

Sept. 15, 1925.

1,553,318

G. LANDER

WINDOW FASTENER

Filed Sept. 20, 1924

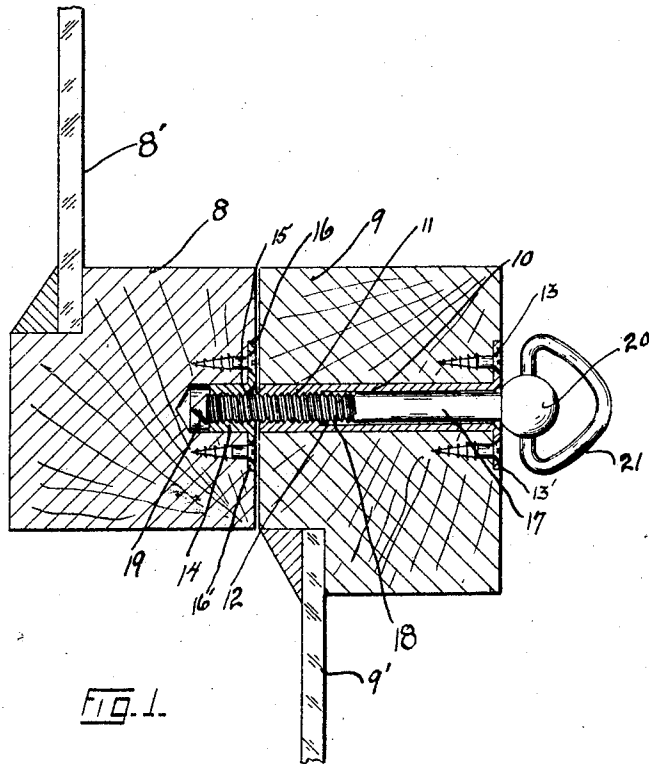


FIG. 1.

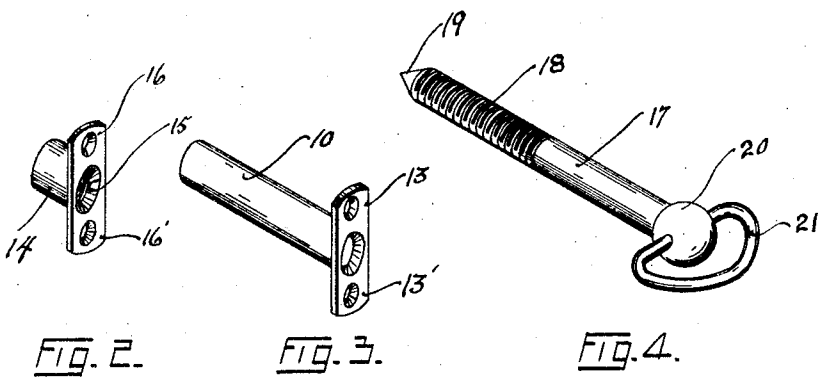


FIG. 2.

FIG. 3.

FIG. 4.

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GEORGE LANDER, OF DETROIT, MICHIGAN.

WINDOW FASTENER.

Application filed September 20, 1924. Serial No. 738,766.

To all whom it may concern:

Be it known that I, GEORGE LANDER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in a Window Fastener, of which the following is a specification.

My invention relates to a new and useful improvement in a window fastener adapted for fastening windows in fixed relation to each other, so as to prevent the opening of the window when the fastener is placed in operative position.

Another object of the invention is to provide a window fastener whereby the windows may be fastened in fixed relation to each other from the inside in such a manner as to prevent the moving of the windows relatively to each other, without first removing the fastening means from operative position from the inside of the window.

Another object of the invention is the provision of a window fastener adapted for securing the windows in fixed relation and for drawing the engaging sashes of the co-operating window frames into close relation to each other, so as to prevent the passage of dust or other foreign material into the room between the window sashes.

Another object of the invention is the provision of a window fastener which will be simple in structure, economical of manufacture, highly efficient in use and attractive in appearance.

Another object of the invention is the provision of a window fastener which will leave the upper surfaces of the window sashes free from obstruction, so that the window pane may be readily and easily cleaned over its entire surface.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood from a reference to the accompanying drawings which form a part of this specification and in which,

Fig. 1 is a sectional view of a pair of co-operating window sashes showing the invention in operative position,

Fig. 2 is a perspective view of a nut forming sleeve used in the invention,

Fig. 3 is a perspective view of another nut forming sleeve used in the invention,

Fig. 4 is a perspective view of the threaded member adapted for fastening the window frames in fixed relation to each other.

Various modifications and changes may be made in the invention, apart from the particular form and structure shown in the drawings, and it is intended that these modifications and changes shall come within the scope of the present invention. Among these changes may be various modifications of the ball 20 which is shown in the drawings and modifications of the rotating means 21.

The preferred form, as shown in the drawings, is adapted for use with co-operating window sashes 8 and 9, the sash 8 constituting the lower rail of the upper window frame and the sash 9 constituting the upper rail of the lower window frame. These window sashes 8 and 9 carry respectively panes of glass 8' and 9', and are adapted for slidable movement relatively to each other, as will be readily understood. The sash 9 is provided with an opening extending therethrough in which is positioned a bearing sleeve or nut forming sleeve 10 having the inner end thereof threaded as at 11, the number of threads in this sleeve being optional with the one constructing the same. This sleeve 10 is positioned preferably in the center of the sash 9 intermediate its ends. However, the particular location of the sleeve 10 in the window sash is also left optional with the one installing the device. Although it will not be necessary, a plurality of these sleeves may be mounted in each window sash, if desired. The formation of the threads on the portion 11 provides a shoulder 12, so that the interior of the major portion of the sleeve 10 is of larger bore than the threaded portion. The sleeve 10 is provided with a pair of laterally extending wings 13 and 13' which are preferably made integral with the sleeve 10. Each of these wings is provided with an opening which is countersunk for the reception of suitable fastening means, such as screws, adapted for fastening the sleeve 10 in the opening provided in the window sash 9. As shown in Fig. 1, the surface of the window sash 9 is recessed so as to permit the wings 13 and 13' to seat therein so that their outer surface is flush with the surface of the sash 9. Formed in the inner surface of the sash 8 is a pocket in which is positioned a nut

forming sleeve 14, the interior of which is threaded. The opening projecting through the sleeve 14 is countersunk, as shown in Fig. 2, at 15, and this sleeve 14 is also provided with a pair of laterally extending wings 16 and 16' each of which is provided with a countersunk hole for the reception of securing means.

In mounting the device 14 on the sash 8, the surface of the sash is also recessed to permit the lying of the wings 16 and 16' flush with the surface of the sash. In mounting the sleeve 14, it is placed in alignment with the sleeve 10 so that the bores of these two sleeves are in registration with each other.

A stem 17 is provided which has a portion 18 threaded to co-operate with the threads in the sleeves 10 and 14, the end 19 being tapered, as shown in Fig. 4, to facilitate its entry into the countersunk opening 15 and thereby assist the engagement of the threaded portion 18 with the threads in the sleeve 14.

A suitable head is provided on one end of the stem 17, having pockets in which engage the ends of a resilient turning handle 21, this handle 21 being pivotally mounted in the head 20, so that it may be swung downwardly or to the side out of position, in order not to present any obstruction which would retard or render difficult the raising or lowering of the shade used on the window.

When the device is in the position shown in Fig. 1, the windows are in fixed relation to each other, so that a relative raising and lowering of the same is prevented. It will be noted that there is no obstruction on the upper surfaces of the sashes 8 and 9, so that the window pane 8 may be cleaned throughout its area. With window locks as now used, it is difficult to clean the entire area of the window pane 8', inasmuch as the lock is positioned but a slight space from the window pane 8' at its lower side. As the rotation of the stem 17 continues, the sash 8 will be drawn into close relation to the

sash 9, thereby making the engagement dust-proof. It is apparent that when the windows are locked in fixed relation, as shown in Fig. 1, the windows cannot be moved relatively to each other, without first removing the stem 17 from engagement with the sleeve 14. With a window fastener of this kind, it is impossible for an intruder to open the windows in order to gain unlawful access to the premises, without breaking the window pane 8' or 9', so as to be able to remove the stem 17 from the interior of the building.

When it is desired to move the windows relatively to each other, the member 17 may be rotated by means of the rotating handle 21, so as to become disengaged from the sleeve 14. While the windows may then be moved relatively to each other, the stem 17 will be retained in its sleeve 10 because of the engagement of the threaded portion 18 with the threaded portion 11 of the sleeve 10.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A window fastener of the class described comprising a tubular member having a portion of its interior threaded; wings projecting diametrically opposite each other from one end of said tubular member; a nut forming member having an interiorly threaded bore adapted for mounting in registration with the bore of said tubular member, one end of said bore being countersunk; wings projecting laterally diametrically opposite each other from one end of said nut forming member; a threaded member adapted for threading into said tubular member and said nut forming member, the extreme end of said threaded member being tapered and adapted for engaging said countersunk portion of said nut forming member for facilitating its entry therein; and a pivotally mounted handle on said threaded member for facilitating the rotation thereof.

In testimony whereof, I have signed the foregoing specification.

GEORGE LANDER.