Nov. 21, 1961 R. R. IMSE 3,009,213

EXTERIOR DOOR UNIT AND METHOD OF INSTALLING A DOOR

Filed May 3, 1957

Fig. 1.

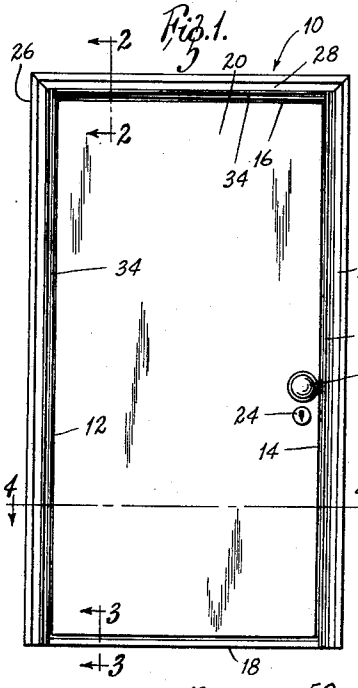


Fig. 2.

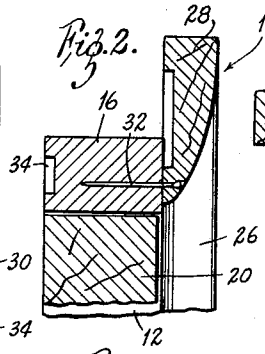


Fig. 3.

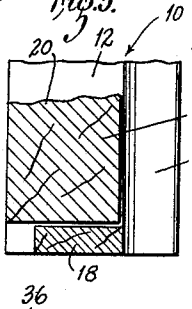


Fig. 4.

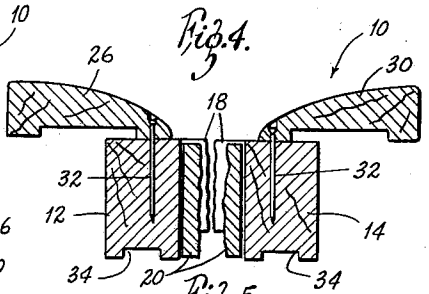


Fig. 5.

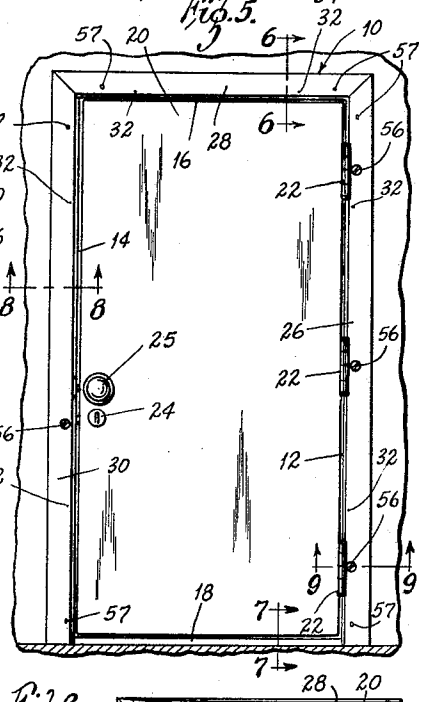


Fig. 6.

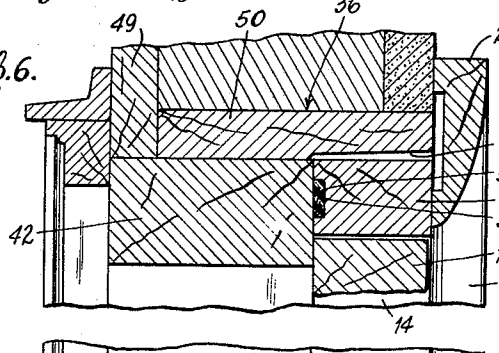


Fig. 7.

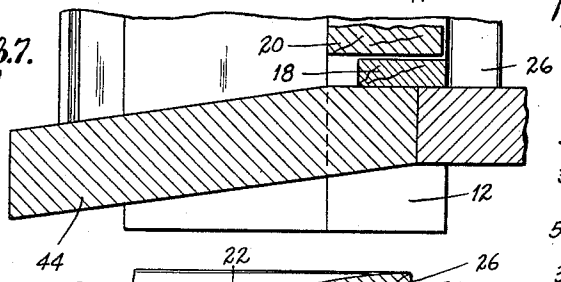


Fig. 8.

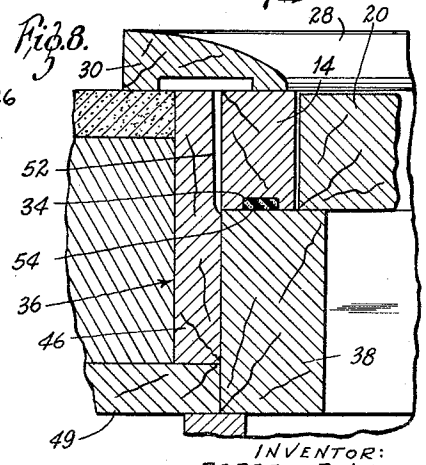
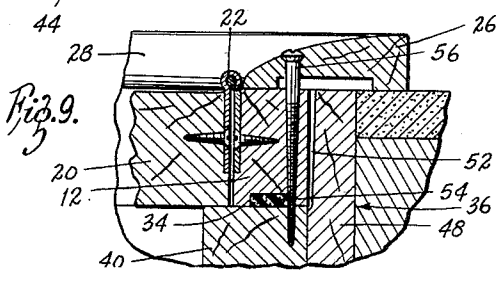


Fig. 9.



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3,009,213
EXTERIOR DOOR UNIT AND METHOD OF INSTALLING A DOOR

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1 Claim. (Cl. 20—11)

The present invention relates generally to building construction, and more particularly to a novel exterior door construction and a method of mounting the same.

In brief, the present invention includes a preassembled inner frame unit of an exterior door construction comprising an inner frame on which a door is hinged and locked. Trim is also mounted on the inner frame. The inwardly directed face of the inner frame is grooved. The complete unit is mounted on a basic exterior frame by screws and a bedding compound disposed in the grooves in the inner frame which extend continuously around three sides and seals the connection as well as permanently secures the inner frame to the exterior frame. The basic exterior frame, which is usually installed during construction of the house or other building, is also preformed to receive the inner frame unit.

Therefore, an object of the present invention is to provide a novel exterior door structure which eliminates fitting and hanging of the exterior door on the job.

Another object is to provide a novel inner frame unit of frame, door and trim which may be factory produced and applied to the basic exterior frame as an assembly after the construction is complete, thereby eliminating the usual damage caused by storage of doors at jobs.

Another object is to provide a novel basic frame unit for receiving an inner frame unit.

Another object is to provide a novel combination basic exterior frame unit and an inner frame unit which are prefabricated and are combined as units on the job.

Another object is to provide a novel inner frame unit of inner frame, door and trim which is secured to the jamb by a suitable calking compound and screws.

Another object is to provide a novel method of hanging an exterior door.

Another object is to provide a novel method of hanging an exterior door which eliminates fitting and hanging of the door on the job.

The foregoing and other objects and advantages are apparent from the following description taken with the accompanying drawing, in which:

FIGURE 1 is a rear elevational view of an inner frame unit constructed in accordance with the teachings of the present invention;

FIGURE 2 is an enlarged transverse cross-sectional view on substantially the line 2—2 of FIGURE 1;

FIGURE 3 is an enlarged transverse cross-sectional view on the line 3—3 of FIGURE 1;

FIGURE 4 is an enlarged horizontal cross-sectional view on substantially the line 4—4 of FIGURE 1;

FIGURE 5 is a front view of a fully installed exterior door construction incorporating the concepts of the present invention;

FIGURE 6 is an enlarged vertical cross-sectional view on substantially the line 6—6 of FIGURE 5;

FIGURE 7 is an enlarged vertical cross-sectional view on substantially the line 7—7 of FIGURE 5;

FIGURE 8 is an enlarged horizontal cross-sectional

view on substantially the line 8—8 of FIGURE 5; and

FIGURE 9 is an enlarged horizontal cross-sectional view on substantially the line 9—9 of FIGURE 5.

Referring to the drawing more particularly by reference numerals, 10 indicates generally an inner frame unit incorporating the teachings of the present invention (FIGS. 1–4). The unit 10 includes vertical frame members 12 and 14, a top horizontal frame member 16 joining said vertical frame members 12 and 14 at the upper ends, and a threshold member 18 joining said members 12 and 14 at their lower ends. An exterior door 20 is mounted by hinges 22 on the vertical member 12 and is secured against movement relative to the vertical member 14 by a lock 24. A door knob 25 is provided. Trim pieces 26, 28 and 30 are secured by finishing nails 32 to the members 12, 16 and 14, respectively. A groove 34 is formed in the outer face of each member 12, 14 and 16 for a purpose described below.

In FIGURES 5–9, the unit 10 is illustrated mounted on the novel supporting exterior frame 36 which includes vertical jamb members 38 and 40, a horizontal jamb member 42, a threshold member 44, vertical ground or facing members 46 and 48, windbreaks 49, and a horizontal ground or facing member 50. The members 46, 48 and 50 are cut away at 52 to facilitate mounting of the unit 10. The members 38, 40 and 42 are of a depth to receive the members 12, 14 and 16, respectively, of the unit 10. The outer faces of the members 14, 16 and 18 are disposed adjacent the inner faces of the jamb members 38, 40 and 42, respectively, and are permanently secured in position by a calking compound 54 in the grooves 34 and screws 56, which initially maintain the unit 10 in position until the compound 54 sets. In addition, hardened drive screw nails 57 are driven into the members 38 and 42.

By the present novel method of mounting exterior doors, fitting and hanging on the job are eliminated. The parts of the unit 10 and of the exterior frame 36 are formed and assembled at a mill or any other suitable place, and are shipped complete. On the job, the fabricated exterior frame 36 is installed during construction in conventional manner. Then it is but necessary to apply the compound 54 in the grooves 34, hold the unit 10 in place, apply the screws 56 and nails 57. The compound 54 will set in due course. The cutaway 52 of the members 46, 48 and 50 eliminates the necesssity of precision fitting.

With the present invention, it is not necessary to ship the unit 10, which includes the door 20, to a job until construction is nearing completion, thereby avoiding damage which results when doors are hung early, or are stored at the job.

It is apparent that there have been provided a novel exterior door construction and a method of hanging an exterior door which fulfill the objects and advantages sought therefor.

It is to be understood that the foregoing description and the accompanying drawing have been given by way of illustration and example. It is also to be understood that changes in form of the several parts, substitution of equivalent elements or steps, and rearrangement of parts or steps, which will be readily apparent to one skilled in the art, are contemplated as within the scope

of the present invention, which is limited only by the claim which follows.

What is claimed is:

A method of hanging an exterior door comprising the steps of mounting an exterior frame in the wall of a structure, supplying a shop mounted door and supporting frame unit with externally facing grooves in the frame, filling the grooves with an adhesive compound, facing the door and supporting frame unit against the exterior frame with the adhesive compound firmly compressed therebetween, and maintaining said door and supporting frame unit firmly against the exterior frame until the adhesive compound sets.

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