

J. McNAMEE.
Reversible Window-Sashes.

No. 153,100.

Patented July 14, 1874.

FIG. 1.

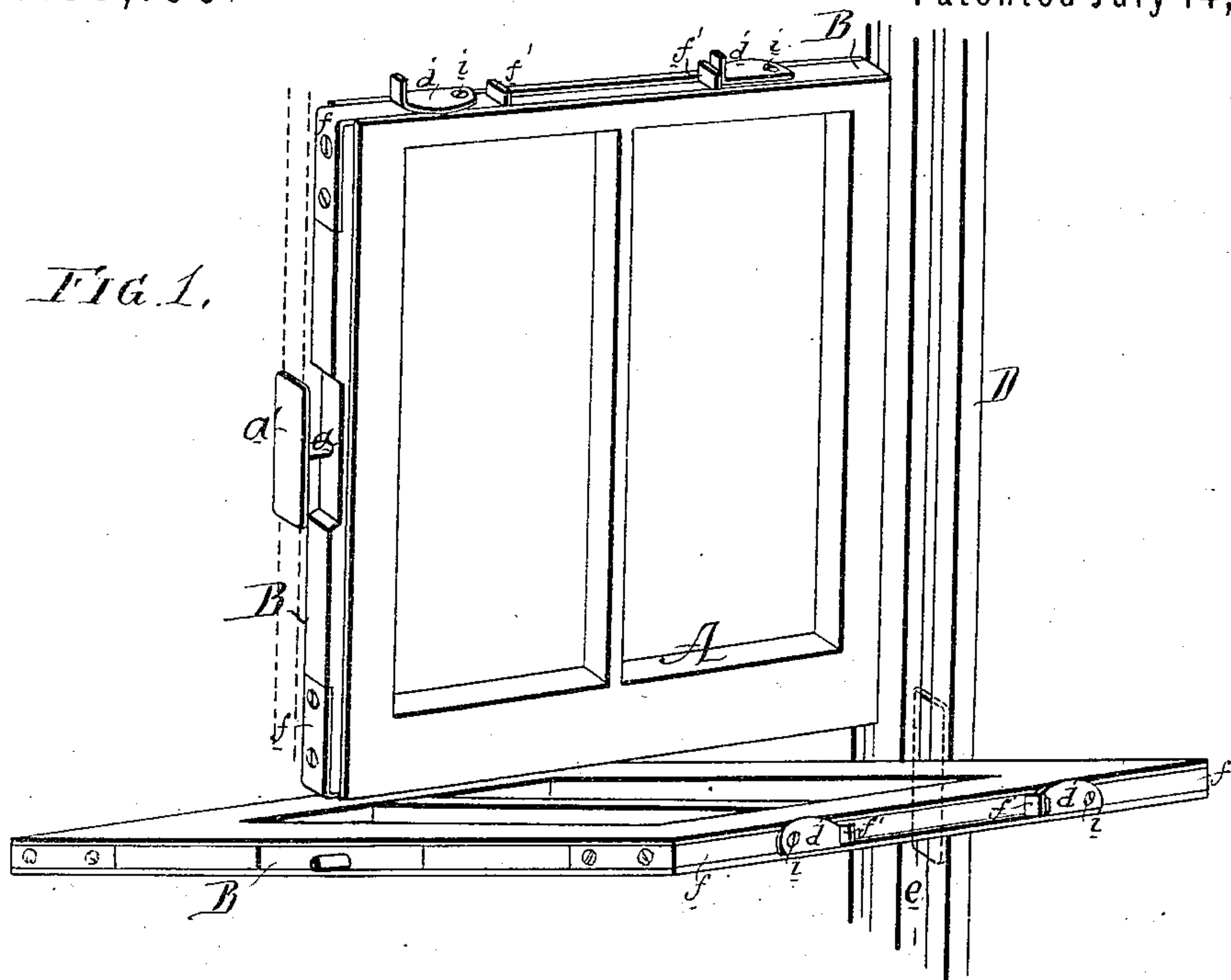


FIG. 2.

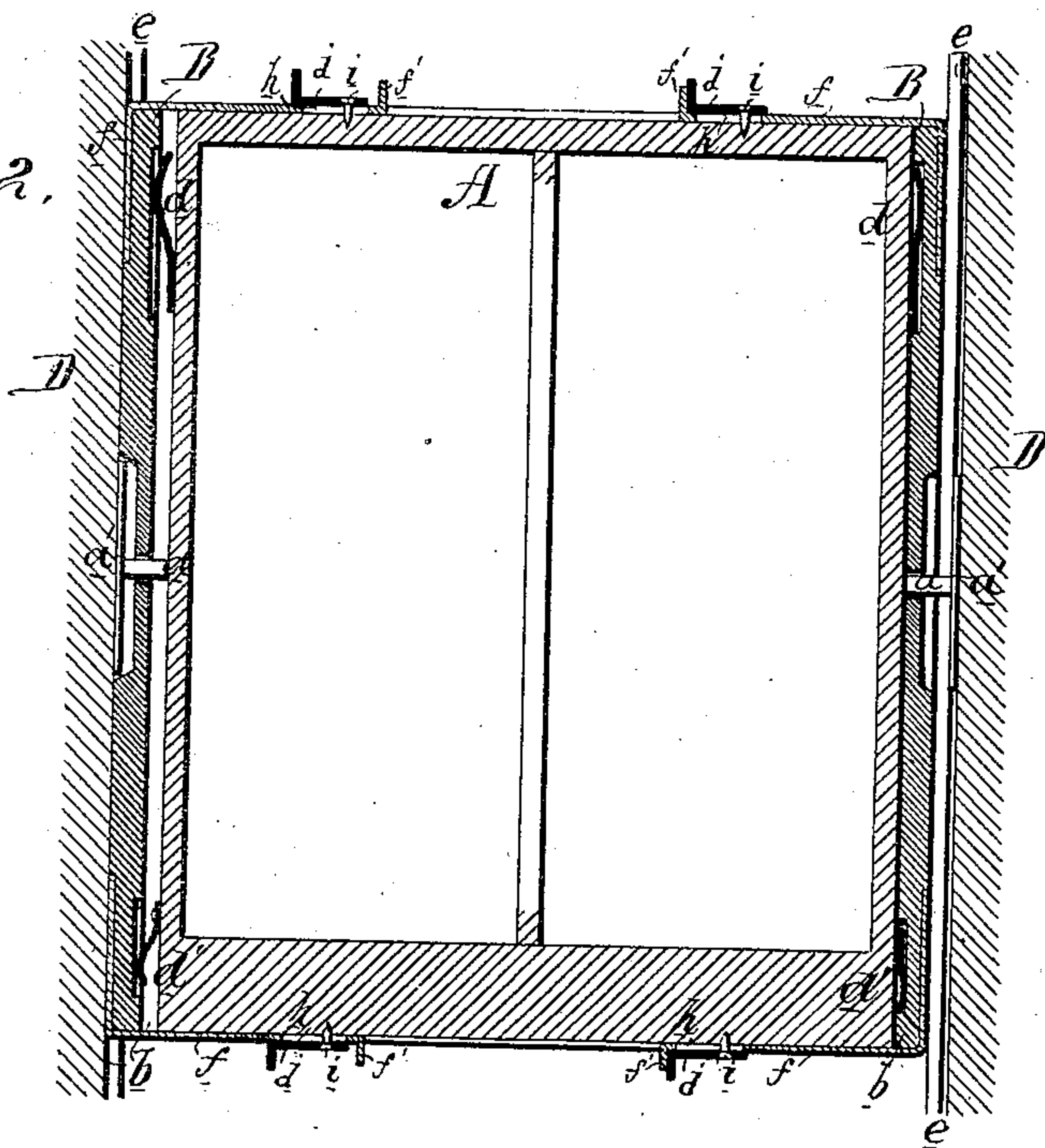
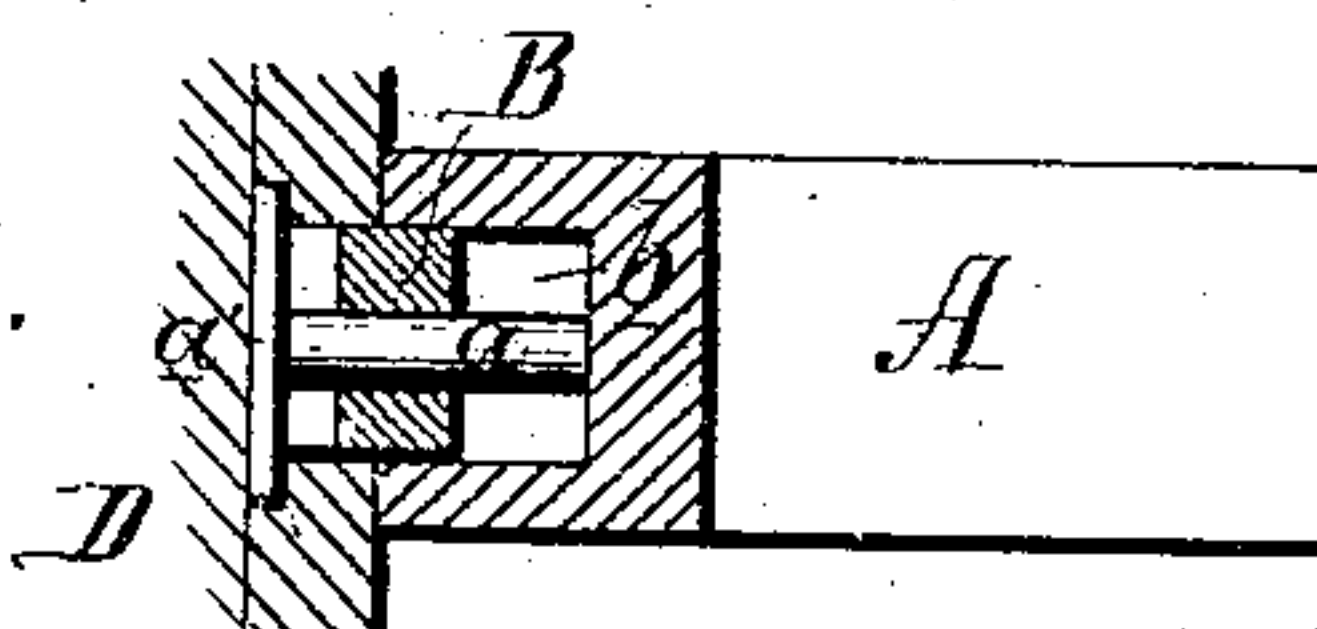


FIG. 3.



Witnesses

Thomas McNamee
John C. Singer.

John McNamee
By his Attys.
Housner and Son

UNITED STATES PATENT OFFICE.

JOHN McNAMEE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN REVERSIBLE WINDOW-SASHES.

Specification forming part of Letters Patent No. **153,100**, dated July 14, 1874; application filed June 17, 1874.

To all whom it may concern:

Be it known that I, JOHN McNAMEE, of the city and county of Philadelphia, State of Pennsylvania, have invented certain Improvements in Reversible Window-Sashes, of which the following is a specification:

The object of my invention is to facilitate the reversal of window-sashes in their frames, for purposes of cleansing and reglazing; and this object I attain by providing the sash A, at its opposite grooved edges, with strips B B, which admit of being advanced and retracted, and which are adapted to grooves in the window-frame D, and pivoted to trunnions *a a*, capable of being raised and lowered in the frame, upon which trunnions the said strips, when retracted, can be turned for the purpose of reversing the sash, all as shown in the perspective view, Figure 1, and sectional elevation, Fig. 2, of the accompanying drawing.

The strips B B are adapted to grooves *b*, formed for their reception in the opposite edges of the sash, and are acted on, above and below, by springs *d* and *d'*, tending to force them outward and into the guiding-grooves *e* of the window-frame, the strips being secured, at their upper and lower ends, to plates *f f*, which can be moved upon the top and bottom of the sash to a limited extent. Each plate *f* is slotted at *h* for the passage of a guiding-screw, *i*, to which is hung a cam-lever, *j*, the latter acting upon a flange, *f'*, of the plate to force and hold back the same and its strip B when adjusted to the position shown at the right-hand side of Figs. 1 and 2, but permitting the said plate and its strip to slide outward, owing to the action of the springs, when adjusted to the reverse position shown at the left-hand side of said figures.

Each strip B is pivoted, at the center of its length, to a trunnion, *a*, upon which it can be freely turned when retracted, the said trunnion being secured to a plate, *a'*, arranged to slide in an internal groove of the window-frame, as shown in the sectional plan view, Fig. 3, or being suspended from a cord, if a balancing-weight is used.

The strips B B may be incased in sheet metal, or otherwise strengthened at the point where they are cut away for the trunnions and plates *a'*, or weight-cords.

When the strips B B are advanced from the edges of the sash, and into the guiding-grooves of the window-frame, the said sash can be freely raised and lowered; and when it is necessary to reverse the sash in the frame in order to obtain ready access to its exterior for cleansing purposes or for reglazing, it is only necessary to turn the several cam-levers *j* at the top and bottom of the sash to the position shown at the right-hand side of Figs. 1 and 2, thereby retracting the strips B into the grooved edges of the sash sufficiently to clear the grooves in the window-frame, when the said strips can be turned on their trunnions.

In a window unprovided with the balancing-weights the strips B may be made to serve as retainers, for holding the sash in any position to which it is adjusted, by simply using springs *d* of sufficient strength to cause the said strips to bind against the window-frame. In this case, however, it will be necessary to strengthen the lower springs only, the upper springs being just sufficiently strong to force the strips outward into the grooves of the frame.

I claim as my invention—

1. The combination, with a window-frame, D, of a sash, A, provided at its opposite grooved edges with strips B, which are pivoted to, and admit of being advanced and retracted upon, movable trunnions *a a*, substantially as and for the purpose specified.

2. The combination of the strips B B, springs *d d*, acting to force out said strips, and cam-levers *j*, arranged at the edges of the sash to draw the strips inward, all as set forth.

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

JOHN McNAMEE.

Witnesses:

WM. A. STEEL,
J. S. SINGER.