

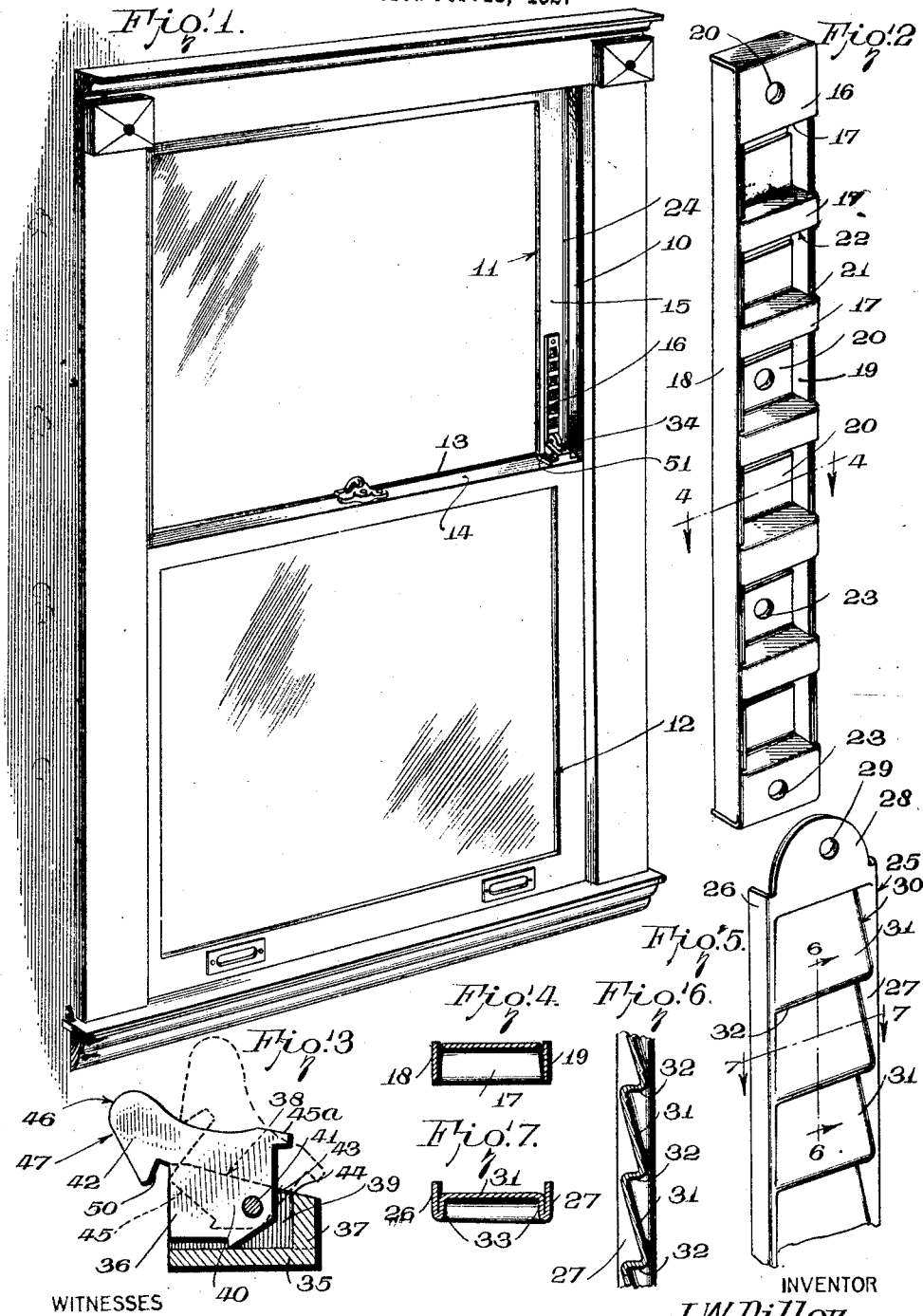
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WINDOW FASTENER

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WINDOW FASTENER.

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This invention relates to window fasteners, and has for its object the provision of a device for automatically securing a sash in a predetermined position so that the room may be ventilated while at the same time preventing an unauthorized person from the outside actuating the fastener and opening the window sufficiently to enter.

A further object of the invention is the provision of a window fastener including a pivoted catch which is adapted to automatically drop into contacting relation with a plurality of spaced shoulders for automatically securing a pair of sash against reciprocating movement relative to each other whereby the sash are automatically locked in any position either with one of the sash partly open for ventilating purposes or with the sash closed.

This invention will be best understood from a consideration of the following detailed description, in view of the accompanying drawings forming a part of the specification; nevertheless it is to be understood that the invention is not confined to the disclosure, being susceptible of such changes and modifications which shall define no material departure from the salient features of the invention as expressed in the appended claim.

In the drawing:

Figure 1 is a view in perspective of the window showing a pair of sash secured in closed position by the device constructed in accordance with the principles of my invention,

Figure 2 is a view in perspective of one form of a unitary structure of spaced keeper,

Figure 3 is a vertical section of my improved automatic locking catch,

Figure 4 is a horizontal section taken along the line 4—4 of Figure 2,

Figure 5 is a view in perspective of a modified form of unitary structure of the series of keepers,

Figure 6 is a vertical section taken along the line 6—6 of Figure 5, and

Figure 7 is a horizontal section taken along the line 7—7 of Figure 5.

Referring more particularly to the drawings, 10 designates a casing in which the

frames 11 and 12 are slidably mounted and in which the outer face of the frame 12 is in close association with the inner face of the frame 11. The lower bar 13 of the frame 11 is adapted to align with the upper bar 14 of the frame 12 when the frames are in closed position. Normally the inner faces of the bars 13 and 14 are in contact throughout their length and a flange (not shown) projects inwardly from the bar 13 for engagement with the outer face of the bar 14.

Secured to the side bar 15 of the frame 11 is a keeper bar 16 formed of any suitable material preferably sheet metal which is cut and stamped to provide a plurality of keepers 17 disposed in spaced relation at various horizontal levels. This keeper bar has side flanges 18 and 19 between which are located tongues 20 pressed inwardly from an upper edge of the keepers 17 and supported by flanges 21 whereby a tongue 20 is offset from the plane of the keeper 17. The underface of each keeper provides a shoulder 22 for a purpose which will be presently described. The keeper bar has a plurality of perforations 23 adapted to receive screws or any form of securing means for attaching the bar to the frame 11. The lower end of the bottom 13 of the frame 11 is cut away adjacent the bead 24 to permit ready sliding movement between the frames 11 and 12.

Referring more particularly to Figs. 5 to 7, inclusive, a modified form of keeper bar is shown in which the bar 25 is formed of a single strip of metal and bent to provide flanges 26 and 27. The outer face of the bar is stamped to form attaching flanges 28 provided with perforations 29 to receive a screw or nail for securing the keeper bar to the window frame. The central portion 30 of the bar is so stamped that it will provide inclined faces 31 and shoulders 32. The upper edge of each inclined face is disposed adjacent the outer edges of the flanges 26 and 27. When the face of the bar is stamped inwardly as has been explained, side flanges 33 are formed for maintaining the inclined faces 31 in a predetermined position with respect to the flanges 26 and 27. A more economical form of keeper bar will be formed of a flat strip of metal stamped to provide

the shoulders 32 and connecting inclined faces 31 and thereby eliminating the side flanges 26 and 27.

A catch generally designated by the numeral 34 is adapted to co-operate with the keeper bar for locking the frames in predetermined positions.

Referring more particularly to Fig. 3 a bracket plate 35 is shown having side flanges 36 formed integrally with the base 35 and with a rear wall 37. The upper edges of the side plates are inclined at an angle to the horizontal, as shown at 38. The side walls 36, base member 35, and rear wall 37 form a chamber 39 in which the lower end of a catch 40 per se is rockably mounted on a pin 41 mounted in perforations in the side walls of the bracket. It will also be noted that the greater portion of the keeper is located outwardly of the pivot pin 41 so that the head 42 of the keeper will tend to move downwardly towards the base plate 35 by gravity. The upward movement of the head 42 is limited by the rear edge 43 of the catch by reason of the fact that it engages the upper edge 44 of the rear wall 37 when it is moved to its operative position shown in dotted lines. The forward edge of the catch is provided with a shoulder 45 for a purpose which will presently be explained. A finger piece 45^a is provided which may be engaged by the hand for rocking the catch 40 for releasing the same from the keepers.

The operation of my device is as follows: The catch is shown in operative position at 34 in Fig. 1 in engagement with the lowermost keeper 17 of the keeper bar and in which the rounded portion 46 of the head 42 is engaged beneath the keeper and prevents the frames 11 and 12 being moved relative to each other for opening a window. In order to open the window the finger is pressed upon the member 45 which causes oscillation of the catch 40 whereby the head 42 will be removed from engagement with the keeper. The windows may then be moved relative to each other. When the frames are again moved to their normal closed position the outer face 47 of the catch rides over the keepers which is facilitated by the rounded portion 46 of the head 42.

By this construction it will be seen that either frame 11 may be lowered sufficiently to ventilate a room or the frame 12 may be raised a predetermined distance or both frames may be moved relative to each other to provide a space between the casing and the outer edges of the frames. In this position of the frames, however, it is impossible to move the frames for providing a greater opening since the head 42 of the catch will always be in engagement with a shoulder to prevent unauthorized movement of the frames. However, if it be desired to move the frames so that they will be in normal

closed position the face 47 of the catch will ride over the keepers for this purpose. In closing the windows it is not necessary to move any locking mechanism since the frames can be moved to closed position and the gravity-actuated catch 40 will drop into place beneath a keeper and lock the windows against further movement. It will also be appreciated that due to the particular construction of the locking mechanism and its position that the windows may be opened a sufficient amount for ventilation while preventing any one from actuating the catch from the outside.

Another important feature of the invention is the particular construction which will prevent an unauthorized person from operating the catch 40 by the insertion of a flat tool between the bars 13 and 14 for moving the head 42 out of engagement with the keeper. It will be noted that the head is cut away to provide a lip 50 which is disposed at an angle to the horizontal when the head is in operative engagement with the keeper. If a flat piece of metal or a knife were inserted between the bars 13 and 14 and placed in engagement with the lip 50 and the knife were forced upwardly it would tend to move the head along a line which is in the vertical plane of the tool and would thus tend to prevent rocking of the catch. Furthermore, the outer edge or shoulder 45 of the catch extends sufficiently forwardly that it would tend to press against the knife or tool and wedge it against the keeper bar 16 and prevent further movement of the tool between the bars 13 and 14. The bracket which includes the base member 35, side walls 36 and rear wall 37 has flanges 51 for securing the bracket to the upper face of the bar 14 so that the catch 34 will be in line with the keepers 17.

The action of the catch 40 with respect to the keepers 32 of the modified form of keeper bars shown in Figs. 5 to 7, inclusive, is identical in all respects with the keepers 17 of the keeper bar 16.

I claim:—

A window fastener comprising a keeper bar having a plurality of spaced shoulders, a bracket, a catch having a body pivotally mounted on the bracket, said catch being provided with a keeper engaging head having a rounded portion adapted to be engaged beneath a shoulder, said pivotal connection for the catch being at one side of the center of gravity so that the head will be normally maintained in operative position with the keeper bar, the body having an angular portion projecting below the head and normally within the confines of the bracket, the head having a relatively long straight portion adapted to lie in flat contact with a portion of the keeper bar and provided with a lip at the lower end, said

lip being adjacent and in line with the apex of the angular portion of the body and forming with the body a notch, said notch disposed contiguous with an inner edge of the bracket, the notch terminating at the inner end thereof adjacent the upper end of the bracket, the disposition of the notch, the inner edge of the bracket, and lip being such that if an instrument is used to raise the catch from the outside the instrument will be forced into engagement with the lip and the catch will be tightly wedged against said instrument and prevent movement of either sash. 10

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