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(54) RECESSED CONFIGURABLE MULTIMEDIA STATION FOR STAGES, CLASSROOMS AND CONTROL ROOMS AND RELATED CONFIGURATION METHOD

(57) A recessed configurable multimedia station (4) for stages, classrooms and control rooms, comprising at least one recessed body (6) provided with a frame (8) having a front head (12), a first upright (16) and a second upright (20) directed along a vertical direction (Y-Y) delimiting a seat (24), wherein said first upright (16) and second upright (20) support a first panel (28) and a second panel (32), respectively, said panels (28, 32) being rotatable, with respect to the frame (8), from a closing configuration in which they are arranged, in said seat (24), on horizontal planes (P) perpendicular to said vertical direction (Y-Y), to an opening configuration in which said panels (28, 32) are perpendicular to each other, wherein the first panel (28) is arranged in a vertical direction (Y-Y) and perpendicular to the second panel (32) lying parallel to said horizontal planes (P), supported by resting on said first upright (16) and second upright (20), wherein, in the opening configuration, the first panel (28), at an inner face (40) facing away from the front head (12), has at least one screen (44) and the second panel (32) defines a support and walking surface (48) for a user. The front head (12) delimits at least one cavity (56) housing a plurality of wirings (60) electrically connected to a plurality of devices such as electronic/multimedia devices (52) and/or electrical connection sockets and/or data connection ports, said devices being supported by said first panel (28) and/or by said second panel (32).

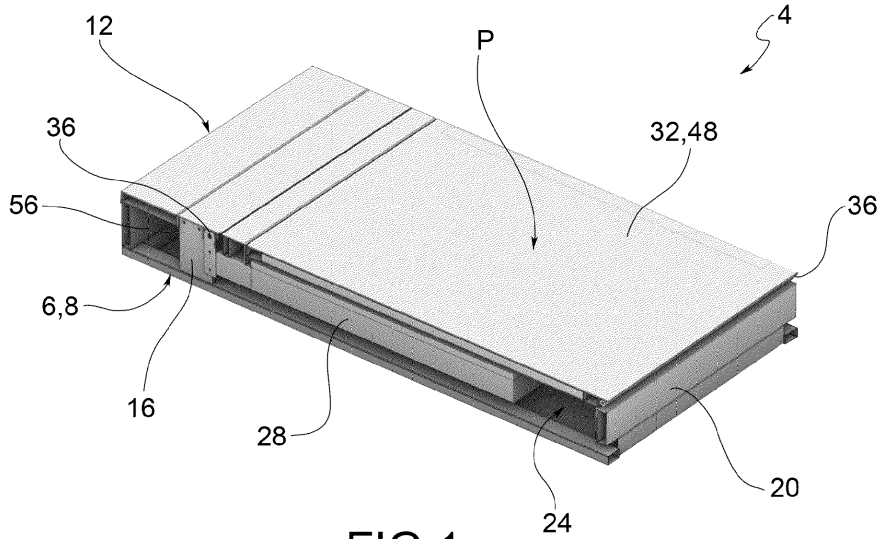

FIG.1

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Description

FIELD OF APPLICATION

[0001] The present invention relates to a recessed configurable multimedia station for stages, classrooms and control rooms, and to the related configuration method.

BACKGROUND ART

[0002] In the prior art, there are several solutions of multimedia stations which must cover the needs of users associated with ever-changing stage requirements.

[0003] In particular, speakers, spokespeople or teachers give lessons from tables by sharing slides from their PCs or using tools such as iPads or similar graphic tablets.

[0004] These known tables are a limitation for other types of events in which the speakers want to move freely about the stage, going through the slides.

[0005] On other occasions, single podiums (for single speakers), or even dual or multiple podiums in the case of debates, are required.

[0006] It is certainly increasingly apparent that, on the one hand, there is a strong demand in the market to make stages and thus the related stations flexible, and on the other hand, the problem associated with wirings and technology present on tables or podiums to be adapted each time to the specific needs of the event and speakers increasingly arises.

[0007] Indeed, each station needs to be indicatively provided with a Schuko socket, a USB-A charger port, a USB-C port, HDMI ports, which carry therewith all the signal transmission systems, microphone jacks, microphones connected to the simultaneous translation system (I present), user interfaces for selecting scenes, possible confidence monitors, and so on.

[0008] As one can well imagine, flexibility is completely blocked by the number of connectors hindering each single station; moreover, normally the individual moving the table is not a multimedia technician.

[0009] Every movement involves at least one day of operations for restoring connectivity, in addition to requiring transport efforts by the porterage service associated with the event organization.

[0010] Therefore, the known solutions do not allow true adaptability to the various configurations which may be required each time according to the type of event and single speaker's requirements.

OVERVIEW OF THE INVENTION

[0011] Therefore, the need to solve the drawbacks and limitations mentioned with reference to the prior art is felt.

[0012] Such a need is met by a recessed configurable multimedia station for stages according to claim 1 and by a method for configuring a recessed configurable multimedia station for stages according to claim 15.

DESCRIPTION OF THE DRAWINGS

[0013] Further features and advantages of the present invention will be more comprehensible from the following description of preferred, non-limiting embodiments thereof, in which:

[0014] Figures 1-4 are perspective views of a single recessed configurable multimedia station for stages according to a first embodiment of the present invention, in an opening sequence, from the folded configuration (Figure 1) to the extracted configuration (Figure 4);

[0015] Figures 5-8 are various perspective views from different angles of a recessed configurable multimedia station for stages according to a further embodiment of the present invention;

[0016] Figures 9-10 are perspective views in different configurations of a recessed configurable multimedia station for stages according to a possible embodiment of the present invention;

[0017] Figures 11-12 are perspective views of multiple multimedia stations according to the present invention, in different possible configurations of use.

[0018] The elements or parts of elements common to the embodiments described below will be indicated by the same reference numerals.

DETAILED DESCRIPTION

[0019] With reference to the aforesaid drawings, an overall diagrammatic view of a recessed configurable multimedia station for stages is indicated by reference numeral 4 as a whole.

[0020] The multimedia station 4 comprises at least one recessed body 6 provided with a frame 8 having a front head 12, a first upright 16 and a second upright 20 directed along a vertical direction Y-Y delimiting a seat 24.

[0021] The front head 12, in the configuration of use, faces the audience and is opposite to the speaker located at the station, as better described below.

[0022] Said first upright 16 and second upright 20 support a first panel 28 and a second panel 32, respectively, said panels 28, 32 being rotatable, with respect to frame 8, from a closing configuration in which they are arranged, in said seat 24, on horizontal planes P perpendicular to said vertical direction Y-Y, to an opening configuration in which said panels 28, 32 are perpendicular to each other. In particular, in such a perpendicular configuration, the first panel 28 is arranged in a vertical direction Y-Y and perpendicular to the second panel 32 lying parallel to said horizontal planes P, supported by resting on said first upright 16 and second upright 20.

[0023] The rotation of the first panel 28 and the second panel 32 preferably occurs about transverse hinges 36 arranged along a transverse direction X-X perpendicular to said vertical direction Y-Y.

[0024] In the opening configuration, the first panel 28, at an inner face 40 facing away from the front head 12, has at least one screen 44 and the second panel 32 defines a support and walking surface 48 for a user.

[0025] In other words, the first panel 28 is used, in the open configuration or configuration of use, as a stand and support for the multimedia devices 52 assisting the speaker; the second panel 32 is instead employed as an actual footboard and walking surface for the speaker. For this reason, the second panel 32 firmly rests on the first upright 16 and the second upright 20 so as to be well-supported by frame 8. Preferably, the second panel 32 and generally the frame 8 are sized so as to have a load capacity of about 500 kg/m^2.

[0026] For example, the floor of the second panel 32, which defines said support and walking surface 48, has a pickled steel finish which allows gluing various finishes (vinyl, carpet, wood).

[0027] For example, said multimedia devices comprise systems suited for simultaneous translation, amplifying elements for speakers connected to possible video calls, USB peripherals for connections to multimedia systems.

[0028] Preferably, the multimedia devices 52 comprise elements from a rack unit for the signal converters.

[0029] Moreover, the first panel 28 can contain HDMI plug devices for the confidence monitor facing the speaker (i.e., screen 44) and for possible monitors facing the audience, preferably equipped with loudspeakers.

[0030] The front head 12 delimits at least one cavity 56 housing a plurality of wirings 60 electrically connected to a plurality of devices such as electronic/multimedia devices 52 and/or electrical connection sockets and/or data connection ports, said devices being supported by said first panel 28 and/or said second panel 32.

[0031] Preferably, the recessed body 6 is configured so that the second panel 32 rests on the first upright 16 and the second upright 20 in both the opening configuration and the closing configuration.

[0032] As mentioned above, in the closing configuration, the second panel 32 is in a covering position or overlapping an outer face 64 of the first panel 28, opposite to said inner face 40 of said first panel 28.

[0033] Preferably, the recessed body 6, in the closing configuration, has a thickness T, along said vertical direction Y-Y, between 180 and 220 mm, preferably equal to 200 mm. Due to such a small thickness T, the multimedia station 4 can be advantageously inserted into floating floors.

[0034] According to a possible embodiment, frame 8 is provided with adjustable ground support elements so as to vary the height from the ground and position the second panel 32 in a position coplanar with the horizontal plane P. Therefore, said adjustable support elements are useful for making the multimedia station 4 coplanar and to bear possible imperfections in the floor or even to increase the overall height of the multimedia station 4 if needed. For example, frame 8 can have connection elements for floors. If the multimedia station 4 is combined with floating floors, it will have one type of support; otherwise, it will have compensators in the case of a wood or concrete floor.

[0035] According to a possible embodiment, the first panel 28, at said inner face 40, comprises at least one groove 68 configured to receive a shelf 72, a table, a podium and/or a tablet and the like in an interlocking manner.

[0036] According to a possible embodiment, the first panel 28 comprises a cavity closed by a removable inner wall 76 to allow/deny access to said cavity.

[0037] According to a possible embodiment, the first panel 28 has a pair of tracks 80, 84 opposite to the transverse direction X-X perpendicular to said vertical direction Y-Y; in particular, said tracks 80, 84 identify a housing channel for power wirings 88 and a housing channel for signal wirings 92, respectively: said wirings 88, 92 are in turn at least partially housed in said front head 12.

[0038] For example, said tracks 80, 84 are provided with slots 96 for said power wirings 88 and/or signal wirings 92 to pass internally.

[0039] It should be noted that the dual track structure 80, 84 allows dividing the power wirings 88 from the signal wirings 92 to avoid interference problems associated with electromagnetism.

[0040] Preferably, the inner spaces of the first panel 28 are sized to house and fix with industrial elements, such as RACK profiles, the endpoints of AV OverIP technologies over copper and fiber, connecting the system to the most modern ICT technologies.

[0041] According to a possible embodiment, said first panel 28 is provided with magnetic fixing devices (not shown).

[0042] According to a possible embodiment, said first panel 28 and/or said front head 12 are provided with slits and openings for air circulation and the correct dissipation of heat generated by the multimedia devices 52 and the related wirings 88, 92.

[0043] According to a possible embodiment (Figures 11-12), said multimedia station 4 comprises a plurality of equal and juxtaposed recessed bodies 6, along the transverse direction X-X, so as to be coplanar with one another.

[0044] For example, the first panel 28, at an outer face 64 facing said front head 12, comprises a connection element for the connection with at least one loudspeaker facing the audience.

[0045] As mentioned, the recessed bodies 6 of the multimedia stations 4 are transportable already mounted and functioning.

[0046] Moreover, the system is also modular since it can consist of single elements or multimedia stations which can be juxtaposed, creating different configurations according to the events underway.

[0047] Advantageously, in addition to receiving possible lifting mechanisms, the part of the structure facing the audience, i.e., on the side of the outer face 64, can be

configured to contain connective elements for teleprompters (such as confidence monitors, for example) and/or to contain front-fills, for example for strengthening the sound for the front rows.

[0048] Obviously, the multimedia station 4, and in particular the first panel 28, can be customized according to the user's needs; customizations can comprise different finishes, for example a finish made of wood, FENIX, faux leather, metal or other material, according to the client's choices.

[0049] The movement of the first and second panels 28, 32 can be performed manually by a user.

[0050] According to a possible embodiment, the multimedia station can be provided with drive mechanisms comprising pistons, for example, gas pistons, levers and/or electric motors which facilitate or fully automate the transition from the opening configuration to the closing configuration and vice versa.

[0051] The method for configuring a multimedia station according to the present invention is now described.

[0052] In particular, the method for configuring a recessed configurable multimedia station 4 for stages, classrooms and control rooms comprises the steps of:

[0053] arranging at least one multimedia station 4 comprising a plurality of equal and juxtaposed recessed bodies 6 so as to be coplanar with one another,

[0054] arranging each recessed body 6 of said juxtaposed multimedia stations 4 in the opening or closing configuration by mutually rotating the first panel 28 and the second panel 32 of each recessed body 6,

[0055] making connections between the wirings housed in the front head 12 and a power supply and data connection system.

[0056] As can be appreciated from the above description, the present invention allows overcoming the drawbacks introduced in the prior art.

[0057] In particular, the recessed configurable multimedia station for stages, classrooms and control rooms is particularly versatile and adaptable to the needs of speakers and the different types of event (such as talks, conferences, debates and the like, for example).

[0058] Advantageously, the system is modular since it comprises a plurality of single independent modules which can be juxtaposed with one another so as to be easily adapted to the number of speakers expected on stage each time.

[0059] At the same time, each of said single modules is an independent element complete with all the connections and wirings so as to meet the multimedia needs of the single speaker.

[0060] The present invention allows providing a modular, pre-cabled product which can be quickly moved because the product is placed in the gap between the floor and the stage surface if a TALK is required, is lifted (moved in many possible manners), and is a pre-cabled load-bearing element to which various support tables can be connected with special connections.

[0061] Advantageously, all the elements are movable, but pre-cabled, i.e., they do not require to connect or disconnect sockets during opening and closing. This allows the multimedia system to have a longer life span because the wires are arranged in an accurate and orderly manner according to criteria we have calculated (radii of curvature).

[0062] As seen, there are many applications of the present invention.

[0063] For example, in addition to stages, the multimedia station can be positioned in press rooms or multipurpose classrooms. These rooms normally have chairs in a conference arrangement; when a working contribution is required by journalists or students or physicians, it is possible to open the multimedia station and configure it so as to create interactivity among journalists and speakers and any video conferences.

[0064] Moreover, the multimedia station can be inserted inside control rooms which, in particular circumstances, may have stations added in crises situations, military or directive applications.

[0065] These integrations are easily possible, for example, in installations with a floating floor which usually is at a height of about 20 cm.

[0066] In order to meet contingent, specific needs, those skilled in the art may make several changes and variations to the solutions described above.

[0067] The scope of protection of the invention is defined by the following claims.

LIST OF REFERENCE SIGNS

[0068]

4: multimedia station
6: recessed body
8: frame
12: front head
16: first upright
20: second upright
24: seat
28: first panel
32: second panel
36: transverse hinges
40: inner face
44: screen
48: support and walking surface
52: multimedia devices
56: cavity
60: wirings
64: outer face
68: groove
72: shelf
76: removable inner wall
80: tracks
84: tracks
88: power wiring
92: signal wiring
96: slots

Y-Y: vertical direction
P: horizontal plane
X-X: transverse direction
T: thickness

Claims

1. A recessed configurable multimedia station (4) for stages, classrooms and control rooms, comprising:

   - at least one recessed body (6) provided with a frame (8) having a front head (12), a first upright (16) and a second upright (20) directed along a vertical direction (Y-Y) delimiting a seat (24), wherein said first upright (16) and second upright (20) support a first panel (28) and a second panel (32), respectively, said panels (28, 32) being rotatable, with respect to the frame (8), from a closing configuration in which they are arranged, in said seat (24), on horizontal planes (P) perpendicular to said vertical direction (Y-Y), to an opening configuration in which said panels (28, 32) are perpendicular to each other, wherein the first panel (28) is arranged in a vertical direction (Y-Y) and perpendicular to the second panel (32) lying parallel to said horizontal planes (P), supported by resting on said first upright (16) and second upright (20),
   - wherein, in the opening configuration, the first panel (28), at an inner face (40) facing away from the front head (12), has at least one screen (44) and the second panel (32) defines a support and walking surface (48) for a user,
   - wherein said front head (12) delimits at least one cavity (56) housing a plurality of wirings (60) electrically connected to a plurality of devices such as electronic/multimedia devices (52) and/or electrical connection sockets and/or data connection ports, said devices being supported by said first panel (28) and/or by said second panel (32).

2. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to claim 1, wherein said recessed body (6) is configured so that the second panel (32) rests on said first upright (16) and second upright (20) in both the opening configuration and the closing configuration.

3. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to claim 1 or 2, wherein, in the closing configuration, the second panel (32) is in a covering position or overlapping an outer face (64) of the first panel (28), opposite to said inner face (40).

4. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to claim 1, 2 or 3, wherein said recessed body (6) has a thickness (T), along said vertical direction (Y-Y), between 180 and 220 mm, preferably equal to 200 mm.

5. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to claim 1, 2, 3 or 4, wherein the frame (8) is provided with adjustable ground support elements so as to vary the height from the ground and position the second panel (32) in a position coplanar with the horizontal plane (P).

6. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 5, wherein said multimedia station comprises a plurality of equal and juxtaposed recessed bodies (6), so as to be coplanar with one another.

7. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 6, wherein the first panel (28), at an outer face (64) facing said front head (12), comprises a connection element for the connection with at least one loudspeaker.

8. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 7, wherein the first panel (28), at said inner face (40), comprises at least one groove (68) configured to receive a shelf (72), a table, a podium and/or a tablet in an interlocking manner.

9. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 8, wherein the first panel (28) comprises a cavity closed by a removable inner wall (76) to allow/deny access to said cavity.

10. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 9, wherein the first panel (28) has a pair of tracks (80, 84) opposite to a transverse direction (X-X) perpendicular to said vertical direction (Y-Y), said tracks (80, 84) identifying a housing channel for power wirings (88) and a housing channel for signal wirings (92), respectively, said wirings (88, 92) being at least partially housed in said front head (12).

11. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to claim 10, wherein said tracks (80, 84) are provided with slots (96) for said power (88) and/or signal (92) wirings to pass internally.

12. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 11, wherein said first panel (28) is provided with magnetic fixing devices.

13. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 12, wherein said first panel (28) and/or said front head (12) are provided with slits and openings for air circulation and heat dissipation.

14. A recessed configurable multimedia station (4) for stages, classrooms and control rooms according to any one of claims 1 to 13, wherein the multimedia station is provided with drive mechanisms comprising pistons, levers and/or electric motors which facilitate or fully automate the transition from the opening configuration to the closing configuration and vice versa.

15. A method for configuring a recessed configurable multimedia station (4) for stages, classrooms and control rooms, comprising the steps of:

- arranging at least one multimedia station (4) according to any one of claims 1 to 14, comprising a plurality of equal and juxtaposed recessed bodies (6) so as to be coplanar with one another,
- arranging each recessed body (6) of said juxtaposed multimedia stations (4) in the opening or closing configuration by mutually rotating the first panel (28) and the second panel (32) of each recessed body (6),
- making connections between the wirings housed in the front head (12) and a power supply and data connection system.

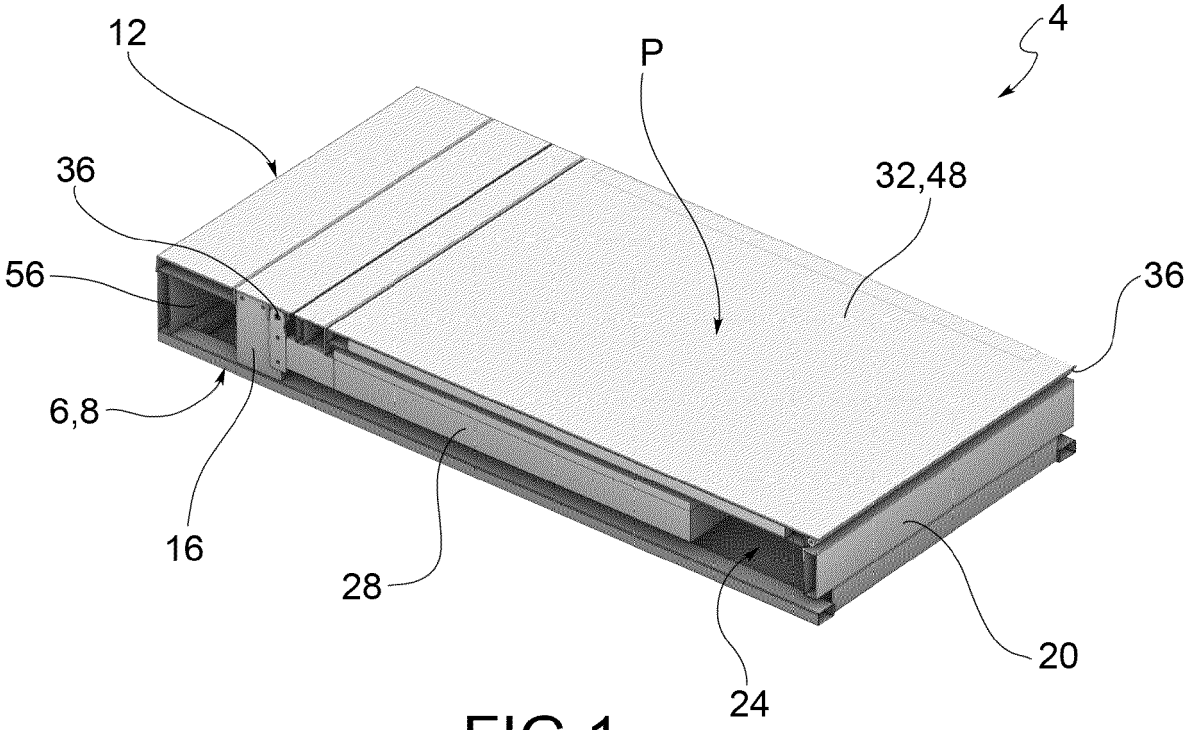


FIG.1

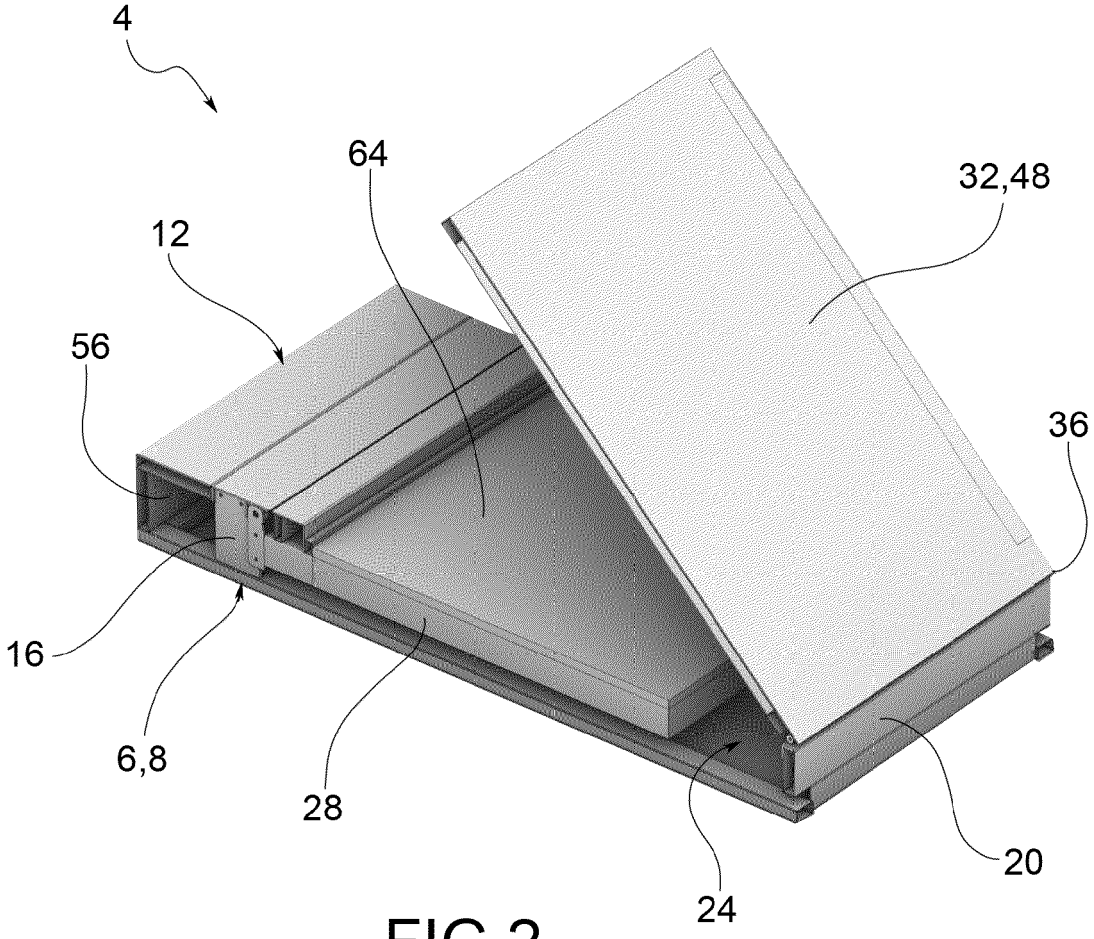
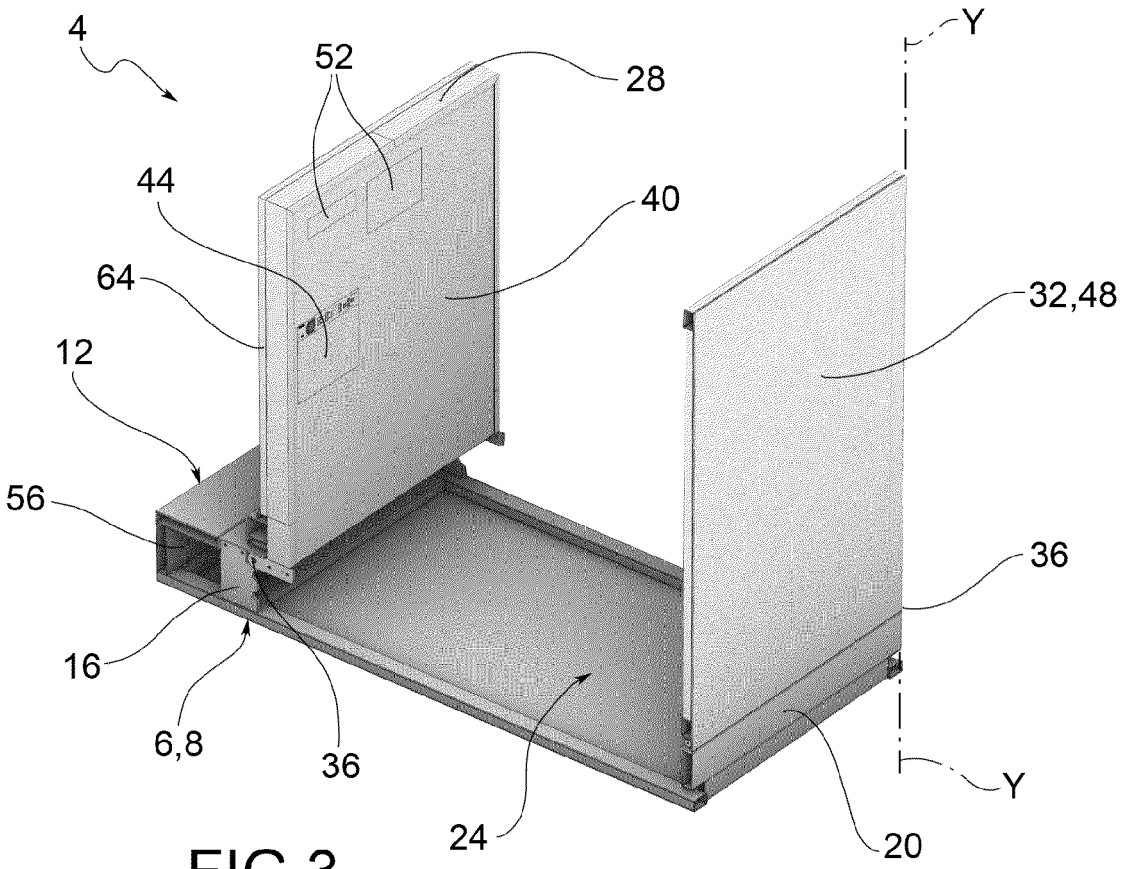


FIG.2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52
28
Y
44
40
64
32,48
12
56
36
16
6,8
36
24
20
Y

FIG.3

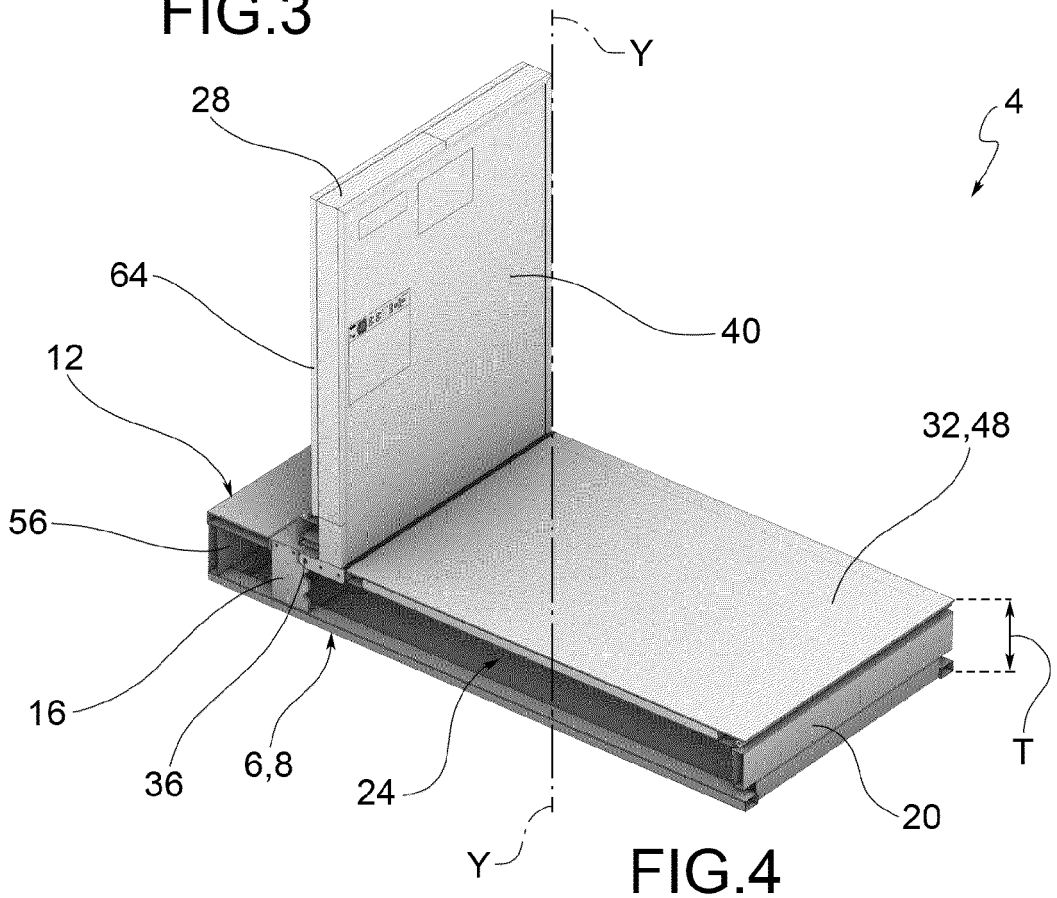

Y
28
4
64
40
12
32,48
56
16
36
6,8
24
T
20
Y

FIG.4

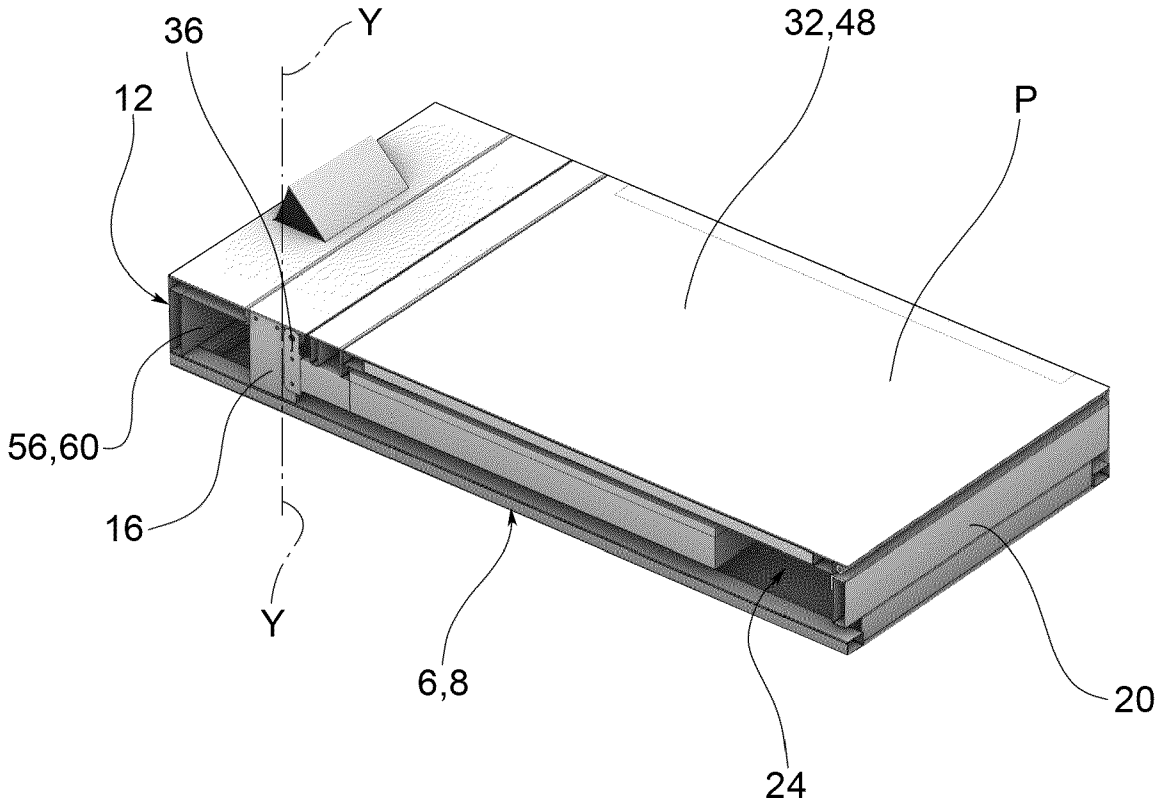
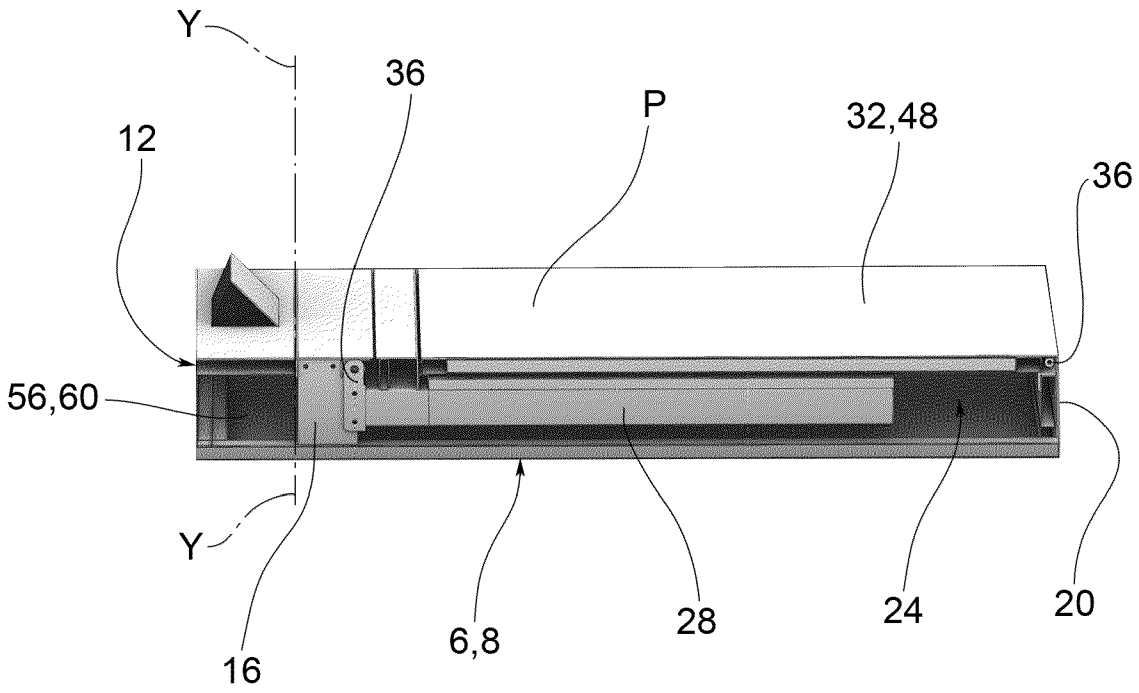

36
Y
32,48
12
P
56,60
16
Y
6,8
20
24

FIG.5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36
P
32,48
12
36
56,60
Y
16
6,8
28
24
20

FIG.6

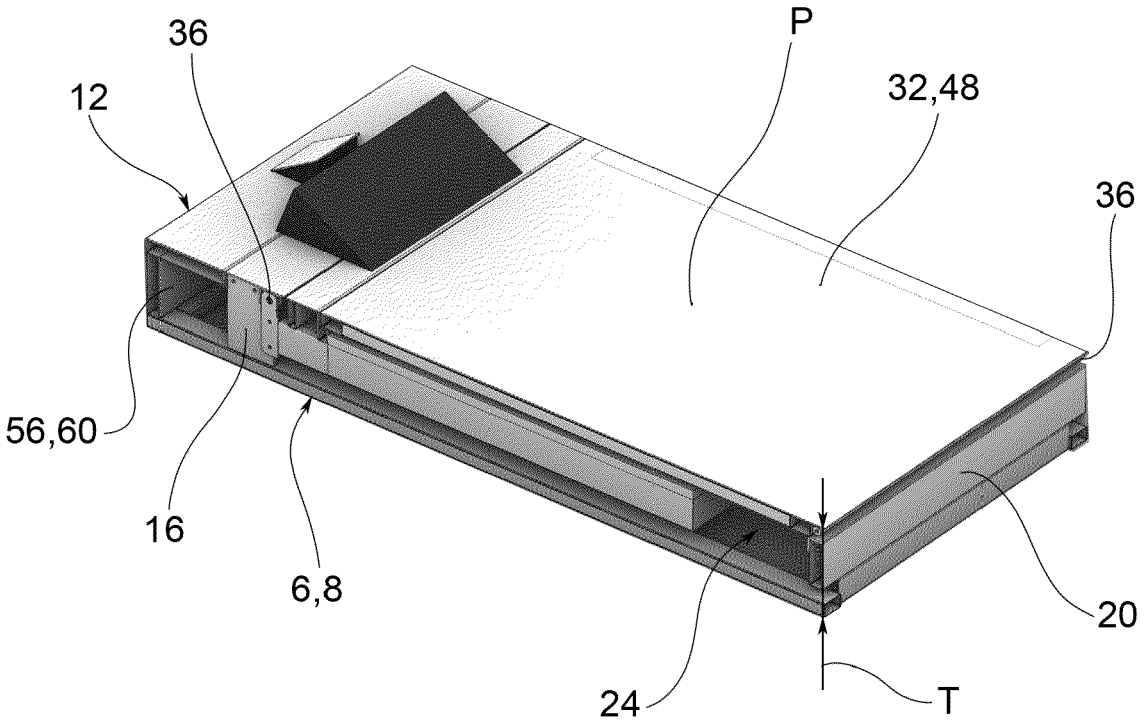


FIG.7

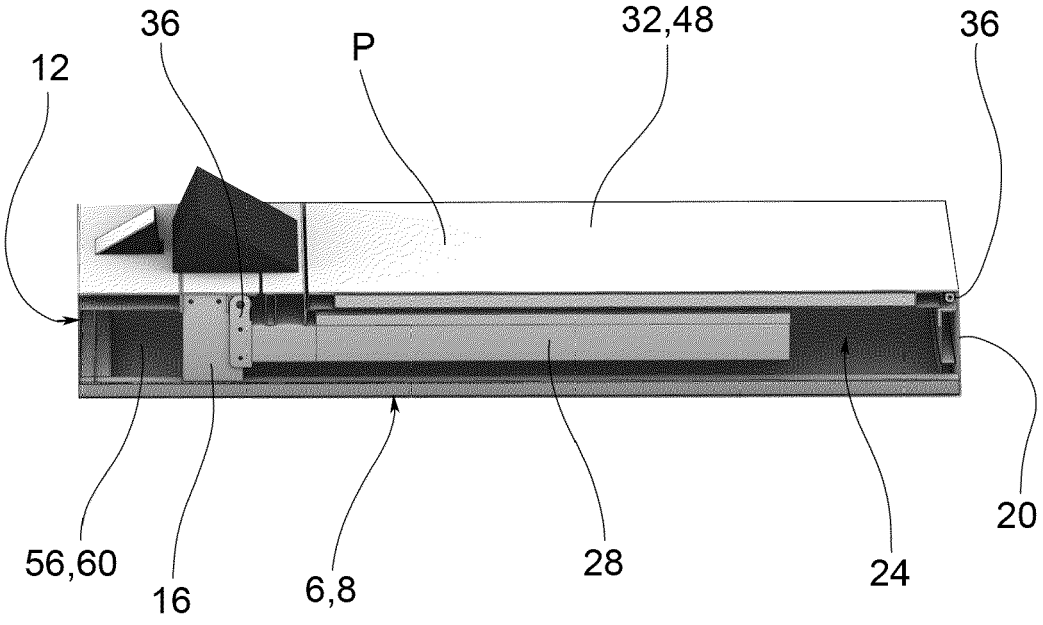
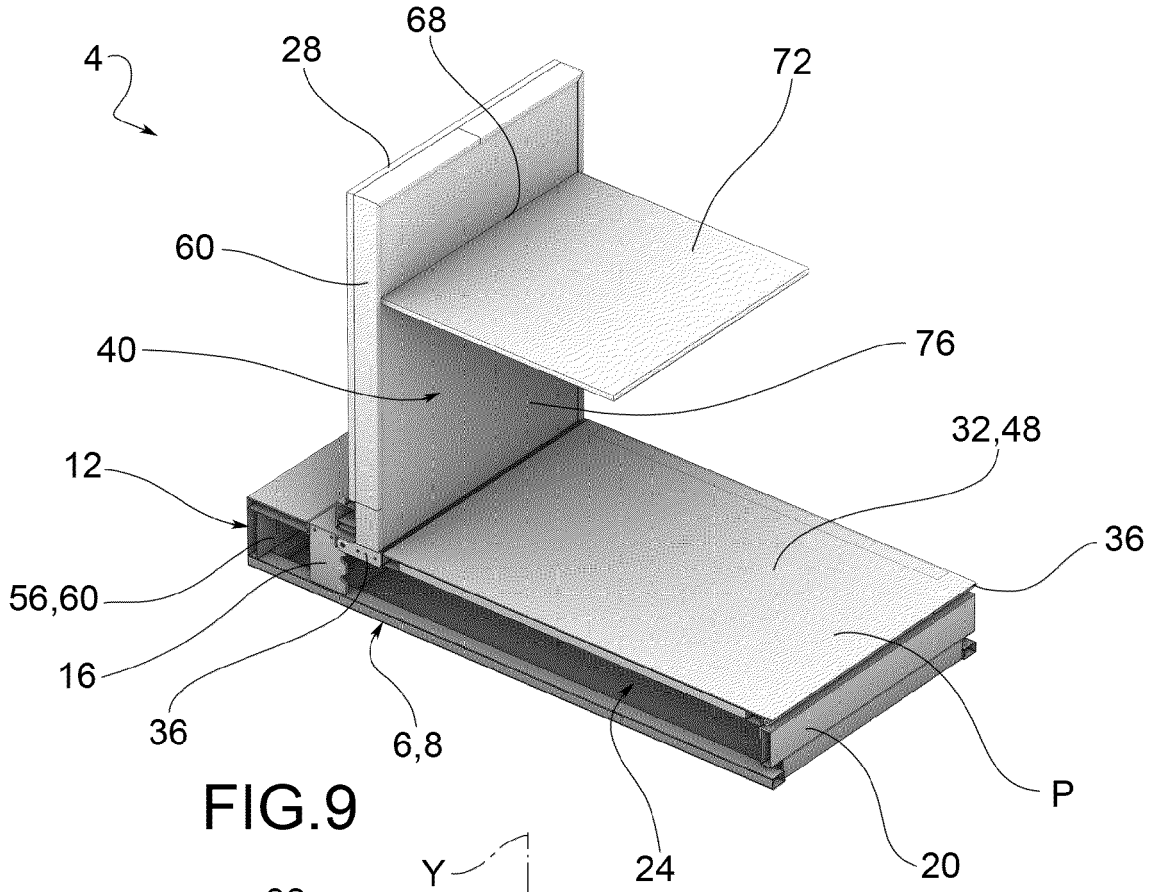


FIG.8


4
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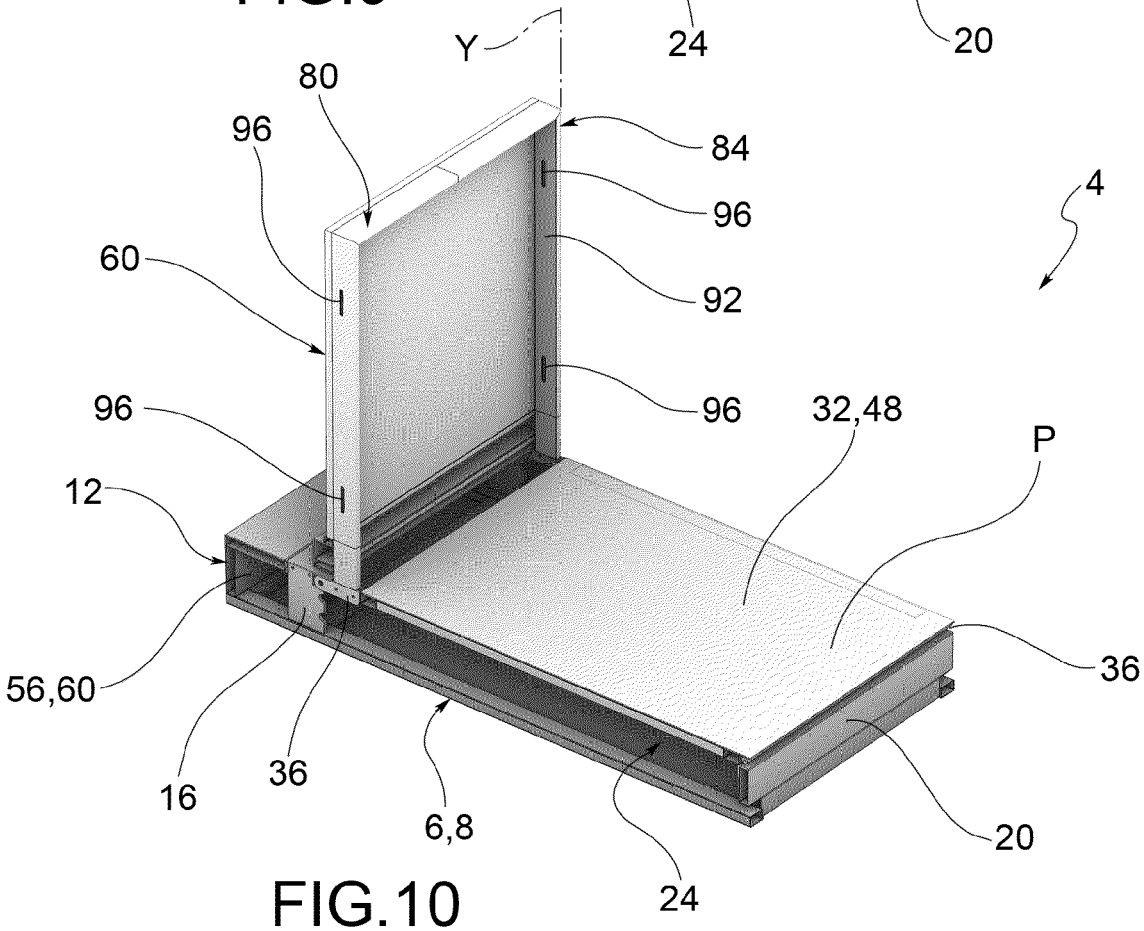
16
36
6,8
24
20
P

FIG.9


Y
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84
96
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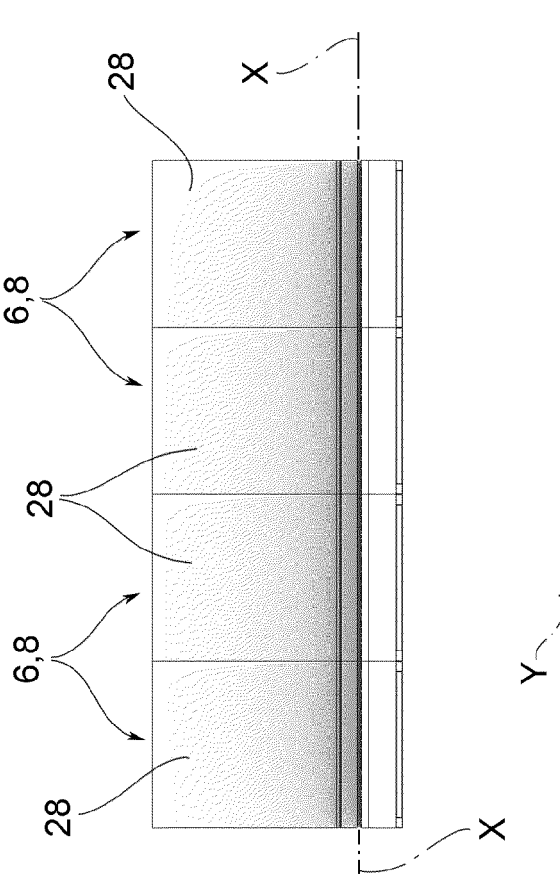
FIG.10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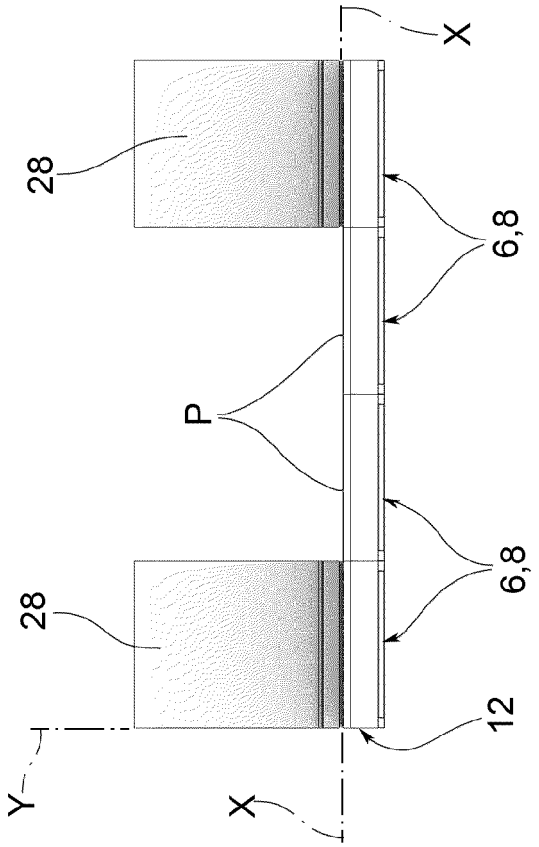
6,8
28
X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6,8
P
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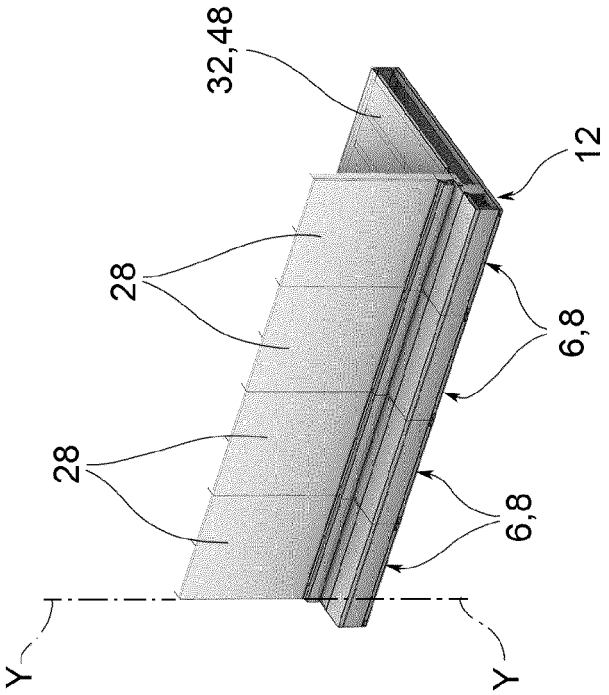
6,8
12
Y
X

FIG.11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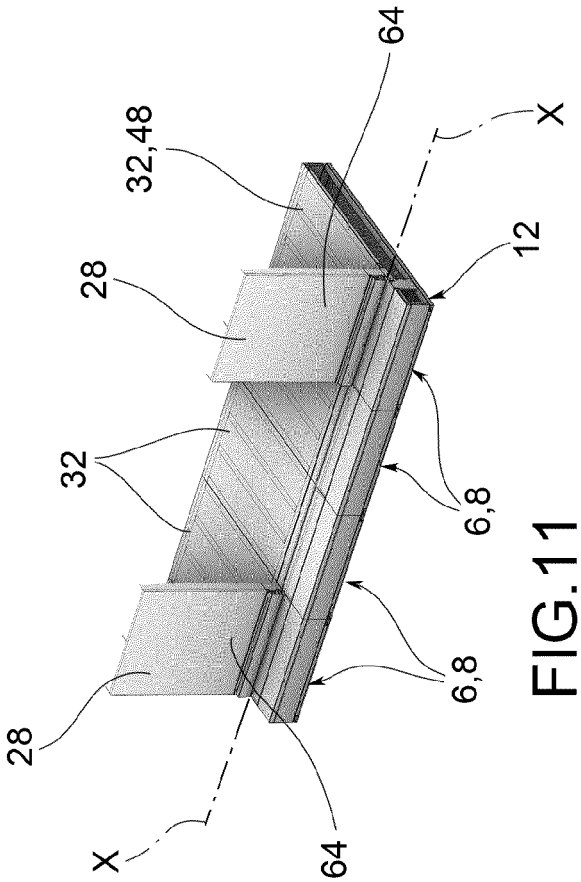
28
6,8
28
6,8
Y
Y

FIG.12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6,8
6,8
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X
64

Europäisches Patentamt
European Patent Office
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EUROPEAN SEARCH REPORT

Application Number
EP 24 19 1370

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	CN 105 625 757 A (LIN HONGWEN) 1 June 2016 (2016-06-01) * paragraphs [0008], [0019], [0020]; figures 1,2 *	1-15	INV. E04H3/24 A47B19/08
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TECHNICAL FIELDS SEARCHED (IPC)

E04H
A47B
A63J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	16 January 2025	Decker, Robert

CATEGORY OF CITED DOCUMENTS

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