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CONSTRUCTION OF WINDOW AND DOOR FRAMES

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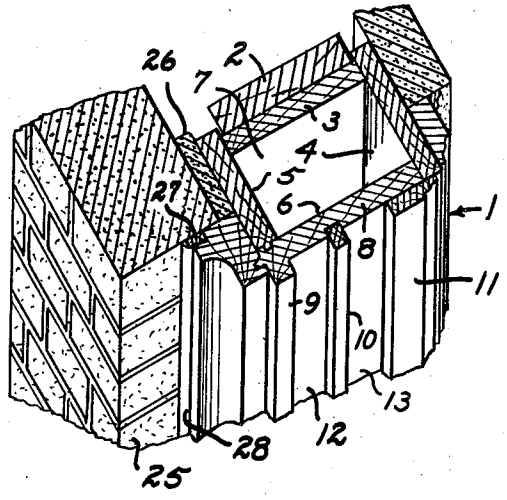


Fig. 1.

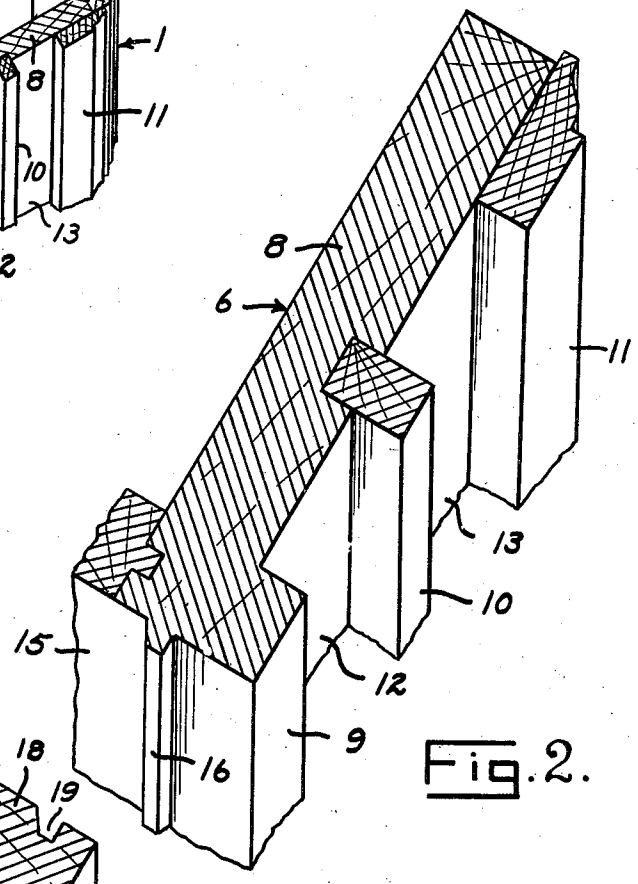


Fig. 2.

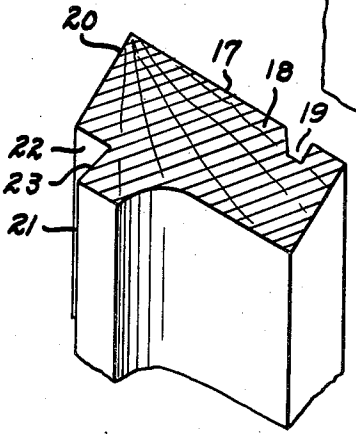


Fig. 3.

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CONSTRUCTION OF WINDOW AND DOOR FRAMES

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2 Claims. (Cl. 20—11)

This invention relates to window and door frames and in particular to frames of this type which are so constructed as to facilitate the application of brick or other facing material adjacent thereto and to effect a seal against the passage of air or moisture between the facing and frame.

The primary object of the invention is to provide a frame which is simple in construction and which possesses desired strength and stability.

Another object is to provide a frame structure which lends itself to prefabrication and distribution through building material dealers as a stock item of building material.

A further object is to provide a frame structure and outer casing having a complementary tongue and groove connection to minimize the leakage of air or moisture therebetween.

Still another object is to provide a frame including an outer casing having a rabbet on its rearward face so that such rearward face serves as a stop for an adjacent facing material which, together with the rabbet form a chamber which is adapted to receive a caulking compound.

Still another object is to provide a frame having a rabbet which forms with the adjacent facing material a caulking groove which terminates in an outer slit-like opening so that a small surface of the caulking compound within the groove is exposed to the atmosphere.

The foregoing objects, together with other objects will be more fully apparent from the following description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view in section illustrating an embodiment of the invention;

Fig. 2 is a perspective view of a member comprising a one piece pulley stile and blind stop constituting an element of the invention;

Fig. 3 is a perspective view of the outside casing which is adapted to be secured to the blind stop.

In the drawing the reference character 1 represents a frame which is attached to a support member 2 such as a stud or other structural member. The frame 1 is shown and described as a window frame although it is to be understood that such frame may be either a door or window frame without departing from the invention. The frame as shown comprises members 3, 4 and 5 which, together with the stile member 6, form the box chamber 7 to receive sash weights as is well known in the art.

The pulley stile member 6 of the frame 1 is of particular construction in that it comprises the pulley stile portion 8 and the blind stop portion 9 as an integral unit. This construction avoids a joint between these elements and hence minimizes air leakage through this portion of the frame.

Successively spaced from the blind stop 9 are the parting strip 10 and the inner stop 11 which provide grooves 12 and 13 which serve as guides for window sashes to sildably move therein.

The member 6 extends transversely of the frame 1 and is provided on its outer face 15 with a continuous tongue 16 which is designed to effect a seal against entry of air or moisture between this member and the inner face 17 of the outer casing 18 which has a complementary inner groove 19 to interfit with the tongue 16. The outer casing 18 is secured to the frame 1 by means of suitable fasteners such as nails or screws and it seems apparent that the structure so completed not only effectively seals against the entry of air or moisture but is also extremely rigid and hence effectively resists forces which normally tend to separate these elements when in use.

The rearward face 20 of the outer casing 18 is provided with a rabbet 21 throughout its length. This rabbet has a bottom surface 22 which is generally parallel to the inner face 17 of the outer casing 18. The rabbet 21 also has an inner side wall 23 which is preferably tapered so that, as will be more fully described, the rabbet together with the adjacent facing material forms a groove adapted to receive a caulking compound, such groove having a narrow outer opening but having a sufficient cross sectional area that an adequate amount of caulking material is received therein to effect the desired seal between the facing material and the frame 1.

When the frame thus far described is secured in place, facing material which is shown by way of illustration as bricks 25 may be applied to the exterior of the structure and adjacent the frame 1. If the bricks are to be spaced from the member 10 of the frame 1, a spacer strip 26 may be positioned rearwardly of the outer casing and in engagement with the outer face of the member 5. Then, in accordance with the invention, the bricks 25 or other facing material adjacent the frame are readily positioned since the rearward face 20 of the outer casing 1 acts as a stop whereby the bricks 25 are necessarily positioned in desired alignment. At the same time the rabbet 21 and the bricks 25 cooperate to form a caulking groove 27 which, by virtue of the tapered sidewall 23 of the groove, provide a narrow slit-like

passage 28 to the outside of the structure in which the frame 1 is positioned.

The opening 28 is of sufficient width to receive the nozzle of a caulking gun whereby the caulking chamber 27 is filled with a caulking compound. It is thus seen that not only does the construction provide means for accurately positioning the facing material such as brick 25 but it also minimizes the amount of caulking compound necessary to effect a seal between the frame and such bricks. At the same time there is an adequate quantity of caulking compound within the chamber 27 formed by the rabbet 21 and the bricks 25, there is adequate adherent surface within the chamber 27 and yet there is but a very small surface of the compound exposed to the atmosphere through the slip-like opening. For this reason the effect of the atmosphere on the caulking compound is greatly retarded and the small body of the compound will serve its intended purpose for an indefinite period of time.

Although the invention has been illustrated in a preferred form it is to be understood that various changes may be made without departing from the spirit of the invention which comprehends a novel frame structure of simple construction and which is effective in providing an adequate sealing against the entry of air or moisture to the interior of a building in which the frame is used.

What I claim and desire to secure by Letters Patent is:

1. A frame structure of the class described comprising longitudinal members forming the back and sides of a box chamber, an integral stile and outer stop member closing said box chamber, said integral stile and stop member having one edge abutting the inner face of the inside box member and the stop portion thereof overlying the edge of the outside box member, and an outer casing secured to said stile and stop member and covering the joint beneath the stop portion.

2. A frame structure of the class described comprising longitudinal members forming the back and sides of a box chamber, an integral stile and outer stop member closing said box chamber, said integral stile and stop member having one edge abutting the inner face of the inside box member and the stop portion thereof overlying the edge of the outside box member, an outer casing secured to the outer face of the stop portion by a tongue and groove connection, said outer casing having a dovetailed rabbet in its rearward face whereby there is provided a gage surface thereon for surface material proximate the frame and the rabbet and such material forms a caulking groove.

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