

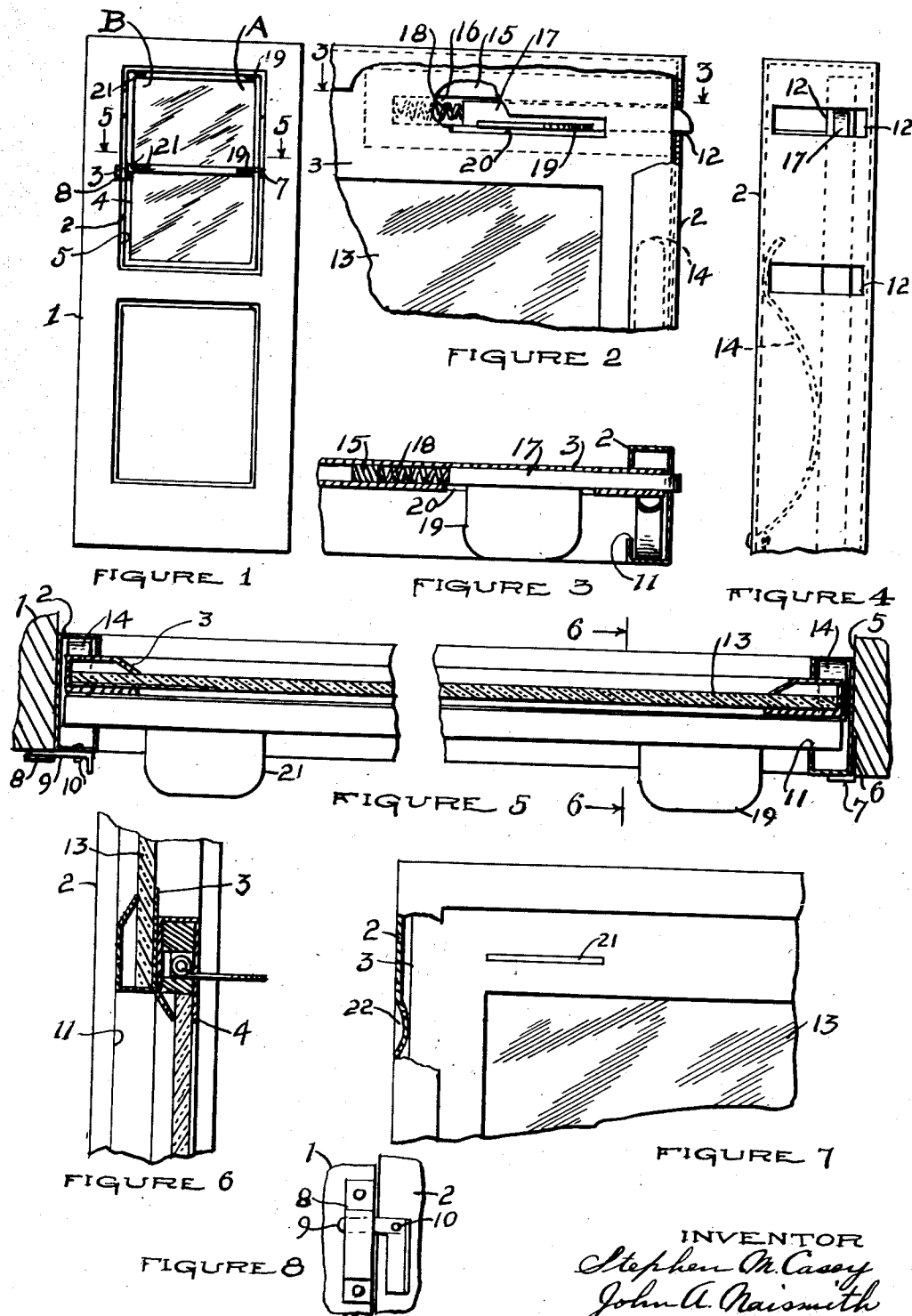
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It has long been a practice in the building industry to construct certain types of doors in such a manner that a large upper-panel area may be quickly adjusted to present either a glazed window or an open screened window.

The various methods of construction heretofore provided have been very unsatisfactory for several reasons. For instance, a common method has been to slide the glazed panel in a pocket formed in the lower portion of the door. This method is not an economical one and presents serious difficulties in the matter of preventing water from entering the pocket or the inner side of the door. Again, the nature of the construction is such that the glazed sash is not easily removed and replaced.

It is one object of the present invention to provide a structure that is so constructed and arranged that no pocket of the character indicated is required; that provides a perfectly waterproof and weather proof structure when the glazed sash is in a closed position; that is so constructed and arranged that no parting bead is required, that will not rattle, and wherein the sash may be quickly and easily removed from, or replaced in, the frame or casing proper.

Finally, it is an object of the invention to provide a structure of the character indicated that will be economical to manufacture, that requires but little alteration in the standard door structure, that may be quickly and easily adjusted to any required screened opening, and that will be strong, durable, and highly efficient in its practical application.

In the drawing:

Figure 1 is an elevation of a door embodying my invention.

Figure 2 is an enlarged elevation of the casing and sash taken at A in Figure 1, parts being broken away.

Figure 3 is a sectional view at 3—3 of Figure 2.

Figure 4 is a right edge elevation of the portion A of Figure 1 enlarged to full-size.

Figure 5 is a full-size sectional view through the structure taken at 5—5 on Figure 1, partly broken away.

Figure 6 is a detail section at 6—6 on Figure 5, with parts broken away.

Figure 7 is a full-size elevation of a portion of the sash and its casing taken at B of Figure 1.

Figure 8 is a detail elevation of the sash catch in operative position.

Referring more particularly to the drawing, the door proper is indicated at 1, the sash cas-

ing at 2, and the upper and lower sash at 3 and 4 respectively.

The casing 2 is a unitary rectangular frame proportioned to fit snugly in the opening 5 in the upper portion of the door. In one edge of the opening is seated a plate 6 having an inwardly turned flange 7, and on the outer face of the opposite edge is a keeper 8. An overbalanced arm 9 is pivotally mounted on the casing 2 as at 10 to normally hang as shown. The casing 2 is fitted into the opening 5 back of the plate flange 7 and then the arm 9 is swung into engagement with keeper 8. This arrangement renders the casing easy to remove from the opening 5 and easy to replace therein. The casing 2 is formed of sheet metal. A cross-section through one side is typical of a cross-section taken at any point in the casing, and shows a rectangular box-like formation with a slot 11 on its inner side. The slot 11 is continuous throughout the inner periphery of the casing.

Through the outer peripheral wall of the casing, and on one side only of the casing, are formed a number of spaced slots 12 for the purpose hereinafter described.

The sashes 3 and 4 are identical in construction, therefore but one will be described in detail.

The sash 3 is formed of sheet metal to provide a carrying frame for the glass 13, and is so proportioned that it will slide freely in the slot 11, cooperating with sash 4 to substantially fill said slot wherever the two sashes pass each other, without any intervening parting bead.

At suitable points in the casing springs as 14 are inserted between the sash and casing wall. These springs are placed so as to bear against the sash and urge it into contact with the opposite edge of the slot. Since said edge has only the thickness of the sheet metal of which the casing is made it permits the sash to slide freely and easily thereon, and yet the sliding joint so made is perfectly weather proof.

When the two sashes 3 and 4 are in their closed positions their bottom and top rails respectively overlap as shown in Figure 6. Since they fit snugly between the opposing edges of the slot 11 they form a weatherproof joint between them, and they cannot rattle.

To hold the sash 3 in a completely closed, or a partially closed position, its top portion is made sufficiently wide to receive a member 15 in which is formed a slot 16. A bolt 17 is mounted in the slot 16 and resiliently supported therein by a spring 18. The bolt carries a finger piece 19

projecting through a slot 20 in the face of the sash. When the sash is moved upwardly the bolt 17 will engage the slots 12, being urged into engagement therewith by spring 18. The bolt is bevelled on its top edge to permit the sliding movement of the sash, but is flat on the bottom so that it may stay in engagement with any slot it engages until retracted by a backward pull on finger-piece 19.

The finger-piece 19 also functions as a lift for the corner of the sash at which it is placed, and a corresponding lift is fixedly mounted on the other top corner of the sash as at 21.

Since the two side edges of the sash do not necessarily contact the sides of the casing, there being some play between them, the top sash does not readily remain in its uppermost position without additional support, therefore I form a protuberance 22 punched inwardly at the top of the side casing wall to engage the sash. When the sash is closed the bolt-and-slot engagement 17-12 supports corner A and formation 22 supports corner B.

By making the casing 2 as described it may be quickly and easily removed from the opening in the door, and when so removed the central portions of the sides may be spread apart sufficiently to permit either sash to be removed therefrom and replaced therein.

Although but one specific embodiment of the

invention has been herein illustrated and described, it will be understood that various alterations in the details of construction and mode of application and assembly may be made without departing from the scope of the invention as indicated in the accompanying claims.

I claim:

1. In a structure of the character described, a window casing comprising a one-piece metal channel member having a substantially flat outer wall, parallel laterally and inwardly directed front and rear walls, and opposed intumed flanges on said front and rear walls parallel to said outer wall and defining an inner wall, said flanges being in registry and terminating in spaced relation to form sash bearing edges, sash engageable resilient means in the channel for urging an engaged sash against the adjacent flange bearing edge to provide a seal, and said walls and flanges having inherent resiliency whereby to allow expanding separation of the flanges and walls at the mid portions of the casing sides sufficient to permit insertion or removal of a sash thereat.

2. The structure of claim 1, and a pair of sashes in mutual sliding contact disposed between said sash bearing flanges in sliding engagement against the edges thereof.

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