April 9, 1940. R. L. FOLSOM 2,196,726

WINDOW FASTENER

Filed Sept. 19, 1939

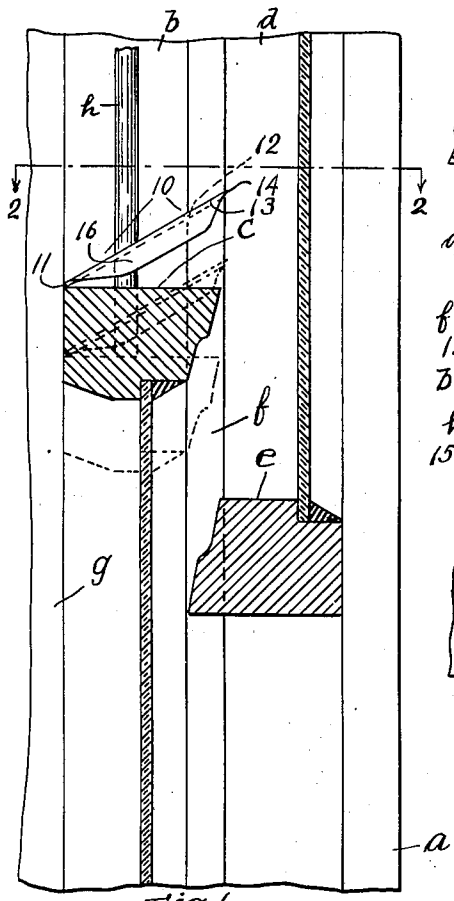


Fig. 1.

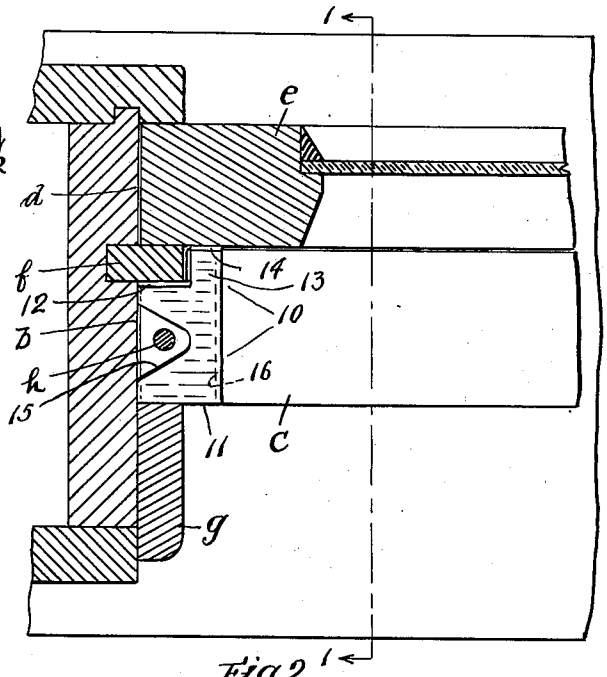


Fig. 2.

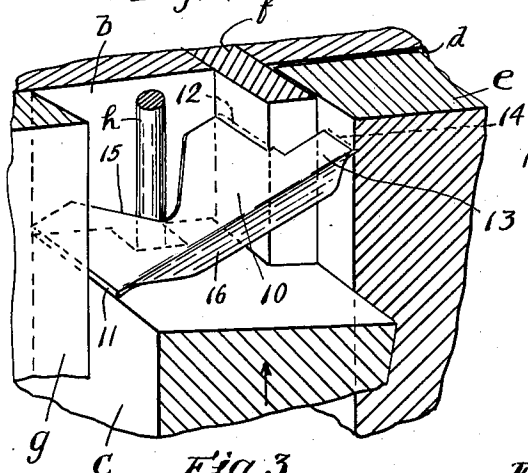


Fig. 3.

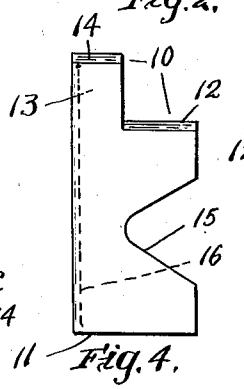


Fig. 4.

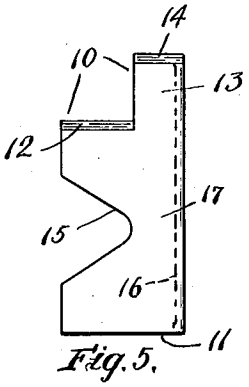


Fig. 5.

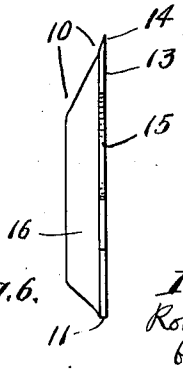


Fig. 6.

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WINDOW FASTENER

Robert L. Folsom, Haverhill, Mass.

Application September 19, 1939, Serial No. 295,555

1 Claim. (Cl. 292—339)

This invention relates to a type of window fastener which is adapted to be applied to any window of the ordinary two sash type which slide in vertical runways at the opposite sides of a parting-bead, and are usually counterweighted; this being the type which is most commonly used in dwelling houses.

The type of window fasteners generally employed on these windows merely lock the window in closed position. Fasteners which lock the window in partly raised positions have, however, been produced, but so far as I am aware, they require attaching means such as screws and are somewhat expensive to produce.

The objects of my invention are to provide a fastener for the common type of window sash above referred to, which is adapted to lock the lower sash against being raised from any position, whether fully closed, or partly raised, and to lock the upper sash against being lowered, which is adapted to be readily applied to any window, without the use of screws or other attaching means, and which is automatically self-adjusting, so that when the lower sash is lowered from one raised position it will automatically lock the sash against being raised from any position to which it has been lowered. Also to provide a construction which may be manufactured at small expense so that single fasteners may be sold at a low price, or so that they may be sold in quantity at a price which will not be prohibitive.

I accomplish these objects by providing a piece of stiff sheet metal of somewhat greater length than the width of the sash runway, so that when it is inserted in the runway with its opposite ends engaging the sides thereof, it will be held at an inclination to the horizontal and when its lower end is forced upward by the sash, its upper end, which is sharp, will be forced into the wood of the runway thereby locking the sash against further upward movement. To lock the upper sash against being pulled downward the plate is provided with a sharp extension which engages the adjacent side of the upper sash, when the plate is in said inclined position and will be forced into the sash when it is attempted to pull the sash down, so that the lower sash cannot be lifted, or the upper sash be lowered when the fastener is in position in the runway.

For a more complete disclosure of my invention, reference is now made to the following specification, in connection with the accompanying drawing in which:

Fig. 1 is a sectional view at line 1—1 of Fig. 2, showing the application of a fastener embodying my invention to a window casing.

Fig. 2 is a sectional view at line 2—2 of Fig. 1.

Fig. 3 is a perspective view of a portion of the casing with the fastener in position therein.

Figs. 4 and 5 are views of the fastener for the left and right hand sash runways respectively.

Fig. 6 is an edge view of the fastener.

In the drawing I have illustrated a wooden window casing of the common type which is almost universally used in dwelling houses, the construction comprising the casing *a* having a sash runway *b* for the lower sash *c* and a runway *d* for the upper sash *e*, the runways *b* and *d* being separated by a wood parting bead *f*. A wood strip or molding *g* is also usually secured to the casing at the inner side of the runway *b* and sash cords, as *h*, are attached at one end to the lower and upper sashes respectively and pass over pulleys, the opposite ends being attached to counterweights, not shown.

According to my invention I provide a fastener 10 which consists of a flat piece of stiff sheet metal having a base edge 11 adapted to engage the molding *g* at one side of the runway *b*, and a sharp beveled edge 12 which is parallel to edge 11 and disposed at a distance therefrom somewhat greater than the width of the runway *b*, so that, when the fastener is placed in runway *b* on the bottom sash with its base edge engaged with molding *g* at one side of the runway, the beveled edge 12 will rest against one side of the parting bead *f* and will extend upwardly at an inclination, as shown in Figs. 1 and 3, which is preferably approximately 30° from the horizontal. The fastener is provided with an extension or end portion 13 having a sharp beveled edge 14, which is arranged to engage the adjacent side of the top sash *e*, when the edge 12 is engaged with the parting bead, so that, when upward pressure is applied to the base edge 11 by the lower sash, the sharp edges 12 and 14 will be forced or bite into the sides of the parting bead and upper sash respectively, as indicated in Fig. 3, and thus prevent the lower sash from being raised.

The inner side edge of the plate is provided with a notch or recess 15 to receive the sash cord *h*, the side edges of the recess extending convergently from the inner edge of the plate and said recess being of sufficient width to permit the plate to be placed in position without engaging the cord, as shown in Figs. 2 and 3, so that if the sash should be lowered while the plate is in position the plate will not be dislodged by

engagement with the cord. As the recess 15 somewhat weakens the plate, its outer edge is provided with a strengthening flange 16, which more than offsets the weakening effect of the recess, said flange being extended the entire length of the plate, and having its ends beveled so that the end edges of the plate may rest against the parts which they engage throughout their entire lengths. The fastener shown in Figs. 3 and 4 is adapted to be placed in the left hand runway and the bevel of the edges 12 and 14 is formed on what is the top side when in position. In Fig. 5 a fastener 17 designed for use in the right hand runway is shown, the construction being identical to that already described, except that the arrangement of the sash cord notch, flange and the edges 12 and 14 are opposite the corresponding portions of the fastener for the left hand sash runway.

In use the lower sash may be raised to any height desired, and then the fastener is merely placed on top of the sash in the runway, as shown in Figs. 1 and 3. If it is attempted to raise the sash still more, the pressure against the base edge 11 will immediately force the sharp edges 12 and 14 into the parting bead and upper sash, so that the sash will be positively locked against upward movement. If the sash is lowered in an attempt to dislodge the fastener, it will usually follow the sash down by gravity as indicated in the dotted line position of Fig. 1, so that when it is attempted to raise the sash again it will be locked in the lowered position. While the fastener is effective in locking the sash in a partly raised position it will be entirely effective in locking the sash in the fully closed position. If it is attempted to lower the upper sash, this will be prevented by the engagement of the edge 14 therewith. The device is more effective when used as a lock for a closed sash than an ordinary window lock which is secured to the sash by screws, as screws can usually be forced out by a jimmy from the outside.

The construction of the fastener is simple, as it can be easily died from sheet metal, so that the only work that is necessary in addition is to grind the edges 12 and 14 so that they are sharp.

It will be obvious that if the runway is of greater width than the ordinary standard width in general use, the length of the fastener will have to be correspondingly increased, so that when the fastener is placed in the runway it will be held at an acute angle to the horizontal, which I have ascertained to be less than 45° and preferably approximately 30°.

I claim:

A window sash fastener comprising a stiff metal plate having a base edge at one end adapted for engagement with the top of the lower sash and the outer side of the lower sash runway, and a sharp locking edge at its opposite end adapted to engage the opposite side of said runway, and having an extension at the outer end of said locking edge adapted for locking engagement at its end with the adjacent side of the upper sash, said plate having a cord-receiving recess opening to its inner edge between said base and locking edges and having a strengthening flange at its opposite edge from said recess extending from adjacent the base edge to adjacent the end of said extension, the end portions of said flange being formed to permit the end edges of the plate to engage the sashes throughout the entire length of said edges.

ROBERT L. FOLSOM.