June 3, 1952 R. W. MOHRING 2,598,817

SASH MOUNTING

Filed Feb. 10, 1949

Fig. 1

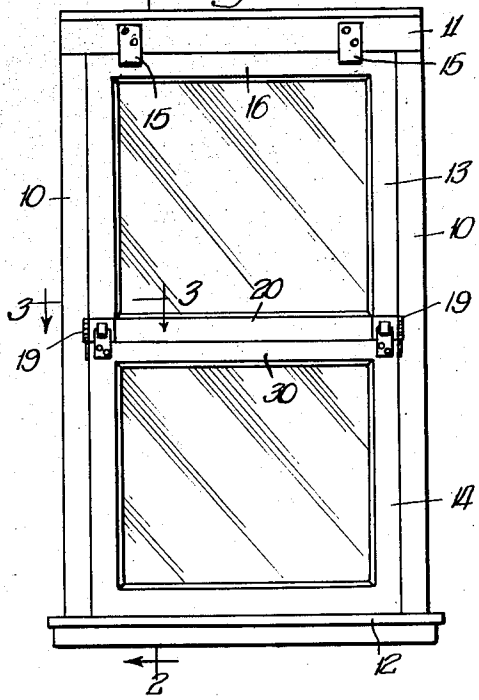


Fig. 3

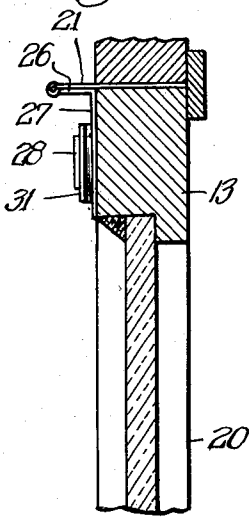


Fig. 2

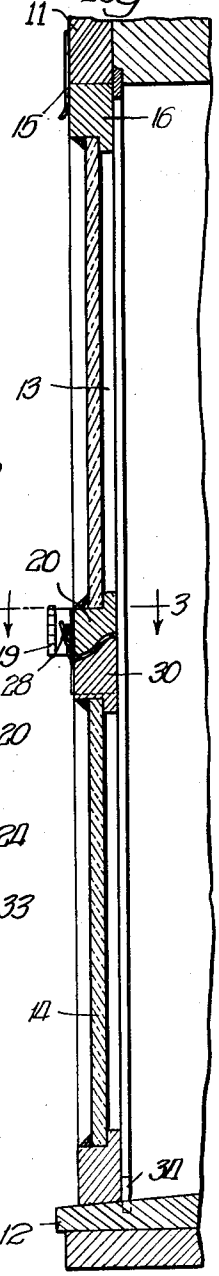


Fig. 4

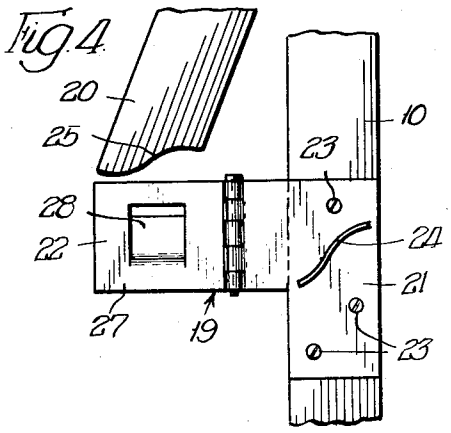


Fig. 5

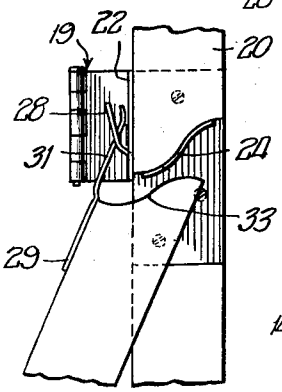


Fig. 6

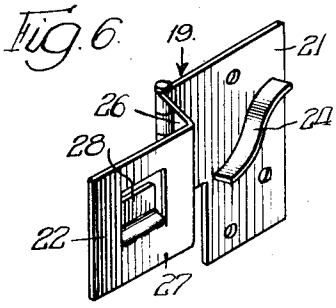
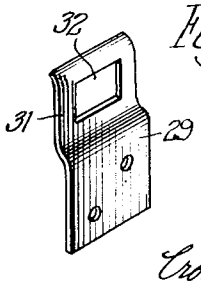


Fig. 7



INVENTOR.
Robert W. Mohring,
BY
Cromwell, Frust & Warden
Attys.

Patented June 3, 1952

2,598,817

UNITED STATES PATENT OFFICE

2,598,817

SASH MOUNTING

Robert W. Mohring, Wheaton, Ill.

Application February 10, 1949, Serial No. 75,594

7 Claims. (Cl. 16—172)

1

This invention relates to window constructions and is more particularly concerned with improvements in sash hanger and supporting devices.

It is an object of the invention to provide an improved sash hanger construction which is particularly adapted for use in connection with the mounting in a window frame of a two-piece storm sash or the like.

It is a more specific object of the invention to provide a combination support and hanger means for use in mounting a storm sash of the type having separable upper and lower members wherein the upper sash member is supported and locked in position in the upper portion of the window frame while the lower sash member is readily removably supported in the lower portion of the window frame.

It is a still more specific object of the invention to provide a combination support and hanger device for use with a storm window having upper and lower sash which device comprises a base plate adapted to be attached to the window frame and having a ledge extending inwardly thereof for supporting the lower edge of the top sash and a hanger plate pivotally connected to the base plate and provided with a hook formation thereon which hanger plate is adapted to be swung into overlying relation with the lower margin of the upper sash for receiving a cooperating hook plate on the upper edge of the lower sash.

These and other objects of the invention will be apparent from a consideration of the window construction which is shown by way of illustration in the accompanying drawings, wherein:

Fig. 1 is an elevation of a window having mounted therein a two-part storm sash and including a combination support and hanger device which incorporates the principles of the invention;

Fig. 2 is a vertical section taken generally on the lines 2—2 of Fig. 1, to an enlarged scale;

Fig. 3 is a detail transverse section taken generally on the line 3—3 of Fig. 1;

Fig. 4 is a detail elevation showing the support and hanger member in position on the window side frame for receiving the upper sash;

Fig. 5 is a detail view similar to Fig. 4 but showing the combination support and hanger member in position for receiving the lower sash member;

Fig. 6 is a perspective view of the combination support and hanger member; and

Fig. 7 is a perspective view of the cooperating

2

hanger member which is adapted to be secured on the top edge of the lower sash.

Referring to the drawings, there is illustrated a window frame construction comprising vertical or side frame members 10, a header or top frame member 11 and a sill or bottom frame member 12. A storm window comprising upper and lower sash members 13 and 14 is positioned within the frame formed by the members 10, 11 and 12.

The top frame member 11 is provided with a pair of spring retainer plates 15 which are secured adjacent the top corners thereof. The plates 15 project downwardly over the edge of the frame member 11 and engage over the front face of the top rail 16 of the sash 13 and hold the top of the latter in position against outward movement.

A combination support and hanger device 19 is provided at each end of the lower cross bar 20 forming the bottom edge of the sash 13. Each support and hanger device 19 comprises a base plate 21 which is attached to the inside of a vertical frame member 10 and a hanger plate 22 which is pivotally connected to the base plate 21.

The base plate 21 is relatively flat and L-shaped with the long leg secured by screws or other fastening means 23 to the inside face of the vertical frame member 10 and the short leg extending outwardly of the frame. The base plate 21 is provided with a curved or generally S-shaped inwardly extending ledge or supporting flange 24 which extends from the lower edge of the short leg upwardly and inwardly and which is adapted to receive in supporting relation thereon the end of the correspondingly curved lower edge 25 of the cross rail 20 on the upper sash 13.

The hanger plate 22 is angle shaped with the shorter leg 26 thereof hingedly connected at its end edge to the outwardly projecting vertical edge of the short leg of the base plate 21. The long leg 27 of the hanger plate 22 is provided with an upwardly extending hook formation which may be conveniently formed from the material of the plate as a punched-out tongue 28. The hanger plate 22 may be hinged to a closed position in which it extends inwardly of the frame member 10 in overlapping relation with the end of the bottom rail 20 of the sash 13. In this position the hook formation 28 is adapted to extend outwardly and upwardly of the body of the hanger plate 22.

The lower sash 14 is provided with a pair of plate-like hanger brackets 29 which are attached to the front face of the upper rail 30

adjacent the ends thereof. Each bracket 29 is provided with an offset portion 31 extending upwardly beyond the edge of the top rail 30 which is apertured at 32. The surface of the upper edge 33 of the sash rail 30 is provided with a curvature corresponding to that of the ledge or flange formation 24 on the plate 21. When the apertured portions 31 of the brackets 29 are positioned over the hook formations 28 on the hanger plates 22 the curved top edge 33 of the sash rail 30 engages beneath the ledge 24 as the sash 14 is pivoted into closed position. The brackets 29 cooperate with the hook formations 28 to support the sash 14 and hold it in closed position. A bottom latch device 34 of any conventional type may be provided at the bottom of the sash 14 for latching engagement with the sill 12 to prevent outward movement of the bottom of the sash 14.

In mounting a storm window of the character described the plates 21 of the devices 19 are secured to the vertical frame members 10 in proper position for supporting the top sash 13 with the hanger plate members 22 hinged outwardly of the frame members. The top sash 13 is then positioned with the plates 15 engaging over the face of the rail 16 and pivoted into closed position (Figs. 2 and 4). Thereafter the plates 22 are swung to the closed position in overlapping relation with the ends of the bottom rail 20 of the upper sash 13. The lower sash 14 is then positioned with the brackets 29 engaging the hook formations 28 and thereafter swung into closed position in coplanar relation with the upper sash 13 and locked at the bottom by the latch member 34. The upper sash 13 is firmly held in closed position while the lower sash may be readily removed by releasing the catch 34 and pivoting the lower edge of the sash outwardly until the brackets 29 may be disengaged from the hook formations 28. If it is desired, the top sash may be thereafter removed by swinging the plates 22 laterally outwardly and then pivoting the sash 13 outwardly sufficiently to clear the ledge 24. In this manner the upper and lower sash may be manipulated or removed without removing the hanger and support devices.

The inwardly extending ledge 24 is shown in the illustrated device as curved or S-shaped. This ledge may be straight and extend horizontally or at an angle so long as it provides a supporting surface for the top sash. The catch 34 may be replaced by a friction stay or the like.

While the invention has been illustrated as applied to a storm window, it will be understood that it is equally applicable to screens, storm sash and screen combinations or other similar window constructions. The particular details of construction referred to are to be taken as illustrative only and modifications thereof may be resorted to within the spirit of the invention.

I claim:

1. A sash mounting means comprising hingedly connected plate members, one of said plate members having a curved ledge normal to the surface thereof forming a diagonally extending abutment surface adapted to be positioned between upper and lower sash of a double sash window construction, said sash being arranged in coplanar relation and the other one of said plate members being adapted to swing to position a portion thereof over the outer face of the upper sash to lock said upper sash in supported position on said abutment surface.

2. A sash mounting means as recited in claim 1 wherein said other one of said plate members is provided with a hook formation extending outwardly of the outer face thereof when it is in position over said upper sash, and a hanger bracket adapted to be mounted on the upper margin of the lower sash having a portion engaging said hook formation, and holding the said other one of said plate members in locking position over said upper sash.

3. A device for mounting a double sash storm window in a frame comprising hingedly connected plate-like members, one of said members being adapted to be secured to a vertical frame member and having a curved ledge forming an abutment surface positioned between the upper and lower sash members and the other of said members being adapted to swing to a position projecting over the upper sash to lock said upper sash in closed position.

4. A device for mounting a double sash window comprising connected plate-like members, one of said members being adapted to be secured to a vertical frame member and having a generally S-shaped flange formation extending inwardly therefrom, said flange formation being positioned between the bottom of the upper sash and top of the lower sash and the other of said members being mounted to swing inwardly to a position extending over the face of the upper sash adjacent the bottom thereof to lock said upper sash in closed position.

5. A device for mounting a double sash window comprising movably connected plate-like members, one of said members being adapted to be secured to a vertical frame member and having a flange formation extending inwardly therefrom between the bottom of the upper sash and top of the lower sash and the other of said members being movable to a position extending over a portion of the upper sash to lock said upper sash in closed position.

6. A sash mounting device comprising hingedly connected flat plate-like members, one of said members having a ledge projecting from the surface thereof and forming a divider member adapted to be positioned between upper and lower sash members which are arranged in substantial coplanar relation and the other one of said members being swingable to a position extending over a portion of the upper sash member to lock said upper sash member in position above said divider member.

7. A double sash window construction comprising upper and lower sash arranged in aligned substantially coplanar relation in a window frame, a mounting device comprising movably connected plate members, one of said plate members being mounted on a vertical frame member and having an S-shaped ledge formation extending inwardly of said frame member and positioned between the lower edge of the upper sash and the upper edge of the lower sash, said sash edges being formed with curved surface portions corresponding to the curvature of said S-shaped ledge formation, said S-shaped ledge formation being adapted to separate the upper and lower sash and support the upper sash, the other one of said plate members being movable into a position extending over a portion of the upper sash when the upper sash is supported on said ledge formation, said last mentioned plate member having an upwardly projecting hook

formation on the outer face thereof and an apertured bracket adjacent the upper edge of the lower sash for latching engagement with said hook formation to retain said last mentioned plate member in locking position over said portion of the upper sash whereby both said sash are locked in position relative to said ledge formation.

ROBERT W. MOHRING.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,800,884	Carlson	Apr. 14, 1931
1,935,020	Dietz	Nov. 14, 1933
2,416,511	Blanck	Feb. 25, 1947
2,430,059	Krantz	Nov. 4, 1947