June 2, 1931. I. A. BAUM 1,808,336

CORNER CONNECTION FOR METAL FRAMES

Original Filed Feb. 21, 1929

Fig. 1.

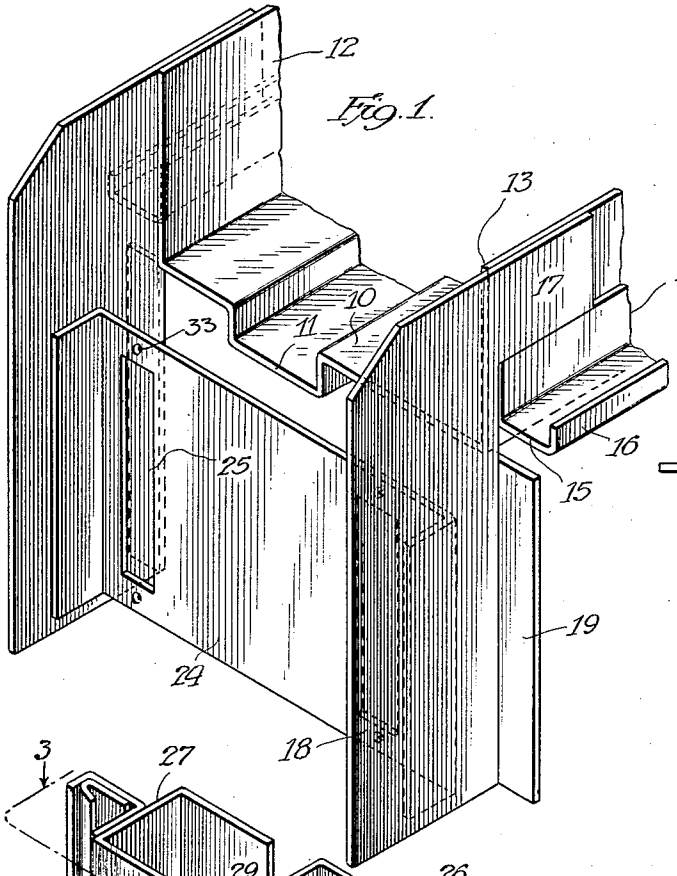


Fig. 3.

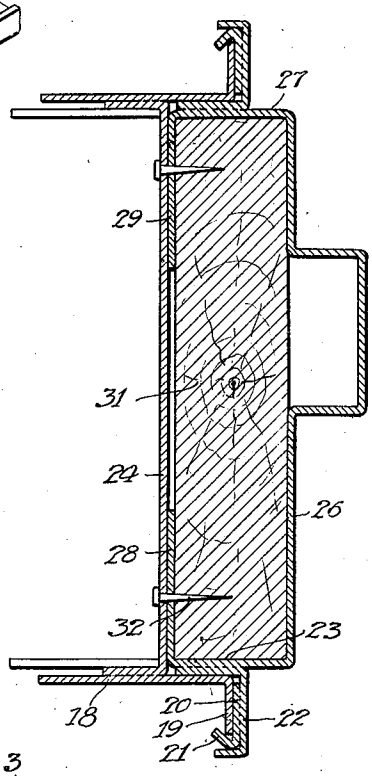
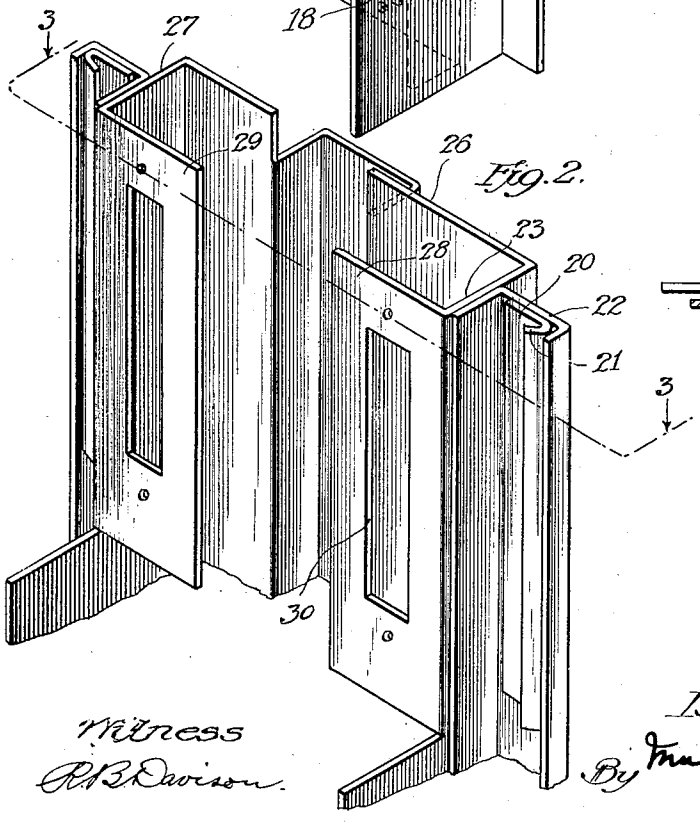


Fig. 2.



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UNITED STATES PATENT OFFICE

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CORNER CONNECTION FOR METAL FRAMES

Application filed February 21, 1929, Serial No. 341,740. Renewed June 12, 1930.

My invention relates to metal door frames and particularly to an improvement on or modification of the corner connection illustrated in my co-pending application, Serial No. 329,320, filed December 31, 1928.

An object of the invention here disclosed is to provide a simple form of interlocking connection between the head and side frames of a combined buck and jamb in which the parts are simply and easily formed and assembled.

The invention will be more readily understood by reference to the accompanying drawings, in which

Figs. 1 and 2 are perspective views of the end portions of head and side frames, in position ready to be assembled by sliding interlocking engagement of the respective parts, and

Fig. 3 is a sectional view through the assembly, the view being substantially on the line 3—3 of Fig. 2 assuming the interlocking parts of Fig. 1 to have been placed in final position.

In the drawings, I have illustrated a combined buck, jamb and stop of generally channel form. The head piece comprises a web 10 constituting the jamb, a door stop 11 formed out of the web and side flanges 12, 13 adapted to snugly fit the tile or other masonry wall. Welded to the face of the flanges 12, 13 is a continuous angle piece, the part 14 of which is secured to the flange and the portion 15 of which is perpendicular thereto. The margin 16 constituting a plaster ground and terminal is bent at an angle in the usual manner.

The means for interlocking the head and side frames comprise an angle plate, one portion 17 of which is welded to a flange of the head frame and the angular portion 18 of which projects downwardly at a right angle and carries a lateral flange or projection 19 on the inside edge adapted for sliding and interlocking engagement with a short strip 20 having a rebent portion 21, the strip being secured on the inside face of the perpendicular portion 22 of a plaster terminal that is secured to the outside face of the flange 23 of the side frame channel. The portions 18 of the angle plates are joined by means of a flanged member 24 having openings 25 formed therein.

The side frame member consists in a web 26 and side flanges 23, 27. At the upper end the flanges are slit and bent inwardly to provide ears 28, 29 having openings 30 therein that register with the openings 25 in the member 24. When the parts are assembled by sliding interlocking engagement, the parts will occupy the position shown in Fig. 3. A wood block 31 is placed in the vertical frame member and nails 32 are driven into the block through registering apertures 33 in the parts 24, 28. This serves to hold the head and side frame members against separation. The wood block serves also as a means of attachment of a temporary bracing member which may be a piece of 2 x 4 (not shown) that extends to the ceiling, the lower end being nailed through the opening in the metal members into the wood block.

The simplicity of the design will commend itself both from manufacturing and installing standpoints. The plain and simple plaster terminal which is continuous around the opening insures a proper finish and the short interlocking member which is installed only at the corners on the side frames is easily and quickly welded in place. Various changes and modifications may be made in the construction shown, and I do not wish to be limited except as indicated in the appended claims.

I claim:

1. In a door frame, the combination of head and side frame members of channel shape in cross section with the flanges projecting away from the door opening, a continuous angular member constituting a plaster terminal and ground secured to the face of the flange of the channel, an angle plate secured to a flange of one frame member and having a lateral projection and a socket member secured to the inside of the plaster terminal for engagement by said projection.

2. In a door frame, the combination of head and side frame members of channel shape in cross section with the flanges projecting away from the door opening, a continuous angular member constituting a plaster terminal and

ground secured to the face of the flange of the channel, an angle plate secured to a flange of one frame member and having a lateral projection and means inside of the plaster terminal member adapted to be engaged by and interlock with the lateral projection on the angle plate.

3. In a door frame, the combination of head and side frame members of channel shape in cross section, a separate angular member acting as a plaster terminal welded to an outside face of a flange of a channel, an angle plate one leg of which is permanently secured to one frame member and the other leg of which lies parallel to another frame member and is adapted for sliding interlocking engagement therewith, means on the angle plate and within the plaster terminal member for insuring interlocking engagement, a wood block in one of said frame members and means passing through overlapping portions of the frames and into said wood block for holding the frames against separation.

4. In a door frame the combination of head and side frame members of channel shape in cross section with the flanges projecting away from the door opening, portions of the flanges of the side frame being cut and bent inwardly to lie at right angles to their original plane, angle plates one leg of each of which is secured to the head frame and the other leg adapted to lie parallel to the flanges of the side frame, a web joining said other legs and adapted to lie in contact with said inwardly bent portions of the flanges, a lateral flange projecting from the inside vertical edge of one of the said other legs, a plaster terminal and ground projecting from a flange of a side frame, and means within the limits of said plaster terminal acting as a socket to receive said lateral flange.

In testimony whereof I have affixed my signature.

ISAAC A. BAUM.