I. T. DYER.
Window-Sash.

No. 203,820. Patented May 21, 1878.

Fig. 1.

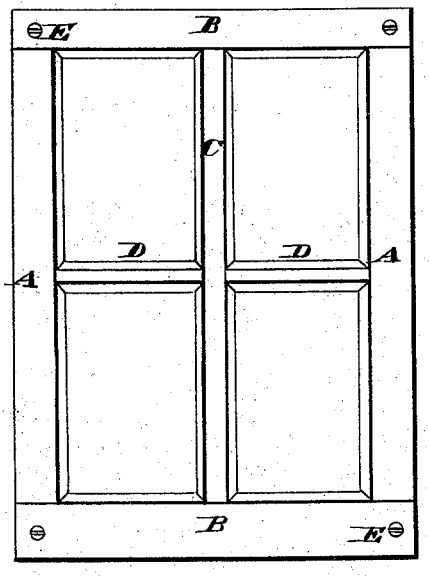


Fig. 2.

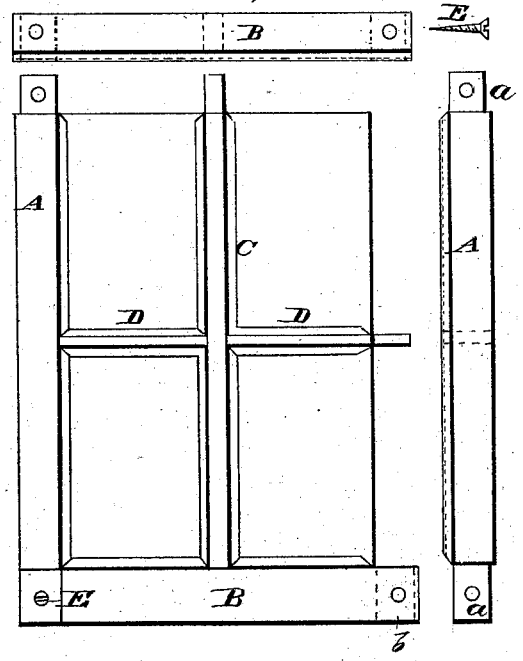
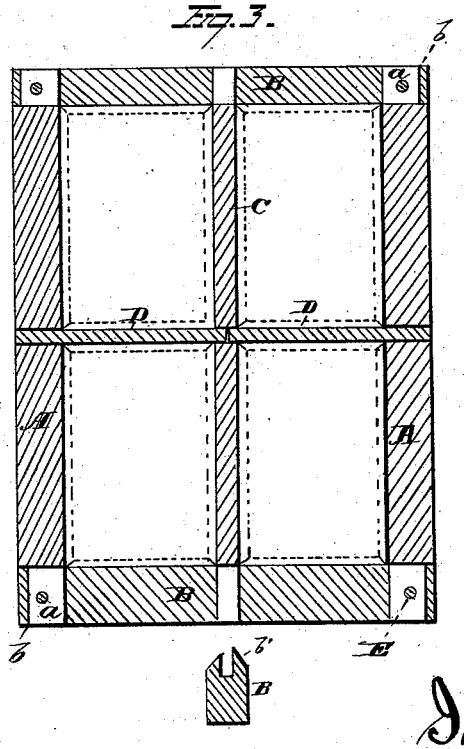


Fig. 3.



WITNESSES
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INVENTOR
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UNITED STATES PATENT OFFICE.

ISAAC T. DYER, OF QUINCY, ILLINOIS.

IMPROVEMENT IN WINDOW-SASHES.

Specification forming part of Letters Patent No. **203,820**, dated May 21, 1878; application filed August 14, 1877.

To all whom it may concern:

Be it known that I, ISAAC T. DYER, of Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Window-Sashes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in window-sashes; and consists in the parts and combination of parts hereinafter described and claimed.

Referring to the drawings, Figure 1 is a side elevation of my sash. Fig. 2 shows the same with certain parts detached therefrom. Fig. 3 is a sectional view in a plane passing centrally through the length and width of the sash.

The stiles A are made with end tenons *a*, engaging in slots *b* of the rails B. Each of these four pieces is made independent of the rest, and also of the mullion C and bars D, respectively connecting therewith by similar slot-and-tenon joint.

The two bars D are each in a single piece, and are also secured by slot-and-tenon engagement with the mullion C at their extremities, opposite to their connection with their respective stiles.

Instead of having the tenons formed on one of any pair of connecting-pieces and slots formed in the body of the engaging-piece, as shown in the drawings, it is evident that just the reverse may take place; or one of the connecting-pieces may have a tenon at one extremity and a tenon-slot at the opposite extremity, such minor features of construction being immaterial.

The stiles and rails are locked together by screws E or other similar engaging devices, such as keys or bolts, the object being to hold the same so as to guard against displacement of the several parts, which are more loosely connected by slot-and-tenon joint.

The several different parts of the sash are made with the projecting bevel *b'* formed on the inner side of the sash, the object being to prevent storms from beating into the room or water from passing through to the inner side of the window.

To glaze the sash, the screws are removed, the glass put in the rabbets adapted to support them, and which are made to fit the different thicknesses of glass in use, the rails put in place to engage properly with the stiles and the mullion, and then the screws inserted to hold all the parts firmly together.

In glazing any part of a four-light window, any one of the stiles or the rails may be removed, according to the part of the sash to be glazed, while in the instance of a six-light sash, either side stile only need be taken out in order to glaze half of the window; but, as all the several parts of the sash are made detachable, the glazier may readily remove such rails or stiles as he sees fit in easily accomplishing his work.

If desirable, I may fill the rabbets with paint to make them air-tight. So, in setting large glass, I may use putty to bed the same in more firmly.

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

A sash made with grooves to receive the glass, whose stiles and rails are connected by slot-and-tenon engagement, and secured together by the described fastening devices, the several parts of the sash being formed with the projecting bevel on the inner side of the sash, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of August, 1877.

ISAAC T. DYER.

Witnesses:
GEO. C. VAN DOORN,
JAMES E. SILK.