Oct. 27, 1925. 1,558,748

W. S. MUCK

WINDOW SASH HOLDER

Filed Sept. 24, 1924

Fig. 1.

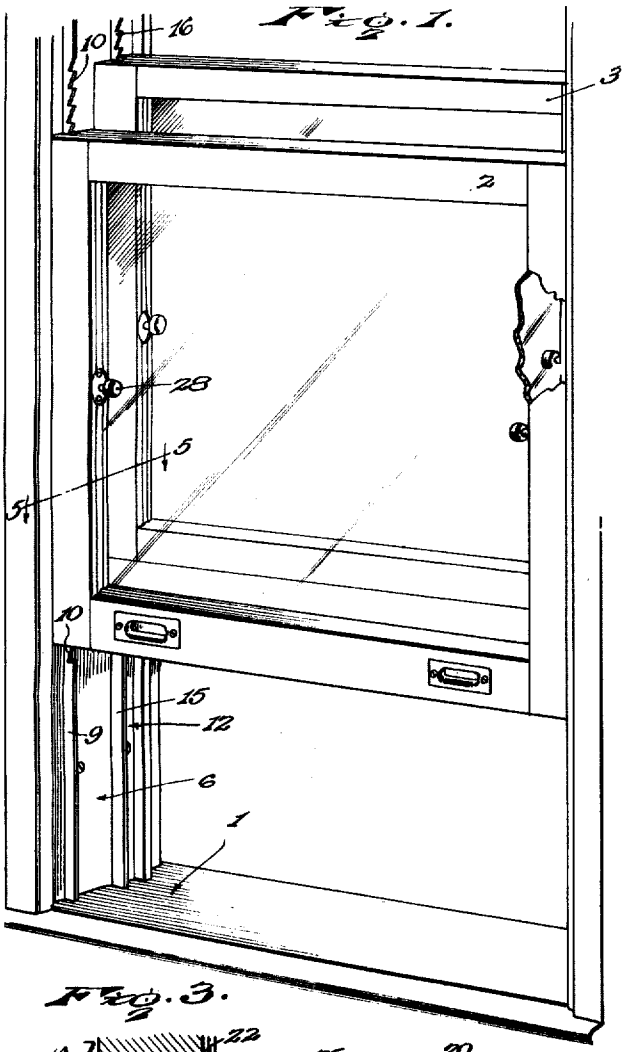


Fig. 2.

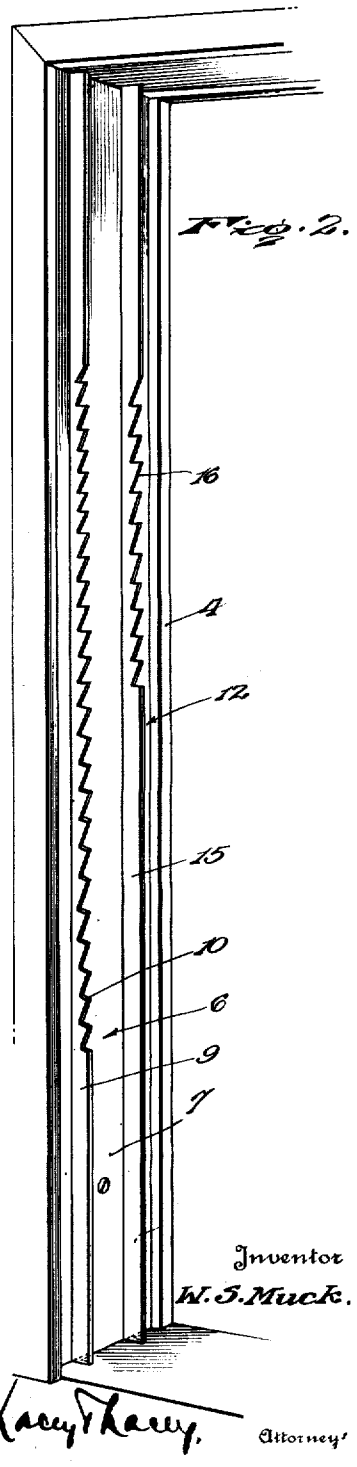


Fig. 3.

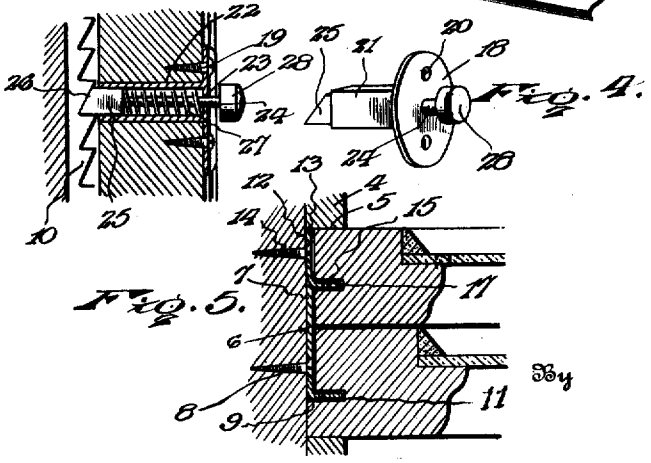


Fig. 4.

Fig. 5.

By Lacey & Lacey. Attorneys

Patented Oct. 27, 1925. 1,558,748

UNITED STATES PATENT OFFICE.

WILLIAM S. MUCK, OF DICKSON, PENNSYLVANIA, ASSIGNOR TO JAMES F. ARTHUR, OF DICKSON, PENNSYLVANIA.

WINDOW-SASH HOLDER.

Application filed September 24, 1924. Serial No. 739,586.

To all whom it may concern:

Be it known that I, WILLIAM S. MUCK, a citizen of the United States, residing at Dickson city, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Window-Sash Holders, of which the following is a specification.

This invention relates to improvements in sash holders and has as its object to provide a sash holder comprising parts of simple and inexpensive construction adapted for application to any window frame and the sashes mounted therein, and adapted to support the sashes at any desired elevation, the device embodying the invention being of such construction that when either sash is in the desired position of adjustment, it will be securely held in such position and prevented from dropping.

Another object of the invention is to provide a sash holder of such construction that it will constitute an additional guide for the sash with which it is associated and will also permit of smoother travel of the sash in the frame in elevating and lowering the sash.

In the accompanying drawings Figure 1 is a perspective view of the sash holding device embodying the invention installed;

Figure 2 is a similar view illustrating a portion of the window frame with the sashes removed therefrom and the rack bars of the respective sash holders installed;

Figure 3 is a vertical sectional view in detail illustrating one of the pawl and rack devices comprising the holder;

Figure 4 is a perspective view of one of the pawl devices dismounted;

Figure 5 is a horizontal sectional view taken substantially on the line 5—5 of Figure 1 looking in the direction indicated by the arrows.

In the drawings the numeral 1 indicates in general a window frame, and the numerals 2 and 3 the upper and lower sashes arranged within the frame, these parts being of the usual construction except that the sashes are not provided with the customary cords and sash weights but are equipped with the holding devices of the present invention. Guide strips 4 are secured to the inner faces of the stiles of the frame 1 and provide between them a channel 5 between which the sashes 2 and 3 are guided at their opposite vertical edges. In order to guide the lower sash 2, a rack member indicated in general by the numeral 6 is provided, and this rack member comprises a strip 7 of metal which is secured to the inner face of the respective stile of the window frame by screws or other securing elements 8 and which is provided at its inner vertical margin with an inwardly projecting right-angularly extending flange 9 formed with a plurality of rack teeth indicated by the numeral 10. The strip 6 is of a width to extend a suitable distance across the face of the respective frame stiles between the guide strips 4, and presents a smooth surface throughout the entire height of the said stile. The stiles of the sash 2 are formed with longitudinal grooves 11 which accommodate the flanges 9 of the rack members 6, as clearly shown in Figure 5 of the drawings, the flanges 9 of the two rack members 6 thus constituting guides for the sash 2, in conjunction with the inner one of the strips 4. The numeral 12 indicates in general rack members which are employed in conjunction with the sash 3 and each of these members comprises a strip 13 of metal which is secured by screws or other fastening elements 14 to the inner face of the respective frame stiles with one edge abutting the outer guide strip 4 as shown in Figure 5, the opposite longitudinal edge of the strip 13 being formed with an outstanding right-angular flange 15 the upper portion of which is formed with a series of rack teeth 16. By reference to Figure 5 it will be observed that the marginal portion of the strip 7 of the rack member 6 which is located next adjacent the rack member 12, is overlapped by the strip 13 of the last mentioned rack member at the juncture of the flange 15 therewith so that in effect a smooth and continuous surface is presented to the edges of the stiles of the sashes 2 and 3 by their respective rack strips 7 and 13. As in the case of the sash 2, the stiles of the sash 3 are formed with longitudinally extending grooves 17 which accommodate the respective flanges 15 so that the upper sash 3 is guided in its up and down movement by the said flanges and in conjunction with the guide strips 4.

The pawl devices heretofore referred to are illustrated most clearly in Figures 3 and

4 of the drawings, and one of these devices is associated with each stile of each sash and is designed for coaction with the respective rack bars 6 or 12 as the case may be. Each of said devices comprises an attaching plate 18 which may be of circular form or any other marginal contour desired, and which is secured by screws or other fastening elements 19 passed through openings 20 therein, to the inner side of the sash stile with which the device is associated. A rectangular tubular guide 21 extends from one face of the plate 18 and is seated in a mortise 22 formed in the said stile of the sash, and has its open outer end presented at the outer face of the stile and in position opposing the respective racks. An opening 23 is formed in the attaching plate 18 and communicates with the inner end of the guide 21 and slidably accommodates a stem 24 which extends from a head 25 which is of rectangular form in cross section and is slidably fitted within the said guide 21, the head having a beveled end 26, for coaction with the teeth of the respective rack bars. A coiled spring 27 is arranged upon the stem 24 and bears at one end against the plate 18 and at its other end against the inner end of the head 25 and yieldably holds the head with its beveled end 26 in engagement with the said respective rack bars. A finger knob 28 is provided at the inner end of the stem 24, and it will now be understood that by grasping the finger knob of the pawl devices of either sash and pulling the same laterally inwardly, the heads 25 of the pawl devices will be withdrawn from engagement with the respective rack bars thereby permitting of lowering of the sash. The bevel of the teeth of the rack bars and the beveled end 26 of the head 25, however, permit of raising of either sash to any desired elevation, by a mere lifting of the sash, the heads 25 of the pawl devices, at such time, riding over the teeth of the respective racks. Thus, the upper and lower sashes may be independently adjusted to any desired elevation and will be securely and firmly held in place when so adjusted.

Having thus described the invention, what I claim is:

1. The combination with a window frame and sashes mounted thereon, said sashes being provided in the outer edges of their stiles with longitudinal grooves, of rack members comprising strips secured to the inner faces of the stiles of the frame and having outstanding toothed flanges, the flanges of the rack members engaging in the grooves in the sashes and constituting means for guiding the sashes, the strips constituting smooth surfaces along which the edges of the stiles of the sashes are to move, and pawls upon the sashes coacting with the racks.

2. In combination with a window frame and sliding sashes therein having longitudinal grooves in the outer edges of their stiles, of a rack member secured to the inner face of each stile of the window frame and extending the full length thereof and overlapping the grooved edges of the sash stiles and the joint formed therebetween, and having an outstanding toothed portion to enter the groove of a sash stile, and a pawl carried by the sash receiving the toothed portion of the rack member to co-act therewith to hold the sash at the required elevation.

3. In combination with a window frame and sliding sashes therein having longitudinal grooves in the outer edges of their stiles, of strips attached to the inner face of each stile of the window frame and extending the full length thereof, one of the strips overlapping the joint between the sash stiles and engaging the grooved edges thereof, and each strip having an outstanding toothed portion to enter the grooved edge of a sash stile, and a pawl on each sash to co-act with the toothed portion of the rack strip to hold the sash at the required adjusted position.

In testimony whereof I affix my signature.

WILLIAM S. MUCK. [L. S.]

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3. In combination with a window frame and sliding sashes therein having longitudinal grooves in the outer edges of their stiles, of strips attached to the inner face of each stile of the window frame and extending the full length thereof, one of the strips overlapping the joint between the sash stiles and engaging the grooved edges thereof, and each strip having an outstanding toothed portion to enter the grooved edge of a sash stile, and a pawl on each sash to co-act with the toothed portion of the rack strip to hold the sash at the required adjusted position.

In testimony whereof I affix my signature.

WILLIAM S. MUCK. [L. S.]

Certificate of Correction.

It is hereby certified that Letters Patent No. 1,558,748, granted October 27, 1925, upon the application of William S. Muck, of Dickson, Pennsylvania, for an improvement in "Window-Sash Holders," were erroneously issued to "James F. Arthur," whereas said Letters Patent should have been issued to the inventor, said *William S. Muck, and James F. Arthur jointly*, said Arthur being assignee of *one-half* interest only in said invention, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 17th day of November, A. D. 1925.

[SEAL.]

WM. A. KINNAN,
Acting Commissioner of Patents.

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WM. A. KINNAN,
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