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(54) **BOARD ASSEMBLY**

(57) The present invention provides for a board comprising: an upper surface; a first end; an opposing second end, each end comprising attachment means each attachment means configured for removable attachment with a said attachment means of another said board such that the upper surfaces of the board and the said board are flush; a pivoting member, wherein, in use, the board is arranged to pivot about the pivoting member upon the application of a force orthogonal to the first or second end such that the attachment means of the second or first end, respectively, detaches from the attachment means of the said other board. The present invention also provides for a board assembly comprising two or more such boards, the boards being removably attached to one another to form a substantially flush continuous surface.

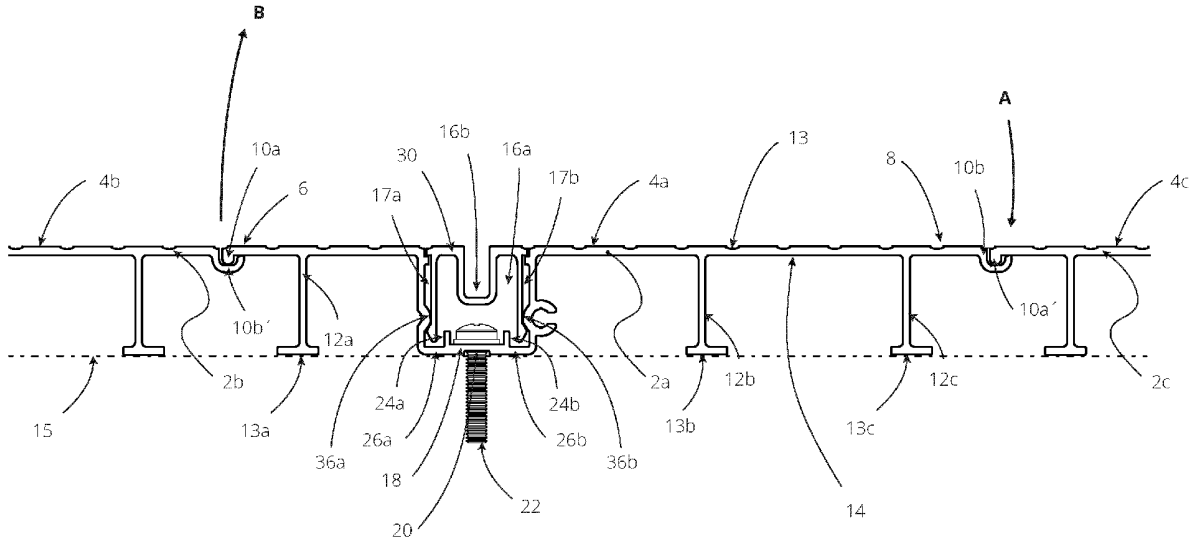

Figure 1

EP 3 901 391 A1

Description

Field of the Invention

[0001] This invention relates to a board and a board assembly.

Background of the Invention

[0002] In the wake of the Grenfell fire tragedy, new legislation has come into force banning the use of combustible outside decking and cladding on buildings above 16m tall.

[0003] Conventional decking for 'high-rise' buildings is typically assembled within a building, which can be cumbersome as the materials of the decking must be transported, usually up flights of stairs, to the installation site.

[0004] Further, the fixtures that secure the boards of conventional decking together are in view of users, which is unsightly and, in some cases, facilitates theft of said fixtures and/or boards, which is costly and undesirable. To avoid liquid ingress from the decking surface, conventional decking installs also typically require a waterproof tray or "soffit" beneath the decking to collect liquid run off from the decking, which can be costly and time consuming to install.

[0005] Further, the installation of conventional decking requires a gap in between each board, allowing fixings and other small objects to pass through said gaps, which can be hazardous if the decking is installed at elevation.

Summary of the Invention

[0006] According to a first aspect of the present invention there is provided a board comprising: an upper surface; a first end; an opposing second end, each end comprising attachment means each attachment means configured for removable attachment with a said attachment means of another said board such that the upper surfaces of the board and the said board are flush; a pivoting member, wherein, in use, the board is arranged to pivot about the pivoting member upon the application of a force orthogonal to the first or second end such that the attachment means of the second or first end, respectively, detaches from the attachment means of the said other board.

[0007] In this way, a plurality of boards can be removably attached together to form a board assembly with a substantially continuous surface for use as a decking surface. As each board is removably attached to the other boards, any board can be easily detached from the board assembly and replaced with another board.

[0008] Preferably, the attachment means is configured to removably attach to the said attachment means of the said other board via complementary engagement between the attachment means of the board and the said attachment means of the said other board. In this way, due to the removable attached configuration between a pair of boards, no additional clip fixtures are required to secure the boards together allowing the board assembly to be assembled with fewer parts than conventional decking arrangements that use clip fixtures, which sometimes fall in between and below the decking assembly.

[0009] Preferably, the attachment means of the first end has an opposing orientation to the attachment means of the second end.

[0010] Preferably, the attachment means comprises a hook.

[0011] Preferably, the board comprises a recess configured to allow the board to be mounted to another surface using at least one fixing means. In this way, the board can be mounted to another surface.

[0012] Preferably, the recess is offset from a centre of the board. In this way, leverage for releasing an end of the board furthest away from the recess is improved relative to a central recess arrangement. Further, with the board mounted to another surface via a fixture, having the channel offset increases the downward force applied the end closest to the recess relative to having a central recess arrangement. In addition, having the recess 16a offset from a centre of the board 2a allows the board 2a to be cut via the steps 13 to achieve a greater number of widths of the board 2a - a minimum achievable width of a board 2a having an offset recess is less than a minimum achievable width of a board having a central recess.

[0013] Preferably, the recess is configured such that the at least one fixing means does not protrude beyond the surface of the board. In this way, the fixture can ultimately be concealed from the view of a user.

[0014] Preferably, the recess comprises at least one sub-recess that is thin relative to the thickness of the recess such that the fixing means readily penetrates the sub-recess when mounting the board to another surface. In this way, the sub-recess does not require pre-drilling for a fixture to penetrate the sub-recess and mount the board to another surface. Further, the geometry of the sub-recess allows linear expansion and contraction of the board, due to thermal fluctuations of the board, to be accommodated.

[0015] Preferably, a cover is configured to be removably mounted to the recess such that the recess, and thus the fixing means, is concealed from view when the cover is in situ.

[0016] Preferably, a top surface of the cover is configured to be flush with the surface of the board when the cover is in situ. In this way, a substantially continuous surface of the board assembly is achieved.

[0017] Preferably, the recess extends along a longitudinal length of the board to form a channel.

[0018] Preferably, the channel is substantially parallel with the first and second ends of the board. In this way, manufacture of the board, and the integration of the cover with the board, is less complex.

[0019] Preferably, an inner bottom surface of the channel comprises at least one protrusion either side of the

channel that extend along a longitudinal length of the board to form subchannels.

[0020] Preferably, the subchannels are configured such that liquid received in the subchannels is arranged to flow towards at least one end of the subchannels. In this way, liquid received in the subchannels can be arranged to be drained from the board assembly. A separate drain mechanism below the board assembly is not required, as is required in conventional board assemblies for use as decking.

[0021] Preferably, the at least one protrusion either side of the channel are configured to prevent ingress of liquid received in the subchannels from entering the channel.

[0022] Preferably, the subchannels are substantially parallel with the channel.

[0023] Preferably, the cover comprises a recess that extends along a longitudinal length of the cover to form a channel such that liquid received in the channel of the cover is arranged to flow towards at least one end of the channel of the cover. In this way, liquid received in the channel of the cover can be arranged to be drained from the board assembly.

[0024] Preferably, the board comprises a flame-resistant material. In this way, the board assembly complies with recent changes in legislation in the United Kingdom banning the use of combustible outside decking and cladding on buildings above 16m tall.

[0025] Preferably, wherein the material is aluminium.

[0026] Preferably, the board further comprises one or more supports for elevating the board from ground surface. In this way, the structural support of the board assembly can be improved.

[0027] Preferably, ends of the one or more supports are substantially flush with an outer bottom surface of the channel. In this way, the board cam be mounted to another surface with a fixture more efficiently.

[0028] Preferably, the one or more supports and/or the recess is configured to be the pivoting member.

[0029] According to a second aspect of the invention there is provided a board assembly comprising two or more boards as set out in the first aspect of the invention, the boards being removably attached to one another to form a substantially flush continuous surface.

Brief Description of the Drawings

[0030] Other aspects and features of the present invention will become apparent to those ordinarily skilled in the art upon review of the following description of specific embodiments of the invention in conjunction with the accompanying figures.

[0031] Embodiments of the invention will now be described by way of example, with reference to the drawings in which:-

Figure 1 illustrates a cross-sectional view of a board assembly;

Figures 2a and 2b illustrate a cross-sectional view showing the process of removal of a board from the board assembly;

Figures 3a, 3b, 3c, 3d and 3e illustrate cross-sectional views of each component of the board assembly and alternatives of each component, in particular Figure 3a illustrates a cross-sectional view of a board with three support members, Figure 3b illustrates a cross-sectional view of a board with two support members, Figure 3c illustrates a cross-sectional view of an end piece, Figure 3d illustrates a cross-sectional view of a cover with a channel, and Figure 3e illustrates a cross-sectional view of a cover without a channel;

Figures 4a, 4b and 4c illustrate cross-sectional views of a number of configurations of the components of the board assembly;

Figure 5 illustrates a perspective view of the board assembly from Figure 1;

Figure 6 illustrates a perspective view of the process of removal of a board from the board assembly from Figure 2;

Figures 7a and 7b illustrate perspective views of the board from Figure 3a, in particular Figure 7a illustrates a plan view of the board and Figure 7b illustrates a bottom view of the board; and

Figures 8a, 8b,8c, and 8d illustrate perspective views of Figures 3a,3c,3d and 3e respectively.

Detailed Description

[0032] An embodiment of the present invention is described below. The board assembly 1 comprises a plurality of boards 2a, 2b, 2c that are removably attached to one another such that the top surfaces 4a, 4b, 4c of the each of the boards 2a, 2b, 2c once attached are substantially flush. In this way, the board assembly 1 provides a continuous substantially level surface for users to walk on and/or erect objects etc. In particular, board 2a is removably attached to both board 2b and board 2c. In other embodiments, the board assembly 1 may comprise more or less than three boards removably attached to one another to produce a continuous substantially level surface.

[0033] The board 2a has a first end 6 and an opposing second end 8, each end 6, 8 comprising a hook 10a, 10b. In this embodiment, the first end 6 and second end 8 are formed into the hooks 10a, 10b, i.e. the hooks 10a, 10b are formed integrally with the board 2a. In other embodiments, the hooks 10a, 10b and the board 2a may be separate parts. In this case, the hooks 10a, 10b may be attached to the first and second ends 6, 8 of the board 2a respectively.

[0034] The board 2a has supports 12a, 12b, 12c which extend downwardly from a bottom surface 14 of the board 2a such that the board 2a can be erected from/elevated on a ground or levelled surface 15 via ends 13a, 13b, 13c of the supports 12a, 12b, 12c. The supports 12a,

12b, 12c are configured to provide structural support to the board 2a. In this embodiment, the board 2a has three supports. In other embodiments, there may be more or less than three supports.

[0035] Each board comprises a plurality of steps 13 at a pre-determined intervals which are recessed into the boards. The thickness of the step 13 is thin relative to the thickness of the board 2a, i.e. the step 13 is of reduced thickness when compared to the thickness of the rest of the board 2a. The plurality of steps 13 extend along a longitudinal length of the board. In this way, the board 2a can be torn or cut into two separate pieces along the longitudinal length of the step 13. The steps 13 provide the board assembly 1 with an 'anti-slip' characteristic. As the steps are recessed, an edge of the step, once the step has been torn or cut, is less visible to a user. In some embodiments, the step protrudes from the surface 4a of the board 2a. In this case, the anti-slip characteristic is improved but the edge of step once torn is more visible to a user.

[0036] The pre-determined interval of steps 13 is selected such that the supports 12a, 12b, 12c are located in-between the steps 13. In this way, the supports 12a, 12b, 12c do not interfere with the steps 13 when the board 2a is being torn or cut along a particular step 13. Preferably, the pre-determined interval is 10mm.

[0037] The hook 10a at the first end 6 of the board 2a has an opposing orientation to the hook 10b at the second end 8 of the board 2b. The geometry of the hooks 10a, 10b allows for removable engagement between the hooks 10a, 10b, i.e. hook 10a to hook 10b and vice versa. In other words, the hook 10a is a 'male' hook and the hook 10b is a 'female' hook rotated 180 degrees relative to the hook 10a. In this way, the first end 6 of the first board 2a can be removably attached to the second end of the second board 2b, and the second end 8 of the first board 2a can be removably attached to the first end of the third board 2c, and so on, via complementary removable engagement between the corresponding hooks of each board 2a, 2b, 2c. In particular, the board 2a is removably attached to the board 2b via removable engagement between hook 10a and hook 10b', and to the board 2c via removable engagement between hook 10b and hook 10a'. In other words, the hooks 10a, 10b of the board 2a are a means to allow the board 2a to removably attach to another board via complementary removable engagement between opposingly orientated hooks of the respective boards.

[0038] A central portion of the board 2a between the hooks 10a, 10b is recessed forming a channel 16a. The channel 16a extends along a longitudinal length of the board 2a and is substantially parallel with the first and second ends 6, 8 of the board 2a. The recess forming the channel 16a is offset from the centre of the board 2a - the advantage of this arrangement with be described further below. In other embodiments, the channel 16a may not be substantially parallel with the first and second ends 6, 8.

[0039] A bottom 18 of the channel 16a is substantially flush with the ends 13a, 13b, 13c of the supports 12a, 12b, 12c. In this way, the bottom 18 is also configured to offer structural support to the board 2a. In some embodiments, the bottom 18 of the channel 16a may not be substantially flush with the ends 13a, 13b, 13c.

[0040] The bottom 18 of the channel 16a has a depression or sub-recess 20 for assisting a fixing means or fixture 22 to mount the board 2a to the ground or a levelled surface 15 upon which the board 2a is supported. The fixture 22 may be any suitable means for fixing the board 2a to a levelled surface, such as a bolt or screw fixing. The sub-recess 20 is relatively thin, with respect to the thickness of the surrounding bottom 18 of the board 2a, meaning the sub-recess 20 does not require pre-drilling for the fixture 22 to penetrate the sub-recess 20 and mount the board 2a to the levelled surface 15. Further, the geometry of the sub-recess 20 allows linear expansion and contraction of the board 2a, due to thermal fluctuations of the board 2a, to be accommodated. Here, the sub-recess 20 allows for the fixture 22 to further penetrate or 'tear' the sub-recess 20, axially, as the board expands, keeping the board 2a secure without 'bowing' of the board occurring. Bowing is problematic as it can cause the fixtures to fail due to shearing.

[0041] The sub-recess 20 provides capacity for swarf formed by the fixing process such that self-drilling fixtures are able to mount the board 2a to the levelled surface 15 without additional swarf attached to the bottom 18. In this way, the board 2a can be mounted flush with the levelled surface 15. When using the board assembly 1 as decking, the surface upon which the boards are supported and mounted to are typically joists.

[0042] In some embodiments, the bottom 18 has a plurality of sub-recesses (not shown) spaced along the longitudinal length of the bottom 18 for assisting a plurality of fixtures to mount the board to the ground or a levelled surface.

[0043] The joins between the boards of the board assembly 1, i.e. where the hooks 10a, 10b between the respective boards removably engage, are substantially concealed from the view of a user due to the tight complementary fit between the pairs of removably engaged hooks 10a, 10b. When the board 2a is mounted to a levelled surface 15, an axial load is transferred to the hooks 10a, 10b, via the fixture 22, such that a seal is formed between the removably engaged hooks 10a, 10b of the board 2a.

[0044] Once the board 2a has been mounted to the levelled surface 15, the channel 16a is concealed from the view of a user by a cover 30. In this way, the fixture 22 can be concealed from view of a user of the board assembly 1.

[0045] The cover 30 is mounted to the channel 16a using an interference fit such that a top surface 4d of the cover 30 is substantially flush with the top surface 4a of the board 2a. In this way, the cover 30 does not protrude from the board 2a, which would be potentially dangerous

trip hazard for a user. The interference or 'snap' fit is achieved via complementary or interlocking engagement between the legs 34a, 34b of the cover 30 and extruded interlocking members 36a, 36b on the board 2a. The interlocking members 36a, 36b of the board 2a may be shaped to allow trim panels to be screwed to the board 2a via the members 36a, 36b. In this embodiment, the member 36b is 'C' shaped to allow a screw to be inserted. The configuration of the 36a, 36b interlocking members thus serves a dual purpose, saving material, by providing a mating surface for interlocking engagement with the legs 34a, 34b of the cover 30, and allowing trim panels to be screwed to the board 2a, requiring less material to be used.

[0046] The bottom 18 of the channel 16a also has protrusions 24a, 24b which extend upwardly from the bottom 18. The protrusions 24a, 24b also extend along a longitudinal length of the board 2a to form subchannels 26a, 26b. The subchannels 26a, 26b are substantially parallel with the channel 16a. In other embodiments, the subchannels 26a, 26b may not be substantially parallel with the channel 16a.

[0047] Engagement between a pair of hooks 10a, 10b effectively creates a seal substantially preventing liquid ingress below the continuous surface of the board assembly 1. Any ingress of liquid, due to failure of the seal, is arranged to flow along a longitudinal length of the hook 10a, 10b, in particular the female hook 10b, where it may be drained at an end of the hook 10a, 10b.

[0048] The interference fit between the cover 30 and the board 2a may result in small gaps 17a, 17b between the legs 34a, 34b of the cover 30 and the walls of channel 16a. Any ingress of liquid via the gaps 17a, 17b is collected by the subchannels 26a, 26b - the protrusions 24a, 24b help to prevent liquid entering the channel 16a from the subchannels 26a, 26b such that liquid does not contact the fixture 22. This is advantageous as contact between the liquid and the fixture 22 may result in galvanic and conventional corrosion of the fixture 22.

[0049] A drainage mechanism (not shown) may be coupled to the end of the subchannels 26a, 26b to allow accumulated liquid at the end of the subchannels 26a, 26b to be removed. In this way, liquid entering the board assembly 1, such as rain, can be collected and drained from the board assembly 1, rather than seeping through the assembly 1 directly onto the surface upon which the board assembly 1 is mounted.

[0050] The cover 30 also has a recess forming a channel 16b. The channel 16b extends along a longitudinal length of the cover 30 and is substantially parallel with the first and second ends 6, 8 of the board 2a. In other embodiments, the channel 16b may not be substantially parallel with the first and second ends 6, 8.

[0051] The channel 16b facilitates the collection of liquids exposed to the board 2a, such as rain, such that liquids are also arranged to flow to an end (not shown) of the channel 16b. As before, a drainage mechanism (not shown) may be coupled to the end of the channel 16b to allow accumulated liquid to be removed. The drainage mechanisms may drain liquids in a direction perpendicular to the longitudinal length of the board 2a.

[0052] As illustrated by Figure 2, with the board assembly 1 mounted to a surface, any board 2a, 2b, 2c can easily be detached and removed from the board assembly 1. For example, to remove board 2a from the assembly 1, the cover 30 is first removed from the board 2a by levering the cover 30 upwardly from the board 2. The cover 30 can be accessed by a user from an edge of the board. The fixture 22 is then removed from the sub-recess 20 such that the board 2a is no longer mounted to the surface. By applying a force to one of the pair of engaged hooks of the board 2a in a direction A orthogonal to the board 2a, for example by a user pressing down on one of the pair of engaged hooks, the board 2a can be released from the assembly 1.

[0053] The process of disengaging engaged hooks of the board 2a to release the board from the assembly 1 will now be described. As described above, the board 2a is attached to the board 2b via the engaged hooks 10a, 10b', and to the board 2c via the engaged hooks 10b, 10a'. The application of a force to the engaged hooks 10b, 10a' in the direction A would result in the engaged hooks 10a, 10b' becoming disengaged, thus detaching board 2a from board 2b.

[0054] More specifically, upon the application of force, the engaged hooks 10b, 10a' are displaced in the direction A, and the board 2a pivots about the hook 10a' and the end 13b of the support 12c. The board 2a is elastically deformable due to the material of the board 2a, which facilitates displacement of the engaged hooks 10b, 10a' in the direction A.

[0055] As the board 2a begins to pivot, the hook 10a is disengaged from the hook 10b' and travels in a direction B, due to contact between the end 13c and the ground surface. The top surfaces 4a, 4b are no longer flush, and a user is able to grasp the board 2a proximate to the first end 6 as there is enough clearance of the first end 6 from the top surface 4b of the board 2b.

[0056] With the hooks 10a, 10b' now disengaged, the engaged hooks 10b, 10a' can be disengaged simply by pulling/levering the board 2a free from the board 2c. In this way, the board 2a can be easily removed from the board assembly 1 and replaced with a new board.

[0057] As described above, the recess forming the channel 16a is offset from the centre of the board 2a. In particular, the recess forming the channel 16a is offset from the centre of the board 2a towards the first end 6 and away from the second end 8 such that leverage for releasing the second end 8 is improved relative to having the recess forming the channel 16a closer towards the second end 8, for example in the centre of the board 2a. Further, with the board 2a mounted to the levelled surface 15 via the fixture 22, having the channel 16a offset towards the first end 6 increases the downward force applied the first end 6 from the fixture 22 relative to having the channel 16a closer towards the second end 8. There-

fore, preferably, force is applied the engaged hooks furthest from the offset channel 16a.

[0058] With the board 2a removed from the board assembly 1, a user can attach a new board to the boards 2b, 2c by inserting the new board into engagement with the hooks 10b', 10a'. Hooks 10b, 10a' are first engaged as the new board is slid into the assembly 1. By application of a rotational force about the second end 8, the hooks 10a, 10b' are then also engaged, and the top surfaces of the boards become substantially flush once again. The cover 30 can then be remounted to the assembly 1 by depressing the cover 30 into the assembly 1 until interlocking engagement occurs between the legs 34a, 34b and the interlocking members 36a, 36b.

[0059] Figure 3 illustrates the separate components of the board assembly 1 and alternatives of each component. In particular, Figure 3a shows the board 2a of Figures 1 and 2. Figure 3b shows an alternative board 2a' having only two supports. Figure 3c shows a separate end piece 32 which is utilised with the board assembly 1. Figure 3d shows the cover 30 of Figures 1 and 2. Figure 3e shows an alternative cover 30' not having a recess which forms a channel.

[0060] The end piece 32 also comprise hooks 10a, 10b and are configured, structurally, to provide additional structural support to the board assembly 1. The end piece 32 also comprises a channel for receiving a cover 30, and interlocking members to allow interlocking engagement between the cover 30 and the end piece 32. The end piece 32 provides a secure platform to begin assembly of the board assembly 1.

[0061] Figure 4 illustrates different embodiments of the board assembly 1 comprising a combination of the various components illustrated by Figure 3 as desired by a user. The embodiment illustrated by Figure 4a shows board 2a' being removably attached to end pieces 32a, 32b to form a continuous surface. The end pieces 32a, 32b are typically attached to either end of a board assembly comprising a plurality of boards. Figure 4b shows a board being removably attached to end pieces, with one of the end pieces also being removably attached to another end piece, to form a continuous surface. Figure 4c shows a board being removably attached to both an end piece and another board to form a continuous surface.

[0062] In the case where a board 2a is torn along a step 13, the step 13 itself may be used as an over hook attachment means such that the board 2a can be removably attached to the under hook, i.e. hook 10b, of another board or end piece (illustrated by Figure 4a).

[0063] Preferably, a board that is removably attached to an end piece 32 has a combined width of 150mm from an end of the end piece 32 to the centre of the channel 16a. In this way, the combination of the board and the end piece 32 replicates the appearance and size a conventional board, which is typically 150mm in width, such that the board assembly can replace conventional decking arrangements - the board assembly can be retrofitted with conventional decking arrangements. In other embodiments, the combined width may be less or greater than 150mm, as desired during manufacture of the board assembly.

[0064] The boards are a fire-resistant material, preferably aluminium. In this way, the board assembly 1 complies with the recent changes in legislation banning the use of combustible outside decking and cladding on buildings above 16m tall.

[0065] In summary, two or more boards can be removably mounted together with their respective surfaces being flush to form a board assembly having a continuous level surface. The boards attach to one another via complementary engagement of corresponding attaching means. Any board of the assembly 1 can be removed by applying a downwardly force to one of the engaged hooks of the board, causing the other engaged hook of the board to disengage providing enough clearance of the board, with respect to the assembly, for a user to grab and pull the board free from the assembly. The board assembly may comprise end pieces on either end of a plurality of interconnected boards.

Claims

1. A board comprising:

an upper surface;
a first end;
an opposing second end, each end comprising attachment means each attachment means configured for removable attachment with a said attachment means of another said board such that the upper surfaces of the board and the said board are flush; and
a pivoting member, wherein, in use, the board is arranged to pivot about the pivoting member upon the application of a force orthogonal to the first or second end such that the attachment means of the second or first end, respectively, detaches from the attachment means of the said other board; and
wherein the board comprises a recess configured to allow the board to be mounted to another surface using at least one fixing means.

2. A board according to claim 1, wherein the attachment means is configured to removably attach to the said attachment means of the said other board via complementary engagement between the attachment means of the board and the said attachment means of the said other board.

3. A board according to claim 2, wherein the attachment means of the first end has an opposing orientation to the attachment means of the second end and/or the attachment means comprises a hook.

4. A board according to any preceding claim, wherein the board further comprises one or more supports for elevating the board from ground surface.

5. A board according to claim 4, wherein the one or more supports and/or the recess is configured to be the pivoting member.

6. A board according to any preceding claim, wherein the recess is offset from a centre of the board and/or the recess is configured such that the at least one fixing means does not protrude beyond the surface of the board.

7. A board according to any preceding claim, wherein the recess comprises at least one sub-recess that is thin relative to the thickness of the recess such that the fixing means readily penetrates the sub-recess when mounting the board to another surface.

8. A board according to any preceding claim, wherein a cover is configured to be removably mounted to the recess such that the recess, and thus the fixing means, is concealed from view when the cover is in situ.

9. A board according to claim 8, wherein the cover comprises a recess that extends along a longitudinal length of the cover to form a channel such that liquid received in the channel of the cover is arranged to flow towards at least one end of the channel of the cover.

10. A board accordingly to claim 8 or 9, wherein a top surface of the cover is configured to be flush with the surface of the board when the cover is in situ and/or the recess extends along a longitudinal length of the board to form a channel.

11. A board according to claim 9 or 10, wherein the channel is substantially parallel with the first and second ends of the board.

12. A board assembly according to claim 10 or 11, wherein an inner bottom surface of the channel comprises at least one protrusion either side of the channel that extend along a longitudinal length of the board to form subchannels.

13. A board according to claim 12, wherein the subchannels are configured such that liquid received in the subchannels is arranged to flow towards at least one end of the subchannels.

14. A board according to claim 13, wherein the at least one protrusion either side of the channel are configured to prevent ingress of liquid received in the subchannels from entering the channel.

15. A board assembly comprising two or more boards as claimed in any of claims 1 to 14, the boards being removably attached to one another to form a substantially flush continuous surface.

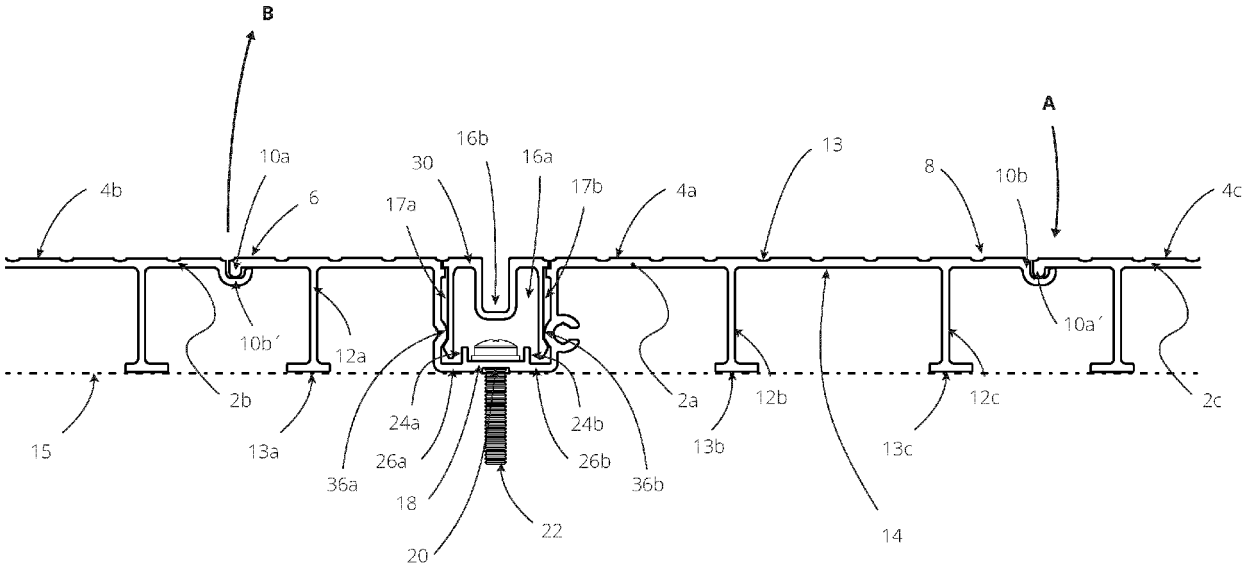
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Figure 1

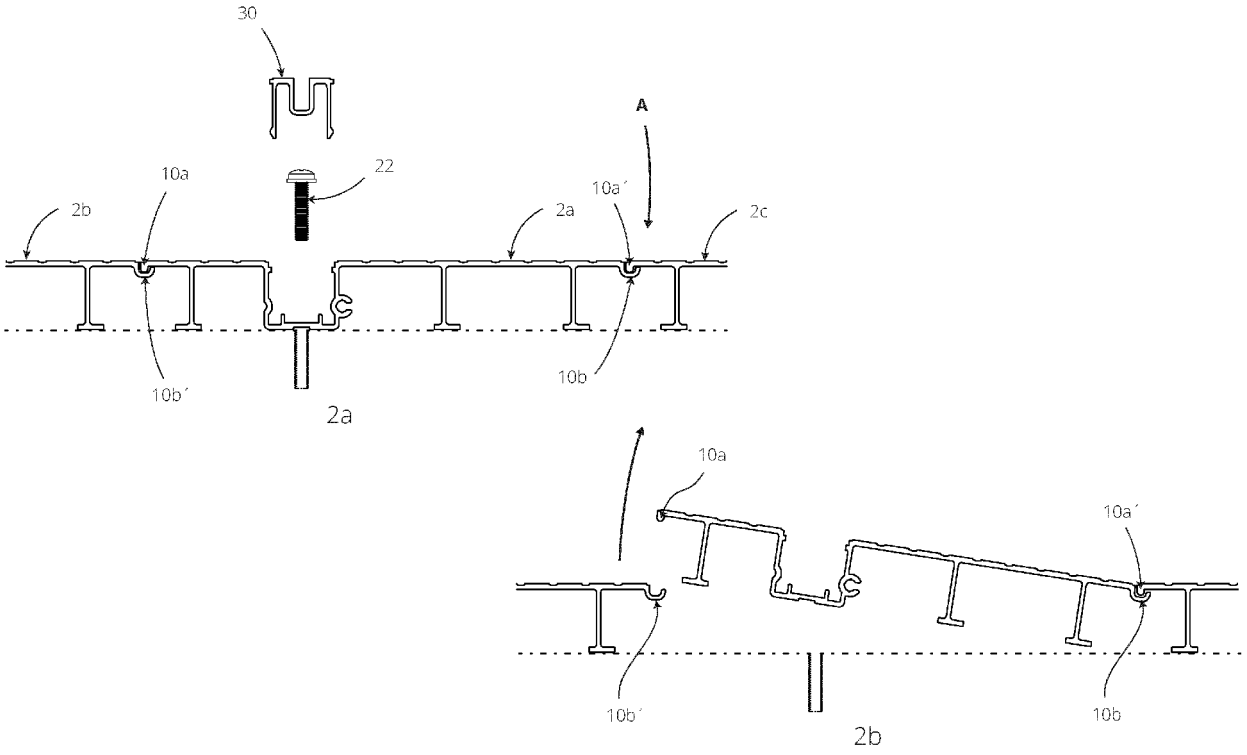
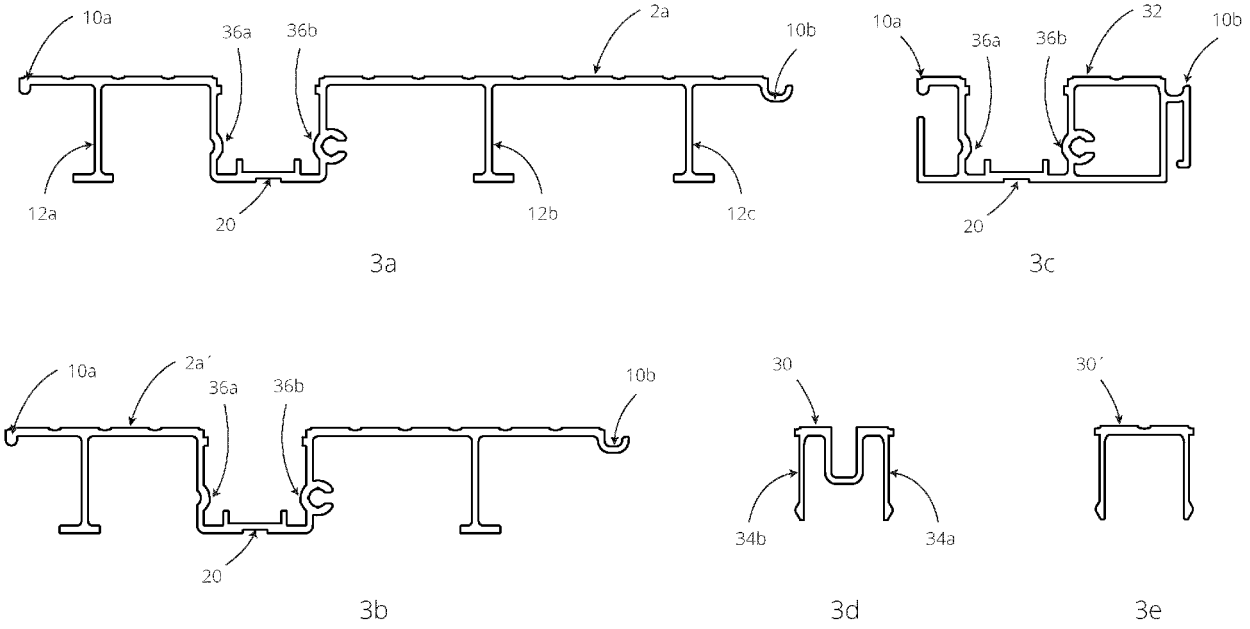


Figure 2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30
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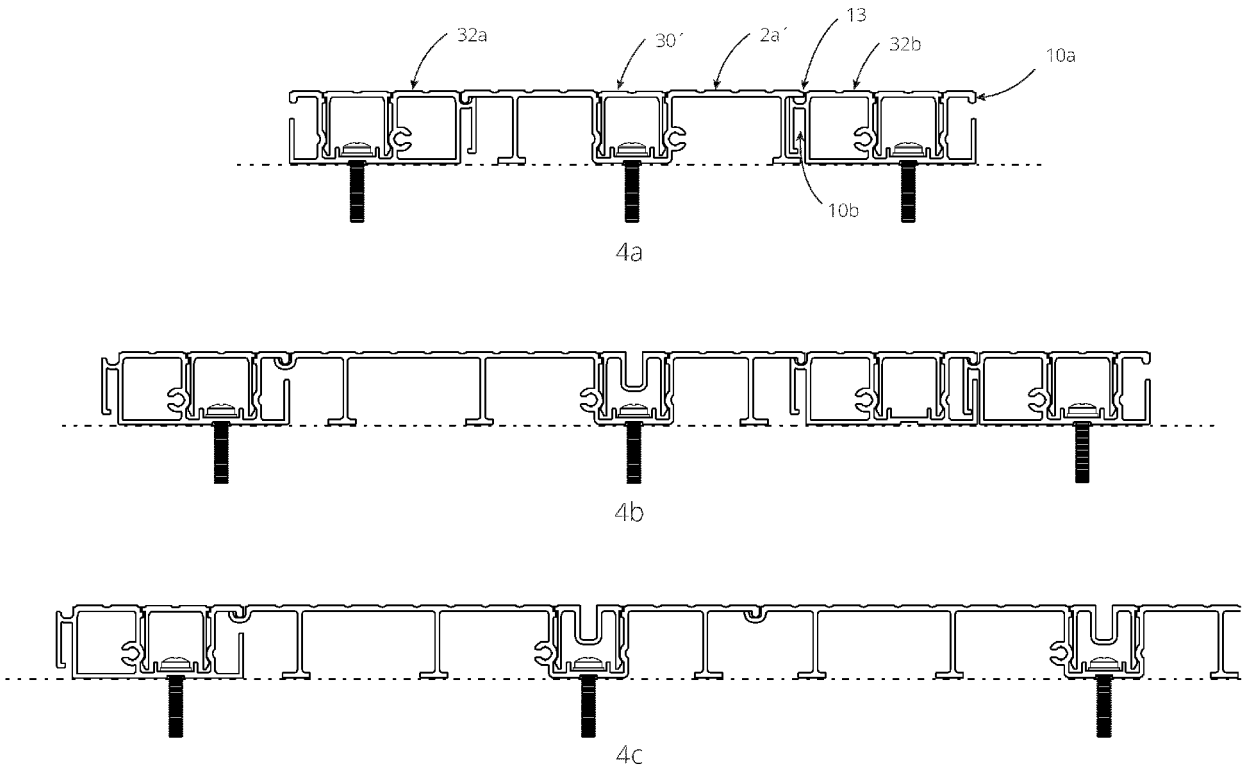
3d
30´
3e

Figure 3



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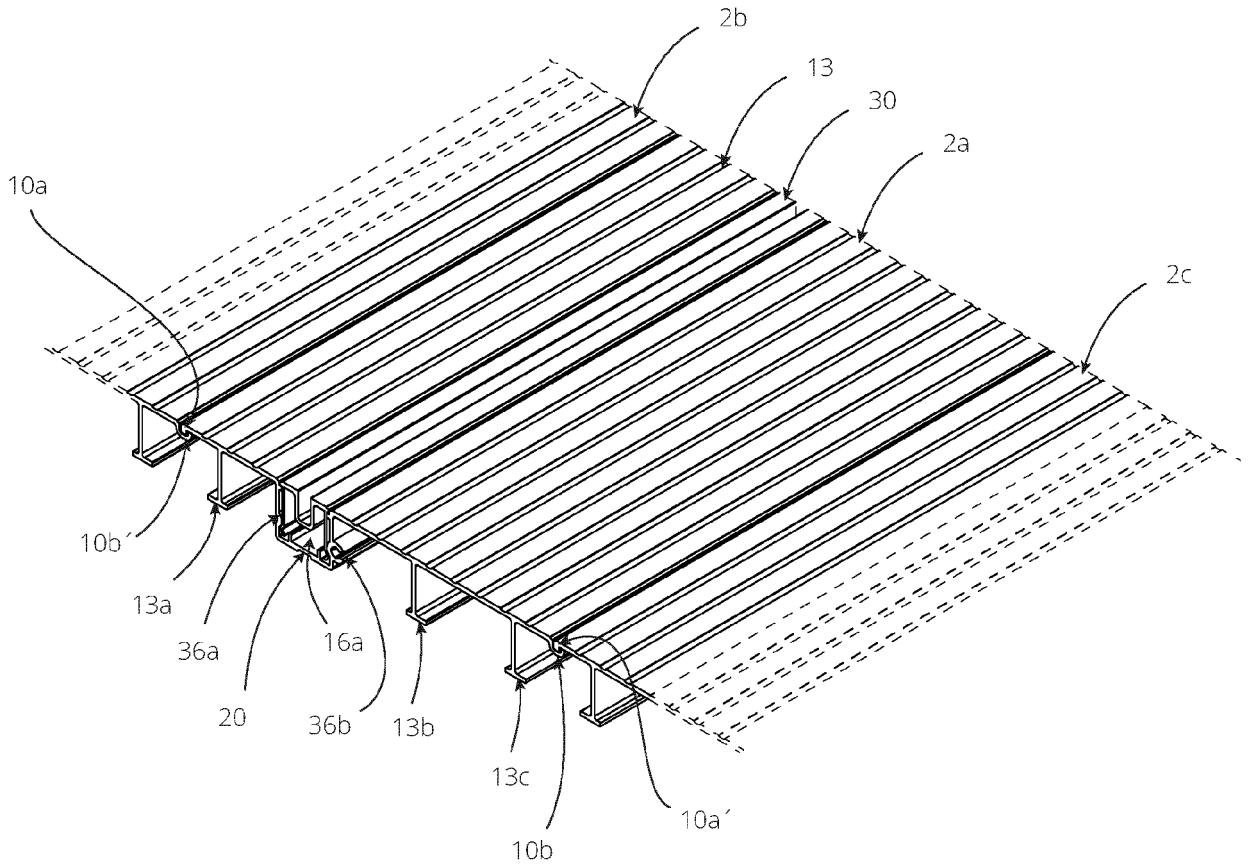

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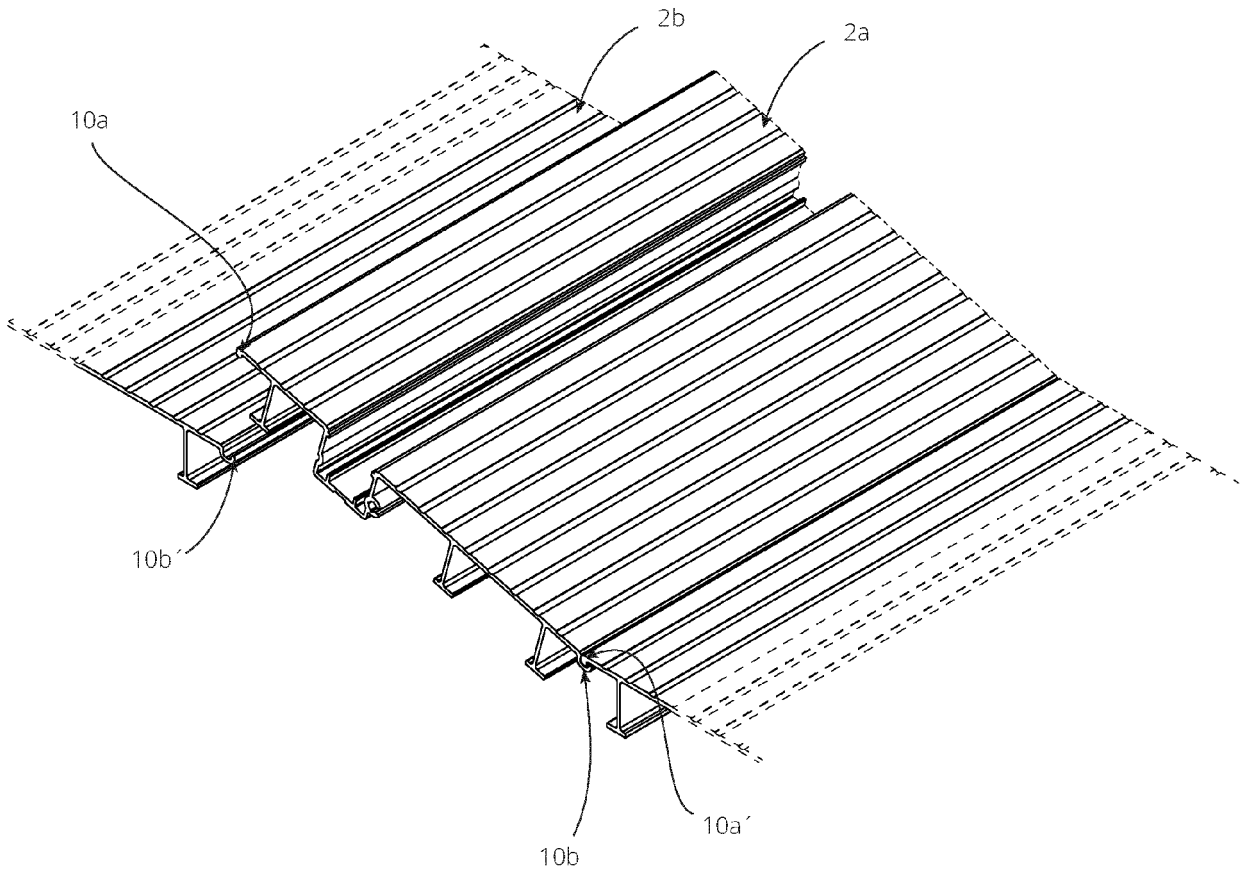

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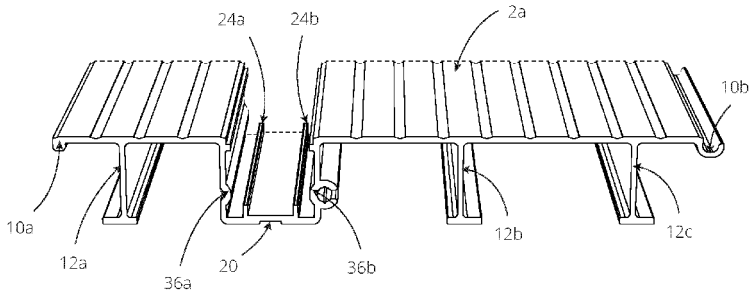

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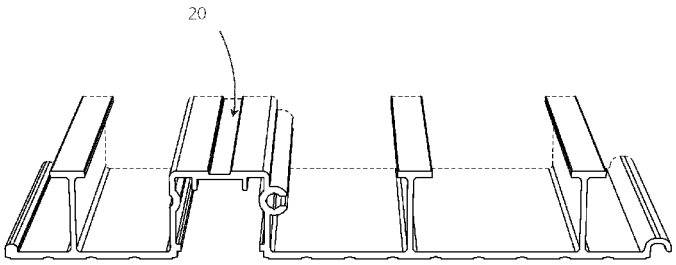

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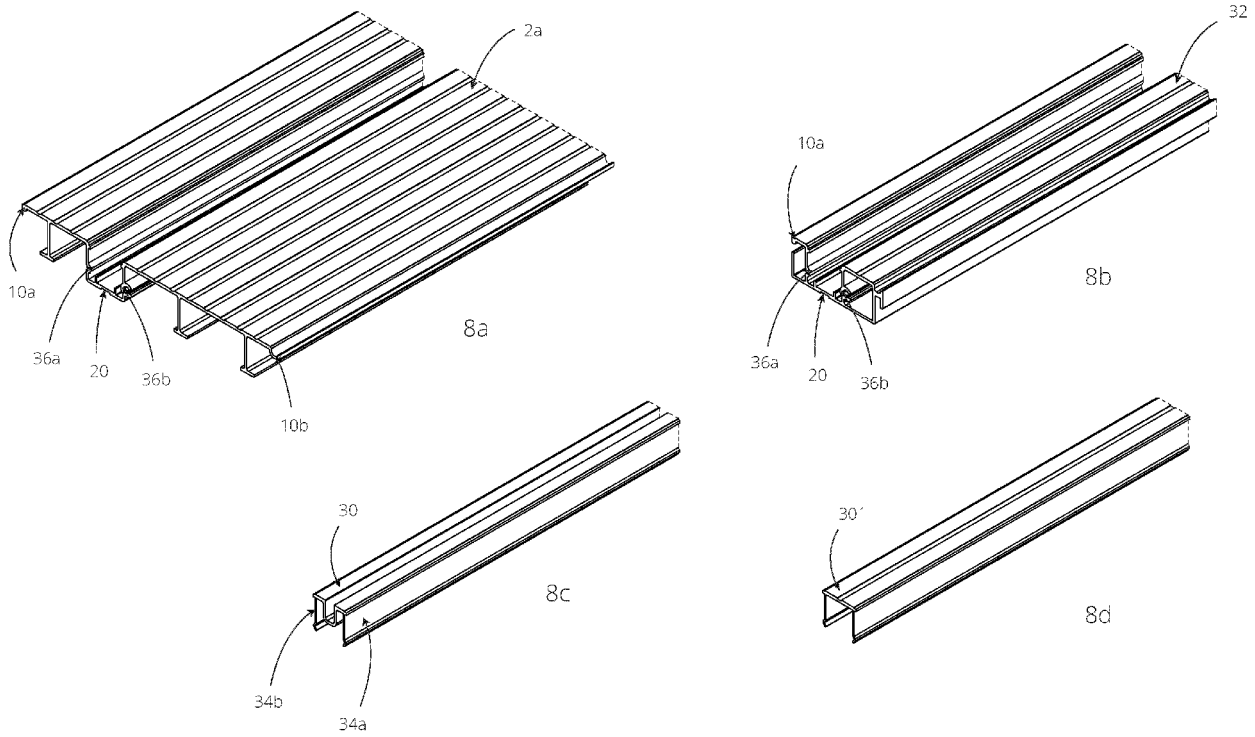

Figure 8

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EUROPEAN SEARCH REPORT

Application Number
EP 21 16 9138

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 2009 091761 A (IZENA KK) 30 April 2009 (2009-04-30) * figures 1-5 * -----	1,2,4-15	INV. E04F15/02 E04F15/06
X	US 9 803 376 B1 (DEEL DOUG [US]) 31 October 2017 (2017-10-31) * figures 1-5 * -----	1-11,15	

TECHNICAL FIELDS SEARCHED (IPC)

E04F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	15 September 2021	Fournier, Thomas

CATEGORY OF CITED DOCUMENTS

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15-09-2021

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2009091761 A	30-04-2009	NONE	
US 9803376 B1	31-10-2017	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82