July 12, 1932. J. H. RYAN 1,867,329

SUPPORT FOR TILE PARTITIONS

Filed July 26, 1930

Fig. 1.

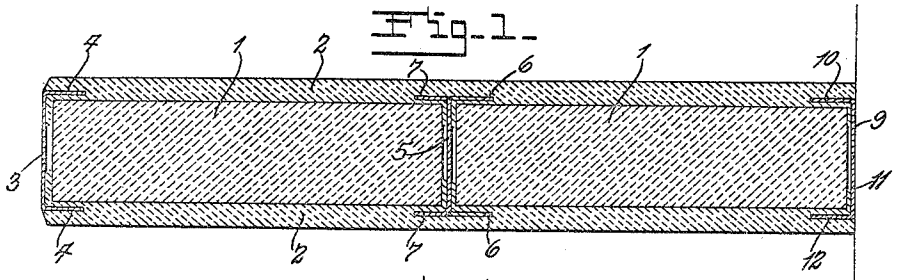


Fig. 2.

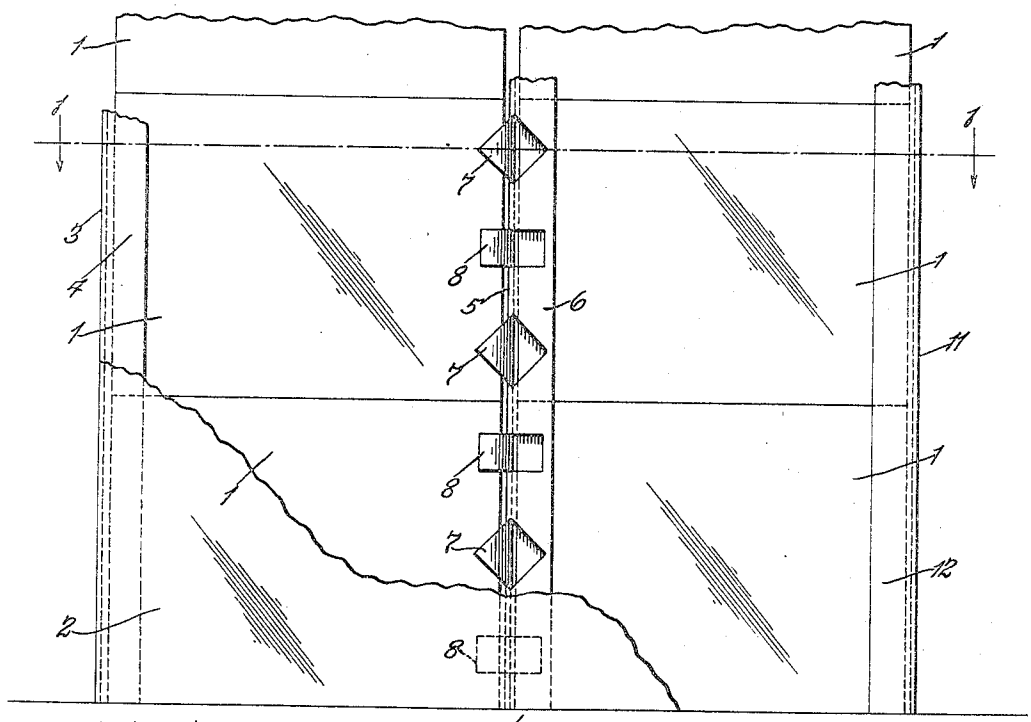


Fig. 3.

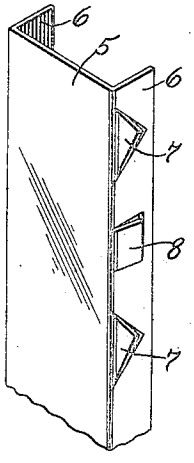


Fig. 4.

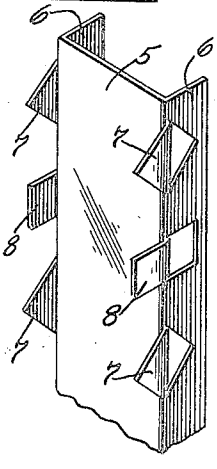


Fig. 5.

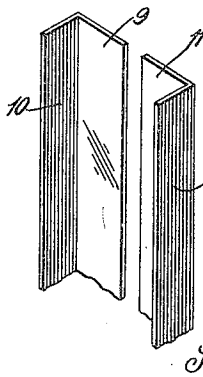
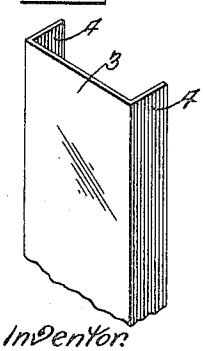


Fig. 6.



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UNITED STATES PATENT OFFICE

JAMES H. RYAN, OF ST. LOUIS, MISSOURI

SUPPORT FOR TILE PARTITIONS

Application filed July 26, 1930. Serial No. 470,870.

This invention relates to a support and method for constructing tile partitions.

An object of the invention is to provide an improved support for use in constructing tile partitions comprising a metallic channel member having its flanges cut to provide ears that are bent to extend oppositely from the flanges to engage tiles abutting against the back of the support, and to constitute engagements for wall plaster.

Another object of the invention is to provide an improved metallic support of the type and character mentioned having its flanges cut to provide laterally deflected tie portions that may readily be bent so as to be extended oppositely from the flanges, leaving the flanges forming engaging portions for tiles at one side of the channel member and the oppositely extended tie portions arranged to engage the opposite sides of tiles at the other side of the channel member.

Another object of the invention is to provide the improved method herein disclosed for rapidly constructing partitions including tile members arranged in superimposed tiers and interlocked with intervening supports and formed with means for engaging and supporting plaster applied to the sides of the tiles and the supports.

Other objects will appear from the following description, reference being made to the accompanying drawing, in which—

Fig. 1 is a horizontal sectional view of a wall section taken approximately on the line 1—1 of Fig. 2, illustrating features of the present invention.

Fig. 2 is a side elevation of a portion of a partition embodying the present invention.

Fig. 3 is a perspective view of one of the channel supporting members before the ties are bent to extend oppositely from the flanges.

Fig. 4 is a perspective view of a portion of one of the supporting members showing the ties bent to extend oppositely from the flanges.

Fig. 5 is a perspective view showing portions of supporting members used against a wall in the final construction of a partition.

Fig. 6 is a perspective view of a portion of a channel member used at the beginning of a partition wall.

The body of the partition wall comprises a number of blocks or tiles 1 arranged in vertical tiers, each tier being composed of a series of said blocks or tiles seated edgewise one upon the other as shown. The completed partition wall may be surfaced with a layer 2 of plaster or other surfacing material applied to and engaged with the surfaces of the tiles and with the supports with which the tiles are engaged so as to provide a complete partition wall of finished and ornamental appearance.

At one end of the partition wall, a channel member support is located and is arranged and combined with the ends of the tiles 1 so that the ends of all of the tiles in one vertical tier of tiles are engaged in the channel of said member. As shown, this channel member comprises a portion 3 having at each side edge a flange 4. These flanges 4 project approximately at right angles from the channel portion 3 and are spaced apart a sufficient distance so as to receive and embrace the ends of the tiles 1 between them. This channel member may be located against a wall or one side of a door or other opening, or elsewhere, at the beginning of the partition wall.

Each intermediate support for the tiles comprises a metallic channel member including a main or body portion 5 and two flanges 6 projecting from the edges of the body portion 5 in the same direction and spaced apart a sufficient distance to receive between them the ends of the tiles forming a tier of tiles. That is to say, this channel member is the duplicate of the end channel member, with the exception that the flanges 6 are cut to provide ears or ties that may be bent to extend oppositely from the flanges 6. Thus, each flange 6 is formed with a series of pairs of diverging slits intersecting at a distance from the outer edges of the flanges 6 and diverging toward the main or body portion 5 of the support. These slits provide ears or ties 7 that may be slightly deflected initially or when cut, as shown in Fig. 3 of the drawing, and

bent finally when applied to use approximately to the positions shown in Fig. 4 of the drawing. These ears or ties are of sufficient length to engage the ends of tiles arranged in a tier, as will be clearly understood by reference to Figs. 1 and 2 of the drawing, while the ends of an adjacent tier of tiles are engaged between the flanges 6 of the supporting member.

If desired, the flanges 6 may be cut to provide rectangular ears or ties 8 that also may be slightly deflected initially, as shown in Fig. 3 of the drawing, and finally bent to extend oppositely from the flanges 6 when the device is applied to use.

The slits forming the ears or ties 7 and 8 do not intersect the edges of the flanges 6, but leave said flanges 6 continuously integral throughout the length of said supporting member. According to this construction, any desired number of the ties or ears 7 and 8 may be provided so long as the strength of the supports is not materially diminished; and the strength of the supports is not materially diminished if these ties or ears are spaced apart an appreciable distance, as shown.

A support for finishing the end of a partition against another wall, for instance, may be of the type shown in Figs. 1 and 5, the same comprising a pair of metallic angle members either or both of which may be placed in position finally after the tiles are arranged and assembled in tiers to the height of the partition or to any other desired height. One of said angle members comprises flanges 9 and 10 extending at right angles to each other and constructed and arranged so that the flange 9 may be extended across the end of the tier of tiles and the flange 10 located at the side of the tier of tiles. The cooperating angle member is of similar construction and comprises a flange 11 and a flange 12 extending at right angles to the flange 11. This cooperating angle member is designed to be embodied in the partition structure by extending the flange 11 between the end of the tier of tiles and the wall adjacent to which the tier of tiles terminates and arranging the flange 12 at the side of the tier of tiles opposite the flange 10 of the cooperating angle member.

It will now be understood that all of these supporting and angle members may be constructed of sheet metal; that the ties or ears 7 and 8 may be bent from the deflected positions shown in Fig. 3 of the drawing to the positions for use as shown in Figs. 2 and 4, so that one tier of tiles may be engaged thereby while the flanges 6 may engage the adjacent tier of tiles. These ties or ears 7 and 8 and the openings formed thereby constitute engagements for plaster or surfacing material which may be applied to either or both sides of the partition after the tiles and supports have been assembled in the manner shown and described.

After the tiles and the metallic supports therefor have been assembled in cooperative relationship, the flanges 6 and the ties 7 and 8 are spaced slightly from the sides of the respective tiers of tiles, and the ends of the tiers of tiles are spaced from the metallic supports. Thus, the plaster or plastic surfacing material will enter and tie into these spaces between the flanges 6 and the sides of the tiles and, to some extent, between the ends of the tiles and the metallic supports, and also between the ties 7 and 8 and the sides of the tiles, all as clearly shown in the drawing. The plaster or surfacing material thus obtains strong enough engagement with the partition so as to retain its position thereon and union therewith in order to form the completed partition.

This invention dispenses with the necessity and desirability of using mortar and the like, thus producing a fireproof construction which may be erected much faster than brick or tile partitions using mortar and which possesses many other advantages. The supports may be constructed of standard lengths and, where different lengths are desired, may be cut to provide the different lengths.

The invention may be varied within the scope of equivalent limits without departure from the nature and principle thereof. I do not restrict myself unessentially, but what I claim and desire to secure by Letter Patent is:—

1. Supports for supporting tiles in walls comprising adjacent supports one of which consists of a channel bar for receiving the ends of a vertical series of tiles and having projections for engaging the ends of an adjacent series of tiles, and the adjacent support consisting of a pair of matching angle members, each of said angle members having a flange for engaging the sides of a vertical series of tiles and a flange across the ends of said series of tiles.

2. A series of studs for supporting tiles in wall formation comprising adjacent supports one of which consists of a stud of channel form for engaging the ends of one series of tiles and having projections for engaging the ends of an adjacent vertical series of tiles, and the adjacent support consisting of a pair of separate angle members, each of said angle members having a flange for extending along the sides of a series of tiles at the end of the wall and a flange for extending transversely of the ends of said series of tiles.

JAMES H. RYAN.