

W. GORST.
STORM SASH HOLDING DEVICE.
APPLICATION FILED NOV. 11, 1911.

1,031,178.

Patented July 2, 1912.

2 SHEETS-SHEET 1.

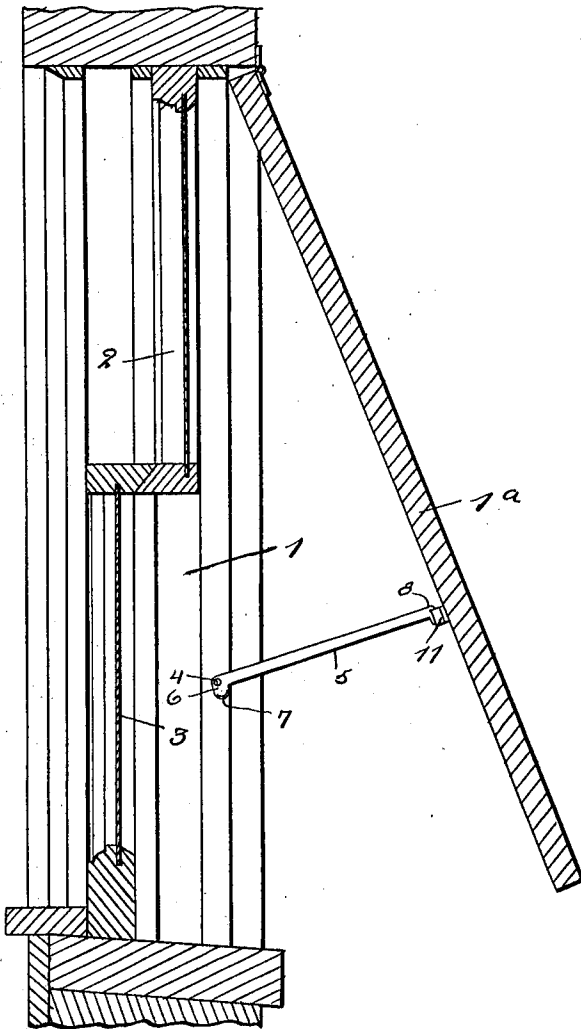


Fig. 1.

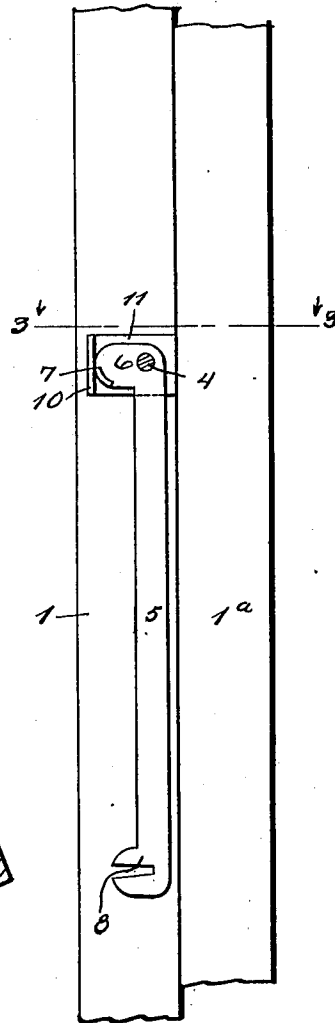


Fig. 2.

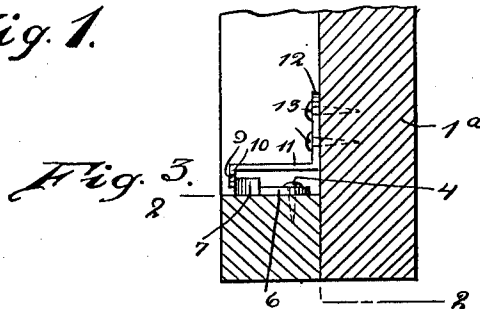


Fig. 3.

Witnesses

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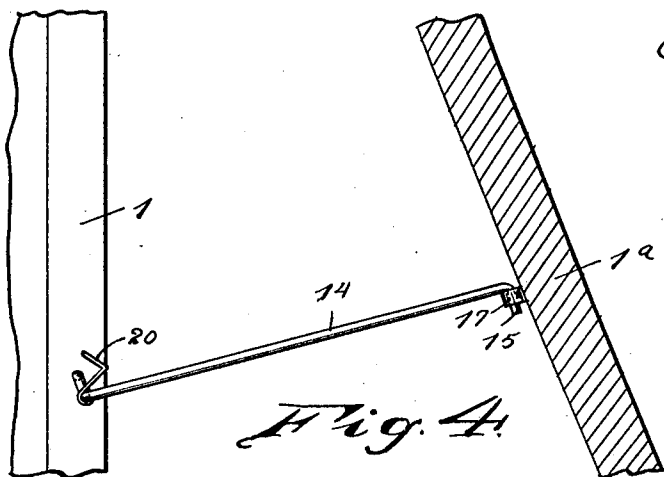


Fig. 4.

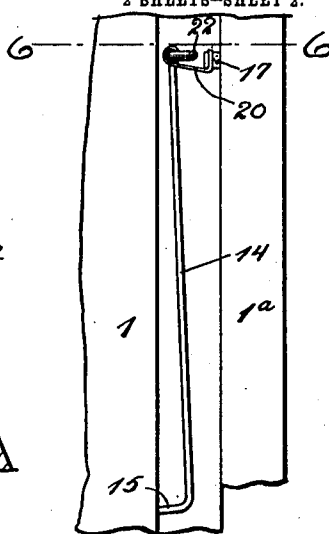


Fig. 5.

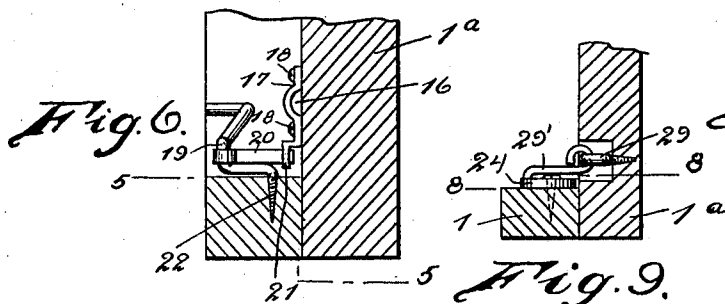


Fig. 9.

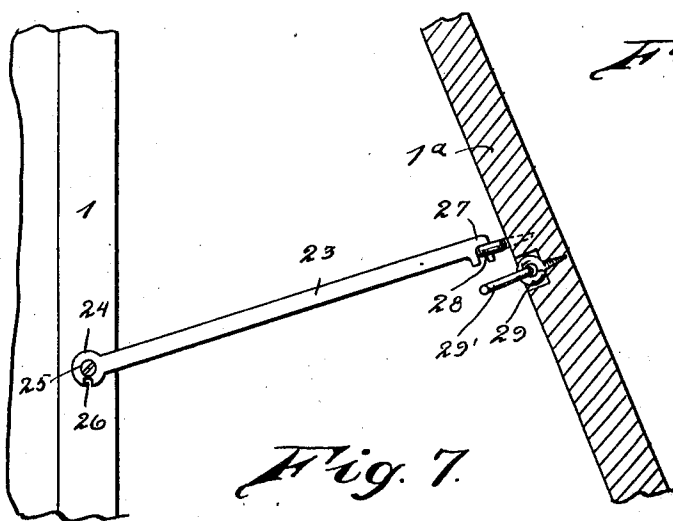


Fig. 7.

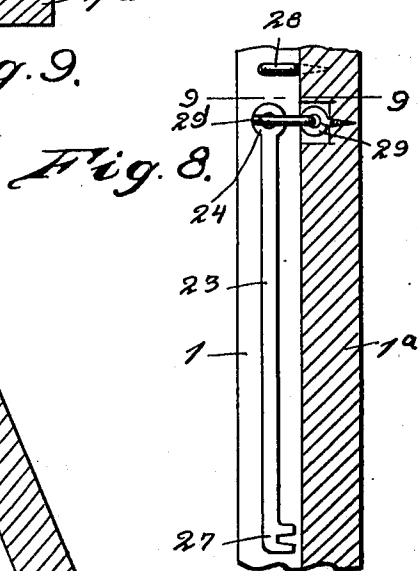


Fig. 8.

Witnesses

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STORM-SASH-HOLDING DEVICE.

1,031,178.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed November 11, 1911. Serial No. 659,789.

To all whom it may concern:

Be it known that I, WILLIAM GORST, a citizen of the United States, residing at Wayne, in the county of Wayne and State of Nebraska, have invented certain new and useful Improvements in Storm-Sash-Holding Devices, of which the following is a specification.

The present invention relates to a device for holding a storm window or the like in its open position and to also lock the same in its closed position.

An important object of this invention is to provide means of the above mentioned character, which are simple in construction, cheap to manufacture, and easy to operate.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a longitudinal transverse sectional view of a window structure equipped with my improved device, Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 3, Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 2, looking in the direction of the arrow, and showing the device applied to the other side of the window, Fig. 4 is a fragmentary view of a window frame and storm sash, showing a modified form of means for holding said storm sash open or closed, Fig. 5 is a detail vertical sectional view taken on line 5—5 of Fig. 6, Fig. 6 is a horizontal sectional view taken on line 6—6 of Fig. 5, and showing the device applied to the other side of the window, Fig. 7 is a detail fragmentary view of a portion of a window frame and storm sash, showing a third modified form of means for holding the storm sash in place, Fig. 8 is a vertical section on line 8—8 of Fig. 9, and, Fig. 9 is a horizontal sectional view taken on line 9—9 of Fig. 8 and showing the device applied to the other side of the window.

In the drawings wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a window frame as a whole of the ordinary construction. Upper and lower sashes 2 and 3 are mounted in this window frame. A storm sash 1^a is provided, the same being hinged, as shown.

Pivottally mounted upon each side of the lower portion of the window frame, through the medium of a bolt 4 or the like, is an arm or lever 5, disposed as shown. This arm or lever is provided adjacent the bolt 4 with a laterally extending head 6, provided at its free end with a curved flange 7. The arm or lever 5 has its opposite end provided with a head 8, forked as shown, for detachable engagement within a notch 9 formed upon a flange 10, carried by a bracket 11, at its free end. This bracket is formed on a base 12, which is rigidly connected with the storm window 1^a by screws 13 or the like. The operation of this form is as follows:—When it is desired to swing the storm sash outwardly, each arm or lever 5 is first swung inwardly to assume a substantially horizontal position, so the flange 7 can clear the flange 10 and said flange 10 is permitted to clear the flange 7 when the storm sash is swung out to its open position. The arm 5 is next swung outwardly and each head 8 brought into engagement within the bracket 11 to hold the storm sash in its open position. When closing the storm sash each arm 5 is first disengaged from the bracket 11 and said arm and storm sash is permitted to swing inwardly. Each arm 5 must again be swung inwardly to assume substantially the horizontal to permit the flange 10 to clear the flange 7, subsequently to which the arm or lever 5 is swung downwardly to assume a vertical position, which brings the flange 7 in front of the flange 10 and securely locks the storm window in its closed position. Attention is called to the fact that when the lever 5 is thus swung to its vertical position, the flange 7 is brought past and below the center of gravity and is positioned in the path of travel of the flange 10. This flange is thus securely held in its locking position and will not be accidentally moved therefrom but can be properly moved when a sufficient pull is exerted upon the lever 5. Attention is also called to the fact that the operator may completely close the storm sash after the same is partly closed, by catching hold of the element 11 and pulling it inwardly, subsequently to which the element is securely locked by the flange 7, as hereinabove described.

In Figs. 4 to 6 inclusive, I have illustrated a modified form of the invention, the same

including rods 14, each having its free end bent to form a hook portion 15, for insertion in a socket 16 of a bracket 17. This bracket 17 is connected with the storm window 1^a by screws 18 or the like. The inner end of the rod 14 is bent to form a portion 19, carrying at its ends a hook element 20 rigidly connected therewith, adapted for insertion behind a lug 21 carried by the bracket 17. The inner end of the rod 14 is pivoted to the frame by a screw element 22. Attention is called to the fact that the portion 19 is offset with respect to the body portion of the rod. In connection with this form of the invention, when the storm sash 1^a is in its closed position, each hook 20 fits behind lug 21 and thus locks the storm sash in its closed position. By swinging each rod 14 inwardly the point is withdrawn from behind lug 21 and the storm sash 19 permitted to be opened, subsequently to which the rod 14 is swung outwardly and point 15 inserted in socket 16 to hold the storm sash in its open position.

25 In the third form of my invention, as shown in Figs. 7 to 9, inclusive, the numeral 23 designates arms each of which is provided at its inner end with a circular head 24, pivoted to the window frame 1 by a bolt 25 or the like. The head 24 is provided with a notch 26, for a purpose to be described. The outer end of the arm 23 is provided with a forked head 27 to detachably engage an eye-bolt 28 carried by the storm sash 1^a. Adjacent the eye-bolt 28, is a second eye-bolt 29, secured to the storm sash and preferably countersunk therein, as shown. Pivottally connected with the eye-bolt 29 is a link 29' having its free end hooked, as shown, to enter the notch 26. When the storm sash is in its closed position, the free end of the link is disposed in notch 26, whereby said storm sash is locked in its closed position. By swinging the arm 23 inwardly to assume substantially a horizontal position, the link 29 may be moved out of the notch 26, after which the storm sash 1^a may be swung outwardly and so held by the arm 23, engaging the eye-bolt 28 with the head 27.

I wish it understood that the forms of my invention herewith shown and described are to be taken as preferred examples of the same and that certain changes in the shapes, sizes, and arrangements of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim,

1. In a device of the character described, a latch element attached to a storm sash or the like and provided with a flange, a pivoted arm secured to a fixed support and having its outer end adapted for detachable connection with said latch element, a head formed upon the inner end of said arm, and a flange formed upon said head, adapted when said arm is moved to a certain position to allow the first named flange to pass whereby the storm sash may be opened and when said arm is in another position to be disposed in the path of travel of said first named flange to lock the storm sash in its closed position.

2. The combination with a fixed support, of a lever pivottally connected at one end with the fixed support and provided adjacent such pivot with a head having a laterally extending flange near one end thereof, a latch element attached to a storm sash or the like and provided with a laterally extending flange extending toward the first named flange, said lever being provided at its outer end with means to detachably engage the latch element.

3. The combination with a fixed support, of a lever provided at one end of a laterally extending head having a laterally extending flange formed on one end thereof, means permanently pivottally connecting the head and fixed support so that the said flange will be positioned below the pivot point when said lever is swung downwardly to assume the vertical, said lever being provided at its opposite end with a slotted head and a latch element secured to a storm sash or the like and having a laterally extending vertical flange extending toward the first named flange and provided with a slot thereon.

4. The combination with a fixed support, of a lever pivoted at one end to the fixed support and provided with a head carrying near its end a curved laterally extending flange extending longitudinally with relation to said lever, and a latch attached to a storm sash or the like and provided with a laterally extending substantially vertical flange extending toward the curved flange.

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

WILLIAM GORST.

Witnesses:

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THEODORE DIEERIG.