W. W. MYERS.

ADJUSTER FOR BALANCED WINDOWS.

APPLICATION FILED JULY 12, 1916.

1,314,892. Patented Sept. 2, 1919.

Fig. 1.

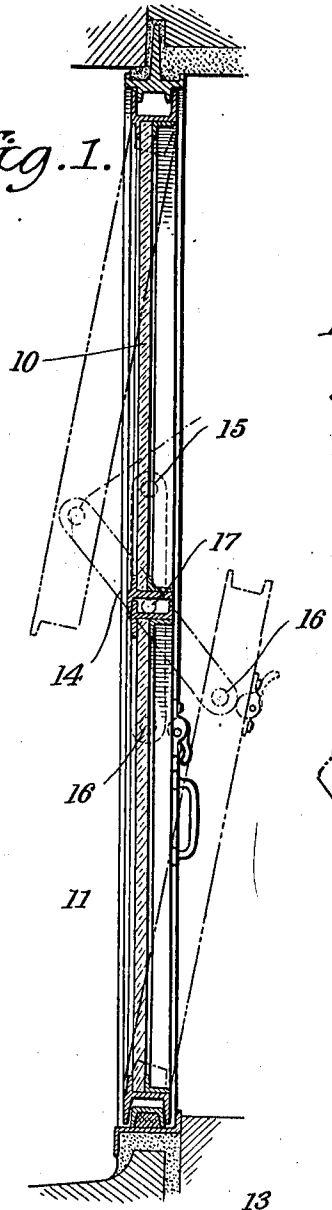


Fig. 2.

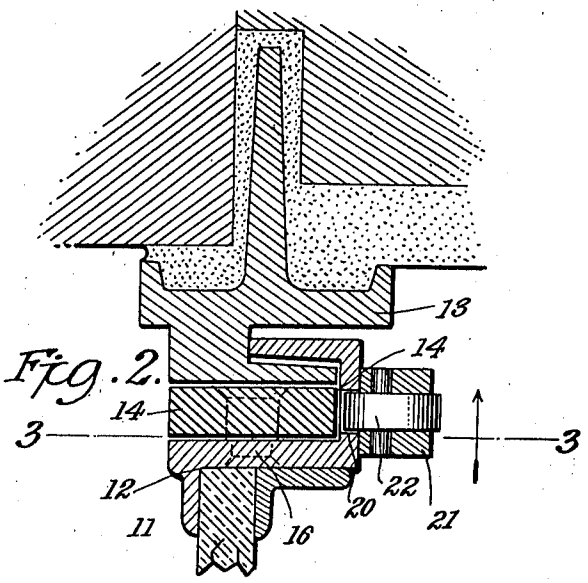


Fig. 3.

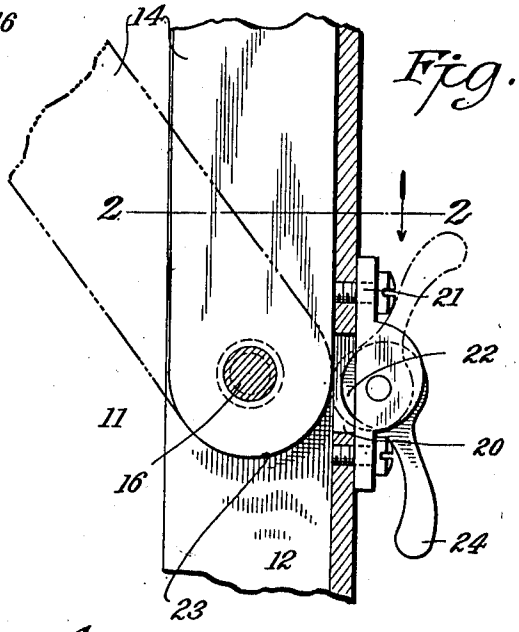
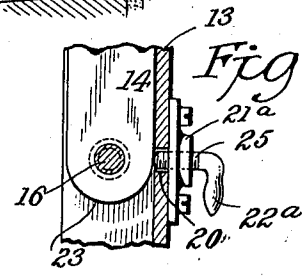


Fig. 4.



Inventor

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UNITED STATES PATENT OFFICE.

WINTER W. MYERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO AUSTRAL WINDOW COMPANY, OF NEW YORK, N. Y., A CORPORATION OF MAINE.

ADJUSTER FOR BALANCED WINDOWS.

1,314,892. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed July 12, 1916. Serial No. 108,796.

To all whom it may concern:

Be it known that I, WINTER W. MYERS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Adjusters for Balanced Windows, of which the following is a full, clear, and exact description.

In windows of the Austral type, such as shown in the patents to Knox No. 821,510 and Abell No. 788,182, it has been found that high wind pressures sometimes tend to swing the windows from the position in which they have been positioned. This occurs particularly in high buildings where certain air currents tend to open the window sashes, and other currents have a tendency to move the sashes toward closed position. My invention contemplates a simple locking or adjusting device which can be manipulated by the person opening the window so that wind currents cannot swing the sashes from the position in which they have been set.

In the drawings:

Figure 1 shows a central sectional view of an Austral window to which my improved adjuster has been attached.

Fig. 2 is a sectional detail view, taken on line 2—2 of Fig. 3.

Fig. 3 is an enlarged detail view of the adjusting device, taken on line 3—3 of Fig. 2.

Fig. 4 is a detail view of a modification.

In more detail in the drawings, the upper and lower sashes 10 and 11 each have side rails of channel section as shown at 12 in Fig. 2. Part 12 of the channel extends around and engages a channel member 13, which forms the side frame of the window. The balance arms 14 are pivoted to the upper and lower sashes at 15 and 16 and are also pivoted at their centers to the side channel members 13 as shown at 17 in Fig. 1. The balance arms, when the windows are closed, lie in the space between side rail channel members 12 and side frame members 13, as shown clearly in Figs. 2 and 3. When the windows are opened, the balance arms swing outwardly, as shown in dotted lines in Fig. 3. These features are of the usual construction used in the Austral windows having rolled steel frames.

It has been found that the pressures of the wind against the inclined sashes tend to open or close the windows. I, accordingly, provide a means for locking the balance arms in any desired angular position and thereby maintain the window sashes in any desired angular position.

The channel side rails are cut away adjacent the pivots with slots 20. Bracket members 21 are bolted or otherwise secured to the part 22 of the side rail. These brackets have pivotally mounted therein, camming members, which have an eccentric cam portion 22 projecting inwardly through the slots 20 and terminating adjacent the arcuate lower ends 23 of the balance arms 14. The camming members are also provided with finger pieces or handles 24. The operation of the adjusters will be readily understood. The windows are opened to the desired angular position in the usual manner. Thereafter, if it is desired to lock the window, the finger piece 24 is grasped and drawn upwardly thereby, bringing the eccentric or cam portion 22 into a close contact with the arcuate portion 23 of the balance arm. In this way the balance arms can be clamped in any desired angular position thereby maintaining the sashes in the corresponding angular position. When it is desired to release the windows, the finger piece is pressed downwardly thereby swinging the camming portion 22 away from the end of the balance arm.

In the modification shown in Fig. 4, the camming member is dispensed with, a threaded stud 25 engages threads in the bracket 21^a and has a handle 22^a on the end thereof. By turning this handle the stud 25 can be advanced or retracted to clamp or release the balance arm.

It will be understood that either one or two adjusters can be used depending upon the size of the window. With small windows one adjuster will be found sufficient, but with large windows, subject to heavy wind pressure, it may be necessary to provide an adjuster for both balance arms.

My invention is susceptible to various modifications, which will occur to those skilled in the art and what I claim as my invention is more particularly pointed out in the appended claims.

I claim:

1. A window comprising a pair of sashes, in combination with balance arms pivoted between their ends to the window frame and

at their ends to said sashes and adapted to balance and support said sashes, one of said balance arms having an arcuate portion concentric with one of the pivots, and a clamping means carried by one of the side rails of one of the sashes having provisions for engaging the arcuate portion of the balance arm and thereby preventing movement of the said arm and sashes.

2. A window comprising a pair of sashes, in combination with balance arms pivoted between their ends to the window frame and at their ends to said sashes and adapted to balance and support said sashes, one of said balance arms having an arcuate portion concentric with one of the pivots thereof, a bracket carried by the side rail of one of the sashes, a member pivotally mounted upon said bracket, a cam associated with said member and extending toward the arcuate portion of said arm, and a finger piece adapted to be grasped for swinging the cam into locking position with respect to arcuate portion of the balance arm to where the latter and the sash connected thereto are clamped against movement.

3. A window comprising a frame and a pair of sashes capable of being bodily raised and lowered in said frame, the upper sash having at its top and the lower sash having at its bottom means for engagement with the sides of the frame and a balance lever pivoted between its ends to the frame and at its ends to the upper and lower sash respectively, in combination with a manually operated clamping means carried by one of said sashes and coöperating with the balance arm to lock said sashes in any desired position.

4. A window comprising a frame and a pair of sashes capable of being bodily raised and lowered in said frame, the upper sash having at its top and the lower sash having at its bottom means for engagement with the sides of the frame and a balance lever pivoted between its ends to the frame and at its ends to the upper and lower sash respectively, said balance arm having an arcuate portion concentric to one of the pivots which secures it to the sash, in combination with a cam member pivotally secured to the last mentioned sash and coöperating with the arcuate portion of said balance arm to lock said sashes in any desired position.

5. A balance window comprising a pair of sashes, in combination with balance arms for balancing and supporting said sashes, and a clamping means coöperating with one of the balance arms and carried by one of said sashes to lock the said arm in any desired position.

In testimony whereof I hereunto affix my signature.

WINTER W. MYERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."