O. V. NYSTROM.

WINDOW FRAME AND SASH.

APPLICATION FILED SEPT. 20, 1909.

956,151.

Patented Apr. 26, 1910.

Fig. 1

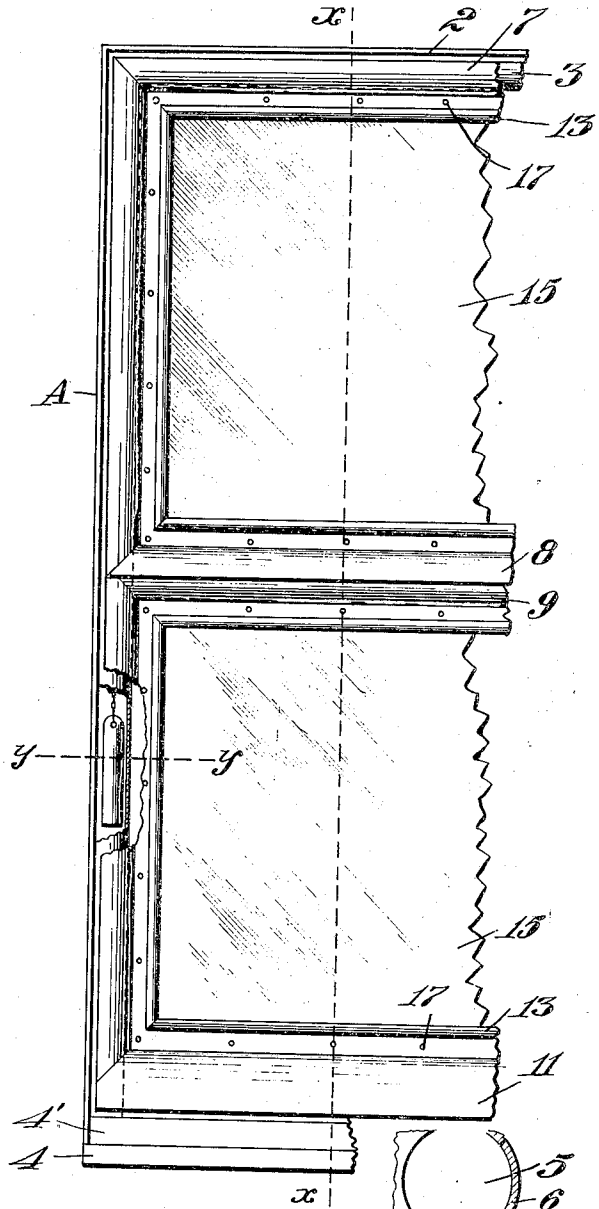


Fig. 2.

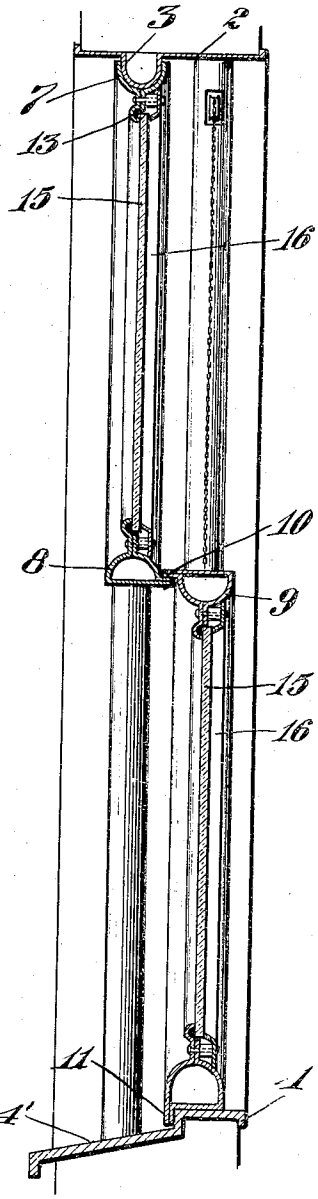
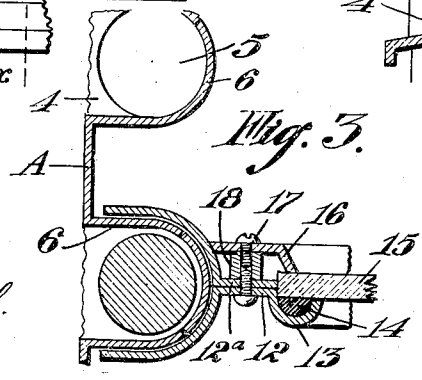


Fig. 3.



WITNESSES;

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INVENTOR

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OSCAR V. NYSTROM, OF MILL VALLEY, CALIFORNIA.

WINDOW FRAME AND SASH.

956,151. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed September 20, 1909. Serial No. 518,613.

To all whom it may concern:

Be it known that I, OSCAR V. NYSTROM, a citizen of the United States, residing at Mill Valley, in the county of Marin and State of California, have invented new and useful Improvements in Window Frames and Sashes, of which the following is a specification

My invention relates to improvements in window frames and sashes therefor.

It consists in a novel construction of window casings and sashes of metal, and in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a partial elevation of the invention. Fig. 2 is a vertical section on the line *x—x* Fig. 1. Fig. 3 is a cross section on the line *y—y* Fig. 1, showing the sash and frame construction.

The window frame A is constructed of sheet metal, preferably steel, stamped into the desired form. The header 2 of the frame has a semicircular or other desirably formed projecting rib 3 extending across the top as shown. The window sills 4 are stamped of metal, and have the proper outward slope of the exterior portion as shown at 4′. The ends of the sills are formed with semicircular openings 5 which correspond with the pocket spaces 6 formed in the frame A, for the reception of the weights, so that these openings and also the pocket spaces 6 are shown as semicircular in partial outline, and having straight sides of sufficient length to leave a clear space for the weights, which thus hang and travel within these pockets; and I am thus enabled to dispense with the pockets usually built in the window casings. The top of the upper sash has similar segmental channels as shown at 7, and these fit over the segment 3 of the header so that when the top sash is closed, it forms a perfect inclosing fit, to keep the wind out and to prevent rattling.

The bottom of the top sash has a segmental rail 8, and the top of the lower sash has a similar rail 9. These rails are formed of sheet metal, and have the straight portion 10 extending beyond the edge of the semicircular portion upon one side, and this semicircular portion has a similar outwardly bent flange in each case; these flanges being riveted or otherwise secured to the projecting lips 10 so that when the sashes are closed, these projecting lips overlap and form close joints at the overlapping point. The lower sash has a downwardly projecting lip 11 formed in a similar manner, and when closed the inner edge of the lower rail rests upon the higher portion of the incline of the window sill, and this downwardly turned lip or flange 11 rests upon the outer portion, thus forming a joint at this point.

The segments as 7, 8 and 9 which form the stiles and rails of the sash are stamped with extensions on the lip 12, projecting from the central portion of the arches, and at the outer ends of these extensions 12 are formed semicircular grooves or troughs 13 adapted to receive rubber or other suitable ribs 14 which form a surface upon one side against which the glass 15 rests. Upon the opposite side are angular bars 16 which are adapted to be clamped upon the projecting flanges 12 and 12ª so that the inclined angular portion of the bar 16 will rest against the surface of the glass, and thus hold it firmly against its elastic support 14. The screws 17 which hold the two parts together are fitted to screw into nuts as at 18 which are located between the flange 12ª and the angle bar 16.

By this construction I am enabled to construct very economical and efficient window casings and sashes.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A window sash composed of inwardly curved stiles and rails, said curved portions having inwardly projecting flanges, between which the glass is adapted to fit and clamping bars between which and the flanges the glass is secured.

2. The combination in a window sash of arched stiles and rails, inwardly projecting flanges extending from the top of the arched portions, one of said flanges forming a guide against which the glass is fitted, and the other having an arched extension and elastic filling against which the glass is supported, a clamping member upon the opposite side, and means for securing the clamping member and flanges.

3. Window sashes having vertical stiles with inwardly arched portions, and a window frame having arched portions fitting the corresponding portions of the sashes and forming channels within which the counterbalance weights are adapted to travel.

4. Window sashes having inwardly arched stiles, and a window frame having arched portions fitting the corresponding portions of the sashes and forming channels in which the weights are adapted to travel, and a window sill having openings adapted to register with the channels of the frame.

5. In combination with window sashes having inwardly arched stiles, and top and bottom rails, a window frame having a projecting arched rib adapted to register with the arched top rail of the upper sash, and a window sill having channels formed in the ends registering with the arched side stiles of the sashes whereby counterbalance weights are adapted to move within said stiles and through the openings of the window sills.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

OSCAR V. NYSTROM.

Witnesses:
J. P. STROM,
C. ARMBRUSTER.