Nov. 24, 1925. 1,562,972

O. L. KOHNERT

WINDOW FASTENER

Filed Dec. 13, 1923

Fig. 1.

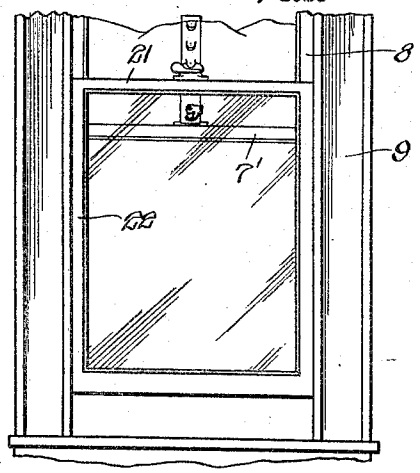


Fig. 3.

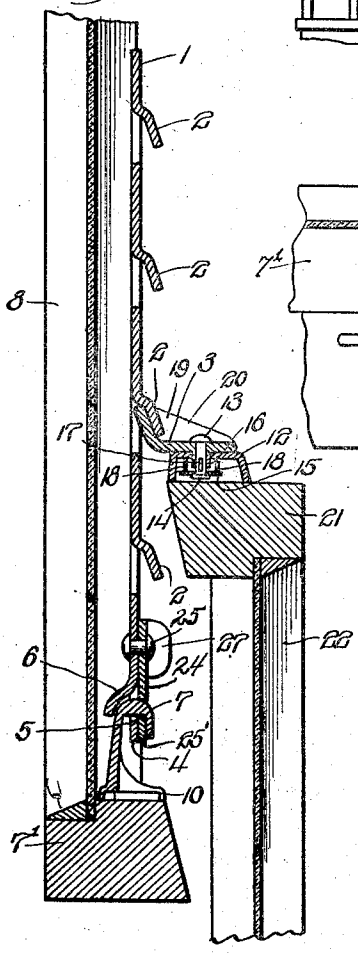


Fig. 2.

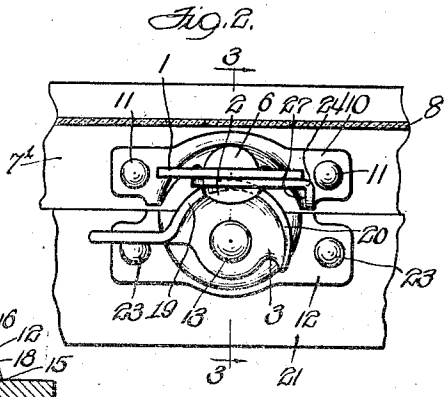
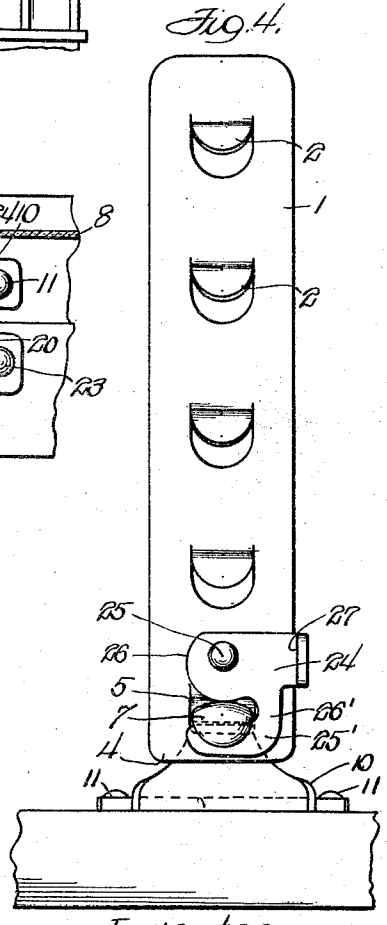


Fig. 4.



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UNITED STATES PATENT OFFICE.

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WINDOW FASTENER.

Application filed December 13, 1923. Serial No. 680,389.

To all whom it may concern:

Be it known that I, OTTO L. KOHNERT, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window Fasteners, of which the following is a specification.

This invention relates to that class of window fasteners comprising a hook member adapted to be attached to a window sash and to detachably engage a fastener member on an adjacent sash in such a manner as to enable the sashes of a window to be securely connected and fastened in different predetermined positions with respect to each other with the window closed or partially opened to any desired predetermined extent but locked or fastened so as to prevent access from the outside.

The principal object of this invention is to provide a simple, economical and efficient window fastener or guard.

A further object of the invention is to provide an improved window fastener or guard comprising a hook member or fastener bar adapted to be used in connection with and detachably secured in operative position and operatively connected with sashes to be fastened in different predetermined positions with respect to each other thereby; and more particularly, to provide such a hook member or fastener adapted to be detachably connected with the hook member of an ordinary and well known form of window fastening device, and to be detachably secured in engagement with a pivoted or movable segmental cam or flanged fastener of such ordinary window fastening device, for fastening the sashes in different adjusted or predetermined positions with respect to each other, or in a desired partially opened position.

Other and further objects of the invention will appear from the following description and claims, and from an inspection of the accompanying drawings which are made a part of this specification.

The invention consists in the features, combinations, and construction and arrangements of parts herein described and claimed.

In the accompanying drawings, Figure 1 is a view in elevation of a window having upper and lower or inner and outer sashes provided with and connected or fastened in a desired predetermined position with respect to each other by means of a window fastener or guard constructed in accordance with my invention;

Fig. 2 is a plan view in detail of a window fastener constructed in accordance with my invention, and showing the fastener mounted in operative position upon and connecting a pair of window sashes to be fastened in position thereby;

Fig. 3 is a view in central vertical section taken on line 3—3 of Fig. 2, looking in the direction indicated by the arrows, and showing a pair of window sashes fastened in one of a plurality of desired predetermined or possible adjusted positions with respect to each other; and

Fig. 4 is a view in front elevation of the hook members or fastener members which are shown mounted on the outer or upper sash in Fig. 3, and shows my improved hook member or fastener bar detachably connected with a hook member of a window fastening device of ordinary and well known construction, and a simple and efficient means for connecting the parts.

In constructing a window fastener or guard in accordance with my invention, I provide an upright hook member or fastener bar 1 which is, by preference, formed of a strip or bar of suitable metal, such, for example, as cold rolled steel or sheet metal having one or more hooks 2 thereon and by preference formed in one integral piece with said metallic bar or strip. I prefer to form the hooks 2 by stamping and bending them in the sheet metal of which the bar is formed, so as to form a series of hooks which project from the side of the strip or bar in superposed relation to each other. The hooks are formed in or upon the bar and spaced apart at suitable intervals longitudinally of the upright bar or strip so as to project inward or in the direction of the lower or inner sash when the bar is attached to or in operative position upon the upper or outer sash of a window. Each of the hooks 2 thus projects downward and inward or toward the inner or lower sash at an incline and in position to detachably engage or to enable any desired hook 2 to be engaged by a pivoted segmental flanged cam or hook member 3 adapted to be pivotally mounted upon or attached to a lower or inner window sash.

In the form of the device shown in the accompanying drawings, the hook member or fastener bar 1 is provided with a bottom

end portion or loop 4 in which is provided an opening, slot, recess, or aperture 5, which may be formed by punching or pressing a hole through the lower end portion of the bar directly in line with and below the lowermost hook 2 of the series of hooks, and bending or pressing the material displaced in making such opening, backward or through and beyond the opposite side of the bar from that on which the hooks 2 are formed, thus forming a projecting bent hook or boss 6 on and integral with the bottom portion of the bar 1, and in position to project outward and downward below the level of the upper extremity of a hook member 7 when the latter is inserted through the opening 5 and mounted in operative position upon or attached to the lower cross piece 7 of an upper window sash 8, which in this instance is an outer upper sash mounted in the usual or any desired manner in a window frame 8 which may be of any desired, ordinary and well known or suitable form.

The hook member 7 shown in the drawings consists of an ordinary cast metal hook having a base 10 which is perforated and adapted to be secured or attached to a window sash 8 of any desired form by means of screws 11 inserted through such openings and screwed into the sash, or by any desired ordinary or suitable securing means. In this instance the hook member 7 is in the form of an ordinary cast metal hook or outer hook member of an ordinary and well known form of window fastener device such as may be found in the open market and in common use upon the window sashes of dwelling houses. And the pivoted segmental cam or peripherally flanged hook-engaging member 3 shown in the drawings, is pivotally mounted upon a suitable metallic supporting base 12 with which said member 3 is connected by means of an upright headed pivot 13 which is fixed to or anchored in the base by means of a bottom head 14 and washer 15, or other suitable securing means. And a hub or depending sleeve 16 formed in one integral piece with the cam or flanged member 3 extends downward into the hollow base 12 and is engaged by a pin 17 and by flat springs 18, 18, located on opposite sides of the hub, for yieldingly engaging the hub so as to hold it and thereby the cam member 3 in either hook-engaging locking position, as shown in Figs. 2 and 3, or in releasing position when the member 3 is turned half of a complete revolution on its axis from locking position to releasing position.

The peripheral flange or cam 19 of the segmental cam member 3 has an upwardly facing inclined or helical segmental cam face 20 which is adapted to slidably engage the under inner surface of the hook 7 or of any desired hook 2 on the upright hook member or hooked fastener bar 1, when the latter is in operative position or detachably secured to a sash 8 by means of the hook member 7, and the pivoted segmental cam member 3 and its supporting base 12 are fixed to the upper cross bar 21 of a lower or inner window sash 22 by means of headed securing screws 23 inserted through suitable perforations in the base and screwed into the sash, or by any ordinary or suitable securing means.

The upright hook member or hooked fastener bar 1 is provided with a movable cam or pivoted securing member 24 which is, by preference, pivotally mounted on the bottom portion of the bar 1 by means of a pivot pin 25 located directly over the opening 5 through which the fixed hook 7 extends when the bar member 1 is attached to said hook and thereby detachably mounted on or connected with the lower cross bar 7′ of the upper or outer sash 8, or of any sash with which the bar 1 is to be detachably connected.

This pivoted securing cam member 24 has a peripheral segmental spiral cam face 26 which is eccentric to the axis of rotation on axle 25 of the cam member and adapted to slidably engage the upper face of the hook 7 when the latter is inserted through the opening 5 in the hooked bar 1, so as to securely clamp the hook 7 between the cam face 26 and the bottom wall of the opening 5, and co-act with the hook 6 and opening 5 in detachably holding the bar 1 in operative position in engagement with the hook 7 and thereby detachably connected with the sash 8. The hook or boss 6 is so disposed and of suitable dimensions to permit the bar 1 to be mounted upon and secured to the hook 7, but prevent the perforated lower end or loop portion of the bar 1 from becoming detached from the hook 7 while the bar is in operative or approximately upright position, or without first closing the window so as to permit the hook bar 1 to be swung inward and downward from upright position over the upper extremity of the lower or inner sash, which can only be accomplished when the window is closed, and not even then without first releasing the securing cam or combined cam and hook or guard member 24 from engagement with the hook 7. The cam member 24 is provided with a bottom guard or hook-shaped finger 25′ located directly beneath the bottom of the cam face 26 and in position to extend within the hook 7 and between the latter and the bottom end portion or loop 4 of the hook bar 1 when the latter is in operative position and attached to the hook 7. The guard 25′ is attached to the main body of the cam member 24 by means of an integral connecting neck or hook portion 26′ which is by preference resilient and sufficiently flexible to permit the guard finger 25′ to be flexed somewhat so as to be readily in-

serted in position between the hook 7 and the bottom extremity 4 of the bar 1, and afford a snug fit and prevent any undesirable play or lost motion between the parts thus connected. A boss or handle 27 on the pivoted securing cam or combined cam and guard 24 serves as a convenient means for manually operating or fastening and releasing the cam and guard member 24.

I claim:

1. A window fastener comprising a hook member provided with a loop portion adapted to receive and engage a fixed securing hook member attached to the inner side of a window sash, a fastener member movably mounted on an adjacent inner sash and adapted to detachably engage said first-mentioned hook member, for fastening the sashes in a desired predetermined position with respect to each other, and a guard on said first mentioned hook member and adapted to hold the loop portion of the said hook member in engagement with the fixed securing hook member, all of said parts being located on the inside of the outer window sash and inaccessible from the outside of the window.

2. A window fastener comprising a hook member provided with a loop portion having an opening therein adapted to receive and engage a fixed securing member to be attached to a window sash, said hook being adapted to engage a fastener member to be mounted on an adjacent window sash, for fastening the sashes in a desired predetermined position with respect to each other, and a guard pivotally mounted on said hook member and adapted to engage and hold said fixed securing member in engagement with the loop portion of said hook member.

3. A window fastener comprising a hook member provided with a loop portion having an opening therein, a fixed securing hook member adapted to extend into the loop portion of said hook member, means for securing said fixed securing hook member to a window sash, a fastener member pivotally mounted in position to operatively engage one of said hooks, for fastening the sashes in a desired predetermined position with respect to each other, and a guard movably mounted on said first-mentioned hook member and having a cam surface portion adapted to engage and hold the fixed securing hook member in engagement with the loop portion of the hook member on which said guard is mounted.

4. In a window fastener, a hook member provided with a loop portion having an opening therein adapted to receive and engage a fixed securing member to be attached to a window sash, said hook being adapted to engage a fastener member to be mounted on an adjacent window sash, for fastening the sashes in a desired predetermined position with respect to each other, a fixed guard on said hook member and adapted to admit said fixed securing member between said guard and the loop portion of said hook, and a movable guard member pivotally mounted on said hook member and adapted to engage said fixed securing member on the opposite side of said hook from that on which the fixed guard is located.

5. In a window fastener, the combination of a hook member provided with a loop portion, a fixed securing hook member adapted to extend through the said loop, means for attaching the fixed securing hook to a window sash, a pivoted fastener member adapted to be attached to an adjacent window sash in position to engage one of said hooks, for fastening the sashes in a desired predetermined position with respect to each other, and a movable guard mounted on said first-mentioned hook member and adapted to engage and hold said fixed securing hook member in engagement with the loop portion of the hook member on which said movable guard is mounted.

Signed at Chicago, in the county of Cook and State of Illinois, this 30th day of November, 1923.

OTTO L. KOHNERT