Nov. 5, 1935. W. G. HULT ET AL 2,019,977

PARTITION CONSTRUCTION

Filed Feb. 8, 1932 2 Sheets-Sheet 1

Fig. 1

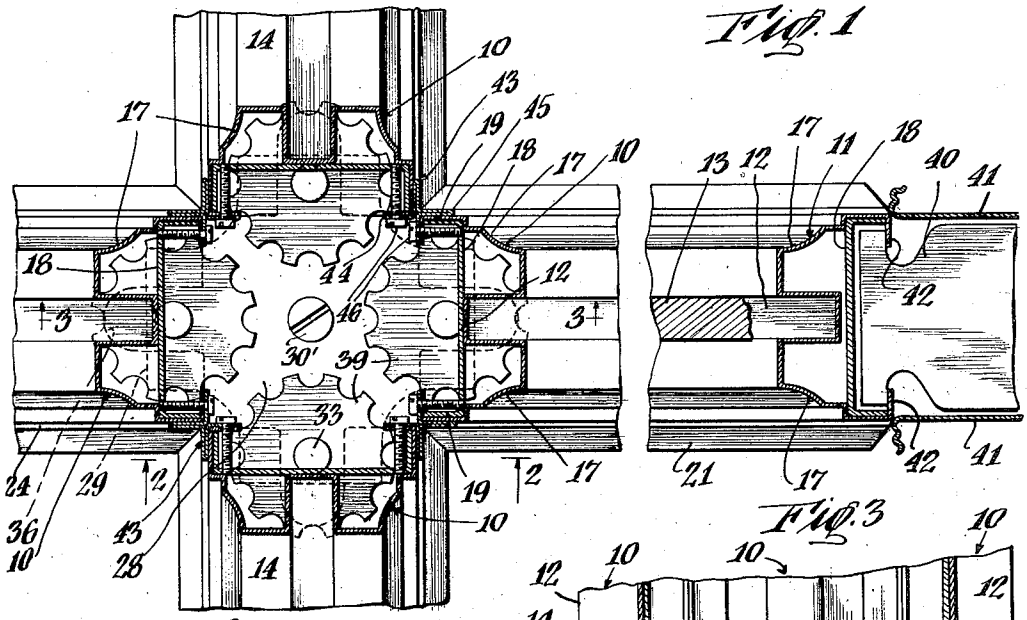

Fig. 2

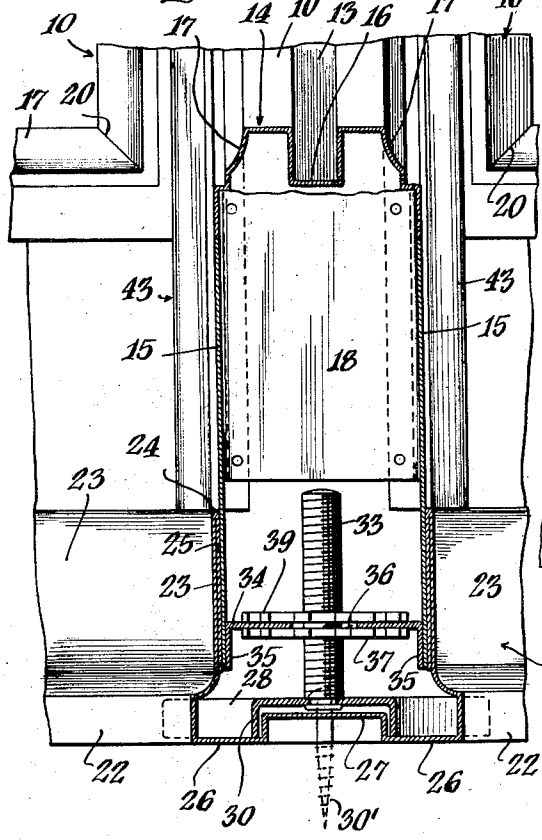

Fig. 3

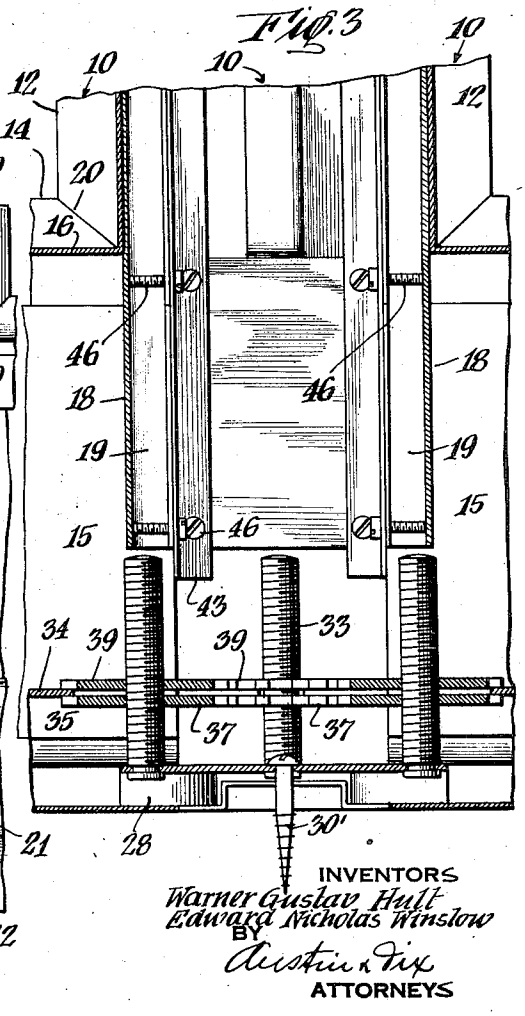

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Fig. 4

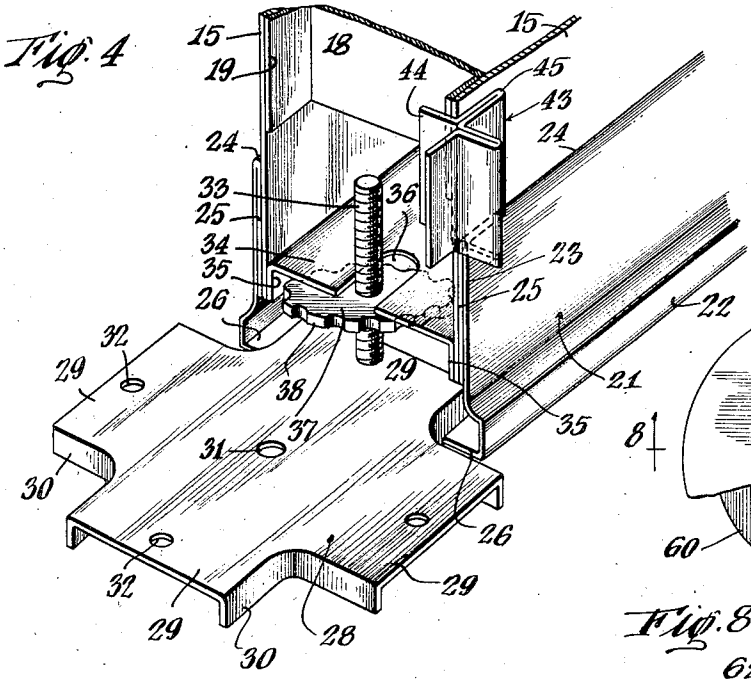


Fig. 7

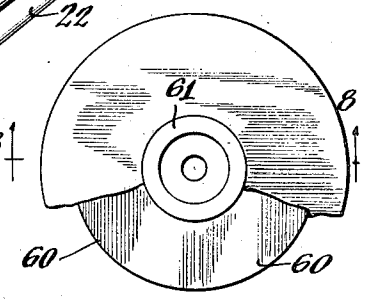


Fig. 8

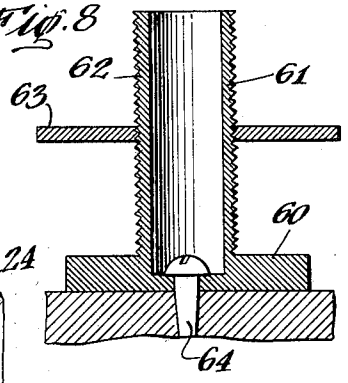


Fig. 5

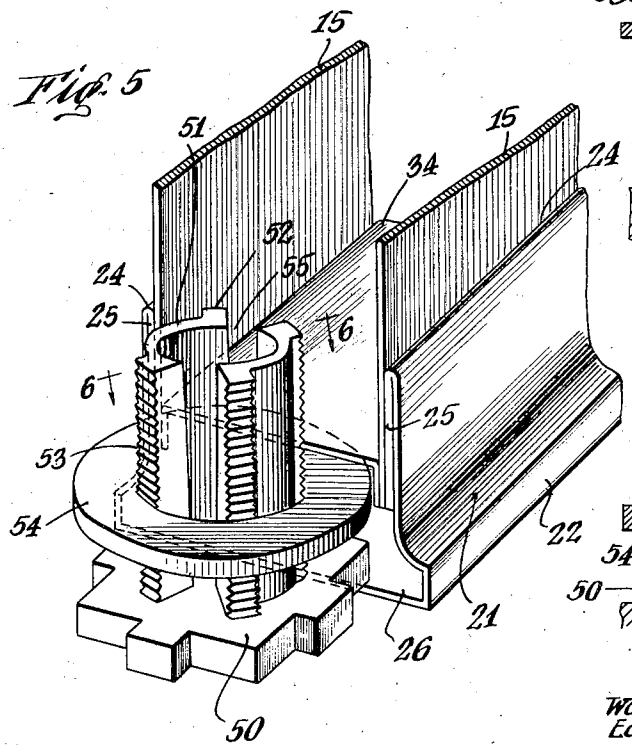
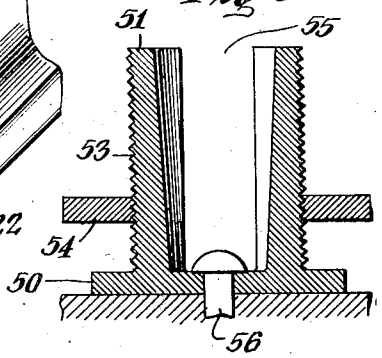


Fig. 6



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Patented Nov. 5, 1935 2,019,977

UNITED STATES PATENT OFFICE

2,019,977

PARTITION CONSTRUCTION

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Application February 8, 1932, Serial No. 591,650

17 Claims. (Cl. 189—34)

This invention relates to partition construction, and more particularly to an interior partition which is vertically adjustable with respect to the floor on which it is positioned.

Sectional partition units are generally built up at the plant in standardized sizes with the horizontal framing members thereof secured to the vertical framing members at substantially a precise right angle to one another. These sectional units are necessarily rigid and will, therefore, not conform to floor irregularities unless specially designed. From the standpoint of appearance also, it is necessary that the sectional units join together in true horizontal alignment. Furthermore, building floors often settle or warp after installation of the partition. Some means must be provided to take care of this floor sag from time-to-time or the partition will buckle outwardly and sag with the floor to the consequent injury of the partition itself, as well as presenting an unsightly appearance.

An object of our invention is to provide an interior partition which can be adjusted vertically to accommodate the same to floor irregularities, which adjustment can be made at any time during or after the partition is erected.

Another object of our invention is to provide means for accurately aligning a partition both vertically and horizontally, said means being furthermore vertically adjustable at any time.

Another object of our invention is to provide a floor clamp adapted to adjustably support one or more sectional partition units and which also provides a means for anchoring the floor channel or mop strip to the floor.

Still another object of our invention is to provide floor moulding or mop strip within which a sectional partition unit may adjustably seat, all in combination with means for securing the mop strip to the floor and for vertically adjusting the partition unit with reference to the floor and the mop strip.

Other objects of this invention will become apparent as the disclosure proceeds.

Although the novel features which are believed to be characteristic of this invention will be particularly pointed out in the claims appended hereto, the invention itself, as to its objects and advantages, and the manner in which it may be carried out, may be better understood by referring to the following description taken in connection with the accompanying drawings forming a part thereof, in which

Fig. 1 is a horizontal cross sectional view through the partition taken at the four-way corner posts and looking downwardly at the floor clamp;

Fig. 2 is a vertical cross sectional view through one wall of the partition extending from the four-way corner post, this view being taken on line 2—2 of Fig. 1;

Fig. 3 is a vertical cross sectional view through the center of the four-way corner post taken on line 3—3 of Fig. 1;

Fig. 4 is a perspective view of the lower part of a sectional partition unit and mop strip shown associated with a floor clamp;

Fig. 5 is a perspective view of the lower portion of a sectional unit shown associated with a floor clamp of somewhat modified construction;

Fig. 6 is a vertical cross sectional view through the modified floor clamp shown in Fig. 5, this view being taken on line 6—6 of Fig. 5;

Fig. 7 is a top view of a floor clamp of a further modified construction, certain parts being broken away to more clearly show the construction; and

Fig. 8 is a vertical cross sectional view of the modified floor clamp shown in Fig. 7, this view being taken on line 8—8 of this figure.

Similar reference characters refer to similar parts throughout the several views of the drawings.

We have shown in Figs. 1, 2 and 3, our partition as it appears at a four-way corner post. The partition generally comprises sectional units which are made up at the plant and erected in the field. Each sectional unit comprises generally a pair of channel shaped uprights 10 and 11 having their flanges turned outwardly. Each upright is provided with a vertical groove 12 in the web portion thereof for the reception of a panel member 13. The bottom of each sectional unit is connected together by means of a base member 14 of general channel form having the side flanges 15 thereof extending downwardly. The top or web portion of the base member 14 is provided with a longitudinally extending groove 16 to receive the lower edge of the panel member 13. The uprights 10 and 11 and the base member 14 may be provided with moulding portions 17 formed integral therewith to give a finished effect to the panel.

Each upright is provided with a channel shaped reinforcing member 18 which snugly seats therein and is preferably welded thereto. The reinforcing member 18 preferably extends the full height of the upright and projects below the upright and into the base member 14. The panel receiving groove 16 and moulding portions 17 of the

base member 14 are cut out at each end to permit the reinforcing member 18 to extend therethrough and into the base member 14. The side flanges 19 of the reinforcing member 18 may be welded or otherwise secured to the side walls 15 of the base member 14, thus securing the uprights and base member in firm assembled relationship. The lower ends of moulded portions 17 of the uprights 10 and 11 are preferably mitered so as to fit the contour of the moulding portions 17 of the base member so as to produce a smooth mitered joint 20. It is understood that the panels 13 may be made of sheet metal, glass, laminated metal, wood, fibre, asbestos or other paneling material. Horizontal rail members (not shown) extending between the uprights 10 and 11 with the desired paneling positioned therebetween completes the sectional unit.

To give a finished appearance to the bottom of the partition and to provide for general floor unevenness, a wall section in the form of a channel shaped floor moulding or mop strip 21, shown more particularly in Fig. 4, is used. The length of each mop strip 21 preferably equals the width of the sectional unit with which it is associated and comprises side wall portions 22 having the top portions 23 thereof flared inwardly to frictionally grip the side walls 15 of the base member 14. To produce a smooth and finished appearance the top edges 24 of the mop strip may be rebent inwardly to provide an inturned flange 25. The inturned flange 25 also gives considerable additional strength to the member. The bottom or web portion of the mop strip is preferably provided with spaced ribs 26 which rest against the floor and an intermediate offset portion 27 which is raised off the floor. This construction permits the channel to seat closely against the floor even though the floor may be uneven and irregular. The wall section or mop strip 21 can be used along the walls or ceiling, as well as along the floor, if desired.

Floor clamps are provided which when properly secured to the floor at spaced intervals align the sectional units of the partition. Each sectional unit is supported by a pair of clamp members, one positioned at each end thereof. Each clamp member is provided with vertically adjustable means adapted to elevate the sectional units so as to position them in true horizontal alignment regardless of the uneven condition of the floor. The floor clamp, as shown in Fig. 4, comprises a stamped metal base portion 28 having winged portions 29 extending from each side thereof. The edges of the base portion are preferably provided with downwardly extending flanges 30 which rest against the floor. The winged portions 29 are so shaped as to extend into the adjacent mop strip and seat over the intermediate raised portion 27 thereof. It is now seen that when the clamp member is secured to the floor by means of a screw 30' which extends through a hole 31 in the center of the base portion 28 that each mop strip 21 is held in fixed position by the wings 29 which seat over the raised portions 27.

A threaded supporting plate 37 screws over the threaded stud members 33. The supporting plate 37 is provided with corrugations 38 around its periphery to provide a hand grip for turning the same.

Each sectional unit is provided with a channel member 34 having flanges 35 which are secured to the side walls 15 of the base member 14. The channel 34 has a cut out 36 at each end through which the threaded bolt 33 extends, as shown in Fig. 4. Each end of the channel member 34 rests on an adjustable supporting plate 37. It is understood that a floor clamp is provided between each sectional unit and an adjustable supporting plate 37 and threaded bolt 33 is provided to support each end of the sectional units. By adjusting the respective supporting plates 37, the sectional units can be raised or lowered as required to place all units in true horizontal alignment irrespective of floor conditions. If a four-way post is to be provided, a threaded bolt 33 is placed in each of the openings 32. If a T-post is desired, threaded bolts 33 are placed in three of the openings 32, and if a straight-way condition is desired, the threaded bolts 33 are placed in only two of the openings 32.

In erecting the partition, a line is drawn on the floor of the building to indicate the center line of the partition. Marks are then made along the partition run at intervals the width of the sectional units to indicate where the post uprights are to be positioned. A hole is then drilled at this point of intersection. The mop strips 21 are then laid along the center line drawn on the floor. The floor clamps are then screwed to the floor by the screws 30' which extend into the drilled floor holes made for this purpose. The wings 30 in each floor clamp overlap the raised portions 27 of each mop strip to align and retain them in place. If a T-run is to be made, a floor clamp having the threaded bolts 33 positioned in three wings is selected. If a four-way run is to be made, a floor clamp having the threaded bolts 33 positioned in the four wings is selected, and if a two-way run is to be made, a floor clamp having the threaded bolts positioned in two wings is selected. All the adjustable supporting plates are then manipulated to the same horizontal level. The panel sections are then erected by inserting the lower end of the base member 14 into the mop strip 21 so that each end of the supporting channel 34 of the sectional unit rests upon a supporting plate 37. The locking nuts 39 threaded on each of the bolts 33 are then moved into locking position, which prevents further movement of the supporting plate 37.

The straight run partition sections are then secured together by means of a spacer member 40 and clips 41 which engage the inturned flanges 42 of the channel uprights. Where a four-way run, T-run or any other angular run of partition is to be made, a butterfly strip 43 is used, as shown in Figs. 1, 2, 3 and 4. This butterfly strip is provided with inside flanges 44 which seat against the inturned flanges 42 of adjacent uprights, as shown in Fig. 1. The outside flanges 45 of the butterfly strip seat against the side walls of adjacent uprights and the whole is held assembled by means of threaded screws 46 which extend through the inside flanges 44 and screw into threaded apertures spaced along the inturned flanges 42 of the uprights. The sectional units are thus held firmly and securely assembled together.

We have shown in Figs. 5 and 6 a floor clamp of somewhat modified construction. The floor clamp here shown comprises a base portion 50 which rests on the floor and on the web portions of the mop strips 21 to retain the same in place. An upstanding tubular portion 51 is cast integral with the base portion 50. Vertically extending strengthening ribs 52 are provided which flare

outwardly at spaced intervals from the tubular portion 51. These strengthening ribs 52 are threaded as at 53 so as to receive a threaded nut or supporting plate 54. Each end of the supporting channel 34 positioned along the bottom of the sectional units rest upon a supporting plate 54. The plates 54 can be manipulated to raise or lower each sectional unit, as desired. It may be preferable to provide longitudinal openings 55 in the tubular portion 51 to facilitate formation of the casting. An opening is provided in the base portion 50 through which a screw member 56 may be inserted for securing the floor clamp to the floor.

We have shown in Figs. 7 and 8 still another floor clamp which comprises a base portion 60 and a tubular portion 61 which are cast integrally as one unit. The outer periphery of the tubular portion 61 is provided with threads 62 with which the threaded wheel 63 is adapted to engage. The threaded wheel 63 supports sectional units in the same manner as heretofore described. The floor clamp is secured to the floor by means of a screw bolt 64 which extends through an opening in the base portion 60.

It is now seen that our partition comprising sectional units are held in true vertical and horizontal alignment by the floor clamps. The mop strips 21 are firmly held to the floor by the floor clamps without additional means being required. The lower portion of each sectional unit is free to telescope within the mop strip so that the sectional units can always be vertically adjusted to place them in true horizontal alignment irrespective of floor irregularities. Should the floor sag after the partition has been erected, the sectional units can be trued into the proper horizontal alignment at any time after erection, without necessitating the dismemberment of any part of the partition, by a simple manipulation of the supporting plates. The partition as a whole can be easily, quickly and accurately erected and assembled without pounding or unnecessary noise.

While certain novel features of the invention have been disclosed and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. In combination, a partition structure, and means positioned under said structure at spaced intervals adjustably supporting said structure, each of said supporting means comprising a base portion adapted to rest on the floor, a hollow threaded stud portion extending upwardly from said base portion, a supporting plate positioned under said structure and providing a seat on which the structure rests, said supporting plate being threaded to cooperatively engage said threaded stud portion, and means concealed within said hollow stud portion for securing said supporting means to the floor.

2. In combination, a partition structure, and means positioned under said structure at spaced intervals adjustably supporting said structure, each of said supporting means comprising a base portion adapted to rest on the floor, a hollow threaded stud portion extending upwardly from said base portion, a supporting plate positioned under said structure and providing a seat on which the structure rests, said supporting plate being threaded to cooperatively engage said threaded stud portion, a locking nut threaded on to said stud portion and adapted to lock said supporting plate against movement when adjusted to the proper structure supporting position, and means concealed within said hollow stud portion for securing said supporting means to the floor.

3. A floor clamp adapted to support a partition structure comprising a base portion having a wing extending laterally therefrom, a threaded stud element secured to said wing and extending upwardly, a vertically adjustable supporting plate threaded on said stud element and adapted to support said partition structure, and a locking nut threaded on said stud element and adapted to hold said supporting plate in fixed position.

4. A floor clamp adapted to support a partition unit on each side thereof comprising a base portion having wings extending laterally therefrom, a threaded stud element secured to each of said wings and projecting upwardly, and a vertically adjustable supporting plate threaded on each of said stud elements, each of said supporting plates being adapted to carry one end of a partition unit.

5. In combination, a sectional partition unit comprising spaced uprights, a channel shaped base board connected to said uprights, a horizontally extending reinforcing channel seated within said base board and secured thereto, and a floor clamp at each end of said sectional unit engaging said reinforcing member and adjustably supporting the unit.

6. In combination, a floor moulding, a partition having the lower end thereof telescoped within said floor moulding and vertically adjustable with respect thereto, and a floor clamp holding said floor moulding to the floor and adjustably supporting said partition.

7. In combination, a pair of floor mouldings, a partition having the lower end thereof telescoped within said floor mouldings and vertically adjustable with respect thereto, and a floor clamp aligning said floor mouldings and adjustably supporting said partition, said floor clamp comprising a base portion having a wing extending into each of said floor mouldings, a threaded stud element projecting upwardly from said base portion, and a supporting plate threaded over said stud element and engaging said partition to raise and lower the same as said supporting plate is manipulated.

8. In combination, floor mouldings, partition units each having the lower end thereof telescoped within one of said floor mouldings and vertically adjustable with respect thereto, and a floor clamp aligning said floor mouldings and adjustably supporting said partition units.

9. In combination, floor mouldings, partition units each having the lower end thereof telescoped within one of said floor mouldings and vertically adjustable with respect thereto, and a floor clamp aligning said floor mouldings and adjustably supporting said partition units, said floor clamp comprising a base portion, said base portion having wings, each wing projecting laterally therefrom and extending into one of said floor mouldings, a stud element projecting upwardly from each of said wings, and a supporting plate threaded over each of said stud elements and engaging one of said units to raise and lower the same as the supporting plate is manipulated.

10. In combination, a channel shaped floor moulding, means for securing said floor moulding to the floor, and a vertically adjustable sectional unit having the lower end thereof telescoped within said floor moulding, said floor moulding

having side walls beveled inwardly and adjustably engaging the lower end of said unit, and ribs along the web portion thereof resting on the floor, the intermediate portion of said web between said ribs being raised off from the floor.

11. A wall construction comprising in combination, telescoping wall sections, and means for adjusting said sections including a base engaging one of said sections and holding the same in fixed position, and an adjusting device mounted on said base and operative to adjust the relative telescoped position of said sections.

12. A wall construction including in combination, telescoping wall sections, and means for adjusting the relative telescoped position of said sections comprising a fixed base, said base being connected to one of said sections to hold the same in stationary fixed position, and an adjustable device mounted on said base operatively connected to the other wall section.

13. A floor clamp adapted to support a partition structure comprising a base portion, a threaded stud element secured to said base portion and extending upwardly, a vertically adjustable supporting plate threaded on said stud element and adapted to support said partition structure, and a locking nut threaded on said stud element and adapted to hold said partition structure and said supporting plate in fixed adjusted position.

14. In partition construction, partition units, a floor clamp positioned between said partition units including a base portion, stud elements secured to said base portion and projecting upwardly, and a vertically adjustable supporting plate threaded on each of said stud elements, each of said supporting plates being adapted to carry one end of adjacent partition units.

15. In combination, a floor moulding, a partition unit having the lower end thereof telescoped within said floor moulding and vertically adjustable with respect thereto, and a floor clamp positioned at each end of said partition unit operative to hold said floor moulding to the floor and adjustably support said unit.

16. In combination, a plurality of partition units having the vertical edges thereof arranged adjacent one another, and a floor clamp for adjustably supporting the adjacent side edges of said partition units, said floor clamp including a base portion, threaded stud portions projecting upwardly from said base portion, and an independent supporting plate threaded over each of said stud portions, each of said supporting plates being arranged independently to support the adjacent side edge of one of said partition units.

17. In combination, a channel shaped floor molding having the flanges thereof extending upwardly, a partition unit having the lower end thereof telescoped within the flanges of said floor moulding and vertically adjustable with respect thereto, and means extending into said moulding to hold said floor moulding to the floor and adjustably supporting said partition unit in the desired telescoped position.

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