May 15, 1934.

E. LEMIEUX

1,958,950

WINDOW STOP FASTENER

Filed Aug. 10, 1933

Fig. 1.

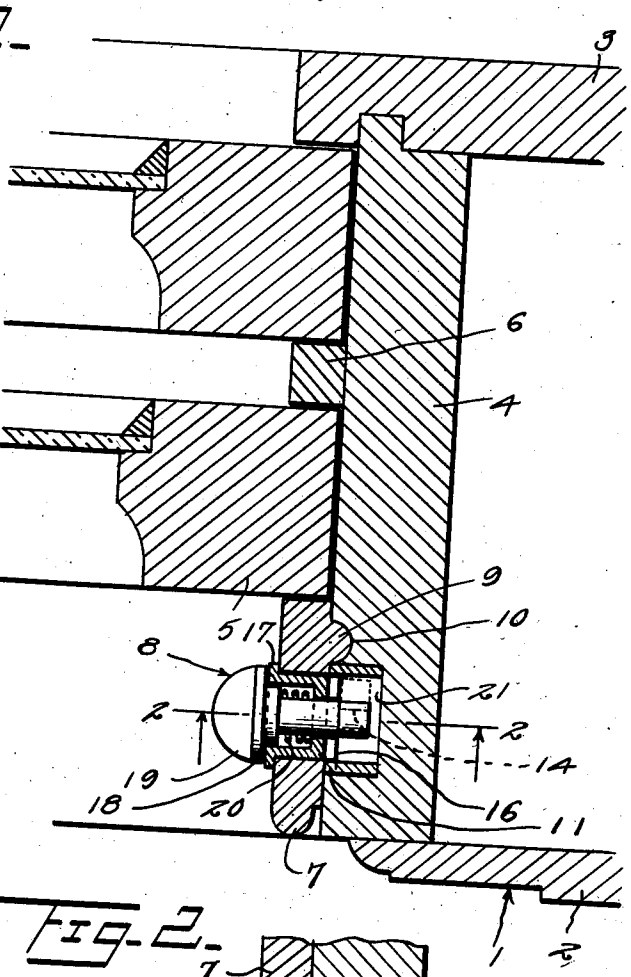


Fig. 5.

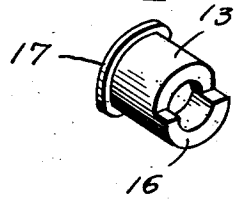


Fig. 3.

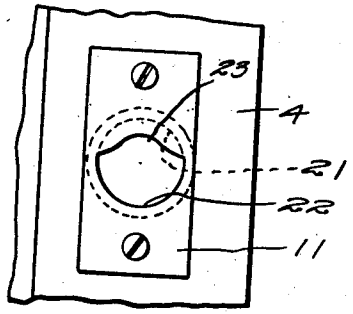
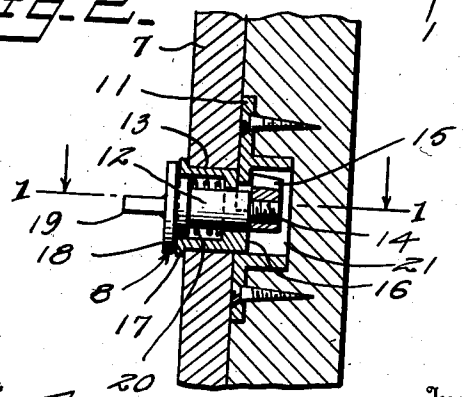


Fig. 2.



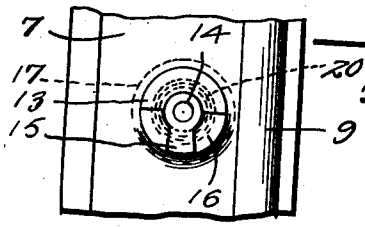


Fig. 4.

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WINDOW STOP FASTENER

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Application August 10, 1933, Serial No. 684,569

2 Claims. (Cl. 16—220)

This invention relates to improvements in windows and relates to an improved means for securing a window frame sash stop or band in position.

The primary object of the present invention is to provide an improved means for securing a window sash stop or band in position in the sash structure whereby the removal of the band may be quickly and easily accomplished to facilitate the removal of the sash from the frame when necessary.

Another object of the invention is to provide a window stop or band securing means which may be readily applied to window frames when the same are constructed or when they have been in use, as no special construction of frame or stop is necessary for the employment of the device.

A further object of the invention is to provide an improved window frame stop securing means in association with improved means for establishing a tight air and dust-proof connection between the frame and the stop, which connecting means also operates to facilitate the application of the stop to the frame in the proper position for the operation of the securing means.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:—

Figure 1 is a horizontal sectional view taken through one side of a window frame;

Figure 2 is a sectional view taken substantially upon the line 2—2 of Figure 1;

Figure 3 is a view in elevation of the keeper plate;

Figure 4 is a view in elevation of the rear face of the stop strip looking toward the end of the finger carrying bolt;

Figure 5 is a detail perspective of the bolt casing.

Referring now more particularly to the drawing wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates one side of a window frame shown in horizontal section. The front and rear panels of the frame are indicated respectively by the numerals 2 and 3 and are connected by the usual intermediate transverse panel 4 against which the edges of the sashes 5 move. Between the sashes is the spacer strip 6 and secured to the inner face of each vertical panel 4 is the sash stop or band 7 which is constructed in accordance with the present invention and with which is shown the securing means.

While the present securing means which is indicated as a whole by the numeral 8 may, if desired, be employed in association with stops or bands of the usual construction wherein the face opposing the panel 4 of the frame is flat throughout, it is preferred that the stop be formed adjacent its inner edge and upon its inner surface with a longitudinally extending bead 9 for engagement in a correspondingly formed groove 10 in the opposing face of the portion 4. By means of this bead and groove the band or stop is quickly located exactly in the proper position for the operation of the securing or locking means and in addition the window frame is further secured against the entrance of dust and air.

In the application of the securing elements or devices 8 it is preferred that two of the same be used in association with each stop.

As shown, the securing device consists of two principal portions, one of which is indicated by the numeral 11, and constitutes a keeper plate, while the other portion consists of a bolt 12 which is slidably extended through a cup-like casing or housing 13. The inner end of the bolt 12 is reduced as indicated at 14 and is threadably or otherwise suitably secured in an end of a finger 15. The housing or casing 13 of the bolt is closed at its inner end except for a central opening through which the bolt 12 snugly passes and this end has a substantially semi-circular lug or boss 16 forming an integral continuation thereof. The housing 13 at its outer end is open and formed to provide a surrounding flange 17 which abuts against the outer face of the stop 7 and limits the movement inwardly of the housing in the opening formed in the stop therefor. The housing is of a length substantially equal to the thickness of the stop and the semi-circular lug or boss 16, therefore, projects beyond the inner face of the stop as illustrated.

At the outer end of the bolt 12 there is secured a head plate 18 which overlies and closes the open end of the housing and this plate is provided with a transverse flange 19 to facilitate grasping of the same and the turning of the bolt.

Within the housing 13 is a spring 20 which surrounds the bolt and being compressed between the bottom of the housing and the head

plate 18, normally tends to shift the bolt in a direction to move the finger 15 toward the bottom of the housing.

The keeper plate 11 is countersunk in the outer face of the panel 4 of the window frame against which the sashes move and its central portion overlies a chamber 21 which is designed for the reception of the finger 15.

The keeper plate 11 has formed centrally thereof the substantially semi-circular opening 22, the edge connecting between the extremities of the semi-circle being centrally cut-out as indicated at 23 instead of extending straight across. This semi-circular opening in the keeper plate 11 snugly receives the semi-circular boss 16 of the bolt housing 13, when the bolt has been forced inwardly against the tension of the spring 20 and rotated to swing the finger into position over the outer face of the boss. The dimensions of the boss and of the keeper plate 11 are such as regards the thickness that when the stop has been placed in position so that the boss extends into the keeper opening 22 in the manner described, the flat face of the boss 16 will be flush with the inner face of the keeper plate 11 and by rotating the bolt 12 the finger may then slide smoothly from the flat face of the boss over the inner face of the keeper plate in which position it will be firmly held by the tensioned spring 20, thereby firmly securing the stop 7 in place. It will also be apparent that the cut-out portion 23 of the edge lying between the extremities of the semi-circular opening snugly receives the portion of the bolt 12 opposite that from which the finger extends so that a perfect interfitting of the parts is obtained and the rattling of the connected elements effectually prevented.

From the foregoing it will be readily apparent that a device herein described may be as easily applied to the stop or band of a window frame which is already set up or which has been in use as to bands before they are assembled with the other parts of the frame. It will also be apparent that the use of the bead 9 and groove 10 provides additional means to prevent the entrance of air or dust and also provides a guide for the ready placement of the stop.

When a window frame has stops provided with the herein described securing means, the sashes may be readily removed for repairs or other purposes without damaging the woodwork, and the elimination of other securing means such as screws or the like is possible.

Having thus described the invention, what is claimed is:—

1. A device for securing two flat bodies together, comprising a plate designed to be countersunk in a face of one body, said plate having an aperture therethrough which is substantially semi-circular through half its edge extent and which has the remainder of its edge extending between the ends of the semi-circular portion in close proximity to the radial center of the same whereby a portion of the plate lies within the area which would be formed by completing a circle on the radius of the semi-circular portion, a sleeve adapted to be secured in the other body for abutment at one end with said plate and coaxial with the opening therein, said sleeve having an extension on the said end adapted to project through the semi-circular portion of the plate opening to position its end surface flush with the inner face of the plate, a bolt rotatably mounted in said sleeve, a lateral finger on the end of the bolt adjacent said sleeve extension, and spring means normally urging said bolt to move longitudinally in a direction to move the finger toward the adjacent end of the sleeve.

2. A device for securing two flat bodies together, comprising a plate designed to be countersunk in a face of one body, said plate having an aperture therethrough which is substantially semi-circular through half its edge extent and which has the remainder of its edge extending between the ends of the semi-circular portion in close proximity to the radial center thereof whereby a portion of the plate lies within the area which would be formed by completing a circle on the radius of the semi-circular portion, the said remaining portion of the edge of the opening being concentric throughout a part of its extent with the semi-circular portion, a sleeve designed to be located in an aperture in the other of the bodies for the abutment of a portion of one end against said plate, an integral substantially semi-circular extension formed on the end of the sleeve adjacent the plate for projection through the semi-circular part of the plate opening, the end face of said projection being flush with the inner or remote face of said plate, a bolt rotatably mounted in and extending through said sleeve, the bolt being cradled between the semi-circular extension of the sleeve and the said concentric part of the remaining portion of the plate opening, a finger projecting laterally from the end of the bolt adjacent the extended sleeve portion, resilient means normally tending to shift the bolt in a direction to move the finger toward the adjacent end of the sleeve, and means facilitating the turning of the bolt.

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