

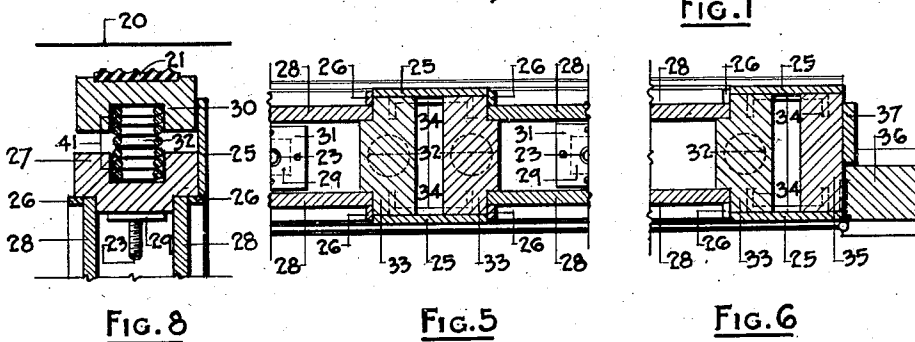
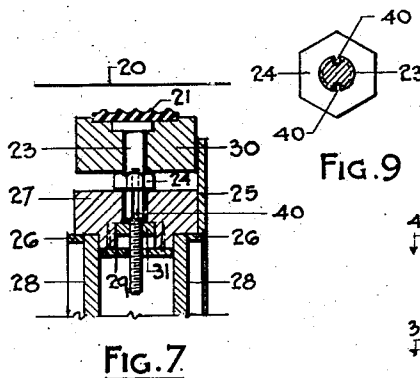
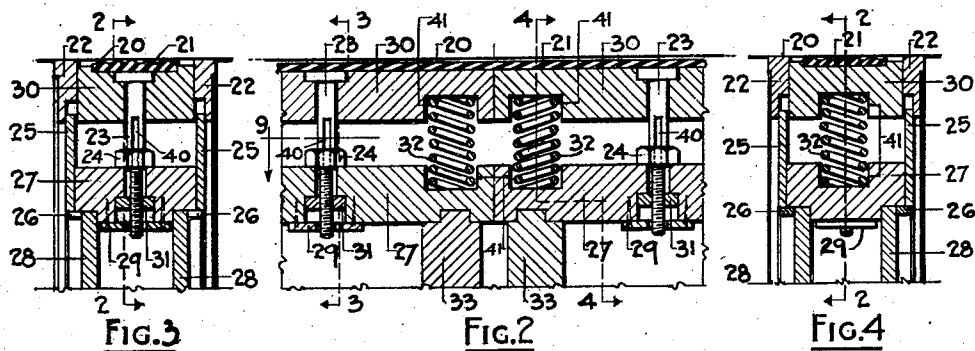
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REMOVABLE PARTITION

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REMOVABLE PARTITION

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2 Claims. (Cl. 20-4)

1.

This invention relates to partitions that are generally provided in buildings to separate large areas into an arrangement of smaller rooms and more particularly to a type of partition that can readily be moved about to obtain a re-arrangement of such rooms.

One of the objects of the present invention is to provide a novel construction for such a partition that is sound-proof and that will permit rapid erection or removal without directly anchoring into and thereby damaging or destroying the existing walls, floors, ceiling or columns of a building.

Another object is to provide cushioning means for taking up irregularities in the surfaces that receive this partition and for insuring the partition against lateral displacement.

A further object is to provide a construction that is suitable for the fabrication of the parts or for the prefabrication of sectional or panel units at a manufacturing place in sizes and forms that could easily be transported to a building, and erected in place at a very reasonable cost.

The above and further objects and novel features of the invention will more fully appear from the following detailed description and the accompanying drawing, it being understood that the drawing is for purpose of illustration only and is not designed as a definition of the limits of the invention.

In the accompanying drawing like reference characters refer to like parts throughout the several views and where arrows appear the views are in the direction of said arrows.

Figure 1 is a small scale elevation of the removable partition as erected in a room.

Figure 2 is a longitudinal section through the frame construction of a partition taken on lines 2-2' of the Figures 3 and 4, showing adjacent partition panels.

Figure 3 is a cross section through the frame of the partition taken on line 3-3' of Figure 2, showing the bolt arrangement.

Figure 4 is a cross section through the frame of the partition taken on line 4-4' of Figure 2, showing the expansion spring construction.

Figure 5 is a cross section through the vertical frame construction of the partition taken on line 5-5' of Figure 1, showing the assembly of adjacent panels.

Figure 6 is a cross section through the vertical frame of a partition panel taken on line 6-6' of Figure 1, showing the assembly of adjacent panels where a door occurs.

Figure 7 is a cross section through the frame of a partition identical with the section represented by Figure 3, but with the outer frame in a contracted position, characteristic of the frame construction before installation or erection.

Figure 8 is a cross section through the frame of the partition identical with the structure rep-

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resented by Figure 4, but with the outer frame in a contracted position, characteristic of the structure before its erection.

Figure 9 is a cross section through the body section of the bolt taken on line 9 of Figure 2.

In the existing art partitions referred to as being of the removable type, are erected in place by drilling or cutting slots or holes in the floor, ceiling and side wall construction of a building for the purpose of fastening thereto by anchors, a member that is intended to form a base for the erection of either built-in-place or prefabricated partition panels and, whenever it is necessary to remove such a partition the floors, walls and ceilings are generally in need of repairs to fill the slots or holes and to correct the damages caused by the previous installation of such a partition.

It is one of the main purposes of this invention to so construct the partition panels as to make it possible to install this partition by expanding certain marginal members of the frame that are provided with cushions of firm flexible material against the existing floors, walls, and ceilings with a pressure sufficient to rigidly secure such partition panels against all movement without in any way necessitating the cutting or marring of the surface finish of the said walls, floors and ceilings.

The partition construction consists primarily of an inner frame formed by the vertical members 33 identical for both sides of each panel, the horizontal members 27 identical for both the top and bottom of each panel; and outer expanding frame members 30 identical for the top and bottom of each panel and also for the side member of a partition panel where it is intended to place same in contact with a wall, pier or pilaster.

The inner and outer frame members of each panel are held together and in alignment by a number of retaining bolts and expanding springs; usually not less than two of each to each side of a panel of a partition.

The retaining bolts 23 are of sufficient length to permit a reasonable movement for the outer expanding frame member 30 in relation to the inner frame member 27 without permitting the threaded ends to lose contact with the retaining nuts 31.

The body section of the retaining bolts 23 are slotted lengthwise at 40 to form keyways that are engaged by splines of relative dimensions integral with the operating nuts 24 which are slideably mounted on said bolt body.

The retaining nuts 31 are preferably square and are slideably mounted in a corresponding square cut pocket in the inner frame 27 that will prevent their turning, and are retained in said pocket by the cover plates 29 secured by nails or screws to said inner frame 27.

Expansion coil springs 32 are interposed between the inner and outer frame member of the partition panel and are held in position within the circular cuts 41 in both frames.

The retaining bolts 23 are turned by the operating nuts 24 for compressing the expansion springs 32 or releasing their expanding force to change the position of the outer frame member in relation to the inner frame member.

The frames are usually finished with a panelling material 28 such as plywood, hardboard or other such fabricated thin members which are fastened along the edges of the inner frame members 27 and 33 fully enclosing the framing members.

The finishing members 25 and 22 are not generally attached to the panels until after they are erected, thereby giving access to the mechanism used for expanding the outer frame members.

These members 25 and 22 are usually cut to the proper dimension and delivered to the site of the installation in bundles.

The outer expanding frame members 30 of the partition panels are provided with a ribbed cushion 21 of rubber or similar firm flexible material intended to form a soft but firm and non-slip contact with the surface of a floor, wall or ceiling as represented by the line 20 in all figures.

Where two prefabricated panels are joined to form a continuous partition the outer expanding member 30 is omitted and the adjoining inner vertical frame members 33 are locked together by the clamps 34 let into the frames flush with the surface, readily covered and held in place by the finishing cover members 25 as shown in Figure 5.

Construction similar to that described for adjoining panels is used where panels are joined to a door or window frame structure as illustrated in Figure 6, with the door panel frame represented by the member 35, the door by the member 36 and the door stop by member 37.

The method for the installation of these partition panels can readily be understood from a comparison of the Figures 7 and 3 and of the Figures 8 and 4, respectively.

Assuming that these panels are prefabricated, they will reach the point of installation with the outer expanding frame members compressed against the inner frame members, as illustrated in Figures 7 and 8, the retaining bolts 23 and nuts 31 acting against the expanding force of the spiral springs 32.

In the compressed position, the partition panels are usually of a lesser dimension than the distance between the surfaces that they are intended to contact, bear against and frictionally anchor to.

The partition panels are set in position and the retaining bolts 23 are turned by means of a wrench actuating the operating nuts 24 to withdraw the threaded portions of bolts 23 from the retaining nuts 31 and thus permit the springs 32 to expand with their force exerting a strong pressure against the outer expanding frame member 30 and through same against the ribbed cushion 21 and through same against the floor, ceiling or wall surfaces 20 to which surfaces frictional anchorage is obtained.

When these outer members 30 are thus expanded and surface pressure is fully developed between the cushions 21 and the supporting surfaces 20, the resultant lateral resistance will be sufficient to prevent a possible displacement of the partition panel by any external pressure incidental to reasonable occupational operations within a building.

It is possible that the cushion 21 may have fric-

tion surfaces other than those shown such as cups, square or diamond ridging or irregular patterns and that the panelling may be constructed of metal or other materials without departing from the scope of my invention.

Although I have shown certain preferred embodiments of my invention I desire it to be understood that I do not wish to be limited thereby as changes and variations may be made therein without departing from the essence of the invention or the spirit and scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a removable partition of the character described, partition panels consisting of a panelled and rigid inner frame, expanding marginal members with cushions of firm flexible material disposed around the inner frame, a plurality of expansion coil springs interposed between the inner frame and the expanding marginal members, a plurality of retaining bolts disposed between the said coil springs connecting and aligning the inner frame with the expanding marginal members, a non-turning threaded retaining nut on the free end of the bolt held slidably in a pocket of the inner frame, and a keyed operating nut slidably mounted on the slotted bolt shank for the purpose of turning said bolt to restrain, release and otherwise regulate the expansive force of the coil springs prior to and during the installation of the partition panels for the purpose of obtaining for said panels a secure bearing by spring pressure against the supporting surfaces as set forth herein.

2. A removable partition comprising inner panels bordered by marginal members mounted for movement towards and away from said panels, cushions secured to said members, said members being between the cushion and the panels, a plurality of regulating bolts with a retaining nut at one end connecting the panels with the marginal members, the bolt being mounted for turning movement in one of the connected elements and the nut being mounted for sliding movement only and for a limited extent in the other of the elements, a plurality of expansion coil springs interposed between the panels and the marginal members, urging said marginal members away from said panels, and an actuating element slidably keyed to said bolt to rotate same and thereby adjust the relative position of the marginal members and the panels and regulate the expansive force of said springs and release said force to provide a bearing by the marginal members against supporting surfaces with such pressure as to provide secure frictional anchorage and prevent lateral displacement of the removable partition.

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