

Jan. 29, 1963

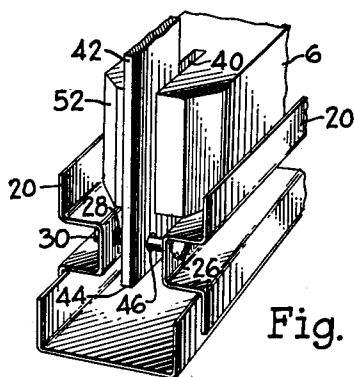
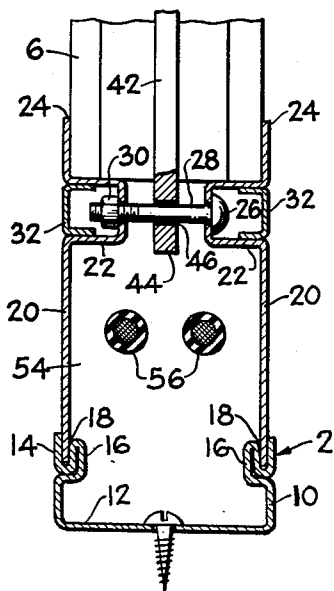
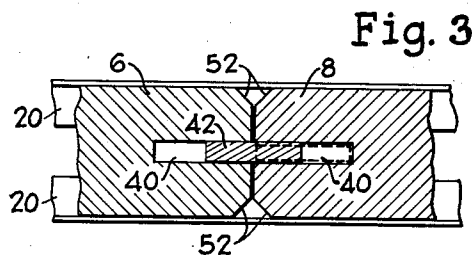
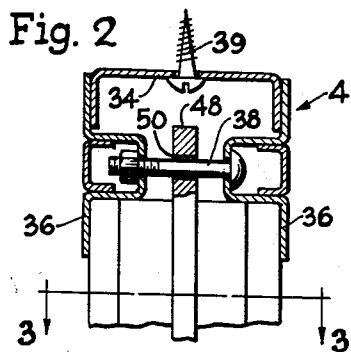
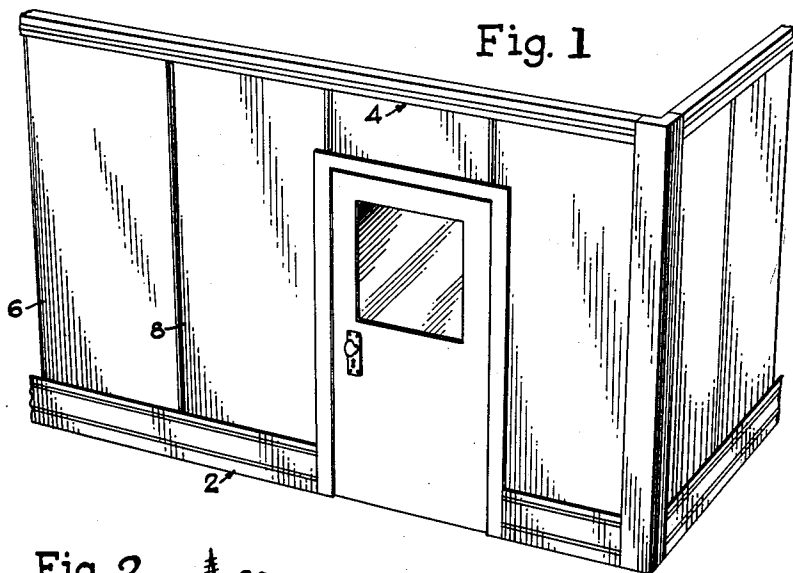
A. B. HAMMITT ETAL

3,075,253

PARTITION ASSEMBLY

Filed June 5, 1959

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

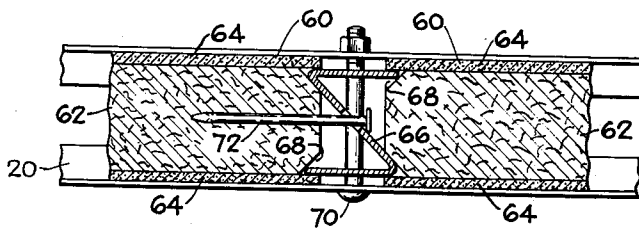


Fig. 5

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3,075,253

PARTITION ASSEMBLY

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1 Claim. (Cl. 20-4)

This invention relates to partition assemblies and is directed particularly to constructions which are economical to produce and erect and which are capable of being moved from one location to another when desired.

In our issued Patent No. 2,808,136 we have shown and described a partition assembly which embodies a base construction adapted to be located adjacent the floor and the ceiling or upper edge of a partition for holding sheets of wall forming material in place. This construction has proven very useful and has been extensively employed in the industry. However, the construction contemplates the use of batten strips which are located on the opposite faces of the wall forming sheets and extend from the base construction to the ceiling construction adjacent the edges of the sheet material. The use of such batten strips presents a considerable item of expense and labor in erecting a partition. Moreover, the architectural effect desired sometimes calls for the use of bevelled edges or other treatment of the joints between abutting sheets of material rendering the use of batten strips undesirable.

In accordance with the present invention, a new type of partition assembly is provided wherein base and ceiling constructions are employed but the need for batten strips is eliminated while the adjacent edges of the sheets of wall forming material are strengthened and supported in a manner to assure the desired rigidity of the assembly.

These advantages are attained by employing a spline or supporting strip which fits within grooves in the abutting edges of the wall forming sheets and is fixedly secured at its upper and lower ends to the base and ceiling constructions used in erecting the partition. The splines, when thus connected to the base and ceiling constructions, cooperate therewith to provide a strong rigid structural framework which extends about the edges of each wall forming sheet and serves to strengthen and reinforce the sheets while securing them in place. At the same time the construction is preferably arranged to permit lateral displacement of the splines between the sheets in erecting and dismantling the partition whereby it may be installed between fixed walls or stationary abutments. The present invention further may employ a simplified form of base and ceiling construction adapted to be formed of sheet metal or other relatively light weight material, although it may also be used with base and ceiling constructions formed of extruded aluminum or other material as desired.

Accordingly, the principal object of the present invention is to simplify the construction and to reduce the cost of partition assemblies.

Another object of the invention is to provide a partition assembly wherein the abutting edges of sheets of wall forming material are supported and strengthened whereas the usual batten strips employed in such locations are eliminated.

A specific object of the invention is to provide a partition embodying a base and ceiling construction together with sheets of wall forming material wherein splines are located in grooves formed in the abutting edges of the sheets and are fixedly secured at their lower and upper ends to the base and ceiling constructions to provide a structural framework for the sheets of wall forming material.

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Another specific object of the invention is to provide a partition adapted to be erected between fixed walls or abutments and including splines adjacent the edges of sheets of wall forming material but permitting movement of the splines relative to the sheets to facilitate relative movement of the edges of the sheets in erecting or removing the partition.

These and other objects and features of the present invention will appear from the following description thereof wherein reference is made to the figures of the accompanying drawing.

In the drawing:

FIG. 1 is a perspective illustrating a typical partition assembly embodying the present invention;

FIG. 2 is an enlarged sectional view showing a detail of the construction illustrated in FIG. 1;

FIG. 3 is a horizontal sectional view taken on the line 3-3 of FIG. 2;

FIG. 4 is a perspective illustrating a portion of the assembly shown in FIG. 1; and

FIG. 5 is a horizontal sectional view through an alternative construction.

In that form of the invention chosen for purposes of illustrations in the figures of the drawings, the partition assembly embodies a base construction 2, a ceiling construction 4 and sheets of wall forming material indicated at 6 and 8. The base construction 2 may be of any suitable or preferred type but preferably is of the general type disclosed in our issued Patent No. 2,808,136. For this purpose, the base construction 2 embodies a base member 10 which is formed of sheet metal and has a lower flat surface portion 12 for engagement with the floor on which the partition is to be erected. Side portions 14 extend upward from the surface portion 12 and are provided with inwardly folded retaining means 16 presenting recesses 18 for receiving and holding the lower edges of the side plates 20. The side plates are formed as longitudinally extending strips of material each having a bolt receiving groove or recess 22 therein spaced a short distance from the upper edge 24 of the side plate. The recess 22 in one side plate is designed to receive and house the head 26 of a bolt 28 while the recess 22 in the other side plate is designed to receive and house a nut 30 secured to the end of the bolt 28. The bolt 28 and nut 30 serve to draw the side plates together and into clamping relation with the lower edge of a sheet of wall forming material such as that indicated at 6. The lower edge of the sheet material 6 preferably rests against the upper surface of the inwardly projecting recesses 22 whereby the sheet material is supported and secured in place by the side plates. Cover strips 32 are inserted in the outwardly facing recesses 22 over the heads of the bolts and the nuts so that the bolts are concealed and the outer surface of the side plates presents a neat and attractive appearance.

The ceiling construction 4 also may be of any preferred type but as illustrated may be formed in essentially the same manner as the base assembly 2. For this purpose the ceiling construction includes a downwardly facing channel member 34 and side plates 36 which are clamped against the upper edge of the sheet of wall forming material 6 by means of a bolt 38. When the partition extends to the ceiling, the base 34 of the ceiling construction may be secured to the ceiling by means of a screw 39 or otherwise. However, if the partition terminates short of the ceiling, the base member 34 and the side plates 36 serve to form an attractive cap strip extending along the upper edge of the sheets of wall forming material and serving to hold the sheets of material in place.

In accordance with the present invention, the abutting edges of the sheets of wall forming material such as the

sheets 6 and 8 are each provided with a groove 40 which preferably is positioned midway between the opposite faces of the sheets. The grooves 40 in adjacent sheets register with each other to form a slot which extends transversely of the abutting edges and is concealed between the sheets. A spline 42 is positioned within the slot formed by grooves 40 and extends lengthwise thereof adjacent the edges of the sheets of wall forming material. The lower end 44 of the spline 42 projects below the lower edges of the sheets of material and has an opening 46 therein through which the bolt 28 passes. In a similar way, the upper end 48 of the spline 42 projects above the upper edges of the sheets of wall forming material and has an opening 50 therein through which the bolt 38 passes. The upper and lower ends of the spline 42 are thus secured or anchored in place and serve to hold the spline rigidly in position.

The base construction 2, ceiling construction 4 and the splines 42 thus cooperate to provide a structural framework having the strength and rigidity required for any partition assembly. Moreover, this structural framework extends throughout the edges of each sheet of wall forming material and thereby serves to reinforce and strengthen the sheets and assure the formation of a strong rigid partition assembly.

The assembly provided thereby serves to hold the abutting edges of the sheet material against relative transverse movement so that the sheet material so reinforced and strengthened renders it unnecessary to employ the batten strips heretofore required for covering the joints between the edges of the sheet material. As shown in FIGS. 3 and 4, the abutting edges of the wall forming sheets 6 and 8 may be bevelled as indicated at 52 to present a neat attractive external appearance lending itself to the attractive architectural effect of the completed partition assembly.

Further, as shown in FIG. 3, the grooves 40 in the abutting edges of the sheets of wall forming material may each be made of a depth equal to the width of the spline 42. The slot provided by registration of the grooves 40 will then be twice as wide as the spline 42. When the grooves and spline are thus proportioned, the spline may be moved sideways so as to be housed entirely within one sheet. Thus, as shown in FIG. 3, the spline 42 may be moved to the dotted line position in which it is located entirely within the groove 40 of the sheet 8. When the spline is so positioned, the adjacent edges of the sheets are freely movable to install the sheets whereby the partition can be erected between fixed walls or stationary abutments after which the spline may be moved to its full line position and secured in place by the bolts 28 and 38. The sheets are then interlocked and held securely in place. In the same way, the sheets 6 and 8 or either of them can be removed from the assembly without disturbing or removing any other or adjacent sheet whereby a single sheet can be taken out of an extended partition for replacement or in order to locate a door or other assembly in any desired location. Such installation and removal of sheets obviously would not be possible if the spline 42 was not movable relative to the sheets.

In erecting a partition of the type shown and described, the base member 10 of the base construction 2 is secured to the floor whereupon the lower edges of the side plates 20 are slipped within the recess 18 of the folds 16. The wall forming material is then slipped between the upper edges 24 of the side plates and the spline 42 is positioned in the registering grooves 40 in the abutting edges of the sheet material in such position that its lower end 44 projects below the sheets of wall forming material and the opening 46 in the lower end is positioned between the recesses 22 in the side plates. The bolt 28 is then passed through the opening in the side plates and the opening 46 in the spline 42 and the nut 30 is applied to the bolt. The nut 30 is then tightened to clamp the upper edges 24 of the side plates of the base assembly

against the opposite faces of the sheet material adjacent the lower edge thereof. At the same time, the spline 42 is fixedly secured in place.

Thereafter, the ceiling construction 4 is applied to the assembled sheets and the bolt 38 is passed through the opening 50 in the upwardly projecting end 48 of the spline 42. When the nut applied to bolt 38 is tightened in place, the assembly is completed and held rigidly in place. No intermediate bolts or members are required for holding the spline in place between the base and ceiling construction and the time required for erecting the partition is materially reduced. Furthermore, the edges of the sheets of material 6 and 8 can be placed in direct abutment with each other and may be bevelled as shown at 52 or may be otherwise treated to present a neat attractive appearance.

In some instances the spline employed may be exposed between the edges of adjacent sheets and serve to afford an improved architectural effect as shown in FIG. 5. In the construction shown the sheets of wall forming material 60 are provided with a central body of fibrous material 62 and facing layers of cementitious material 64. The spline 66 is generally Z-shaped in cross section and extends vertically between the adjacent edges of the sheets. The edges are formed with grooves 68 directly below the cementitious layers and the edges of the spline project into these grooves. The spline is not only secured to the base and ceiling assemblies by bolts as shown in dotted lines at 70 but may be secured to the sheet material by means of nails or screws 72.

The recessed effect thus provided between the edges of the sheets is attractive in appearance whereas the spline serves to hold the sheets securely in place.

The construction thus provided is simple and economical to produce and erect and the partition can be installed without employing skilled help or expensive tools and parts. While the construction shown in the drawing and described above is typical of assemblies embodying the present invention, it will be apparent that the base and ceiling constructions may be of any desired type and may be formed of any suitable material such as extruded aluminum members or the like. Similarly, the wall forming material may be of any desired thickness and composition called for in any installation.

In the construction shown in FIG. 2, the base construction 2 differs from the ceiling construction 4 in that the side plates 20 are relatively wide whereby the lower edges of the sheets of wall forming material are spaced from the base member 10 a sufficient distance to provide a raceway or hollow space 54 in which electrical conduits, water lines or other elements such as those indicated at 56 may be housed. However, if desired, the base and ceiling constructions may be identical or of any desired type. It is thus apparent that the partition assembly of the present invention is capable of many variations in design, construction and arrangement of the various elements employed. In view thereof, it should be understood that the particular embodiment of the invention shown in the drawings and described heretofore is intended to be illustrative only and is not intended to limit the scope of the invention.

We claim:

A partition assembly comprising a base construction including a base member and spaced side plates engaging said base member, sheets of wall forming material arranged with their vertical edges abutting and their lower edges positioned between said side plates, bolts passing through said side plates below the lower edges of the sheets of wall forming material and serving to clamp said side plates against the opposite faces of said sheets, a ceiling construction similar to said base construction extending along the upper edges of said sheets of wall forming material and clamped thereto by bolts, the abutting edges of said sheets of wall forming material having registering grooves therein forming a slot extending ver-

tically between said sheets, a spline positioned in said slot and having its opposite ends projecting above and below the upper and lower edges respectively of said sheets, the projecting ends of said spline being secured to said base and ceiling constructions by said bolts, and the groove in the edge of each sheet being of a depth at least equal to the width of the spline so that the spline can be moved within said registering grooves to a position in which it will be housed entirely within the groove in one sheet for the installation or removal of a sheet from the partition assembly.

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