

March 5, 1935.

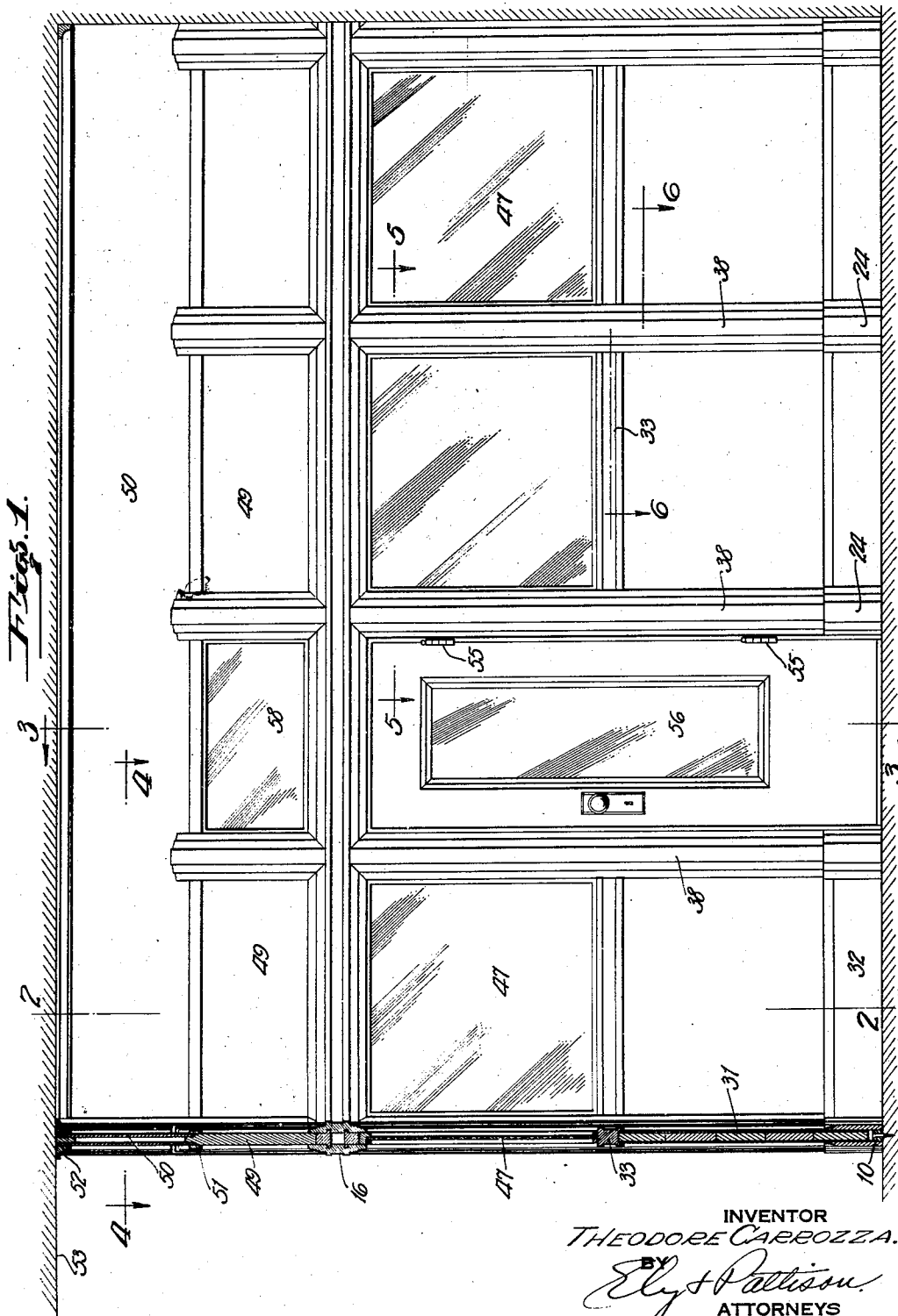
T. CARROZZA

1,993,593

PARTITION STRUCTURE

Filed July 30, 1932

4 Sheets-Sheet 1



March 5, 1935.

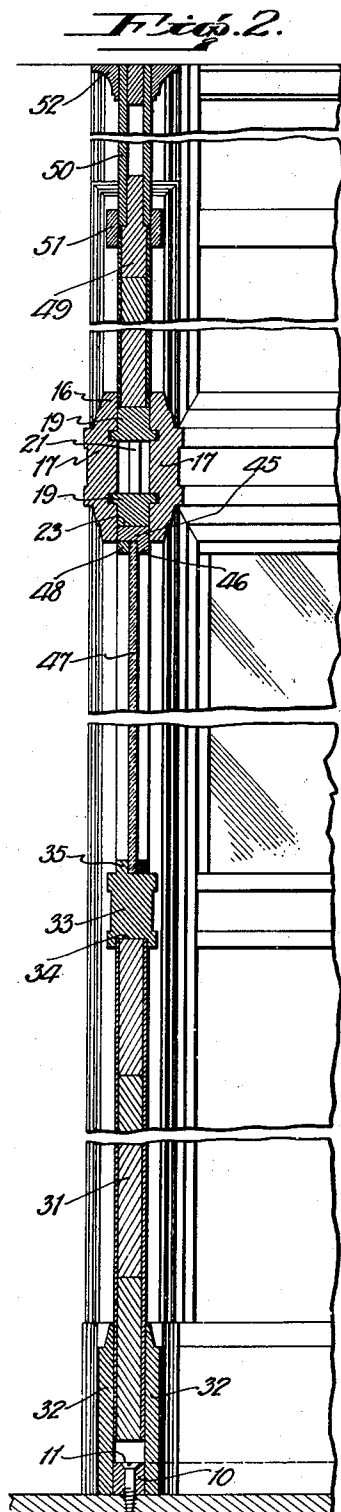
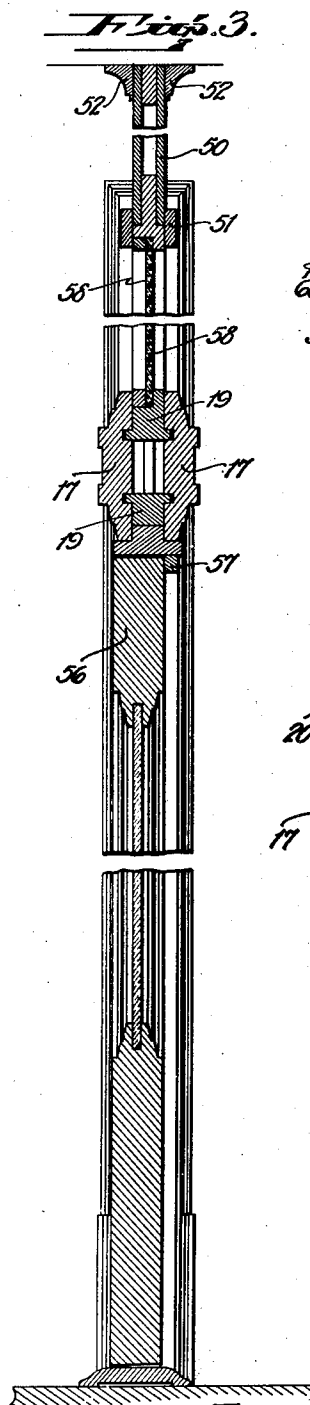
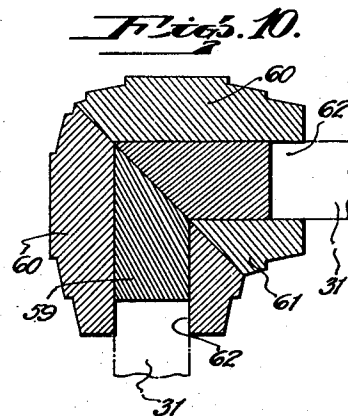
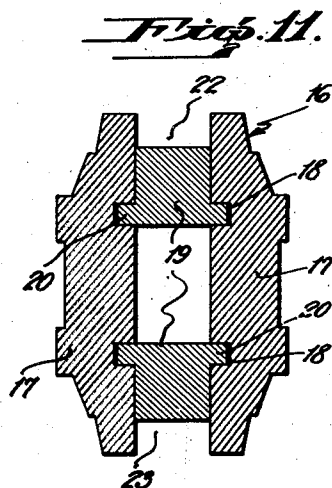
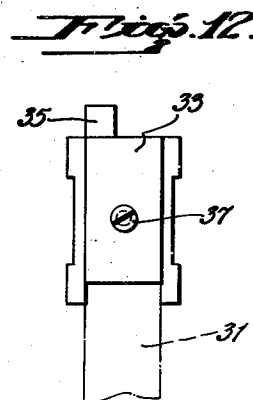
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PARTITION STRUCTURE

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4 Sheets-Sheet 2



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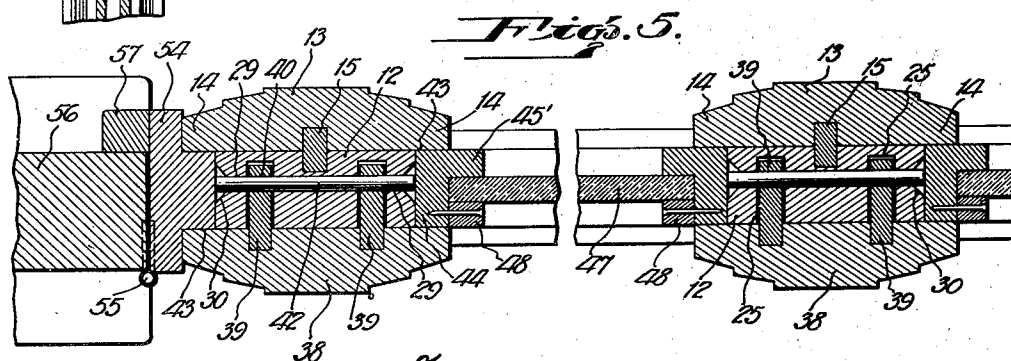
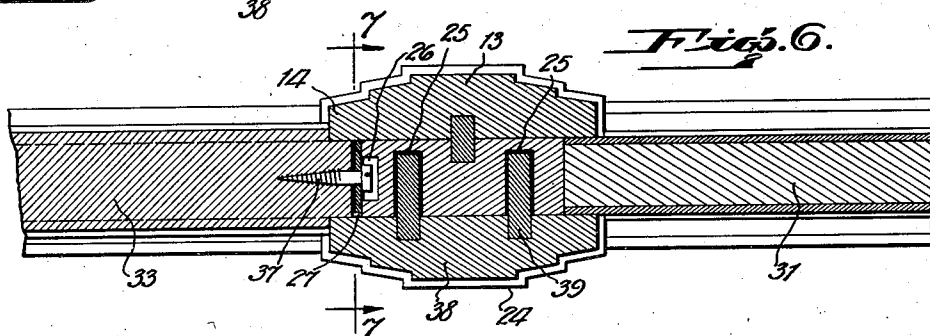
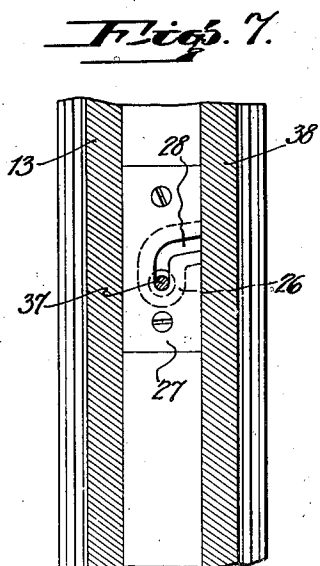
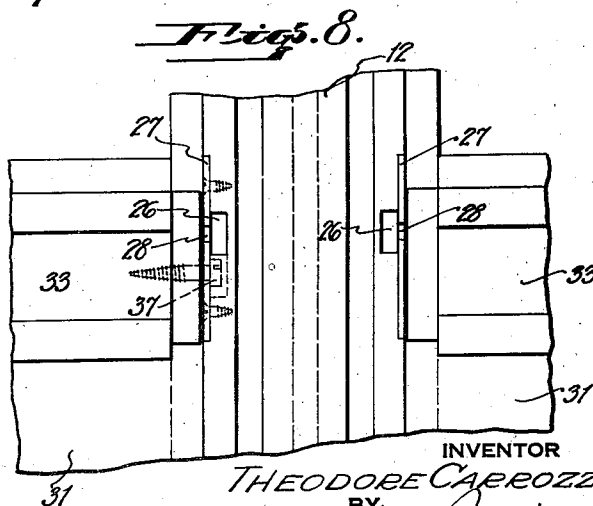
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4 Sheets-Sheet 3



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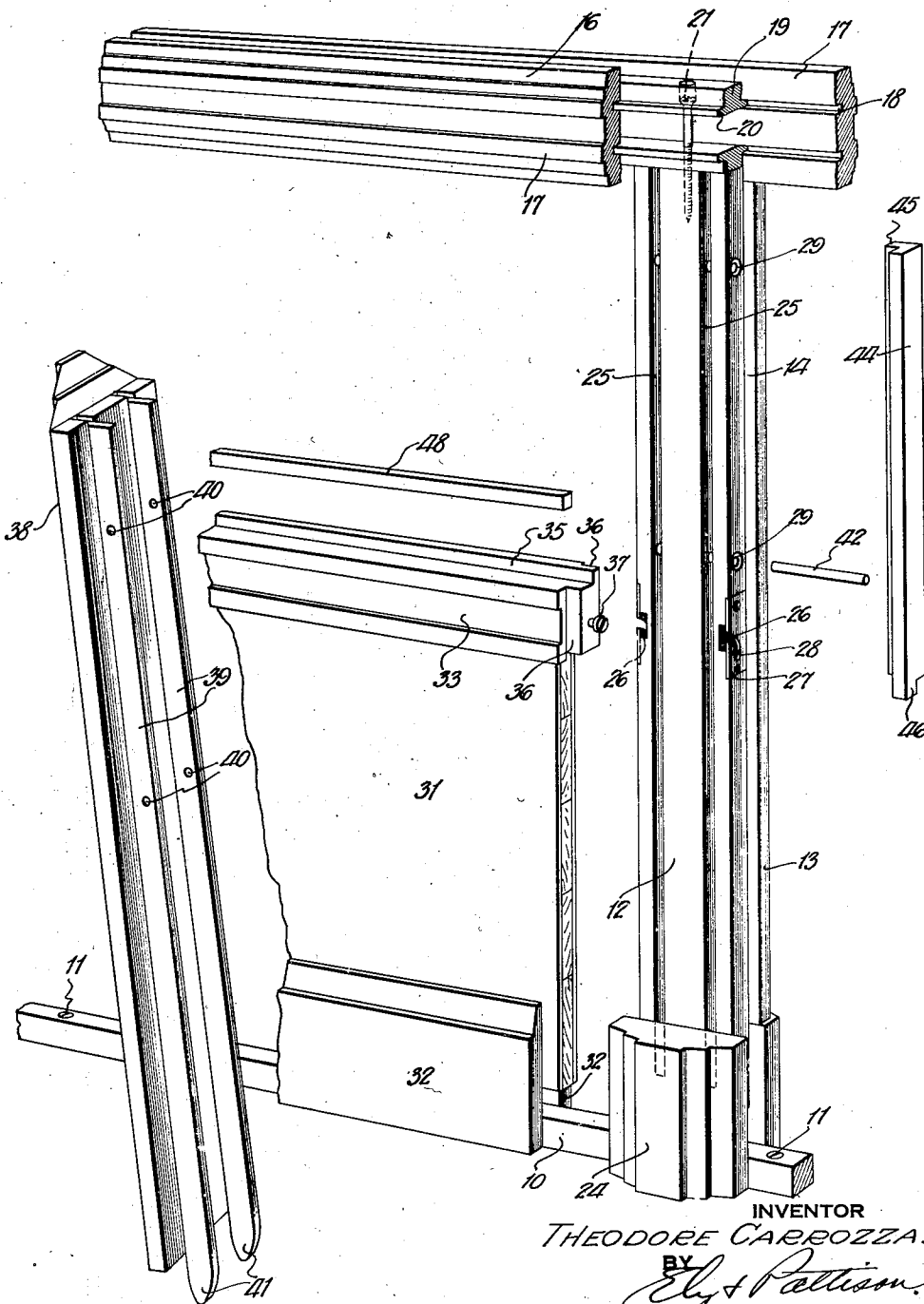
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Fig. 9.



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UNITED STATES PATENT OFFICE

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PARTITION STRUCTURE

Theodore Carrozza, New York, N. Y.

Application July 30, 1932, Serial No. 626,407

8 Claims. (Cl. 20-4)

This invention relates to improvements in partition structures.

One of the primary objects of the invention resides in a partition structure in which the parts are standardized to enable the erection and taking down of the same by one unskilled in the art.

Another object of the invention is to provide a partition structure especially adapted for offices and other interior use, and which by reason of the sectional parts, permits of the installation of the same under various interior conditions.

A further object of the invention is the provision of a partition structure constructed of wood to match the trim of the interior of a room and which consists of a plurality of inter-fitting parts which serve to rigidly hold the structure in a set up condition without the aid of screws, nuts and other like fastening elements.

A still further object of the invention resides in a sectional partition structure which is simple and inexpensive of construction, and easy and quick to set up and take down.

With these and other objects in view, the invention resides in the certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawings, in which:

Figure 1 is a sectional elevational view of my invention in set up position.

Figure 2 is a vertical transverse sectional view on the line 2-2 of Figure 1.

Figure 3 is a vertical transverse sectional view on the line 3-3 of Figure 1.

Figure 4 is a horizontal sectional view on the line 4-4 of Figure 1.

Figure 5 is a horizontal sectional view on the line 5-5 of Figure 1.

Figure 6 is a detail horizontal sectional view on the line 6-6 of Figure 1.

Figure 7 is a detail vertical sectional view on the line 7-7 of Figure 6.

Figure 8 is a detail elevational view of one of the vertical posts with the molding strip removed and showing the manner in which the panels interlock with the post.

Figure 9 is a fragmentary perspective view of one sectional partition unit with certain parts in section and other parts in extended separated condition.

Figure 10 is a detail horizontal sectional view through one of the corner posts.

Figure 11 is a detail vertical sectional view through the top coping.

Figure 12 is an end elevational view of the removable top rail per se.

Referring to the drawings by reference characters, the numeral 10 designates a base sill adapted to be fixedly secured to the floor by screws or like fastening elements 11. The partition structure rises from the sill 10 and is set up in sections or units and each section includes a pair of spaced vertical posts 12, the lower ends of said posts being fixedly secured to the sill 10 by screws or other like fastening means. Fixedly secured to one side of each post 12 is a molding strip 13, the side edges of which extend beyond opposite sides of the post 12 in order to provide abutments 14 for a purpose to be presently explained. The molding strip 13 is fixedly connected to its post 12 by a tongue and groove connection 15, and which tongue and groove may be of friction fit or secured by a bond of glue or other like adhesive.

Supported by the top of the post 12 is a coping 16 which comprises a pair of spaced molding strips 17, each strip having a pair of grooves 18 on the inner side thereof. Interposed between the molding strips 17 are spacer and connecting rails 19, the same being substantially T-shaped and arranged in opposed relation with respect to each other with the flanges 20 of the rails extending into the sets of opposed grooves 18 of the molding strips 17. A bond of adhesive such as glue may be provided for fixedly securing the molding strips 17 to the connecting rails 19. Screws or like fastening elements 21 extend downwardly through the rails 19 and thread into the top of the post 12. By reference to Figure 11 of the drawing, it will be seen that this construction provides the coping 16 with a groove 22 in the top thereof and a groove 23 in the bottom thereof. The top of the post 12 extends into the groove 23 whereby opposite sides of the post are lapped by the molding strips 17.

From the description thus far, it will be seen that the vertical post 12 and the coping 16 together with the sill 10 provides a frame structure for the panel construction now to be explained.

Fixedly secured to the side of each post 12 opposite to that on which the fixed molding strip 13 is mounted is a relatively short molding strip 24 which is of a height approximating the

height of the base board of a wall structure. Each molding strip 24 overlaps the sill 10 as does the lower end of the fixed molding strip 13. The free side of each post 12 is provided with a pair of spaced vertical grooves 25 which extend from the top end of the post to a point below the top of the short strip 24 as best seen in dotted lines in Figure 9 of the drawings. The opposite sides of each post 12 approximately midway between the ends thereof are mortised as at 26 and overlying the mortises 26 and countersunk in opposite sides of the post are keeper plates 27 provided with angular slots 28 which open through one of the side edges of the plate. The mortises 26 also open onto the same side of the post as the slot 28 for a purpose to be presently explained. Extending transversely through each post 12 at suitable spaced distances are openings 29, the outer walls of which are flared as at 30.

Fitting between each pair of spaced posts 12 is a panel 31, the bottom of which is provided with base boards 32 fixedly secured to opposite sides of the panel and which terminate short of opposite ends thereof. The base boards 32 extend below the bottom edge of the panel 31 to embrace opposite sides of the sill 10 when the panel is in set up position. The thickness of the panel 31 is substantially the same as the width of the sill 10 in order that the inner sides of the extending portions of the base board 32 may snugly embrace opposite sides of the sill. The base board 32 terminates short of the ends of the panel 31 to enable the extending sides of the molding strip 13 and short molding strip 24 to abut the ends of the base board 32 and embrace portions of opposite sides of the panel 31.

The panel 31 is set into position by sliding opposite ends of the same between the extending portions of the strips 13 and 24 until the lower edges of the base board 32 strikes the floor on which the sill 10 is mounted.

After the panel 31 has been set in position, a top rail 33 having a groove 34 in the under side thereof is set upon the panel 31, the top edge of the panel seating in the groove 34. The top of each rail 33 is provided with an upstanding shoulder 35, while the opposite ends of the rail are notched as at 36 to accommodate the extending sides of the molding strip 13 and the removable molding strip presently to be described. Extending from opposite ends of the top rail 33 are headed studs or pins 37, the shanks of which are slid into the slots 28 of the keeper plates 27 and the walls of said slots guide the rail to its desired set position. The heads of the studs 37 are received in the mortises 26.

After a panel 31 and its top rail 33 have been set in position with respect to the post 12, a removable molding strip 38 is attached to each post 12 on the side opposite to that on which the fixed molding strip 13 is secured. This molding strip 38 imparts the continuation of a short strip 24 and seats upon the strip 24 when in position. The molding strip 38 includes a pair of spaced parallel tongues 39, one end of the tongue extending below the bottom edge of the molding strip 38 as best seen in Figure 9 of the drawings. Alined openings 40 are provided in the tongues 39 and are so spaced as to register with the openings 29 in each post 12 when the strip is applied to the post. The strip is placed in position by inserting the lower extend-

ing ends of the tongues 39 into the lower ends of the grooves 25 of the post 12 so that the extending tongues lock behind the relatively short molding strip 24.

The extending ends of the tongues are pointed or curved as at 41 to enable the insertion of the same into the grooves 25 and the swinging of the molding strip 38 to a position to cause the full length of the tongues 39 to seat in the grooves 25. After the strip 38 is applied to the post 12 in this manner, removable pins 42 are inserted through the registering openings 29 and 40 to lock the removable strip 38 against accidental outward movement relative to the post 12 to which it is secured. The removable molding strips 38 are of the same width as the fixed molding strips 13 so that opposite sides extend beyond opposite sides of the post to overlap the ends of the panels 31 and top rails 33 in order to conceal the joint between the panels 31 and attaching post 12.

The extending sides of the molding strips 13 and 38 above the top rail 33 provide vertical channels 43 which receive vertical rails 44 which are substantially L-shaped in cross section to provide a stop or shoulder 45'. The lower end of each strip or rail 44 is formed with an extension 46 adapted to overlap the ends of the shoulder or strap 35 on the top rail 33. In applying these rails 44 into position, the extension portion 46 is first inserted to bear against the top rail 33 after which the said rail is swung upwardly into the channel 43 and frictionally engages the wall of the said channel. These strips conceal the ends of the locking pins 42 as best seen in Figure 5 of the drawings.

Fixedly secured in the lower channel 23 of the coping 16 is a rail 45 provided with a stop shoulder 46' and the stop shoulders 46', 45' and 35 coact to receive a glass transparent panel 47. The panel 47 is secured in position against the above mentioned shoulders by removable retaining strips 48 which may be nailed to their supporting parts.

In the foregoing description, I have described the respective parts in the manner in which they are assembled for setting up and it will be understood that the same are taken down in a reversed order.

In Figure 1 of the drawings I have illustrated the partition structure as extending from the floor to the ceiling of a room but in some cases, it may be desired to terminate the structure at the coping 16. The structure above the coping 16 comprises removable panels 49 which fit into the top channels 22 of the coping 16. The panels may be secured to the upstanding posts in the same manner as the panels 31 hereinbefore mentioned, and it is therefore not believed necessary to repeat the detailed description of the construction. Above the panels 39 there is a double panel construction 50, the walls of which overlap the top of the panels 49 and the joints are concealed by strips 51. Molding strips 52 are secured to opposite sides of the panels 50 and against the ceiling 53. The panel 50 is of a length to extend the length of the partition structure as best seen in Figure 1 of the drawings.

In Figure 1 of the drawings I have also illustrated a door opening in the partition structure which is formed between two of the vertical posts 12. By reference to Figures 3 and 5 of the drawings, it will be seen that a jamb or trim 54 is inserted into the channel 43 in one side

of the post construction and hinged to one of these jamb rails as at 55 is a door 56. Supported by the jamb rails 54 are door stops 57 against which the door abuts when in closed position.

The partition structure directly above the door 56 is provided with a glass panel or transom 58 which is removably secured in position in the same manner as the glass panel 47 hereinbefore referred to.

In Figure 10 of the drawings I have illustrated a corner post 59 for the joining of removable panels at right angles to each other, the said post being of substantially L-shape and having molding strips 60 secured to the outer side thereof and in abutting engagement with each other, while molding strips 61 are fixedly secured to the inner side of the post 59. The molding strips 60 and 61 extend beyond the ends of the post 59 to provide channels 62 for receiving the ends of a pair of panels 31.

The parts hereinbefore described such as the various panels, molding strips, retaining strips and the like are of wood and are finished to suit the trim or woodwork of the room in which the structure is to be erected. It will be seen that the various parts are standard which enables the erection of the structure in sections or units and which units may be set up rapidly and by one unskilled in the art. This structure will be found extremely useful in offices where it is desired to divide a room into a number of private offices or rooms, and wherein rearranging of partitions is necessary by reason of the changing of tenants in an office building or structure.

While I have shown and described what I deem to be the most desirable embodiment of my invention, I wish it to be understood that various changes that come within the scope of the appended claims may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a demountable partition structure, a pair of spaced fixed vertical posts, a panel fitting between said posts and of a height less than said posts, molding strips fixed to one side of said posts and extending beyond the inner sides thereof to provide an abutment for said panel, the opposite sides of said posts having vertical grooves therein, short vertical molding strips secured to the grooved side of said posts at the bottoms thereof and overlying the lower ends of said grooves, removable molding strips, and tongues provided on said removable molding strips and extending beyond the lower ends thereof, said tongues being seated in said grooves with the extending ends disposed behind said short fixed molding strips and the inner sides of said removable molding strips extending beyond the inner sides of said posts for overlapping the opposite ends of said panel.

2. In a demountable partition structure, a pair of spaced fixed vertical posts, a panel fitting between said posts and of a height less than said posts, molding strips fixed to one side of said posts and extending beyond the inner sides thereof to provide an abutment for said panel, the opposite sides of said posts having vertical grooves therein, short vertical molding strips secured to the grooved side of said posts at the bottoms thereof and overlying the lower ends of said grooves, removable molding strips, and tongues provided on said removable molding

strips and extending beyond the lower ends thereof, said tongues being seated in said grooves with the extending ends disposed behind said short fixed molding strips and the inner sides of said removable molding strips extending beyond the inner sides of said posts for overlapping the opposite ends of said panel, said tongues and posts having registering openings therein, and removable pins slidable into and out of said registering openings.

3. In a demountable partition structure, a pair of spaced fixed vertical posts having vertical abutments on the inner sides thereof, a panel of a size to fit between said posts and in abutting engagement with said abutments, a horizontal dividing rail having a groove in the bottom thereof in which the top of said panel is received, separable pin and slot connections between opposite ends of said rail and the respective posts, and removable molding strips secured to said posts and overlapping opposite ends of said panel and said top rail.

4. In a demountable partition structure, a pair of spaced fixed vertical posts having vertical abutments on the inner sides thereof, a panel of a size to fit between said posts and in abutting engagement with said abutments, a horizontal glass supporting rail having a groove in the bottom thereof in which the top of said panel is received, separable pin and slot connections between opposite ends of said rail and the respective posts, removable molding strips secured to said posts and overlapping opposite ends of said panel and said top rail, a coping connecting the tops of said posts, vertical glass abutting rails removably fitted against the inner sides of said posts and between the top of said horizontal rail and said coping, a glass panel supported by said horizontal glass supporting rail in abutting engagement with said abutting rails, and removable glass retaining rails carried by said top rail, vertical rails and said coping.

5. In a demountable partition structure, a pair of spaced fixed vertical posts, having an abutment on the inner sides thereof, a coping connecting the tops of said posts, a panel of a height less than the height of said posts and fitting against said abutment, the inner sides of said posts being provided with opposed mortises, keeper plates secured to the inner sides of said posts and overlying said mortises, said keeper plates having angular slots therein opening through one of the side edges of said keeper plates, a horizontal glass panel supporting rail having a groove in the underside thereof in which the top of said panel is seated, headed studs extending from opposite ends of said horizontal rail for reception in the angular slots in the respective keeper plates, and removable means for mounting a glass panel in supported position upon and in the space above said horizontal rail.

6. In a demountable partition structure, a fixed vertical post, a coping to which the top of said post is fixedly secured, a molding strip fixedly secured to one side of said post, a relatively short molding strip fixedly secured to the base of said post on the opposite side of said post, the last mentioned side of said post having grooves therein extending from below the top of said short molding strip to the coping, a removable molding strip, tongues extending from the inner sides of said removable molding strip, said tongues terminating short of the top of

said removable molding strip but extending below the bottom of the same, said tongues being seated in said grooves with the extending ends disposed behind said relatively short molding strip and the top end of said removable molding strip overlapping said coping, removable pins passing through registering openings provided in said posts and said tongues, all of said molding strips extending beyond the opposite sides of said post, and panels abutting opposite sides of said post and embraced by the extending sides of said molding strips.

7. In a demountable partition structure, a pair of spaced fixed vertical posts, a panel fitting between said posts, molding strips fixed to one side of said posts and extending beyond the inner sides thereof to provide an abutment for said panel, the opposite sides of said posts having vertical grooves therein, sockets provided at the lower ends of said grooves, removable molding strips, and tongues provided on said removable molding strips and extending beyond the lower ends thereof, said tongues being seated in said

sockets while the inner sides of said removable molding strips extend beyond the inner sides of said posts for overlapping the opposite ends of said panel.

8. In a demountable partition structure, a pair of spaced fixed vertical posts, a panel fitting between said posts, molding strips fixed to one side of said posts and extending beyond the inner sides thereof to provide an abutment for said panel, the opposite sides of said posts having vertical grooves therein, sockets provided at the lower ends of said grooves, removable molding strips, and tongues provided on said removable molding strips and extending beyond the lower ends thereof, said tongues being seated in said sockets while the inner sides of said removable molding strips extend beyond the inner sides of said posts for overlapping the opposite ends of said panel, and removable fastening elements passing through said posts and tongues to secure said molding strips to the respective posts.

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