(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 289 920 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
07.03.2018 Bulletin 2018/10

(21) Application number: **16786517.9**

(22) Date of filing: **27.04.2016**

(51) Int Cl.:
A47B 9/00 *(2006.01)* ***A47B 7/00*** *(2006.01)*
A47B 13/02 *(2006.01)* ***A47B 17/04*** *(2006.01)*
A47B 83/04 *(2006.01)*

(86) International application number:
PCT/JP2016/063193

(87) International publication number:
WO 2016/175241 (03.11.2016 Gazette 2016/44)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
MA MD

(30) Priority: **30.04.2015 JP 2015093648**
12.06.2015 JP 2015119506

(71) Applicant: **Okamura Corporation**
Kanagawa 220-0004 (JP)

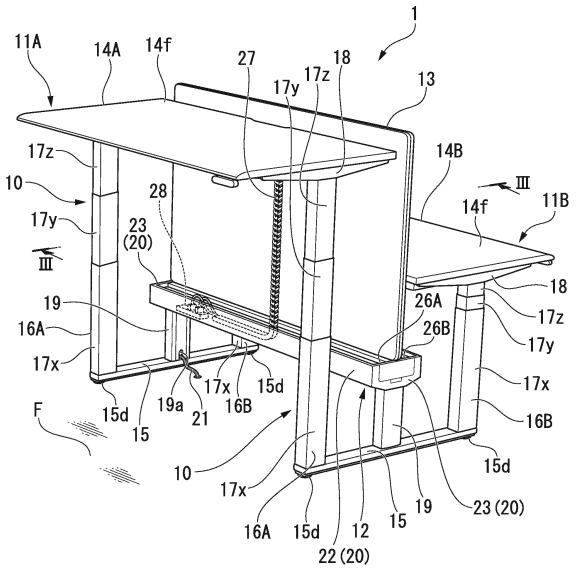
(72) Inventors:
- **YAMAMOTO, Takayuki**
Yokohama-shi
Kanagawa 220-0004 (JP)
- **SAKIMOTO, Takayuki**
Higashiosaka-shi
Osaka 577-0002 (JP)

(74) Representative: **Cabinet Laurent & Charras**
Le Contemporain
50 Chemin de la Bruyère
69574 Dardilly Cedex (FR)

(54) TOP-PANEL-EQUIPPED FURNITURE AND FURNITURE SYSTEM

(57) Top-panel-equipped furniture (1) of the present application is provided with a pair of support structures (10) which are disposed apart from each other in a direction substantially orthogonal to the direction in which they face a pair of top panels (14A, 14B) and support the pair of top panels (14A, 14B) such that heights thereof can be adjusted. The support structure (10) includes a base member (15) placed on a floor surface and extending along a direction so as to face the pair of top panels (14A, 14B), and a pair of extendable legs (16A, 16B) which stand upward from both end positions of the base member (15) in an extension direction thereof and support each of the pair of top panels (14A, 14B) such that the heights thereof is adjustable.

FIG. 1



EP 3 289 920 A1

Description

[Technical Field]

[0001] The present invention relates to top-panel-equipped furniture and a furniture system such as a desk device, a table device, and a counter device equipped with an elevating top panel.

[0002] Priority is claimed on Japanese Patent Application Nos. 2015-093648 filed April 30, 2015 and 2015-119506 filed on June 12, 2015, the contents of which are incorporated herein by reference.

[Background Art]

[0003] In offices, public facilities, and the like, top-panel-equipped furniture such as a desk device, a table device, and a counter device equipped with a top panel capable of performing various work is used.

[0004] In such top-panel-equipped furniture, the height of a top panel at which it is easy to work varies according to the posture, physique, gender, preference, etc. of the user. For this reason, top-panel-equipped furniture provided with an elevating function which enables the height of the top panel to be adjusted up and down is frequently used (for example, see Patent Literature 1).

[0005] In addition, in office space, it is common to dispose a plurality of desk devices to be opposite to each other in the front-rear direction, and such a usage form is also desired in top-panel-equipped furniture having an elevating function. In this case, in order to simplify the structure and reduce the product cost, it is conceivable to support front and rear top panels on a common support structure so that the height can be adjusted (see, for example, Patent Literature 2).

[0006] In the top-panel-equipped furniture described in Patent Literature 2, a block of a support structure having a built-in elevating mechanism is disposed between installation portions of a front top panel and a rear top panel, and the front top panel and the rear top panel are supported on a block of a common support structure at the center in the front-rear direction so that the height can be adjusted.

[0007] Furthermore, as disclosed in Patent Literature 2, top-panel-equipped furniture with a configuration having legs which includes legs and a plurality of top panels and has a function of the height of each top panel being adjustable has been proposed. In the top-panel-equipped furniture with such a configuration, it is possible to individually adjust the height of respective top panels of the plurality of top panels, while the legs are utilized commonly.

[Citation List]

[Patent Literature]

[0008]

[Patent Literature 1]
Japanese Patent No. 3391285
[Patent Literature 2]
Japanese Unexamined Patent Application, First Publication No. 2014-217740

[Summary of Invention]

[Technical Problem]

[0009] In the top-panel-equipped furniture described in Patent Literature 2, since the support structure is shared by the front top panel and the rear top panel, the structure can be simplified to reduce the product cost. However, since the front top panel and the rear top panel are supported by the block of the support structure in a cantilever state, it is difficult to firmly and stably support each top panel.

[0010] Further, in the top-panel-equipped furniture disclosed in Patent Literature 2, the front top panel and the rear top panel are supported by the block of the support structure in a cantilever state in the vicinity of the center in the front-rear direction. Therefore, in order to maintain the support balance of the support structure in the front-rear direction, it is necessary to provide support legs to extend the support structure in the front-rear direction. For this reason, the support legs protrude close to the feet of the user, and there is a possibility that the support legs may become an obstacle when using the top-panel-equipped furniture.

[0011] Accordingly, an object of the present invention is to provide top-panel-equipped furniture which is capable of firmly and stably supporting a pair of height-adjustable top panels on a common support structure, and capable of improving usability for the user.

[0012] Further, in some cases, it is desired to secure an individual space by partitioning the space above the top panel from the surroundings. In this case, in the top-panel-equipped furniture described in Patent Literature 2, a partition panel is provided between top panels that are opposite to each other or are adjacent to each other, so as to be attached integrally to the top-panel-equipped furniture.

[0013] However, there may be cases where an open feeling is required without partition panels being provided, and it is desired that the partition panels be able to be attached and detached as necessary.

[0014] Accordingly, an object of the present invention is to provide a top-panel-equipped furniture system in which a partitioning unit such as a partitioning unit can easily be attached to and detached from top-panel-equipped furniture including a plurality of top panels as required, and in which a partitioning function can be incorporated with a high degree of freedom.

[Solution to Problem]

[0015] The top-panel-equipped furniture according to

the present invention has the following configurations to solve the above problem.

[0016] Top-panel-equipped furniture according to the present invention includes a pair of top panels having working surfaces on each upper surface thereof and disposed to be opposite to each other; and a pair of support structures which are disposed apart from each other in a direction substantially perpendicular to the direction in which they face the pair of top panels and support the pair of top panels such that heights thereof is adjustable. The support structure includes a base member placed on a floor surface and extending along a direction so as to face the pair of top panels, and a pair of extendable legs which stand upward from both end positions of the base member in an extending direction thereof and support each of the pair of top panels such that the heights thereof is adjustable.

[0017] With the above-described configuration, the pair of top panels are supported by the respective extendable legs standing on the end portions in the extension direction of the base member placed on the floor surface. Therefore, each top panel is firmly and stably supported by the support structure. Also, the member does not protrude forward and backward from the end portions in the extension direction of the base member placed on the floor surface.

[0018] In the top-panel-equipped furniture according to the present invention, the vicinity of the central portion in the extension direction of the base member on the lower surface of the top panel may be supported by the extendable legs.

[0019] In this case, the vicinities of the central portions of each top panel are supported by the extendable legs, and are supported firmly and stably by the support structure.

[0020] The top-panel-equipped furniture according to the present invention is preferably provided with a connecting body which connects substantially intermediate portions in the extension direction of the base member of each support structure to each other.

[0021] In this case, since the base members of the pair of support structures are integrated via the connecting body, the pair of support structures can be made more stable.

[0022] The top-panel-equipped furniture according to the present invention may be configured so that the connecting body has a column portion standing upward from a substantially intermediate position in the extension direction of the base member of each of the support structures, and an installation portion placed between the upper portions of the respective column portions.

[0023] In this case, the substantially intermediate portions of the base members on both sides in the width direction are connected to each other in a state in which a space is left below the installation portion. Therefore, it is possible to effectively utilize the space below the installation portion.

[0024] In the top-panel-equipped furniture according to the present invention, a wiring storage space may be provided inside the installation portion.

[0025] In this case, the installation portion can also be allowed to function as a wiring duct.

[0026] In the top-panel-equipped furniture according to the present invention, a flat plate-like panel body configured to partition a space between the pair of top panels may stand upward on the upper surface of the installation portion.

[0027] In this case, the space above the upper surface of the installation portion serves as a place for installing the panel body which partitions the pair of top panels.

[0028] When the pair of top panels are partitioned by the panel body, it is possible to provide a separate working area for each user of each top panel.

[0029] In the top-panel-equipped furniture according to the present invention, a wiring insertion portion may be provided on the upper surface of the installation portion to allow the wiring storage space inside the installation portion and the outside to communicate with each other at the front and rear of the panel body.

[0030] In this case, wiring hanging downward from each top panel can be accommodated in the wiring storage space in the installation portion via each wiring insertion portion at the front and rear of the panel body. For this reason, coiling of the wiring or the like is hard to see from the outside, and the appearance is improved.

[0031] Further, a furniture system according to the present invention includes top-panel-equipped furniture which includes a pair of top panel portions disposed to be opposite to each other, and leg members configured to integrally support the pair of top panel portions; and a partitioning unit placed on a floor surface below the pair of top panel portions to partition a first (one) top panel portion side and a second (the other) top panel portion side.

[0032] In this way, by providing the partitioning unit, it is possible to partition the first top panel portion side and the second top panel portion side and to improve the independence of the individual spaces.

[0033] In addition, by placing the partitioning unit on the floor surface, the partitioning unit can be separated from the top-panel-equipped furniture and can be installed in combination with the top-panel-equipped furniture only when necessary. Further, for example, when a duct, a storage or the like for storing wiring is provided in the partitioning unit, by installing or removing the partitioning unit in accordance with the amount of wiring of the equipment placed on the top panel portions or the storage amount desired by the user, usability can be improved.

[0034] Further, according to the furniture system according to the present invention, it is preferable that the partitioning unit of the support be self-supported on the floor surface.

[0035] With the above configuration, the partitioning unit itself can be self-supported without connecting the partitioning unit to the top-panel-equipped furniture.

Therefore, when the partitioning unit is placed below the pair of top panel portions, it is not necessary to connect the partitioning unit to the top-panel-equipped furniture, and the partitioning unit can easily be installed.

[0036] Further, also in a state in which the partitioning unit is separated from the top-panel-equipped furniture, the partitioning unit itself can be used when being self-supported.

[0037] Further, according to the furniture system according to the present invention, the partitioning unit may include a partition body disposed between the pair of top panel portions; and a support placed on the floor surface below the pair of top panel portions and detachably connected to the partition body to support the partition body.

[0038] With the above configuration, when installing the partitioning unit, after placing the support on the floor surface below the pair of top panel portions, the partition body is arranged between the pair of top panel portions, and the partition body may be connected to the support. Also, when removing the partitioning unit from the top-panel-equipped furniture, after removing the partition body from the support, the partition body may be removed from the gap between the pair of top panel portions, and the support may be removed from the floor surfaces below the pair of top panel portions. In this way, it is possible to easily install or remove the partitioning unit with respect to the top-panel-equipped furniture.

[0039] Further, according to the furniture system according to the present invention, the leg members are respectively provided under a level surface at both end portions in a width direction orthogonal to a direction in which the pair of the top panel portions are opposite to each other. The support may be disposed between the leg members respectively provided at both end portions of the pair of top panel portions in the width direction.

[0040] With the above configuration, the support can easily be put on or withdrawn from the floor surface below the pair of top panel portions along the direction in which the pair of top panel portions are opposite to each other from the gap between the leg members at both end portions in the width direction of the top panel portions.

[0041] Further, according to the furniture system according to the present invention, the partition body may have a planar form which is continuous in the width direction or a surface form continuous in the width direction in a plane orthogonal to the floor surface.

[0042] With the above configuration, the first top panel portion side and the second top panel portion side can be partitioned by a partition body having a planar form (for example, a panel form, a belt form, a box form, a cloth form, etc. extending in the width direction).

[0043] Further, according to the furniture system according to the present invention, the partitioning unit may have a positioning mechanism which performs positioning with respect to the leg member.

[0044] With the above configuration, when the partitioning unit is used in combination with the top-panel-equipped furniture, it is possible to easily place the partitioning unit with respect to the top-panel-equipped furniture, and it is possible to prevent the partitioning unit from being misaligned with respect to the top-panel-equipped furniture.

[0045] Further, according to the furniture system according to the present invention, the leg member may include support legs which support each of the pair of top panel portions; and a connecting member which extends in a direction in which the top panel portions are opposite to each other and connects the support legs of the first top panel portion and the support legs of the second top panel portion to each other.

[0046] With the above configuration, the leg members supporting the pair of top panel portions are integrated, and the first top panel portion and the second top panel portion are integrally supported by the leg members.

[0047] Further, in the furniture system according to the present invention, the support legs may extend and contract in the vertical direction and the height of the top panel portion may be adjustable.

[0048] With the above configuration, it is possible to improve usability, by setting the first top panel portion and the second top panel portion to arbitrary heights.

[Advantageous Effects of Invention]

[0049] According to the present invention, the pair of support structures disposed to be spaced apart from each other in the width direction have a base member extending in the front-rear direction, and a pair of extendable legs standing upward from both end positions in the extension direction of the base member, and each of the pair of top panels are supported by the extendable legs so that the height can be adjusted. Therefore, the pair of top panels can be firmly and stably supported by a common support structure. Furthermore, since the member does not protrude forward and backward from the end portions of the base portion in the extension direction, usability for the user can be improved.

[0050] According to the furniture system of the present invention, it is possible to easily attach and detach a partitioning unit to and from top-panel-equipped furniture provided with a plurality of top panels as needed, and it is possible to add a partitioning function with a high degree of freedom.

[Brief Description of Drawings]

[0051]

Fig. 1 is a perspective view of a desk device according to a first embodiment of the present invention.

Fig. 2 is a perspective view of a connecting body of a desk device according to a first embodiment of the present invention.

Fig. 3 is a cross-sectional view taken along the line III-III of the desk device according to the first embodiment of the present invention.

Fig. 4 is a perspective view illustrating the overall configuration of a furniture system according to a second embodiment of the present invention.

Fig. 5 is a perspective view illustrating a configuration of a panel support of the partitioning unit in the second embodiment.

Fig. 6 is a perspective view illustrating a state in which the partitioning unit in the second embodiment is installed as a single unit.

Fig. 7 is a perspective view illustrating a configuration of a partitioning unit according to a third embodiment of the present invention.

Fig. 8 is a perspective view illustrating a configuration of part of a leg of the partitioning unit in the third embodiment.

Fig. 9 is a perspective view illustrating a state in which the partitioning unit in the third embodiment is installed as a single unit.

Fig. 10 is a perspective view illustrating another example of a state in which the partitioning unit in the third embodiment is installed as a single unit.

[Description of Embodiments]

[0052] Hereinafter, a first embodiment of the present invention will be described with reference to the drawings.

(First Embodiment)

[0053] Fig. 1 is a perspective view illustrating a configuration of a desk device 1 which is a first embodiment of top-panel-equipped furniture. Fig. 2 is a perspective view illustrating part of the connecting body 12 of the desk device 1, and Fig. 3 is a cross-sectional view taken along the line III-III of Fig. 1 of the desk device 1.

[0054] As illustrated in Fig. 1, the desk device 1 includes a pair of support structures 10, a first top panel portion 11A and a second top panel portion 11B supported by the support structure 10, a connecting body 12 that connects the pair of support structures 10 to each other, and a flat panel-like panel body 13 that is attached to the connecting body 12 to partition a space between the first top panel portion 11A and the second top panel portion 11B.

[0055] In the first embodiment, the first top panel portion 11A and the second top panel portion 11B have a substantially rectangular shape in a plan view, and include a first top panel 14A and a second top panel 14B with each upper surface 14f serving as a working surface. The first top panel 14A and the second top panel 14B are opposite to each other in a direction along the short side in the plan view. In the following description, a direction (a direction along the short side) in which the first top panel 14A and the second top panel 14B are opposite to each other is defined as a front-rear direction, a direction along a long side of the first top panel 14A and the second top panel 14B is defined as a width direction, and a direction orthogonal to a floor surface F on which the desk device 1 is placed is defined as a vertical direction. For convenience of explanation, the front side of Fig. 1 will be defined as a front and the rear side will be defined as a rear in the front-rear direction.

[0056] The pair of support structures 10 is disposed at a predetermined interval in the width direction so as to be located at both end portions of the desk device 1 in the width direction. Each support structure 10 includes a prismatic base member 15 extending in the front-rear direction along the floor surface F, and a first extendable leg 16A and a second extendable leg 16B as a pair of extendable legs extending vertically upward from both end positions of the base member 15 in the front-rear direction. The extension length of the base member 15 is set to a length at which the front and rear extension ends reach each of the approximately center positions in the front-rear direction (desirably, a position of the center of gravity in the front-rear direction) of the first top panel 14A (the first top panel portion 11A) and the second top panel 14B (the second top panel portion 11B). Further, on the lower surface of each of the base members 15, a grounding member 15d grounded to the floor surface is provided. Each base member 15 can appropriately adjust the height in the vertical direction and the horizontal level by the grounding member 15d.

[0057] The first extendable leg 16A and the second extendable leg 16B have a first tubular portion 17x fixed on the base member 15, a second tubular portion 17y inserted into the first tubular portion 17x to be movable in the vertical direction, and a third tubular portion 17z inserted into the second tubular portion 17y to be movable in the vertical direction. Each of the first tubular portion 17x, the second tubular portion 17y, and the third tubular portion 17z has a rectangular tubular shape. When the second tubular portion 17y and the third tubular portion 17z protrude and retract in the vertical direction with respect to the first tubular portion 17x, the lengths of the first extendable leg 16A and the second extendable leg 16B in the vertical direction can be adjusted. In the case of the first embodiment, the first extendable leg 16A and the second extendable leg 16B are operated to ascend and descend by an electric drive unit (not illustrated).

[0058] Further, the first extendable leg 16A and the second extendable leg 16B are fixed to the upper surfaces of each end portion of the base member 15 such that one side surface of the first tubular portion 17x is flush with each end surface of the base member 15 in the front-rear direction.

[0059] Each of the first top panel portion 11 A and the second top panel portion 11B has support brackets 18 extending in the front-rear direction on the lower surfaces of both end portions in the width direction of the first top panel 14A and the second top panel 14B. The first top panel 14A and the second top panel 14B are connected to the upper end of the third tubular portion 17z of the first extendable leg 16A and the second extendable leg

16B located at both end portions in the width direction, via the support brackets 18. Further, as illustrated in Fig. 3, the upper ends of the third tubular portions 17z of the first extendable leg 16A and the second extendable leg 16B are connected to the substantially center positions in the front-rear direction of the first top panel portion 11A and the second top panel portion 11B.

[0060] The connecting body 12 is installed between the base members 15 of the support structures 10 on both sides in the width direction. Specifically, the connecting body 12 has a rectangular tubular column portion 19 standing upward from a substantially intermediate position in the front-rear direction of the base member 15 of each of the left and right support structures 10, and an installation portion 20 coupled to the upper portion of the column portion 19 at both end portions.

[0061] In the case of the first embodiment, a power supply wiring 21 is inserted into the column portion 19 provided in one of the support structures 10 (the support structure 10 on the left side in Fig. 1). The power supply wiring 21 supplies power to a device used on the first top panel 14A and the second top panel 14B or an electric drive unit for operating to ascend and descend the first extendable leg 16A and the second extendable leg 16B. The lower end portion of the power supply wiring 21 is extracted to the outside through a notch 19a provided at the lower end of the inner wall of the column portion 19, and is connected to a power supply unit (not illustrated) provided below the floor surface F. The upper side of the power supply wiring 21 is drawn into the installation portion 20.

[0062] As illustrated in Figs. 2 and 3, the installation portion 20 includes a gutter-shaped beam member 22 (having a substantially U-shaped cross section) extending along the width direction of the desk device 1, an end plate 23 which closes both end portions of the beam member 22 in the extension direction, and a center cover 25 which is fixed to each support member 24 standing upward from both end portions in the extension direction (the width direction of the desk device 1) of a bottom plate portion 22a of the beam member 22 and covers the central region in the front-rear direction of the upper portion of the beam member 22. Between the front and rear side wall portions 22b of the beam member 22 and the center cover 25, a first opening 26A and a second opening 26B are formed, as a pair of slit-like openings (wiring insertion portions) which extends along the width direction of the desk device 1 and opens upward. The interior of the installation portion 20 is a wiring storage space 30.

[0063] Incidentally, the power supply wiring 21 drawn into the installation portion 20 from one column portion 19 is connected to the power supply wiring on the device side extracted downward from the depth side in each depth direction of the first top panel portion 11A and the second top panel portion 11B, in the interior of the installation portion 20. In the case of the first embodiment, part of the power supply wiring on the device side is made up of a cable guide 27. In the cable guide 27, a large number of chain frames are rotatably connected by link pins, and the actual wiring is stored therein. A first end side of each cable guide 27 is connected to the lower surface of each of the first top panel portion 11A and the second top panel portion 11B, and a second end side thereof is connected to the interior of the beam member 22. The wiring on the second end side of each cable guide 27 is connected to the power supply wiring 21 via a connector 28 inside the beam member 22 (see Fig. 1).

[0064] Each of the cable guides 27 coupled to the first top panel portion 11A and the second top panel portion 11B hangs downward from the lower surface thereof, respectively, and is inserted into the beam member 22 through the front and rear first openings 26A and the second openings 26B of the installation portion 20. When the amount of slackness of each of the cable guides 27 varies with the elevating of the first top panel portion 11A and the second top panel portion 11B, and when the first top panel portion 11A or the second top panel portion 11B descends, the amount of slackness of the cable guide 27 increases. The slack portion of the cable guide 27 lies on the bottom plate portion 22a of the beam member 22 to extend in the width direction of the desk device 1. A cable guide 29 in Fig. 3 guides the cable guide 27 inserted into the beam member 22 through the front and rear first opening 26A and the second opening 26B on the installation portion 20.

[0065] Further, the panel body 13 for partitioning the space between the first top panel portion 11A and the second top panel portion 11B stands on the upper surface of the center cover 25 of the installation portion 20. The panel body 13 extends along the width direction of the desk device 1, and the lower ends of both end portions in the extension direction are coupled to the beam member 22 via the support member 24. The first opening 26A and the second opening 26B formed between the front and rear side wall portions 22b of the beam member 22 and the center cover 25 are provided such that the wiring storage space 30 in the installation portion 20 and the outside communicate with each other at the front and rear positions of the panel body 13.

[0066] As described above, in the desk device 1 according to the first embodiment, each support structure 10 disposed to be spaced apart in the width direction is configured to include a base member 15 placed on the floor surface F to extend in the front-rear direction, and a first extendable leg 16A and a second extendable leg 16B standing upward from each end portion of the base member 15 in the extension direction. Therefore, the vicinities of the central portions in the front-rear direction of each of the first top panel 14A (the first top panel portion 11A) and the second top panel 14B (the first top panel portion 11A) are supported from the vertically lower side by the first extendable leg 16A and the second extendable leg 16B protruding upward from both end portions of each base member 15 in the extension direction. Therefore, according to the desk device 1 according to the first embodiment, the first top panel 14A (the first top

panel portion 11A) and the second top panel 14B (the first top panel portion 11A) are firmly and stably supported by the common support structure 10.

[0067] Further, in the desk device 1 according to the first embodiment, as described above, the vicinities of the central portions in the front-rear direction of the first top panel 14A (the first top panel portion 11A) and the second top panel 14B (the first top panel portion 11A) are stably supported from the vertically lower side by the first extendable leg 16A and the second extendable leg 16B. Therefore, it is not necessary to make the support member protrude from the front and rear end portions of the base member 15. Therefore, since it is difficult for the toes of the worker to come into contact with the support structure 10, the usability for the user is improved.

[0068] Further, in the desk device 1 according to the first embodiment, substantially intermediate portions in the front-rear direction of the base member 15 of the pair of support structures 10 are mutually connected by the connecting body 12. Therefore, it is possible to integrate the pair of support structures 10 separated from each other and stably place them on the floor surface.

[0069] In particular, in the desk device 1 according to the first embodiment, since the connecting body 12 is configured to include the column portion 19 standing upward from the substantially intermediate positions in the front-rear direction of each base member 15, and the installation portion 20 that connects the upper portions of each column portion 19, the space can be secured below the installation portion 20. Therefore, by having this configuration, it is possible to effectively utilize the space below the installation portion 20 as the arrangement space of articles and the like.

[0070] Further, in the desk device 1 according to the first embodiment, since the interior of the installation portion 20 is defined as the wiring storage space 30, the installation portion 20 can function as a structural member that interconnects the pair of support structures 10 as well as a wiring duct. Therefore, as compared with the case where the structural member and the wiring duct are provided separately, it is possible to reduce the overall size and weight and to reduce the product cost.

[0071] Furthermore, in the desk device 1 according to the first embodiment, since the flat-plate like panel body 13 is placed on the upper surface of the installation portion 20, there is no need to separately provide a special member for supporting the panel body 13 that partitions the space between the first top panel 14A and the second top panel 14B. Therefore, by partitioning the space between the first top panel 14A and the second top panel 14B using the panel body 13, while reducing the size and weight of the overall desk device 1 and reducing the product cost, it is possible to provide an individual working area to each user who uses the respective top panels 14A and 14B.

[0072] Furthermore, in the case of the first embodiment, the first opening 26A and the second opening 26B through which the wiring storage space 30 in the installation portion 20 and the outside communicate with each other at the front and rear of the panel body 13 are provided on the upper surface of the installation portion 20 constituting the connecting body 12. Therefore, the cable guide 27 (power supply wiring) hanging downward from the depth sides in the depth direction of the first top panel 14A and the second top panel 14B can be accommodated in the wiring storage space 30 in the installation portion 20 via the first opening 26A and the second opening 26B. Therefore, with this configuration, the bending of the cable guide 27 hanging downward from the first top panel 14A and the second top panel 14B is made invisible from the outside and the aesthetic appearance can be improved.

[0073] Next, the form of the top-panel-equipped furniture system according to a second embodiment of the present invention will be described. However, the present invention is not limited to only these embodiments.

(Second Embodiment)

[0074] Fig. 4 is a perspective view illustrating the overall configuration of the furniture system according to the second embodiment of the present invention. Fig. 5 is a perspective view illustrating a configuration of a panel support of the partitioning unit in the second embodiment. Fig. 6 is a perspective view illustrating a state in which the partitioning unit according to the second embodiment is installed as a single unit.

[0075] As illustrated in Fig. 4, the desk system (furniture system) 21A includes a desk device (top-panel-equipped furniture) 210 and an intermediate panel unit (partitioning unit) 230A.

[0076] The desk device 210 includes a leg 211, a first top panel portion 220A, and a second top panel portion 220B.

[0077] In the second embodiment, the first top panel portion 220A and the second top panel portion 220B include a first top panel 221A and a second top panel 221B having a rectangular shape in a plan view, and the first top panel 221A and the second top panel 221B are opposite to each other in the respective short side directions in a plan view. In the following description, a direction (short side direction) in which the first top panel 221A and the second top panel 221B are opposite to each other is defined as an opposite direction, a direction along the longitudinal direction of the first top panel 221A and the second top panel 221B is defined as a width direction, and a direction orthogonal to the floor surface F on which the desk device 210A is placed is defined as a vertical direction.

[0078] The legs 211 include base members (connecting members) 212 provided along the floor surface F, and support leg members (support legs) 213 provided on the respective base members 212 and extending in the vertical direction to support the first top panel portion 220A and the second top panel portion 220B.

[0079] The base members 212 are disposed at an in-

terval along the width direction and are provided to be positioned at both end portions of the desk device 210 in the width direction. On the lower surface of each base member 212, ground members 212f and 212f grounded on the floor surface F are provided at both end portions in the opposite direction. Each grounding member 212f has a downward protruding length adjustable from the base member 212, which allows adjustment of the height and horizontal level of the base member 212.

[0080] The support leg members 213 are provided on each of the first end portion (one end portion) 212a and the second end portion (other end portion) 212b in the longitudinal direction (opposite direction) of each base member 212. As a result, the leg 211 is provided with leg members 214 formed in an upward U-shape including the base member 212 and the support leg members 213 provided at both end portions in the longitudinal direction of the base member 212, at both end portions of the desk device 210 in the width direction, respectively.

[0081] Each support leg member 213 includes a first tubular portion 213x fixed to an upper surface 212u of the base member 212, a second tubular portion 213y inserted into the first tubular portion 213x to be movable in the vertical direction, and a third tubular portion 213z inserted into the second tubular portion 213y to be movable in the vertical direction. Each of the first tubular portion 213x, the second tubular portion 213y, and the third tubular portion 213z has a rectangular tubular shape. The lengths of the support leg members 213 in the vertical direction can be adjusted when the second tubular portion 213y and the third tubular portion 213z protrude and retract with respect to the first tubular portion 213x in the vertical direction.

[0082] Further, the desk device 210 includes a control unit (not illustrated, the same applies hereinafter) which controls the operation of the support leg members 213, and an operation portion 219 for inputting the ascending and descending motion signals to the control unit.

[0083] The control unit is, for example, fixed to the lower surfaces and the like of the first top panel 221A and the second top panel 221B. A power cable (not illustrated, the same applies hereinafter) connected to a commercial power supply provided in the office space on which the desk device 210 is disposed is connected to this control unit.

[0084] An operation portion 219 is provided on the lower surface of the first top panel 221A and the second top panel 221B. The operation portion 219 is electrically connected to the control unit via a wiring cable (not illustrated, the same applies hereinafter).

[0085] When the user inputs a predetermined operation to the operation portion 219, an operation signal is transmitted from the operation portion 219 to the control unit via the wiring cable. Upon receiving the operation signal from the operation portion 219, the control unit outputs a command signal for causing the support leg member 213 to perform the ascending and descending motions based on the received signal. Upon receiving the command signal, each support leg member 213 is driven to extend and contract by, for example, an extendable driving device (not illustrated) incorporated in each support leg member 213 in accordance with the command signal, thereby adjusting the height of the first top panel portion 220A and the second top panel portion 220B.

[0086] The first top panel 221A and the second top panel 221B have support brackets 223 extending in the opposite directions on the lower surfaces of both end portions in the width direction, respectively. The first top panel 221A and the second top panel 221B are connected to the upper ends of the third tubular portions 213z of the support leg members 213 and 213 located at both end portions in the width direction via the support brackets 223 and 223.

[0087] The intermediate panel unit 230A includes an intermediate partition panel (partition body) 231, and a panel support (support) 233A placed on the floor surface F to support the intermediate partition panel 231.

[0088] The intermediate partition panel 231 is disposed between the first top panel 221A and the second top panel 221B, and is provided to be positioned in the vertical plane and to extend in the width direction in parallel with the end portions 220e of the first top panel portion 220A and the second top panel portion 220B. As illustrated in Fig. 5, panel fixing holes 231p extending upward are formed on the lower surfaces of both end portions of the intermediate partition panel 231 in the width direction, respectively.

[0089] Here, as illustrated in Fig. 4, the intermediate partition panel 231 has substantially the same width as the first top panel 221A and the second top panel 221B in the second embodiment, but the width of the intermediate partition panel 231 may be narrower than those of the first top panel 221A and the second top panel 221B or may be wider than those of the first top panel 221A and the second top panel 221B.

[0090] A storage box 232 which stores the wiring 200 and the like, for example, can be attached to the intermediate partition panel 231.

[0091] As illustrated in Fig. 5, the panel support 233A includes base members 234 each provided at both end portions of the intermediate partition panel 231 in the width direction, and a bracket 235 which connects the base member 234 and the intermediate partition panel 231.

[0092] The base member 234 has a substantially T shape in a plan view, and includes a base plate 234a extending in the opposite direction of the desk device 210, and a stay portion 234b extending orthogonally from the central portion of the base plate 234a in the opposite direction along the width direction of the desk device 210.

[0093] Female screw holes 234h are formed at both end portions of the base plate 234a, respectively. Screw insertion holes 234g and 234g penetrating in the vertical direction are formed in the stay portion 234b.

[0094] A positioning pin (positioning mechanism) 236

having a male screw portion 236a extending downward is attachably and detachably provided on the base plate 234a of the base member 234, by being screwed into the female screw hole 234h. An insertion hole 212h into which the positioning pin 236 is inserted is formed on the lower surfaces of the first end portion 212a and the second end portion 212b of the base member 212 of the desk device 210.

[0095] The base member 234 is inserted into a gap between each base member 212 of the desk device 210 and the floor surface F. Further, when the positioning pin 236 is inserted into the insertion hole 212h at each of both end portions of the base plate 234a, the base member 234 is restrained to be immovable in the direction along the floor surface F with respect to the base member 212.

[0096] The bracket 235 integrally includes a proximal portion 235a fixed on the stay portion 234b of the base member 234, and an insert portion 235b extending upward from the proximal portion 235a.

[0097] A female screw hole (not illustrated) is formed on the lower surface of the proximal portion 235a, and the proximal portion 235a is fixed onto the stay portion 234b by screws 237 and 237 inserted through the screw insertion holes 234g and 234g.

[0098] The insert portion 235b has a plate shape along the panel surface 231f of the intermediate partition panel 231, that is, a vertical plane including the width direction and the vertical direction, and is inserted into the panel fixing hole 231p formed on the lower surfaces of both end portions of the intermediate partition panel 231. Further, female screw holes 235h and 235h are formed in the insert portion 235b. Further, a screw insertion hole 231 g is formed at a position penetrating the panel fixing hole 231p on the panel surface 231f of the intermediate partition panel 231. By screwing the screw 238 into the female screw hole 235h through the screw insertion hole 231g, the insert portion 235b and the intermediate partition panel 231 are connected to each other.

[0099] In order to place such an intermediate panel unit 230A, first, the base member 234 is positioned and fixed to the base member 212 of the leg 211 by the positioning pins 236 and 236. Next, the intermediate partition panel 231 is inserted into the gap between the first top panel portion 220A and the second top panel portion 220B from the upper part of the first top panel portion 220A and the second top panel portion 220B, and the insert portion 235b of the bracket 235 is inserted and connected to the lower end portion of the intermediate partition panel 231. Therefore, the intermediate panel unit 230A can be installed in combination with the desk device 210.

[0100] As illustrated in Fig. 6, since the base plate 234a of the base member 234 extends in the opposite direction, that is, in a direction orthogonal to the panel surfaces 231f on both sides of the intermediate partition panel 231, the intermediate panel unit 230A can be self-supported even in the state of not being combined with the desk device 210.

[0101] According to the above-described furniture system, below the pair of first top panel portions 220A and the second top panel portion 220B of the desk device 210, the intermediate panel unit 230A placed on the floor surface F to partition the first top panel portion 220A side and the second top panel portion 220B side is provided. By providing the intermediate panel unit 230A, it is possible to partition the first top panel portion 220A side and the second top panel portion 220B side and to improve the independence of the individual space. Further, by placing the intermediate panel unit 230A on the floor surface F, the intermediate panel unit 230A can be provided as a separate body from the desk device 210 and can be installed in combination with the desk device 210 only when necessary. Therefore, the intermediate panel unit 230A can be easily attached to and detached to and from the desk device 210 including the first top panel portion 220A and the second top panel portion 220B as necessary, and a partitioning function can be added with a high degree of freedom.

[0102] In addition, the intermediate panel unit 230A includes the intermediate partition panel 231, and the panel support 233A placed on the floor surface F and attachably and detachably connected to the intermediate partition panel 231 to support the intermediate partition panel 231. With the above configuration, when placing the intermediate panel unit 230A, after the panel support 233A is placed on the floor surface F below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, the intermediate partition panel 231 may be disposed between the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, and the intermediate partition panel 231 may be connected to the panel support 233A. Further, when the intermediate panel unit 230A is removed from the desk device 210, after the intermediate partition panel 231 is detached from the panel support 233A, the intermediate partition panel 231 may be removed from the gap between the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, and the panel support 233A may be removed from the floor surface F below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B. In this way, it is possible to easily install or remove the intermediate panel unit 230A with respect to the desk device 210.

[0103] The intermediate partition panel 231 is continuous in the width direction and forms a panel shape continuing in the width direction within a vertical plane orthogonal to the floor surface F. With the above configuration, it is possible to partition the first top panel portion 220A side and the second top panel portion 220B side.

[0104] The panel support 233A supports the intermediate partition panel 231 on the floor surface F so that the intermediate partition panel 231 can be self-supported. With the above configuration, the intermediate panel unit 230A itself can be self-supported, without connecting

the intermediate panel unit 230A to the desk device 210. Further, even in a state in which the intermediate panel unit 230A is separated from the desk device 210, the intermediate panel unit 230A itself can be used in a self-supported state.

[0105] Further, the intermediate panel unit 230A is provided with the positioning pin 236 that can be positioned with respect to the leg members 214. With the above configuration, when the intermediate panel unit 230A is used in combination with the desk device 210, it is possible to prevent the intermediate panel unit 230A from being misaligned.

[0106] The leg members 214 include support leg members 213 that support the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, and the base member 212 that connects the support leg member 213 of the first top panel portion 220A and the support leg member 213 of the second top panel portion 220B. With the above-described configuration, the leg members 214 that support the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B are integrated, and the first top panel portion 220A and the second top panel portion 220B are integrally supported by the leg member 214.

[0107] Furthermore, the support leg member 213 may be extendable and contractable in the vertical direction, and may adjust the heights of the first top panel portion 220A and the second top panel portion 220B. With the above configuration, it is possible to improve usability by setting the first top panel portion 220A and the second top panel portion 220B at arbitrary heights, respectively.

(Third Embodiment)

[0108] Next, a third embodiment of top-panel-equipped furniture according to the present invention will be described. In the third embodiment described below, the configuration of the desk device 210 is similar to that of the desk device 210 illustrated in the second embodiment except for a configuration of an intermediate panel unit 230B. Therefore, the configurations common to the second embodiment are denoted by the same reference numerals, and the description thereof will not be provided.

[0109] Fig. 7 is a perspective view illustrating a configuration of a partitioning unit according to a third embodiment of the present invention.

[0110] Fig. 8 is a perspective view illustrating a configuration of part of the legs of the partitioning unit in the third embodiment.

[0111] As illustrated in Fig. 7, a desk system (furniture system) 21B in the third embodiment includes a desk device 210, and an intermediate panel unit (partitioning unit) 230B.

[0112] The intermediate panel unit 230B includes an intermediate partition panel 231, and a panel support (support) 233B placed on the floor surface F to support the intermediate partition panel 231.

[0113] The panel support 233B includes legs 241 and 241 provided at both end portions in the width direction of the intermediate partition panel 231, respectively, and a tray portion 242 installed between the legs 241 and 241.

[0114] As illustrated in Fig. 8, the legs 241 have a portal shape which includes columns 243 and 243 disposed at intervals in the opposite directions and placed on the floor surface F to extend upward, and a horizontal member 244 extending along the opposite direction to connect the upper end portions of the columns 243 and 243.

[0115] A stay portion 245 extending orthogonally to the longitudinal direction of the horizontal member 244 is integrally provided on the intermediate portion of the horizontal member 244 in the longitudinal direction.

[0116] Both end portions of the tray portion 242 in the width direction are supported on the stay portion 245 extending from the horizontal member 244. Here, the tray portion 242 is formed with a recessed portion 242a which is recessed upward on the lower surface of the central portion in the opposite direction and in which the stay portion 245 is inserted and disposed, and recessed grooves 242b formed in the opposite directions, that is, on both of the first top panel portion 220A side and the second top panel portion 220B side and recessed downward.

[0117] The tray portion 242 is placed on the stay portion 245 of the leg 241 at each of both end portions in the width direction thereof, and the stay portion 245 is inserted into the recessed portion 242a. Further, the tray portion 242 and the stay portion 245 are fastened by a screw (not illustrated) or the like.

[0118] As illustrated in Fig. 4, a wiring 200 or the like can be stored in the recessed grooves 242b in such a tray portion 242.

[0119] The intermediate partition panel 231 is connected to the upper surface of the tray portion 242 of the panel support 233B by support fittings.

[0120] In such an intermediate panel unit 230B, the legs 241 and 241 are provided along the inner sides of the legs 211 and 211 provided at intervals in the width direction. Further, the tray portion 242 is disposed below the gap between the first top panel portion 220A and the second top panel portion 220B which are in front of and behind each other in the opposite direction. Thus, the intermediate partition panel 231 is provided to partition the gap between the first top panel portion 220A and the second top panel portion 220B.

[0121] In order to place such an intermediate panel unit 230B, the panel support 233B including the legs 241 and 241 and the tray portion 242 is first assembled. The panel support 233B is pushed into the lower spaces of the first top panel portion 220A and the second top panel portion 220B in the opposite direction of the desk device 210, from the first top panel portion 220A side toward the second top panel portion 220B side. The panel support 233B is set so that the tray portion 242 is located vertically below the gap between the first top panel portion 220A

and the second top panel portion 220B. Thereafter, from the upper parts of the first top panel portion 220A and the second top panel portion 220B, the intermediate partition panel 231 is inserted into the gap between the first top panel portion 220A and the second top panel portion 220B, the lower end portion of the intermediate partition panel 231 is placed on the tray portion 242 and connected thereto. Therefore, it is possible to place the intermediate panel unit 230B in combination with the desk device 210.

[0122] Fig. 9 is a perspective view illustrating a state in which the partitioning unit in the third embodiment is installed as a single unit. Fig. 10 is a perspective view illustrating another example in a state in which the partitioning unit in the third embodiment is installed as a single unit.

[0123] As illustrated in Fig. 9, the intermediate panel unit 230B as described above can be placed on the floor surface F even as a single unit. Further, as illustrated in Fig. 10, when the intermediate panel unit 230B is used as a single unit, the side partition panels 248 and 248 may be provided on both sides in the width direction.

[0124] According to the top-panel-equipped furniture of the third embodiment, as in the second embodiment, the desk system 21B includes the desk device 210, and the intermediate panel unit 230B which is placed on the floor surface F below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B to partition the first top panel portion 220A side and the second top panel portion 220B side.

[0125] According to the configuration of the third embodiment, by providing the intermediate panel unit 230B, it is possible to partition the first top panel portion 220A side and the second top panel portion 220B side and to improve the independence of the individual space.

[0126] Further, by placing the intermediate panel unit 230B on the floor surface F, the intermediate panel unit 230B can be separated from the desk device 210 and can be installed in combination with the desk device 210 only when necessary. Therefore, the intermediate panel unit 230B can be easily attached to and detached from the desk device 210 including the first top panel portion 220A and the second top panel portion 220B as needed, and a partitioning function can be added with a high degree of freedom.

[0127] The intermediate panel unit 230B includes the intermediate partition panel 231, and the panel support 233B placed on the floor surface F to support the intermediate partition panel 231. With the above configuration, when placing the intermediate panel unit 230B, after the panel support 233B is placed on the floor surface F below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, the intermediate partition panel 231 may be disposed between the pair of the top panel portions, i.e., the first top panel portion disposed 220A and the second top panel portion 220B, the intermediate partition panel 231 may be connected to the panel support 233B. Also, when removing the intermediate panel unit 230B from the desk device 210, after removal of the intermediate partition panel 231 from the panel support 233B, the intermediate partition panel 231 may be removed from the gap between the pair of top panel portions including the first top panel portion 220A and the second top panel portions 220B, and the panel support 233B may be removed from the floor surface F below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B. In this way, it is possible to easily install or remove the intermediate panel unit 230B on or from the desk device 210.

[0128] The panel support 233B is disposed between the leg members 214 and 214 each provided at both end portions in the width direction of the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B. With the above configuration, the panel support 233B can easily enter and exit the floor surface F between the leg members 214 and 214 in the width direction along the direction in which the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B are opposite to each other, below the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B.

[0129] The intermediate partition panel 231 is continuous in the width direction within a vertical plane orthogonal to the floor surface F. By the intermediate partition panel 231, it is possible to partition the first top panel portion 220A side and the second top panel portion 220B side.

[0130] The panel support 233B supports the intermediate partition panel 231 on the floor surface F in a self-supported manner. With the above configuration, the intermediate panel unit 230B itself can be self-supported, without connecting the intermediate panel unit 230B to the desk device 210. Further, even in a state in which the intermediate panel unit 230B is separated from the desk device 210, the intermediate panel unit 230B itself can be used in the self-supported state.

[0131] The leg member 214 includes the support leg member 213 that supports the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B, and the base member 212 which extends in the direction in which the first top panel portion 220A and the second top panel portion 220B are opposite to each other to connect the support leg member 213 of the first top panel portion 220A and the support leg member 213 of the second top panel portion 220B.

[0132] With the above configuration, the leg members 214 that support the pair of top panel portions including the first top panel portion 220A and the second top panel portion 220B are integrated, and the first top panel portion 220A and the second top panel portion 220B are integrated via the leg member 214.

[0133] The support leg members 213 can be expanded and contracted in the vertical direction and can adjust the heights of the first top panel portion 220A and the

second top panel portion 220B. With the above configuration, it is possible to improve usability by setting the first top panel portion 220A and the second top panel portion 220B at arbitrary heights, respectively.

[0134] It should be noted that the present invention is not limited to the above embodiments, and various design changes can be made without departing from the gist thereof For example, in the first embodiment, although the connecting body 12 connecting the pair of support structures 10 to each other includes the column portion 19 standing on each of the base members 15 and the installation portion 20 that connects the upper portions of the column portions 19, the connecting body may be a member that linearly connects the left and right base portions 15. Further, it is not always necessary to provide the wiring storage space 30 in the installation portion 20, and the panel body 13 may not be provided on the upper portion of the installation portion 20.

[0135] Further, in the first embodiment, the desk device which is one form of the top-panel-equipped furniture has been described, but the top-panel-equipped furniture may be a table device, a counter device, or the like.

[0136] Further, for example, the intermediate partition panel 231 is configured to be continuous in the width direction and continuous in the width direction within the vertical surface orthogonal to the floor surface F, but the invention is not limited thereto. For example, the intermediate partition panel 231 may have a strip shape extending in the width direction, a box shape, a cloth shape, or the like. Further, in addition to the function of partitioning the first top panel portion 220A side and the second top panel portion 220B side of the intermediate partition panel 231, the partitioning unit of the present invention may have a storing function or the like, or may be configured to protrude to the user side so that the user can sit.

[0137] Further, the placing height of the intermediate partition panel 231 may be appropriately set.

[0138] Further, although the intermediate partition panel 231 is continuous in the entire width direction of the desk device 210, in at least a partial region of the desk device 210 in the width direction, the intermediate partition panel 231 may partition the first top panel portion 220A side and the second top panel portion 220B side of the pair of top panel portions including the first top panel portion 220 and the second top panel portion 220B.

[Industrial Applicability]

[0139] According to the top-panel-equipped furniture of the present invention, it is possible to firmly and stably support a pair of top panels in which the height can be adjusted, by a common support structure, and it is possible to improve usability for the user.

[0140] Further, according to the top-panel-equipped furniture system of the present invention, it is possible to easily attach and detach a partitioning unit such as a partition panel to and from the top-panel-equipped furniture provided with a plurality of top panels as needed, and it is possible to add a partition function with high degree of freedom.

[Reference Signs List]

[0141]

1 Desk device (top-panel-equipped furniture)
10 Support structure
12 Connecting body
13 Panel body
14A First top panel (top panel)
14B Second top panel (top panel)
15 Base member
16A First extendable leg
16B second extendable leg
19 Column portion
20 Installation portion
26A First opening (wiring insertion portion)
26B Second opening (wiring insertion portion)
30 Wiring space
21 A, 21B desk system (furniture system)
210 Desk device (top-panel-equipped furniture)
211 Leg
212 Base member (connecting member)
213 Support leg member (support leg)
214 Leg member
220A First top panel portion
220B Second top panel portion
221A First top panel
221B Second top panel
230A, 230B Intermediate panel unit (partitioning unit)
231 Intermediate partition panel (partition body)
233A, 233B Panel support (support)
236 Positioning pin (positioning mechanism)
241 Leg
243 Column
244 Horizontal member

Claims

1. Top-panel-equipped furniture comprising:

a pair of top panels having working surfaces on each upper surface thereof and disposed to be opposite to each other; and
a pair of support structures which are disposed apart from each other in a direction substantially orthogonal to the direction in which they face the pair of top panels and support the pair of top panels such that heights thereof is adjustable,
wherein the support structure includes a base member placed on a floor surface and extending along a direction so as to face the pair of top panels, and a pair of extendable legs which stand upward from both end positions of the

base member in an extension direction thereof and support each of the pair of top panels such that the heights thereof is adjustable.

2. The top-panel-equipped furniture according to claim 1, wherein a vicinity of a central portion in the extension direction of the base member on a lower surface of the top panel is supported by the extendable legs.

3. The top-panel-equipped furniture according to claim 1 or 2, further comprising:

a connecting body which connects substantially intermediate portions in the extension direction of the base member of each of the support structures to each other.

4. The top-panel-equipped furniture according to claim 3, wherein the connecting body has a column portion standing upward from a substantially intermediate position in the extension direction of the base member of each of the support structures, and an installation portion placed between the upper portions of the respective column portions.

5. The top-panel-equipped furniture according to claim 4, wherein a wiring storage space is provided inside the installation portion.

6. The top-panel-equipped furniture according to claim 4 or 5, wherein a flat plate-like panel body which partitions between the pair of the top panels stands upward on the upper surface of the installation portion.

7. The top-panel-equipped furniture according to claim 6, wherein a wiring insertion portion is provided on the upper surface of the installation portion to allow the wiring storage space inside the installation portion and the outside to communicate with each other at the front and rear of the panel body.

8. A furniture system comprising:

top-panel-equipped furniture which includes a pair of top panel portions including first and second top panel portions disposed to be opposite to each other, and leg members configured to integrally support the pair of top panel portions; and
a partitioning unit placed on a floor surface below the pair of top panel portions to partition the first top panel portion side and the second top panel portion side.

9. The furniture system according to claim 9, wherein the partitioning unit is self-supported on the floor surface.

10. The furniture system according to claim 8 or 9, wherein the partitioning unit comprises:

a partition body disposed between the pair of top panel portions; and
a support placed on the floor surface below the pair of top panel portions and detachably connected to the partition body to support the partition body.

11. The furniture system according to claim 10, wherein the leg members are respectively provided at both end portions in a width direction orthogonal to each other in a horizontal plane with respect to a direction in which the pair of the top panel portions are opposite to each other,
the support is disposed between the leg members respectively provided at both end portions of the pair of top panel portions in the width direction.

12. The furniture system according to claim 10 or 11, wherein the partition body has a planar shape which is continuous in the width direction and is continuous in the width direction within a plane orthogonal to the floor surface.

13. The furniture system according to any one of claims 8 to 12, wherein the partitioning unit includes a positioning mechanism which is able to perform positioning with respect to the leg members.

14. The furniture system according to any one of claims 8 to 13, wherein the leg member includes:

support legs which support each of the pair of top panel portions; and
a connecting member which extends in a direction in which the top panel portions are opposite to each other and connects the support legs of the first top panel portion and the support legs of the second top panel portion to each other.

15. The furniture system according to claim 14, wherein the support legs are vertically extendable and contractible, and the height of the top panel portion is adjustable.

Statement under Art. 19.1 PCT

1. Top-panel-equipped furniture comprising:

a pair of top panels having working surfaces on each upper surface thereof and disposed to be opposite to each other; and
a pair of support structures which are disposed apart from each other in a direction substantially orthogonal to the direction in which they face the pair of top

panels and support the pair of top panels such that heights thereof is adjustable,
wherein the support structure includes a base member placed on a floor surface and extending along a direction so as to face the pair of top panels, and a pair of extendable legs which stand upward from both end positions of the base member in an extension direction thereof and support each of the pair of top panels such that the heights thereof is adjustable.

2. The top-panel-equipped furniture according to claim 1, wherein a vicinity of a central portion in the extension direction of the base member on a lower surface of the top panel is supported by the extendable legs.

3. The top-panel-equipped furniture according to claim 1 or 2, further comprising:

a connecting body which connects substantially intermediate portions in the extension direction of the base member of each of the support structures to each other.

4. The top-panel-equipped furniture according to claim 3, wherein the connecting body has a column portion standing upward from a substantially intermediate position in the extension direction of the base member of each of the support structures, and an installation portion placed between the upper portions of the respective column portions.

5. The top-panel-equipped furniture according to claim 4, wherein a wiring storage space is provided inside the installation portion.

6. The top-panel-equipped furniture according to claim 4 or 5, wherein a flat plate-like panel body which partitions between the pair of the top panels stands upward on the upper surface of the installation portion.

7. The top-panel-equipped furniture according to claim 6, wherein a wiring insertion portion is provided on the upper surface of the installation portion to allow the wiring storage space inside the installation portion and the outside to communicate with each other at the front and rear of the panel body.

8. A furniture system comprising:

top-panel-equipped furniture which includes a pair of top panel portions having a first top panel portion and a second top panel portion which are disposed opposite to each other, and leg members configured to integrally support the pair of top panel portions; and
a partitioning unit placed on a floor surface below the pair of top panel portions to partition the first top panel portion side and the second top panel portion side.

9. The furniture system according to claim 8, wherein the partitioning unit is self-supported on the floor surface.

10. The furniture system according to claim 8 or 9, wherein the partitioning unit comprises:

a partition body disposed between the pair of top panel portions; and
a support placed on the floor surface below the pair of top panel portions and detachably connected to the partition body to support the partition body.

11. The furniture system according to claim 10, wherein the leg members are respectively provided at both end portions in a width direction orthogonal to each other in a horizontal plane with respect to a direction in which the pair of the top panel portions are opposite to each other,
the support is disposed between the leg members respectively provided at both end portions of the pair of top panel portions in the width direction.

12. The furniture system according to claim 11, wherein the partition body has a planar shape which is continuous in the width direction and is continuous in the width direction within a plane orthogonal to the floor surface.

13. The furniture system according to any one of claims 8 to 12, wherein the partitioning unit includes a positioning mechanism which is able to perform positioning with respect to the leg members.

14. The furniture system according to any one of claims 8 to 13, wherein the leg member includes:

support legs which support each of the pair of top panel portions; and
a connecting member which extends in a direction in which the top panel portions are opposite to each other and connects the support legs of the first top panel portion and the support legs of the second top panel portion to each other.

15. The furniture system according to claim 14, wherein the support legs are vertically extendable and contractible, and the height of the top panel portion is adjustable.

FIG. 1

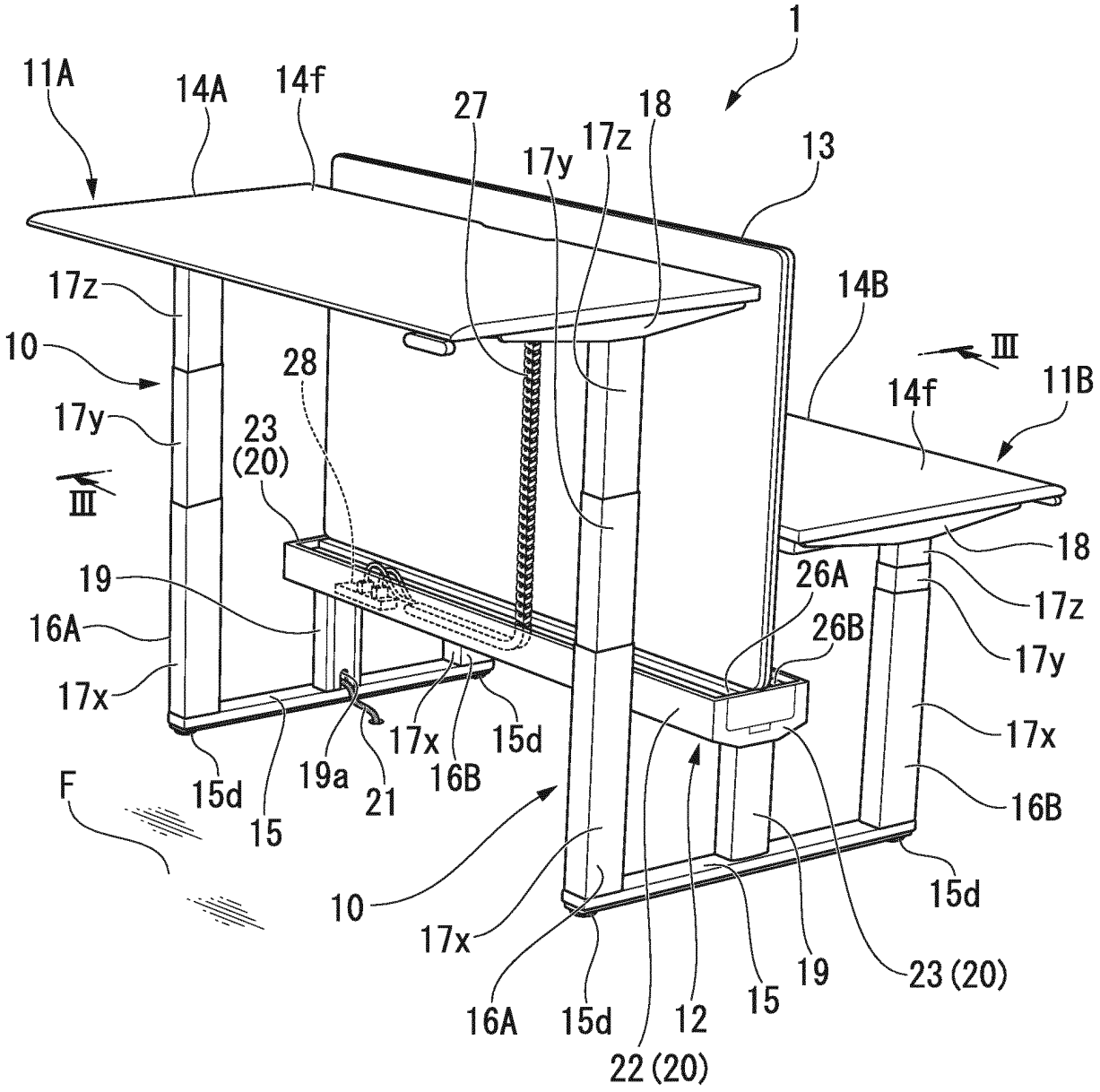

1
11A
14A
14f
27
18
17z
17y
13
17z
14B
10
28
III
14f
11B
17y
23
(20)
III
18
19
26A
17z
16A
26B
17y
17x
17x
15d
19a
21
16B
15d
F
15
17x
16B
10
15d
17x
16A
15d
12
15
19
23 (20)
22 (20)

FIG. 2

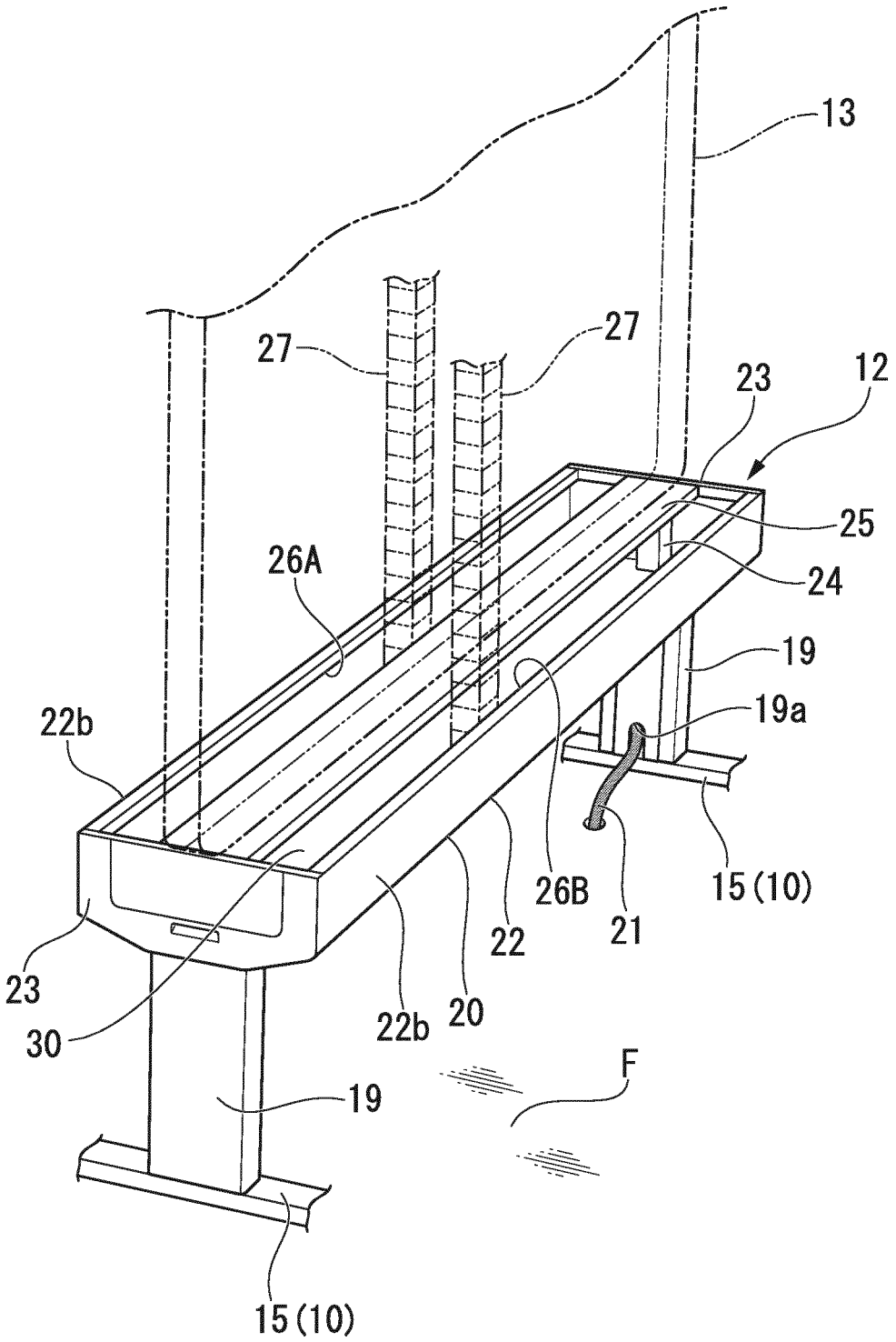

13
27
27
23
12
25
26A
24
19
19a
22b
26B
15 (10)
21
22
23
22b
20
30
F
19
15 (10)

FIG. 3

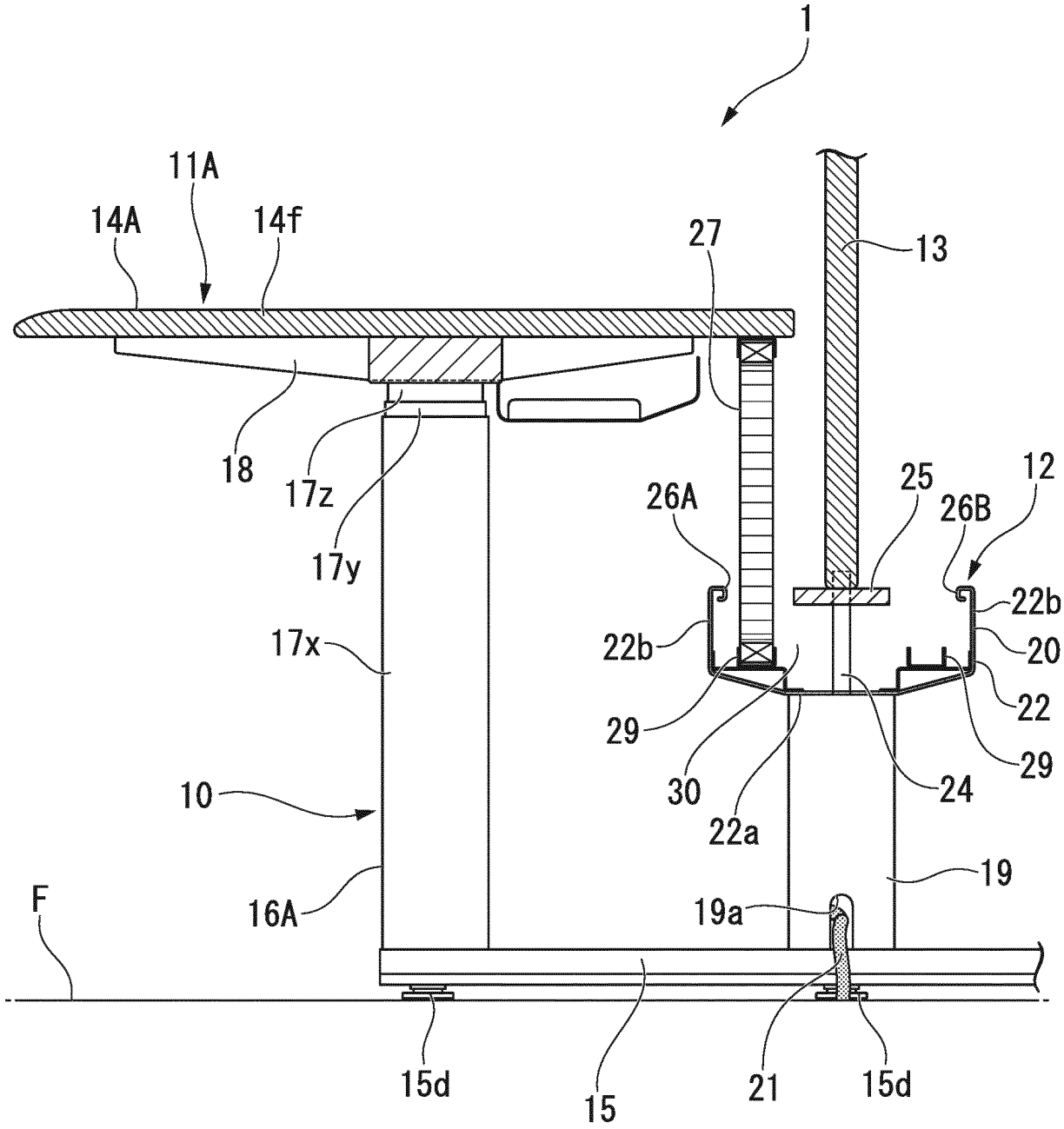

1
11A
14A
14f
27
13
18
17z
17y
26A
25
26B
12
22b
17x
22b
20
22
29
29
30
24
22a
10
19
F
16A
19a
15d
15
21
15d

FIG. 4

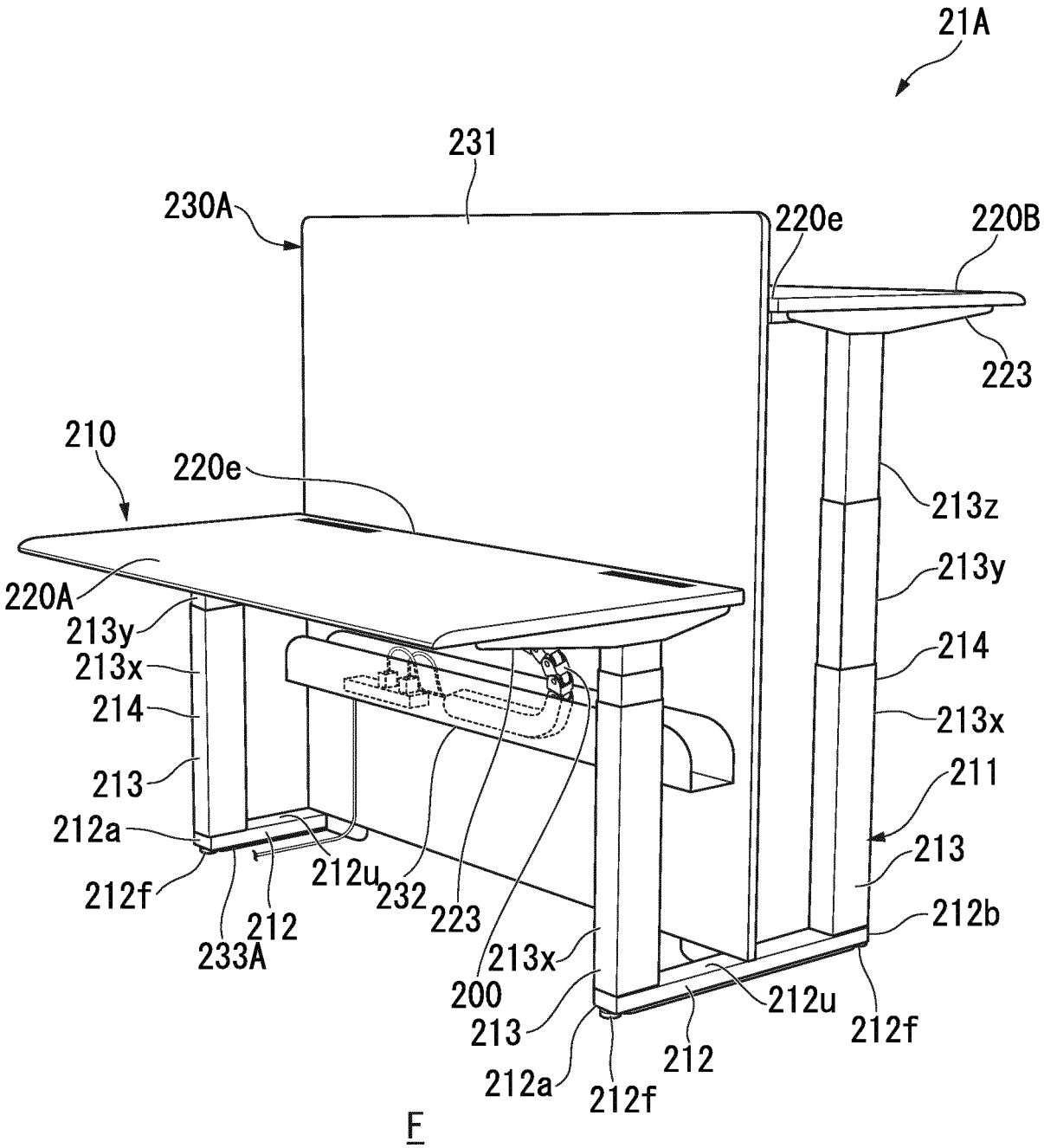

21A
231
230A
220e
220B
223
210
220e
213z
213y
220A
213y
213x
214
214
213x
213
211
212a
213
212f
212u
232
223
212b
233A
212
213x
200
212u
213
212f
212a
212
212f
F

FIG. 5

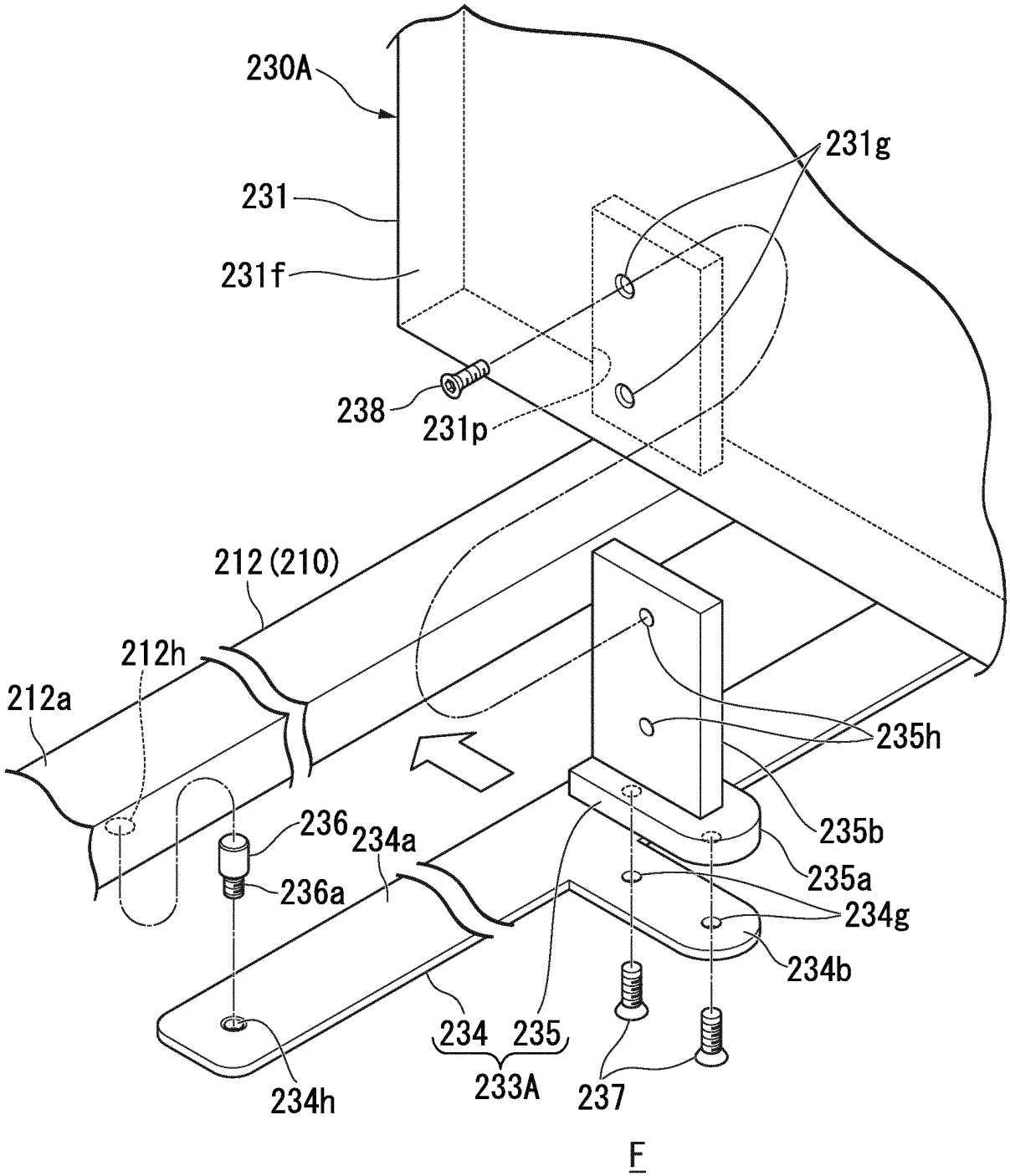

230A
231
231f
231g
238
231p
212 (210)
212h
212a
235h
235b
235a
234g
234b
236
234a
236a
234
235
233A
237
234h
F

FIG. 6

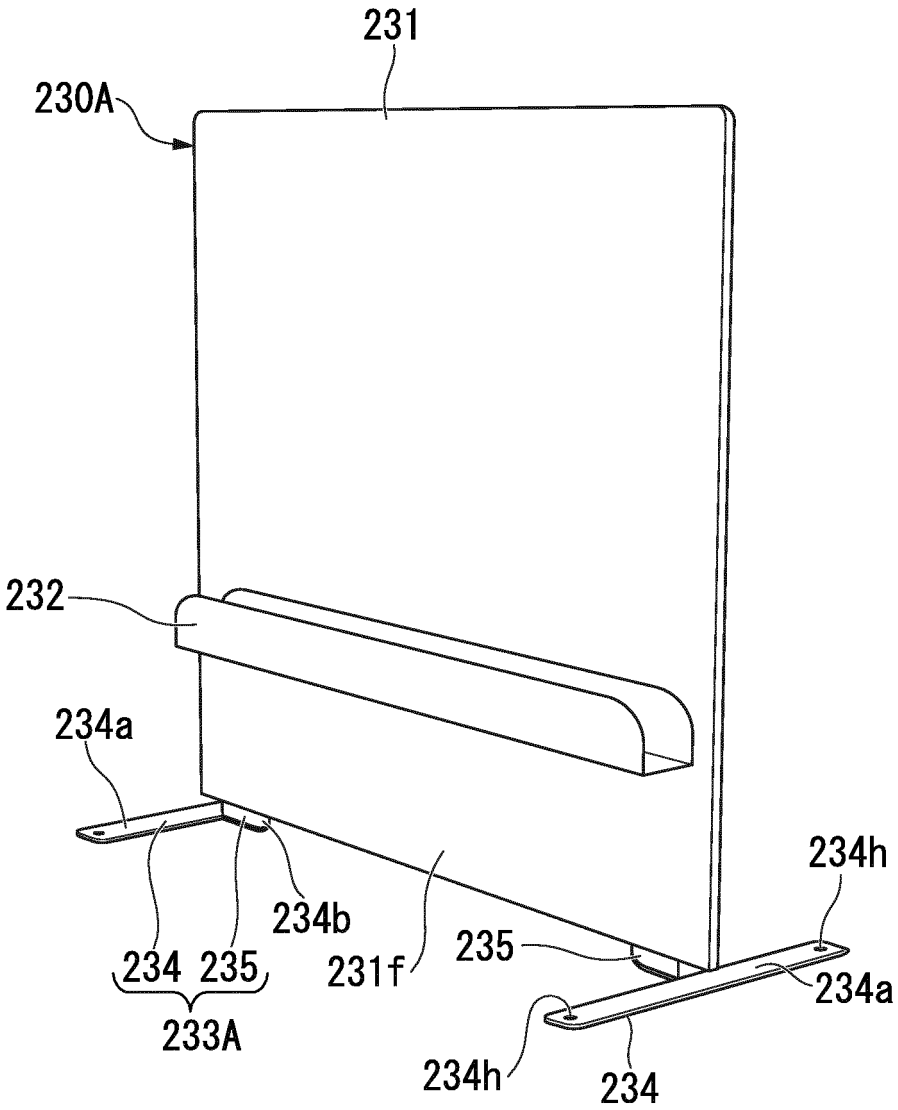

231
230A
232
234a
234h
234b
235
231f
234a
234 235
233A
234h
234

FIG. 7

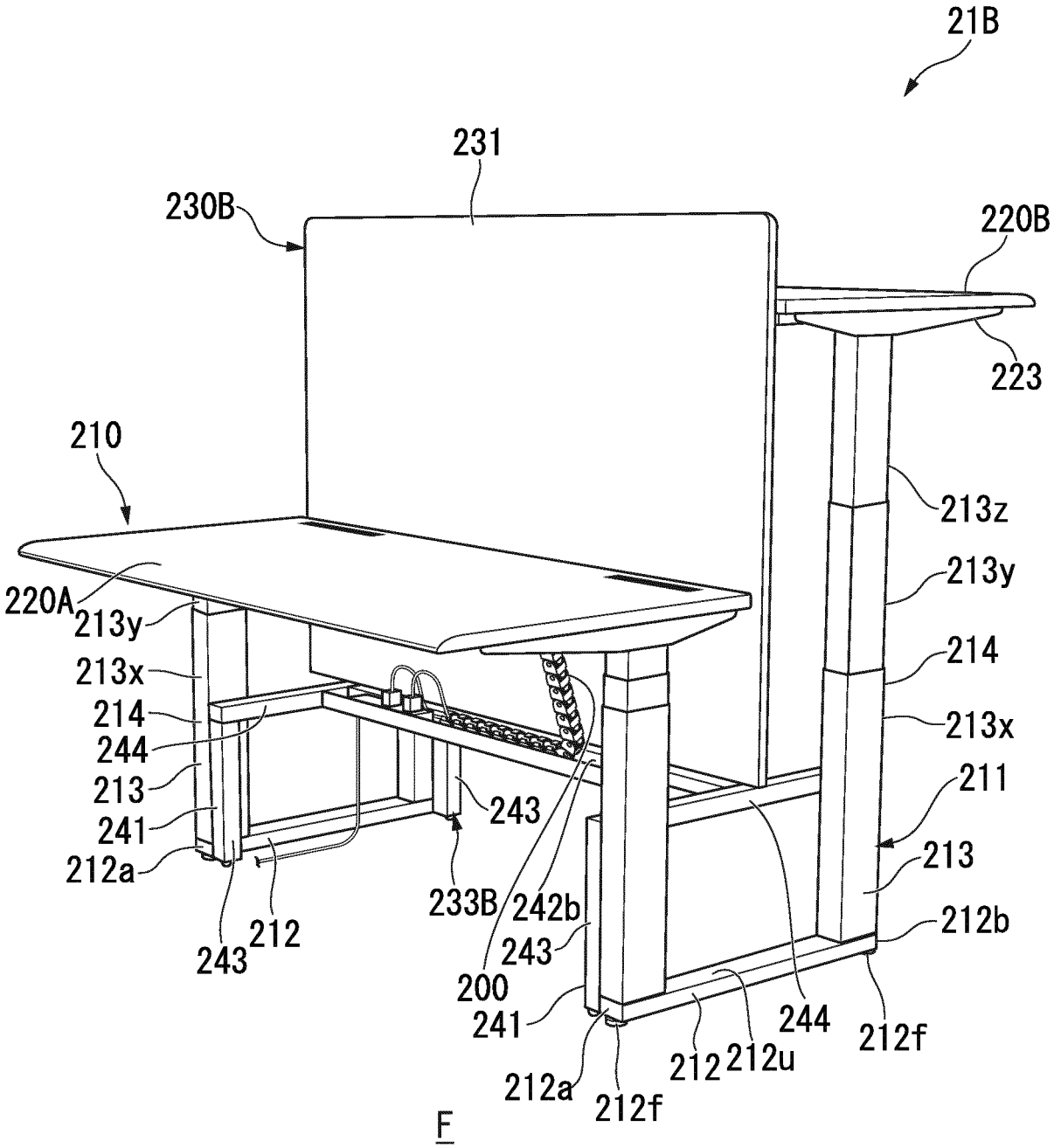

21B
231
230B
220B
223
210
213z
213y
220A
213y
213x
214
214
244
213x
213
211
241
243
212a
213
233B
242b
212b
243
212
243
200
241
244
212f
212
212u
212a
212f
F

FIG. 8

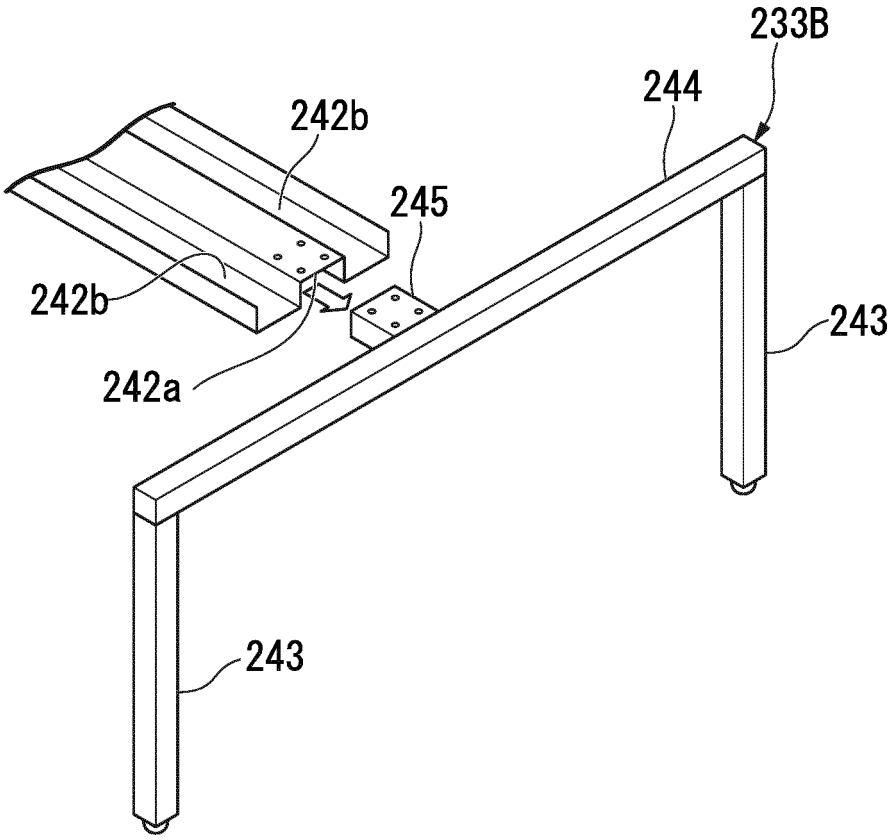


FIG. 9

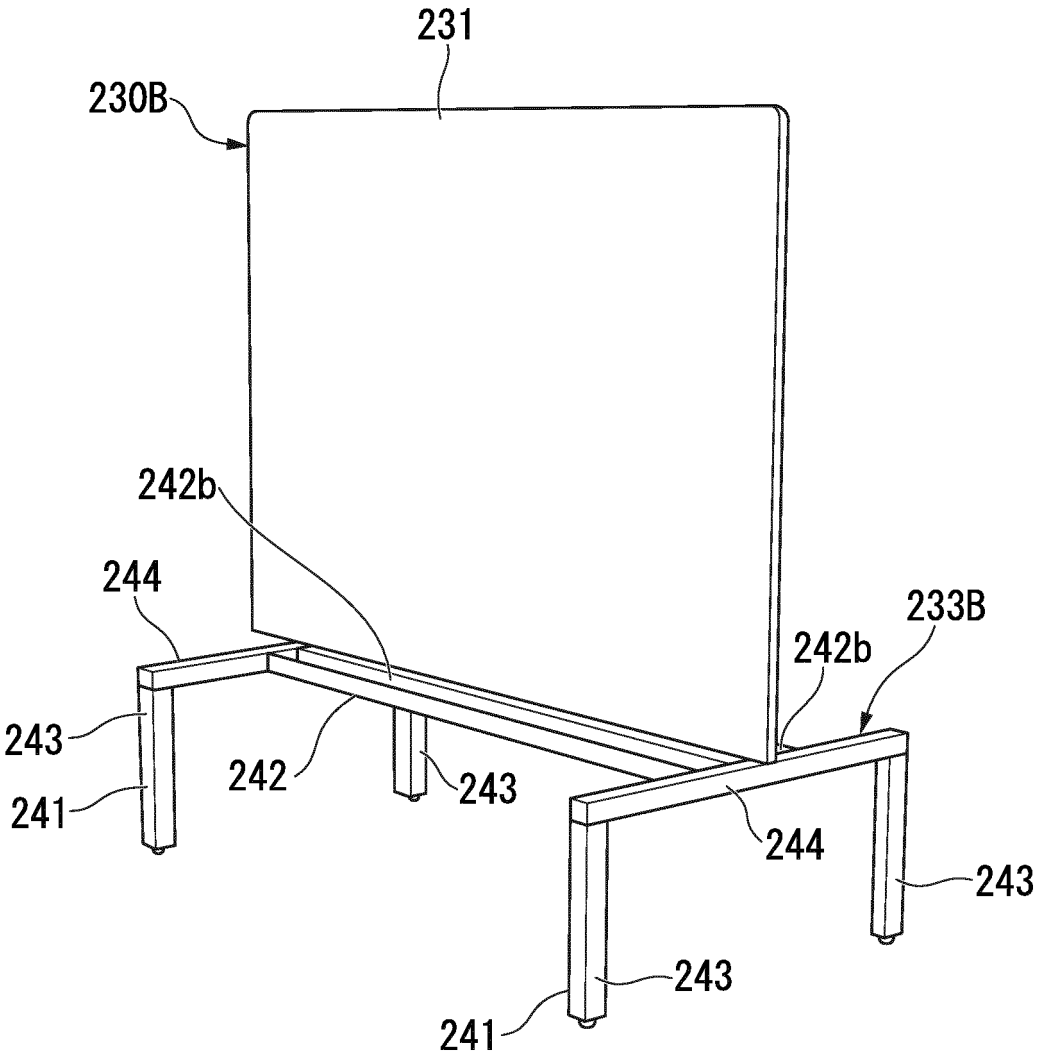
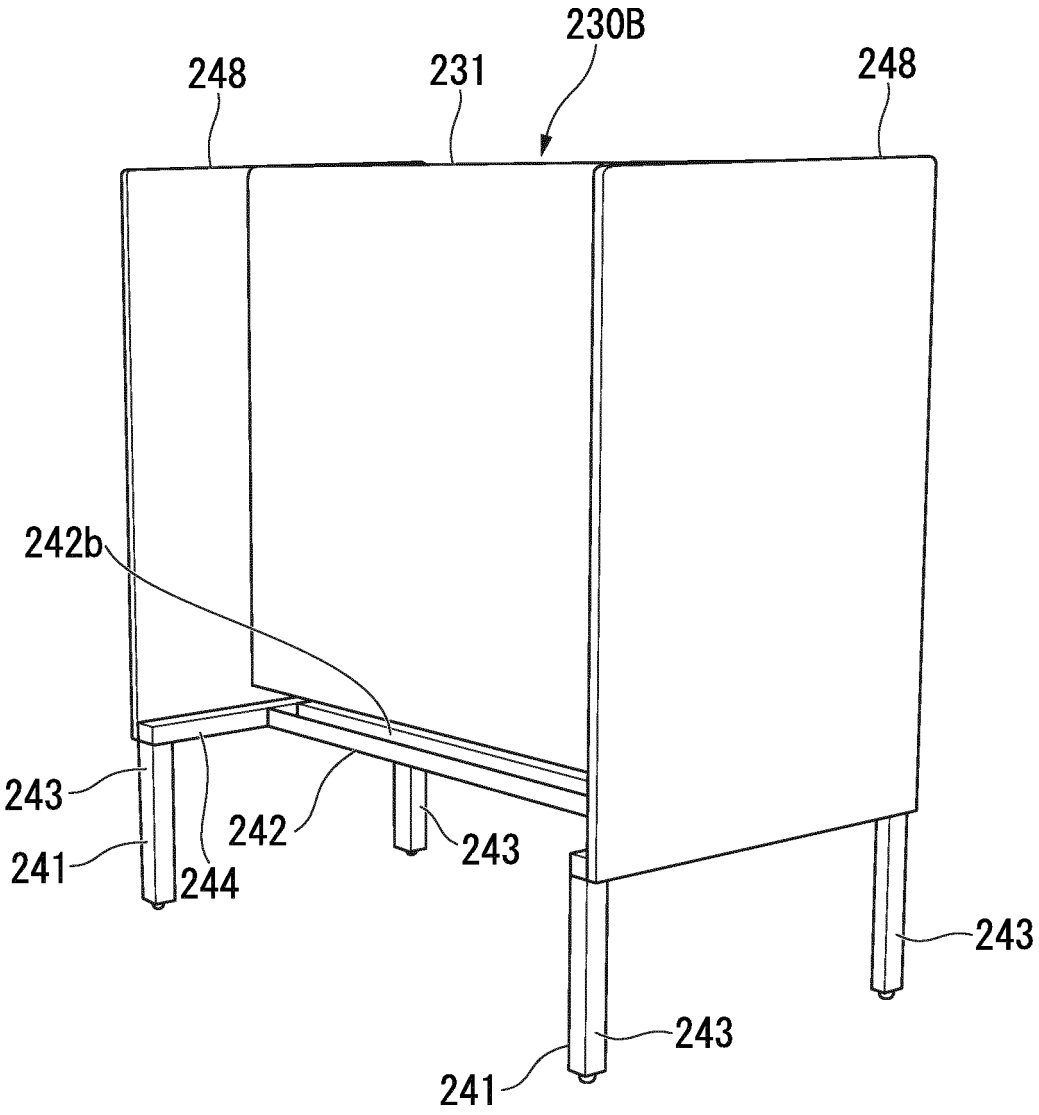


FIG. 10



INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2016/063193

A. CLASSIFICATION OF SUBJECT MATTER
A47B9/00(2006.01)i, *A47B7/00*(2006.01)i, *A47B13/02*(2006.01)i, *A47B17/04*(2006.01)i, *A47B83/04*(2006.01)i

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)
A47B9/00, A47B7/00, A47B13/02, A47B17/04, A47B83/04

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

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2016
Kokai Jitsuyo Shinan Koho	1971-2016	Toroku Jitsuyo Shinan Koho	1994-2016

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2014-217740 A (Yugen Kaisha Technom), 20 November 2014 (20.11.2014), entire text; all drawings (Family: none)	1-15
A	JP 2000-41742 A (Hakusan Mfg. Co., Ltd.), 15 February 2000 (15.02.2000), entire text; all drawings (Family: none)	1-7
A	JP 2-221794 A (Kokuyo Co., Ltd.), 04 September 1990 (04.09.1990), entire text; all drawings (Family: none)	1-7

☒ 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
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"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	Date of mailing of the international search report
04 July 2016 (04.07.16)	19 July 2016 (19.07.16)

Name and mailing address of the ISA/	Authorized officer
Japan Patent Office 3-4-3,Kasumigaseki,Chiyoda-ku, Tokyo 100-8915,Japan	Telephone No.

Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2016/063193

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2014/151755 A2 (HERMAN MILLER, INC.), 25 September 2014 (25.09.2014), entire text; all drawings & JP 2016-512125 A & US 2014/0312754 A1 & EP 2967212 A & CA 2905951 A & AU 2014236874 A & CN 105188476 A	1-15
A	JP 2012-100753 A (Okamura Corp.), 31 May 2012 (31.05.2012), entire text; all drawings & WO 2012/063737 A1	8-15

Form PCT/ISA/210 (continuation of second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2016/063193

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
See extra sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2016/063193

Continuation of Box No.III of continuation of first sheet(2)

Document 1: JP 2014-217740 A (Yugen Kaisha Technom), 20 November 2014 (20.11.2014), entire text; all drawings (Family: none)

Claims are classified into the following two inventions.

(Invention 1) claims 1-7

Claims 1 to 7 have a special technical feature, namely "an article of furniture with a table top, provided with a pair of table tops each having a work surface on an upper surface thereof, and disposed facing one another, and a pair of support structures which are disposed separated from one another in a direction substantially orthogonal to the direction in which the pair of table tops face one another, and which support the pair of table tops such that the heights thereof can be adjusted, wherein the support structures are provided with: a base member which is disposed on a floor surface and extends in the direction in which the pair of table tops face one another; and a pair of telescopic legs which are each installed vertically, upward from positions at either end, in the direction of extension, of the base member, and which support each of the pair of table tops such that the heights thereof can be adjusted", and are therefore classified into Invention 1.

(Invention 2) claims 8-15

Claims 8 to 15 have a technical feature common with claim 1 classified into Invention 1, namely "a pair of table top portions disposed facing one another, and a leg member which integrally supports the pair of table top portions".

However, the above-said technical feature cannot be considered to be a special technical feature, since the technical feature does not make a contribution over the prior art in the light of the contents disclosed in the document 1 (particularly, see [fig. 1]).

Further, claims 8-15 are not dependent on claim 1.

In addition, claims 8-15 have no relationship such that these claims are substantially same as or equivalent to any claim classified into Invention 1.

Consequently, claims 8-15 cannot be classified into Invention 1.

Then claims 8 to 15 have a special technical feature, namely "a furniture system provided with: an article of furniture with a table top, provided with a pair of table top portions disposed facing one another, first and second table top portions, and a leg member which integrally supports the pair of table top portions; and a dividing unit which is disposed on a floor surface below the pair of table top portions, and which divides a first table top portion side from a second table top portion side", and are therefore classified into Invention 2.

Form PCT/ISA/210 (extra sheet) (January 2015)

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- JP 2015093648 A **[0002]**
- JP 2015119506 A **[0002]**
- JP 3391285 B **[0008]**
- JP 2014217740 A **[0008]**