No. 805,549. PATENTED NOV. 28, 1905.

S. F. HICKS.

METALLIC WINDOW FRAME AND SASH.

APPLICATION FILED JAN. 26, 1905.

Fig. 1.

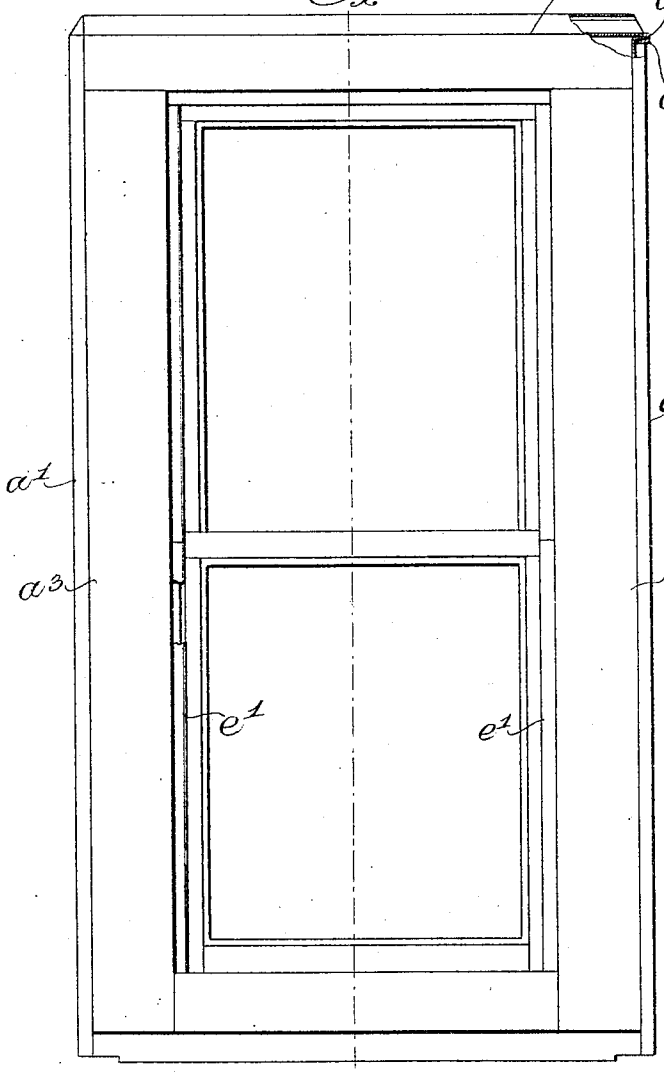


Fig. 2.

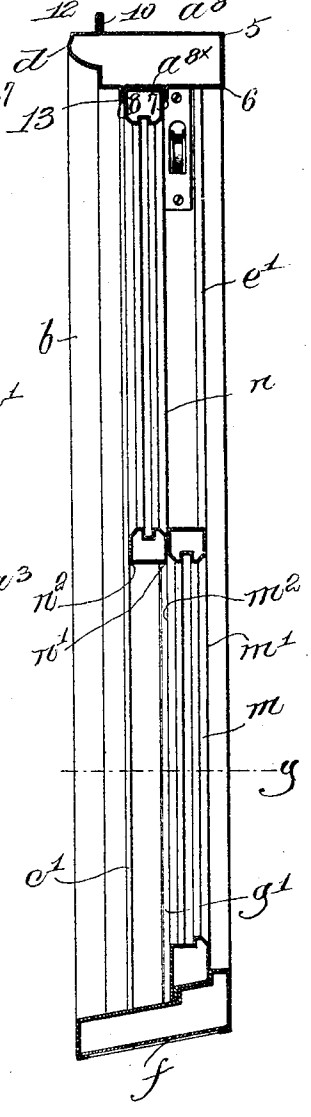
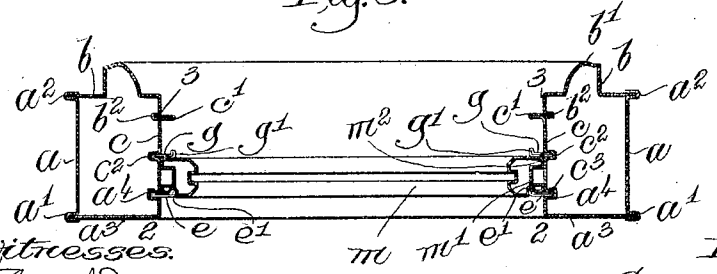


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

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METALLIC WINDOW FRAME AND SASH.

No. 805,549. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed January 26, 1905. Serial No. 242,712.

To all whom it may concern:

Be it known that I, SAMUEL F. HICKS, a citizen of the United States, and a resident of Arlington, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Metallic Window Frames and Sash, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

In fireproof construction appertaining to modern buildings it is customary to use metal in the production of window-frames and the sashes; but in these structures suitable provision, in my judgment, has not been made to exclude air, dust, and water; and it is the object of this invention to provide a joint between the metallic sash and the metallic casing, which shall effectually prevent the passage between the sash and casing of air, dust, and water in the form of rain or which is thrown against the outside of the sash.

In accordance with my invention I provide the parts of the window-casing opposite the edge of the sash with parting-strips having flanges, and the flanges of the parting-strips enter grooves at the sides of the sash rather than at the edge of the sash, said parting-strips crossing the space between the outer side of the outer edge of the sash and the inner side of the window-casing.

Figure 1 is an inner side elevation of the window casing and sash provided with my improvements. Fig. 2 is a section thereof on the line x. Fig. 3 is a section on the line y.

Each side of the window-casing is shown as made of four metal pieces, designated a, b, c, and a^3, respectively. Each piece a is bent at its edges to form two grooves a' a^2. The outer face-piece b at each side of the window-casing is shaped to present a projecting portion b', that will be exposed at the outer side of the building and is shaped at one edge to present a grooved lip b^2, while the opposite edge is received in a groove a^2. The inner face a^3 of each side of the casing has one edge received in the corresponding groove a', and said piece is bent at right angles at 2 and is shaped to form the grooved lip a^4. The piece c constitutes the inner wall of the window-casing, and the material of said piece c is doubled on itself at one edge to form a flange c', the edge of said part c entering and being received in the grooved lip b^2. The opposite edge of the part c is also flanged, as at c^3, said flanged portion entering the grooved lip a^4. Said part c is also provided intermediate its edges with the vertical groove c^2. The upper ends of the pieces a are flanged outwardly, as at a^6, as shown at the top of Fig. 1, and said flanges are embraced by the lips a^7 at the ends of the top frame a^8.

The top frame is bent longitudinally at two points 5 and 6, and the part $a^{8\times}$ of a^8 is folded on itself to form a flange 7 and is bent thereafter to form a flange 8. The edge of the top part a^8 of the outside of the casing has an upturned lip 10, that embraces a flange 12, extended upwardly from the face d of the casing-top, and the opposite edge of the face has a flange 13, that abuts the flange 8.

A guiding-strip e is inserted in each of the grooved lips a^4, and each guiding-strip is provided at its inner edge with a flange e'. A parting-strip g is inserted in each groove c^2, and each parting-strip has one smooth face and a flange g' projecting from the other face. The sashes m and n are metallic and are guided in their movement by the guiding-strips e and parting-strips g and the flanges c'. The upper sash is received between the flanges c' and the parting-strips g and the lower sash between the guiding-strips e and parting-strips g. Both the upper and lower sashes are provided at their inner side faces with grooves in which the flanges e' and g' enter, this construction making the window air and dust proof. The outer face of the lower sash rests against and slides over the smooth inner face of the parting-strip g, and the outer face of the upper sash rests against and slides over the smooth flange c'. The lower sash is shown as being made or formed with ribs or projections m' m^2. The upper sash preferably has smaller projections. The top edge of the upper sash is adapted to enter between the flanges 8 and 13, as shown in Fig. 2.

The upper end of the guiding-strip e abuts the under side with the top frame, and the upper end of the parting-strip g overlaps the flange 7. The upper end of the flange c' abuts the lower edge of the two flanges 8 and 13. The lower end of the parting-strip g, guiding-strip e, and flange c' meet the sill f, which may be of any usual construction.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a metallic window frame and sash construction, a metallic window-casing having a groove and a parting-strip inserted in said groove, said parting-strip having a smooth

inner face and flanged outer face combined with one sash resting against and sliding over the smooth inner face, and another sash provided with a groove in which the flange of the parting-strip enters.

2. In a window-frame construction, a window-casing, provided with two grooves, a flanged guiding-strip inserted in one groove and a flanged parting-strip inserted in the other groove, a sash received between the guiding-strip and parting-strip, and another sash having a groove in which the flange of the parting-strip enters.

3. In a window construction, a window-casing having at each side two grooves and a projecting flange, a guiding-strip received in one groove at each side of the window-casing, a parting-strip received in the other groove, each guiding-strip and parting-strip having one smooth face and a flange projecting from the other face, a window-sash received between the parting-strips and guiding-strips and having grooves in which the flanges on the guiding-strips enter, and another sash received between the parting-strips and the projecting flanges and provided with grooves in which the flanges of the parting-strips enter.

4. The combination with a metallic window-casing having separated flanged guiding-strips and parting-strips, of two metallic sashes, one having grooves to embrace and be guided by the flanges of the parting-strips and the other having grooves to embrace and be guided by the flanges of the guiding-strips.

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

SAMUEL F. HICKS.

Witnesses:
JAMES W. JONES,
CARL P. ELLIS.