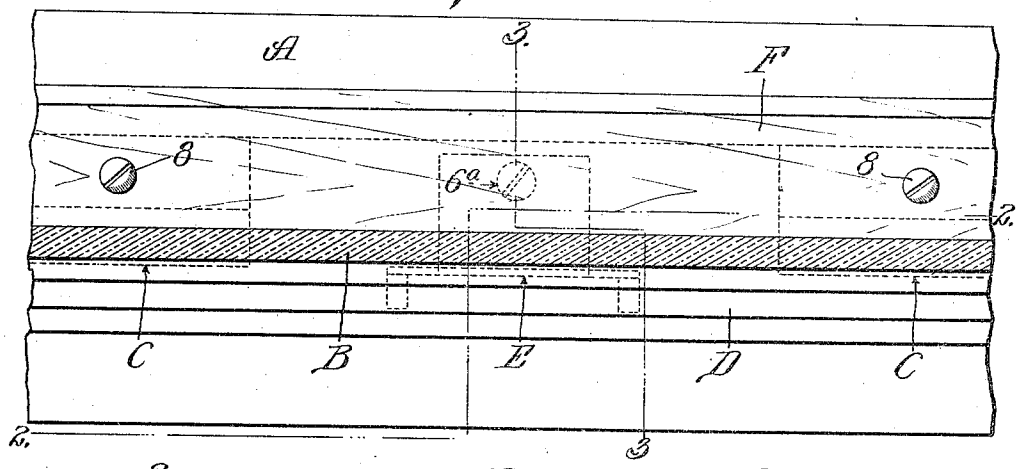
D. J. MURNANE.

STORE FRONT AND SHOW WINDOW STRUCTURE.

APPLICATION FILED FEB. 10, 1911.

1,008,985. Patented Nov. 14, 1911.

Fig. 1.



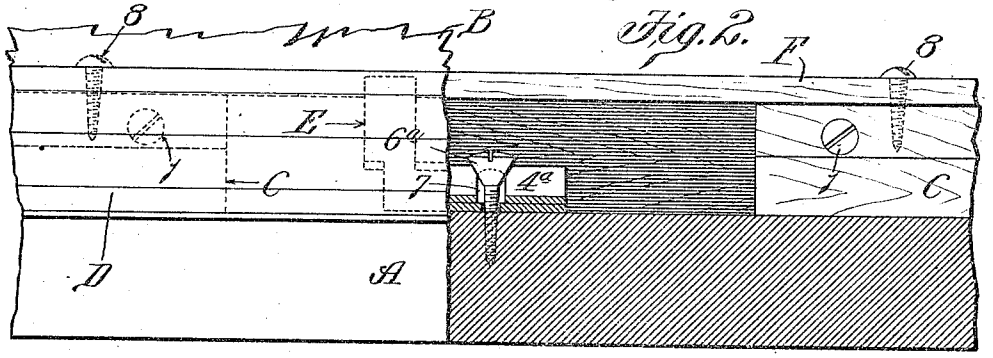


Fig. 2.

Fig. 3.

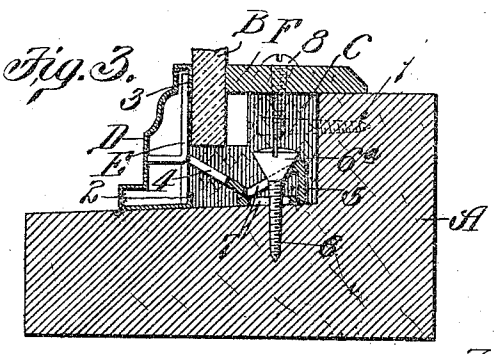


Fig. 4.

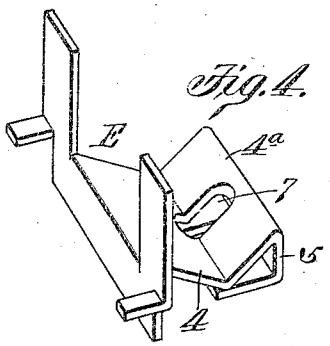
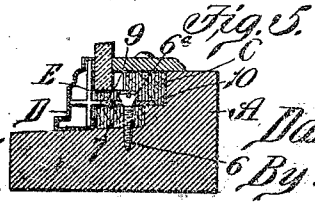


Fig. 5.



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UNITED STATES PATENT OFFICE.

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STORE-FRONT AND SHOW-WINDOW STRUCTURE.

1,008,985. Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed February 10, 1911. Serial No. 607,841.

To all whom it may concern:

Be it known that I, DANIEL J. MURNANE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Store-Fronts and Show-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 also against the stationary frame in which the glass is arranged.

The main object of my present invention is to provide an inexpensive means of simple construction for retaining the outside clamping members in operative position. And another object is to provide a means of the character referred to that can be set up or arranged in operative position quickly and easily.

Figure 1 of the drawings is a top plan view of a store-front structure embodying my invention, the glass being shown in section; Fig. 2 is a front elevational view partly in vertical section on the line 2—2 of Fig. 1; Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a perspective view of one of the keys or devices that is used for retaining the outside clamping member in position; and Fig. 5 is a vertical sectional view illustrating a slight modification of my invention.

I have herein illustrated my invention in connection with the lower cross-piece or sill of a stationary glass-supporting frame but it will, of course, be obvious that it can be used equally well with the side jambs, the top sill, etc.

Referring to Figs. 1 to 4 of the drawings which illustrate the preferred form of my invention, A designates the lower cross-piece of 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 plate of glass B rests, said devices C being spaced away from each other, as shown in Figs. 1 and 2, and connected to the sill of the frame A by screws 1 or other suitable fastening devices. The upper edges of the blocks C are preferably flush with the ledge at the rear of the sill A, as shown in Fig. 3, and said blocks are provided with rabbets for receiving the glass, the width of the rabbeted portion of the blocks being greater than the thickness of the glass so as to provide for plates of glass of different thickness. An outside clamping member D is arranged in engagement with the outer face of the glass and in engagement with the sill or lower cross-piece of the frame A, and means is provided for retaining said outside clamping member D in position and holding it pressed tightly against the glass and against said sill. Said outside clamping member D may be of any preferred shape or construction but I prefer to form said member from a piece of sheet metal molding provided at its lower edge with an upwardly projecting flange 2 and at its upper edge with a downwardly projecting flange 3 which coöperates with one or more keys E arranged inside of the member D in engagement with the flanges 2 and 3 and provided with arms 4 that project inwardly beyond the glass.

In the embodiment of my invention illustrated in Figs. 1 to 4, the arm 4 of each key is deflected downwardly and thence upwardly, as shown clearly in Fig. 4, so as to produce an inclined surface 4^a, and the inner end of the arm is provided with a substantially L-shaped leg 5 that rests upon the sill A of the glass-supporting frame. A suitable fastening device, preferably a screw 6, passes through elongated slots 7 in the arm 4 and in the leg on the inner end of said arm and projects into the sill A so as to hold the key E in place and thus maintain the outside clamping member D in operative position. I prefer to provide the fastening device 6 with a tapered head 6^a of substantially inverted conical-shape, as shown in Fig. 3, so that when said device 6 is forced into the sill A the head 6^a thereon will coöperate with the inclined surface 4^a on the arm of the key to draw the outside clamping member D inwardly into engagement with the glass and also downwardly into engagement with the sill A.

An inside clamping member F of any preferred construction, is arranged on the inner side of the glass, and in the preferred form of my invention as herein shown, said inside clamping member is retained in position by means of screws 8 or other suitable fastening devices, that project into the blocks C on which the glass rests, said inside clamp-

ing member being secured in position after it has been adjusted or moved into engagement with the inner face of the glass.

A structure of the character described can be manufactured cheaply on account of its simple construction and it is very efficient and operates to hold the glass securely in position because the devices which retain the outside clamping member in position are securely connected directly to the stationary glass-supporting frame. And another advantage of such a structure is that it can be set up or arranged in operative position quickly and easily because no separate members or devices have to be connected to the stationary frame A for carrying the devices which coöperate with the arms on the keys E to draw said keys inwardly and downwardly, the terms "inwardly" and "downwardly" of course applying only to the structure herein shown in which the outside glass-clamping member is arranged longitudinally of the sill or lower cross-piece of the stationary glass-supporting frame.

Instead of providing the arms 4 on the keys E with inclined surfaces 4^a and supporting legs 5, as shown in Figs. 1 to 4, the keys could be provided with straight arms 9, as shown in Fig. 5, whose inner ends rest upon a ledge 10 or rabbeted portion on the frame A, as shown in Fig. 5. When keys of this construction are used, one of the workmen on the outside of the glass, presses the outside clamping member D inwardly and downwardly, and then a workman on the other side of the glass secures the keys in position by inserting the fastening devices 6 through the elongated slots 7 in the arms 9 of the keys and forcing said devices into the sill A, the conical-shaped heads 6^a on the fastening devices 6 operating to draw the keys inwardly and downwardly.

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, an outside clamping member, a stationary glass-supporting frame, a key arranged in engagement with said outside clamping member and provided with an inwardly projecting arm, a fastening device embedded in said stationary frame, and cooperating means on said fastening device and arm for causing the key to force the clamping member tightly against the frame and against the glass arranged in the frame.

2. In a structure of the character described, a glass-supporting frame, an outside glass-clamping member, a key arranged in engagement with said member and provided with an inwardly projecting arm in which a slot is formed, a fastening device passing through said slot and projecting into said frame, and a beveled surface on said fastening device which tends to cause said key to exert pressure on said outside clamping member in two different directions.

3. In a structure of the character described, a stationary glass-supporting frame, an outside glass-clamping member, a key arranged in engagement with said member and provided with an inwardly projecting arm in which a slot is formed, and a fastening device passing through said slot and projecting into said frame and provided with a tapered head that engages said arm.

4. In a structure of the character described, a glass-supporting frame, an outside glass-clamping member, a key arranged in engagement with said member and provided with an inwardly projecting arm that has an elongated slot formed therein, a support for the inner end of said arm, and a fastening device passing through the slot in said arm and embedded in said frame.

5. In a structure of the character described, a glass-supporting frame, an outside glass-clamping member, a key arranged in engagement with said member and provided with an inwardly projecting arm that has an elongated slot formed therein, a supporting leg on the inner end of said arm, and a fastening device projecting through said slot into the frame and provided with a beveled head that coöperates with the edge of said slot to exert pressure on said key in such a direction that the outside clamping member is held firmly in engagement with the glass and with the frame.

6. In a structure of the character described, an outside clamping member, a stationary frame which is adapted to receive a plate of glass, a device arranged in engagement with said outside clamping member and provided with an inwardly projecting arm having an opening formed therein, a leg on the inner end of said arm for supporting same, and a fastening device passing through the opening in said arm and projecting into said frame.

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

DANIEL J. MURNANE.

Witnesses:
WELLS L. CHURCH,
GEORGE BAKEWELL.