Dec. 17, 1929. C. E. STEVENS 1,740,124

DOOR AND WINDOW STRUCTURE

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Fig. 1.

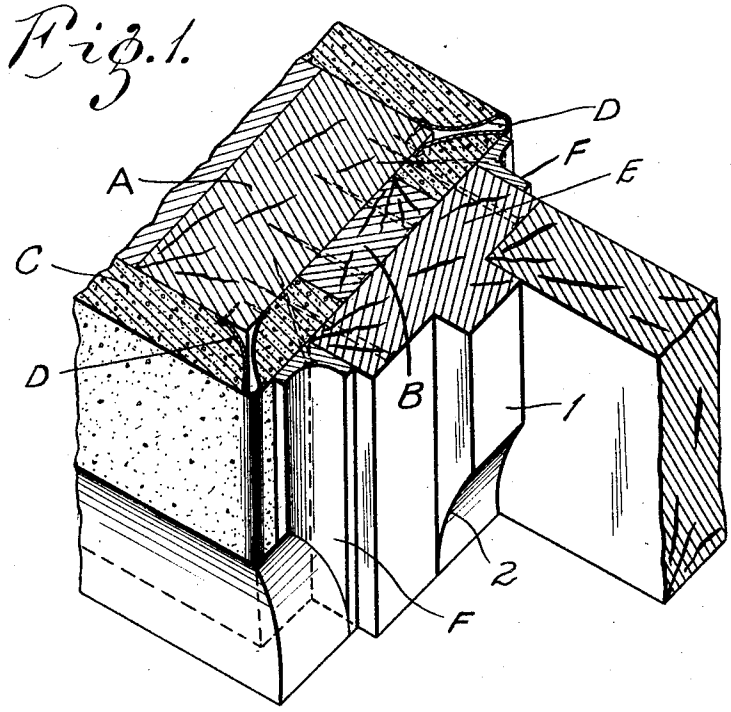
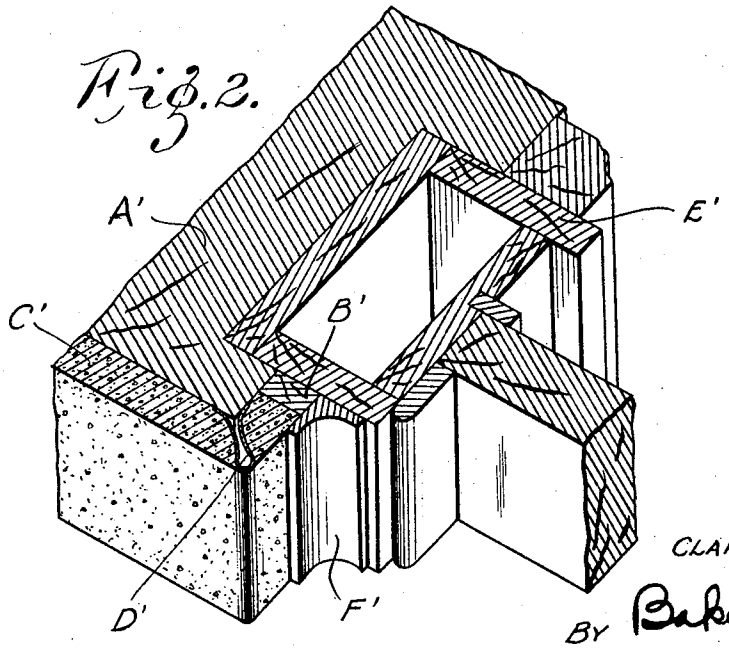


Fig. 2.



INVENTOR:
CLARENCE E. STEVENS.

BY Bakewell & Church

ATTORNEYS

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CLARENCE E. STEVENS, OF ST. LOUIS, MISSOURI

DOOR AND WINDOW STRUCTURE

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This invention relates to door and window structures, and particularly, to the means used in such structures for hiding the joint between the frame and the plastered portion of the wall in which the frame is set.

In the usual door structure a frame provided with a door jamb is permanently attached to the studding or other supporting structure of the wall, prior to plastering the wall, so that when the plastering is applied, the door jamb will serve as a plaster ground or gauge that assists the plasterer in the operation of applying the plaster, so that the face of the plastered wall will extend flush with the edge of the door jamb. Subsequently, a casing or trim, usually constructed of wood, is arranged at the edge of the opening of the wall in which the frame is set, so as to hide the joint between the frame and the plastered portion of the wall, and thus impart a finished appearance to the structure, the said casing or trim overlapping the face of the wall that surrounds the frame. Window structures are usually built and finished in a similar manner and comprise a frame that is set in the wall prior to the plastering operation, and a casing or trim that projects laterally from the frame in overlapping relation with the face of the wall.

A door or window structure of the kind just described has numerous objectionable features. For example, it is unsanitary, as the casing or trim forms a projection on the face of the wall on which dirt can collect, and the crack or joint between the casing and the wall forms an admirable place in which germs and dirt can collect; it is difficult to clean properly, due to the fact that the edge of the casing is in such close proximity to the face of the wall that the operation of washing the casing usually results in the adjacent face of the wall becoming streaked or splattered, which is disastrous if the wall is covered with wall paper, for after wall paper has been splattered with water, it cannot be properly cleaned with the preparations now in general use for cleaning wall paper; it is not permanent and will not retain its original appearance, due to the tendency of the wood casing to shrink, warp and pull away from the face of the wall which it overlaps; it adds considerable to the cost of decorating the room of which it forms a part, due to the fact that the trim is usually from 4 to 6 inches in width and extends up along the sides and across the top of the opening, and it has the further objection that the frame absorbs so much water from the wet plaster during the operation of plastering the wall, that the frame is liable to be ruined.

The main object of my invention is to provide a sanitary door or window structure that is of attractive appearance, easy to clean and maintain in its original condition, and whose elements are so constructed and combined that there is little liability of their separating or pulling apart, and thus forming open joints that detract from the appearance of the structure and which form spaces where dirt and germs can collect.

To this end I propose to omit the casing or trim that is generally used on such structures and provide the opening in the wall in which the frame is set with a finished plastered corner produced by attaching a convenitional metallic corner bead to the supporting structure of the wall prior to the plastering operation, and then applying the plaster to the wall in such a way that the plastering will cover the corner bead and form a plastered surface on the inner side of the opening in the wall that is disposed at right angles to the face of the wall. In a door structure, a furring strip, usually constructed of wood, is attached to the supporting structure of the wall, prior to the plastering operation, in such a way that said strip is located on the inner side of the opening in the wall that receives the door frame, which furring strip corresponds in thickness to the thickness of the plastering of the finished wall. A metallic corner bead is also attached to the supporting structure of the wall at such a point that the edge of said bead will be located at the junction of the face of the finished wall and the inner face of the opening that receives the frame. The said furring strip serves as a gauge that assists in the operation of setting the corner bead in the correct position, and said

furring strip also serves as a plaster ground which enables the plasterer to easily apply the required thickness of the plaster to the inner side of the frame receiving opening and form a plastered surface at the inner side of said opening that is disposed at right angles to the face of the wall. Subsequently, a frame provided with a door jamb is set in said opening with the outer side of the frame bearing against the exposed surface of the furring strip and lapping over the joint between the edge of said strip and the plaster that butts against said strip. If desired, a molding can be arranged at the edge of the frame, so as to lap over the plastered surface at the inner side of the opening in which the frame is set, thereby forming a finish for the frame, but such a molding is not absolutely necessary. In order to eliminate corners at the lower end of the frame where it joins with the floor of the room, the door stop on the door jamb is preferably cut away or recessed slightly so as to produce a substantially straight or flat surface on the inner side of the door jamb that merges into the floor and which is devoid of angles or corners in which dirt can collect in the operation of sweeping the floor.

A door structure of the kind above described is more sanitary than the conventional door structures now in general use, as there is no projection on the surface of the wall surrounding the opening in which the frame is set, on which dirt and germs can collect, and there is no overlapping member on the face of the wall behind which dirt and germs can collect. Such a door structure is of very attractive appearance; it is inexpensive to finish and easy to maintain in a clean condition, due to the elimination of surfaces of relatively great area surrounding the opening that require painting and frequent cleaning, and it has the added advantage of remaining indefinitely in its original condition, partly due to the fact that the door frame is not installed until after the plaster has dried and partly to the fact that the frame and the molding that is used as a finish for same are so arranged that it is possible to secure them so that they will not separate or pull away from the wall.

In a window structure embodying my invention the frame is attached to the supporting structure of the wall prior to the operation of plastering the wall, and a furring strip is attached to the side of said frame that is presented towards the plastered face of the wall, so as to serve as a gauge that assists in the operation of setting the metallic corner bead in the correct position and also serve as a ground in the operation of applying the plaster and forming a plastered corner at the edge of the opening that receives the frame, whose inner side is disposed at right angles to the face of the wall. In the case of a brick wall the said furring strip also serves as a stop against which the bricks can be abutted in the operation of laying up the bricks, thereby enabling the corner of the brick portion of the wall to be formed perfectly straight and true. The opening in the wall in which the frame is set is preferably finished by attaching a molding to the frame at such a point that it laps over the joint between the furring strip and the portion of the plaster that forms the inner surface of said opening.

Figure 1 is a perspective view, illustrating a door structure embodying my invention; and

Figure 2 is a perspective view, illustrating a window structure embodying my invention.

Referring to Figure 1, A designates the supporting structure of a wall which may consist of studding, brick, tile, building blocks, or the like, and B designates a furring strip constructed of wood or any other suitable material, that is attached in any suitable way to said supporting structure, usually by driving nails through the furring strip into the supporting structure. The furring strip B corresponds in thickness to the plastering C of the finished wall, and said strip B is installed prior to the operation of plastering the wall. After the furring strip B has been installed, a conventional metallic corner bead D is attached to the supporting structure A of the wall in such a position that the edge of said corner bead will extend flush with the inner surface of said furring strip that forms a portion of the inner side face of the opening in the wall in which the frame of the structure is set. In the operation of plastering the wall the plaster is applied in such a way as to cover the corner bead D and also extend inwardly into abuting relationship with one edge of the furring strip, thereby producing a reinforced plastered corner, one of whose surfaces constitutes the inner face of the opening in the wall that receives the frame of the structure. In the plastering operation the furring strip B serves as a ground that enables the plasterer to apply the required thickness of plaster to the inner side of the frame receiving opening and form a surface at the side of said opening which is disposed at right angles to the face of the wall. After the plaster has dried, a door frame E provided with a conventional door jamb is installed in the opening in the wall, with the outer side of said frame bearing against the furring strip B and lapping over the plastered inner side of the opening which butts against the edge of the furring strip, the frame E being held in position usually by nails that are driven through the same into the furring strip. If desired, a molding F can be arranged at the edge of the frame E, so as to lap over the plas-

tered surface that forms the inner side of the opening in which the frame is set, said molding being usually retained in position by nails that are driven through same into the supporting structure A of the wall. If the structure forms part of an inner wall or partition, the furring strip B is arranged midway the two side faces of the wall, and both corners of the opening in the wall in which the frame E is set are finished in a similar way, i. e., by attaching two corner beads D to the supporting structure of the wall and then applying the plaster so as to cover said corner beads and form plastered surfaces at the inner side of the frame receiving opening that butt against the opposed side edges of the furring strip B. In order to eliminate corners at the lower end of the frame E where it merges into the floor of the frame, the door stop 1 on the door jamb of said frame is recessed or cut away at its lower end, as indicated by the reference character 2, thereby producing a door jamb that has a flat, straight surface at its junction with the floor, which is devoid of corners or angles in which dirt can collect in the operation of sweeping the floor.

In Figure 2 I have illustrated a window structure embodying my invention that embodies the same desirable features and characteristics of the door structure shown in Figure 1, and which comprises a window frame E′, which, however, is installed or attached to the supporting structure A′ of the wall prior to the operation of plastering the wall. A furring strip B′ which corresponds in thickness to the thickness of the plastering C′ of the finished wall, is attached to the side of the frame E′ prior to the plastering operation. Thereafter, a conventional metallic corner bead D′ is fastened to the supporting structure of the wall, with the outer edge of said bead extending in parallel relation and flush with the edge of the furring strip B′ that forms a portion of the inner side of the window opening in the wall. In the operation of the plastering the wall the plaster is applied so as to cover the corner bead D′ and form a plastered portion at the inner side of the window opening which butts against the furring strip, the said furring strip serving as a plaster ground which enables this surface of the corner to be formed flush with the furring strip and with the edge of the corner bead, and disposed at right angles to the finished face of the wall. After the plaster has dried a finishing molding F′ is attached to the frame E′, so as to lap over the joint between the plaster and the furring strip B′. The furring strip B′, in addition to serving as a gauge in the operation of setting the corner bead, serves as a ground in the operation of applying the plaster, so as to form a sharp, reinforced plastered corner surrounding the window opening. It also serves as a stop against which bricks can be abutted in the event the supporting structure of the wall is formed from brick, thereby facilitating the operation of laying up the bricks and insuring a corner that is straight and true.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a structure of the kind described the combination of a plastered wall provided with an opening, a frame in said opening, a furring strip separate and distinct from said frame that is installed in the wall prior to the operation of applying the plaster to the wall, and a corner bead arranged with its edge extending parallel to and flush with said furring strip, the plaster being applied so as to cover said corner bead and form a plastered portion at the inner side of said opening which butts against said furring strip.

2. In a structure of the kind described the combination of a plastered wall provided with an opening, a frame in said opening, a furring strip separate and distinct from said frame that is installed in the wall prior to the operation of applying the plaster to the wall, a corner bead arranged with its edge extending parallel to and flush with said furring strip, the plaster being applied so as to cover said corner bead and form a plastered portion at the inner side of said opening which butts against said furring strip, and a finishing molding arranged at the edge of said frame so as to lap over the plaster that forms the inner side of the opening in which the frame is set.

3. In a structure of the kind described the combination of a wall provided with an opening, a frame in said opening set inwardly from the face of the wall, plaster on said wall arranged to form a plastered corner, one surface of which corner constitutes the inner face of the opening in which the frame is set, a concealed reinforcing member imbedded in the plaster at the junction of the two faces of said corner, and a furring strip separate and distinct from the frame that is adapted to be used as a gauge in the operation of installing the reinforcing device of the corner, and also used as a ground in the operation of applying the plaster that forms the inner face of the opening in which the frame is set.

4. A door structure, comprising a wall provided with a door opening, a furring strip attached to the supporting structure of the wall at the inner side of said opening and arranged with its edge set inwardly from the finished surface of the wall, a corner bead attached to the supporting structure of the wall and arranged with its edge disposed in parallel, spaced relation with the said edge of said furring strip, and plaster applied to the wall in such a way that it covers said corner bead and butts against the edge of said furring strip, thereby forming a plastered surface at the inner side of the opening in the

wall which extends flush with the edge of the corner bead and with the inner side of said furring strip.

5. A door structure, comprising a wall provided with a door opening, a furring strip attached to the supporting structure of the wall at the inner side of said opening and arranged with its edge set inwardly from the finished surface of the wall, a corner bead attached to the supporting structure of the wall and arranged with its edge disposed in parallel, spaced relation with the side edge of said furring strip, plaster applied to the wall in such a way that it covers said corner bead and butts against the edge of said furring strip, thereby forming a plastered surface at the inner side of the opening in the wall which extends flush with the edge of the corner bead and with the inner side of said furring strip, and a frame in said opening provided with a door jamb that is attached to said furring strip and laps over the joint between the edge of said furring strip and the abutting plaster.

6. A door structure, comprising a wall provided with a door opening, plaster applied to said wall in such a way as to form a plastered corner at the junction of said opening and the side face of the wall, which comprises a surface that forms a portion of the inner side of the door opening in the wall, a reinforcing device imbedded in said corner, a furring strip attached to the supporting structure of the wall at the inner side of the opening in the wall and arranged with one of its edges in abutting relationship with the portion of the plaster that constitutes part of the inner side of the door opening, a frame attached to said furring strip and arranged to lap over the portion of the plaster that butts against the edge of said strip, and a door stop on said frame which is recessed or cut away at its junction with the floor so as to eliminate corners or angles in which dirt can collect in the operation of sweeping the floor.

CLARENCE E. STEVENS.