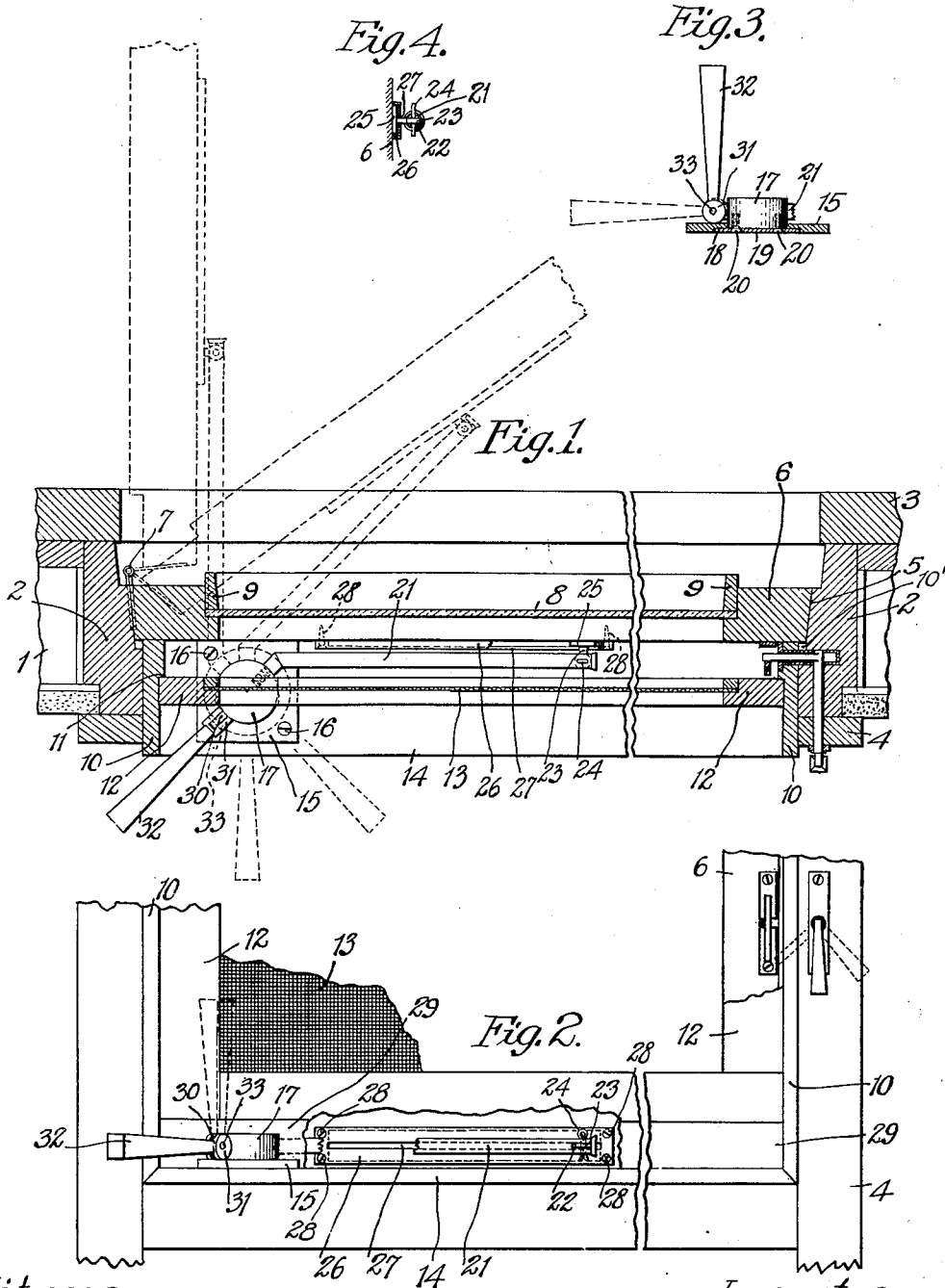


W. B. GRIFFIN.
WINDOW ADJUSTER.
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1,058,050.

Patented Apr. 8, 1913.



Witnesses:

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UNITED STATES PATENT OFFICE.

WALTER BURLEY GRIFFIN, OF CHICAGO, ILLINOIS.

WINDOW-ADJUSTER.

1,058,050.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER BURLEY GRIFFIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Window-Adjusters, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to the control, operation and locking of swinging windows, and its object is to provide an arrangement for facilitating the movement of the window upon the hinges upon which it is mounted, and to provide means for locking the window in any open adjusted position, or closed.

In modern building construction—particularly in residences—where swinging windows are used, it is desirable when a screen is used, to mount the screen on the inside of the window. It is further desirable to permanently mount the screen inside the window, and with this in view, means has been provided for swinging the window outwardly by means of some arrangement terminating in a handle disposed on the inside of the screen.

The prior art has seen devices of this nature, wherein a rotatable member was supplied with an arm extending in one direction on one side of the screen for attachment in some way to the window, and also with a handle extending inside the screen in position for manipulation. This device has, however, been attended with various difficulties, and it is the object of my invention to eliminate these undesirable features. It is a particular advantage in my device, that the handle which extends inside the screen, may, when the window is locked in place, be disposed inside the bounding planes of the window casement, so that persons in passing by will not encounter the protruding obstacle—this being particularly noticeable in narrow passageways.

Another important feature of my invention resides in the fact that the window can be locked in an adjusted position and may be adjusted to any degree, as distinguished from the prior structures in which the "point" adjustment was used, that is, where there was a limited number of adjusted positions. This is particularly advantageous,

when it is considered that the window sash is subjected to weather conditions and that it is likely to shrink, for it is obvious that such shrinkage will disarrange the "point" adjustment which has been provided for. In building equipment, it is further desirable to mount the shade on the inside of the screen, and in the prior art devices it has been found difficult to do this since the adjustable mechanism necessitated such a considerable distance between the window sash and the screen, the shade in this instance being disposed in that space. In my device however, the adjusting mechanism between the screen and the window sash closely hugs the sash so that the space between the sash and the screen need be but very small.

Simplicity is another important object of my invention. As will be described, the various parts are of simple construction and assembly, and the locking is secured by a mere movement of the handle which is used to swing the sash. In the specific embodiment shown, the handle is provided with a cam surface which is used as a jamming means when the handle is turned, so that any further movement to swing the device is prevented.

As will appear, the adjusting and locking arrangements which I provide can be moved from one side of the device to the other, so that the window can be made to swing the other way, and this without any substantial changes in the parts which make up the structures.

Other features of advantage will appear as this description proceeds.

The various features of my invention are embodied in the device shown in the accompanying drawings in which—

Figure 1 is a horizontal, sectional view of the wall having a window provided with my adjuster and lock; Fig. 2 is an elevational view thereof, parts being broken away to reveal the constructions; Fig. 3 is an isolated, elevational view of the handle and directly associated parts of the adjuster; Fig. 4 is an isolated, cross-sectional view of the arrangement for securing attachment between the adjuster and the window sash.

The same reference characters are applied to the same parts throughout the various figures.

The wall is shown at 1, and the window

jamb which is inserted therein is indicated at 2. This window jamb is of the usual rectangular form, and is supplemented on the outside by a casing 3 and on the inside by a casing 4. The jamb is provided with the usual interior jamb surface 5, which flares outwardly as shown, and receives the window sash 6, which is correspondingly formed so as to insure a snug fit. This window sash of course is of the corresponding rectangular form, and is mounted upon hinges 7, which in turn are secured to the jamb in the usual manner.

The window sash 6 is provided with the glass 8 held in place by means of a frame 9; a stop frame 10 lines the interior of the jamb on the inside of the window, and the window sash 6 abuts against this stop frame in the usual manner as clearly indicated in Fig. 1. This stop frame is provided with an inside shoulder 11, against which the screen frame 12 which carries the screen 13, is mounted in any suitable manner. The space 10' is filled with felt.

Upon the sill 14 of the stop frame 10, which is of course rectangular to correspond with the other parts, there is mounted toward one side thereof, a plate 15, preferably of metal, which is secured in place by means of screws 16, 16. This plate is provided with a central opening which is circular, and which receives the hub 17, which forms the rotary element of the adjusting device as will be later pointed out. The under side of the plate 15 is rabbeted as shown at 18 for the reception of a confining plate 19 which is secured to the under side of the hub 17 by means of screws 20, 20. As is clear from Fig. 3, this plate secures the hub 17 rotatably in the plate 15.

Extending radially and obliquely from the hub 17 is an arm 21, which is screwed in place as clearly illustrated in Fig. 1. Near the end of this arm there is provided a slot 22, in which a link 23 is rotatably mounted by means of a cotter pin 24. This link carries at its free end, a small disk 25, which slides in a pocket strip 26, having the slot 27 through which the link 23 properly extends, this pocket strip being secured to the sash 6 by means of screws 28, 28.

It is clear from Fig. 1 that the arm 21 is disposed between the screen 13 and the sash 6, and that, when the sash is closed, it is approximately parallel to the general lines of the sash and screen frame. The means whereby this arm is secured to the pocket strip closely hugs the sash 6 so that the space between the screen 13 and the sash is practically limited. The screen frame 12 rests upon a strip 29, which extends horizontally across the stop frame 10 and rests against the shoulder 11 as was described relative to the screen frame itself. This strip 29 is cut out to accommodate the plate

15 and the hub 17, as clearly illustrated in Fig. 2, so that an ordinary screen frame may be used without interference.

Extending from the hub 17 on the inside of the screen in a direction opposite to that of the arm 21, is a short lug 30 to which the hub 31 of a handle 32 is pivoted by means of a pivot pin 33. This hub is circular, but is eccentric relative to the pivot pin, 33, and it is so disposed on the pivot pin relative to the handle 32, that when the handle 32 is in its horizontal position as shown in full lines in Figs. 1 and 2, the eccentric cam thus formed will be jammed against the hub 17 so that the handle itself will have a definite, positive position. When the handle is in this position the eccentric hub 31 is spaced from the plate 15 as shown in Figs. 2 and 3, and it is clear that there will be nothing to interfere with moving the handle from left to right and back again as indicated by the dotted lines of Fig. 1. It is clear that such movement of the handle will result in the swinging of the window, and when the handle is in its farthestmost right hand position, the window is swung open as far as it will go.

As shown particularly in Fig. 3, and as shown in dotted lines in Fig. 2, the eccentric hub 31, when the handle is changed to its vertical position, is jammed tightly against the plate 15, so that any lateral movement, that is, movement of the hub 17, is absolutely prevented. Thus it is seen that the hub 17 can be locked in any desired position by merely moving the handle 32 from its horizontal position to its vertical position, this locking action being in the way of the jamming effect between the eccentric hub 31 and the plate 15. It is seen that when the handle is in its raised position, it is safely disposed in the bounding planes of the casement, and it is thus clear that whenever the window is locked, there will be no obstacle interfering with the free passage of a person by the window.

It is important that the means of connection between the end of the arm 21 and the pocket strip 26, is such that it is applied permanently at the end of the arm for in the prior art devices, it has frequently been found impossible to get the proper action of the window because the end of the arm, somewhat analogous to this, has often been caught against the sash itself. It is clear that the pivotal connection admits of easy operation and of the proper movement of the link and the disk carried thereby relative to the pocket piece. The cotter pin admits of ready release.

I claim as new and desire to secure by Letters Patent;

1. In a window adjuster, a casing, a window sash hinged to said casing, means for swinging said sash, and an operating han-

dle being movable in one plane to actuate the swinging means and being movable to a plane at substantially right angles to said first plane to lock the sash at the desired position.

2. In a window adjuster, a casing, a window sash hinged to said casing, means for swinging said sash, and an operating handle for said swinging means, said handle being pivoted and having an eccentric hub which acts as a cam to lock the swinging means relatively to the casing.

3. In a window adjuster, a casing, a window sash hinged to said casing, a rotary member mounted upon said casing, a link between said rotary member and said sash, and a handle pivoted to said rotary member, said handle having an eccentric hub which acts as a cam to jam itself relative to said casing and to thereby lock said sash in adjusted position.

4. In a window adjuster, a casing, a window sash hinged to said casing, a rotary member secured to said casing, a link secured to said rotary member, slidable connection between said link and said sash, a handle secured to said rotary member, and

means for jamming said handle to lock it in any adjusted position.

5. In a window adjuster, a casing, a window sash hinged to said casing, a plate secured to said casing, a block rotatably confined in said plate, an arm extending from said lock and mechanically connected with said sash, a handle extending from said block, said handle being pivoted to said block and having an eccentric hub to act as a cam to jam against the block when in one position and against the plate when in the other position, the sash being locked in place when the handle is in the latter position.

6. In combination, a plate, a rotary member mounted in said plate, an arm extending from said rotary member, and a handle pivoted to said rotary member and having a cam surface for jamming against said plate when the handle is in one position.

In witness whereof, I hereunto subscribe my name this 25th day of November, A. D. 1910.

WALTER BURLEY GRIFFIN.

Witnesses:

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