

H. Tupper,

Window Sash,

N^o 67,820.

Patented Aug. 13, 1867.

Fig. 1

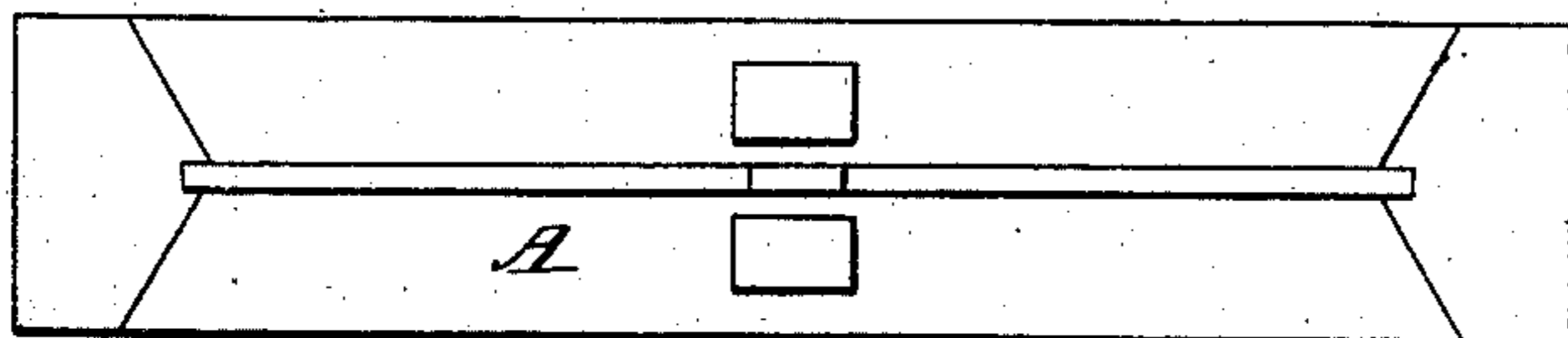


Fig. 2

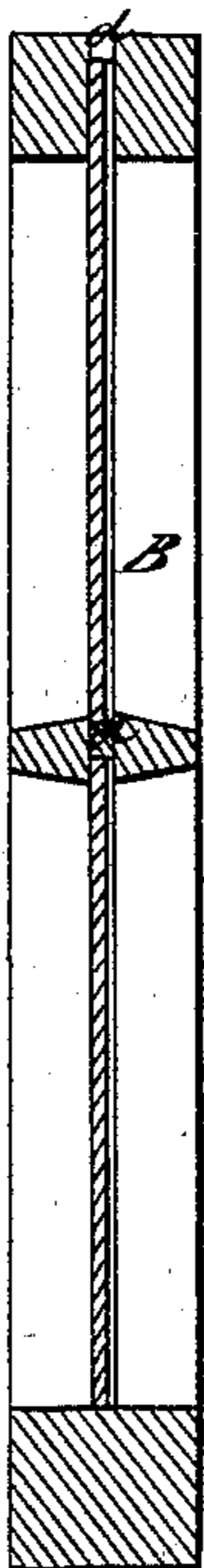
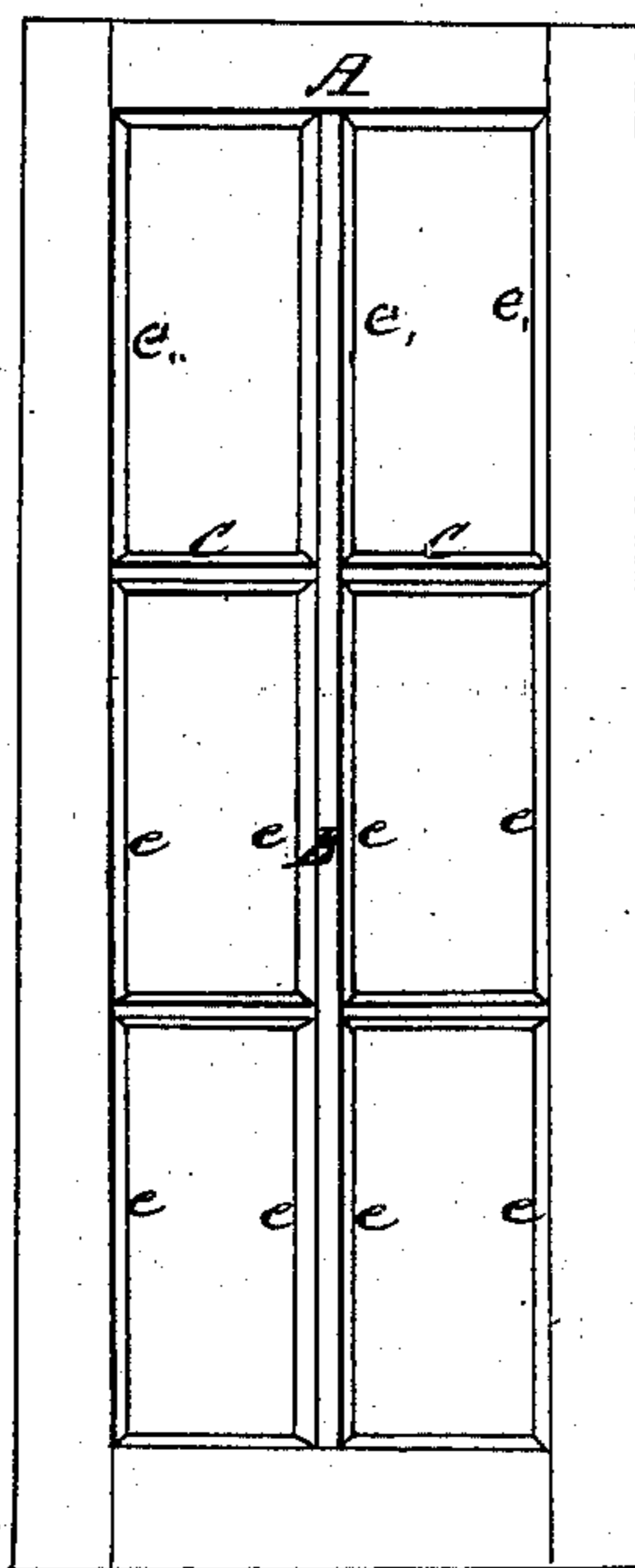


Fig. 3



Witnesses

F. Schmitt

Robt. Green

Inventor

Horace Tupper

Per

J. H. Alexander & Co.
attys.

United States Patent Office.

HORACE TUPPER, OF BAY CITY, MICHIGAN,

Letters Patent No. 67,820, dated August 13, 1867.

IMPROVED WINDOW-SASH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. TUPPER, of Bay City, in the State of Michigan, have invented certain new and useful improvements in Window-Sash; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, and to the letters of reference marked thereon, in which—

Figure 1 represents the head-piece or top part of the sash.

Figure 2 a vertical bar of the sash, showing the groove in which the panes of glass slide, and

Figure 3 a front elevation of the sash complete.

The nature of my invention consists in providing the vertical bars or slats with continuous grooves; also in providing the horizontal bars or slats with slots, which allows of the glass being introduced at the top, and pushed downward until the whole sash is filled. My invention further consists in the employment, in connection with the grooves and slots, of India-rubber strips extending along and on the inner side of the grooves, and also between the panes of glass in the slots.

A represents the head-piece or top part of the sash, which is provided with slots for the introduction of the glass. B B are the vertical bars or slats. Said slats have a continuous groove on each side of them, and on either side of these grooves is secured a narrow strip of India rubber, *c c*, which prevents the glass from rattling when in position. C C are the horizontal slats, which are provided with slots through them.

Thus it will be seen that the panes of glass can be inserted at the top through the slots in the head-piece, and pushed downward until the entire sash is filled. Between each pane of glass a piece of India rubber, *d d*, is inserted, in order that they may be better secured and protected. By this simple arrangement I dispense with putty entirely, and in case a glass should be broken it is readily removed and replaced by a new one.

What I claim is—

The head-piece A, when provided with a slot for the admission of the glass, in combination with the continuous grooves in the vertical bars and the slots in the horizontal bars, as and for the purpose described.

In testimony whereof I set my hand in presence of two witnesses.

HORACE TUPPER.

Witnesses:

C. H. DENISON,

J. W. KNAGGS.