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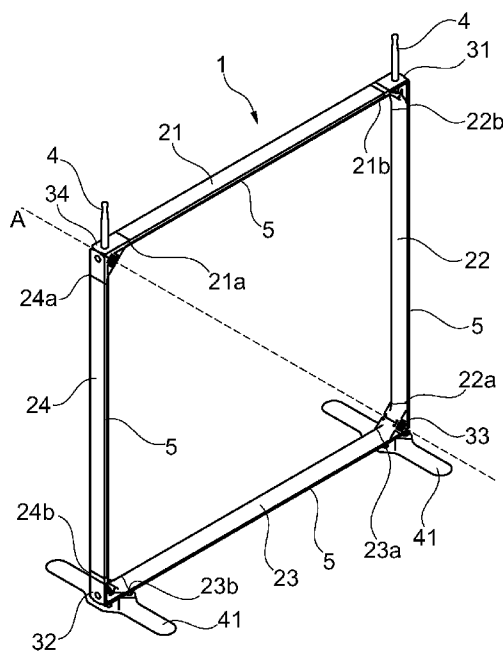


Fig. 1

(57) **Abstract:** The present invention relates to a foldable frame (1) for holding an image, the frame comprising four elongated frame portions (21, 22, 23, 24), each having a first end (21a, 22a, 23a, 24a) and a second end (21b, 22b, 23b, 24b), four corner portions (31, 32, 33, 34), two of which being of a first corner type (33, 34) and the other two being of a second corner type (31, 32), wherein each frame portion (21, 22, 23, 24) is attached to a corner portion of the first type (33, 34) at the first end (21a, 22a, 23a, 24a) and a corner portion of the second type (31, 32) at the second end (21b, 22b, 23b, 24b), so that a frame (1) is formed where the corner portions of the first type (33, 34) are diagonally opposite, and wherein the corner portions of the first type (33, 34) are pivotable about a first axis (A) and the corner portions of the second type (31, 32) are pivotable about a second axis (B) and a third axis (C), respectively, the second axis (B) and third axis (C) being parallel to each other and essentially perpendicular to the first axis (A). The invention also relates to a frame system comprising at least one foldable frame.



FOLDABLE FRAME FOR HOLDING AN IMAGE

TECHNICAL FIELD

The present invention relates to a frame for holding an image, suitable for decorative or marketing purposes. The frame is foldable to enable efficient storage and handling.

BACKGROUND

Frames for decorative or marketing purposes are commonly used in a variety of different fields, such as interior decorating, marketing at fairs and the like, and displays for advertising. Generally, a frame is made from four frame portions that are joined by four corner portions to form a completed frame. The mounting and dismounting often requires tools such as wrenches or screw drivers.

There are some frames on the market that are foldable to allow easier storage and mounting. The folding is sometimes achieved by joints along the frame portions and sometimes by a hinge or pivoting function at some of the corner portions, but it has previously been difficult to make a frame that is stable, does not require tools and does not pose the risk of collapsing if subjected to a force such as a nearby person inadvertently touching or pushing the frame.

On frames of this kind, a picture is applied to display information, an image or a marketing or advertising message. The picture is sometimes printed on a canvas having an outer edge with a silicon strip attached to allow the edge to be inserted into a slot along the edges of the frame. For a foldable frame, this presents the problem that the image is distorted during folding and storage through stretching of the canvas in the folded position or during the folding procedure, making it difficult or impossible to mount the frame again with the picture still attached and achieving the same look and feel as before the frame was folded.

There is a need for improvements within this area, especially regarding the folding, handling and stability of the frame.

SUMMARY OF THE INVENTION

The object of the present invention is to eliminate or at least to minimize the problems mentioned above. This is achieved through a foldable frame and a frame system according to the appended independent claims.

5 Thus, according to the invention there is provided a foldable frame for holding an image, the frame comprising four elongated frame portions, each having a first end and a second end, and further comprising four corner portions, two of which being of a first corner type and the other two being of a second corner type, wherein each frame portion is attached to a corner
10 portion of the first type at the first end and a corner portion of the second type at the second end, so that a frame is formed where the corner portions of the first type are diagonally opposite, and wherein the corner portions of the first type are pivotable about a first axis and the corner portions of the second type are pivotable about a second axis and a third axis, respectively,
15 the second axis and third axis being parallel to each other and essentially perpendicular to the first axis. Due to the use of two types of corners that are configured to pivot about different axes that are perpendicular to each other, the frame can be folded to a small and compact packet that can be placed inside a storage bag and be transported and handled without risking
20 damage. This facilitates transport as well as storage.

According to an aspect of the invention, the first axis extends diagonally across the frame and through the corner portions of the first type and wherein the second axis and third axis are essentially perpendicular to a plane formed by the frame. Thereby, the pivoting of the first corner portions
25 enables a folding into a symmetrical L-shape from which the pivoting of the second corner portions can be performed.

According to another aspect of the invention, the second axis and the third axis are arranged to essentially coincide after the corners of the first type have been pivoted so that the corners of the second type are adjacent to each
30 other. This further facilitates the pivoting of the corners of the second type and also decreases the size of the folded frame.

According to yet another aspect of the invention, the foldable frame is of a quadratic or a circular shape. Thereby, the folding of the frame is symmetrical and can be performed without subjecting the pivots at the corner portions to forces that might damage the pivots.

5 According to a further aspect of the invention, the frame further comprises a slot for holding edges of a flexible material with a picture, said slot extending along each of the elongated frame portions and preferably also extending along at least one of the corner portions. Thereby, a picture on a flexible material can be mounted on the frame and can be fastened on the frame in a
10 stable and secure manner. Preferably, the slot extends along each of the corner portions to allow the flexible material to be fastened along the entire circumference of the frame. Preferably, there are two slots for holding edges of a flexible material with a picture, one of which extends along a first side of the frame and the other extending along a second side of the frame. Thereby,
15 one picture can be held on a first side of the frame and another picture on the second side of the frame, allowing for displays of pictures in two directions which is especially beneficial in arrangements where the frame is standing on a floor.

According to another aspect of the invention, at least the corner portions of
20 the first type, preferably also the corner portions of the second type comprise at least one opening for receiving a locking pin. Thereby, a locking pin can be inserted into the corner portions and prevent folding of the frame while the pin is in place. This increases the stability of the frame and decreases the risk of accidents or other situations where the frame is folded inadvertently
25 and its folding movement could cause damage to persons or objects in the vicinity, or to the frame itself and the picture mounted thereon.

According to a further aspect of the invention, the corner portions of the second type comprise an outer primary pivot and two secondary pivots, the secondary pivots being arranged at a first end and a second end of the
30 corner portion, respectively, and the outer primary pivot being arranged at a corner between the first and second ends. Thereby, a pivoting of the corner portions of the second type can be performed by pivoting three different

joints, allowing for a stable and secure folding that avoids extending the slot in the corner portion in such a way that the flexible material holding the picture is stretched and possibly distorted.

In another embodiment of the invention, the corner portions of the second type instead comprise an inner primary pivot and two secondary pivots, the secondary pivots being arranged at a first end and a second end of the corner portion, respectively, and the inner pivot being movably arranged between them inside a corner, and wherein the corner is an open corner. This is an alternative manner of folding that is stable and secure and allows the corner to open and create a gap instead of increasing a length of the slot and causing a stretching of the flexible material that can be mounted in the slot. In this embodiment, the inner pivot provides the main stability and the outer secondary pivots help keep an increase in length of the slot to a minimum.

In another embodiment, the corner portions of the second type comprise an inner primary pivot, arranged between a first end and a second end of the corner portion and on an inner side of a corner, and wherein the corner is an open corner. In this embodiment, only the inner pivot is provided to give stability to the corner portion. By providing the open corner, the length increase of the slot is still kept small and the manufacture of the corner portion is made easier and more cost effective while still providing the main functions of the present invention.

In yet another, preferred embodiment the corner portions of the second type comprise an outer primary pivot and two secondary pivots, the secondary pivots being arranged at a first end and a second end of the corner portion, respectively, and the outer primary pivot being arranged at a corner between the first and second ends, and further comprising an inner primary pivot, arranged between the secondary pivots on an inner side of the corner. This embodiment provides the stable inner pivot as well as a stable outer pivot and two secondary pivots and is the most stable version of the corner, also providing a minimal extension of the length of the slot holding the flexible material.

In all these embodiments of the corner of the second type, it is preferable that each pivot is arranged to pivot about an axis that is parallel to or coincides with the second axis or the third axis. Thereby, the folding of the frame is improved and additional forces on the pivots can be avoided to prevent damage to the pivots. It is to be noted that parallel in this regard is to be understood as essentially parallel within the normal manufacturing tolerances.

According to another aspect of the invention, the invention further comprises a flexible material with a picture, the flexible material having edges that are insertable into the slot to mount the picture on the frame, wherein the edges are lined with a holding material, preferably silicon, for securely holding the flexible material in the slot. Thereby a picture can be mounted in a secure and stable way, providing the ability to stretch the flexible material across the frame and present the picture in a smooth and adequate manner.

According to yet another aspect of the invention, the invention further comprises at least one light source mounted on at least one of the frame portions. Thereby, the inside of the frame can be illuminated so that a lighting is provided to a back side of the flexible material with the picture, resulting in an illuminated picture being shown in the frame.

According to the invention, there is also provided a frame system comprising at least one of the foldable frames according to the invention and further comprising at least one locking pin mounted through an opening in at least one of the corner portions for blocking a folding of the foldable frame. Thereby, the frame can be fixed in a mounted state without requiring additional fastening means.

According to an aspect of the frame system according to the invention, the assembly comprises a plurality of frames according to the invention, the plurality of frames being connected to each other by locking pins to form a frame assembly. Thereby a larger frame assembly can be made by connecting the frames to each other by means of the locking pins, providing

a desired size and shape of the frame system in order to present pictures or images of a desired shape and size.

According to another aspect of the invention, the frame system further comprises at least one foot portion, said foot portion having at least one cavity for receiving a foot locking pin so that a frame can be mounted on the foot portion via the locking pin. Thereby, the frame assembly can stand on its own without additional support, thereby enabling use as a dividing wall or a standing display in a convenient and efficient manner. The foot locking pin can in some embodiments be identical to the locking pin.

According to a further aspect of the invention, the foot portion comprises at least two cavities so that two frames can be mounted side by side via locking pins. Thereby, a desired number of frames can be connected side by side to create a frame assembly of the desired size while also providing stability to each other so that no further support is needed. The frames can also be mounted at an angle with respect to each other, preferably 45 or 90 degrees.

According to yet another aspect of the invention, the frame system further comprises a flexible material with a picture, the flexible material being arranged to form a picture surface on the frame assembly and having edges that are insertable into slots forming an outer circumference of the frames of the frame assembly. Thereby, pictures can be mounted on each separate frame or one larger picture can be mounted on a plurality of frames put together, to further add versatility to the frame assembly and allowing a user to design a shape, size and distribution of images across the frame assembly.

According to a further aspect of the invention, the frame system further comprises a flexible material with a picture, the flexible material being arranged to form a picture surface on the frame assembly and having a first side and a second side, said first and second side being joined together along at least one edge, and at least one of said first side and second side having dimensions that essentially match dimensions of one side of the frame

assembly. Thereby, a single picture can be mounted over the frame, eliminating the need for the slot.

Many additional benefits and advantages of the invention will become readily apparent to the person skilled in the art in view of the detailed description
5 below.

DRAWINGS

The invention will now be described in more detail with reference to the appended drawings, wherein

Fig. 1 discloses a perspective view of a foldable frame according to a preferred embodiment of the present invention;
10

Fig. 2 discloses the frame of Fig. 1 during a first folding step;

Fig. 3 discloses the frame of Fig. 1 after the first folding step;

Fig. 4 discloses the frame of Fig. 1 during a second folding step;

Fig. 5 discloses the frame of Fig. 1 after the second folding step when
15 the frame is in a folded state;

Fig. 6a discloses a planar view of a corner portion of a second type in a mounted state;

Fig. 6b discloses the corner portion of Fig. 6 during the second folding step;

20 Fig. 6c discloses the corner portion after the second folding step in the folded state;

Fig. 7 discloses a perspective view of a frame system according to the invention with a frame assembly;

Fig. 8 discloses a cross-sectional view of two frames that are joined by a
25 locking pin;

Fig. 9 discloses a frame with a flexible material mounted in a slot along the edge of the frame;

Fig. 10 discloses a cross-sectional view of a frame portion having two slots and with edges of flexible material being mounted in both slots;

5 Fig. 11 discloses a perspective view of a frame assembly with one separate piece of flexible material mounted along the edge of each frame of the frame assembly;

Fig. 12 discloses a perspective view of a frame assembly with one piece of flexible material mounted along outer edges of the frame assembly; and

10 Fig. 13 discloses a perspective view of a frame assembly with a pouch of flexible material mounted on the frame assembly.

DETAILED DESCRIPTION

Fig. 1-5 discloses a foldable frame 1 having four frame portions 21, 22, 23, 24 that are joined to corner portions 31, 32, 33, 34 to form the frame 1.

15 Each frame portion 21, 22, 23, 24 have a first end 21a, 22a, 23a, 24a that is connected to a corner portion of a first type 33, 34 and a second end 21b, 22b, 23b, 24b that is connected to a corner portion of a second type 31, 32 so that corner portions of the first type 33, 34 are diagonally opposite to each other in the frame 1. A slot 5 is provided in an edge of the frame
20 portions 21, 22, 23, 24 and preferably also in the corner portions 31, 32, 33, 34 so that the edge 5 runs along the entire frame 1. Also seen in Fig. 1 are locking pins 4 that are inserted into openings 35 to prevent the corner portions from folding (see Fig. 8). Also shown in Fig. 1 are foot portions 41 that are mounted on foot locking pins in two of the corners 32, 33, to enable
25 the frame 1 to stand without further support. In this preferred embodiment, the foot locking pins are threaded and secured to the foot portions 41 by screwing into a corresponding inner thread in an opening in the foot portions 41. Also, the foot locking pins are shorter than the locking pins 4, but it is to be noted that the foot locking pins could also be identical to the locking pins
30 4 and that they could be mounted in the foot portions 41 by clamping, snap

connections or simply by being received into cavities or receiving openings on the foot portions 41.

The corner portions of the first type 33, 34 are pivotable around a first axis A that preferably extends diagonally across the frame 1, and the corner
5 portions of the second type 31, 32 are pivotable around a second axis B and third axis C, respectively, as shown in Fig. 2. The second and third axes B, C preferably coincide or at least are essentially parallel after a first folding step, as will be described in detail below.

The folding of the frame 1 from a mounted state to a folded state is
10 performed through a first folding step (see Fig. 1-3) wherein the corner portions of the first type 33, 34 are pivoted and a second folding step (see Fig. 3-5) wherein the corner portions of the second type 31, 32 are pivoted.

Before the first folding step, any locking pins 4 inserted into the corner
15 portions must be removed. The corner portions of the first type 33, 34 are then able to pivot around the first axis A so that the corner portions of the second type 31, 32 are brought into contact with each other as disclosed by Fig. 3. This concludes the first folding step.

The second folding step is performed by pivoting the corner portions of the
20 second type 31, 32 around the second and third axis B, C. Before the first folding step, the second and third axis B, C are essentially parallel but afterwards they preferably coincide or at least remain essentially parallel as shown in Fig. 3. The second folding step brings the corner portions of the first type 33, 34 into contact with each other to arrive at the folded state shown in Fig. 5.

25 The folded state is stable and robust and allows for the frame to be handled, stored and transported without causing damage to the corner portions 31, 32, 33, 34. If a piece of flexible material 6 with a picture or image is mounted on the frame the folding can be performed without having to remove the flexible material 6, provided that the flexible material is mounted on a first
30 side 71 so that the corner portions of the first type 33, 34 are pivoted in a direction towards the first side 71. In the folded state, the flexible material 6

can be maintained in the slot 5 around the circumference of the frame 1 without risking distortion or damage to the flexible material 6 and the image or picture thereon. This is especially due to the corner portions of the second type 31, 32 being configured to pivot with a minimum elongation of the slot 5 along the corner portions 31, 32, as is shown in Fig. 6a-6c. The flexible material 6 can be any material suitable for bearing an image, such as a woven fabric, a canvas or a non-woven material on which the image is printed or woven into the fabric itself. The flexible material can thus be any kind of fabric or any kind of textile or plastic material that can be held by a frame.

Thus, Fig. 6a shows one of the corner portions of the second type 32 in more detail. The present invention encompasses various embodiments of this type of corner portion, of which a preferred embodiment will be described now. This preferred embodiment has outer portions 35, 36 that meet at an outer primary pivot 32a and inner portions 37, 38 that meet at an inner primary pivot 32c. The outer portions 35, 36 are joined to the inner portions 37, 38 by secondary pivots 32b, 32d, respectively. The secondary pivots 32b, 32d are arranged on a first side and a second side of the corner portion of the second type 31, 32, respectively, wherein the first side of the corner portion of the second type 31, 32 is a side that adjoins one of the frame portions, such as frame portion 23 in Fig. 6b, and the second side of the corner portion of the second side 31, 32 is a side that adjoins another of the frame portions 24, such as frame portion 24 in Fig. 6b.

In Fig. 6b, the corner portion 32 is half way between a mounted state in Fig. 6a and a folded state in Fig. 6c. All of the pivots 32a, 32b, 32c, 32d cooperate to allow the corner portion 32 to fold and at each of the outer primary pivot 32a and secondary pivots 32b, 32d a small gap δ is opened. The slot 5 is elongated slightly by the pivoting of the corner portion 32 and in the folded state of Fig. 6c it can be seen that the slot 5 is slightly longer than in Fig. 6a since the slot 5 is elongated at each of the outer primary pivot 32a and the secondary pivots 32b, 32d but that this elongation is considerably smaller than would be case without the presence of the secondary pivots

32b, 32d. The inner primary pivot 32c mainly serves to increase stability of the corner portion 32. In this preferred embodiment, distortion of the flexible material during folding and in the folded state can be kept to a minimum and essentially avoided altogether, giving the advantage or being able to store the frame 1 for long periods of time with the flexible material 6 still attached.

In an alternative embodiment, the inner primary pivot 32c may be excluded to leave only the outer primary pivot 32a and the secondary pivots 32b, 32d. This embodiment is less robust than the preferred embodiment but still allows for a minimal extension or elongation of the slot 5 to prevent distortion of the flexible material.

In another alternative embodiment, the outer primary pivot 32a can be excluded and the connection between the outer portions 35, 36 eliminated. In this embodiment, the inner primary pivot 32c serves to provide stability and the secondary pivots 32b, 32d allow for avoiding stretching the flexible material 6 during a first part of the second folding step. In the folded state of Fig. 6c, this embodiment would have an opening where the outer portions 35, 36 meet.

In another alternative embodiment, only the inner primary pivot 32c is provided. Instead of the secondary pivots 32b, 32d the outer portions 35, 36 are joined to the inner portions 37, 38 at their ends where the secondary pivots should have been and they are not connected where the outer primary pivot 32a would have been, instead forming an open corner.

Each of the embodiments disclosed above that aim at decreasing elongation of the slot 5 during folding thus comprises at least one primary pivot 32a, 32c and two secondary pivots 32b, 32d, the secondary pivots 32b, 32d being arranged at a first end and a second end of the corner portion, respectively, and the at least one primary pivot 32a, 32c being arranged between the first end and the second end of the corner portion and connected to each of the two secondary pivots 32b, 32d. The primary pivot 32a, 32c can be either the inner primary pivot 32c or the outer primary pivot 32a, or the corner portion

of the second type 31, 32 can have both the inner primary pivot 32c or the outer primary pivot 32a as in the preferred embodiment described above. In Fig. 7, a frame system 100 with four foldable frames 1 according to the invention is shown, the frames 1 being mounted on locking pins 4 to form a frame assembly 10. At least a middle one of the foot portions 41 is able to receive two locking pins 4 from adjacent frames 1 so that two frames 1 can be mounted side by side on the foot portion 41. In Fig. 7, one of the frames 1 is being mounted by lowering in a vertical direction onto locking pins 4 and locking pins can also be inserted horizontally to fixate two frames in relation to each other. The frames 1 in Fig. 7 are mounted in a straight line, but in another embodiment the foot portions 41 are angled so that the two frames 1 mounted on the same foot portion 41 are held at an angle to each other, preferably at 45 degrees or 90 degrees but other angles could also be suitable. The foot portions 41 would then have two cavities or receiving openings for receiving foot locking pins and these receiving openings are arranged at a distance from each other and positioned in such a way that a frame 1 mounted on a foot locking pin in one of the cavities or receiving openings and a frame 1 mounted on a foot locking pin in the other of the receiving openings are held at an angle with respect to each other.

Fig. 8 discloses the locking pin 4 when inserted into two frames 1, 1' to mount one frame on top of the other. The frames 1, 1' have essentially the same features so that the lower frame 1' comprises two frame portions 21', 24' and a corner portion of the first type 34' whereas the upper frame 1 has a corner portion of the second type 32 meeting the corner of the lower frame 1'. Both types of corner portions 32, 34' and indeed all corner portions disclosed for the frame and frame system of the present invention may be provided with at least one but preferably two openings 35 through which a locking pin 4 can be inserted. In Fig. 8, the locking pin 4 extends from a position inside the lower frame 1' to a position inside the upper frame 1 to establish a secure connection between them and to prevent any of the corners from pivoting to fold the frame.

Fig. 9 discloses a frame 1 with a piece of flexible material 6 mounted along a slot 5, and in Fig. 10 the mounting of flexible material on both a first side 71 and a second side 72 of the frame 1. Thus, on the first side 71 the flexible material 6 is mounted in the slot 5 by insertion of an edge 61 of the flexible material 6. The edge 61 also has a strip of a holding material 62 that serves to hold the edge 61 securely in the slot 5. The holding material 62 is preferably silicon but can alternatively be any other material that is suitable for this purpose, such as rubber or another polymer material. On the second side 72 of the frame 1, a second piece of flexible material 6' is mounted by insertion of a second edge 61' into a second slot 5'. The second edge 61' is also provided with a strip of holding material 62' in a similar way to first edge 61.

Fig. 11 discloses a frame system 10 with four frames 1 mounted together. Each of the frames has a piece of flexible material 6a, 6b, 6c, 6d mounted thereon in slots 5 extending along an edge of the frames 1. The flexible material may form four different pictures or be parts of the same pictures.

In Fig. 12, the frame system 10 is shown with a larger piece of flexible material 6 that is mounted on all four frames 1 by insertion of edges of the flexible material 6 into slots on the frames 1 as described above.

Fig. 13 discloses a piece of flexible material 60 that forms a pouch with a first side 60a on which a picture is formed and a second side 60b that may also have a picture but can be without picture. The first and second sides 60a, 60b are joined together along at least one edge but preferably along three edges and they are mounted by inserting the frame assembly 10 into the pouch formed by the flexible material 60 in a manner that is similar to the insertion of a pillow into a pillow-case. Thus, the first side 60a and second side 60b have dimensions that match the dimensions of the frame assembly 10 so that the pouch fits around the frame assembly 10 and present the pictures or images in a desired way.

A light source is preferably also mounted on at least one of the frame portions 21, 22, 23, 24 to provide illumination to an inside of the frame and

to the flexible material 6 so that the picture is illuminated. In some embodiments it is sufficient to provide a light source on only one of two of the frame portions 21, 22, 23, 24, but in embodiments where the frame 1 is very large it would be better to provide light sources on more or all of the frame portions 21, 22, 23, 24. The light sources can be any kind of light source suitable for mounting in this way, such as for instance high powered LED diodes.

Light sources can also be provided as flexible LED strips or the like on the flexible material 6 or on a separate sheet of flexible material mounted on the second side 60b in order to illuminate a picture on the first side 60a. Alternatively, an addition sheet can be provided inside the frame to illuminate pictures on both the first side 60a and the second side 60b. In some embodiments, light from light sources provided on the frame portions 21, 22, 23, 24 can be spread by providing a sheet of perforated plexi glass or similar inside the frame so that a more even light distribution is achieved.

It is to be noted that a mounting of the frame from the folded state to the mounted state can be performed by reversing the first and second folding steps that are described above, to arrive at the frame 1 in the folded state of Fig. 1.

It is also to be noted that features from the various embodiments described herein may freely be combined, unless it is explicitly stated that such a combination would be unsuitable.

CLAIMS

1. Foldable frame (1) for holding an image, the frame comprising
 - four elongated frame portions (21, 22, 23, 24), each having a first end (21a, 22a, 23a, 24a) and a second end (21b, 22b, 23b, 24b),
 - 5 - four corner portions (31, 32, 33, 34), two of which being of a first corner type (33, 34) and the other two being of a second corner type (31, 32),

wherein each frame portion (21, 22, 23, 24) is attached to a corner portion of the first type (33, 34) at the first end (21a, 22a, 23a, 24a) and a
10 corner portion of the second type (31, 32) at the second end (21b, 22b, 23b, 24b), so that a frame (1) is formed where the corner portions of the first type (33, 34) are diagonally opposite, and

wherein the corner portions of the first type (33, 34) are pivotable about a first axis (A) and the corner portions of the second type (31, 32) are
15 pivotable about a second axis (B) and a third axis (C), respectively, the second axis (B) and third axis (C) being parallel to each other and essentially perpendicular to the first axis (A).

2. Foldable frame according to claim 1, wherein the first axis (A) extends diagonally across the frame (1) and through the corner portions of the first type (33, 34) and wherein the second axis (B) and third axis (C) are essentially perpendicular to a plane formed by the frame (A).
20
3. Foldable frame according to claim 1 or 2, wherein the second axis (B) and the third axis (C) are arranged to essentially coincide in a position where the corners of the first type (33, 34) have been pivoted so that
25 the corners of the second type (31, 32) are adjacent to each other.
4. Foldable frame according to any of the claims 1-3, wherein the foldable frame (1) is of a quadratic or a circular shape.
5. Foldable frame according to any previous claim, further comprising a slot (5) for holding edges (61) of a flexible material (6) with a picture,
30 said slot (5) extending along each of the frame portions (21, 22, 23, 24)

and preferably also extending along at least one of the corner portions (31, 32, 33, 34).

6. Foldable frame according to claim 5, further comprising two slots (5, 5') for holding edges (61, 61') of a flexible material (6, 6') with a picture, one of which extends along a first side (71) of the frame (1) and the other extending along a second side (72) of the frame (1).
7. Foldable frame according to any previous claim, wherein at least the corner portions of the first type (33, 34), preferably also the corner portions of the second type (31, 32), comprise at least one opening (35) for receiving a locking pin (4).
8. Foldable frame according to any previous claim, wherein the corner portions of the second type (31, 32) comprise at least one primary pivot (32a, 32c) and two secondary pivots (32b, 32d), the secondary pivots (32b, 32d) being arranged at a first end and a second end of the corner portion, respectively, and the at least one primary pivot (32a, 32c) being arranged between the first end and the second end of the corner portion and connected to each of the two secondary pivots (32b, 32d).
9. Foldable frame according to any previous claim, wherein the corner portions of the second type (31, 32) comprise an outer primary pivot (32a) and two secondary pivots (32b, 32d), the secondary pivots (32b, 32d) being arranged at a first end and a second end of the corner portion, respectively, and the outer primary pivot (32a) being arranged at a corner between the first and second ends.
10. Foldable frame according to any of claims 1-8, wherein the corner portions of the second type comprise an inner primary pivot (32c) and two secondary pivots (32b, 32d), the secondary pivots (32b, 32d) being arranged at a first end and a second end of the corner portion, respectively, and the inner pivot being arranged between them inside a corner, and wherein the corner is an open corner.
11. Foldable frame according to any of claims 1-6, wherein the corner portions of the second type comprise an inner primary pivot (32c), arranged between a first end and a second end of the corner portion

and on an inner side of a corner, and wherein the corner is an open corner.

12. Foldable frame according to any of claims 1-9, wherein the corner portions of the second type comprise an outer primary pivot (32a) and two secondary pivots (32b, 32d), the secondary pivots (32b, 32d) being arranged at a first end and a second end of the corner portion, respectively, and the outer primary pivot (32a) being arranged at a corner between the first and second ends, and further comprising an inner primary pivot (32c), arranged between the secondary pivots (32b, 32d) on an inner side of the corner.
13. Foldable frame according to any of claims 9-10, wherein each pivot is arranged to pivot about an axis that is parallel to or coincides with the second axis (B) or the third axis (C).
14. Foldable frame according to any of claims 6-13, further comprising a flexible material (6) with a picture, the flexible material (6) having edges (61) that are insertable into the slot (5) to mount the picture on the frame (1), wherein the edges (61) are lined with a holding material (62), preferably silicon, for securely holding the flexible material (6) in the slot (5).
15. Foldable frame according to any previous claim, further comprising at least one light source mounted on at least one of the frame portions (21, 22, 23, 24).
16. Frame system comprising at least one of the foldable frames according to any of claims 1-14 and further comprising at least one locking pin (4) mounted through an opening (35) in at least one of the corner portions (31, 32, 33, 34) for blocking a folding of the foldable frame (1).
17. Frame system according to claim 16, comprising a plurality of frames (1) according to any of claims 1-13, the plurality of frames being connected to each other by locking pins (4) to form a frame assembly (10).
18. Frame system according to any of claims 16-17, further comprising at least one foot portion (41), said foot portion having at

least one cavity for receiving a foot locking pin so that a frame (1) can be mounted on the foot portion via the locking pin.

19. Frame system according to claim 17, wherein the foot portion (41) comprises at least two cavities so that two frames (1) can be mounted
5 on the foot portion via foot locking pins.

20. Frame system according to any of claims 17-19, further comprising a flexible material (6) with a picture, the flexible material (6) being arranged to form a picture surface on the frame assembly (10) and having edges (61) that are insertable into slots (5) forming an
10 outer circumference of the frames (1) of the frame assembly (10).

21. Frame system according to any of claims 17-19, further comprising a flexible material (60) with a picture, the flexible material (60) being arranged to form a picture surface on the frame assembly and having a first side (60a) and a second side (60b), said first and
15 second side (60a, 60b) being joined together along at least one edge, and at least one of said first side and second side (60a, 60b) having dimensions that essentially match dimensions of one side of the frame assembly (10).

20

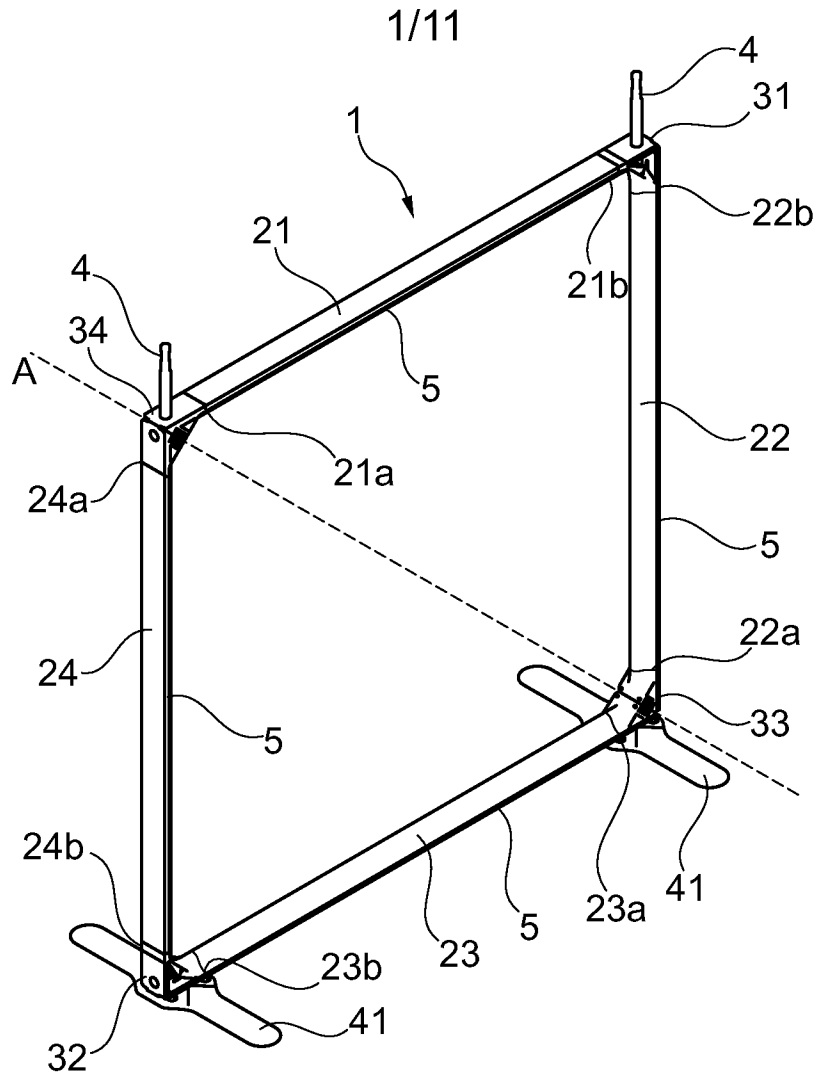


Fig. 1

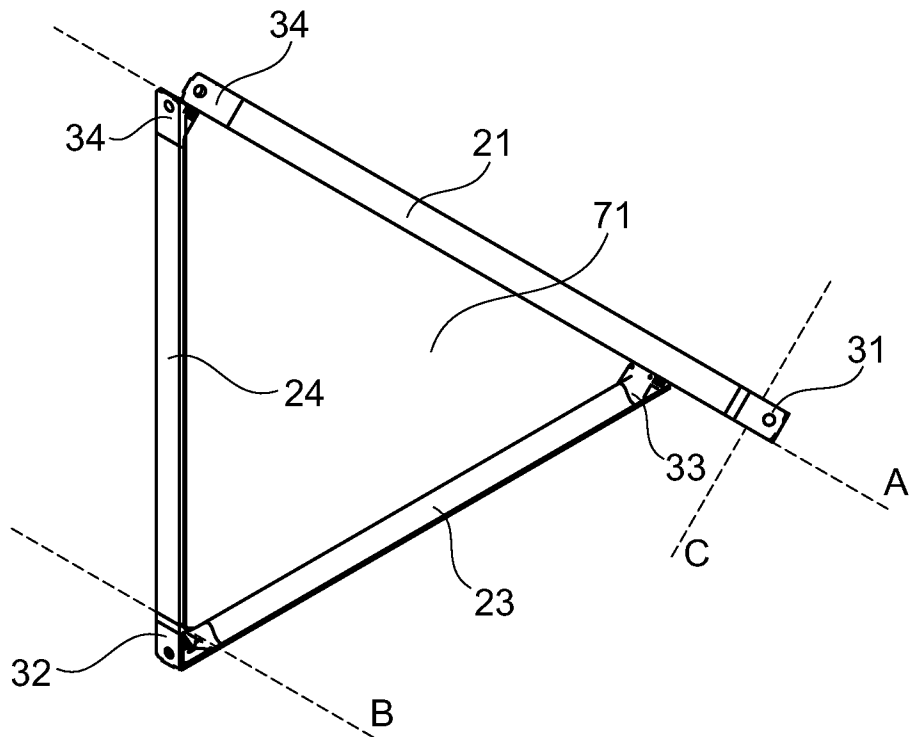


Fig. 2

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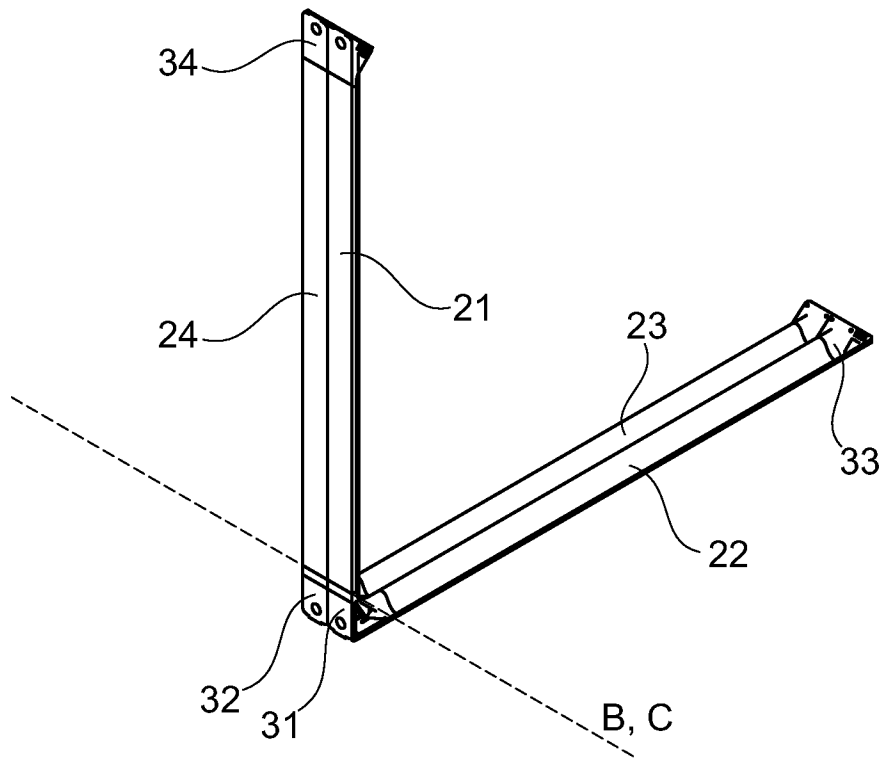


Fig. 3

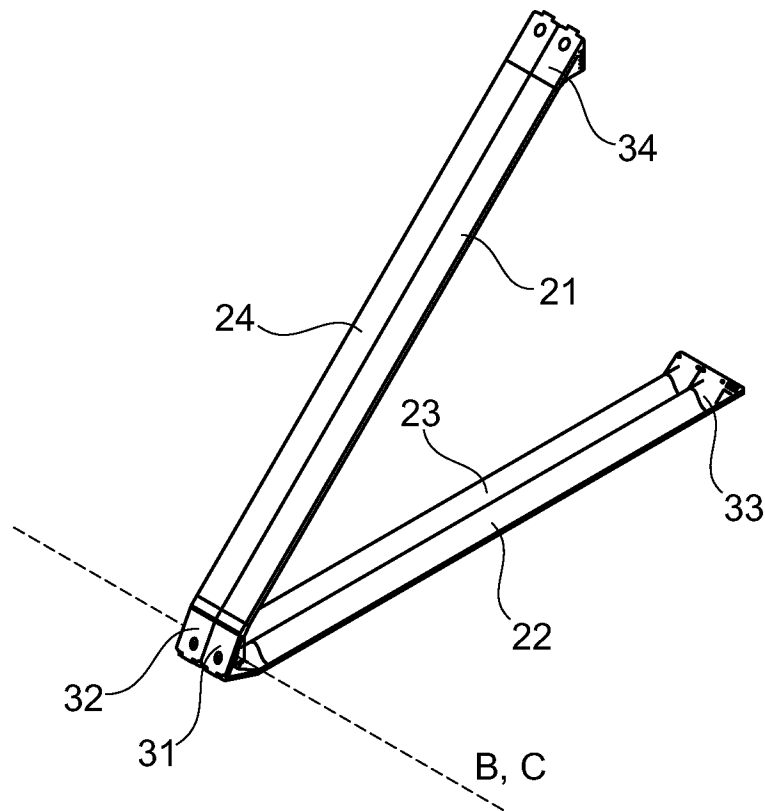


Fig. 4

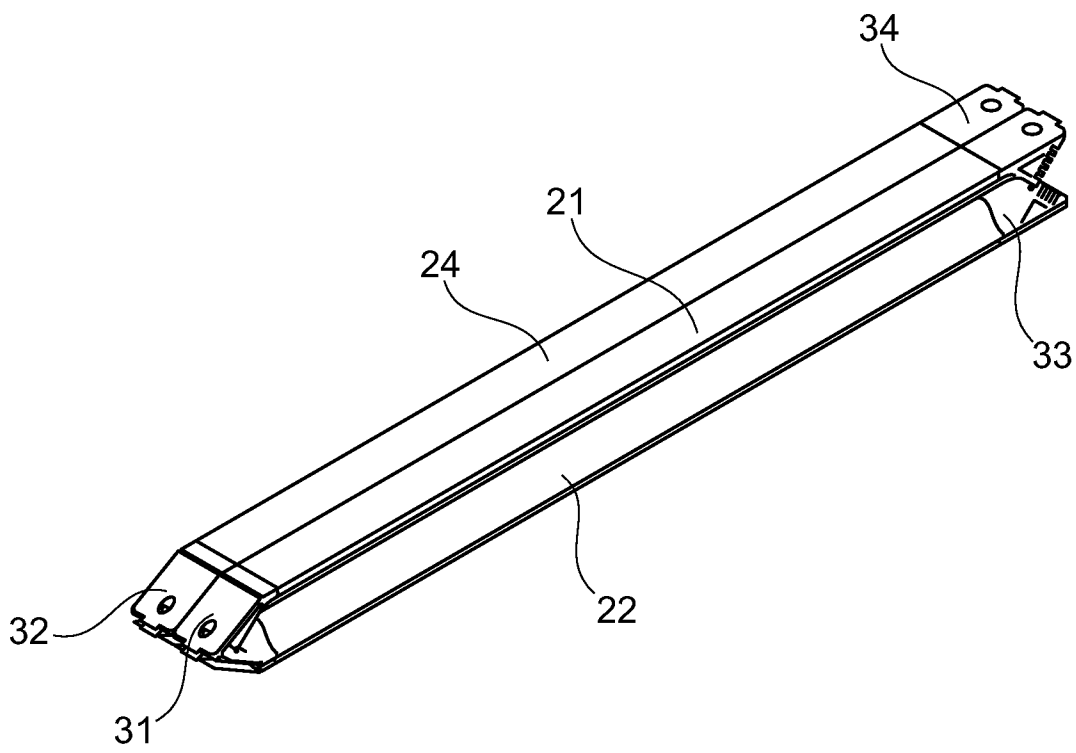


Fig. 5

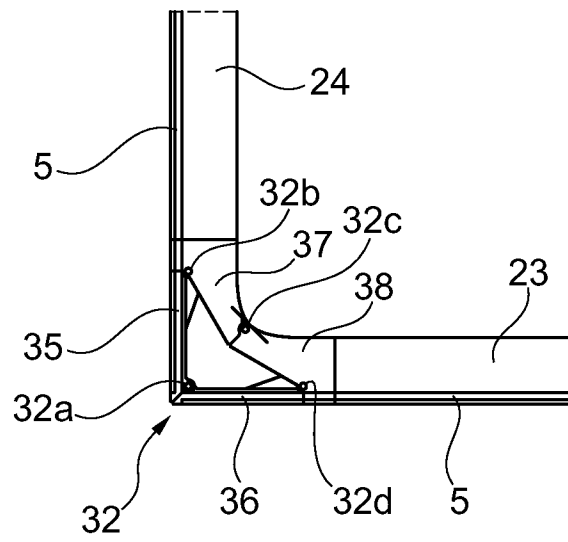


Fig. 6a

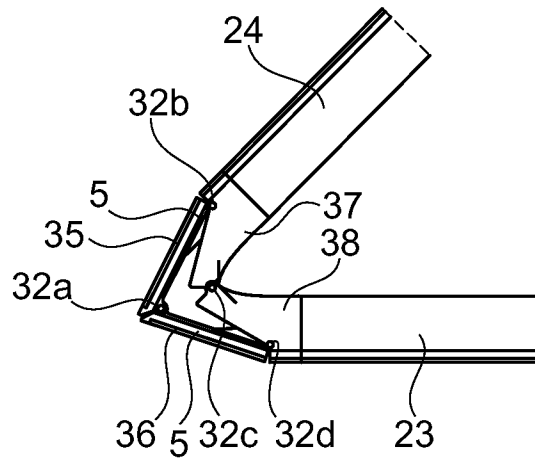


Fig. 6b

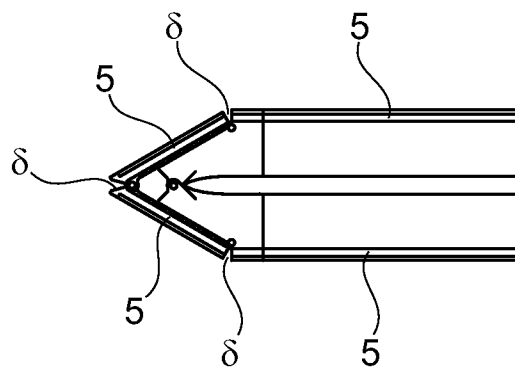


Fig. 6c

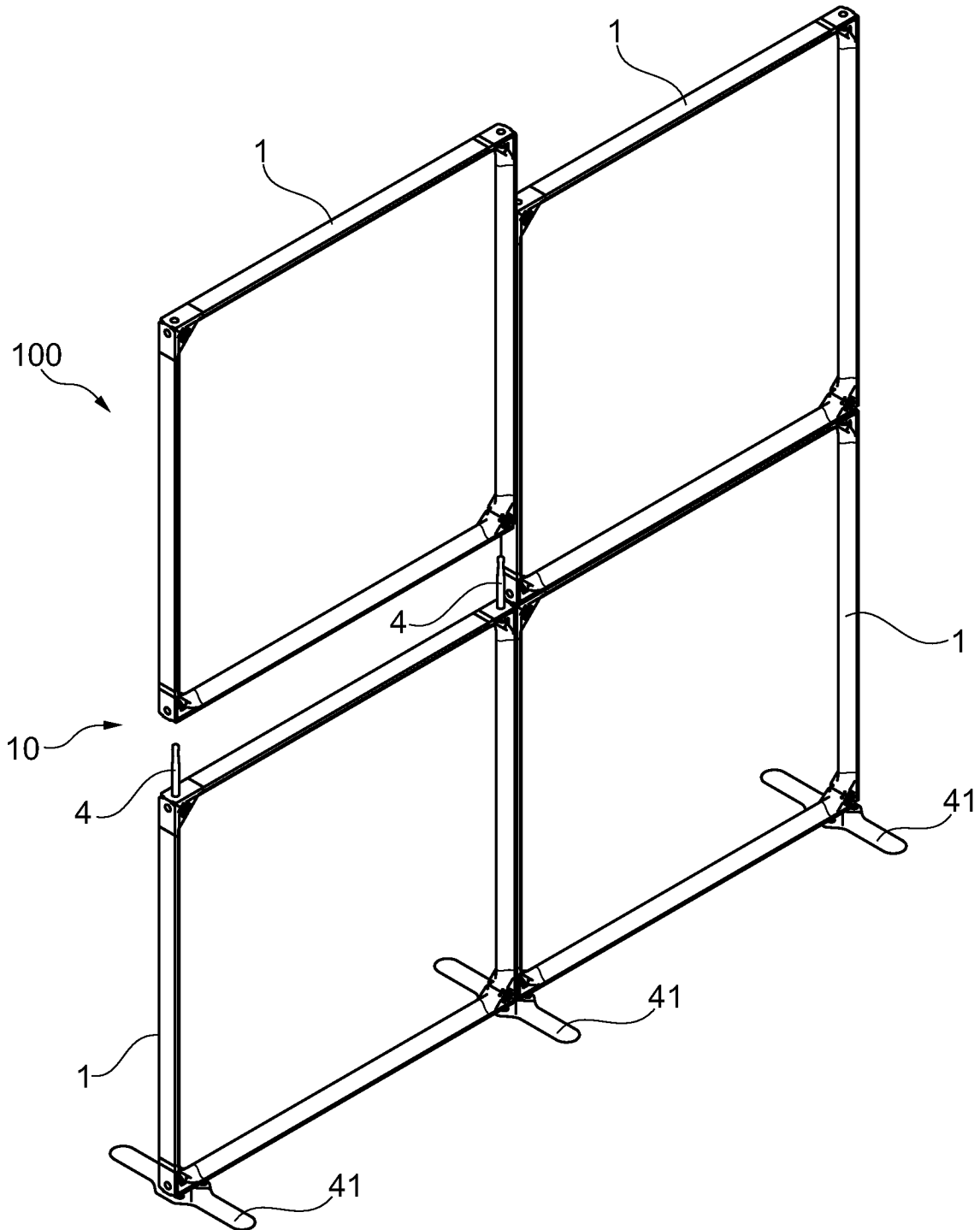


Fig. 7

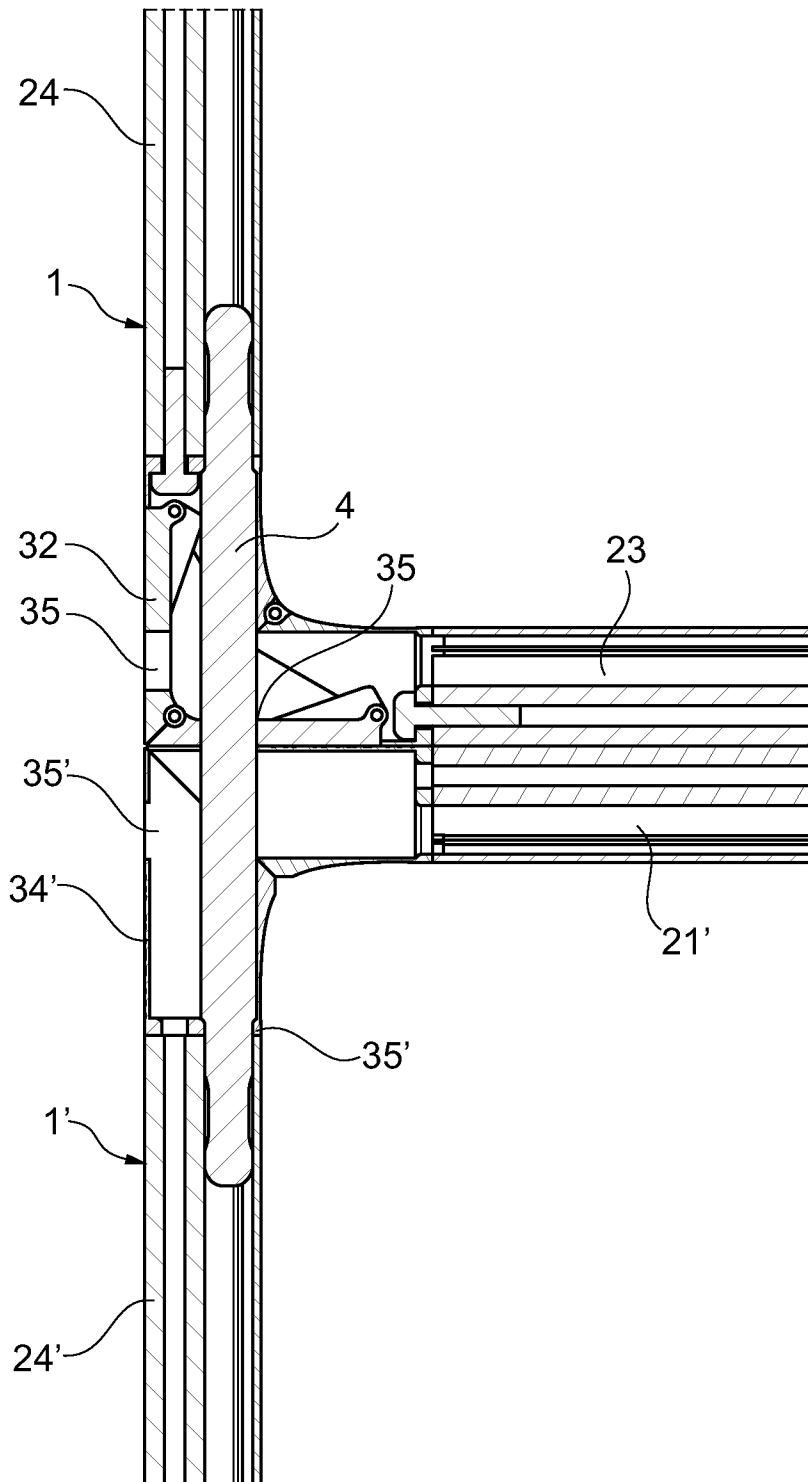


Fig. 8

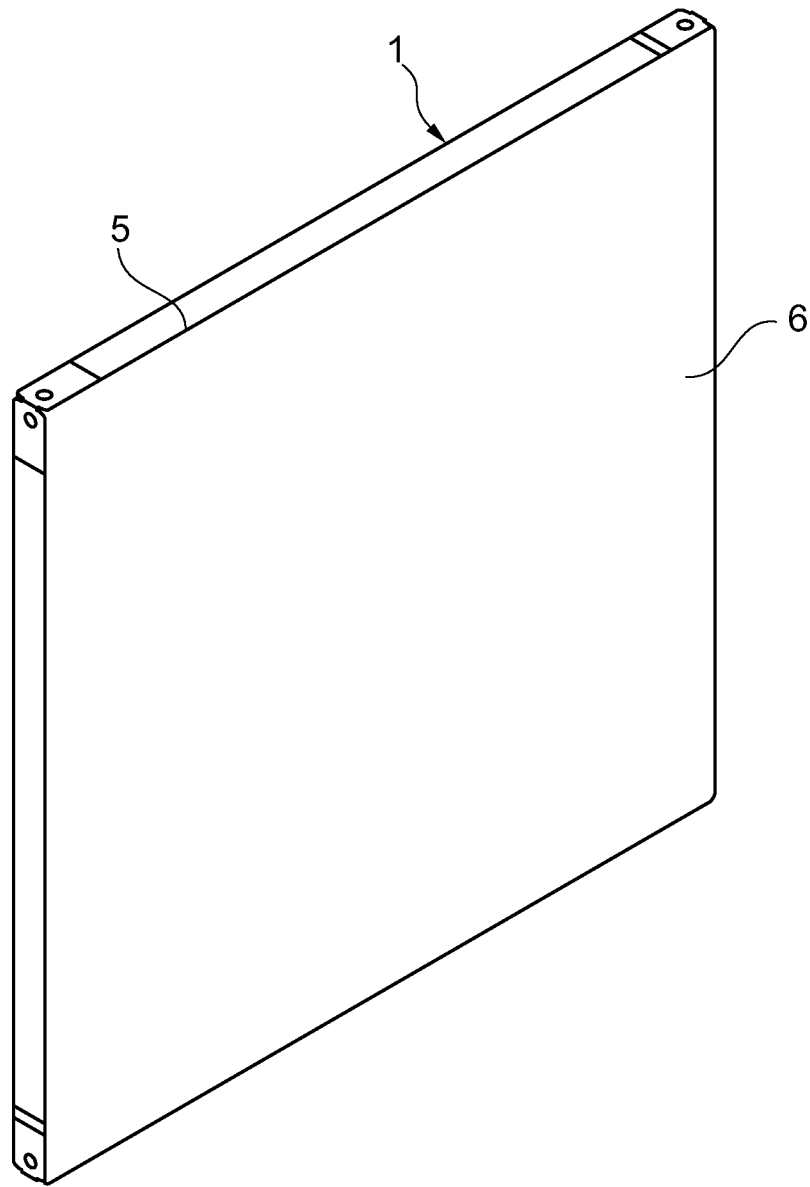


Fig. 9

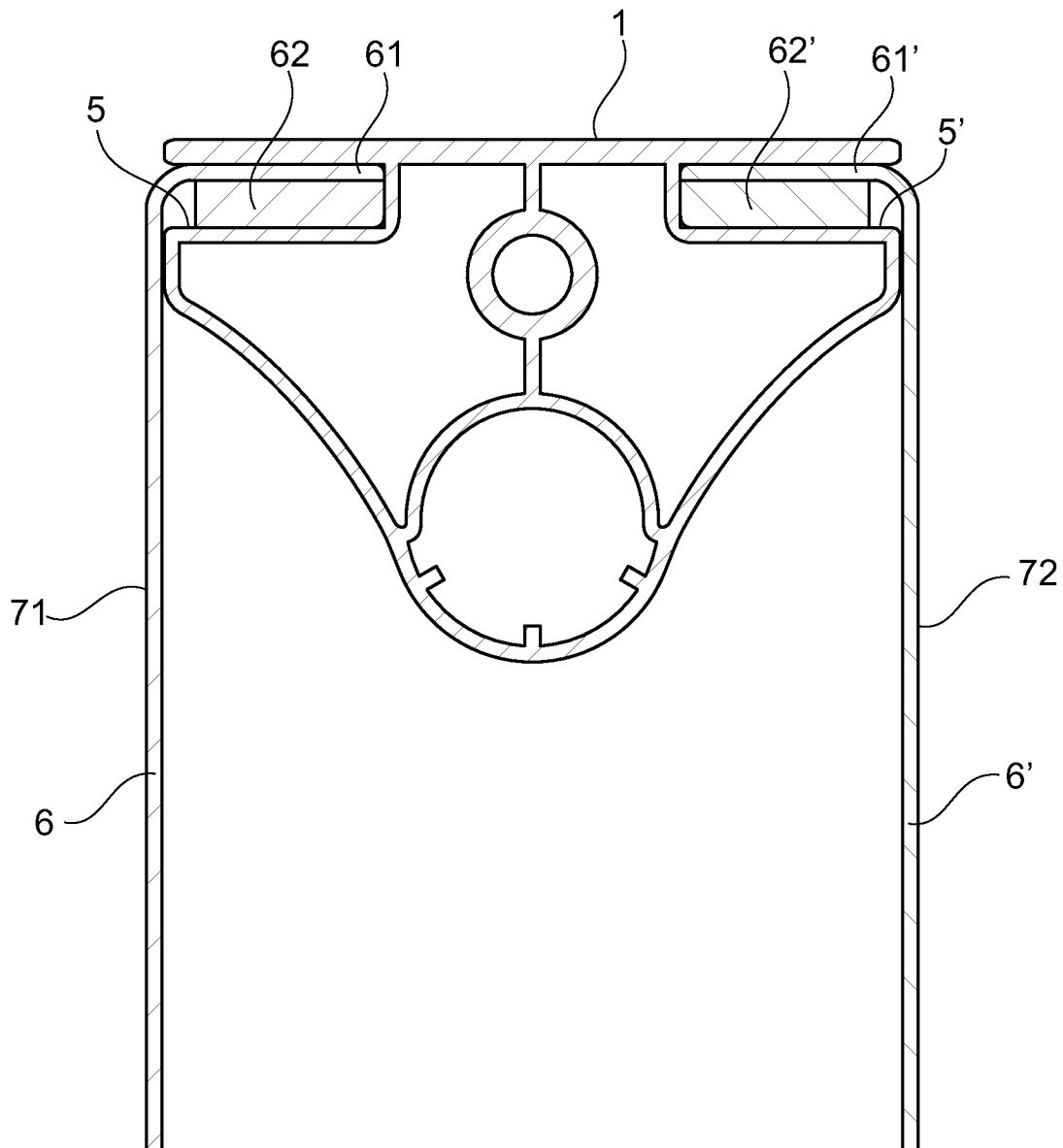


Fig. 10

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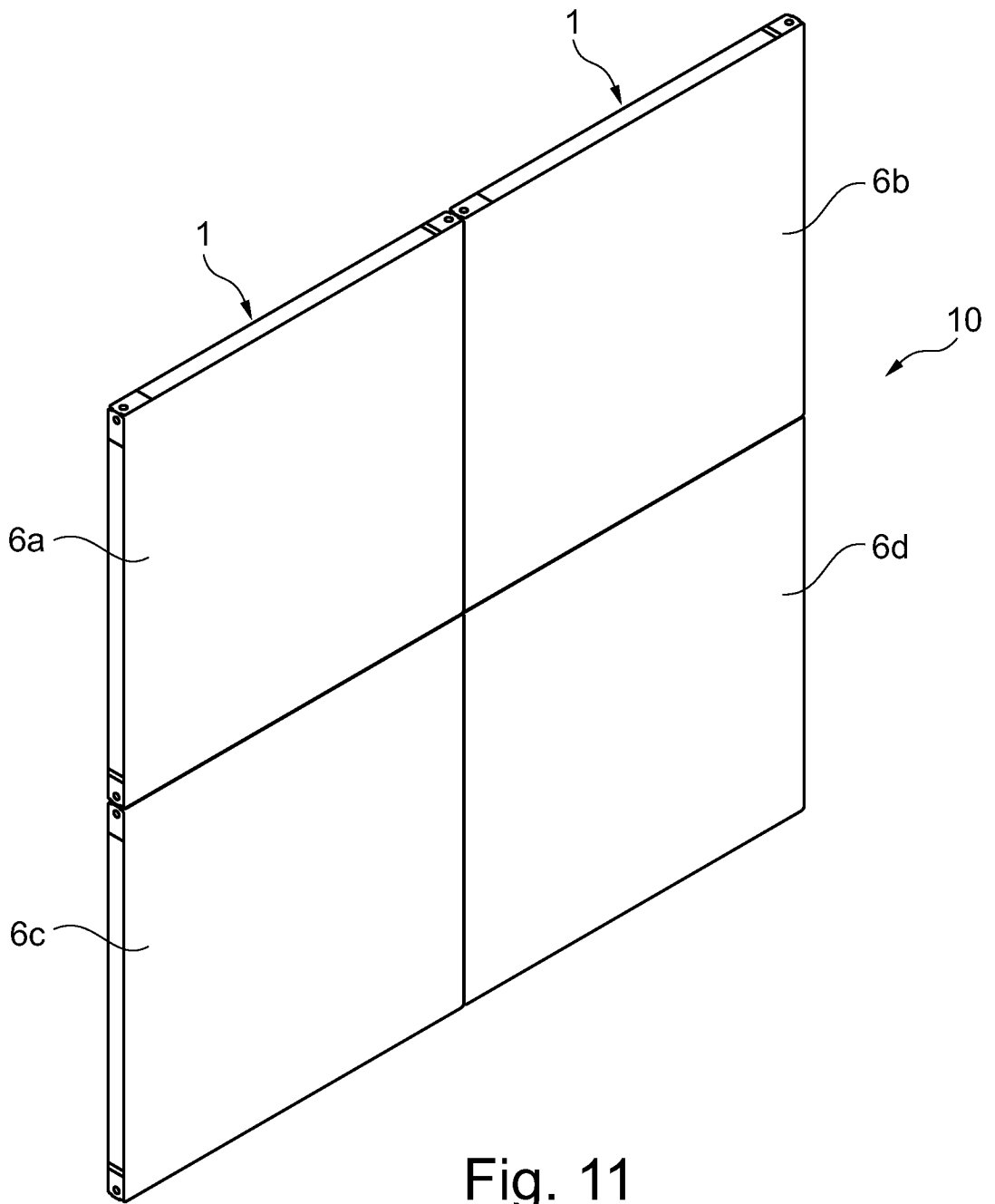


Fig. 11

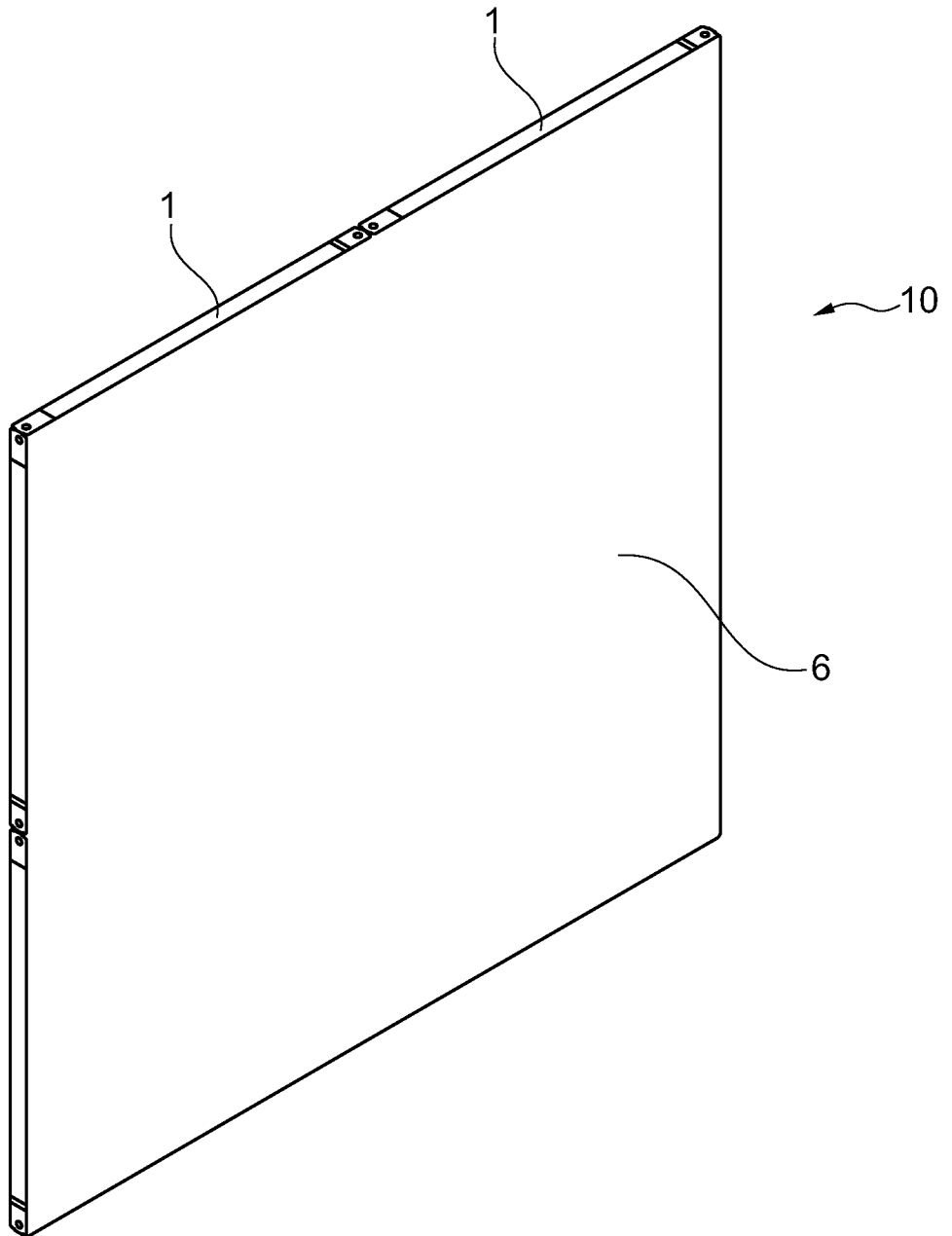


Fig. 12

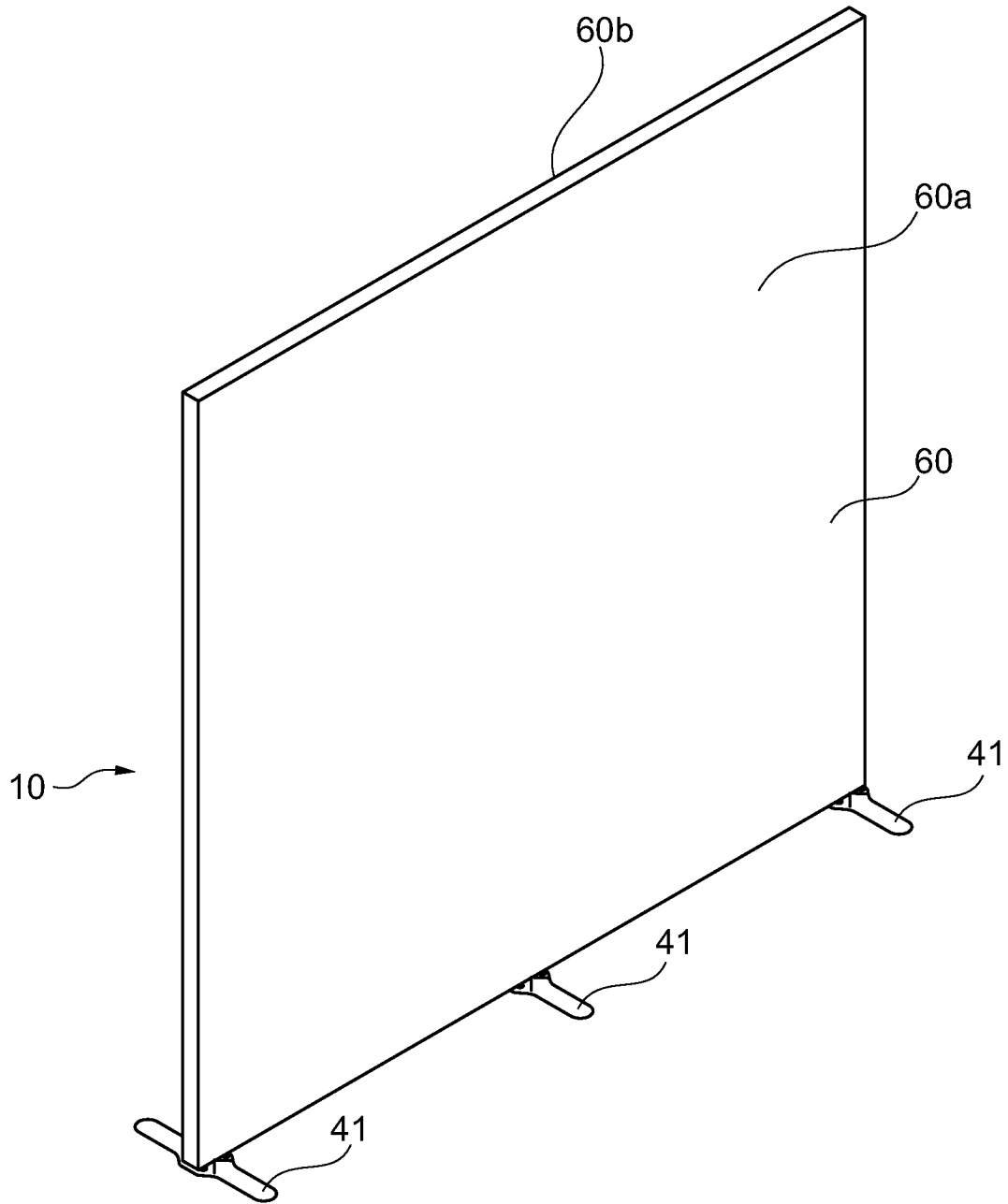


Fig. 13

INTERNATIONAL SEARCH REPORT

International application No
PCT/SE2019/050624

A. CLASSIFICATION OF SUBJECT MATTER
 INV. G09F15/00
 ADD. G09F13/04

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 G09F

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 896 718 A (WESTGARTH PETER [CA]) 27 April 1999 (1999-04-27)	1-5,7-14
Y	column 1, lines 5-9 column 4, line 12 - column 5, line 16 column 8, lines 24-39 figures 1-25	6,15-21
X	US 2010/238544 A1 (ELLIOTT JOHN [US] ET AL) 23 September 2010 (2010-09-23)	1-5,7-14
Y	paragraphs [0002], [0008], [0022] -	6
A	[0032] figures 1-22	15-21
Y	US 4 977 696 A (JOHANSSON GERT A [SE]) 18 December 1990 (1990-12-18)	15-21
A	column 1, lines 1-20 column 3, lines 33-43 column 4, line 67 - column 5, line 48 figures 1-32	1-14

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search 21 August 2019	Date of mailing of the international search report 28/08/2019
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Zanna, Argini
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/SE2019/050624

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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