Feb. 18, 1930. I. A. BAUM 1,747,415

DOOR FRAME FOR OUTSIDE WALLS

Filed Dec. 31, 1928 2 Sheets-Sheet 1

Fig. 1.

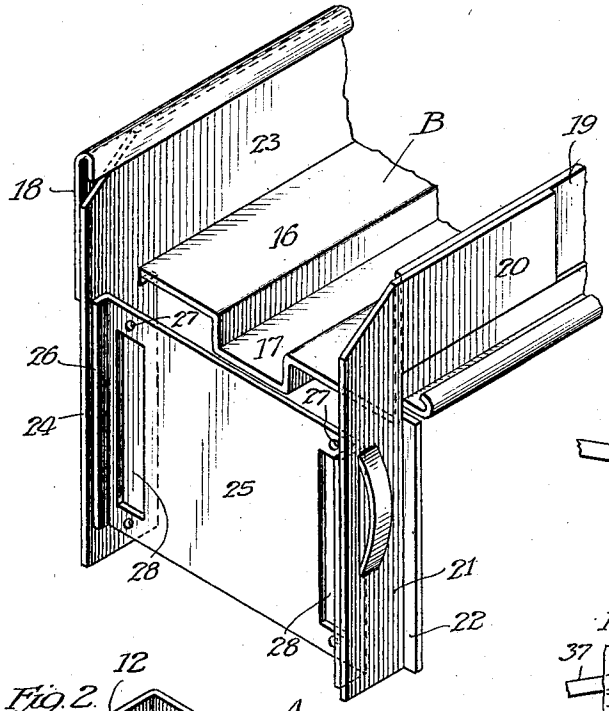
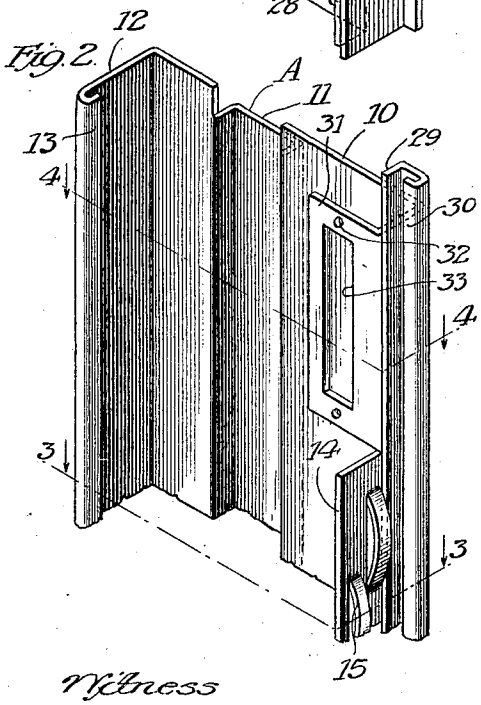


Fig. 2.



Witness
R. B. Davison

Fig. 3.

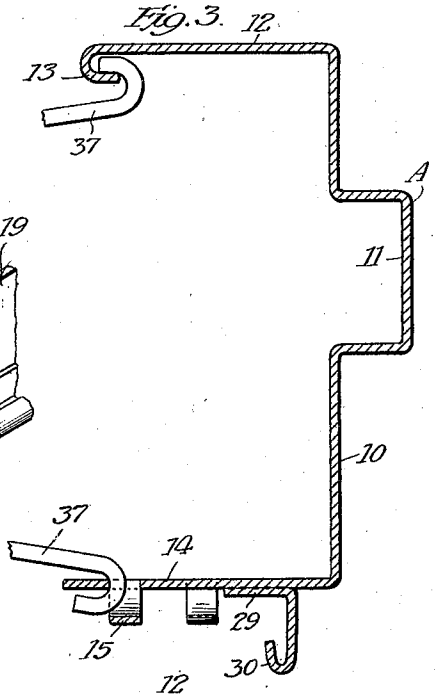
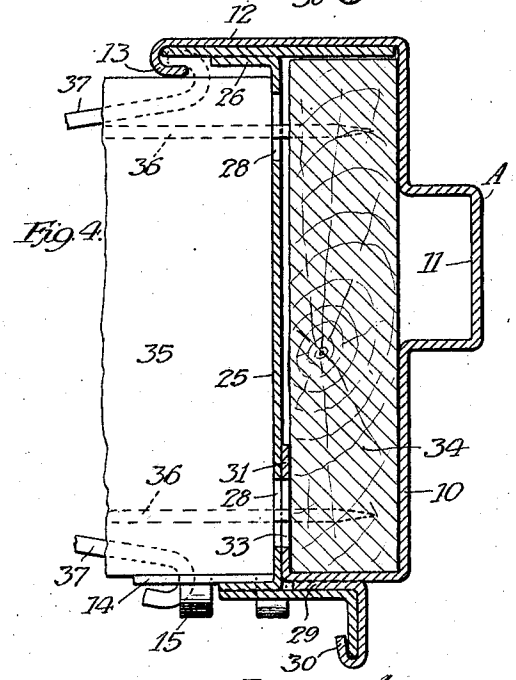


Fig. 4.



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Filed Dec. 31, 1928 2 Sheets-Sheet 2

Fig. 5.

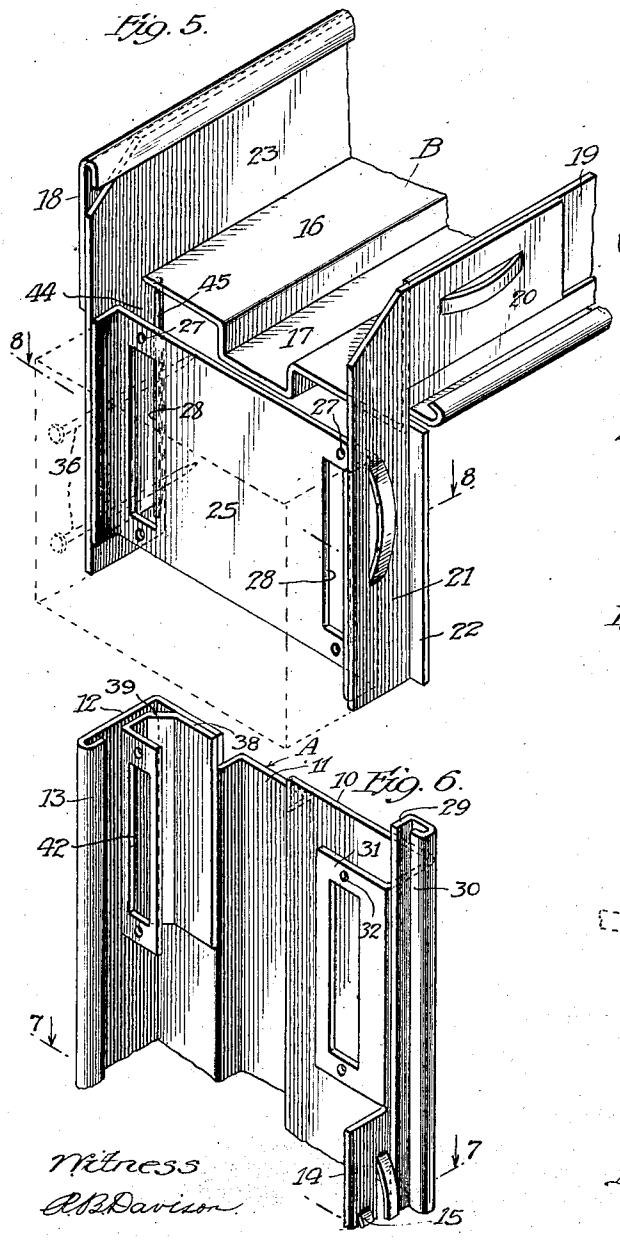


Fig. 6.

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Fig. 7.

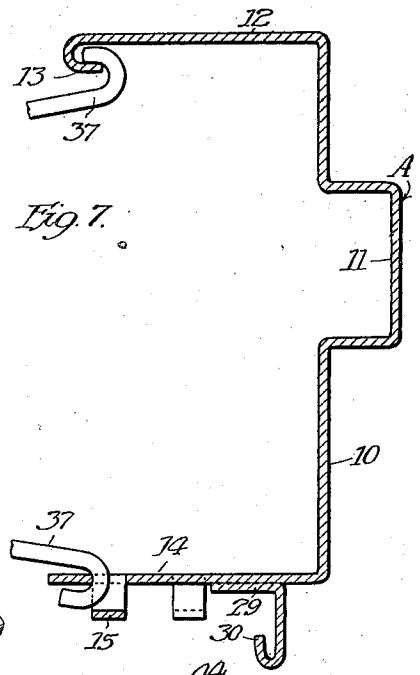
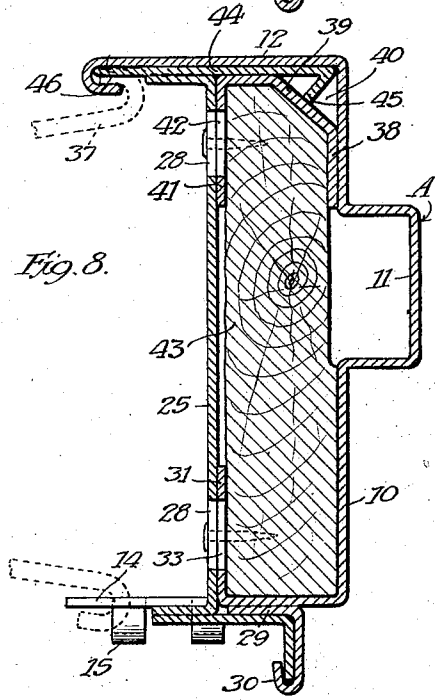


Fig. 8.



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UNITED STATES PATENT OFFICE

ISAAC A. BAUM, OF CHICAGO, ILLINOIS

DOOR FRAME FOR OUTSIDE WALLS

Application filed December 31, 1928. Serial No. 329,320.

My invention relates to door frames and particularly to a novel corner connection for a specific type of frames.

In the development of metal frames for doors, it frequently becomes necessary to provide such frames for openings in outside walls, in which case the ordinary construction employed in plastered walls is not available for use. I have therefore developed a frame of this character together with a corner connection for uniting the side and head frame members.

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

Figs. 1 and 2 taken together are perspective views of the adjacent ends of the side and head frame with the corner connection arranged in the position the parts will assume before they are slidingly interlocked;

Fig. 3 is a sectional view on the line 3—3 of Fig. 2;

Fig. 4 is a sectional view on the line 4—4 of Fig. 2 with the parts in interlocked or assembled relation;

Figs. 5 and 6 are perspective views similar to Figs. 1 and 2 showing a slightly modified construction;

Fig. 7 is a sectional view on the line 7—7 of Fig. 6; and

Fig. 8 is a sectional view on approximately the line 8—8 of Fig. 5 with the parts in assembled relation.

The frame comprises the side members A and head member B of duplicate cross-section. The side frame has a web 10 and integral stop 11, an outside flange 12 with its margin rebent as indicated at 13, and an inside flange 14 having plaster anchors 15 struck out therefrom.

The head member has a web 16, stop 17, outside flange 18, and inside flange 19. Angle plates are employed as the means for providing the sliding corner connection, one leg 20 of the inside plate being welded to the outside of the flange 19, while the leg 21 projects at right angles downwardly and has a short flange 22 projecting from its inside edge. The outside plate has one leg 23 welded to the inside face of the flange 18 while the leg 24 projects downwardly parallel to the leg 21. A web or connecting plate 25 having laterally bent ends 26 is welded in place as shown, the parts 26 being welded to the legs 21, 24 for the purpose of stiffening the same and for another purpose later to be described. The plate has nail holes 27 and elongated apertures 28 therein, as will be presently described.

The side frame member has on its inside edge a continuous angular section of metal which serves as a plaster terminal and ground. The base 29 of the piece is welded to the flange 14, while the marginal edge 30 is rebent to serve as a plaster anchor, and, at the upper end, as a means for receiving the flange 22 of the leg 21. This is clearly shown in Fig. 4.

The flange 14 is cut and an ear 31 is bent laterally inwardly, the ear having nail holes 32 and a cut-out portion 33. This serves as a means for receiving and holding a wood block 34, best shown in Fig. 4. When the parts are assembled by lowering the head frame as shown in Fig. 1 into engagement with the socket formed in the side frame, the nail holes 27 and 31 will register with the parts in final position. A nail passed through the holes into the wood block serves to interlock the parts against vertical movement.

The wood block serves a further purpose as it may be used as the means for attachment of an erecting block or 2 x 4 which extends to the ceiling. A block is indicated in Fig. 4 by the numeral 35, the nails 36 being projected through the nailing block and through the apertures 28—33 into the wood block 34.

It will be noted that when the parts are in interlocked position, the leg 24 of the angle plate fits snugly within the space in the side frame member between the margin 13 and the web 10.

Wall anchors are indicated at 37 being in the form of a wire loop embedded in the masonry.

In the construction of Figs. 5–8 the described parts remain the same except for the detail relating to the socket at the outside edge of the frame. In that construction the

side frame is provided with a U-shaped clip one portion 38 of which is welded to the web of the channel, the inclined portion 39 providing an open space or socket 40, while the portion 41 has an aperture 42 and serves as an additional means for securing a wood block 43.

The downwardly projecting leg 44 of the outside angle plate has an inwardly and backwardly projecting margin 45 adapted to be received within the space 40 so that the sliding interlocking is at the inner corner of the frame instead of at the rebent margin 46 as in the construction heretofore described. Otherwise the construction is the same as that heretofore described.

A frame of the construction described may be installed in an opening in an outside wall, the outer flange 12 providing a proper finish due to its rebent margin.

Other modifications than that already described may be made 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 a side member and a head member, angle plates secured to one of said members, means on the complementary member for providing a socket for one of said plates outside of the surface plane of the member, and means providing a socket for the other plate inside of the surface plane of the said member.

2. In a door frame, the combination of complementary frame members each having a web and flanges, angle plates secured to one member and projecting at right angles into a position alongside the flanges of the other, means providing a socket for one plate outside of the flange and means providing a socket for the other plate inside of the adjacent flange.

3. A door frame comprising in combination metal frame members of generally channel shape, the flange at one side having a rebent margin adapted to finish the edge and to provide for engagement therewith by an anchor, angle plates permanently secured to one frame and projecting at right angles therefrom and means on the complementary frame member for providing a socket for the reception of said angle plates in longitudinally sliding relation.

4. A door frame comprising, in combination, metal frame members of generally channel shape, the flange at one side having a rebent margin adapted to finish the edge and to provide for engagement therewith by an anchor, angle plates permanently secured to one frame and projecting at right angles therefrom and one of said plates being shaped to slidingly interfit with the socket formed by said rebent margin.

5. In combination side and head frame members of generally channel shape in cross section, angle plates one leg of each of which is permanently secured to a flange of the head frame and the other leg of each of which projects at right angles into parallelism with the flanges of the side frame, one flange of the side frame having a rebent margin adapted to act as a socket for the leg of one angle plate, and means on the side frame providing a socket for the leg of the other angle plate.

6. In combination side and head frame members of generally channel shape in cross section, angle plates one leg of each of which is permanently secured to a flange of the head frame and the other leg of each of which projects at right angles into parallelism with the flanges of the side frame, means providing a socket on the inside of one side frame flange for a leg of an angle plate and means providing a socket on the outside of the other side frame flange for a leg of the other angle plate.

7. In combination, side and head frame members of channel shape in cross section, angle plates, one leg of each of which is welded to a flange of the head frame and the other leg of each of which is adapted to project at right angles into parallelism with the flanges of the side frame, a web or plate joining the depending legs of said angle plates, and means on the side frame cooperating with said legs and said web for providing a sliding interlocking connection between the side and head frames.

8. In combination, side and head frame members, angle plates secured to the head frame and having portions projecting into interfitting engagement with the side frame, a plate connecting the depending portions of the angle plates, a wood block mounted in the side frame near its upper end, and means projecting through the connecting plate into the wood block for securing the side and head frames against separation.

9. In combination, side and head frame members, right angular projections from the head frame adapted for sliding interlocking connection with the side frame, an apertured plate connecting said projections, a wood erecting block, and fastening means for said erecting block passing through the apertures in said connecting plate into said wood block.

10. In combination, side and head frame members of channel shape in cross section, corner connecting plates secured to one frame member and adapted for sliding interlocking connection with the other frame member, a portion of a flange of a side frame being displaced laterally inwardly at right angles to provide a socket and holding means for a wood block.

In testimony whereof I have affixed my signature.

ISAAC A. BAUM.