

S. F. WELLS.
STORM WINDOW ADJUSTER.
APPLICATION FILED FEB. 28, 1911.

Patented June 6, 1911.

994,224.

FIG. 1

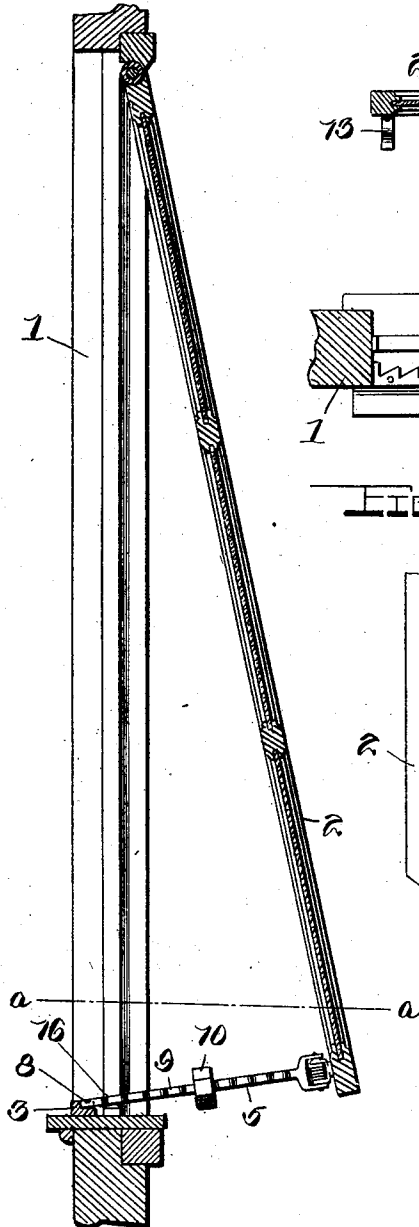


FIG. 2

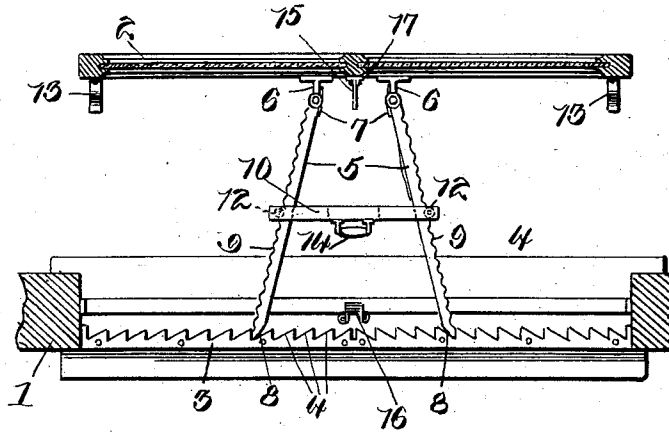


FIG. 3

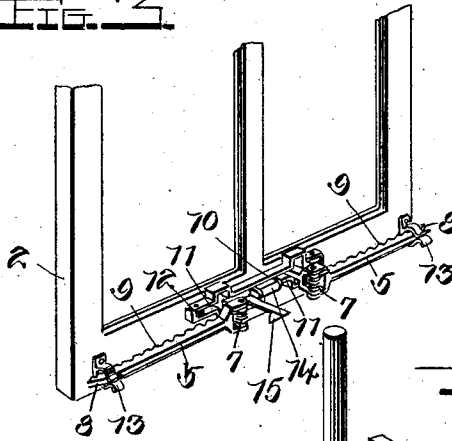
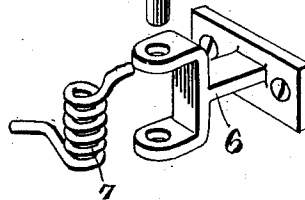


FIG. 4



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Witnesses

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UNITED STATES PATENT OFFICE.

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STORM-WINDOW ADJUSTER.

994,224.

Specification of Letters Patent.

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Application filed February 28, 1911. Serial No. 611,322.

To all whom it may concern:

Be it known that I, SHERMAN F. WELLS, a citizen of the United States, residing at Eden Prairie, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Storm-Window Adjusters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in adjusting storm windows, and consists in the construction, combination and arrangement of devices, hereinafter described and claimed.

The object of my invention is to provide improved devices of this character which may be readily attached to the lower end of the sash of a storm window, or other like object, and which may be readily adjusted so as to support and secure the storm window with the latter open to any desired extent and which may be also employed for securing the storm window in closed position.

In the accompanying drawings—Figure 1 is an elevation of a storm window adjuster constructed in accordance with my invention, showing the same attached to a storm window sash, and to the sill of a window casing, the storm window sash, and the sill of the window casing being indicated in section. Fig. 2 is a plan of the same, partly in section on the plane indicated by the line *a-a* of Fig. 1. Figs. 3 and 4 are detail views.

For the purposes of this specification, a window casing is indicated at 1, and the sash of a storm window is indicated at 2. In accordance with my invention I provide a locking ratchet bar 3, which is secured in a horizontal position on the sill or base of the window frame, with the points of its teeth extending toward the outer side of the frame. The teeth of the said ratchet bar incline in opposite directions from the ends to the center of the ratchet bar so that the inclined sides 4 of the teeth of the opposite ends of the ratchet bar converge outwardly. I also provide a pair of brace bars 5, each of which is provided at its outer end with a hinge member 6, pivotally connected thereto, and provided with a spring 7 which exerts its tension on the brace bar, and tends to close the brace bar against the inner side of the bottom rail of the storm window sash. Each brace bar has its free end beveled

as at 8, and adapted to fit in the space between two of the ratchet teeth of the bar 3. It will be understood that when the brace bars are engaged with teeth of the ratchet bar, they coact with the said ratchet bar to secure the storm window in an inclined, partly opened position and it will be also understood that by adjusting the brace bars angularly with respect to the window, they may be caused to hold the latter open to any desired extent. Each brace bar is provided on its outer side with serrations or teeth 9 which are preferably semi-cylindrical in form, and the spaces between them are also preferably semi-circular. I also provide a securing bar 10 of suitable length which connects the brace bars together, and is adjustable longitudinally on the brace bars, and has longitudinal slots 11 through which the brace bars extend. At the outer end of each slot 11, the securing bar is provided with a roller 12, the said rollers serving to engage the serrated outer sides of the brace bars and hence enable the securing bar to be moved longitudinally on the brace bars toward and from the storm window sash, so as to dispose the brace bars at any desired adjustment, and to engage them at any desired point with the ratchet bar 3, it being understood that the springs 7 by their tension on the brace bars serve to normally move the latter apart so as to keep them in engagement with the rollers 12 at the outer ends of the slots 11, the springs, however, permitting the securing bar to be adjusted on the brace bars as will be understood. When the securing bar is moved to the pivoted ends of the brace bars, against the inner side of the storm window sash, it clears the brace bars and the hinge members 6 of the brace bars, permit the latter to be folded against the inner side of the storm window sash, and secured in folded or closed position by means of spring catches 13 with which the storm window sash is provided. To facilitate the manipulation of the securing bar 10, I provide the same at its center with a handle loop 14.

When the brace bars are in closed position, against the storm window sash, the sash may then be closed and to secure the said sash in closed position, I provide a pair of coacting catches 15, 16, which are respectively secured to the storm window sash, and on the sill of the casing 1. The catch 15 is pivoted as at 17 so that it may be readily

engaged with or disengaged from the catch 16.

The toothed bar 3 may be readily secured on the sill of the window frame by suitable screws and the hinge members 6 of the brace bars 5, and the spring holders or catches 13 may be also readily secured to the lower bar of the storm window sash by means of suitable screws, so that my improved adjusting devices may be readily attached to or detached from any storm window or other like structure.

I claim:—

1. In combination with a window frame having a toothed bar, a sash or the like to open and close in the frame, a pair of adjusting braces pivotally connected to the sash, and adapted to engage the toothed bar, springs acting on said braces to normally move them from each other, and a securing bar connecting and longitudinally movable on said braces, the said braces being also longitudinally movable with respect to the said securing bar.

2. Adjusting braces, each having an attaching member pivoted to one end, and also

provided with a spring, the said springs acting to move the said adjusting braces outwardly from each other, and the said adjusting braces being provided with serrated outer sides, in combination with a securing bar having slots through which said adjusting braces pass, and in which said adjusting braces are angularly movable, the said securing bar being provided at the outer ends of the slots with devices to engage the serrated edges of the adjusting braces.

3. The combination with a window member, of an adjusting brace having an attaching member pivoted to one end adapted to be secured to said window member, a spring acting on the adjusting brace to normally close the same against said window member and a catch adapted to be secured to the window member to engage and secure the brace when the latter is in closed position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

SHERMAN F. WELLS.

Witnesses:

FRED. F. MILLER,
E. G. KNOWLEN.