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(54) **MODULAR PARTITION**

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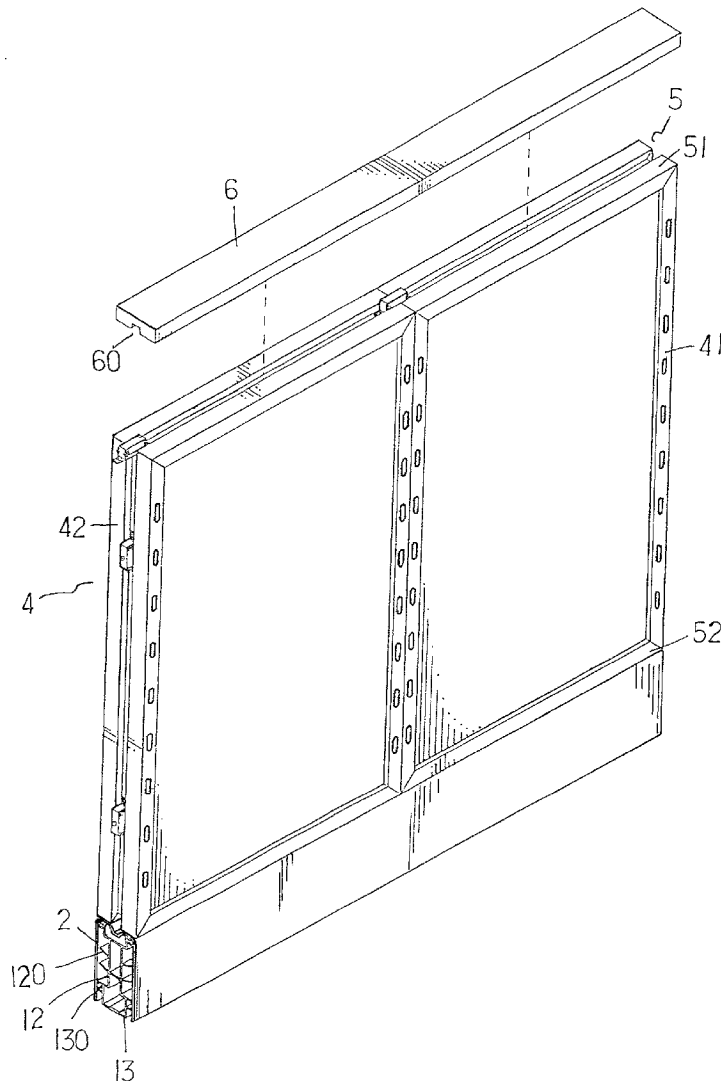
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(57) **ABSTRACT**

A modular partition includes a compartment frame located beneath a lower horizontal strut of the partition. The compartment frame has a vertical wall and side flanges extended from the vertical wall to form separate cable shelves for holding cables inside in an organized fashion to avoid interference. The compartment frame further has two side panels each is pivotally engaged with a bulged flange formed at the upper section of the compartment frame so that the side panels may be opened or closed easily to facilitate cable laying and rearrangement. A plurality of fastening elements are provided to fasten the compartment frame with the partition struts securely.



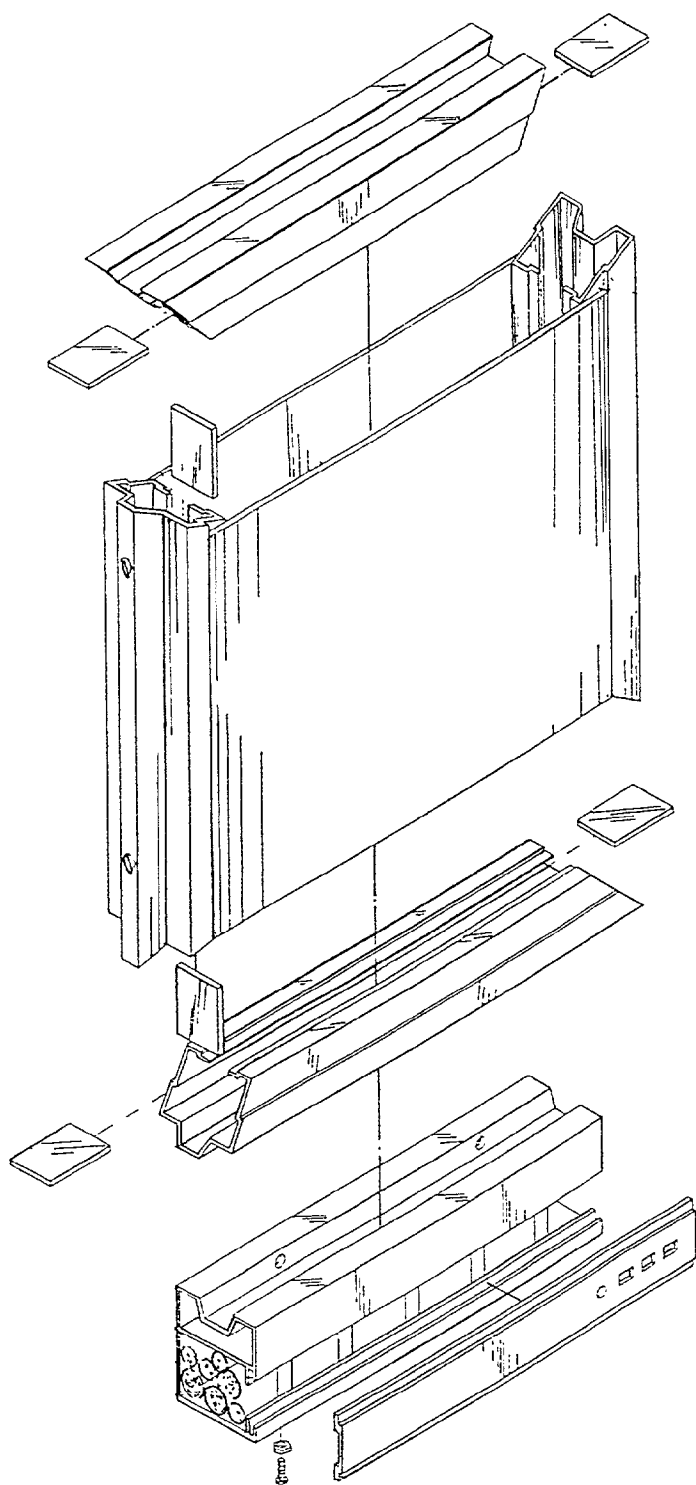
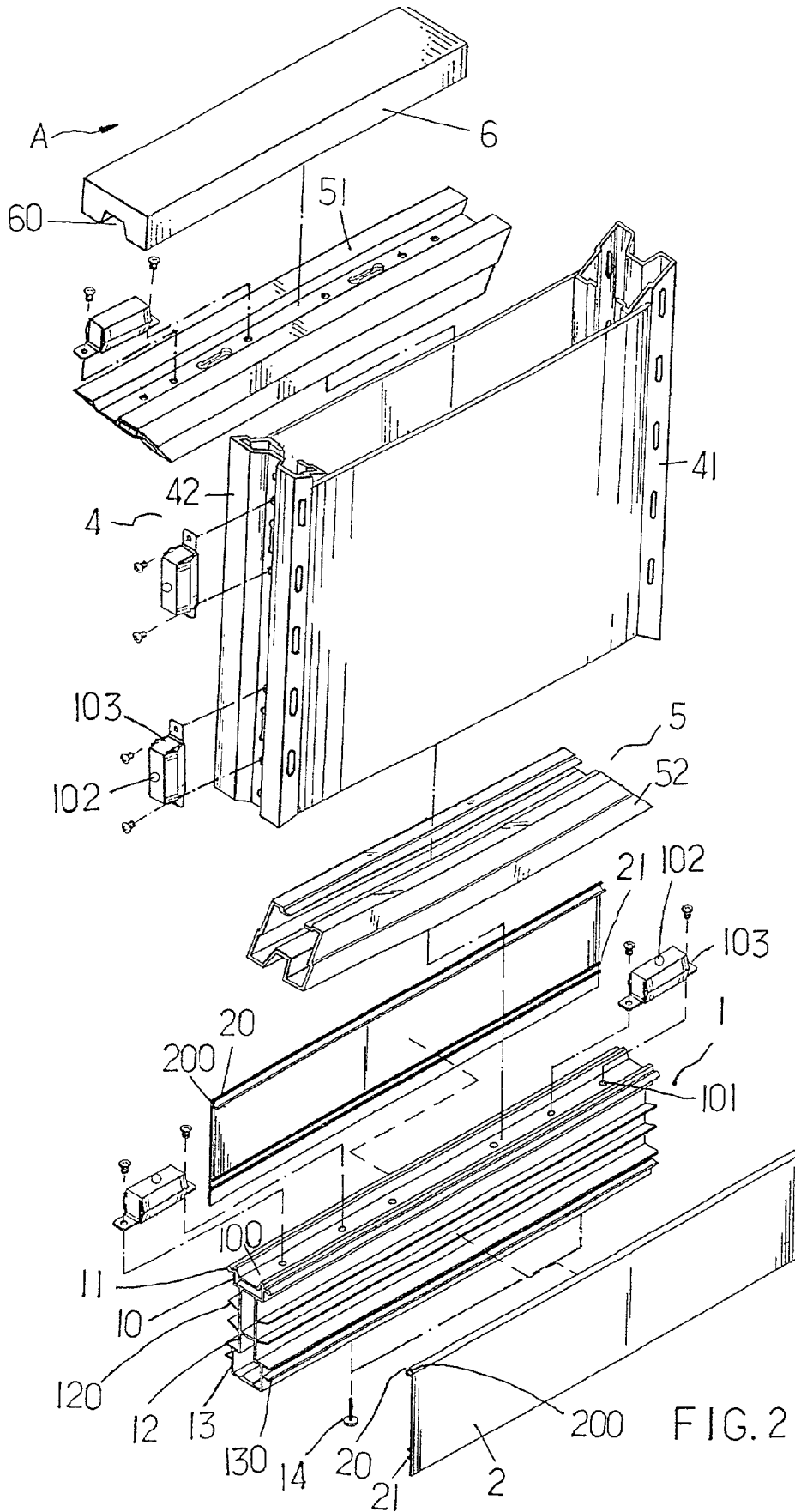


FIG. 1
PRIOR ART



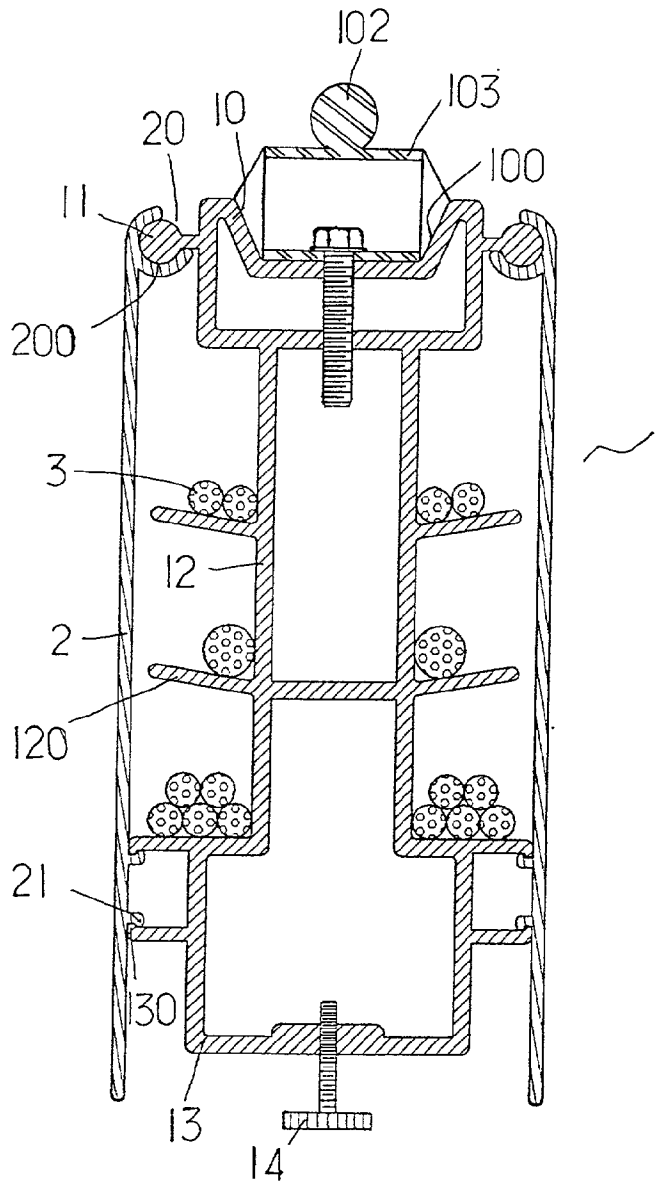


FIG. 5

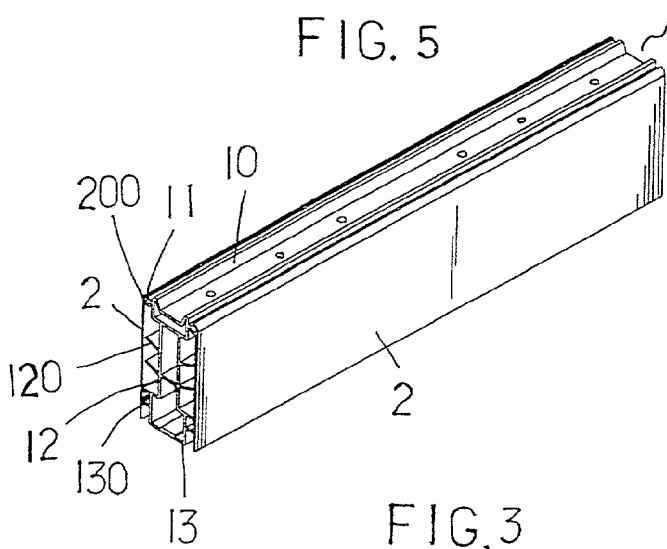
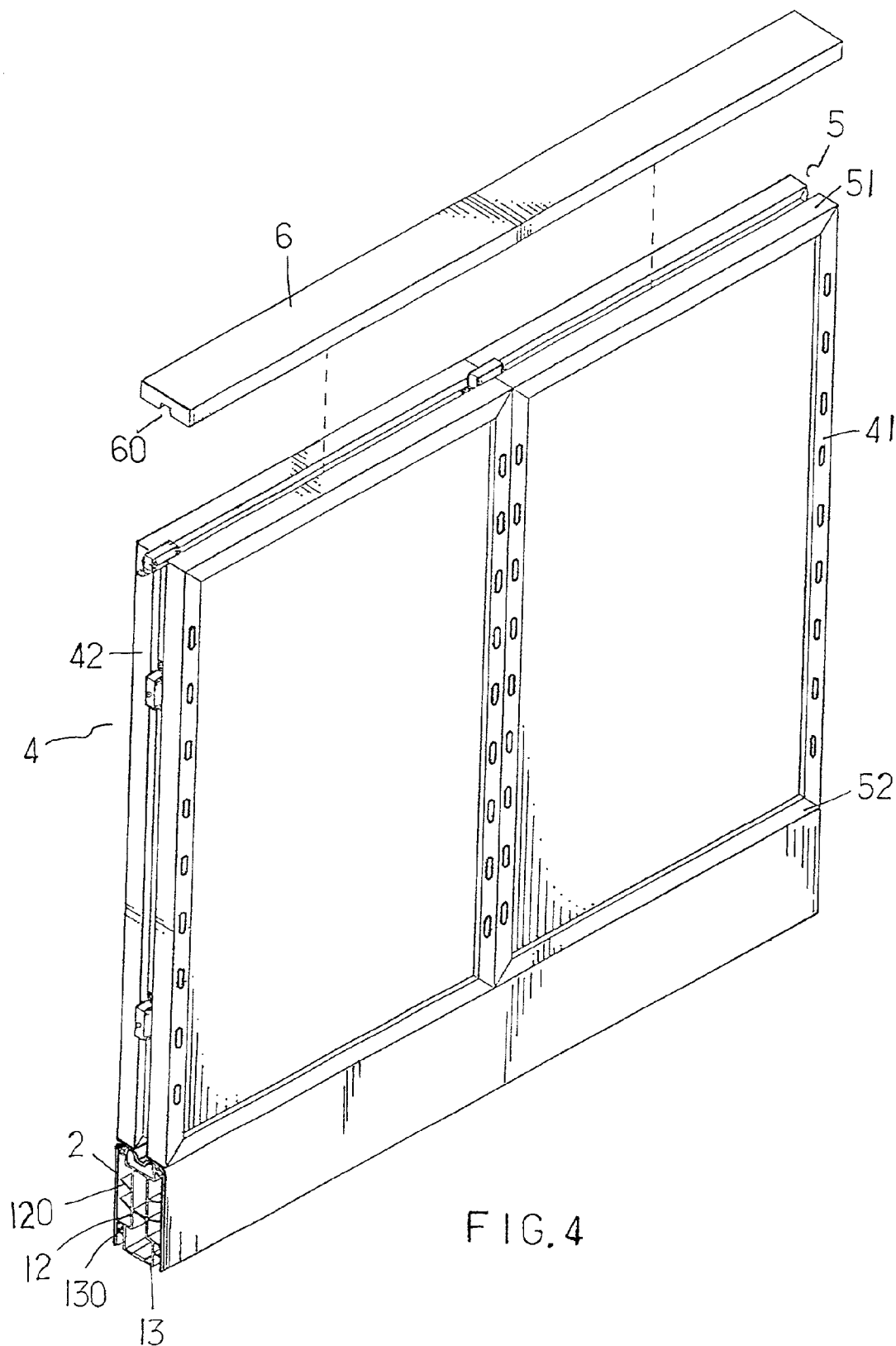


FIG. 3



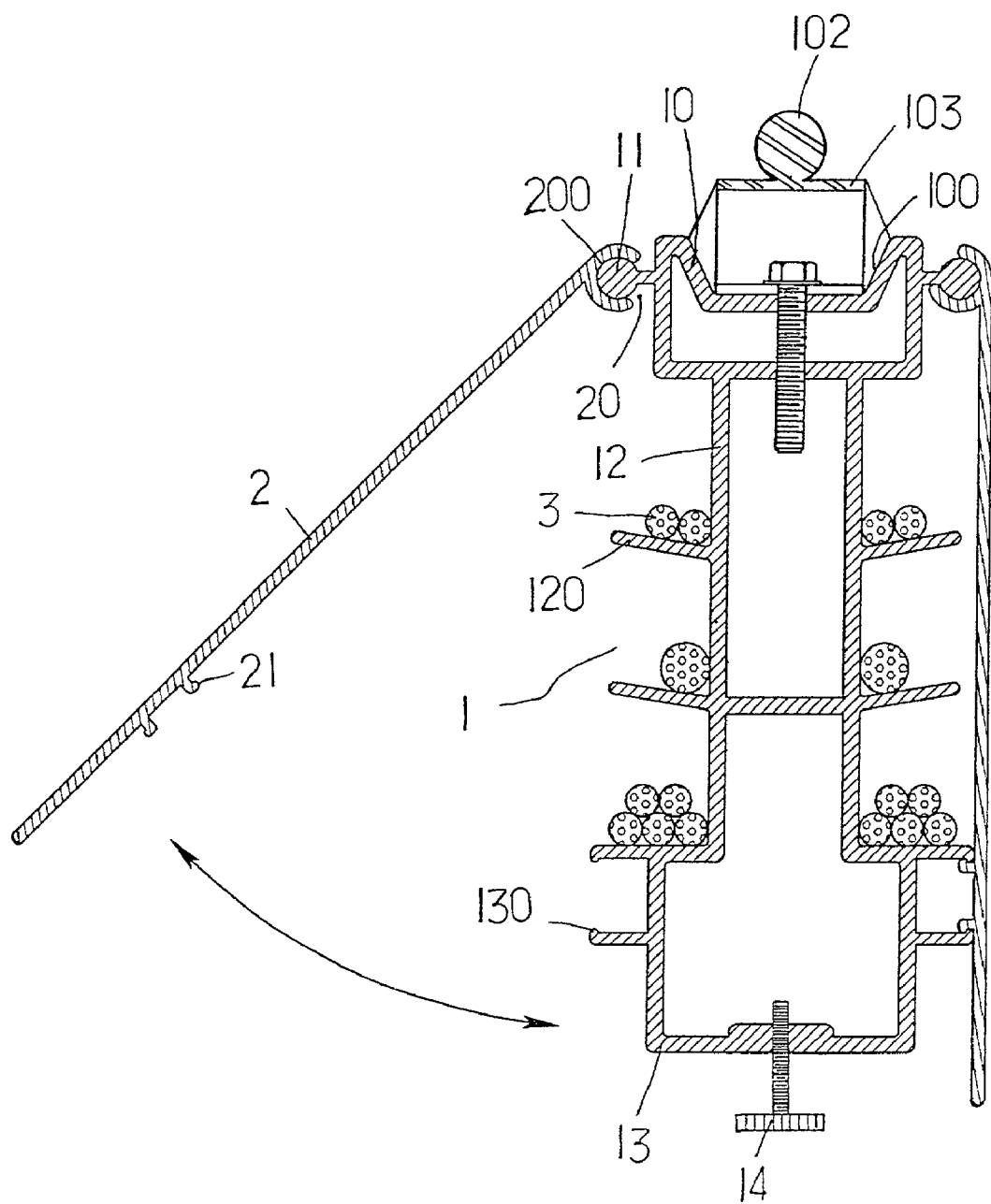


FIG. 6

MODULAR PARTITION

BACKGROUND OF THE INVENTION

[0001] This invention relates to a modular partition and particularly a partition that may be assembled, disassembled and laying cables rapidly, and has separated cable shelves to facilitate cable arrangement.

[0002] Conventional partitions now being commonly used (referring to **FIG. 1**) are mostly designed for fast construction and replacement. They usually have partition panels bordered by vertical curve-shaped side frames to engage with curve-shapes slots of adjacent partition panels. The assembly usually is time-consuming and troublesome. Fabrication of the partition panels and frames are also tedious. For instance, the engagement of vertical and horizontal frames need separated fastening elements which are difficult to use and not very strong even after fastened. The cable compartment has two opposite U-shaped channels to slidably engage with two extended edges of a stepwise side panel. The cable compartment has no organizing features and often results in chaotic cable laying and even cause interference among the cables. When there is a need for cables rearrangement, the side panel is difficult to remove and assemble. All this begs for improvement.

SUMMARY OF THE INVENTION

[0003] In view of the forgoing disadvantages, it is therefore an object of this invention to provide an improved partition that has modular partition struts and panels which may be assembled and disassembled rapidly with less labor. A novel compartment frame is provided below the lower partition strut that has separated cable shelves to enable cables be laid and organized neatly and easily without interference. The compartment frame further has snap type side panels at both sides that may be opened or closed easily to facilitate cable laying and arrangement. A novel fastening element is provided to make fastening of vertical and horizontal partition struts easily and securely.

[0004] In one aspect, the compartment frame of this invention has side flanges extended sideward at two sides to divide the compartment frame into a plurality of cable shelves for laying cables in a organized fashion whereby to make cable arrangement and maintenance much easier and also help to eliminate interference between the cables. The compartment frame has side panels each has a fastening slot which may pivotally engage with a bulged flange of a top channel to facilitate opening and closing of the side panels. This also helps to make cable rearrangement easier. The fastening element has screw bores and spherical bulged head which may be flexibly adapted to engage with other partition members conveniently.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] The invention, as well as its many advantages, may be further understood by the following detailed description and drawings, in which:

[0006] **FIG. 1** is an exploded view of a conventional partition, including a cable compartment at the bottom.

[0007] **FIG. 2** is an exploded view of this invention.

[0008] **FIG. 3** is a perspective view of a bottom compartment frame of this invention.

[0009] **FIG. 4** is a perspective of this invention, after assembly.

[0010] **FIG. 5** is a sectional view of a bottom compartment frame of this invention in use, with cables laid inside.

[0011] **FIG. 6** is a sectional view according the **FIG. 5**, with one side panel opened.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] Referring to **FIGS. 2, 3** and **4**, the modular partition according to this invention includes vertical struts **41** and **42** of a vertical partition border **4**, horizontal struts **51** and **52** of a horizontal partition border **5**, a compartment frame **1** located beneath the lower horizontal strut **51** and two side panels **2** for the compartment frame **1**.

[0013] The compartment frame **1** includes a top channel **10** which has a fastening trough **100** with a plurality of screw bores **101** formed therein, two bulged flanges **11** extended outward at two lateral sides, a vertical wall **12**, a base channel **13** located at the bottom end of the vertical wall **12** and an adjust screw **13** engaged with the base channel **13**. The screw bores **101** may engage with the screw apertures formed at two ends of a fastening element **103** which has a spherical bulged head **102** extended from the center thereof for engaging with a neighboring partition panel. Each bulged flange **11** may pivotally engage with a fastening slot **200** formed at a connect portion **20** of the side panel **2**. The vertical wall **12** has side flanges **120** extended outward and tilted slightly upward to form cable shelves for holding cables. The base channel **13** has two latch flanges **130** extended sideward for snapping and engaging respectively with a snap lug **21** formed on the side panel **2**. The adjust screw **14** may adjust the horizontal level of the compartment frame **1**.

[0014] Referring to **FIG. 4** and **5**, when this invention is assembled, the fastening element **103** is disposed at the joint section of the fastening trough **100** to fasten two adjacent compartment frames **1** securely. Then place the lower horizontal strut **52** on the top channel **10** over the fastening trough **100** to erect the partition panel above the compartment frame **1**. Then dispose the fastening element **103** on the lower horizontal strut **52**. Thereafter, place an upper panel **6** which has a bottom trough **60** over the upper horizontal strut **51** to make the partition panel mounting on the compartment frame **1** firmly and securely.

[0015] Referring to **FIGS. 5** and **6**, the side panel **2** may be pivotally opened about the bulged flange **11** for laying or rearranging cables **3** on the cable shelves formed by the vertical wall **12** and side flanges **120**. The side panel **2** may be closed by engaging the snap lug **21** with the latch flange **130** formed at the base channel **13**. As shown in the figures, there are a plurality of cable shelves formed in the compartment frame **1** whereby to enable the cables **3** be held therein neatly in an organized way. This not only makes cable wiring and arrangement easier, it also helps to eliminate or reduce interference among the cables that might otherwise happen.

[0016] In summary, this invention has the following advantages:

[0017] 1. The compartment frame at the lower portion of the partition has a plurality of separate cable shelves

at both sides and a side panel at either side to cover the cable shelves. Cable wiring and arrangement may be done neatly in an organized manner rapidly. It also helps to reduce interference among the cables.

[0018] 2. Because of the novel features and construction of this invention, the partition struts and panels may be mounted and fixed on the compartment frame easily and securely. The side panel of the compartment frame may be pivotally opened and closed easily for cable wiring and arrangement. It is particularly helpful and may save a lot of cost in the modern office environments where office remodeling takes place frequently because of dynamic business and technology changes.

What is claimed is:

1. A modular partition, comprising:

- a partition panel bordered by two vertical struts, a lower horizontal strut and an upper horizontal strut;
- a compartment frame located beneath the lower horizontal strut including a top channel, a vertical wall extended downward from the top channel, a base channel located below the vertical wall and an adjust screw engaged with a bottom wall of the base channel; the top channel having a fastening trough which has a plurality screw bores formed therein and two bulged flanges extended

outward from two opposite sides thereof, the vertical wall having side flanges extended sideward at two opposite sides thereof and being tilted slightly upward for forming cables shelves to hold cables therein, the base channel having two latch flanges extended outward at two opposite sides thereof;

at least one fastening element having a spherical bulged head located at the center thereof and two screw apertures formed at two ends thereof for engaging with the screw bores of the top channel;

an upper panel having a bottom trough mounted on the upper horizontal strut; and

two side panels each having a fastening slot located a connect portion thereof for pivotally engaging with the bulged flange of the top channel and a snap lug engageable with the latch flange of the base channel;

wherein the fastening element is capable of engaging two adjacent compartment frames for forming a firm and sturdy partition, and the side panel is capable of pivotally opening from or closing to the compartment frame at either side for laying cables in the cable shelves without interference among the cables.

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