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J. A. RAPPAPORT

MEETING RAIL FOR WINDOWS AND THE LIKE

Filed Oct. 26, 1922

Fig. 1

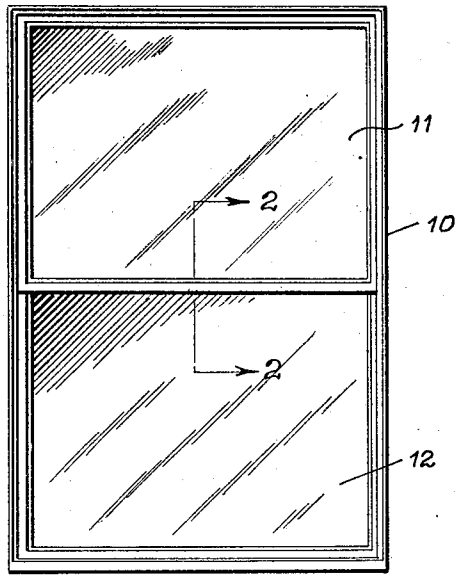
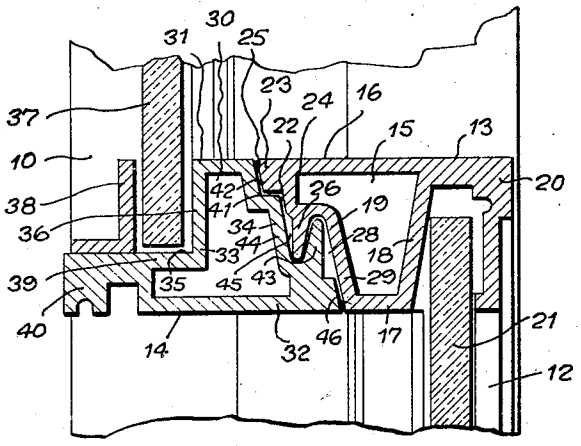


Fig. 2



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MEETING RAIL FOR WINDOWS AND THE LIKE.

Application filed October 26, 1922. Serial No. 596,989.

My present invention relates to metal window frames, particularly sashes for such frames, and more especially meeting rails for the upper and lower sashes of the usual type of double hung windows.

It is an object of the present invention to provide metal window frames, particularly sashes for the same and more especially meeting rails for the upper and lower sashes of double hung or like windows, which shall be simple in construction, easy to manufacture and assemble, and which shall at the same time provide very efficient means for sealing the window at the meeting rails of the two sashes as effectively as possible against the ingress of wind and rain. It is a further object of the present invention to provide a device of the character described above which, while acting mechanically to accomplish in a very efficient way the desirable results previously set forth, shall present a very neat and attractive appearance which will highly recommend these devices to architects, builders and the like.

In the accompanying specification I shall describe, and in the annexed drawing show, an illustrative embodiment of the present invention as applied to the usual type of double hung window. It is, however, to be clearly understood that my invention is not limited to the specific embodiment thereof herein shown and described for purposes of illustration only.

Referring to the drawing, wherein I have illustrated the aforesaid illustrative embodiment of the present invention:

Figure 1 is a front elevation of a window frame embodying the present invention; and

Figure 2 is a cross section of the same, on an enlarged scale, taken on line 2—2 of Figure 1.

Referring to said illustrative embodiment of the present invention, the same comprises a window frame, generally indicated by reference character 10, carrying within it an upper sash 11 and a lower sash 12, the window being of the customary double hung type.

Referring now more particularly to Figure 2 of the drawing, 13 generally indicates the meeting rail of the lower sash 12, while 14 generally indicates the meeting rail of the upper sash 10.

The meeting rail 13 of the lower sash 12 comprises a hollow member, generally indicated by reference character 15, comprising an upper wall 16, a lower wall 17, and side walls 18 and 19.

The upper wall 16 has an extension in the form of an L-shaped flange 20 serving as a glazing for the support and retention of the pane of glass 21 between the L-shaped flange 20 and the side wall 18.

The side wall 19, which has a general inclination downwardly and inwardly, which especially adapts it to exclude wind and rain, is provided with an indentation 22 defined by the extension 23 of the top wall 16. The other side of the indentation 22 provides an inwardly and downwardly inclined surface 24. The outer face of the extension 23, herein designated by reference character 25, is likewise slightly downwardly and inwardly inclined.

As indicated by reference character 26, the side wall 19 is provided with a tongue-like longitudinally disposed extension which, by cooperation with the downwardly and inwardly inclined portion 27 of the side wall 19, provides a tongue-like recess, also longitudinally disposed, and here indicated by reference character 28, the purpose of which will be described in greater detail hereinafter.

The meeting rail 14 of the upper sash 10 is constructed and designed to cooperate effectively with the meeting rail 13 of the lower sash 12. For this purpose, the meeting rail 14 comprises a tubular member, generally indicated by reference character 30, having the upper wall 31, the lower wall 32, and the side walls 33 and 34. The side wall 33 has a rectangular bend in the same, as indicated by reference character 35, thus providing a glazing portion for supporting and retaining the pane of glass 37 by cooperation with a usual glass molding 38. For this purpose the horizontal portion 39 of the side wall 33 is provided with an L-shaped extension 40 which supports the glass molding 38.

The side wall 34 is provided with an indentation 41, the upper portion of which is slightly downwardly and inwardly inclined, as indicated at 42. As indicated at 43, the side wall 34 is provided with a tongue-like extension which, by cooperation with the downwardly and inwardly inclined

portion 44 of the side wall 34, provides a tongue-like depression 45, for a purpose to be described in greater detail hereinafter. At 46 I have indicated a forwardly and inwardly inclined projection on the bottom wall 32 of the meeting rail 14.

The operation of the device described in detail above and the advantages of the same in use will be substantially clear from the foregoing description. The construction of the meeting rails 13 and 14, while very simple and such as to enable these rails to be made by the usual methods of extruding bronze or equivalent metal, is such as to render these rails ideally suited to the protection of the interiors of the buildings to which the window frames may be applied, and to the substantially complete exclusion of wind and rain.

The cooperating walls 19 and 34 of the meeting rails 13 and 14, respectively, being inwardly and downwardly inclined, serve to facilitate the exclusion of wind and rain. The provision of the tongue-like members 26 and 43, cooperating with the tongue-like recesses 45 and 28 of the respective side walls 19 and 34 of the meeting rails 13 and 14, respectively, further assists in the desired exclusion of wind and rain. This desirable result is further enhanced by the provision of the cooperating indentations 23 and 41 and the cooperating downwardly and inwardly inclined meeting faces 25 and 42 adjacent the respective indentations. So also the provision of the inclined portions 27 and 46 of the side walls 19 and 34 of the meeting rails 13 and 14, respectively, serves further to bring about a substantially complete exclusion of the elements.

At the same time, the meeting rails are very well suited to retain, support, and give proper protection to, the panes of glass carried by the respective sashes. The device as a whole is furthermore simple in construction, easy to manufacture on a large scale and to assemble, and, by providing proper protection for the panes of glass and for the interiors of the buildings to which the window frames may be applied, while at the same time presenting a neat and attractive appearance, constitutes a very salable and commercially valuable article recommending itself highly to architects, builders and the like.

What I claim is:

In a device of the character described, a pair of meeting rails, each meeting rail having a tongue extending therefrom and coacting with another portion of the rail structure to define a tongue-receiving recess, the tongue of one rail being receivable in the recess of the other, the rail of the lower sash having an extension just above its tongue and projecting laterally beyond the same, said extension having a flat, horizontal underface, the rail of the upper sash having an indentation above its tongue-receiving recess, said indentation having a flat, horizontal bottom wall meeting the flat, horizontal underface of the extension.

In testimony whereof I have signed my name to this specification this 30th day of September, 1922.

JACOB A. RAPPAPORT.