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(54) System for realising a dividing wall and columns transverse sections, panels, frames and coupling means as parts of this system

(57) The invention relates to a system for realising a dividing wall, consisting of columns (1), transverse sections (24), panels (30a,30b), frames (27,28) and coupling means (19,31,32,34). The columns consist of a first subcolumn (1a,b,c) and a second subcolumn (6a,b,c), where the second subcolumn (6a,b,c) can slide inside the first subcolumn (1a,b,c), while the first subcolumn (1a,b,c) and/or the second subcolumn (6a,b,c)are provided with locking means (15), for mutually locking the first subcolumn (1a,b,c) and the second subcolumn (6a,b,c).

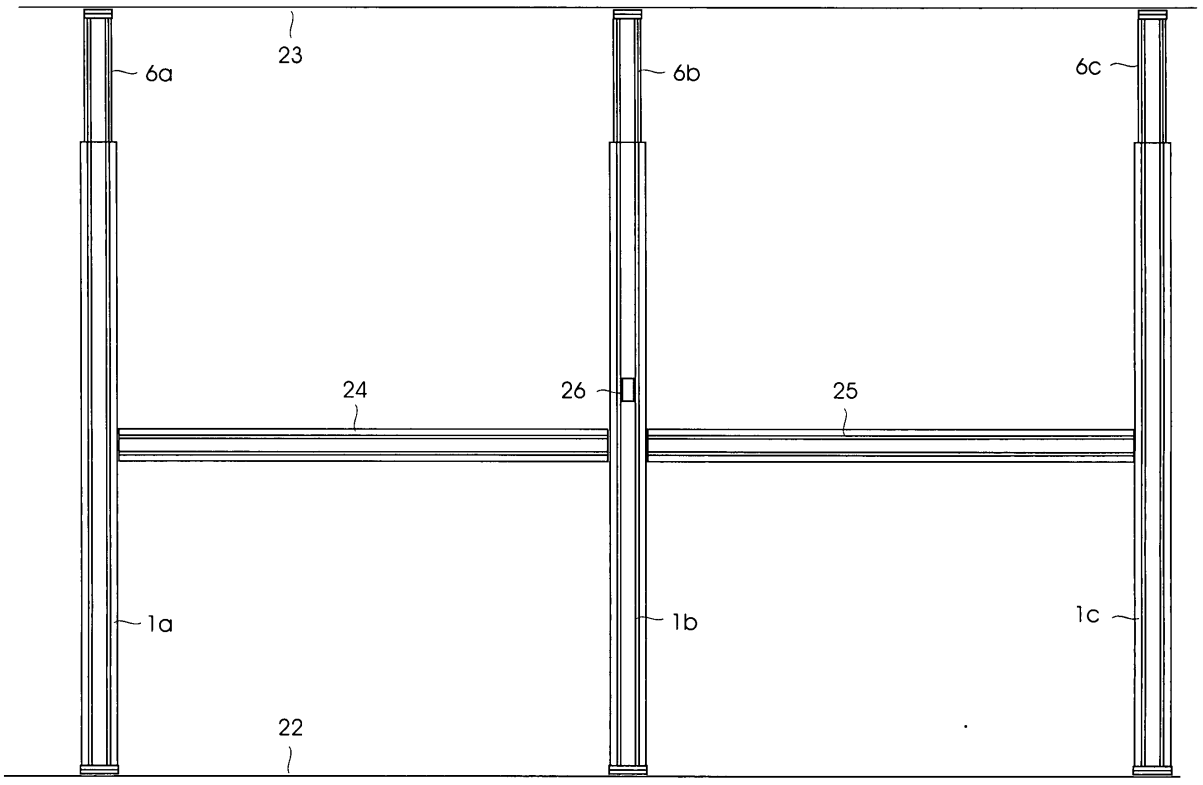

Fig. 3

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Description

[0001] The invention relates to a system for realising a dividing wall, comprising columns, transverse sections, panels and frames.

[0002] Dividing walls of this type are known. They are used for dividing relatively large spaces into for example rooms, offices or class rooms. The disadvantage of existing dividing walls is that the constituent parts usually must be sawed down to size, which means that these constituent parts will be less suitable for reuse.

[0003] The system according to the invention substantially obviates this disadvantage and is according to an aspect of the invention characterised in that a column comprises a first and a second subcolumn, which are operationally mutually parallel disposed and mutually slidably connected. Columns may now simply be made to size and placed between the wall and the floor. Preferably, the first subcolumn and/or the second subcolumn is provided with locking means, for operationally mutually locking the first subcolumn and the second subcolumn in a first operational mode, in such a manner that a column may be clasped between the floor and the ceiling, without the need of drilling and screwing for mutually locking the first and the second subcolumn.

[0004] A further favourable embodiment is characterised in that the first subcolumn is provided with a baseplate which operationally can be placed onto a floor and that the second subcolumn is provided with a top-plate which operationally can be placed against a ceiling, in such a manner that an adequate coupling with the floor or with the ceiling may be obtained.

[0005] A favourable embodiment is according to a further aspect of the invention characterised in that the first subcolumn comprises a profile having an at least substantially H-shaped cross section and the second subcolumn comprises two profiles, each having an at least substantially C-shaped cross section, which are operationally mutually connected by the top-plate. In this way, the legs of the H-shaped profile constitute a coupling surface for the panels and frames to be placed between the H-shaped profiles, while the openings between the legs offer space to the C-shaped profiles. Thereby, the C-shaped profiles are placed such that their openings substantially coincide with the openings between the legs of the H-shaped profile, which implies that the column also realises two cable ducts, via which electric wiring and/or data signals may be distributed.

[0006] A favourable embodiment is according to a further aspect of the invention characterised in that both sides of a transverse section which connects both legs of the first subcolumn are provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section. The slot with the dovetail-shaped cross section can advantageously be used for fixing for example a cover strip to the opening of the first subcolumn.

[0007] A further favourable embodiment is characterised in that an inside of a transverse section which connects both legs of an at least substantially C-shaped profile is provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section, such that also to the second subcolumn for example a cover strip can be fixed if desired.

[0008] A further favourable embodiment is characterised in that an outside of both legs of the first subcolumn is provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section. With the aid of these slots, panels or frames may simply be fixed between the columns.

[0009] A further favourable embodiment is characterised in that the system also comprises coupling means, provided with objects having a dovetailed cross section, for coupling panels, frames and cover strips to the first and/or second subcolumn, using the slots having a dovetailed cross section. Coupling means of this type are cheap, robust and they may easily be placed, removed again and reused if desired.

[0010] A further favourable embodiment is characterised in that the system comprises panels that are extendable in at least one direction, as a result of which also the panels may be placed simply and fast, without being sawed to sized, so that also the panels are reusable.

[0011] The invention also relates to a column, transverse section, panel, frame and coupling means, as part of a system according to one of the claims 1 to 9.

[0012] The invention will now be explained further, with a reference to the following figures, in which:

- Fig. 1A represents a possible embodiment of a first subcolumn in cross section;
- Fig. 1B represents a possible embodiment of a second subcolumn in cross section;
- Fig. 1C represents a combined first and second subcolumn in cross section;
- Fig. 2 represents a combined first and second subcolumn in front view;
- Fig. 3 schematically represents a possible embodiment of a part of a dividing wall;
- Fig. 4 schematically represents an alternative embodiment of a part of a dividing wall;
- Fig. 5 schematically represents a part of a dividing wall in cross section;
- Fig. 6A schematically represents a coupling of a transverse section in cross section;
- Fig. 6B schematically represents a coupling of a glass plate in cross section;
- Fig. 7A schematically represents a coupling with a door frame in cross section;
- Fig. 7B schematically represents a part of a extendable panel in cross section.

[0013] Fig. 1A represents a possible embodiment of a first subcolumn 1 in cross section. Subcolumn 1 here consists of an H-shaped extruded aluminium profile, of which a transverse section is provided with slots 2a,2b

having a dovetail-shaped cross section. With the aid of these slots, for example cover strips may be connected to the open front side 3a and back side 3b, possibly provided with switches, wall sockets and the like, of which the wiring may be conducted through subcolumn 1. The sides are also provided with slots 4a,4b having a dovetail-shaped cross section, that can be used for connecting panels, frames and the like to subcolumn 1. Moreover slots 5a,5b are included in the edges of the open front side and back side, each of which may accept a dovetail-shaped profile that forms part of a second subcolumn 6, as shown in Fig. 1B in cross section. The second subcolumn 6 consists in fact of two profiles 7a,7b, each having a C-shaped cross section, the top sides of which are mutually coupled by a top-plate 8 in an obvious manner, which may slide inside slots 5a,5b in first subcolumn 1 with the aid of dovetail-shaped projections 9a,9b. The insides of profiles 7a,7b are also provided with slots 10a, 10b, having a dovetail-shaped cross section, with the aid of which also for example cover strips may be connected. Fig. 1C finally represents a combined first column 1 and second subcolumn 6 in cross section, where dovetail-shaped projections 9a,9b are positioned inside slots 5a, 5b, therewith realising a strong and yet slidable connection. Possible wiring for for example switches and wall sockets mounted on the cover strips may be conducted through the inside of profiles 7a,7b.

[0014] Fig. 2 represents a combined first subcolumn 1 and a second subcolumn 6 in front view. A bottom side of subcolumn 1 is provided with a base-plate 11, under which a nonslipping layer 12 is glued and a top side of the second subcolumn 6 is provided with a top-plate 13, onto which a nonslipping layer 14 is glued. The position of second subcolumn 6 is locked with respect to first subcolumn 1 with the aid of a locking device 15, in this embodiment consisting of a plate 16 having a dovetail-shaped cross section which can be placed in dovetail-shaped slot 2a subsequently can be brought into the position shown in the figure, after which an eccentrically borne disc 17 can be rotated until it presses against an edge of second subcolumn 6, after which disc 17 can be fixed with a screw 18. Moreover a universal connecting point 19 is shown, consisting of a plate 20 having a dovetail-shaped cross section, which also can be fixed in slot 2a and which is provided with a small column 21 provided with an internal threading with which for example a cover strip can be fixed.

[0015] Fig. 3 schematically represents a possible embodiment of a part of a dividing wall, comprising three columns, consisting of three first subcolumns 1a,1b,1c and three second subcolumns 6a,6b,6c which are clamped between a floor 22 and a ceiling 23 in a way as explained with a reference to Fig. 2. Moreover, the columns are mutually coupled with the aid of transverse sections 24,25 which may consist of standard lengths of the profile of which the first subcolumns are made of, but they may also have an adjustable length, completely similar to the columns. Between the columns and the transverse sections, panels or windows may be placed, in such a way that the dividing wall is completely closed. In subcolumn 1b a wall socket 26 is placed, the wiring of which is conducted through subcolumn 1b and second subcolumn 6b.

[0016] Fig. 4 schematically represents an alternative embodiment of a part of a dividing wall, comprising three columns, consisting of three first subcolumns 1a,1b,1c and three second subcolumns 6a,6b,6c which are clamped between a floor 22 and a ceiling 23 in a way as explained with a reference to Fig. 2. Between subcolumns 1a, 1b a transverse section 24 is installed. Under the transverse section a door 27 is installed and a glass panel 28. The other openings are provided with panels.

[0017] Fig. 5 schematically represents a part of a dividing wall in cross section, with first subcolumn 1b, onto which cover strips 29a,29b are fixed with connecting points 19 and between which panels 30a,30b are clamped. In cover strip 29a, a wall socket 26 installed, the wiring of which is conducted through subcolumn 1b and second subcolumn 6b, not visible in the figure.

[0018] Fig. 6A schematically represents a coupling of a first subcolumn 1b with a transverse section 25 in cross section. The connection is made with the aid of a plate 31 having a dovetail-shaped cross section, which is fixed into slot 4b of first subcolumn 1b and which is provided with a fork 32 that can be placed round the transverse section of first subcolumn 1b.

[0019] Fig. 6B schematically represents a coupling of a first subcolumn 1b with a glass plate 33 in cross section. The connection is made with the aid of a plate 31 having a dovetail-shaped cross section, which is fixed into slot 4b of first subcolumn 1b and which is provided with a looped end 34 onto which glass plate 33 can be fixed.

[0020] Fig. 7A schematically represents a coupling of a door frame 35 with a first subcolumn 1b in cross section. The connection is made with the aid of a plate 31 having a dovetail-shaped cross section, which is fixed into slot 4b of first subcolumn 1b and which is provided with a threaded end with which door frame 35 is fixed in a further obvious manner.

[0021] Fig. 7B schematically represents a part of a extendable panel 36 in cross section. Extendable panel 36 consists of a fixed part 37, in which a top part 38 can slide which is operationally slid up against a ceiling 39, onto which it is fixed with the aid of a gluey layer 40. The niche in top part 38 may be used as a cable duct.

Claims

1. System for realising a dividing wall, comprising columns, transverse sections, panels and frames, **characterised in that** a column comprises a first and a second subcolumn, which are operationally mutually parallel disposed and mutually slidably connected.

2. System according to claim 1, **characterised in that** the first subcolumn and/or the second subcolumn is provided with locking means, for operationally mutually locking the first subcolumn and the second subcolumn in a first operational mode.

3. System according to claim 2, **characterised in that** the first subcolumn is provided with a base-plate which operationally can be placed onto a floor and that the second subcolumn is provided with a top-plate which operationally can be placed against a ceiling.

4. System according to claim 3, **characterised in that** the first subcolumn comprises a profile having an at least substantially H-shaped cross section and the second subcolumn comprises two profiles, each having an at least substantially C-shaped cross section, which are operationally mutually connected by the top-plate.

5. System according to claim 4, **characterised in that** both sides of a transverse section which connects both legs of the first subcolumn are provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section.

6. System according to claim 5, **characterised in that** an inside of a transverse section which connects both legs of an at least substantially C-shaped profile is provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section.

7. System according to claim 5 of 6, **characterised in that** an outside of both legs of the first subcolumn is provided with a slot, disposed in a longitudinal direction and having a dovetail-shaped cross section.

8. System according to claim 7, **characterised in that** the system also comprises coupling means, provided with objects having a dovetailed cross section, for coupling panels, frames and cover strips to the first and/or second subcolumn, using the slots having a dovetailed cross section.

9. System according to one of the previous claims, **characterised in that** the system comprises panels that are extendable in at least one direction.

10. Column, transverse section, panel, frame and coupling means, as part of a system according to one of the claims 1 to 9.

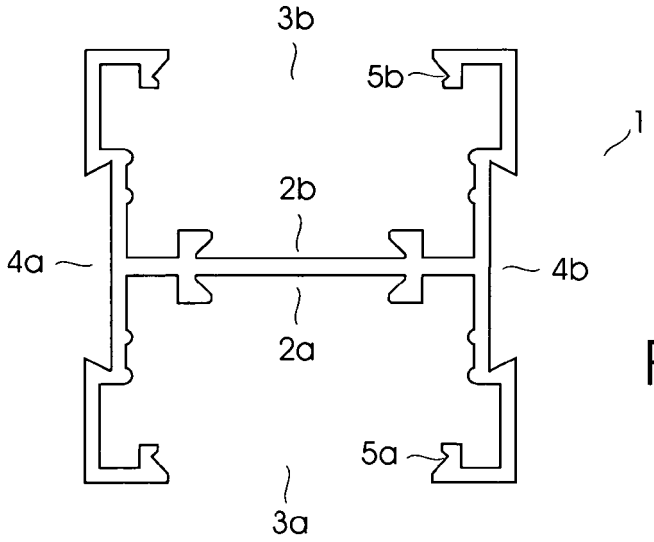

Fig. 1A

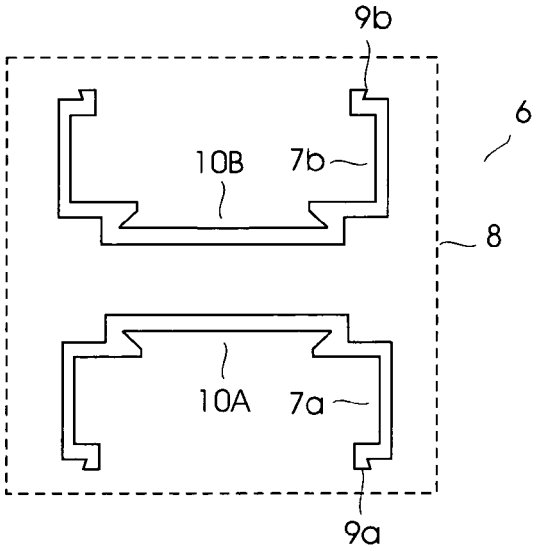

Fig. 1B

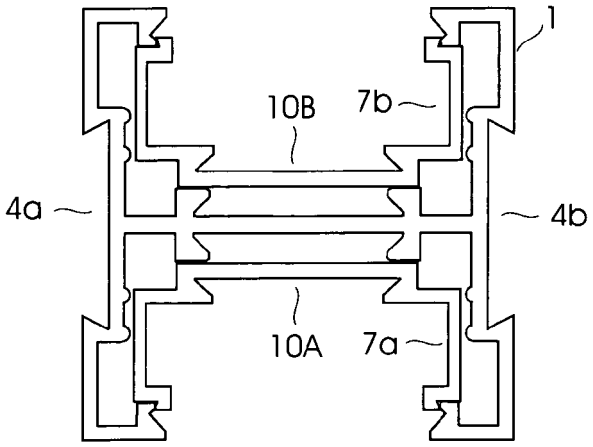

Fig. 1C

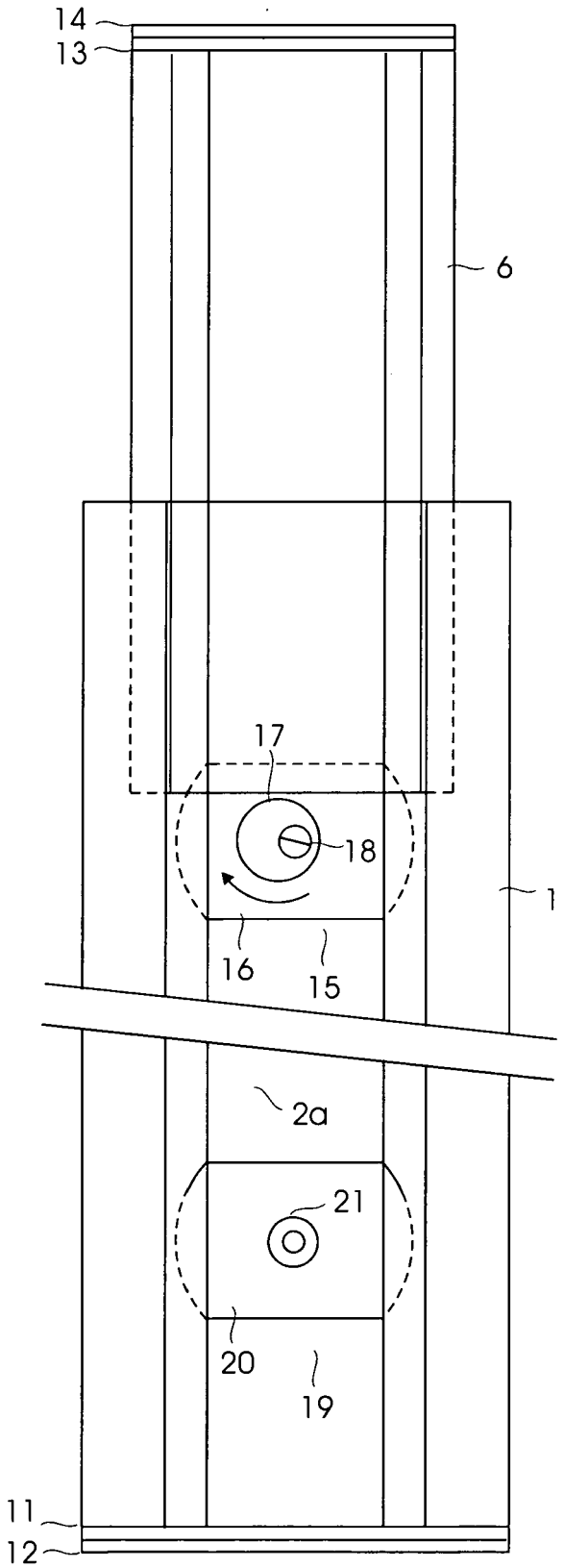

Fig. 2

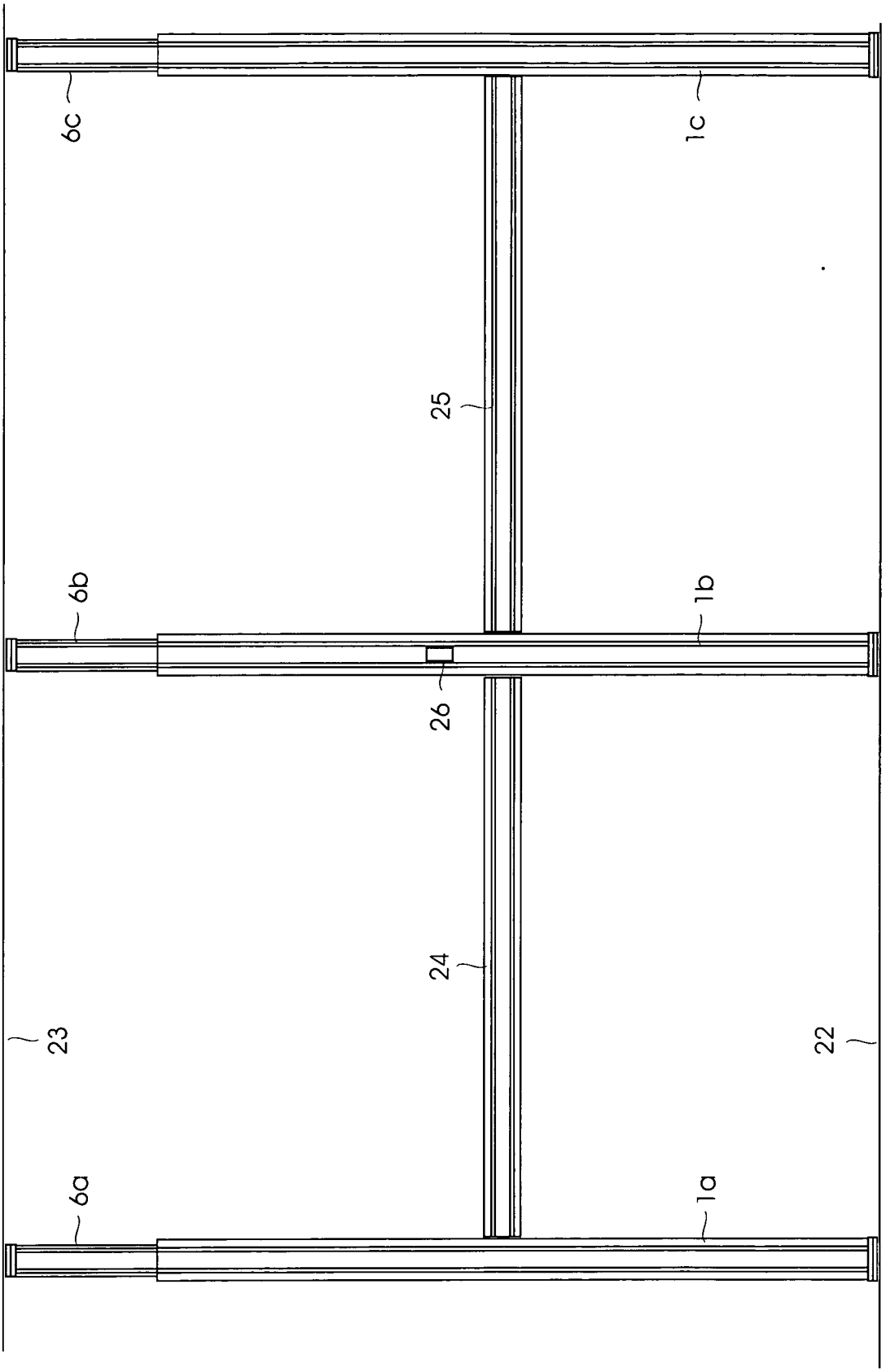

Fig. 3

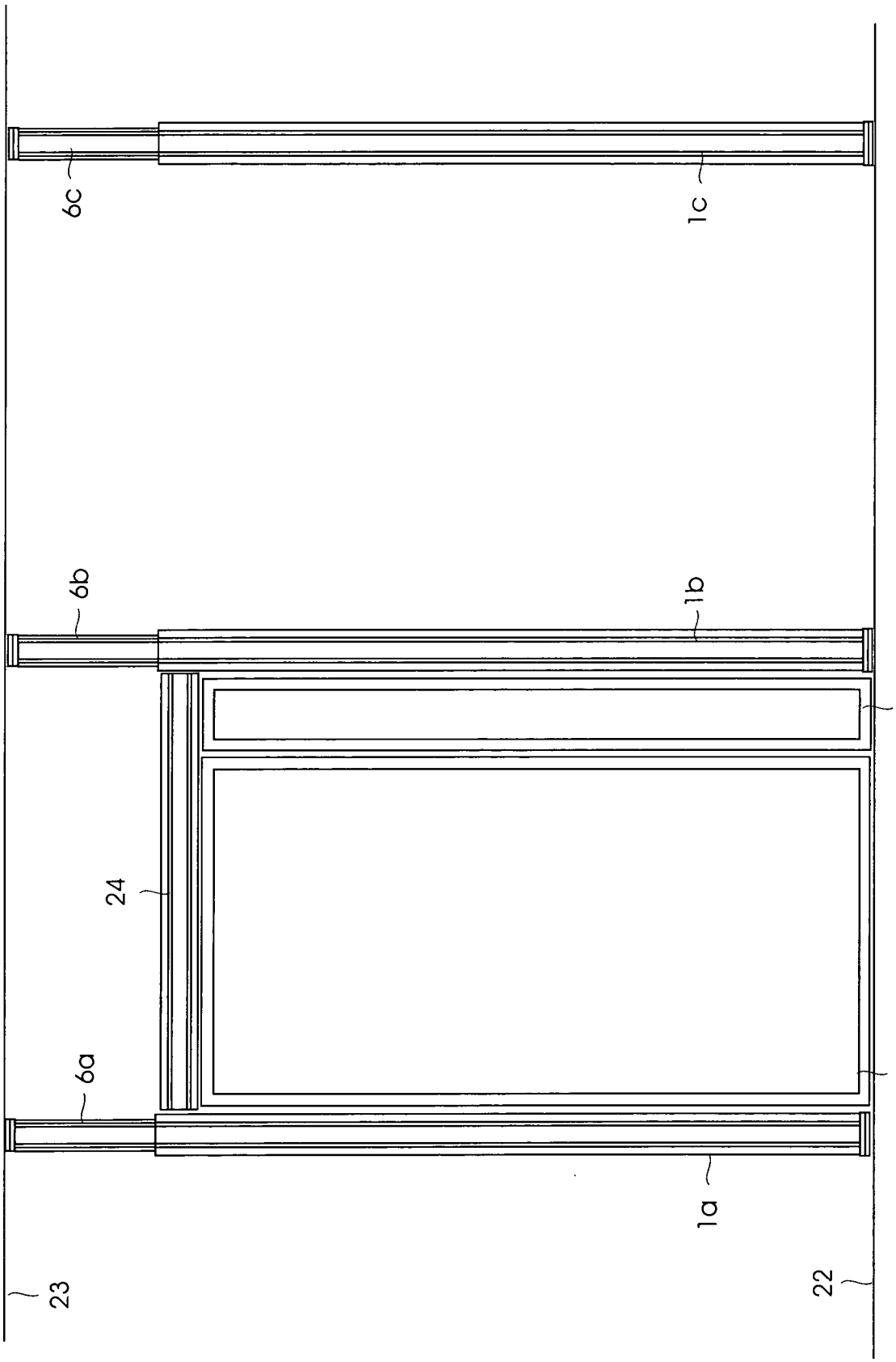

Fig. 4

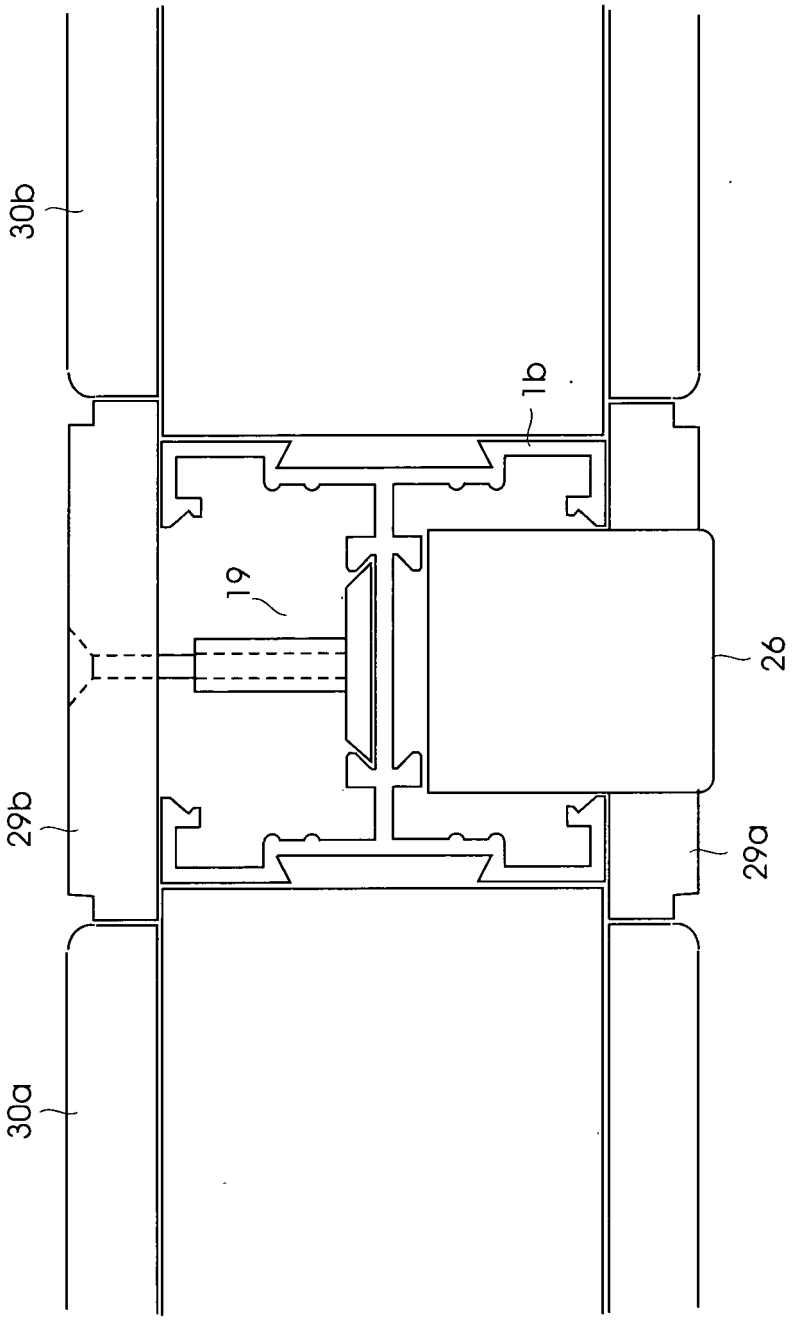

Fig. 5

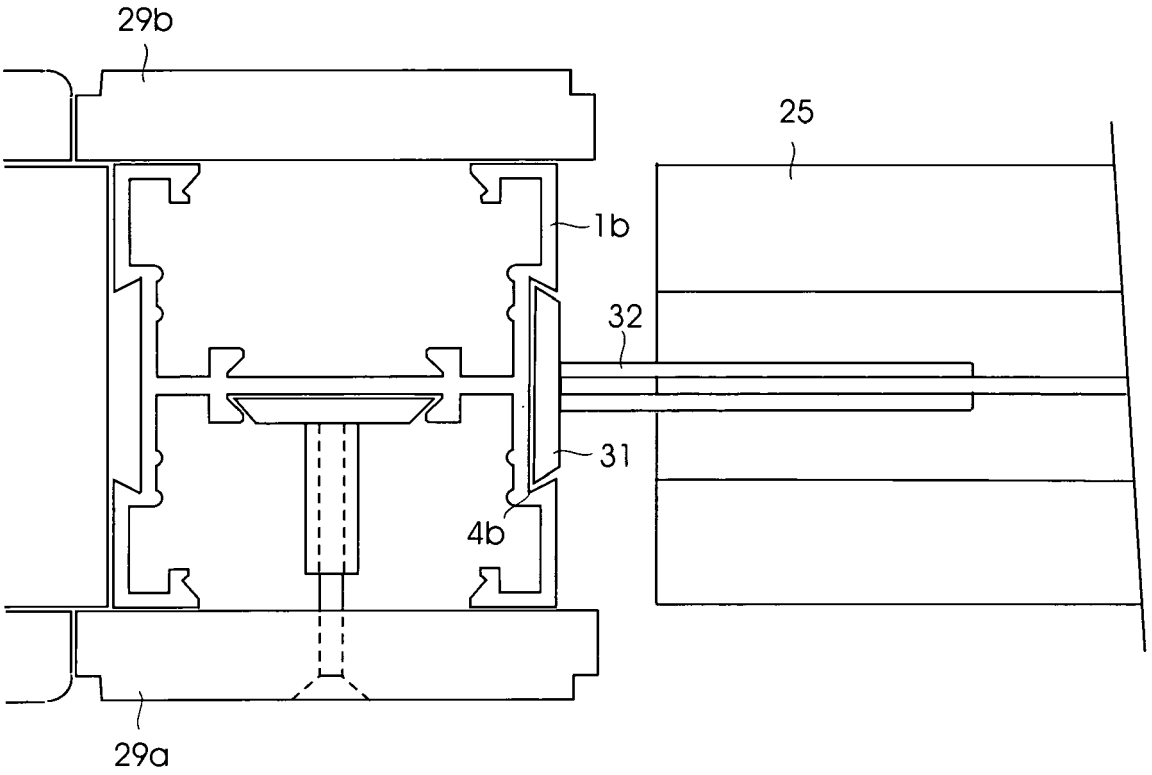

Fig. 6A

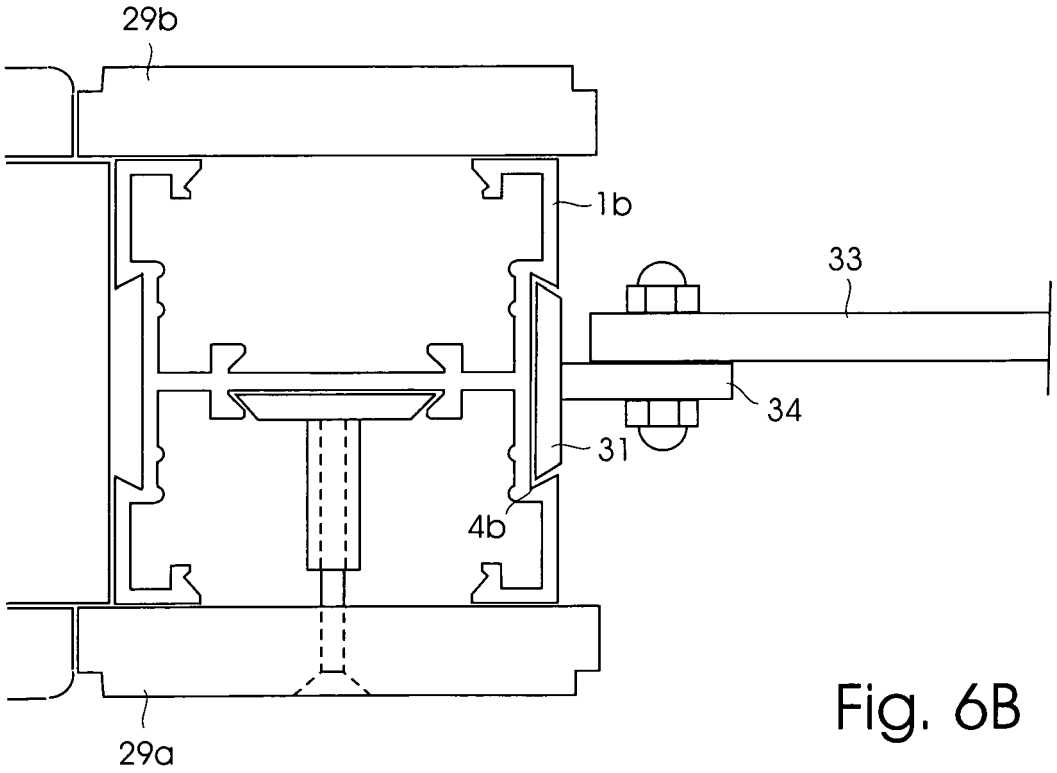

Fig. 6B

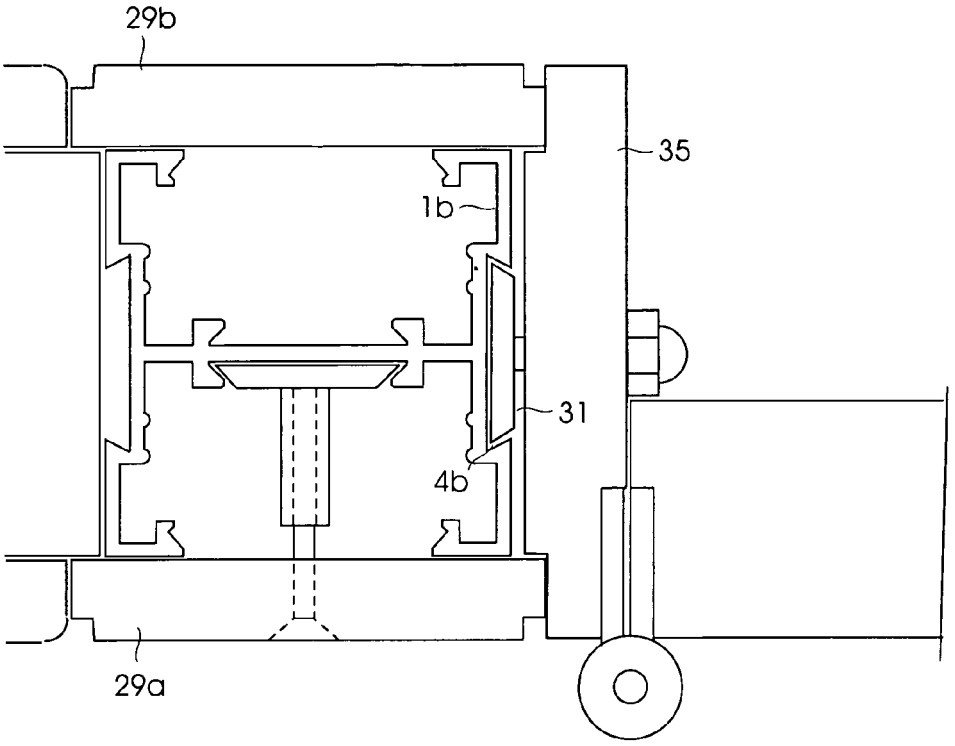

Fig. 7A

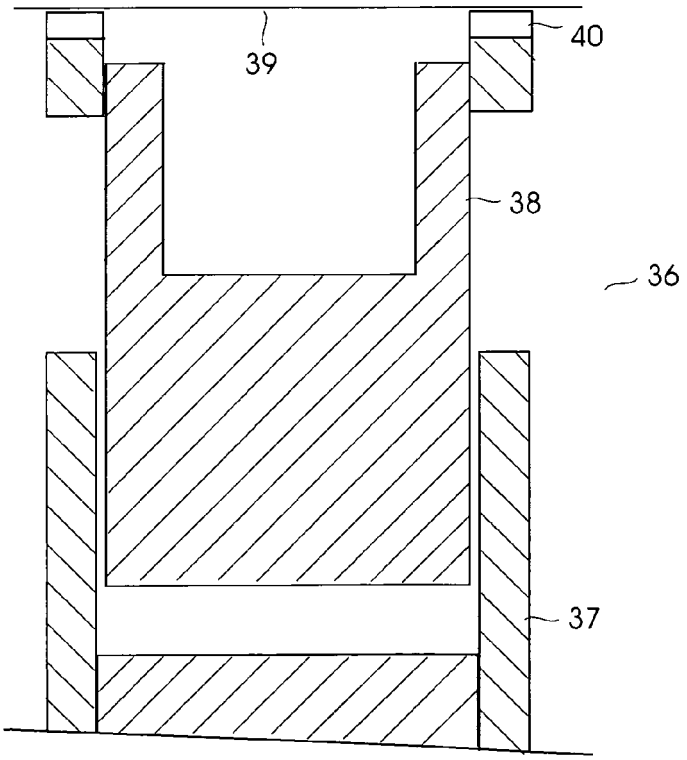

Fig. 7B