O. M. OTTE.

KNOCKDOWN SHEET METAL PARTITION.

APPLICATION FILED SEPT. 11, 1916.

1,231,289. Patented June 26, 1917.

4 SHEETS—SHEET 1.

Fig. 1.

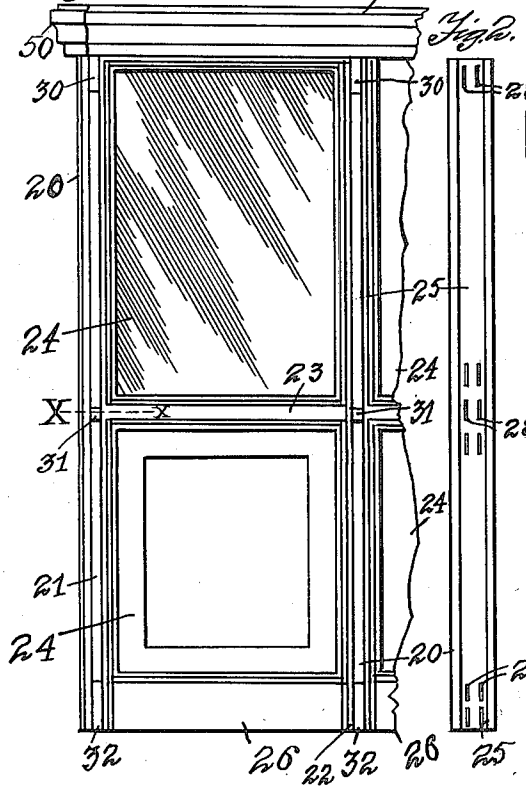


Fig. 2.

Fig. 3.

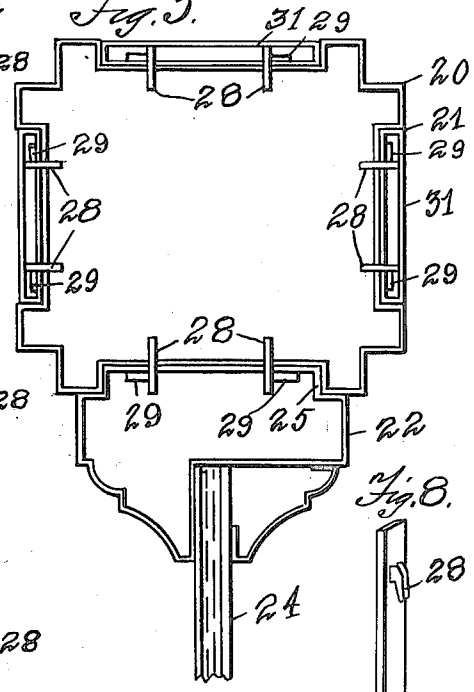


Fig. 8.

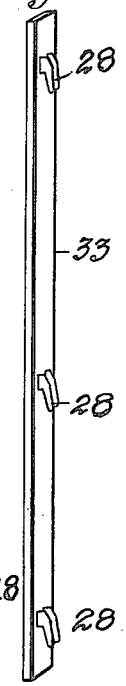


Fig. 4.

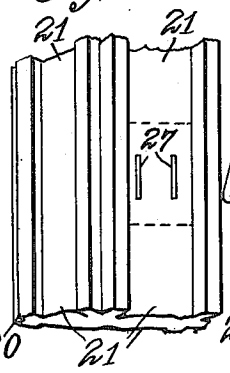


Fig. 5.



Fig. 6.

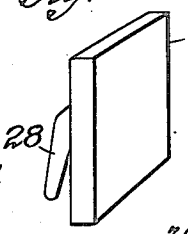


Fig. 7.

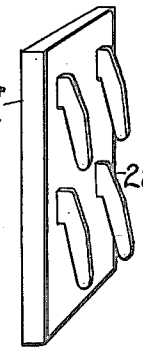
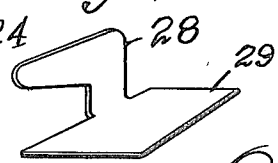


Fig. 9.



Witnesses

Ivar E. Nordstrom,

H. A. Sandberg

Inventor

Otho M. Otte

By S. Arthur Baldwin.

Attorney

O. M. OTTE.

KNOCKDOWN SHEET METAL PARTITION.

APPLICATION FILED SEPT. 11, 1916.

1,231,289. Patented June 26, 1917.

4 SHEETS—SHEET 2.

Fig. 10.

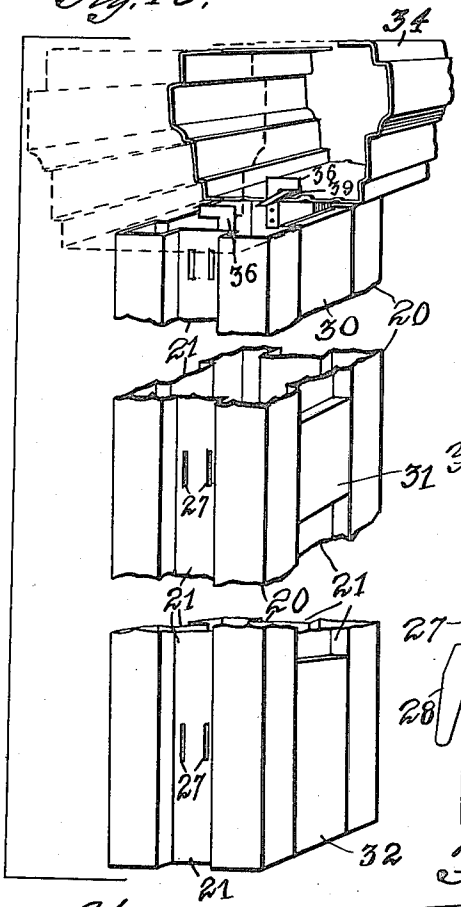


Fig. 12

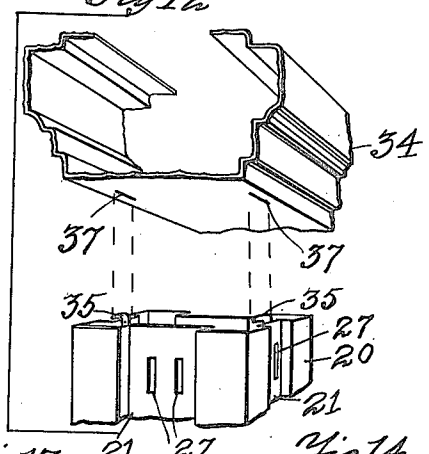


Fig. 17.

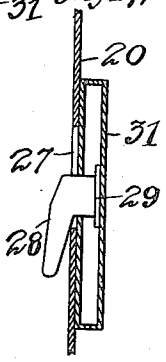


Fig. 14.

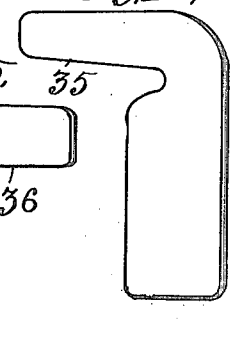


Fig. 16

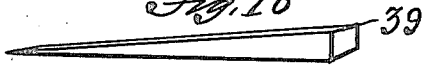


Fig. 11.

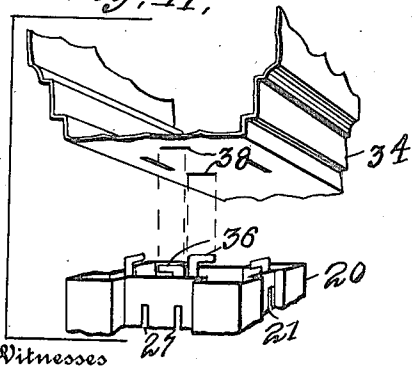
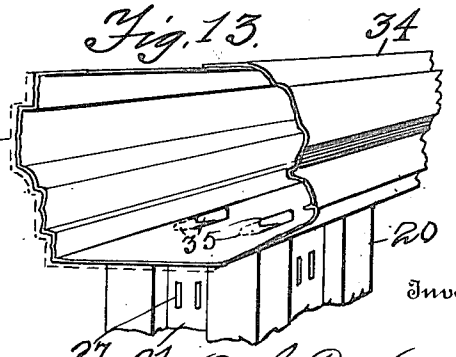


Fig. 13.



Witnesses

Ivar E. Nordstrom

H. A. Sandberg

Inventor

Otho M. Otte

By S. Arthur Baldwin

Attorney

O. M. OTTE.

KNOCKDOWN SHEET METAL PARTITION.

APPLICATION FILED SEPT. 11, 1916.

1,231,289.

Patented June 26, 1917.

4 SHEETS—SHEET 3.

Fig. 18.

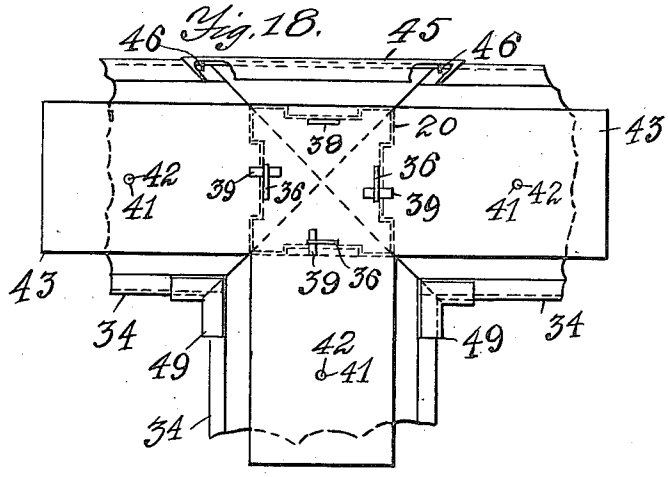


Fig. 21.

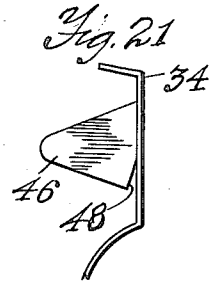


Fig. 19.

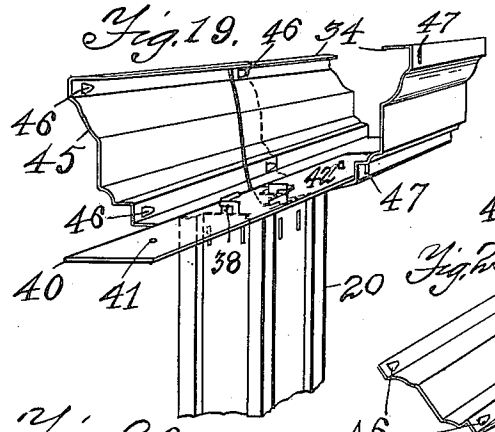


Fig. 22.

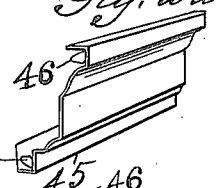


Fig. 23.

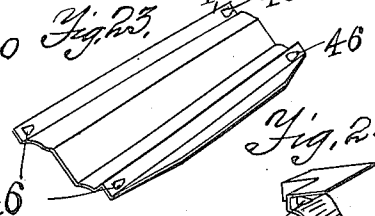


Fig. 24.

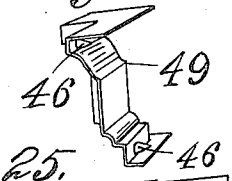


Fig. 20.

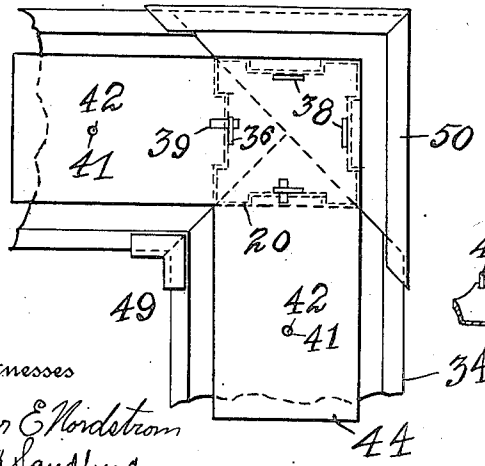
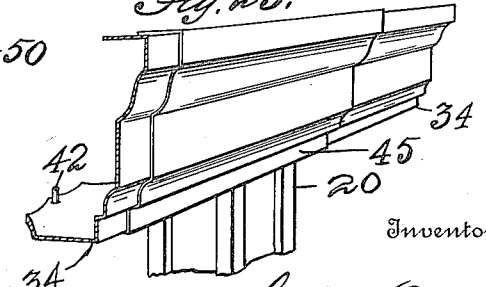


Fig. 25.



Witnesses

Ivar E. Nordstrom

H. A. Landberg

Inventor

Otho M. Otte

By S. Arthur Baldwin,

Attorney

O. M. OTTE.

KNOCKDOWN SHEET METAL PARTITION.

APPLICATION FILED SEPT. 11, 1916.

1,231,289.

Patented June 26, 1917.

4 SHEETS—SHEET 4.

Fig. 26.

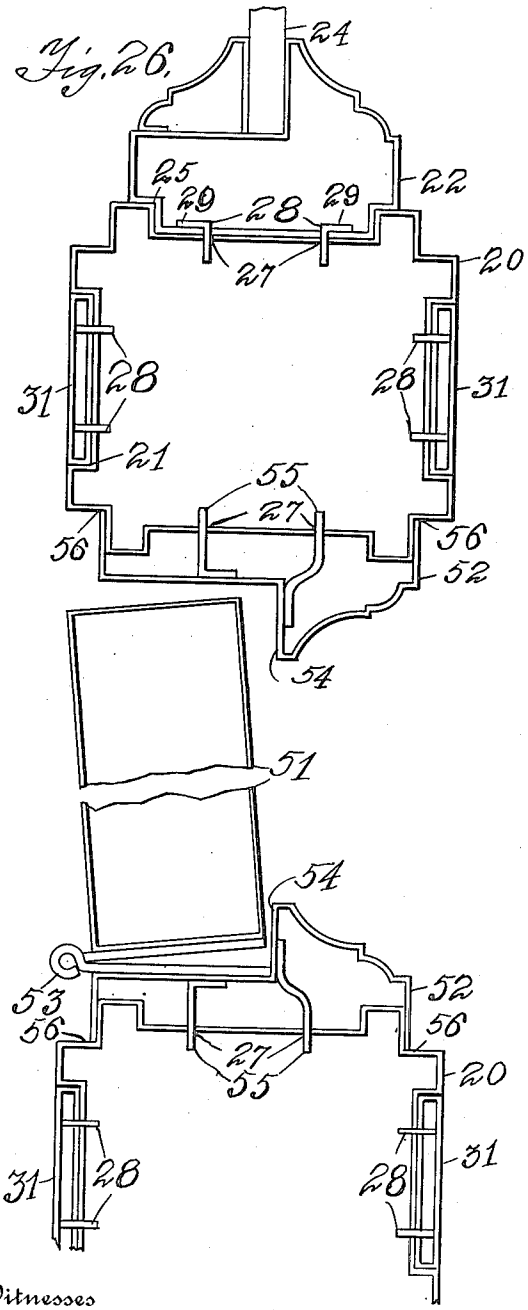
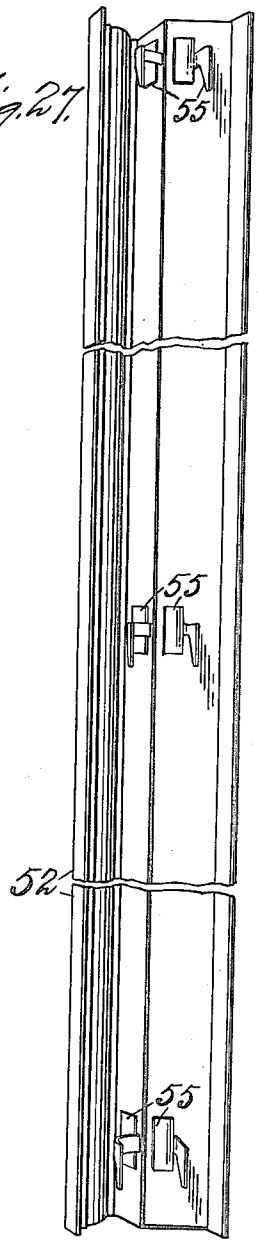


Fig. 27.



Witnesses

J. E. Nordstrom

H. A. Sandberg

Inventor

Otho M. Otte

By S. Arthur Baldwin

Attorney

UNITED STATES PATENT OFFICE.

OTHO M. OTTE, OF JAMESTOWN, NEW YORK.

KNOCKDOWN SHEET-METAL PARTITION.

1,231,289. Specification of Letters Patent. Patented June 26, 1917.

Application filed September 11, 1916. Serial No. 119,337.

To all whom it may concern:

Be it known that I, OTHO M. OTTE, a citizen of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Knockdown Sheet-Metal Partitions, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to knock-down, or an attachable and detachable construction of sheet metal partition work; and the invention consists in providing the pilasters, panels, molding and other parts assembled in sections with detachable connections whereby they may be set up and knocked down as desired and placed in different shapes according to the different sizes of the apartments required; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is an elevation of a section of a partition showing the pilasters and panel work with the points of attachment for the panel work and pilasters covered by cap and rail and plinth blocks. Fig. 2 is an edgewise view of the stile of the molding showing the cap and rail and plinth hooks for attachment in the cap and rail and plinth slots in the pilasters. Fig. 3 is a crosswise sectional view of the pilaster at line X X in Fig. 1, showing the construction and arrangement of the parts, the pilaster being shown with blocks on three sides and the partition section attached on the fourth side, the partition section being broken away. Fig. 4 is a perspective view of a portion of one of the pilasters showing the parallel slots therein, the position of the rail block being shown in dotted line; and Fig. 5 is a similar view of a portion of the panel, stile and crossrail work of a partition section with the projecting hooks thereon to engage said slots. Fig. 6 is a perspective view of the outer side of one of the rail blocks for covering the attaching slots, showing one of the hooks for engaging said slots; and Fig. 7 is a similar view of the inner side of a plinth or cap block showing the pair of slot engaging hooks attached to said inner side with diminishing space between said hook and the inner plate of the block to wedgingly pinch the sheet metal adjacent to the side of said slots; and Fig. 8 is a similar view of the inner side of a filler strip or panel fascia for filling the entire lengthwise panel in the pilaster, the three pairs of hooks being shown for engaging the corresponding pairs of slots in the pilaster. Fig. 9 is a detail perspective view of one of the hooking or wedging clips for attaching the stile of the panel work to the pilaster, when said clips are spot welded to the sheet metal stile as shown in Fig. 3. Fig. 10 is a detail perspective view of different portions of one of the pilasters showing the attaching slots on one side, and the plinth rail and cap blocks attached on the other side and also showing the manner of attaching the top molding so as to interlockingly bind all the parts firmly in position, the different parts of the construction being bracketed together; and Fig. 11 is a perspective view of the upper end of the pilaster with the top molding raised therefrom showing the parallel cross slots in the top molding to engage the hooks on the top of the pilaster; and Fig. 12 is a similar view of a modification of the manner of connecting the top of the pilaster to the top molding by means of wedging hooks, the top of the pilaster and the molding being separated and the parts inclosed in brackets; and Fig. 13 is a similar view of the parts in the closed position ready to move the top molding endwise as shown in dotted line to thereby wedgingly hold said top molding on the upper end of the pilaster and lock all the parts. Fig. 14 is a detail of one of the wedging hooks; and Fig. 15 is a detail of one of the hooks for use with a wedge; and Fig. 16 shows one of the wedges for use as shown in Fig. 9. Fig. 17 is a vertical sectional view of one of the hollow metal cap, rail or plinth blocks attached to the pilaster, showing the manner of attachment for the hooked lug and its wedging hold on the pilaster through the slot. Fig. 18 is a top plan view of the joint in the top channel molding showing the mitered joint and the filling and anchoring plates to cover and firmly support the joint where a sidewise extending partition joins the side of a partition. Fig. 19 is a perspective view of a portion of a straight joint in the channel molding showing the upper end of the pilaster and holding plate, the mitered end of the channel molding and the miter-shaped filling piece for covering the space between the mitered ends of the channel molding and showing the manner of attachment for said covering piece. Fig. 20 is a top plan view

of a corner showing the mitered joint and the angular coverings for the corner. Fig. 21 is an elevation of a portion of the channel molding filling piece showing the attaching lug. Fig. 22 is a perspective view of the outer side of the filling piece for covering the space between the mitered ends of the channel molding; and Fig. 23 is a similar view of the inner side of said filling piece. Fig. 24 is a perspective view of the inner side of the inner corner piece for covering the mitered joint in a corner. Fig. 25, is a perspective view of the outer side of the joint of a straight channel molding joint, the upper portion of the pilaster being shown. Fig. 26 is a crosswise sectional view of the pilaster, door and a portion of one of the panel sections, showing the construction and arrangement of the same. Fig. 27 is a perspective view of the inner side of the door jamb molding showing the lugs thereon.

Like characters of reference refer to corresponding parts in the several views.

The numeral 20 designates one of the hollow or tubular pilasters, each of which is preferably formed with the lengthwise panels or channels 21 which give added stiffness and strength to said pilasters or pilaster sections.

The numeral 22 designates the stile, the numeral 23 the crossrail, and the numeral 24 the panel work. The stile 22, crossrail 23 and panel 24 form a panel section 26 which is connected to an adjacent door or partition section preferably by means of intervening pilasters 20 though the stiles 22 may be attached to one another. Each stile 22 is provided on its lengthwise edges with projections 25 which fit within the lengthwise panels 21 of the pilasters thereby forming a close joint between the section 26 and the pilaster 20. The panels 24 may be of sheet metal or glass.

In order to attach the stile 22 to the pilasters, spaced slots 27 are provided in the cap, crossrail and plinth portions within the lengthwise panels 21 of the pilasters 20, and a correspondingly spaced pair of wedgingly hooked lugs 28 are provided on the projecting edge 25 of the stile 22, said lugs 28 being preferably shaped as shown in Fig. 9 with a flat portion 29 for attachment to the inner side of the stile 22 by means of spot welding. The wedging hook 28 extends out through a slot in the stile 22 to engage the slot 27 in the pilaster 20, as shown in Figs. 3 and 4.

It is apparent that the hooks 28 can be so placed on the stiles 22 that they will wedgingly hook into the slots 27 so that when the section 26 rests on the floor each hook upon said section will firmly and wedgingly hold upon the lower end wall of each of the slots 27, thereby firmly holding the section 26 and the pilaster 20 in position and in firm attachment yet so that they may easily be removed from one another should it be desired to change the location of the partition either to entirely another position or to enlarge or diminish the size of the compartment. In order to make the partitions so adjustable, slots 27 are provided in each of the panels 21 and hollow sheet metal cap blocks 30, rail blocks 31 and plinth blocks 32 are provided for covering or filling said slots 27 to form the cap, rail and plinth portions of the pilasters when it is desired to retain the panel effect in the pilaster.

Should it be desired, however, as in certain constructions, to have smooth exterior surfaces for the pilaster on certain or all sides, a panel fascia or filler strip 33 is provided which entirely fills the panel 31, making an unbroken surface which finishes flat entirely across the side of the pilaster. The filler strip 33 is provided with pairs of hooks 28 at different elevations to engage the corresponding pairs of slots 27 in the pilaster.

In order to hold both the pilasters 20 and sections 26 firmly in the attached position, a top channel molding 34 is provided which is attached to the tops of the pilasters 20 by means of wedging hooks 35 or straight hooks 36 with wedges 39, either of which hooks are attached to the upper end of the pilaster and extend through slots 37 for the wedging hook 35, or 38 for the straight hook 36. The wedging hook 35 is used where there is space for the sidewise movement of the pilaster 20 to bring the hooks 35 into locking engagement with the sheet metal channel molding 34. Where there is no room for such sidewise movement of the pilaster and in special cases where it is desired to obtain a strong drawing or wedging action on the pilasters in order to draw the parts more firmly together, the straight hooks 36 are preferred with the wedges 39 which draw the parts together without moving them out of position as to one another and firmly hold the same as shown in Fig. 10, the wedging hook 35 being shown in Fig. 13. The hooks 35 and 36 are preferably spot welded to the upper ends of the pilasters on their inner walls, the wedging hooks being placed to engage lengthwise slots in the channel molding 34 and the straight hooks 36 to engage crosswise slots so that the wedges 39 may be easily driven lengthwise of said channel molding.

The ends of the channel molding 34 are mitered from the opposite sides, that is, they run to a central point so that they may be formed in a mitered joint from either side, or a similarly miter-ended crosswise partition may be joined thereto as shown in Fig. 18, or so that they may be joined in a corner angle as shown in Fig. 20. In order to hold the two mitered ends point to point in a straight joint, a straight metal

plate 40 is provided which has the slots 38 extending up therethrough as well as through the bottom of the channel molding 34 for the hooks 35 or 36. The plate 40 is also provided with holes 41 for the pins 42 in the bottom of the channel molding 34, which pins preferably aline the two ends of the molding 34 which it is desired to connect. When it is desired to connect a side-wise partition as shown in Fig. 18, a T-shaped plate 43 is provided which has the three holes 41 to receive the three pins 42 thereby alining all the parts and holding them so that they may be rendered more rigid by means of the hooks 36 and wedges 39 which extend up through the bottoms of the channel molding ends 34 and the plate 43. In a corner joint the angular plate 44 is provided as shown in Fig. 20, being provided with the holes 41 for the pins 42 and the slots 38 for the hooks 36 to receive the wedges 39.

To more firmly hold the joints and the molding in line and also to cover said joints and the openings between the mitered ends of the channel molding, a number of different shaped filling pieces of sheet metal molding are provided as follows: For covering a straight opening between the mitered ends, a piece 45 is provided which extends beyond the mitered edges of the two mitered ends and has the hooked lugs 46 at the upper and lower edges thereof at each end to engage the slots 47 in the mitered ends of the channel molding 34. The hooked lugs 46 have the wedge-shaped opening 48 on their under side which engages in the slots 47 so that they can be inserted in said slots and moved downward slightly sufficient to wedgingly engage in the lower end of the slot. When the filling piece 45 is pressed onto the two ends, as shown in Fig. 25, it holds said ends perfectly in alinement and makes a neat covered joint and continuance of the channel molding. For the outer and inner angular corners in joints, angular pieces 49 and 50 are provided which have the lugs 46 thereon to engage slots 47 in the ends of the channel molding 34 thereby covering the corner neatly and firmly bracing said corner of the channel molding.

It is apparent that with the pilaster and panel and molding sections arranged as hereinbefore described, any desired relation of one to another may be attained. The panel sections 26 are adaptable to attachment with any one of the four slotted sides of the pilaster 20. A door section 51 also may be attached to the pilaster 20 by means of a sheet metal jamb molding 52 which fits closely over the angular projections 56 of the pilasters 20 at each side of the door opening and is removably attached to the pilasters 20 through the slots 27 by means of pairs of hooked lugs 55 attached on the inner side of the molding 52, as shown in Figs. 26 and 27. The door 51 is hinged to one of the door jamb moldings 52 by means of the hinge 53 and has a striking plate or angle 54 on the opposite door jamb molding 52. By the simple addition of the door jamb molding 52, a door may be attached between any two of the pilasters 20 at any desired point in the partition. The channel molding 34 may form the lintel for the door and may have a strip of molding 52 removably attached thereto by means of hooks 55 in order to provide a striking plate 54 though this is not usually found necessary, the angular projection 54 for each jamb of the door being found sufficient.

I claim as new:—

1. In knock-down sheet metal partition work, the combination of hollow sheet metal pilasters having lengthwise panels on each side, said pilasters having slots in pairs in said panels opposite the cap and rail and plinth portions of said pilasters, hollow sheet metal partition sections adjacent said pilasters having edges to fit within said lengthwise panels, hooks in pairs on said lengthwise edges of said partition sections to engage said slots in holding engagement, and filling pieces having hooks thereon to engage said slots and fill said panels on the sides which are not used by said partition section.

2. In a knock-down sheet metal partition, the combination of hollow metal pilaster and panel sections, hook and slot connection for said pilaster and panel sections, hooks on the upper ends of said pilaster section, channel molding having ends mitered from each side and slots in said mitered ends adapted to receive said hooks on the upper end of said pilaster, and a plate having slots adapted to receive said hooks on said upper end of said pilaster, and means for wedging said hooks in holding engagement with the plate to lock all the parts of said partition.

3. In a knock-down sheet metal partition, the combination of hollow metal pilaster and panel sections, hook and slot connection for said pilaster and panel sections, hooks on the upper ends of said pilaster section, channel molding having ends mitered from each side to the center and slots in said mitered ends adapted to receive said hooks on the upper ends of said pilaster, pins a spaced distance from the mitered ends in the bottom of said channel molding, a plate fitting within said bottom of said channel molding having holes to receive said pins to aline said ends, said plate having slots to receive said hooks on the upper ends of said pilaster, and wedges to engage beneath said hooks to lock said parts in holding engagement.

4. In a knock-down sheet metal partition, molding having mitered ends, means for an-

gular or straight attachment of said molding with said mitered ends adjacent one another, filling pieces corresponding to the contour of said molding having hooked lugs thereon, said mitered ends of said molding having slots adapted to receive said hooked lugs in holding engagement to cover the opening between said mitered ends, and means of attachment for said molding to the partition.

5. In a knock-down sheet metal partition, pilasters, panels between the pilasters, channel molding carried by the pilaster tops and having the ends thereof mitered from each side to the center, a pin a spaced distance from the end of the bottom of said channel molding, a plate shaped to fit within the bottom of said channel molding in straight or angular shape having holes to receive said pins and hold said mitered ends adjacent one another in straight or angular line, straight or angular filling pieces to cover the joints between said mitered ends, and hook and slot connection between said filling pieces and the mitered ends of said channel molding.

6. In a sheet metal structure, a four-sided pilaster having a longitudinal groove in each of its four sides, panels receivable in one or more or all of said grooves, means to secure the panels in place in the grooves, filling means for the grooves unoccupied by the panels, and means of the same character as that of the panels for securing the filling means in place so as to allow the filling means and panels to be interchangeably used in one or more or all of the grooves.

7. In a sheet metal structure, a four-sided pilaster having a longitudinal groove on each of its four sides, panels receivable in one or more or all of said grooves, means for covering and concealing each of the grooves unoccupied by the panels, and means to removably secure said covering and concealing means in place.

8. In a sheet metal structure, a pilaster having longitudinal channels for interchangeable use with hook bearing partitions, and door jambs and the like, said pilaster having cap, rail and plinth parts and having slots in the channel bottoms opposite said cap, rail and plinth parts to receive the hooks of the partitions, and door jambs and the like, and cap, rail and plinth blocks having hooks to engage in the slots unoccupied by the partitions, and the like so as to cover the slots and continue the effect created by the cap, rail and plinth parts of the pilaster across the channels.

9. In a knock-down metal structure, pilasters, panels between the pilasters, molding carried by the pilaster tops and having mitered ends, means to attach the molding either in a straight line or at an angle, filling pieces corresponding to the contour of the molding and covering the space between miters thereof, and means to secure the filling pieces to the molding.

10. In a knock-down metal structure, pilasters, panels between the pilasters, molding carried by the pilaster tops having mitered and slotted ends, filling pieces corresponding to the contour of the molding and covering the space between the miters thereof, and hooks on the filling pieces received in the slots of the molding and formed to draw the filling pieces against the molding upon down movement of the filling pieces.

11. In a knock-down metal structure, pilasters, panels between the pilasters, molding carried by the pilaster tops arranged to have adjacent ends, said molding having bottoms, upwardly projecting pins borne by each molding bottom, plates extending across the space between the adjacent molding ends and being seated on the bottoms of the molding and having holes registering with the pins and receiving same, and means to connect the molding together at points above the bottoms thereof.

12. In a sheet metal structure for providing a straight or angular formation of panels, a pilaster, panels engageable with opposite sides of the pilaster to form a straight formation or with angularly related sides of the pilaster to form an angular formation, means to secure the panels to the pilasters in either straight or angular formation, molding having mitered ends seated on the pilasters and over the panels in all formations of the latter, filling pieces conforming to the molding contour for bridging the space between the mitered ends thereof, and means to secure the filling pieces in position.

In testimony whereof I have affixed my signature in the presence of two witnesses.

OTHO M. OTTE.

Witnesses:
PEARL SIMMONS,
H. O. SANDBERG.