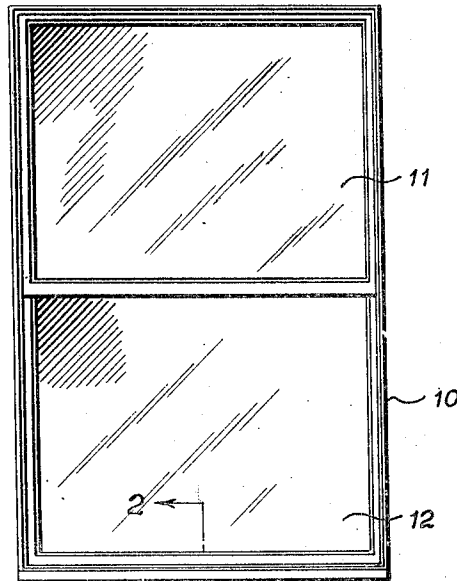


Feb. 9, 1926.

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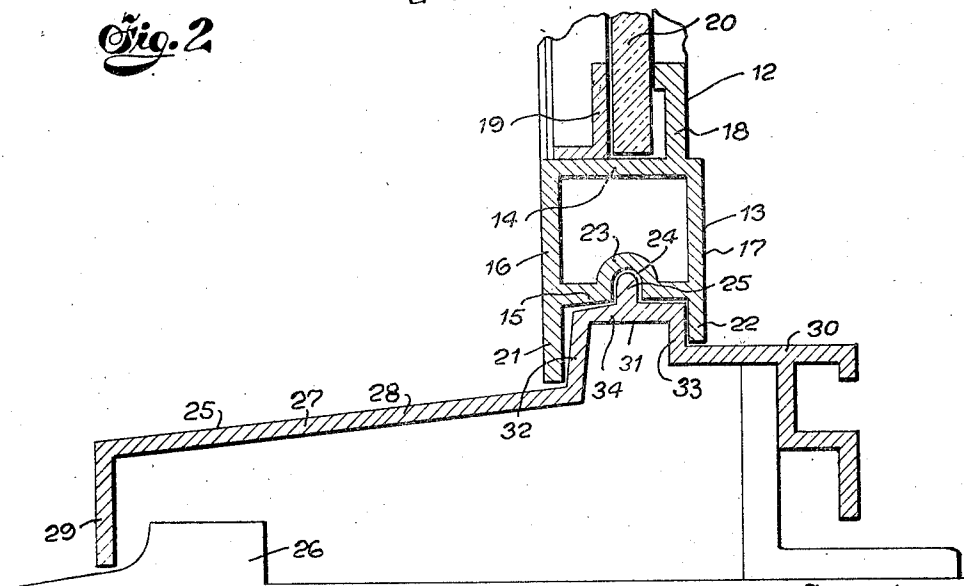
J. A. RAPPAFORT
SILL FOR WINDOWS AND THE LIKE
Filed Oct. 26, 1922

Fig. 1



2 ←

Fig. 2



Inventor
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By *his* Attorney
Edward M. Coats

UNITED STATES PATENT OFFICE.

JACOB A. RAPPAPORT, OF BROOKLYN, NEW YORK, ASSIGNOR TO RELIANCE FIRE-PROOF DOOR COMPANY, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

SILL FOR WINDOWS AND THE LIKE.

Application filed October 26, 1922. Serial No. 596,990.

To all whom it may concern:

Be it known that I, JACOB A. RAPPAPORT, a citizen of the United States, and a resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented an Improvement in Sills for Windows and the like, of which the following is a specification.

My present invention relates to metal window frames, including sashes and sash frames, and more particularly to the lower sash bottom rails and the sills of such window frames.

It is an object of the present invention to provide metal window frames, including the sashes and sash frames, and more particularly the lower sash bottom rails and the sills of such frames, which shall be simple in construction, easy to manufacture and assemble, which shall at the same time provide proper protection and support for the pane of glass carried by the sash frame, and which shall also provide proper protection against wind and rain, while at the same time presenting a very neat and attractive appearance which will highly recommend itself 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. 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 drawings, wherein I have illustrated the foregoing 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 the aforesaid illustrative embodiment of the present invention, the same comprises a window frame, generally indicated by reference character 10, and 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 indicates the bottom rail of the lower sash 12. The bottom rail 13 is of hollow tubular construction,

preferably made of extruded bronze or equivalent material, as in accordance with the principles of another invention of mine described and claimed in a co-pending application filed of even date herewith, entitled "Tubular construction materials", and bearing Serial No. 596,984.

Preferably the bottom rail 13 is of substantially rectangular or square cross section to give the same a very neat and attractive appearance. The bottom rail 13 comprises a top wall 14, a bottom wall 15, and side walls 16 and 17.

The top wall 14 includes an extension in the form of an L-shaped flange 18 which acts as a glazing, cooperating with the glass molding 19 for positioning and retaining within the lower sash 12 the pane of glass, indicated by reference character 20.

The bottom wall 15 is, as shown in the drawing, slightly downwardly and outwardly inclined for a purpose to be subsequently described in greater detail. The bottom wall 15 includes a plurality of extensions in the form of flanges 21 and 22, of which the outer flange 21 is preferably longer than the inner flange 22. The bottom wall is also formed with an indentation 23 providing a groove 24 which is preferably of substantially semi-circular cross section.

The sill, which I have generally indicated by reference character 25, and which cooperates with the bottom rail 13 and the lower sash 12, comprises the usual stone sill, here indicated by reference character 26, with which cooperates the metal sill 27 having the outer downwardly and outwardly inclined portion 28 and the supporting flange 29 cooperating with the stone sill 26. The inner portion 30 of the metal sill 27 may have any desired form. However, I prefer to give it the form shown in the drawing.

Between the outer portion 28 and the inner portion 30 of the metal sill 27 is an intermediate raised portion 31 which is intended to be received by and to fit within the flange portions 21 and 22 of the bottom rail 13. The raised portion 31 comprises an outer slightly inclined wall 32, an inner substantially vertical wall 33, which is shorter than the outer wall 32, and an intermediate wall 34 joining the outer wall 32 and the inner wall 33.

The intermediate wall 34 is slightly down-

wardly and outwardly inclined and is provided adjacent its central portion with a longitudinal bead 35 having substantially the same cross section as the groove 24 with which it cooperates.

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 bottom rail 13, while simple and such as to greatly facilitate its manufacture on a large scale by extrusion or some other equivalent simple process, is such as to ideally suit it to receive and properly retain and protect the pane of glass, while at the same time making provision for proper protection against wind and rain. For this purpose the flanges 21 and 22, as also the indentation 23 provided with the groove 24, are of great value and assistance. At the same time, the general conformation of the bottom rail 13 is such as to give the window a neat, attractive appearance greatly recommending it to architects, builders and the like.

The sill 25 is admirably designed to cooperate with the bottom rail 13 and to utilize the advantages of the bottom rail to the utmost. For this purpose, the provision of the inclined members 32 and 34 cooperating with the inclined bottom wall 15 of the bottom rail 13 are particularly designed to drain off any water which may collect about the above described parts of the window frame.

The device as a whole is simple in construction, easy to manufacture and to assemble, and by providing proper protection for the glass and for the interior of the building to which the window may be applied, while at the same time presenting a neat, attractive appearance, constitutes a very salable and commercially valuable article.

What I claim is:

1. In a metal window frame, a sash rail having a pendant flange at each side projecting beyond the lower face of the rail and defining a channel, the bottom wall of which is defined by said lower face, said lower face having a longitudinally extending groove intermediate its side edges.

2. In a metal window frame, a bottom rail for the lower sash of the window having a bottom wall provided with an indentation to define a groove extending approximately throughout the length of the rail between its side edges, and a flange projecting downwardly beyond said side edges of the bottom wall.

3. In a metal window frame, a bottom rail for the lower sash of the window having a bottom wall provided with an indentation to define a groove extending approximately throughout the length of the rail between its side edges, and flanges projecting downwardly beyond said side edges of the bottom wall, one of said flanges being shorter than the other.

4. In a metal window frame, a hollow sash bottom rail comprising a bottom wall provided with an indentation defining a groove, and a depending substantially vertical flange at each side of said indentation, said flanges forming a continuation of the side walls of the rail and being integral therewith, one of said flanges being longer than the other.

5. In a metal window frame, a hollow lower sash bottom rail having its bottom wall slightly outwardly and downwardly inclined, said bottom wall being provided with an indentation between its side edges defining a groove of substantially semi-circular cross-section, in combination with a metal sill having a raised portion with its upper face inclined to mate with said bottom wall of the rail and formed with a longitudinally extending bead for cooperation with the groove in the bottom wall.

6. In a metal window frame, a hollow lower sash bottom rail comprising side, top and bottom walls, said bottom wall being provided with an indentation providing a groove and with a plurality of depending flanges, in combination with a metal sill having a raised portion for cooperation with said flanges, said raised portion being provided with a bead extending longitudinally thereof for cooperation with the groove in said bottom wall.

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

JACOB A. RAPPAPORT.