April 5, 1927. F. C. ANDERSEN ET AL 1,623,772

CASEMENT SASH FRAME

Filed Dec. 26, 1925 2 Sheets-Sheet 1

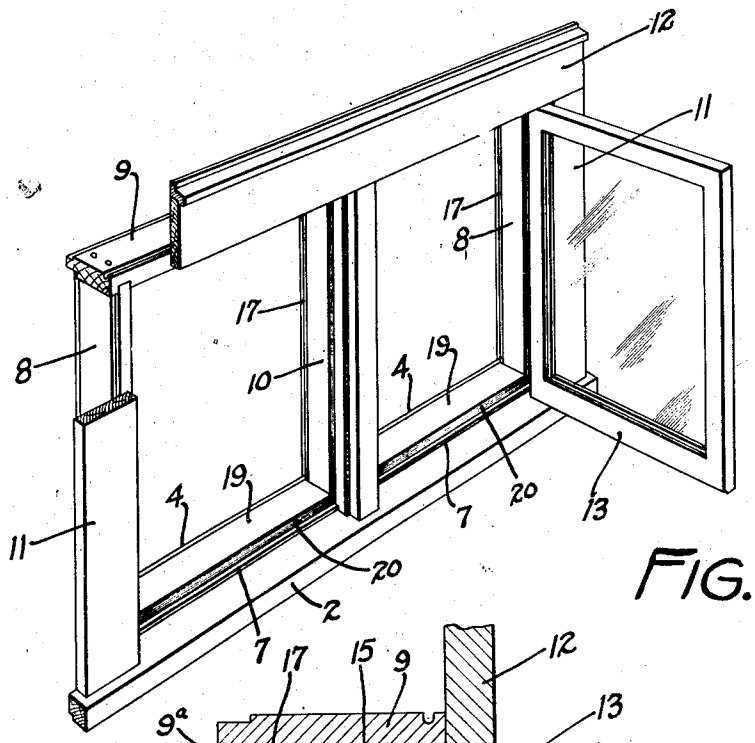


FIG. 1

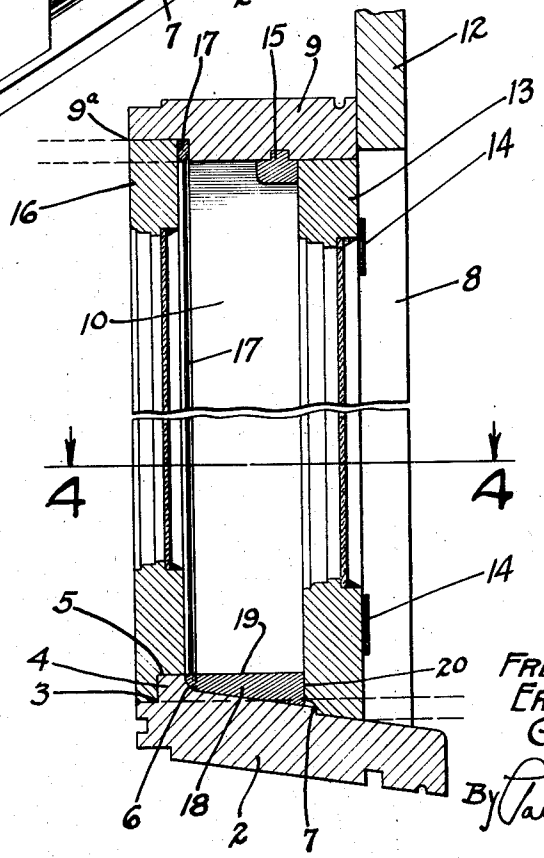


FIG. 2

Inventors
FRED C. ANDERSEN
ERNEST C. MADSEN
GEORGE A. CHAPMAN
By Paul, Paul & Woodard
ATTORNEYS

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CASEMENT SASH FRAME

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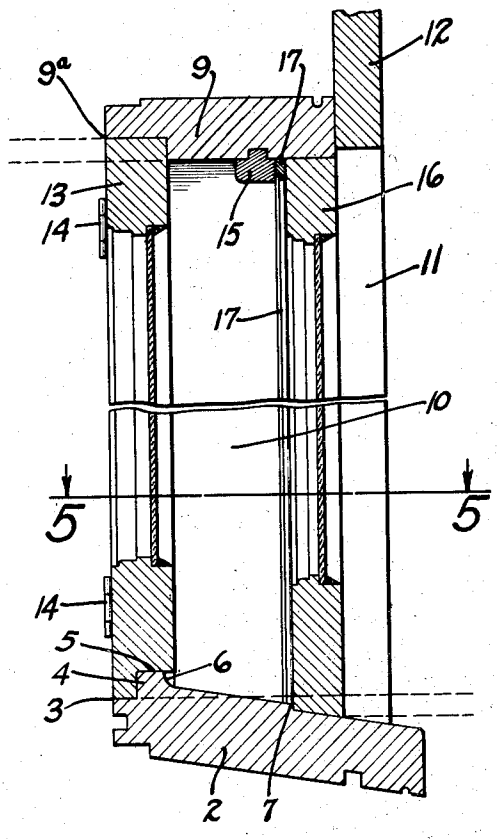
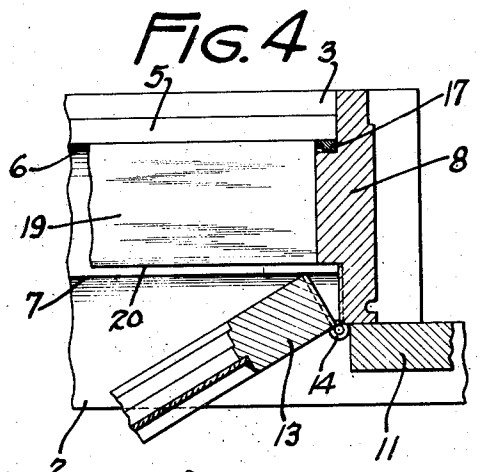


FIG. 3



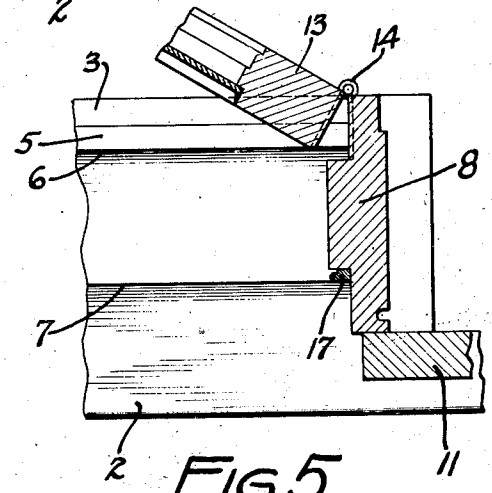


FIG. 5

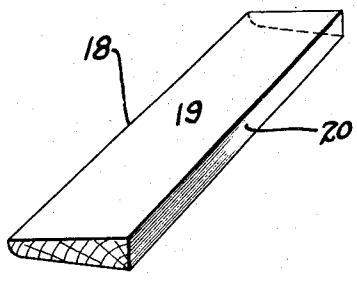


FIG. 6

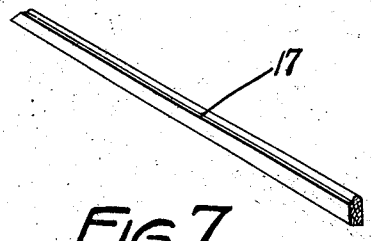


FIG. 7

Inventors
FRED C. ANDERSEN
ERNEST C. MADSEN
GEORGE A. CHAPMAN
By Pearl, Paul & Moore
ATTORNEYS

Patented Apr. 5, 1927. 1,623,772

UNITED STATES PATENT OFFICE.

FRED C. ANDERSEN AND ERNEST C. MADSON, OF BAYPORT, AND GEORGE A. CHAPMAN, OF MINNEAPOLIS, MINNESOTA, ASSIGNORS TO ANDERSEN LUMBER COMPANY, OF BAYPORT, MINNESOTA, A CORPORATION OF MINNESOTA.

CASEMENT SASH FRAME.

Application filed December 26, 1925. Serial No. 77,780.

In the manufacture or sale of what is known as stock casement sash frames or those ready made for use in a building, it has been customary and in fact necessary to make two different types of frames; one for an inswinging casement sash and the other for an outswinging casement sash. This is due to the fact that the stock or standard casement sash for inswinging or outswinging are of the same dimensions and the standard frame with the dip or inclination of the sill as generally made would not accommodate a casement sash of the same dimensions used in both the inswinging and outswinging positions, nor is the sill of an inswinging sash adapted to receive the hardware for an outswinging one. Hence, the manufacturer has been obliged to make two styles of frames and supply them in that way to the trade. The dealer of course never knew which type would be specified or called for by the architect or contractor and he found it necessary to carry a stock, which might not be the kind in most demand. Frequently, the dealer would find himself with a large supply of one style and an order might be received for the other style of which he had none. This method, therefore, of making and handling the frames has been not only awkward and inconvenient for the manufacturer and dealer but has involved considerable unnecessary trouble and expense.

The object, therefore, of our invention is to provide one type of sash frame which can be readily adapted for an inswinging or outswinging casement sash of standard dimensions and hence it will only be necessary for the manufacturer to make one style and the dealer to carry this one style in stock knowing that it can be easily and quickly adapted to the specifications of an in or outswinging casement.

Other objects of the invention will appear from the following detailed description.

The invention consists generally in various constructions and combinations all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a perspective view of a sash frame showing an outswinging casement sash;

Figure 2 is a vertical sectional view of the same;

Figure 3 is a vertical sectional view showing the same sash frame adapted for an inswinging casement sash;

Figure 4 is a sectional view on the line 4—4 of Figure 2;

Figure 5 is a sectional view on the line 5—5 of Figure 3;

Figure 6 is a perspective view of the auxiliary window sill that is used with the outswinging casement sash; and

Figure 7 is a perspective view of the removable bead that is used with the storm and screen sash for both the in and outswinging casement sash.

In the drawing, 2 represents a window sill having at its inner upper edge a rabbet 3 and a longitudinal rib 4 provided with a substantially flat upper surface 5. The inner face of this rib forms the vertical wall of the rabbet as indicated in Figure 2. The outer face of the rib is curved preferably at 6 and merges into the outwardly and downwardly inclined upper surface of the sill. At a point between the rib 4 and the outer edge of the sill a shoulder 7 is formed extending lengthwise of the sill against which the lower rail of the storm sash is seated. We have shown in the drawing the invention applied to a mullion type of sash in which 8 represents the side jambs; 9, the head jamb; 10, the mullion jamb between the sash; 11, the outer casing and 12, the top or head casing extending horizontally across the window.

In Figures 1 and 2, we have shown the frame equipped with outswinging casement sash 13 hinged at 14, and seated against the stop 15 at the head of the frame and overlapping the shoulder 7 at the bottom. When the sash is mounted to swing out, as described, the screen and storm sash must, of course, be mounted at the inner side of the frame, and we have shown in Figure 2, a storm sash 16 fitting the rabbet 3 in the frame and having its lower rail rabbeted or recessed as indicated to receive the shoulder 4 and form a weatherproof joint therewith. The standard dimension, however, of the in and outswinging sash is one and three-eighths inches thick and the window frame is, therefore, rabbeted to receive a sash of this thickness. The standard dimension of

storm and screen sash is, however, one and one-eighth inches thick and provision must, therefore, be made for fitting the storm or screen sash to the rabbeted frame when put in place of the swinging casement sash. We, therefore, provide a bead 17 corresponding in thickness to the difference between the thickness of the casement sash and the screen and storm sash. This bead, as shown in Figure 2, is fitted snugly against the inner face of the rabbeted frame to form a seat for the screen or storm sash.

In the manufacture of the frame, the bead 17 will be placed in the outer rabbet of the frame against the stop 15 as shown in Figure 3, and if an inswinging casement is to be used, the bead will exactly compensate for the difference in thickness between the storm sash and the casement sash so that the storm sash will fit in its seat perfectly and be flush with the outer edges of the side and head jambs as shown in Figure 3, the lower rail of the sash being seated against the shoulder 7. When, however, an outswinging casement is to be used, the bead 17 will be removed and one end cut off sufficiently to allow it to be inserted into the inner rabbet of the frame. If the inswinging casement is used, the bead will be furnished as illustrated in Figure 3, all the parts being in proper position for this type of sash. In case, however, an out swing is specified, or called for, the bead 17 will be moved to the inner rabbet as described, and then in addition we provide an auxiliary sill 18 having a flat upper surface 19 which merges into, and forms, a continuation of the surface 5 of the shoulder 4, the under surface of this auxiliary sill being inclined and curved at one edge to fit the top of the main sill and the outer face 6 of the shoulder 4. A square outer edge 20 is provided on this auxiliary sill against which the lower rail of the outwardly swinging sash is seated, thus forming a weather-proof joint at this point and particularly this auxiliary sill provides a normal flat sill surface for the sash frame when the inside storm sash is removed.

The auxiliary sill has also the function of forming a flat surface on which the casement sash hardware may be mounted, it being impracticable to mount such hardware on the inclined surface of the main sill of the frame.

The rabbet in the head jamb is indicated at 9^a adapted to receive the upper rail of the inswinging sash. This rabbet, or a similar one, however, is omitted at the outer edge of the head jamb, the stop 15 secured to the under side of the jamb taking its place as indicated in Figure 3, the bead 17 being seated against this stop when an inswinging casement sash is used. The use of a stop in place of a rabbet compensates for the dip or inclination of the window frame sill. To illustrate, referring to Figure 2 of the drawing, the frame is shown equipped with an outswinging sash and evidently to use a sash of the same dimensions as that adapted for inswinging movement, the stop 15 must be used instead of a rabbet similar to 9^a to compensate for the variation in level of the lower outer edge of the outswinging sash and the inner edge of the inswinging sash. This difference in level is indicated by dotted horizontal lines in Figures 2 and 3. When the outswinging sash is used, then of course, no rabbet is necessary in the outer portion of the head jamb, the stop 15 providing a seat for the upper rail of the sash when used in an outswinging position. We regard this feature as an important one in the case as it adapts the casement sash for either an outswinging or inswinging position without the necessity of changing the length of the sash to compensate for the tilt or drop of the window sill.

Generally, in manufacturing the sash frame, the beads will be put in place by the manufacturer in the outer rabbets of the sash frame, to be removed therefrom, cut off, and then placed in the inner rabbet when an outswing is desired, but we may prefer to furnish the auxiliary sill in comparatively long strips so that when there is call for them, the dealer may have them cut up and fitted to the sill of the frame to adapt an inswinging casement for an outswinging one.

We claim as our invention:

1. A sash frame comprising a sill and side and head jambs, the inner and outer portion of said sill and jambs being adapted respectively for mounting an inswinging or outswinging casement sash of substantially the same dimensions therein.

2. A sash frame comprising a sill, outwardly and downwardly inclined, and side and head jambs, said head jamb having a stop on its under side and also having a rabbeted inner portion, said stop and rabbet adapting the frame to receive an outswinging or inswinging casement sash with the same height of sash in either position.

3. A sash frame comprising a sill and side and head jambs therefor, said sill being outwardly and downwardly inclined, and said head jamb having a stop to receive the upper rail of the outswinging sash, the distance between the under side of said head jamb and the frame sill corresponding to the distance between the inner surface of the sill and the seat of the inswinging sash in said head jamb.

4. A sash frame comprising a sill and side and head jambs therefor, adapted to receive either an in or outswinging casement sash, and means adapted to be moved from one jamb to the other to adapt either inside or outside edge of jamb to receive a storm or

screen sash of less thickness than the casement sash.

5. A sash frame comprising a sill and side and head jambs therefor, and provided with inner and outer rabbets adapted to receive the sash of either an in or outswinging casement, and beads removably fitting in said rabbets to adapt either of them for a storm or screen sash of less thickness than the casement sash.

6. A sash frame adapted for either in or outswinging sash comprising a sill and side and head jambs therefor, and an auxiliary sill adapted to be placed between the inside storm sash and the outswinging sash when the frame is used for a sash of that type.

7. A sash frame adapted for either in or outswinging sash comprising a sill and side and head jambs therefor, and a removable auxiliary sill adapted to be seated on the main sill and having a flat surface for the sash hardware of an outswinging sash, and an outer edge against which the outswinging sash is seated when the frame is used for that type of window.

8. A sash frame adapted for either in or outswinging sash comprising a sill and side and head jambs therefor, the inner portion of said sill having a raised substantially flat surface and an auxiliary sill forming a horizontal continuation of said flat surface, and a seat for the outswinging sash when the frame is used for a sash of that type.

9. A sash frame comprising a sill and side and head jambs, the inner and outer portions of said sill and jambs being adapted respectively for mounting either an inswinging or outswinging casement sash therein.

10. A sash frame comprising a sill and side and head jambs, said head jamb having a stop on its under side and also having a rabbeted inner portion, said stop and rabbet adapting the frame to receive an outswinging or inswinging casement sash.

In witness whereof, we have hereunto set our hands, ANDERSEN and MADSON, this 19th day of December, 1925, and CHAPMAN, this 24th day of December, 1925.

FRED C. ANDERSEN.
ERNEST C. MADSON.
GEORGE A. CHAPMAN.