E. FLAGG.

METAL WINDOW.

APPLICATION FILED JAN. 5, 1916.

1,224,626.

Patented May 1, 1917.

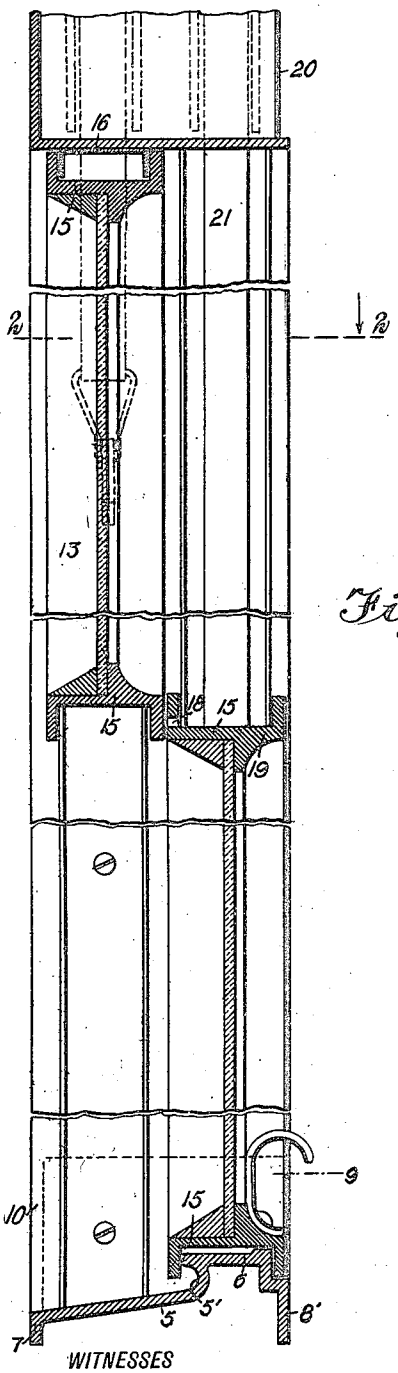


Fig. 1.

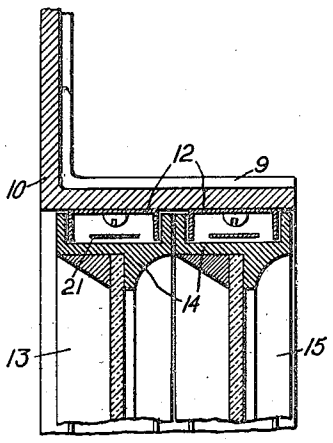


Fig. 2.

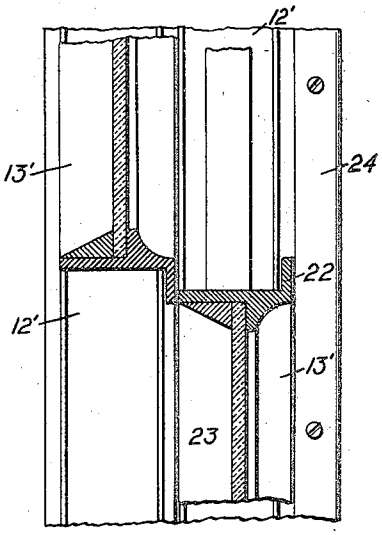


Fig. 4.

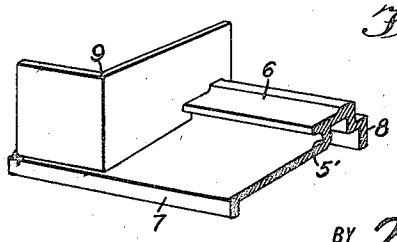


Fig. 3.

WITNESSES

Geo. W. Gaylor

B. J. Goffe

INVENTOR

E. Flagg

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

ERNEST FLAGG, OF NEW YORK, N. Y.

METAL WINDOW.

1,224,626. Specification of Letters Patent. Patented May 1, 1917.

Application filed January 5, 1916. Serial No. 70,442.

To all whom it may concern:

Be it known that I, ERNEST FLAGG, a citizen of the United States, and a resident of the city of New York, Dongan Hills, borough of Richmond, in the county of Richmond and State of New York, have invented a new and Improved Metal Window, of which the following is a full, clear, and exact description.

My invention relates to metal windows, and the object thereof is to provide a simple, inexpensive and fireproof window which will give a larger light opening than the ordinary metal windows by decreasing the size of the window frame and fitting the window sashes over the frame; and which window structure is weatherproof.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed. In the accompanying drawings, forming part of the application, similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section through my window;

Fig. 2 is a cross section on line 2—2 through a jamb and sashes of the window;

Fig. 3 is a fragmentary perspective view of the sill in section; and

Fig. 4 is a vertical section of a modified structure of my window.

Referring to the drawings, 5 is the window sill formed of metal and presenting a raised step 6 at the rear. It has a downwardly-directed flange 7 at the outer edge of the sill, and a downwardly-directed flange 8 at the inner edge of the sill in the rear of the step. The front edge of the step 6 overhangs the inclined surface of the sill to form thereat a groove or channel 5′. Vertical, corner-iron-shaped projections 9 are provided at each end of the sill, the inward walls of said projections facing each other, the other walls of the projections being located at the outer edge of the sill and pointing in the opposite direction. Against each projection the lower end of a corner-iron-shaped jamb 10 is secured. The lintel 11 of the frame is also, preferably, in the shape of a corner iron.

A pair of spaced, channeled strips 12 are secured to each jamb with the bottom of the channel lying against the jamb. The facing channels on the opposite jambs form guides for a sash 13 of the window. The stiles 14 and rails 15 of the sashes have flanges at the edges which are the sides of channeled iron forming the sash, the channeled stiles of the sashes receiving the sides of the corresponding channeled strips and are guided thereby. It will be noted that the distance between the strips 12 is such as to admit therebetween the adjacent sides of the channeled stiles. Due to the engagement of the stiles with the strips, stop strips are unnecessary. The sinuous joint formed by each stile with the corresponding strip makes the connection between the sashes and the frame weatherproof. To render weatherproof the upper rail of the upper sash, a channeled strip 16 is provided therefor on the lintel 11. The channeled lower rail of the lower sash engages the step 6 of the sill and renders the lower sash weatherproof at the sill. Weep holes 18 are provided in the meeting rail of the lower sash.

The sashes 13 are provided with a glazing bead formed by the flanges 19 extending from the bottom of the channeled stiles and rails in a direction opposite to their sides. Each of the sashes is suspended from a sash balance 20 mounted on the lintel 11 and connected to the corresponding sash by a ribbon 21 which extends within a corresponding channeled strip 12.

In the modified structure shown in Fig. 4, the rails 22 and the stiles 23 of the sashes 13′ are formed of L-shaped irons; consequently, a stop 24 is provided to lock the lower sash to the channel-shaped strips 12′. The upper sash is locked to its channeled strips 12′ by the inner channeled strips. It will be noted that to remove the sashes in the structure disclosed in Figs. 1 to 3 inclusive, it is only necessary to detach the channeled strips 12 from the jambs and the sashes can be taken out. In the structure shown in Fig. 4, to remove the sashes the stop 24 must first be removed, thus leaving free the lower sash 13′. By removing the inner strips 12′ the upper sash can be removed. By making the engagement of the channeled strip with the channeled stiles the light opening within the frame is increased without increase of the window frame, and due to the sinuous joints formed between

the channels in the sashes and the guide strips therefor, the weatherproof qualities of the window are increased.

I claim:

In a metal window, a sill having a step along the rear thereof, a projection at each end of the sill having the shape of a corner iron, the inner walls of said projections facing, the other walls being located at the outer sill edge and pointed in the opposite direction, a corner-iron-shaped jamb rising from the sill at each projection, a lintel uniting the jambs, a pair of spaced channeled strips secured to each jamb so that the bottom of the channel rests on the jamb, a sash having channeled stiles engaging the outer sides of the corresponding channeled strip, said stiles having channeled rails, the lower rail of the lower sash being adapted to receive the step of the sill, and a channeled strip on the lintel to be received by the upper channeled rail of the upper sash.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ERNEST FLAGG.

Witnesses:
A. T. SUTCLIFFE,
AGNES V. TEHAN.