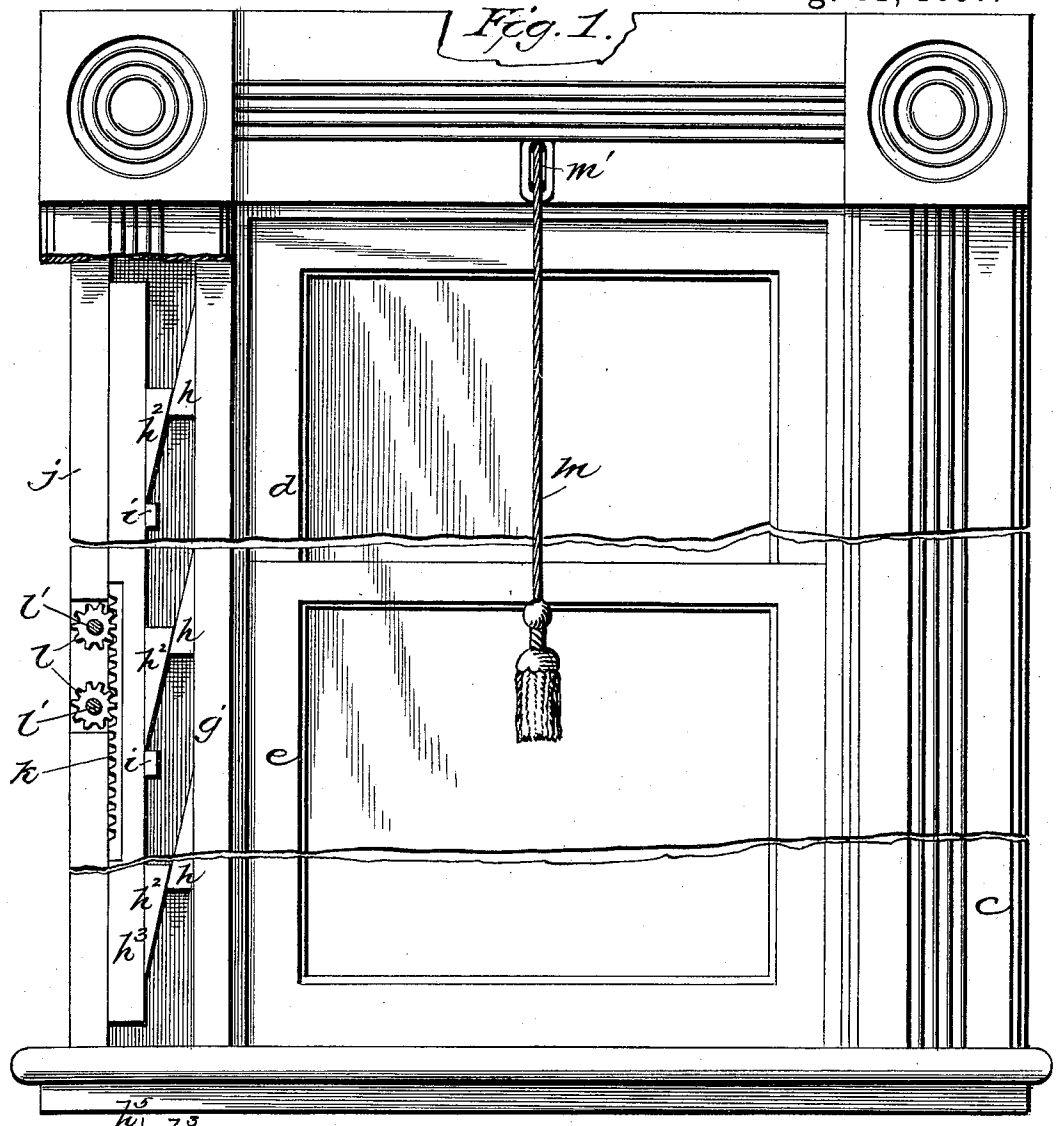
(No Model.)

A. LOWRY.

SASH HOLDER.

No. 589,359. Patented Aug. 31, 1897.

Fig. 1.



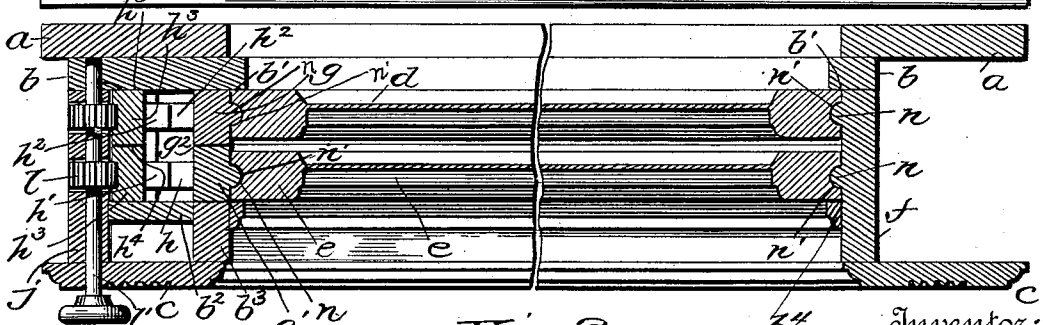


Fig. 2.

Witnesses
R. S. Warfield.

Inventor:
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UNITED STATES PATENT OFFICE.

ALBERT LOWRY, OF DILLON, MONTANA.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 589,359, dated August 31, 1897.

Application filed May 11, 1896. Serial No. 591,128. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LOWRY, a citizen of the United States, residing at Dillon, in the county of Beaver Head and State of Montana, have invented certain new and useful Improvements in Sash-Holders; 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 appertains to make and use the same.

My invention relates to those window-frames provided with means for keeping them air-tight and at the same time affording facilities for adjusting the tighteners of the frame for locking the window-sash against movement.

My object is to provide a superior device especially adapted for use in connection with ordinary double-sash windows, wherein the mechanism will be exceedingly simple, strong, durable, and effective.

To this end my invention consists of a pair of peculiarly-formed vertically-movable bars provided with a plurality of wedge-sections which coact with a corresponding number of such sections upon a laterally-movable bar which moves only in a horizontal plane. Each of the vertically-movable bars is actuated from the outside of the casing by a rack-and-pinion mechanism, the parts all being arranged compactly and tightly by the peculiar means more fully described hereinafter, and pointed out in the claim.

In the accompanying drawings, Figure 1 represents a front elevation of my improvements as applied to a double window-frame, the casing being removed to better show the interior; and Fig. 2, a horizontal section through X X of the preceding figure.

The reference-letters *a b c* denote the sections constituting the back and front casements of the window-frame.

d and *e* indicate the upper and lower sashes, respectively, of the window. These are held between a single vertical bar *f* on the right and a pair of bars *g* and *g'* on the left. All three of the bars are provided with longitudinal tongues *n*, which fit snugly in corresponding grooves *n'*, which guide the sashes in their vertical movements and which also aid in excluding air and avoid the necessity of the customary outside beading.

To further assist in making the window tight, the casement *b* is made to overlap the sashes at *b'*, and a vertical head b^4 is placed along the inside edges of the sashes.

The separate bars *g* and *g'* are rectangular in cross-section, with their contiguous flat sides g^2 fitting snugly together, and move laterally between and against the inner walls of the section *b* and sections b^2 and b^3. On the left hand of each of the laterally-movable bars *g* and *g'* are fixed a series of three wedge-sections *h*, the faces of which extend outwardly and downwardly and coact with a corresponding number of wedge-sections h^2, which are in turn fixed on the right-hand side of a pair of vertically-movable bars h^3, adapted to move up and down between guide-lugs *i* and a bar *j*. The left-hand side of each of these bars is provided with a fixed rack *k*, adapted to be engaged by a pinion *l*, one pinion being placed above the other and each being entirely independent and operated by separate spindles *l'*, whereby both of the jamb-bars *g* and *g'* can be adjusted independently to accommodate themselves to variations in the width of the sashes. The bars h^2 have flat smooth contiguous faces h^4, which slide upon each other like those of the bars *g* and *g'*, their outer faces h^5 being confined to slide between the casement-sections *b* and b^2. A cord *m*, attached to the upper sash and passing over a pulley *m'*, hangs down so as to enable the sash to be raised and lowered and locked at any height.

From the foregoing description of the construction of my device it will be apparent that when one of the pinions *l* is turned from left to right the bar h^2 will be lowered, thereby actuating the wedge-sections to push the bar *g* laterally toward the sash and clamp the latter securely in place.

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

In a window-frame, the combination with a pair of window-sashes, a pair of laterally-movable bars *g* and *g'*, provided with tongues *n*, adapted to enter grooves in the sashes, the contiguous sides of said bars being in contact with and sliding against each other, and having a series of wedge-sections on one side, a pair of vertically-movable bars provided

with a series of wedge-sections, coacting with the first-named wedge-sections, racks upon each of said vertically-movable bars, and independent pinions engaging said racks, all arranged and adapted to operate in the manner and for the purposes substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT LOWRY.

Witnesses:
LAURA L. THOMAS,
PHIL. D. MCGOUGH.