

J. P. MURNANE.
WINDOW STRUCTURE.
APPLICATION FILED FEB. 25, 1911.

1,003,195.

Patented Sept. 12, 1911.

Fig. 1.

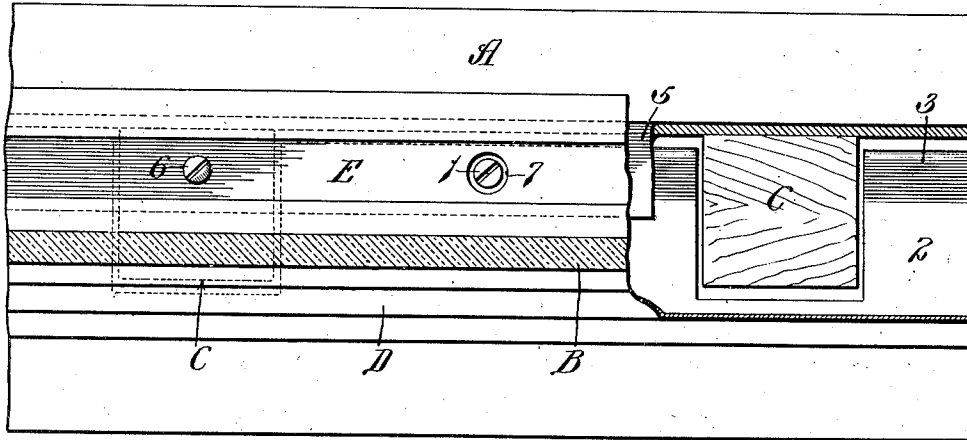


Fig. 2.

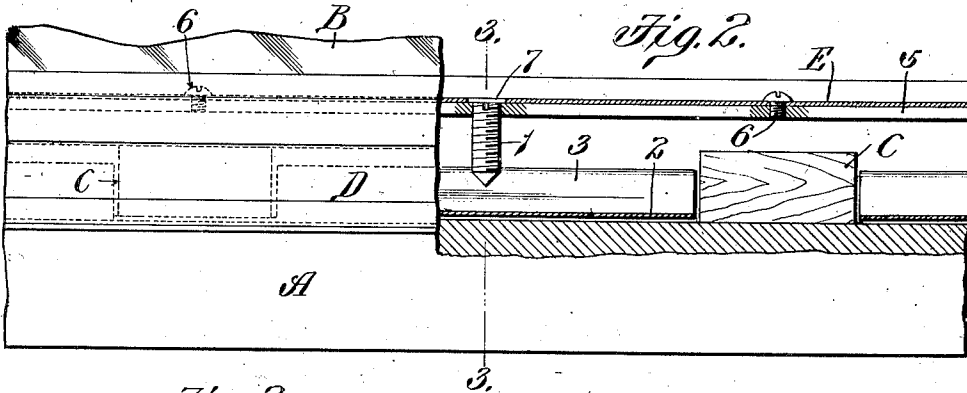


Fig. 3.

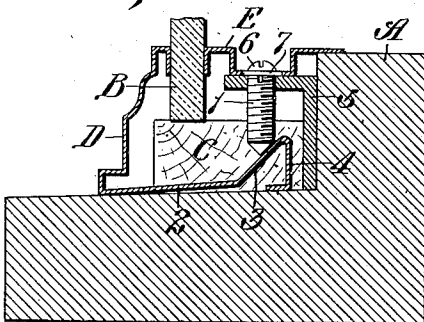
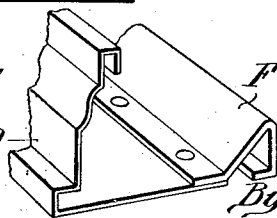


Fig. 4.



Witnesses:
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By Paul DeKawall Atty.

UNITED STATES PATENT OFFICE.

JAMES P. MURNANE, OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
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WINDOW STRUCTURE.

1,003,195.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed February 25, 1911. Serial No. 610,744.

To all whom it may concern:

Be it known that I, JAMES P. MURNANE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Window Structures, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to store-fronts, show-windows and similar structures which comprise outside clamping members that bear against the glass and against the stationary frame in which the glass is arranged.

The main object of my invention is to provide a simple and inexpensive means for retaining the outside clamping members of a structure of the character referred to in operative position. And another object is to provide a structure of the character referred to that can be installed easily.

Figure 1 of the drawings is a top plan view partly in horizontal section of a window structure embodying my invention; Fig. 2 is a front elevational view partly in vertical section; Fig. 3 is a vertical cross sectional view taken on approximately the line 3—3 of Fig. 2; and Fig. 4 is a perspective view illustrating a slight modification of my invention.

Referring to the drawings which illustrate the preferred form of my invention, A designates a stationary frame in which a plate of glass B is arranged, and C designates blocks or other suitable devices on which the lower edge of the glass rests, said devices C being arranged at intervals along the lower cross-piece or sill of the frame A and connected to said sill in any suitable manner. An outside clamping member D of any preferred shape or design is arranged in engagement with the front face of the glass, and an inside clamping member E, which may also be of any preferred shape or design, is arranged in engagement with the inner face of the glass.

My invention relates to the means that retains the outside clamping member D in operative position, and in the preferred form of my invention as shown in Figs. 1 to 3, said means consists of adjustable devices 1 that coöperate with an inwardly projecting portion 2 on the outside clamping member D. I prefer to form the outside clamping member D from sheet metal, and pro-

vide the lower edge portion of said member with an integral inwardly projecting flange 2 which is notched or cut out to receive the blocks C on which the lower edge of the glass rests. This flange or inwardly projecting portion 2 is bent upwardly, as shown in Fig. 3, so as to form a cam face or surface 3, which inclines upwardly with reference to the portion 12, and the extreme inner edge portion of said flange is bent downwardly and laterally so as to form a substantially L-shaped leg 4 which rests upon the top face of the lower sill of the stationary glass-supporting frame A. The adjustable devices 1, previously referred to, are carried by a member or members secured to the frame A, it being preferable to mount said devices 1 in screw-threaded openings formed in the horizontal flange of a commercially-rolled angle 5 which extends longitudinally of the lower sill and is securely connected thereto, although it will, of course, be understood that the devices 1 could be supported in various other ways without departing from the spirit of my invention. Said devices 1 are adapted to be forced downwardly into engagement with the cam face or inclined surface 3 on the flange 2 of the outside clamping member so as to draw said clamping member into engagement with the glass and also force it downwardly into engagement with the lower sill or cross-piece of the stationary frame A, the leg 4 on the inner end of the flange 2 preventing the inner end portion of said flange from deflecting downwardly when the devices 1 are forced into engagement with the inclined surface 3. The inside clamping member E can be retained in position in various ways as, for example, by means of fastening devices 6 that secure it to the horizontal flange of the angle 5, and said inside clamping member is provided with holes 7 which are located adjacent to the devices 1 so as to permit said devices to be operated without bodily removing the inside clamping member from the means which supports it.

A structure of the character described is inexpensive to manufacture because it comprises very few parts, and it is also easy to install or arrange in operative position. It presents a neat and ornamental appearance because no fastening devices are exposed to view on the outside of the window, and it insures a tight joint between the outside

clamping member and the glass-supporting frame.

While I prefer to provide the inwardly projecting flange 2 on the outside clamping member with an integral supporting leg and an inclined surface at its inner end, it would, of course, be practicable to rivet or otherwise securely connect a separate piece F to said flange, as shown in Fig. 4, so as to form a supporting leg and an inclined surface for cooperating with the adjustable devices 1. Furthermore, while I prefer to provide the outside clamping member D with an inwardly projecting flange that extends the entire length of said member, practically the same results could be obtained by providing said outside clamping member with a number of inwardly projecting portions for cooperating with the adjustable devices 1 carried by the stationary glass-supporting frame.

It will, of course, be understood that the structure illustrated in the drawings is duplicated at the sides and upper edge of the glass and therefore the terms "inwardly" and "downwardly," used in the claims, should be construed merely with reference to the structure illustrated in the drawings and not as limiting the invention to an outside clamping member that is moved in these directions for the outside clamping member at the upper edge of the stationary glass-supporting frame would be moved inwardly and upwardly, and the outside clamping members at the sides of the stationary glass-supporting frame would be moved inwardly and laterally.

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

1. In a structure of the character described, a glass-supporting frame having a portion which projects forwardly beyond the glass, an outside clamping member arranged in engagement with the glass and with the forwardly projecting portion of said frame, a part projecting inwardly from said outside clamping member and permanently connected thereto, and means cooperating with said part for drawing the outside clamping member inwardly into engagement with the glass and also forcing it downwardly simultaneously into engagement with the portion of the frame which projects forwardly from the glass.

2. In a structure of the character described, an outside clamping member, a portion permanently connected to said outside clamping member and projecting inwardly beyond the glass, a support for the inner end of said portion, said portion being provided intermediate its ends with an inclined surface, and means which is adapted to be moved into engagement with said inclined surface so as to draw the outside clamping

member toward the glass and also force it into snug engagement with the frame in which the glass is arranged.

3. In a structure of the character described, an outside clamping member having an inwardly projecting portion permanently connected thereto that has an inclined surface, and adjustable devices that are adapted to be moved into engagement with said inclined surface so as to draw the outside clamping member inwardly and downwardly simultaneously and thus force it into intimate engagement with the glass and with the frame in which the glass is arranged.

4. In a structure of the character described, an outside clamping member provided at its lower edge with an inwardly projecting portion permanently connected thereto, a support for the inner end of said inwardly projecting portion, and adjustable means cooperating with said inwardly projecting portion for drawing the outside clamping member toward the glass and also moving it downwardly or in a direction parallel to the plane in which the glass lies so as to force it into engagement with the glass-supporting frame.

5. In a window structure, an outside clamping member having an inwardly projecting flange permanently connected thereto, said flange being provided with an upwardly inclined portion, a supporting leg on the inner end of said flange, and adjustable devices carried by the frame in which the glass is arranged and adapted to be moved into engagement with said inclined portion so as to draw the outside clamping member into engagement with the glass and also move it at an angle to said direction, so as to force it into engagement with the frame in which the glass is arranged.

6. In a window structure, an outside clamping member, a frame in which the glass is arranged, an inwardly projecting flange permanently connected to said outside clamping member and provided with an upwardly inclined surface, a supporting leg on the inner end of said flange that bears against the frame, and adjustable devices arranged above said flange and adapted to be moved into engagement with said upwardly inclined surface so as to exert pressure on said flange in two directions simultaneously and thus draw the outside clamping member into engagement with the glass and also force it into engagement with the glass-supporting frame.

7. In a window structure, an outside clamping member, a frame in which the glass is arranged, an inwardly projecting flange formed integral with said outside clamping member and provided with an inclined surface, a supporting leg on the inner end of said flange, adjustable devices cooperating with said inclined surface to draw

said outside clamping member into engagement with the glass and also force said member downwardly into engagement with the frame in which the glass is arranged, and a stationary member on said frame for carrying said adjustable devices.

8. In a structure of the character described, an outside clamping member provided at its lower edge with an integral inwardly projecting flange having an upwardly inclined surface, a support on the inner end of said flange, and means that bears upon said inclined surface and exerts pressure on said flange in such a manner that the outside clamping member is drawn toward the glass and also against the frame in which the glass is arranged.

9. In a structure of the character de-

scribed, an outside clamping member provided with an integral inwardly projecting flange that has an upwardly inclined surface and a depending supporting leg, and adjustable devices which are adapted to be moved into engagement with said inclined surface so as to draw the clamping member toward the glass and also move said member in a direction approximately parallel to the plane in which the glass lies.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this twenty-second day of February 1911.

JAMES P. MURNANE.

Witnesses:

WELLS L. CHURCH,
GEORGE BAKEWELL.