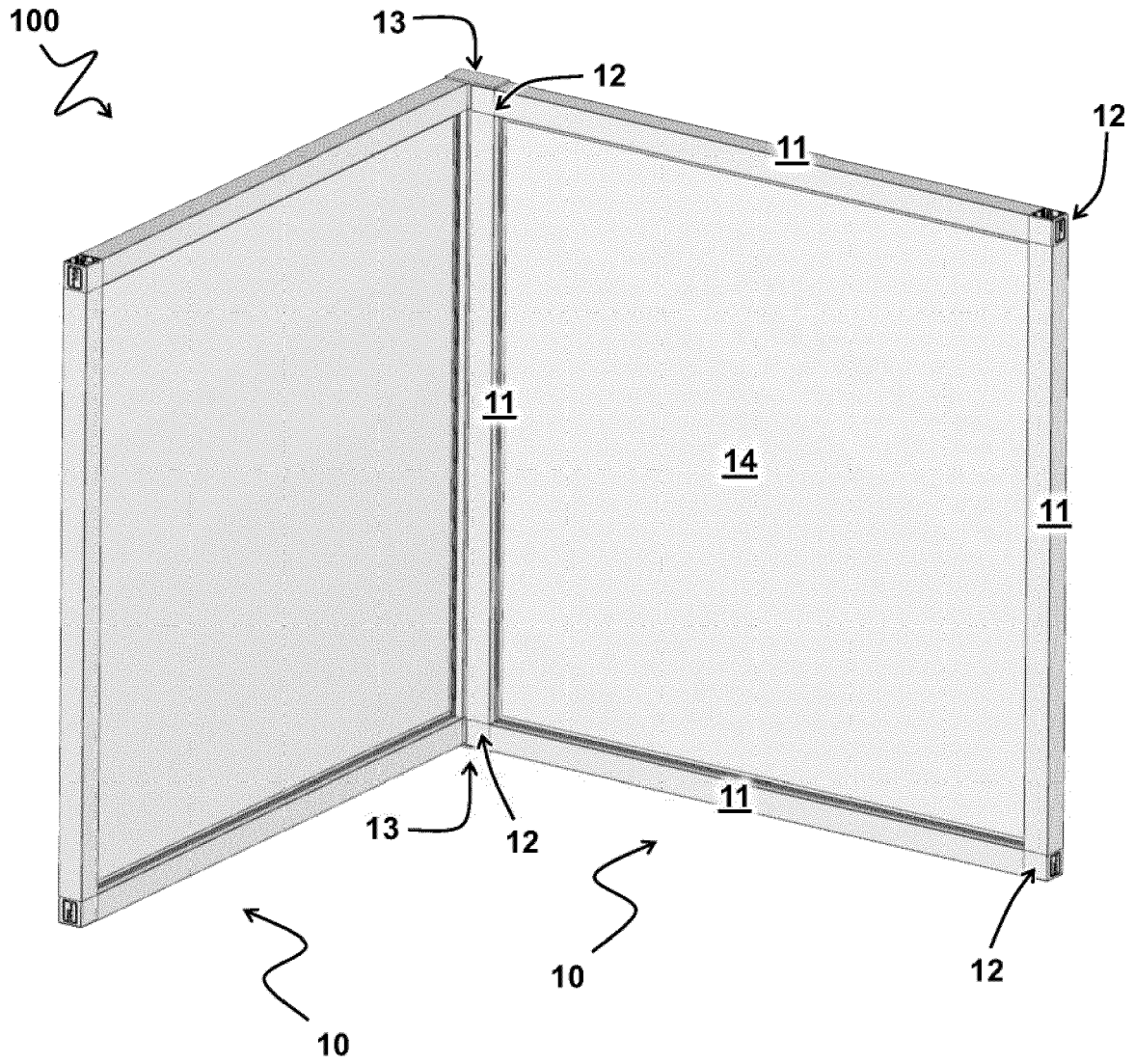


FIG 1

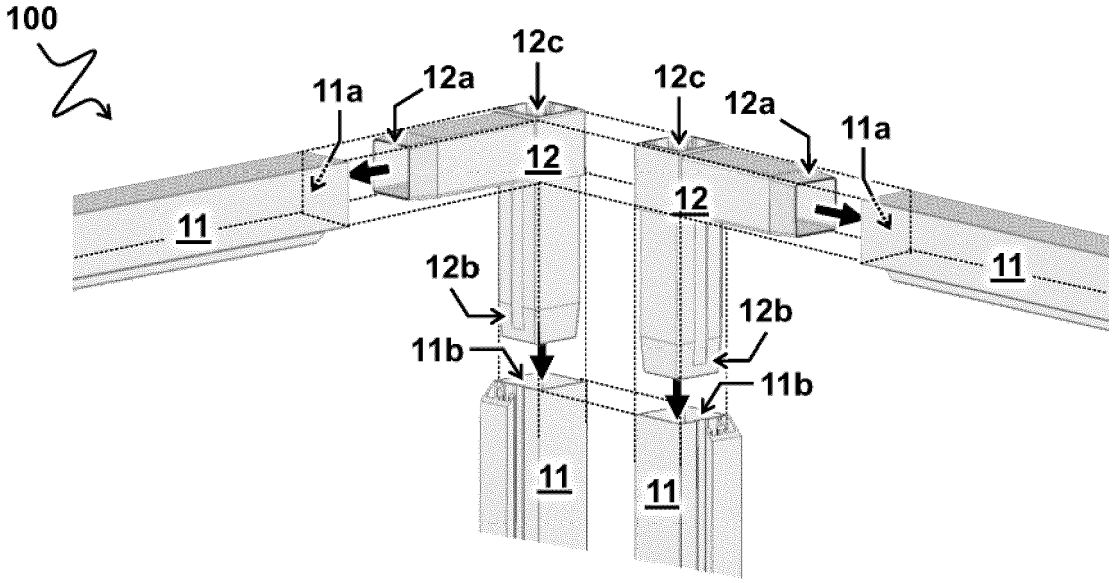


FIG 2A

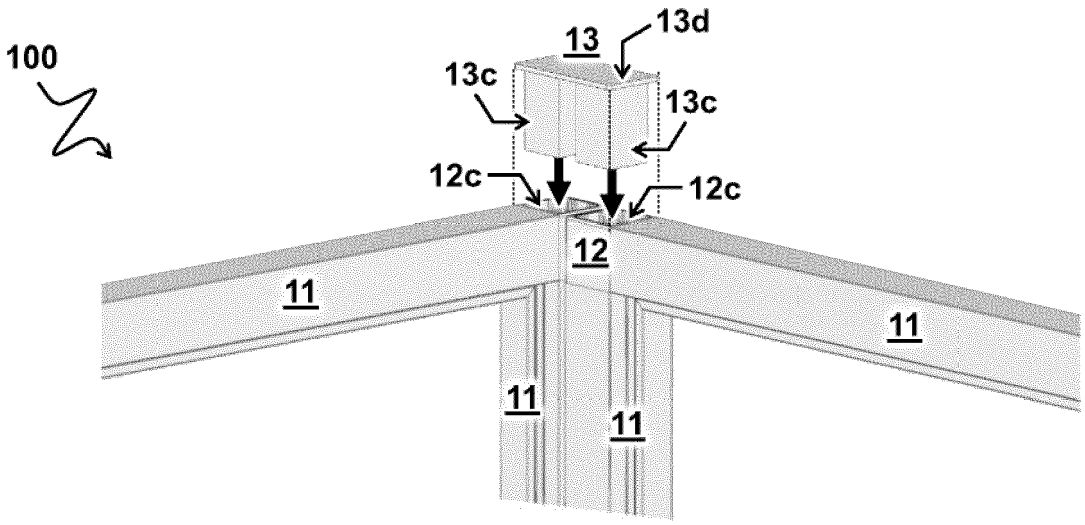


FIG 2B

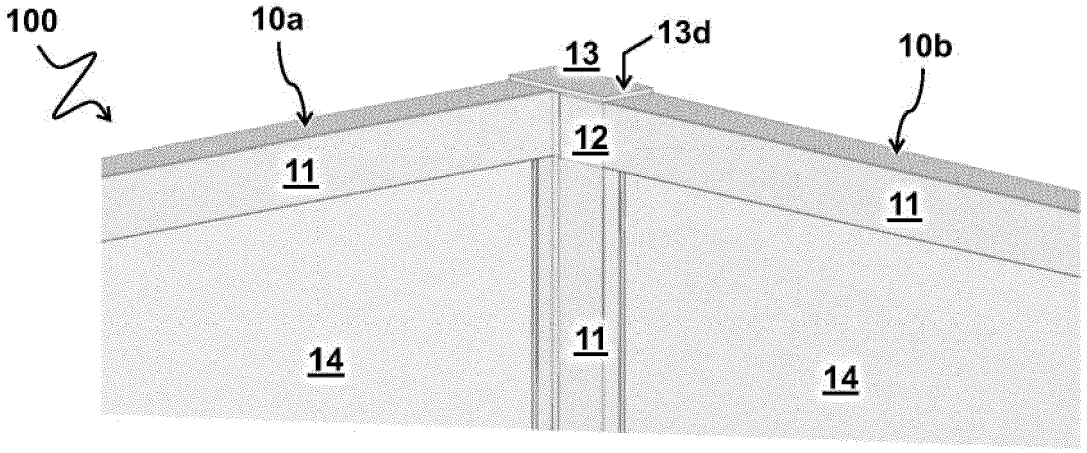


FIG 2C

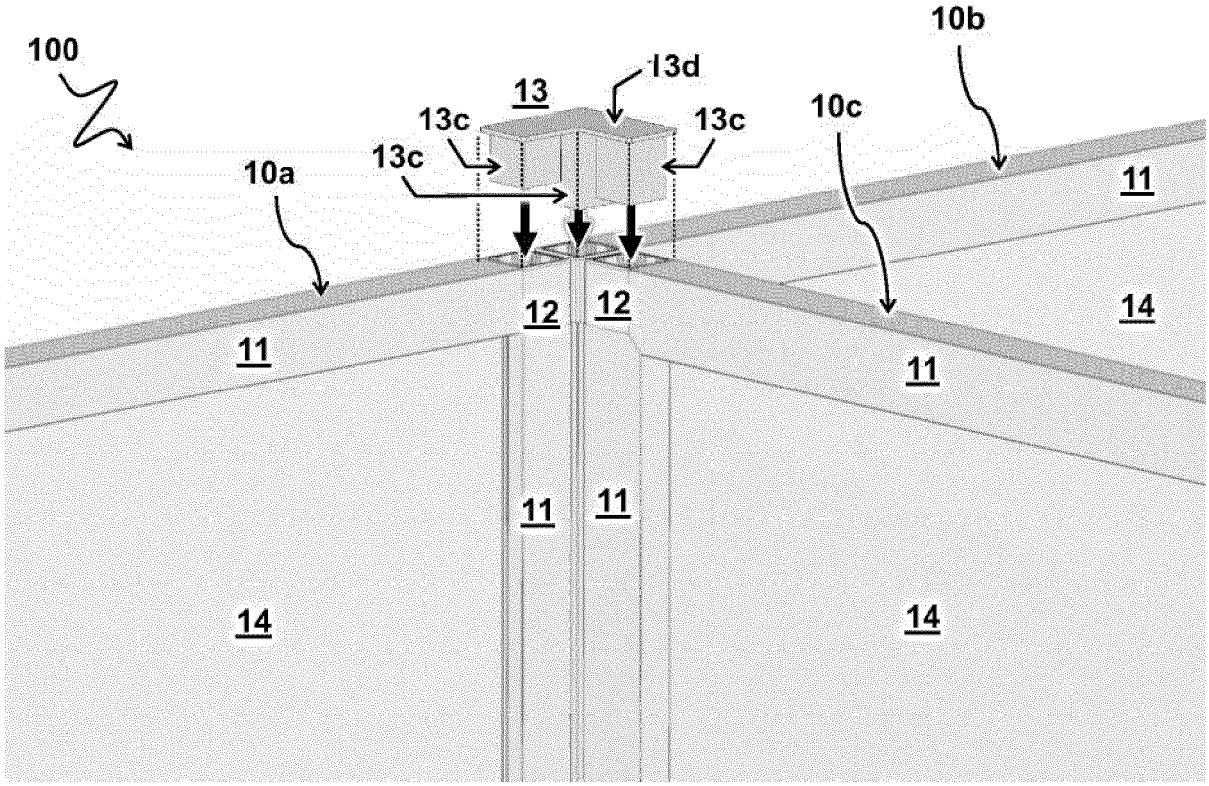

100
10a
10b
10c
13
13c
13c
13d
13c
11
11
11
11
11
12
12
14
14
14

FIG 3A

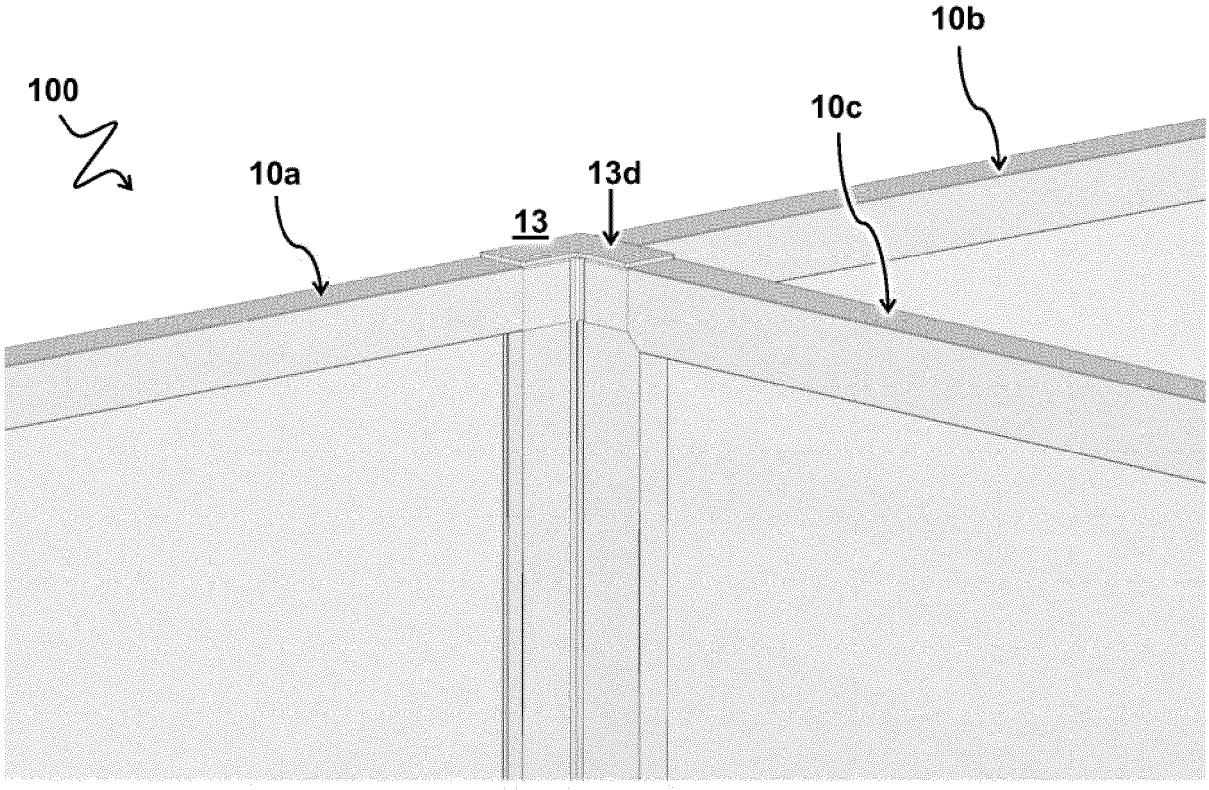
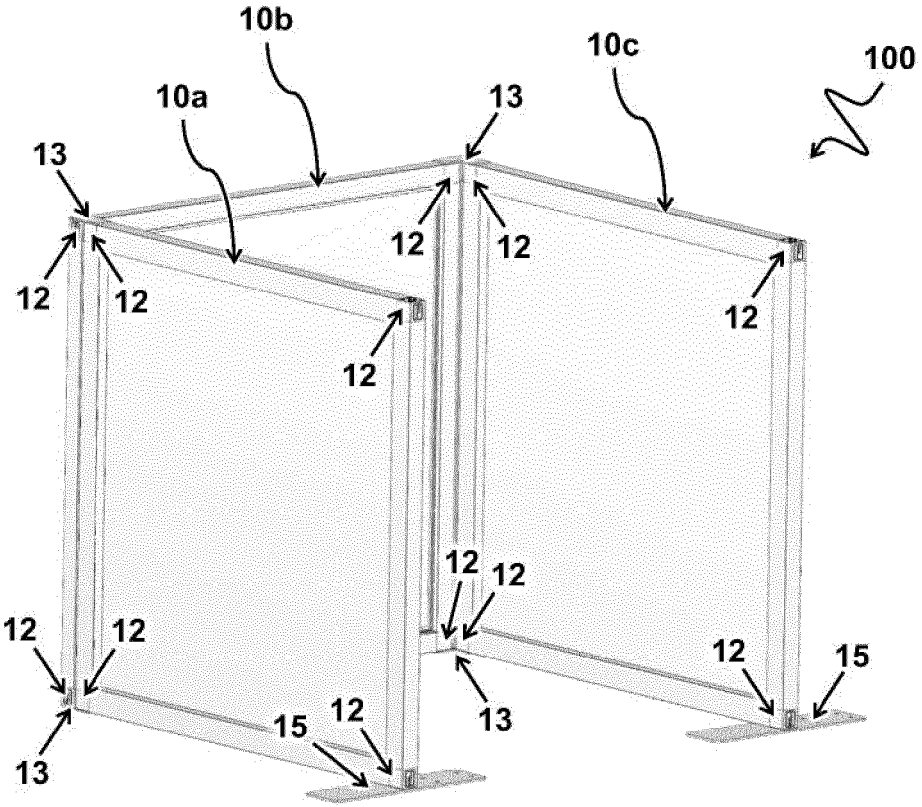

100
10a
10b
10c
13
13d

FIG 3B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10c
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10a
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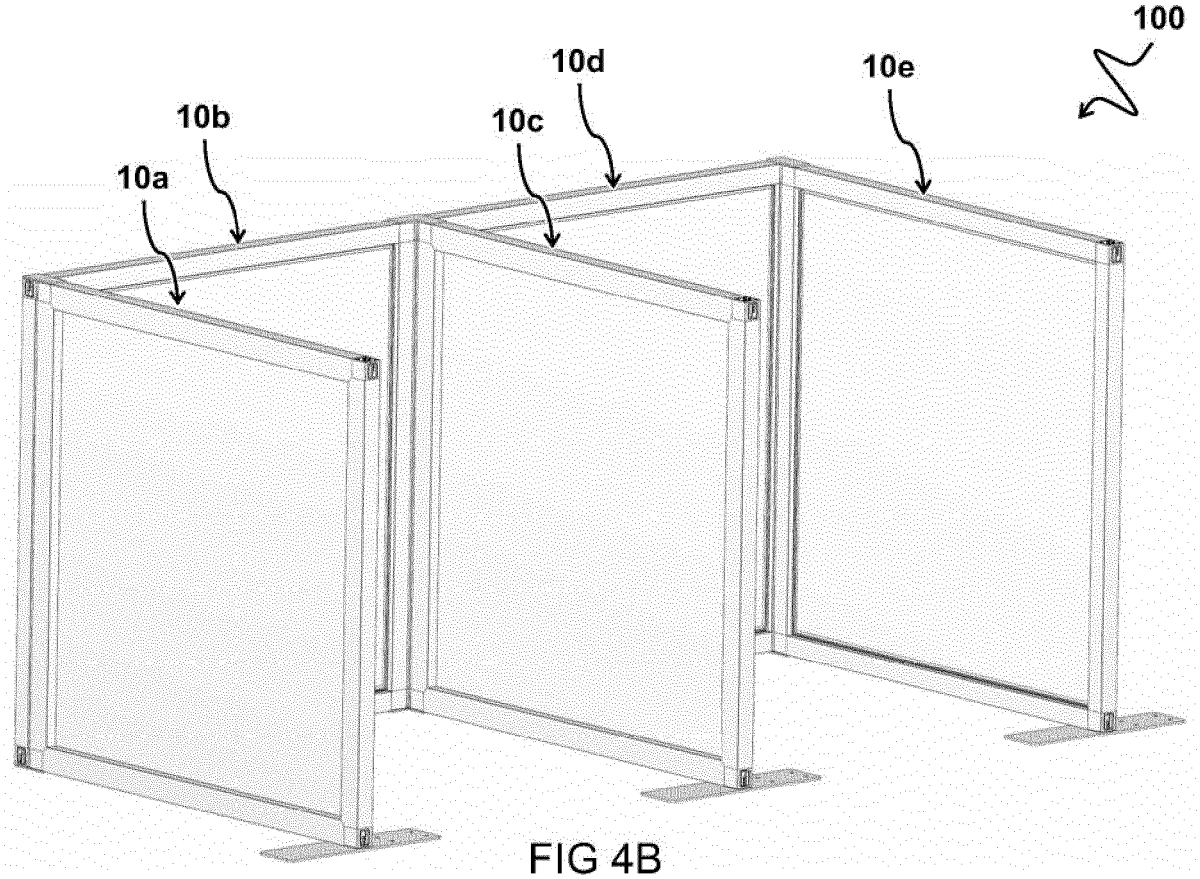
13

FIG 4A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10d
10e
10b
10c
10a

FIG 4B

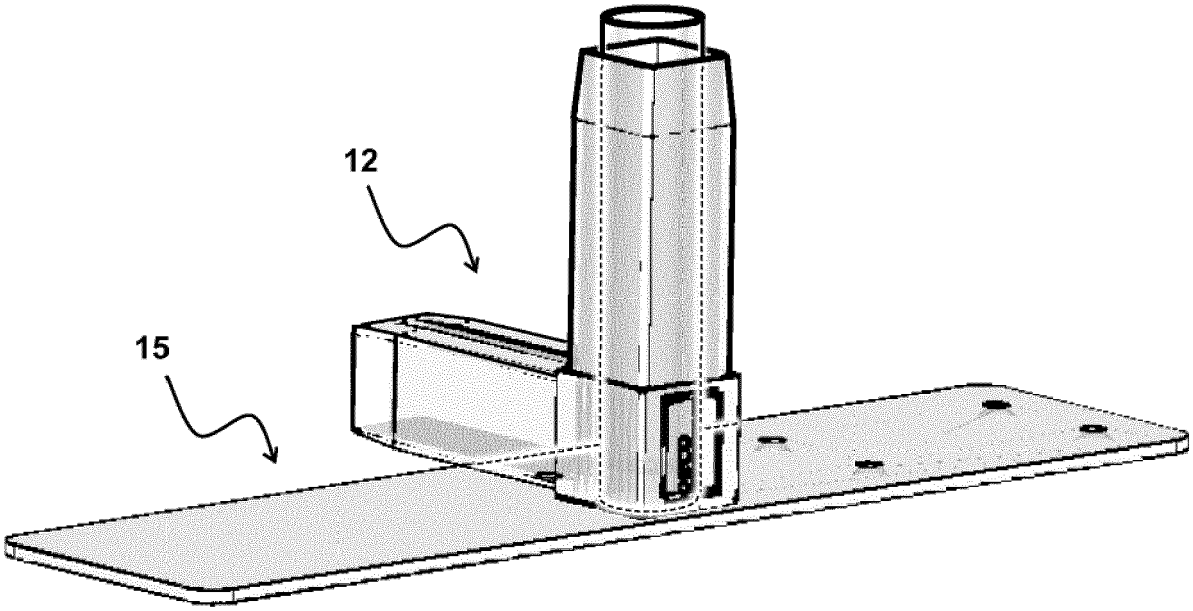

FIG 5A

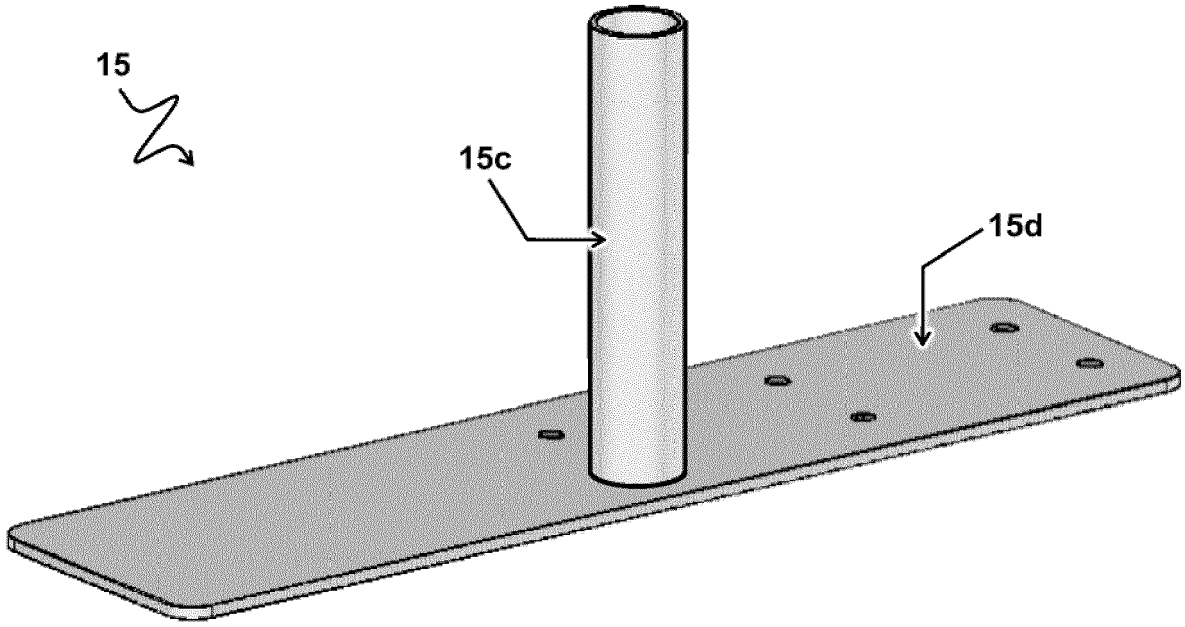

FIG 5B

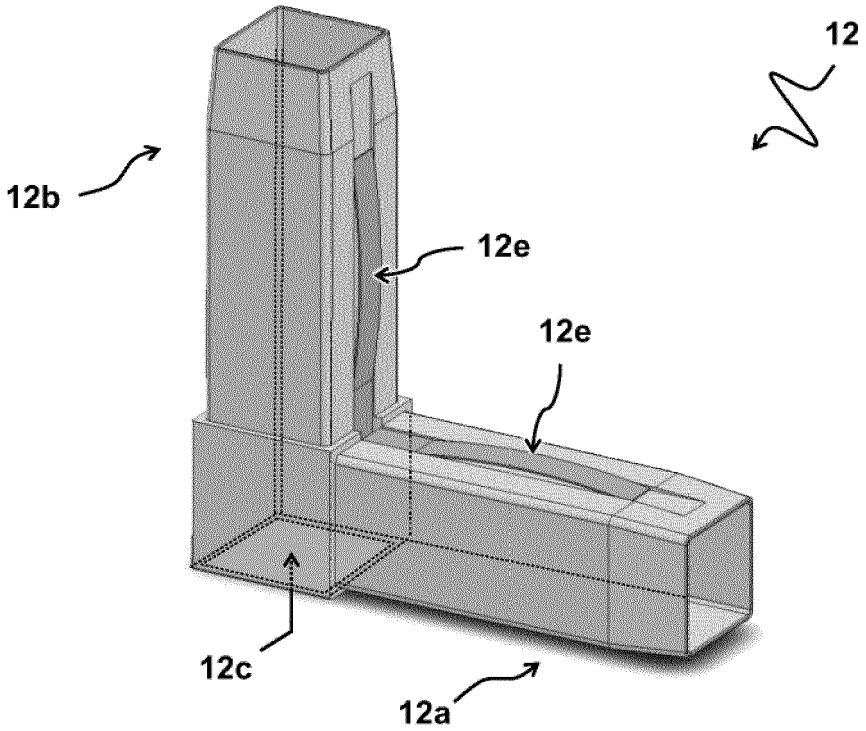

FIG 6A

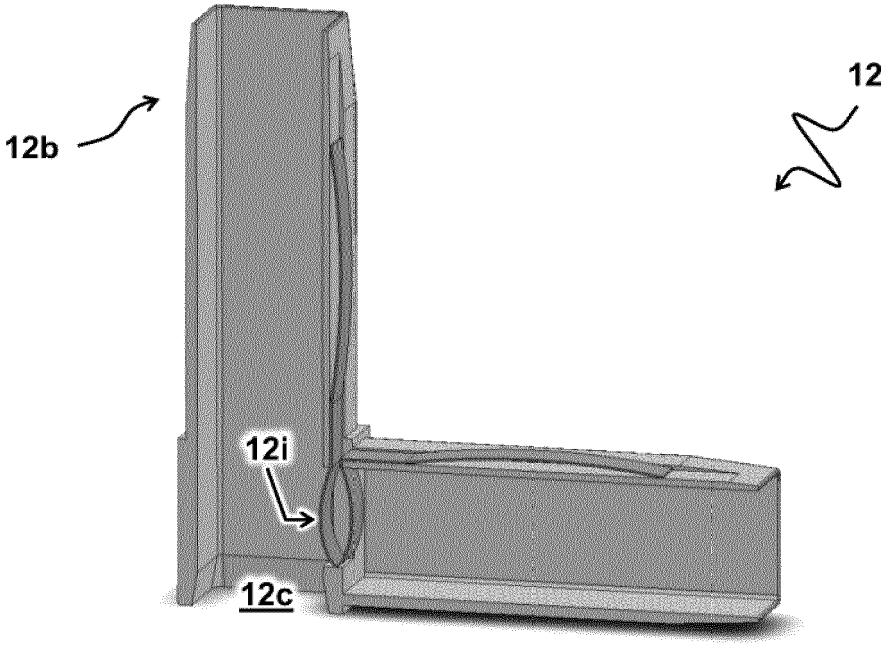

FIG 6B

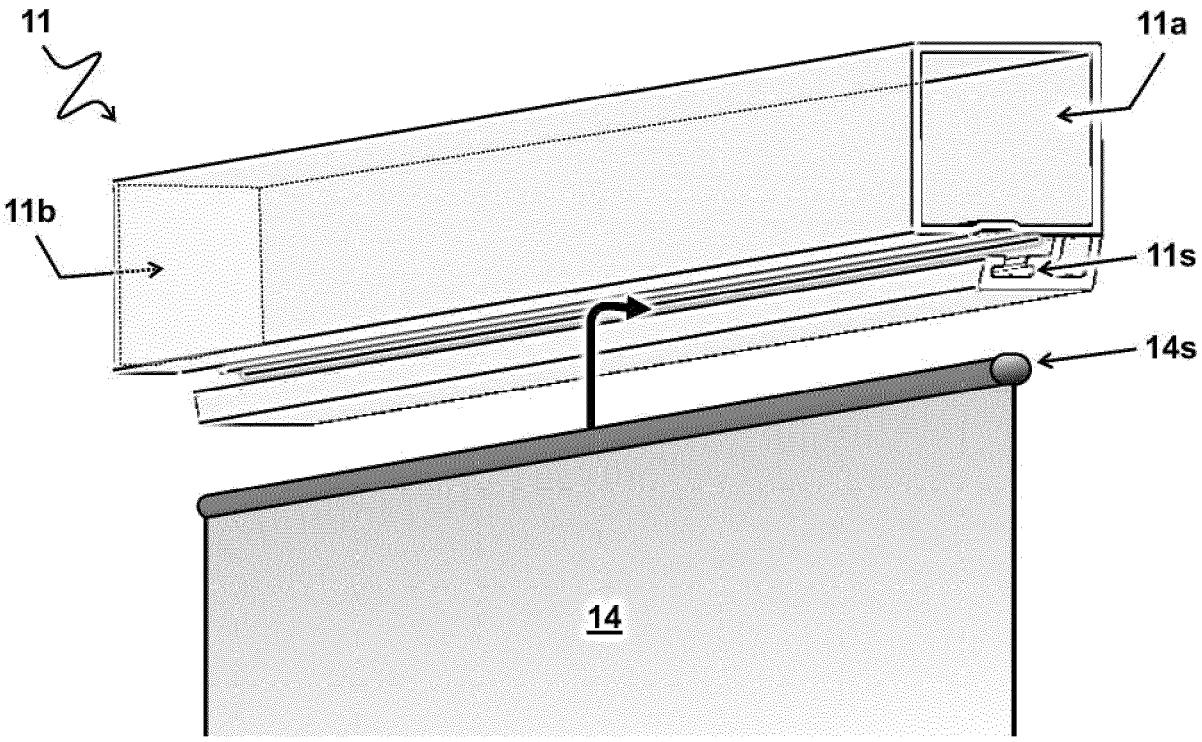

FIG 7A

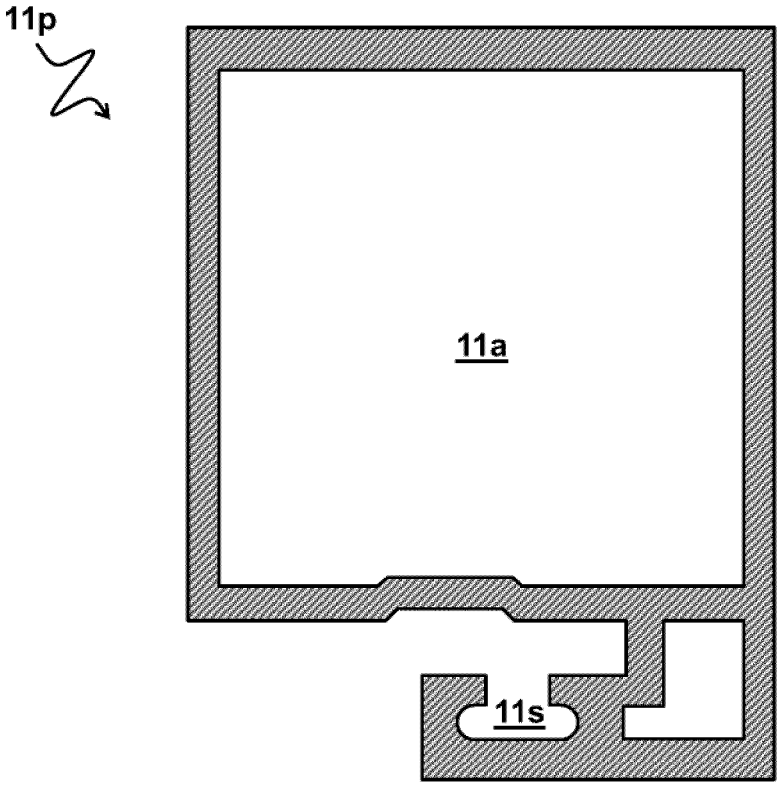

FIG 7B

FIG 8A

FIG 8B

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European Patent Office
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EUROPEAN SEARCH REPORT

Application Number
EP 23 15 1614

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2008/152530 A1 (DE SILVA BASIL [LK]; DE SILVA CHAMINDRA [LK]) 18 December 2008 (2008-12-18) * paragraph [0025] - paragraph [0037]; claims 1, 2; figures (a), (b), (c), (d) *	1-15	INV. E04B2/74 ADD. E04B2/78 E04B1/61
X	KR 101 114 567 B1 (KOAS CO LTD [KR]) 27 February 2012 (2012-02-27) * abstract; figures 1-5 *	1-15	
X	US 2013/260362 A1 (MELASHENKO CONNIE [US] ET AL) 3 October 2013 (2013-10-03) * paragraph [0060] - paragraph [0064]; figures 1-6 *	1-15	

TECHNICAL FIELDS SEARCHED (IPC)

E04B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	15 May 2023	Galanti, Flavio

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15-05-2023

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