

fig 1

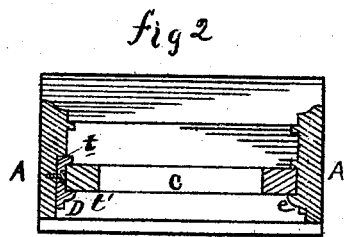


fig 2

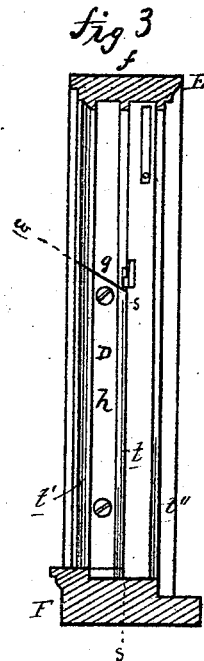


fig 3

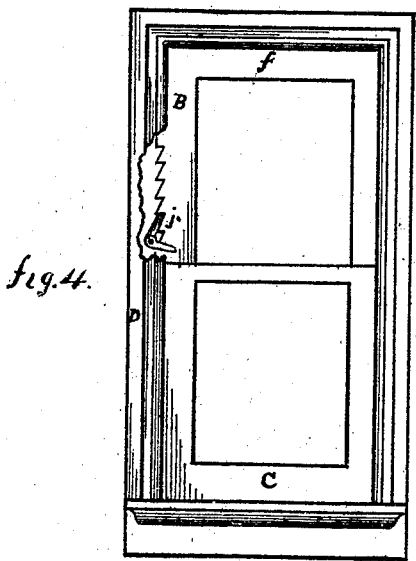


fig 4

Witnesses

G. H. Hubbard
J. Campbell

Inventor
Marshall McComb
By A. C. Johnson
his Attorney.

UNITED STATES PATENT OFFICE.

MARSHALL McCOMB, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-TENTH OF HIS RIGHT TO THOMAS D. KELLER, OF SAME PLACE.

IMPROVEMENT IN WINDOWS.

Specification forming part of Letters Patent No. 184,044, dated November 7, 1876; application filed February 26, 1875.

To all whom it may concern:

Be it known that I, MARSHALL McCOMB, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Securing Window-Sash in their Frames; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention consists of a window-frame, constructed as fully described hereafter, to reduce the cost of manufacture and to facilitate the removal of the sash.

In the drawing, Figure 1 is an elevation of one of the improved frames and sash; Fig. 2, a transverse section on the line *y*, Fig. 1; Fig. 3, a sectional elevation on the line 1 2, Fig. 1; Fig. 4, an elevation, a part being removed.

The frame consists of side pieces A A', top piece E, and sill F. Instead of grooving the side and top pieces, as usual, and inserting separate parting-strips, I form the parting-ribs upon and in the same piece with the said pieces, thus avoiding the expensive fitting heretofore required, and greatly reducing the expense, the work being all performed by simply running a strip of wood through an ordinary "molding"-machine.

This mode of manufacture has not heretofore been adopted, owing to the impossibility of inserting and withdrawing the sashes without having removable parting-strips; but I have overcome this difficulty, and at the same time obtained another important result, by the following means: The side piece A is cut vertically on the line *s*, Fig. 3, close to the middle rib *t*, for about one-half its height, and is then cut transversely or at a slight angle on the line *u*, Fig. 3, thus forming a detachable section,

D, containing the two beads or ribs *t t'*, which is secured to the remaining part of the frame in any suitable manner, two thumb-screws being shown in the drawing.

When the strip D is withdrawn, the outer sash B may first be inserted into its place against the rib *t''*. The strip D is then applied to the edge of the inner sash, and the latter inserted in place, after which it is elevated and the strip D secured.

It will be seen that not only is the ready insertion and withdrawal of the sashes thus secured, but a more important result is attained, namely, it is rendered possible to employ in the manufacture of window-frames strips having the frame, beads, and parting-ribs in one piece, thus substituting machine-work for hand-work, with a corresponding reduction in cost.

I am aware that removable strips with parting-ribs have been applied to windows made in the ordinary manner, and I make no claim to this old feature. I am also aware that frames have been made with yielding side strips formed in one piece with the parting-strip, the moldings and beadings being separate. I therefore make no broad claim based upon the parting-strip united to the backing-strip; but

I claim—

A window-frame made from one continuous strip of machine-cut timber, forming the side pieces and top, and provided with ribs constituting the moldings and parting-strips *t¹ t²*, and with a detachable section, D, carrying portions of the ribs *t t¹*, all constructed and arranged, as set forth.

MARSHALL McCOMB.

Witnesses:

A. C. JOHNSTON,
JNO. D. PATTEN.