

May 14, 1935.

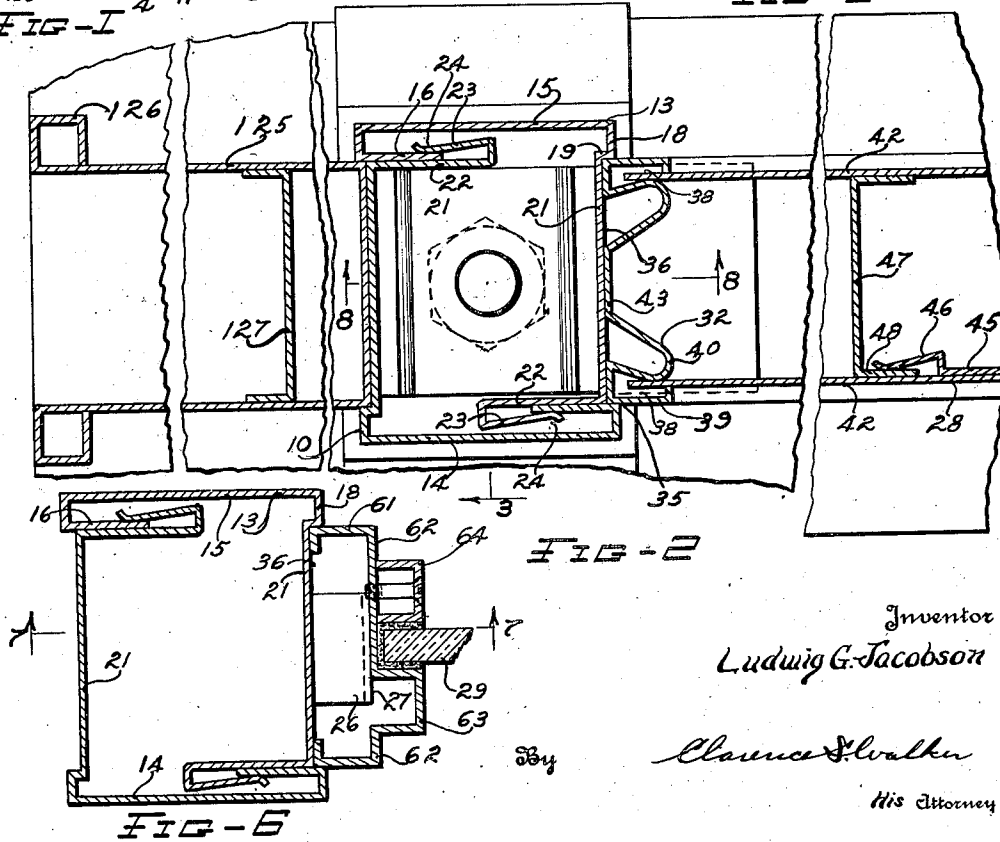
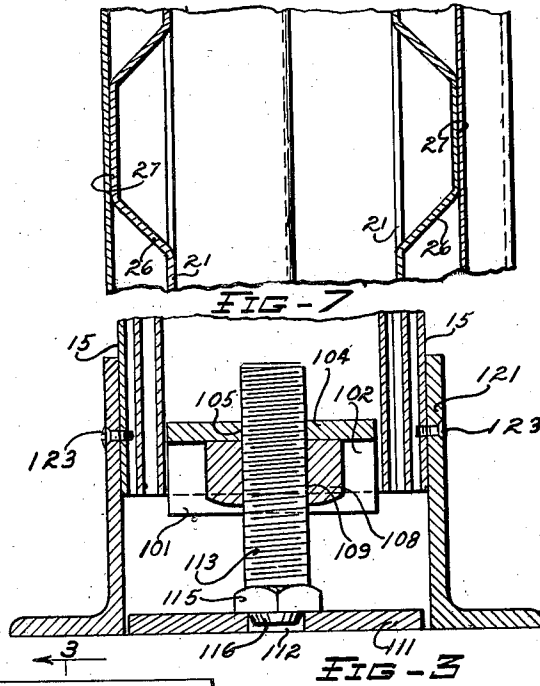
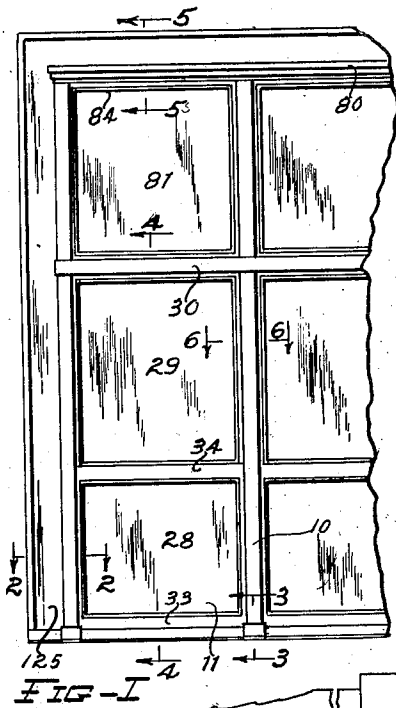
L. G. JACOBSON

2,001,574

METAL PARTITION

Filed Nov. 8, 1929

2 Sheets-Sheet 1



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METAL PARTITION

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2 Sheets-Sheet 2

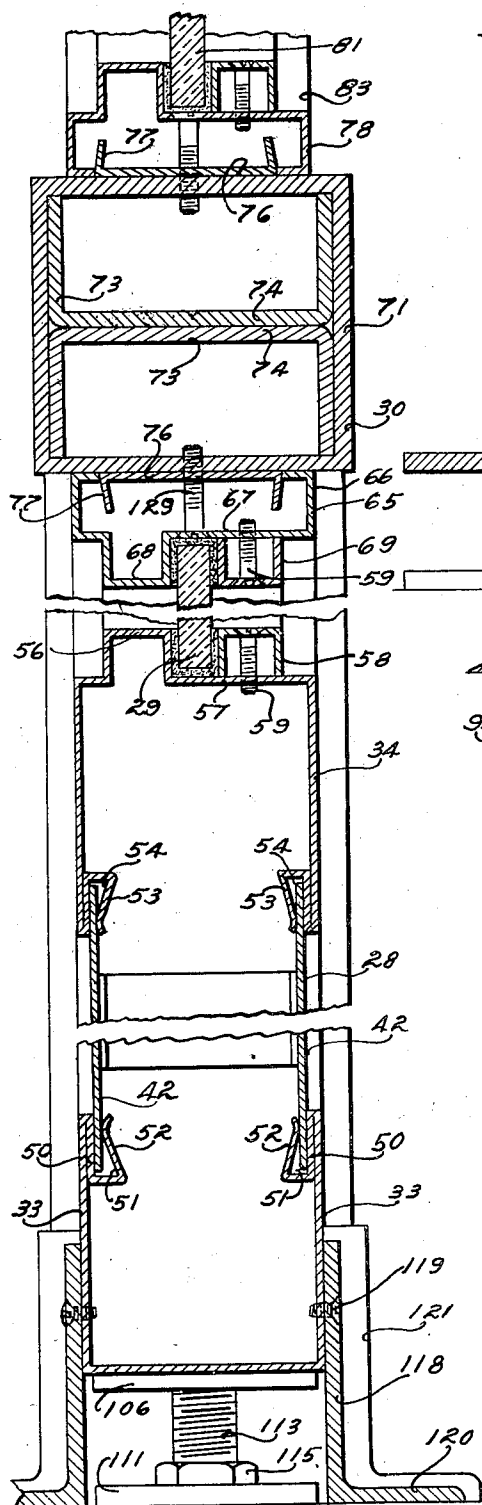


FIG-4

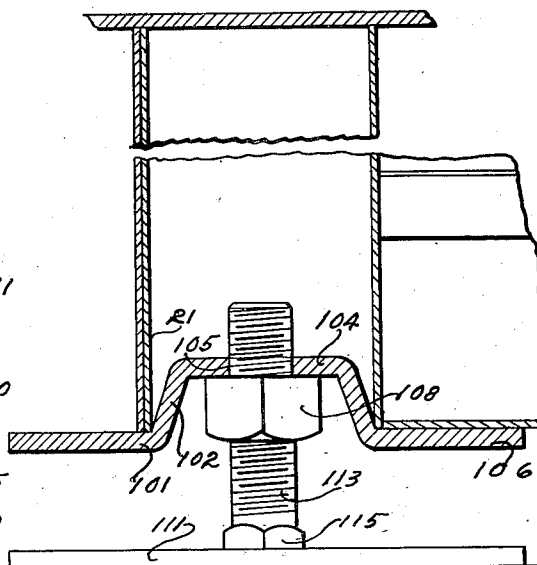


FIG-5

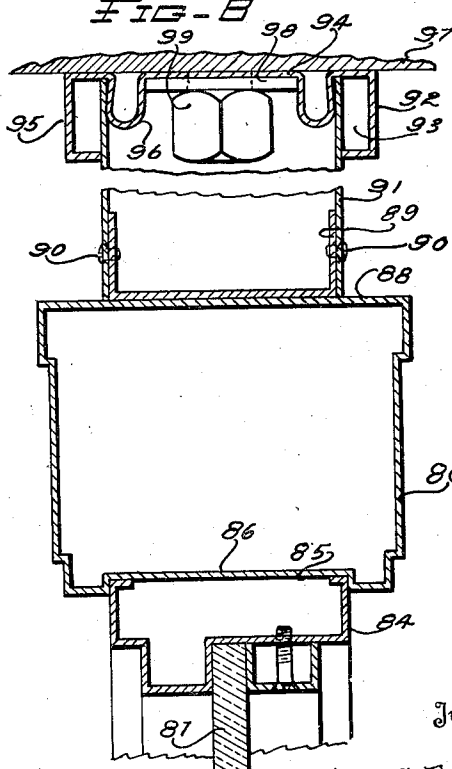


FIG-6

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## UNITED STATES PATENT OFFICE

2,001,574

## METAL PARTITION

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to Dahlstrom Metallic Door Company, James-  
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Application November 8, 1929, Serial No. 405,643

16 Claims. (Cl. 189—34)

This invention relates to an improvement in metal partitions and more particularly to the construction details and method of assembly.

The preferred embodiment of this invention provides two-element pilasters joined to frame or panel elements and adapted to be removably engaged to create full inter-changeability of units.

Prior to this invention the practise in metal partition manufacture has been to provide frame units and pilasters, said units being in one fashion or another, removably supported between adjacent pilasters. This type structure resulted from the belief that insufficient partition support could be attained in any other manner than by providing rugged pilasters or posts by which to anchor to and support frame units.

The following specification discloses a metal partition having for its principal object the provision of fully interchangeable frame and pilaster units.

Another object of this invention lies in the provision of duplicate pilaster elements, one of which bounds the vertical edge of each frame unit.

A further object of this invention lies in the provision of expansion members by which to removably support the frame units and pilasters in fixed engagement with floor and ceiling.

Other and further objects of this invention will be understood when reference is had to the following specification in conjunction with the accompanying drawings and in which;

Fig. 1 is a front elevation of one modification of this invention assembled for use;

Fig. 2 is an enlarged horizontal sectional view showing pilaster and frame assembly, being taken on the line 2—2 of Figure 1;

Fig. 3 is a vertical sectional view through a pilaster showing an adjustable support therefor and is taken on line 3—3 of Figure 2;

Fig. 4 is an enlarged vertical sectional view through the frame units being taken on the line 4—4 of Figure 1;

Fig. 5 is a vertical sectional view through a rail and adjacent panels showing that portion of the structure not included in Figure 4;

Fig. 6 is a horizontal sectional view, taken on line 6—6 of Figure 1, and shows the method of joining frame and pilaster elements;

Fig. 7 is a horizontal sectional view, taken on the line 7—7 of Figure 6, further showing the connection between pilaster and frame elements; and

Fig. 8 is a vertical section through a pilaster showing the adjustable mounting therefor.

Referring to the drawings this invention is shown comprised of pilasters indicated by the reference numeral 10 between which are supported panel and frame units 11. Each pilaster is comprised of a pair of identical and oppositely disposed elements 13 and 14. The element 13 is formed to provide a vertical face 15, one longitudinal edge of which is terminated by a spaced reverse flange 16. The other vertical edge of the face is ended in a short flange 18 which, from the shoulder 19, is continued in the flange 21. From the shoulder 19, the flange 21 extends approximately the thickness of the partition wall and terminates in a right angle flange 22. The flange 22 is formed with a reversely disposed clip 23, the end 24 of which closely approaches the wall of said flange. Inasmuch as the elements 13 and 14 are identical, reference numerals applied to one element represent corresponding parts of the other element. Formed in the flange 21 of each element are a series of projections or shoulders 26. Each of these shoulders is formed with a flat face 27 against which the inner wall of the hereinafter described frame elements abut.

Metal and glass panels 28 and 29 are mounted in frames located between adjacent pilasters. A head rail or subcornice 30 is mounted above the glass panel 29. The side rails 32, from the lower horizontal rail 33 to the intermediate horizontal rail 34, are formed substantially as shown in Figure 2, being shaped to create shoulders 35 which fit into a recess 36 in the flange 21 of the pilaster element. Pockets 38, formed jointly by the flanged walls 39 and looped portions 40, are adapted to receive panel elements 42. A flat central portion 43 of the rail is adapted to abut the flange 21 of the pilaster when said elements are joined, being secured to said pilaster in any suitable manner as by welding. Secured by the flange 45, to one of the panel elements 42, is a clip 46. Fastened to the other panel element is a channel member 47 having a flange 48 thereon engaged between the clip 46 and the wall of the opposite panel element by which to spacedly join said elements together. The lower horizontal rail 33 is formed with reversed flanges 50 by which pockets 51 are created. The inner wall 52 of the pocket closely approaches the flange 50. The panel elements 42 are frictionally engaged with the lower horizontal rail 33 by the flanges 50 and walls 52. The intermediate horizontal rail 34 is formed with double reversed flanges 53 providing pockets 54 along the lower edge thereof. The upper edges of the panel elements 42 are received within the pockets 54. It will be noted from the description thus far that

each panel element 42 is frictionally engaged with the side rails 32 and also with the lower and intermediate rails 33 and 34. Inasmuch as the panel elements 42 are formed from metal, it is contemplated that there will be no occasion to remove them from their frame and no removable means therefore is shown.

The intermediate horizontal rail 34 is formed with a raised shoulder 56 in the face 57 thereof. A moulding 58, secured by screws 59 to the face 57, is adapted to retain the glass panel 29 against the shoulder 56. The vertical rails, above the intermediate horizontal rail 34, are formed with flanges 61 receivable in the recess 36 of the pilaster wall. A face 62 is terminated along one side of this rail by a shoulder 63. A removable moulding 64 constitutes a second shoulder by which to engage and support the glass panel 29. While the portion of the rail, which supports the glass panel 29, is made up of separate and distinct elements from that portion of the rail supporting the panel 28, it is contemplated to join all of said elements together to constitute a continuous vertical rail receivable in the recess 36 in the pilaster wall. The face 62 of the rail portion just described, being somewhat removed from the flange 21 of the pilaster, is engaged with said pilaster by contact with the faces 27 and is welded or otherwise secured thereto. It will be noted that the structure, along the upper face of the intermediate rail, is substantially identical with that of the vertical rails. The horizontal element 65, which engages the upper portion of the glass panel 29, is shaped identically with the portions of the vertical rails engaging said panel, being formed with flanges 66, face 67 and shoulder 68. A moulding 69 is removably joined to the face 67 by screws 59.

Above the element 65 is located the subcornice 30, extending the full partition length and shown in one embodiment formed from rectangular tubing 71. Within the tubing are two inverted channel members 73 welded together along their base walls 74. The flanges of the channels engage the upper and lower walls of the tubing 71 and reinforce said tubing against buckling or twisting when the partition is subjected to any strain. Secured by welding to the upper and lower faces of the tubing 71, are clips 76 having converging flanges 77. The clips 76 are adapted to align the horizontal rail element 65 beneath the tubing and a second horizontal rail element 78 above the tubing, the intumed flanges of said rail elements engaging the converging flanges 77 of the clips.

Between the subcornice 30 and the ceiling cornice 80 is located another panel 81. This panel is secured to the horizontal rail 78, vertical rails 83 and upper horizontal rail 84. The vertical rails 83 are joined to the pilaster flange 21 by welding or otherwise suitably securing the face thereof against pilaster faces 27. The cornice 80 is formed with a longitudinally extending depression 85 in the lower wall 86 thereof. Into this depression the horizontal rail 84 is fitted. Mounted centrally of the edges on the upper face 88 of the cornice, and secured thereto by welding, is a channel plate 89. The filler panels 91 are moved upwardly into engagement with pockets 93, of the ceiling rail 92 and joined to the plate 89 in any preferred manner as by screws 90. A flange 94, spaced from the outer walls 95 by curved walls 96, abuts the ceiling 97. A reinforcing plate 98 is mounted against

the under face of the flange 94 and anchor bolts 99 firmly secure the rail 92 to the ceiling 97.

Reference is now had to Figures 3, 4 and 8 wherein is shown the structure by which each pilaster is supported. Beneath flanges 21 of the pilaster elements is a bracket 101. Between the pilaster walls the bracket is formed with upwardly and inwardly sloped walls 102 which join together in a flange 104. An opening 105 is located centrally of the flange 104. The end flanges 106 of the plate extend beyond the flanged walls 21 of the pilaster to form a substantial seat for each panel unit which, as stated above, is comprised of spaced pilaster elements and a frame. Secured to the under face of the flange 104 is a nut 108, the threaded opening 109 therethrough being centered with the opening 105 of the flange 104. Beneath each pilaster, and secured in any desired manner to the floor, is a base plate 111 in which is formed a central opening 112. An adjusting and supporting bolt 113 is threadably engaged with the nut 108. The lower end of the bolt 113 is formed with a hexagonal head 115 beneath which projects a centered shoulder 116. The shoulder 116 is seated in the opening 112 of the plate 111. Rotating the bolt 113, by means of the head 115, causes the nut 108 and plate 101 to move upwardly or downwardly.

The supporting structure just described is of sufficient strength to not only carry the load of the partition but be capable of moving each unit upwardly into close engagement with the ceiling. When the partition has been adjusted by the bolt 113 to engage the ceiling, a gap between the base thereof and the floor occurs. The gap beneath the frame is closed by a mop strip 118 which is secured in any suitable manner to the lower rail 33 of said frame as by screws 119. A flange 120 is formed at right angles to the mop strip 118 and engages the floor, being secured thereto if desired. The gap, between the base of each pilaster and the floor, is concealed by pilaster plates 121 which are joined to the vertical faces 15 of the pilaster elements 13 and 14 by screws 123. The plates 121 are of slightly increased size in order that, when mounted against the face 15, they will overlap adjacent mop strips 118.

The pilaster element, adjacent the building wall, has secured thereto a wall filler member 125. This member is channel formed and provided with finish shoulders 126 along the flanges thereof. The closed end of the filler member is welded or otherwise suitably joined to the flange 21 of the pilaster element. A channel bracket 127 is mounted within and strengthens the walls of the filler member.

To assemble a partition constructed in accordance with this invention, the following method will be found most expedient. Each frame or removable partition unit is comprised of two oppositely disposed pilaster elements between which are located panels 28 and 29. Prior to erecting the partition, base plates 111, bolts 113 and plates 101 are positioned, the number thereof corresponding with the number of pilasters occurring in the partition wall. When these supporting member have been mounted on the floor, the partition units may be assembled. This is accomplished by engaging the flanges 16 of the pilaster elements with the clips 23 of the opposite elements and moving to a position such that the flanges 21 of the elements rest upon the flanges 106 of the plate 101, adjacent the sloped walls 102. Since it is contemplated that the pilaster

elements will closely engage each other, it may be that said elements, when united, will form a pilaster of incorrect size, that is, flange 21 of one element will rest on the sloped wall 102 and flange 21 of the next adjacent pilaster will fail to engage the base of the adjacent sloped wall 102. Correction to the desired pilaster size is had by rotating the bolt 113 which causes the plate 101 to move upwardly into said pilaster, separating the flanges 21 until the desired dimension has been reached.

Subsequent to the erection of the partition units, the subcornice is mounted, being engaged with the horizontal rails 65 through the elements 76. Should it be found necessary to more firmly engage the subcornice with the partition units, screws 129 are provided by which engagement is had between the rail element 65 and the lower wall of the subcornice. Above the subcornice and removably engaged therewith, along the flanges 77 of the clip 76, are further panel units. Each of these units is comprised of spaced and oppositely disposed pilaster elements between which vertical and horizontal rails and panel 31 are located. When the pilaster elements 13 and 14 of adjacent units are engaged and adjusted to their proper position, the full cornice 80 is mounted thereon. The ceiling rail 92 is secured to the ceiling by bolts 99 after which the filler panels 91 may be mounted, being engaged within the recesses 93 and secured to the panel plate 89 by screws 90.

It will be noted that the subcornice extends unbroken the full length of the partition and constitutes a rigid and unyielding support to the entire assembly. It will be noted further that the partition units, located beneath the subcornice, are removable irrespective of the structure above said subcornice. A partition unit may be removed by first removing the mop strip 118, and pilaster plates 121. Access may now be had to the adjusting bolt 113 which, when rotated in a counterclockwise direction lowers the unit. When said unit has moved downwardly upon the bolt 113 approximately one-half inch, the upper rail element 65 will be free from the channel clip 76. The unit is then moved laterally, first one direction and then the other, to disengage the pilaster elements.

While applicant has shown and described but one modification of this invention, it will be understood that other adaptations of the pilaster and frame structure herein shown and described, may be made without departing from the spirit and scope of the invention as set forth in the hereunto annexed claims.

Having thus set forth my invention what I claim as new and for which I desire protection by Letters Patent is:

1. In partition construction, a pilaster comprised of two identical elements, means removably engaging said elements, panel frames permanently joined to and supported by said pilaster elements, and means in said pilaster adapted to adjust said pilaster elements laterally a predetermined distance relative to each other while said partition is assembled.

2. In partition construction, diagonally split two element pilasters, means adjustably and removably joining said elements together, panel frames bounded by and permanently joined to elements of adjacent pilasters, a partition length cornice engaging said panel frames and an adjusting device supporting said pilasters, said device being adapted to move said pilaster elements

vertically and laterally relative to each other and to a floor whereby to engage said pilasters and said frames with said cornice.

3. In partition construction, pilasters, identical interengaging elements forming each of said pilasters, frame units bounded vertically by and permanently joined to oppositely disposed elements of adjacent pilasters, brackets supporting said pilasters and said frames, bolts threadably engaged with said brackets and means adapted, when said bolts are rotated in one direction, to move said pilaster elements laterally apart a distance defined by said brackets.

4. In partition construction, interengaging duplicate elements forming a pilaster, frame units bounded vertically by and permanently joined to elements of adjacent pilasters, brackets supporting said pilasters and said frames, bolts mounted on a floor and threadably engaged with said brackets, sloped wall projections formed centrally of said brackets and adapted, when said bolts are rotated in one direction to move upwardly causing said interengaged elements to move laterally apart a distance equal to the distance between bases of said projections.

5. In partition construction, a pilaster comprising substantially duplicate elements, a clip terminating one vertical edge of each of said elements, a flange terminating the other vertical edge of each of said elements, said clips being disposed opposite to and adapted to adjustably and releasably engage said flanges.

6. In partition construction, a pilaster comprising two elements, means removably engaging said elements, and an adjusting device engageable with said elements and adapted to move said elements laterally relative to each other while said partition is assembled.

7. In partition construction, a pilaster comprising removably engaged elements, an adjusting device for said elements, said device including a bracket supporting said elements, and a bolt for moving said bracket vertically to adjust said elements laterally apart relative to each other.

8. In partition construction, a hollow pilaster comprising relatively adjustable engaged elements, a sloped wall bracket projecting into said pilaster and supporting said elements, and a bolt for moving said bracket into said pilaster to adjust said elements laterally apart relative to each other.

9. In partition construction, a pilaster comprising substantially duplicate elements, a clip terminating one vertical edge of each of said elements, a flange terminating the other vertical edge of each of said elements, said elements when united forming walls defining oppositely opening panel frame recesses.

10. In partition construction, a subcornice, a channel clip joined to one face of said cornice, a panel frame, walls defining a longitudinally extending recess in the outer face of said frame for receiving said clip and vertically aligning said cornice and said frame.

11. A pilaster comprising a pair of identical elements, means securing said elements together, and further means in said pilaster, said further means serving to adjust said elements laterally relative to each other.

12. In partition construction, a pilaster comprising a pair of identical elements, means removably engaging said elements, and further means in said pilaster, said means serving to adjust said elements laterally and to cause said elements to carry a portion of the load from the ceiling.

13. In partition construction, pilasters, panel

frames supported by said pilasters, panels in said frames, and clips on the inner edges of said frames for frictionally and adjustably supporting said panels relative to said frames.

5 14. In partition construction, a sectional unit having a base member along the bottom edge thereof, and a floor clamp adjustably supporting said sectional unit, said floor clamp comprising a base portion, a threaded stud portion projecting  
10 upwardly from said base portion, and a supporting plate threaded over said stud portion, said supporting plate being operatively connected to the base member of the sectional unit.

15 15. In combination, a sectional partition unit comprising spaced uprights, a base board connected to said uprights, a horizontally extending reinforcing member connected to said base board, and a floor clamp at each end of said sectional

unit engaging said reinforcing member and adjustably supporting the unit.

16. In combination, a sectional partition unit comprising spaced uprights, a base board connected to said uprights, a horizontally extending reinforcing member connected to said base board, and a floor clamp at each end of said sectional unit adjustably supporting the unit, each of said floor clamps comprising a base portion, a threaded stud portion projecting upwardly from said base portion, and a supporting plate threaded over said stud portion, said supporting plate seating under and engaging said reinforcing member so as to raise and lower the unit with corresponding adjustment of the supporting plate.

LUDWIG G. JACOBSON.