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SPECIFICATIONS**PANEL****FIELD OF THE ART**

- 5 This invention relates to a panel such as a partition wall which is preferably used in an office or something like this.

BACKGROUND ART

- 10 A panel used as a partition wall is so arranged that a plurality of panels are connected in various forms through a connecting member in order to realize a desired shape of a room. As representative shapes of a combination, for example, there are two panels being continuously connected
- 15 to form a straight line in a plane view, two panels being connected to form an L-shape in a plane view, three panels being connected to form a T-shape in a plane view or four panels being connected to form a cross shape in a plane view.
- 20 As a connecting member to form the above shape there is represented a connecting member which has connecting faces in four directions so as to couple four panels each adjoining two of which make at a right angle in a plane view.
- 25 In the connecting member having the above arrangement, if two panels are connected to form an L-shape in a plane view, two faces of the four connecting faces of the connecting member become unused faces. And a cover is

generally mounted on the unused faces.

Meantime, side end faces locating at an unconnected portion of the two panels connected to form an L-shape in a plane view are generally covered by a cover so as to
5 improve appearance of the panel as a whole.

Conventionally, however, a cover mounted for covering the unused faces of the connecting member is quite different from a cover mounted on the side end face of the above-mentioned panel, thereby to increase a load in
10 production, a number of component parts and a cost. An unused cover may always be left idle depending on a way in which the panels are connected, resulting in a drawback that a storage for a cover is required in some other place.

15 DISCLOSURE OF THE INVENTION

In order to solve the above problems the present claimed invention is to provide a panel in which a cover which covers an unused face of a connecting member and a cover which covers a side end of the panel are commonized,
20 so as not to cause an increase in load during production, a number of component parts and cost.

More specifically, in the present claimed invention the panel is so arranged that side edges of a plurality of panels are connected through a connecting member which has
25 a plurality of connecting faces and is characterized by that a cover covering a side end face of the panel is so arranged that it can be commonly used as a cover covering an unused face of the connecting faces of the connecting

member.

For making it possible to change a cover to mount from the side end face of the panel to the connecting member and vice versa with ease it is preferable that the cover has a relating portion which can make an engagement with a related portion which is provided on both the side end face of the panel and the connecting face of the connecting member respectively.

As a preferable embodiment it is represented that the related portion is an opening provided on the side end face of the panel and the connecting member respectively and the relating portion is a first engaging nail projecting from the cover so as to make an engagement with the opening provided on the side end face of the panel and a second engaging nail projecting from the cover so as to make an engagement with the opening provided on the connecting face of the connecting member.

For reducing a number of component parts it is preferable that the related portion is an opening provided on the side end face of the panel and the connecting member respectively and the relating portion is an engaging nail projecting from the cover so as to make an engagement with the opening provided on the side end face of the panel and the connecting face of the connecting member.

As a preferable embodiment it is represented that the connecting member has four connecting faces so as to connect four panels in four directions each adjoining two of which make at a right angle in a plane view.

As another preferable embodiment it is represented that a plurality of connecting members are provided at intermittent positions along a vertical direction of the panel.

5 In this case, it is preferable to comprise a concealing member which can conceal a space formed between the panels, the covers or the panel and the cover arranged side by side from outside when the panel or the cover is mounted on each of the connecting faces of the connecting member, and the connecting member has a mounting portion
10 for mounting the concealing member at a corner portion formed between the connecting faces arranged side by side.

As another embodiment of the panel it is represented that the panel is so arranged that side edges of a
15 plurality of panels are connected through connecting members which have a plurality of connecting faces, the connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel and a cover can be mounted on an unused face of the
20 connecting faces, and is characterized by that comprising a concealing member which can conceal a space formed between the panels or the panel and the cover arranged side by side from outside when the panel or the cover is mounted on each of the connecting faces of the connecting member and that
25 the connecting member has a mounting portion for mounting the concealing member at a corner portion formed between the connecting faces arranged side by side.

As a preferable embodiment of the mounting portion and

the concealing member, it is represented that the mounting portion is a fitting concave provided at a corner portion of the connecting member, and that the concealing member comprises a concealing member body which locates between the connecting faces arranged side by side and which conceals the space from outside of the connecting member and a fitting convex which projects from the concealing member body and which fits into the mounting portion.

Further, as another arrangement of the panel it is represented that the panel is so arranged that side edges of a plurality of panels are connected through connecting members which have a plurality of connecting faces, the connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel and a cover can be mounted on an unused face of the connecting faces and is characterized by that on the connecting face of the connecting member provided is a related portion which makes an engagement with a relating portion provided on the cover and the related portion is provided at a position which avoids a corner portion formed between the connecting faces arranged side by side.

As a concrete embodiment of the connecting member it is represented that the the connecting member is formed by being folded into a shape or in a shape of a block.

For commonly use of the cover it is preferable that the related portion locating at a side of the connecting member is an opening provided on the connecting face and the relating portion is an engaging nail projecting

downward from an inner face of the cover so as to be hooked over an upward face of the opening from upward.

Further, in this case for effectively prevent the cover from being unsteady in a direction of the width thereof at a predetermined mounted position, it is preferable that an opening width of the opening is made generally equal to an outer measurement of the engaging nail and the engaging nail makes an engagement with the opening with an outer face thereof making generally a tight contact with a side end face of the corresponding opening at a predetermined position.

For simplifying an arrangement in mounting the cover when the cover is commonly used, it is preferable that the related portion locating at a side of the connecting member is a standing wall whose outer face is a connecting face and the relating portion is an engaging nail projecting downward from an inner face of the cover so as to be hooked over an upward face of the standing wall from upward.

Further, in this case for effectively prevent the cover from being unsteady in a direction of the width thereof at a predetermined mounted position, it is preferable that on an outer face of the standing wall provided is a concave portion which is dented toward a direction of a thickness thereof, an opening width of the concave portion is made generally equal to an outer measurement of the engaging nail and the engaging nail makes an engagement with the standing wall with an outer face thereof making generally a tight contact with a side

end face of the concave portion at a predetermined position.

As mentioned above, the present claimed panel is so arranged that side edges of a plurality of panels are
5 connected through a connecting member having a plurality of connecting faces and a cover covering a side end face of the panel is so arranged that can be commonly used as a cover covering an unused face of connecting faces of the connecting member.

10 In accordance with the arrangement, since the cover covering the side end face of the panel is so arranged to be commonly used as the cover covering the unused face of the connecting faces of the connecting member, it can reduce a load in production, a number of components and a
15 cost. Further, since a cover can always be used to cover a side end face of the panel or an unused face of the connecting member, there lefts no cover which is not in use. In addition, when the panel is connected in a variety of forms, there lefts no useless covers and no need of
20 worrying a storage space for a cover. Further, since the cover which covers a side end face of the panel is the same as the cover which covers the unused face of the connecting member, appearance can be unified, resulting in an improved appearance.

25 In this case, if the cover has a relating portion which can make an engagement with a related portion provided on a side end face of the panel and a connecting face of the connecting member respectively and a shape of

the relating portion and the related portion is so made as to be engaged easily, the cover can be mounted and dismounted on or from the side end face of the panel and the connecting member with ease.

5 In addition, if the related portion is openings provided on the side end face of the panel and the connecting member respectively and the relating portion is the first engaging nail projecting from the cover so as to be engaged with the opening provided on the side end face
10 of the panel and the second engaging nail projecting from the cover so as to be engaged with the opening provided on the connecting face of the connecting member, engaging nails are to be provided separately to make an engagement with the panel and the connecting member respectively. As
15 a result, a combination of the panels and the connecting member can be tailored to any form of use.

Further, if the related portion is openings provided on the side end face of the panel and the connecting member respectively and the relating portion is the engaging nails
20 projecting from the cover so as to be engaged with the openings provided on the side end face of the panel and the connecting face of the connecting member, the engaging nail can be commonized to make an engagement with the panel and the connecting member, thereby to reduce a number of
25 components.

If the connecting member has four connecting faces so as to connect four pieces of the panels in four directions each adjoining two of which make at a right angle in a

plane view, the panel can be connected in a variety of forms.

In addition, if the connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel, it is possible to reduce a cost in comparison with a case in which the panels are connected by making use of a post whose vertical length is generally the same as that of the panel, and also to wire horizontally between the two panels arranged side by side by making use of a space formed between the connecting members. Further, panels of various specifications having varieties of different vertical lengths can flexibly be dealt with by adjusting a position or a number of the connecting member.

In case a panel or a cover is mounted on a connecting face of the connecting member which are provided at intermittent positions along a vertical direction of a panel, the connecting member is exposed to outside through a space between the panels, the covers or the panel and the cover arranged side by side. However, if a concealing member which can conceal a space formed between panels, covers, or a panel and a cover arranged side by side is provided when the panel or the cover is mounted on each of connecting faces of a connecting member and the connecting member has a mounting portion for mounting the concealing member at a corner portion formed between the connecting faces arranged side by side, the connecting member can be concealed entirely from outside by means of the concealing member and the appearance of the panel can be improved.

If side edges of a plurality of panels are connected through a connecting member, wherein the connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel, a cover can be mounted on an unused face of the connecting faces and the panel comprises a concealing member which can conceal a space formed between the panels, the covers or the panel and the cover arranged side by side from outside when the panel or the cover is mounted on each of the connecting faces of the connecting member and the connecting member has a mounting portion for mounting the concealing member at a corner portion formed between the connecting faces arranged side by side, it is possible to reduce a cost in comparison with a case in which the panels are connected by making use of a post whose vertical length is generally the same as that of the panel as well as to wire horizontally between the two panels arranged side by side by making use of a space formed between the connecting members. Further, panels of various specifications having varieties of different vertical lengths can flexibly be dealt with by adjusting a position or a number of the connecting member. If the connecting members are provided at intermittent positions along a vertical direction of the panel, the connecting members are likely to be exposed through a space between the panels, the covers, or the panel and the cover arranged side by side. In accordance with the above-mentioned arrangement, however, it becomes possible to conceal the connecting member completely with the concealing member

from outside, thereby to improve the appearance of the panel.

If the mounting portion is a fitting concave provided at the corner portion of the connecting member, and the
5 concealing member comprises a concealing member body which locates between the connecting faces arranged side by side so as to conceal a space from outside of the connecting member and a fitting convex which projects from the concealing member body so as to fit into the mounting
10 portion, it is possible to prevent light leakage or exposure of the connecting member through the space by concealing the space with a simple arrangement.

If side edges of a plurality of panels are connected through connecting members, the connecting members are
15 provided at a plurality of intermittent positions along a vertical direction of the panel and a cover can be mounted on an unused face of the connecting faces, in which on the connecting face of the connecting member provided is a related portion which makes an engagement with a relating
20 portion provided at a position of the cover which avoids a corner portion formed between the connecting faces arranged side by side, the corner portion of the connecting member is to be open when the cover is mounted. If the connecting members are provided at intermittent positions along a
25 vertical direction of the panel, the connecting members are likely to be exposed through a space between the panels, the covers, or the panel and the cover arranged side by side, namely a space formed at a corner portion of the

connecting members. However, in accordance with the above-mentioned arrangement, it becomes possible to provide a mounting portion of the concealing member which conceals the above space at the corner portion formed between the connecting faces of the connecting member. Then the
5 concealing member can be mounted on the mounting portion, thereby to improve the appearance of the panel by preventing light leakage or exposure of the connecting member through the above space.

10 If the connecting member is made of a sheet metal folded into a shape, it is possible to form the connecting member with a simple processing method and a low cost.

If the connecting member is in a shape of a block, the connecting member can be made to have a high strength with
15 a simple arrangement.

If the related portion of the connecting member is an opening which is provided on the connecting face and the relating portion is an engaging nail which projects downward from the inner face of the cover so as to be
20 hooked over an upward face from upward, the nail projecting from the cover is mounted on the connecting member by making an engagement with the opening of the connecting member and the cover can be positioned securely to the connecting member and, for example, it becomes easy to
25 position the cover vertically in comparison with a case in which a projecting portion projecting from a cover is held to be guided by a groove provided along a vertical direction of the connecting member. In addition, for a

case in which a cover is commonized as a cover for mounting a side end face of the panel, it becomes possible to commonize the cover which is mounted on the side end face of the panel without providing the side end face of the panel with a complicated process.

If the opening width of the opening is made to be generally the same as the outer measurement of the engaging nail and the engaging nail makes an engagement with the opening with an outer face of the engaging nail generally making a contact with a side end face of the opening, it is possible to effectively prevent unsteady engagement of the cover toward a direction of the width at a predetermined mounted position.

If the related portion locating at a side of the connecting member is a standing wall whose outer face is the connecting face and the relating portion is an engaging nail projecting downward from the inner face of the cover so as to be hooked over an upward face from upward, it becomes possible to commonize a cover which is mounted on the side end face of the panel without providing the side end face of the panel with a complicated processing.

If the standing wall has a concave portion which is dented in a direction of thickness and whose width is generally equal to an outer measurement of the engaging nail and the outer face of the engaging nail makes an engagement with the standing wall in a condition that the outer face of the engaging nail generally makes a contact with the side opening end face of the opening, it is

possible to effectively prevent unsteady engagement of the cover toward a direction of the width at a predetermined mounted position.

5 **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective view showing one embodiment of the invention. Fig. 2 is an exploded perspective view of the embodiment. Fig. 3 is a perspective view of a principle portion of the embodiment. Fig. 4 is an exploded perspective view of the principle portion. Fig. 5 is an exploded perspective view of the principle portion. Fig. 6 is a partially cut-out plane view of the embodiment. Fig. 7 is a cross-sectional view taken along line I-I in Fig. 6. Fig. 8 is an exploded perspective view of the embodiment showing a condition of being used. Fig. 9 is a partially cut-out cross-sectional plane view of the embodiment showing another condition of being used. Fig. 10 is a perspective view showing a modified form of a connecting member. Fig. 11 is a cross-sectional side view showing a modified form of a relating member.

BEST MODES OF EMBODYING THE INVENTION

The invention will be described in detail with reference to an embodiment thereof shown in the accompanying drawings.

In this embodiment a plurality of movable partition walls 1 (1A, 1B) as panels are connected through a connecting member 6.

The movable partition wall 1 in accordance with this embodiment comprises, as shown in Figs. 1 and 2, a structure frame body 2 which is to be a frame and a front and rear panel elements 3 which are removably mounted on the structure frame body 2, and inside of which a wiring function which can store a wiring is provided and a wiring space S is formed in a space closed by a side frame member 21 and a cross frame member 22 each of which constituting the structure frame body 2 and the panel element 3.

The structure frame body 2 is made of metal and comprises the right and left side frame members 21 placed along a vertical direction each of which forms side end faces 1a of the movable partition wall 1 and a plurality of cross frame members 22 placed along a crosswise direction so as to connect the right and left side frame members 21 wherein the side frame members 21 and the cross frame members 22 are connected so as to form a frame.

The panel element 3 is, as shown in Fig. 2, a shape of rectangular made of a panel element body 31 of sheet metal whose inside is filled with cores 32 and a plurality of panel elements 3 are arranged along a vertical direction so as to cover almost whole area of the structure frame body 2. The panel element 3 is provided with a resin member 34 having an upward nail 33a and a resin member 34 having a downward nail 34a at an inner surface of the corner vicinity thereof instead of the cores 32 so that the panel element 3 can be removably mounted between optional two of the cross frame members 22 by making use of these nails 33a

and 34a.

In addition, in the movable partition wall 1 of this embodiment, as shown in Fig. 1 and Fig. 2, a first and a second panel affixing members 4A, 4B are mounted on each of
5 a top and a bottom faces of the cross frame member 22 so as to form a panel affixing face P which is to be affixed to an inner surface 3a of the panel element 3 at a position projecting outward from the front and rear faces of the side frame member 21 and the cross frame member 22 and the
10 inner surface 3a of the panel element 3 and the front and rear faces 21a of the side frame member 21 are made to be separated, and a wiring passage portion 5 which connects the wiring space S with outside of the structure frame body 2 is formed between the inner surface 3a of the panel
15 element 3 and the front and rear faces 21a of the side frame member 21. A member shown by a numeral of 23 in Fig. 1 and Fig. 2 is an anti-dent member which is to prevent the center portion of the panel element 3 from being dented when the panel element 3 is mounted on the structure frame
20 body 2.

In accordance with the arrangement, in this embodiment, as shown in Fig. 3, two movable partition walls 1A, 1B each of which has a similar arrangement are connected to form a general L-shape in a plane view through
25 the connecting member 6. A cover 7 (7C, 7D) having the same arrangement as that of a cover 7 (7A, 7B) which covers the side end face 1a of the movable partition wall 1A, 1B is used to cover an unused connecting face 6a of the

connecting member 6 so as to attempt commonizing a component part.

Followings are a concrete explanation of arrangements of each component parts.

5 The cover 7 (7A, 7B) is, as shown in Fig. 3 through Fig. 7, mounted to cover a side end face 1a which is not connected with the connecting member 6 of the movable partition wall 1 and an unused connecting face 6a of the connecting member 6. A vertical length of the cover 7 is
10 made to be almost the same as a vertical length of the movable partition wall 1 and a width of the cover 7 is made to be almost the same as a thickness of the movable partition wall 1. The cover 7 comprises a cover body 71 whose plane view is generally a channel shape, a first
15 engaging nail 72 which projects from an inner face of the cover body 71 and which makes an engagement with a slit 213 as an opening provided on the side frame member 21 and a second engaging nail 73 which makes an engagement with a cutout 621 as an opening provided on the connecting member
20 6. These first and second engaging nails 72 and 73 are provided at a general center of the width of the cover body 71 to avoid both edges of the width thereof.

 The first engaging nail 72 is a downward nail which can be hooked over a bottom edge of the slit 213 from
25 upward after being inserted into the slit 213 and provided in pairs at three intermittent positions along a vertical direction of the cover body 71 respectively.

 The second engaging nail 73 is a downward nail which

can be hooked over the cutout 621 from upward and provided in pairs at three intermittent positions of the cover body 71 respectively. The second engaging nail 73 is a little smaller than the first engaging nail 72 and a projecting amount of the second engaging nail 73 is also small compared with the first engaging nail 72. The second engaging nail 73 serves as positioning the cover 7 with the tip thereof making an abutting contact with an outer face of an outer side member 211 of the side frame member 21 when the first engaging nail 72 is inserted into the slit 213 and makes an engagement with the slit 213 provided on the outer side member 211.

The connecting member 6 has four connecting faces 6a so as to connect four pieces of the movable partition walls 1 in four directions each adjoining two of which make a right angle in a plane view and is provided at three intermittent positions along a vertical direction of the movable partition wall 1. The connecting member 6 is made of sheet metal folded into a shape and comprises a base wall 61 whose plane view is a general octagon and four standing walls 62 each of which is unitedly formed to stand from four sides each extending horizontally front, back, right or left of the eight sides of the base wall 61, and outer faces of the standing walls 62 serve as a connecting face 6a. The base wall 61 has an ark-shaped cutout 611 as a fitting concave whose plane view is a partial ark at a corner portion formed between the standing walls 62 arranged side by side and on the ark-shaped cutout 611

mounted is a concealing member 62 which can conceal a space formed between the movable partition walls 1 arranged side by side. The concealing member 8 is made of synthetic resin and comprises a plate-shaped concealing member body 5 81 which is positioned to almost completely conceal a gap formed between the standing walls 62 arranged side by side and a fitting convex 82 which unitedly projects from an inner face of the concealing member body 81 and whose tip is in a shape of a partial ark to fit into the ark-shaped 10 cutout 611. The standing wall 62 has the cutout 621 as an opening in a shape of a concave whose upper side opens with which the second engaging nail 73 of the cover 7 can make an engagement. The cutout 621 is provided at a general center of the width of the top edge of the connecting face 15 6a to avoid a corner portion formed between the connecting faces 6a arranged side by side.

More specifically, the cutout 621 is tapered so as to increase a width of an opening as approaching an upper end thereof in order to make it easy to engage the second 20 engaging nail 73 when the cover 7 is mounted. A width of the bottom end of the cutout 621 is made to be a little larger than a distance between the outer faces of each of the second engaging nails 73 provided in a pair and the cutout 621 is so arranged that the cover 7 can be prevented 25 from moving toward a direction of the width thereof with side faces of the bottom end of the cutout 621 making a close contact with the outer faces of the second engaging nail 73 when the second engaging nail 73 is engaged with

the cutout 621.

In connecting a plurality of movable partition walls 1A, 1B, etc. through the connecting member 6, the standing wall 62 is fixed into the side frame member 21 of the movable partition wall 1 with a fixture b such as a screw and then a plurality of movable partition walls 1A, 1B, etc. are connected so as to form a general straight line, a general L-shape, a T-shape or a cross shape in a plane view. A member shown by a numeral of 91 in Fig. 3 is a lid member which is preferably mounted to conceal top faces of the connecting member 6 locating highest and the cover 7C, 7D mounted on the connecting member 6 from outside.

The side frame member 21 is, as shown in Fig. 5 through Fig. 7, of sheet metal and comprises the outer side member 211 and an inner side member 212 each of which is plastically transformed to be a general channel-shape in a cross section so as to open toward an inner side face, and both of which are combined so as to be in a shape of a general angle pipe. The outer side member 211 is provided with a slit 213 at a corresponding position of the outer side face thereof so as to make an engagement with the first engaging nail 72 projecting from the cover 7. More specifically, the opening width of the slit 213 is made to be a little larger than a distance between the outer faces of each of the first engaging nails 72 provided in a pair and the slit 213 is so arranged that the cover 7 can be prevented from moving toward a direction of the width thereof with bottom ends of side faces of the slit 213

making a contact with the outer faces of the first engaging nail 72 when the first engaging nail 72 is engaged with the slit 213.

5 A member shown by a numeral of 92 in Fig. 5 is a lid member which is preferably mounted to conceal a top face of the cover 7A, 7B mounted on the side end face 1a of the movable partition wall 1 from outside when used.

10 With the above arrangement, for example, in order to change a form in which two movable partition walls 1A and 1B are connected in a general L-shape in a plane view as shown in Fig. 6, into a form in which a new movable partition wall 1C is added to the former to shape a general T-shape in a plane view as shown in Fig. 8, the cover 7C mounted on an unused connecting face 6a of the connecting member 6 is dismounted and the movable partition wall 1C is connected to the corresponding connecting face 6a of the connecting member 6. Then the above-mentioned dismounted cover 7C is mounted on the side end face 1a of the movable partition wall 1C.

20 Further, in order to add a new partition wall 1D so as to form a general cross shape in a plane view as shown in Fig. 9, the cover 7D mounted on an unused connecting face 6a of the connecting member 6 is dismounted and the movable partition wall 1D is connected to the corresponding connecting face 6a of the connecting member 6. Then the above-mentioned dismounted cover 7D is mounted on the side end face 1a of the movable partition wall 1D.

In accordance with the arrangement, since it is

possible to commonize the cover 7 which covers the side end face 1a of the movable partition wall 1 and the unused connecting face 6a of the connecting member 6, it can reduce a load in production, a number of components and a cost. Further, since the cover 7 can be used to cover the side end face 1a of the movable partition wall 1 or the unused connecting face 6a of the connecting member 6, there lefts no cover which is not in use. In addition, when the movable partition walls 1 are connected in a variety of forms, there is no useless covers and no need of worrying a storage space. Further, since the cover which covers the side end face 1a of the movable partition wall 1 has the same arrangement as the cover 7 which covers the unused connecting face 6a of the connecting member 6, appearance can be unified, resulting in an improved appearance.

Since the cover 7 has the first and second engaging nails 72, 73 as a relating portion each of which makes an engagement with the slit 213 and the cutout 621 as a related portion provided on the side end face 1a of the movable partition wall 1 and the connecting face 6a of the connecting member 6 respectively and the shape of the first and second engaging nails 72, 73, the slit 213 and the cutout 621 is so made as to be engaged easily, the cover 7 can be mounted and dismounted on or from the side end face 1a of the movable partition wall 1 and the connecting face 6a of the connecting member 6 with ease.

In addition, since the engaging nails 72, 73 which make an engagement with the movable partition wall 1 and

the connecting member 6 respectively are provided separately, a combination of the movable partition walls 1 and the connecting member 6 can be tailored to any form of use.

5 Since the connecting member 6 has four connecting faces 6a so as to connect four pieces of the movable partition walls 1 in four directions each adjoining two of which make at a right angle in a plane view, the movable partition walls 1 can be connected in a variety of forms.

10 In addition, since the connecting members 6 are provided at a plurality of intermittent positions along a vertical direction of the movable partition wall 1, it is possible to reduce a cost in comparison with a case in which the movable partition walls 1 are connected by making
15 use of a post whose vertical length is generally the same as that of the movable partition wall 1, and also to wire horizontally between the two movable partition walls 1 arranged side by side by making use of a space formed between the connecting members 6 arranged side by side
20 vertically. Further, the movable partition wall 1 having varieties of different vertical lengths can flexibly be dealt with by adjusting a position or a number of the connecting member 6.

25 In case the movable partition wall 1 or the cover 7 is mounted on the connecting face 6a of the connecting member 6 which are provided at intermittent positions along a vertical direction of the movable partition wall 1 like this embodiment, the connecting member 6 is exposed to

outside through a space between the movable partition walls 1, the covers 7 or the movable partition wall 1 and the cover 7 arranged side by side. However, since the concealing member 8 is provided which can conceal a space
5 formed between the movable partition walls 1, the covers 7, or the movable partition wall 1 and the cover 7 arranged side by side from outside when the movable partition wall 1 or the cover 7 is mounted on each of connecting faces 6a of a connecting member 6 and the connecting member 6 has a
10 mounting portion for mounting the concealing member 8 at a corner portion formed between the connecting faces 6a arranged side by side, the connecting member 6 can be concealed entirely from outside by means of the concealing member 8 and the appearance of the movable partition wall 1
15 can be improved.

Since the cutout 621 which makes an engagement with the first and second engaging nail 72, 73 of the cover 7 is provided at the connecting face 6a of the connecting member 6 and the cutout 621 is provided at a position which avoids
20 a corner portion formed between the connecting faces 6a arranged side by side, the corner portion of the connecting member 6 is to be open when the cover 7 is mounted on the connecting member 6. In case that the connecting member 6 is provided at intermittent positions along a vertical
25 direction of the movable partition wall 1, the connecting member 6 is likely to be exposed through a space between the movable partition walls 1, the covers 7, or the movable partition wall 1 and the cover 7 arranged side by side,

namely a space formed at a corner portion of the connecting member 6. However, in accordance with the arrangement, it becomes possible to provide the ark-shaped cutout 611 which serves as a mounting portion of the concealing member 8 which conceals the above space at the corner portion formed between the connecting face 6a of the connecting member 6, thereby to make it possible to improve the appearance of the movable partition wall 1 by preventing light leakage or exposure of the connecting member 6 through the above space when the concealing member 8 is mounted on the ark-shaped cutout 611.

Since the connecting member 6 is made of a sheet metal folded into a shape, it is possible to form the connecting member 6 with a simple processing method and a low cost.

Since the mounting portion is the ark-shaped cutout 611 provided at the corner portion of the connecting member 6 and the concealing member 8 comprises the concealing member body 81 and the fitting convex 82 which projects from the concealing member body 81 and which fits into the ark-shaped cutout 611, it becomes possible to conceal the space and effectively prevent light leakage or exposure of the connecting member 6 through the space with a simple arrangement.

Since the related portion of the connecting member 6 is the cutout 621 which is provided on the connecting face 6a and which has a shape of general concave opening top ward and the relating portion is the second engaging nail 73 which projects downward from the inner face of the cover

7 so as to be hooked over the cutout 621 from upward, the second engaging nail 73 projecting from the cover 7 is mounted on the connecting member 6 by making an engagement with the cutout 621 of the connecting member 6 and the cover 7 can be positioned securely to the connecting member 6 and, for example, it becomes easy to position the cover 7 vertically in comparison with a case in which a projecting portion projecting from a cover is held to be guided by a groove provided along a vertical direction of the connecting member 6. In addition, for a case in which a cover 7 is commonized as a cover 7 for mounting the side end face 1a of the movable partition wall 1, it becomes possible to commonize the cover 7 which is mounted on the side end face 1a of the movable partition wall 1 without providing the side end face 1a of the movable partition wall 1 with a complicated process.

Since the opening width of the cutout 621 is made to be generally the same as the outer measurement of the second engaging nail 73 and the second engaging nail 72 makes an engagement with the cutout 621 with the outer face of the second engaging nail 73 generally making a contact with the side end face of the cutout 621, it is possible to effectively prevent unsteady engagement of the cover 7 toward a direction of the width at a predetermined mounted position.

The arrangement of the invention is not limited to the described above.

The connecting member 6, for example, is not limited

to the above-described connecting member 6 made of a metal sheet folded into a shape, but may be, as shown in Fig. 10, a block made of die casting aluminum and which is mounted at intermittent positions along a vertical direction of the movable partition wall 1. In this case the connecting member 106 is generally an octagon in a plane view and generally isometric in a cross-sectional view. More specifically, the connecting member 106 is hollow and comprises four first standing walls 1061 whose outer face is a connecting face 106a which connects the movable partition wall 1 in four directions, second standing walls 1062 formed at a corner portion between the connecting faces 106 arranged side by side, connecting walls 1063 which connect two of the second standing walls 1062 facing each other and hollow portion 1064 which is divided into four by the connecting walls 1063. For mounting the cover 7 on the connecting member 106, the second engaging nail 73 of the cover 7 is inserted into the hollow portion 1064 and then hooked over the top edge of the connecting face 106a from upward at a general center of the width of the connecting face 106a. At a general center of the width of the connecting face 106a of the first standing wall 1061 provided is a concave portion 106b which is dented in a direction of thickness and whose width is generally equal to an outer measurement of the second engaging nail 73 and the outer face of the second engaging nail 73 makes generally a close contact with a side end face of the concave portion 106b when the cover 7 is mounted on the

connecting face 106a, thereby to effectively prevent unsteady engagement of the cover 7 toward a direction of the width. In addition, at the second standing wall 1062 locating at the corner portion of the connecting member 106 provided is a fitting concave 106c which fits over the fitting convex 82 of the concealing member 8 and which is dented to form a partial ark in a plane view. Further, the outer face of the second standing wall 1062 is dented so as to generally coincide with the outer configuration of the concealing member body 81 and a space formed between the first standing walls 1062 arranged side by side is concealed from outside almost completely when the concealing member 8 is mounted. As mentioned above, if the connecting member 106 is in the shape of a block, the connecting member 106 having a high strength can be made with a simple arrangement.

In addition, as shown in Fig. 11, an engaging nail 1073 may project from the cover 7 so as to make an engagement with both the opening 1b provided on the side end face 1a of the movable partition wall 1 and the cutout 621 provided on the connecting face 6a of the connecting member 6. As mentioned above, if the engaging nail 1073 which can make an engagement with both the movable partition wall 1 and the connecting member 6 is commonly used, a number of components can be reduced.

Other arrangement may be variously modified without departing from the spirit or essential characteristics of the invention.

POSSIBLE APPLICATIONS IN INDUSTRY

As mentioned above, the panel in accordance with the invention is preferably used in a case where a plurality of panels are connected in an office or the like.

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CLAIMS

1. A panel wherein side edges of a plurality of panels are connected through a connecting member which has a plurality of connecting faces,
5 characterized by that a cover covering a side end face of said panel is so arranged that it can be commonly used as a cover covering an unused face of the connecting faces of the connecting member.
- 10 2. The panel, described in claim 1 and characterized by that said cover has a relating portion which can make an engagement with a related portion which is provided on both the side end face of said panel and the connecting face of said connecting member respectively.
- 15 3. The panel, described in claim 2 and characterized by that said related portion is an opening provided on the side end face of said panel and said connecting member respectively and said relating portion is a first engaging
20 nail projecting from said cover so as to make an engagement with the opening provided on the side end face of said panel and a second engaging nail projecting from the cover so as to make an engagement with the opening provided on the connecting face of said connecting member.
- 25 4. The panel, described in claim 2 and characterized by that said related portion is an opening provided on the side end face of said panel and said connecting member

respectively and said relating portion is an engaging nail projecting from said cover so as to make an engagement with the opening provided on the side end face of said panel and the connecting face of said connecting member.

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5. The panel, described in claim 1, 2, 3 or 4 and characterized by that said connecting member has four connecting faces so as to connect four panels in four directions each adjoining two of which make at a right angle in a plane view.

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6. The panel, described in claim 1, 2, 3, 4 or 5 and characterized by that a plurality of connecting members are provided at intermittent positions along a vertical direction of the panel.

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7. The panel, described in claim 6 and characterized by that comprising a concealing member which can conceal a space formed between the panels, the covers, or the panel and the cover arranged side by side from outside when the panel or the cover is mounted on each of the connecting faces of said connecting member and that the connecting member has a mounting portion for mounting said concealing member at a corner portion formed between the connecting faces arranged side by side.

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8. A panel wherein side edges of a plurality of panels are connected through connecting members which have a plurality

of connecting faces, said connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel and a cover can be mounted on an unused face of said connecting faces,

5 characterized by that comprising a concealing member which can conceal a space formed between the panels, the covers or the panel and the cover arranged side by side from outside when the panel or the cover is mounted on each of the connecting faces of said connecting member and that the
10 connecting member has a mounting portion for mounting said concealing member at a corner portion formed between the connecting faces arranged side by side.

9. The panel, described in claim 7 or 8 and characterized
15 by that said mounting portion is a fitting concave provided at the corner portion of said connecting member, and that said concealing member comprises a concealing member body which locates between the connecting faces arranged side by side and which conceals said space from outside of the
20 connecting member and a fitting convex which projects from the concealing member body and which fits into said mounting portion.

10. A panel wherein side edges of a plurality of panels
25 are connected through connecting members which have a plurality of connecting faces, said connecting members are provided at a plurality of intermittent positions along a vertical direction of the panel and a cover can be mounted

on an unused face of said connecting faces,
characterized by that on the connecting face of said
connecting member provided is a related portion which makes
an engagement with a relating portion provided on said
5 cover and said related portion is provided at a position
which avoids a corner portion formed between the connecting
faces arranged side by side.

11. The panel, described in claim 6, 7, 8, 9 or 10 and
10 characterized by that said connecting member is formed by
being folded into a shape.

12. The panel, described in claim 6, 7, 8, 9 or 10 and
characterized by that the connecting member is in a shape
15 of a block.

13. The panel, described in claim 2, or 10 and
characterized by that said related portion locating at a
side of the connecting member is an opening provided on
20 said connecting face and said relating portion is an
engaging nail projecting downward from an inner face of
said cover so as to be hooked over an upward face of said
opening from upward.

25 14. The panel, described in claim 13 and characterized by
that an opening width of said opening is made generally
equal to an outer measurement of said engaging nail and
said engaging nail makes an engagement with the opening

with an outer face thereof making generally a tight contact with a side end face of said corresponding opening at a predetermined position.

5 15. The panel, described in claim 2 or 10 and characterized by that said related portion locating at a side of the connecting member is a standing wall whose outer face is the connecting face and said relating portion is an engaging nail projecting downward from an inner face
10 of said cover so as to be hooked over an upward face of said standing wall from upward.

16. The panel, described in claim 15 and characterized by that on an outer face of said standing wall provided is a
15 concave portion which is dented toward a direction of a thickness thereof, an opening width of said concave portion is made generally equal to an outer measurement of the engaging nail and the engaging nail makes an engagement with the standing wall with an outer face thereof making
20 generally a tight contact with a side end face of said concave portion at a predetermined position.