F. HACHMANN.

SASH FASTENER.

APPLICATION FILED MAR. 13, 1915.

1,196,356.

Patented Aug. 29, 1916.

Fig. 1.

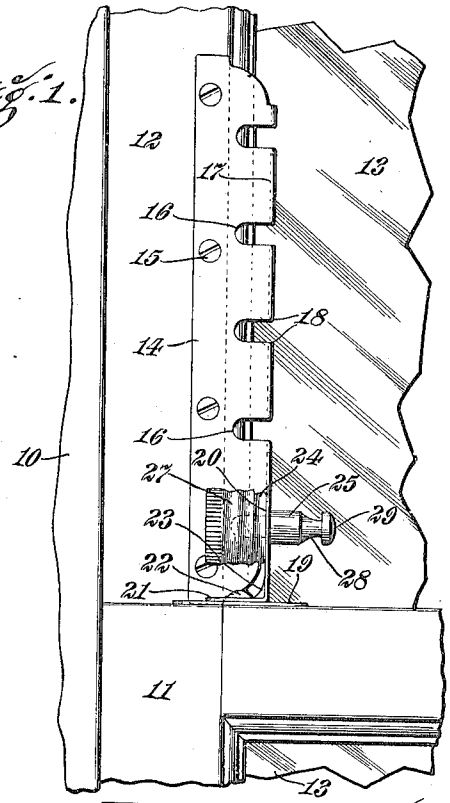


Fig. 2.

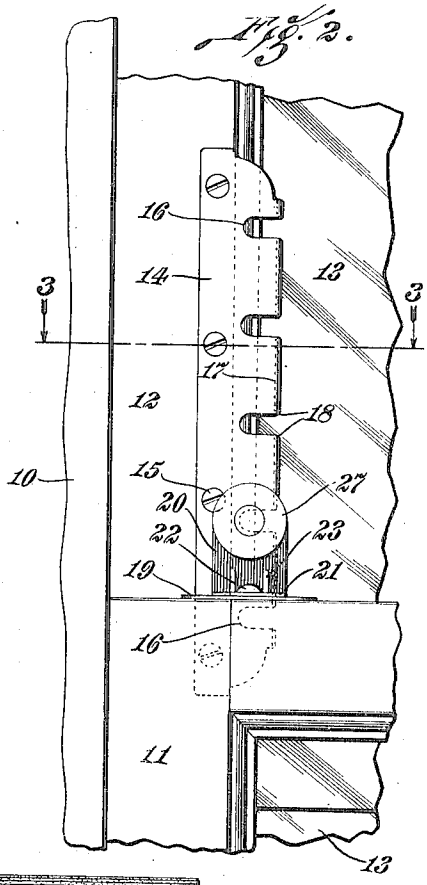


Fig. 3.

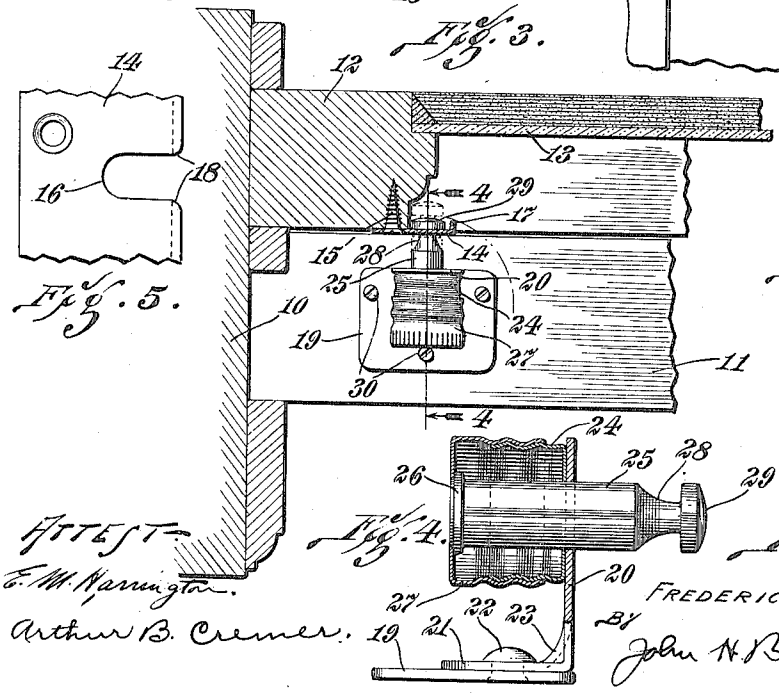


Fig. 5.

Fig. 6.

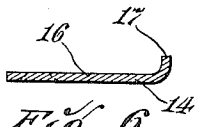


Fig. 4.

WITNESSES:

E. W. Harrington.

Arthur B. Cremer.

INVENTOR.

FREDERICK HACHMANN,

BY

John H. Brennan

ATTY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK HACHMANN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-FOURTH TO FRED. C. SCHOENTHALER AND ONE-FOURTH TO JAMES B. HOLLIS, BOTH OF ST. LOUIS, MISSOURI.

SASH-FASTENER.

1,196,356. Specification of Letters Patent. Patented Aug. 29, 1916.

Application filed March 13, 1915. Serial No. 14,277.

To all whom it may concern:

Be it known that I, FREDERICK HACHMANN, a citizen of the United States, and residing at St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Sash-Fasteners, of which the following is a specification.

This invention relates to sash fasteners, and more particularly, to sash fasteners of that type adapted to secure sashes in different relative positions.

One of the objects of this invention is to construct a sash fastener which will fasten and secure the sashes in different positions relatively, and which will also clamp the same together to prevent rattling.

Another object is to provide a sash fastener which can be applied to any sash without requiring cutting.

Another object is to provide a sash fastener which is simple in its construction and operation, positive in its action, and cheap to manufacture.

Further objects will appear from the detail description taken in connection with the accompanying drawing, in which:

Figure 1 is a partial front elevation of a window with the upper sash in raised position and showing the sash fastener embodying this invention; Fig. 2 is a view similar to Fig. 1, but with the parts in operative position to secure the sashes relatively, with the upper sash down; Fig. 3 is a section on the line 3—3, Fig. 2; Fig. 4 is an enlarged detail section on the line 4—4, Fig. 3; Fig. 5 is an enlarged detail showing the notched plate; and, Fig. 6 is an enlarged detail section through this plate, showing the locking ridge or flange.

Referring to the accompanying drawing, 10 designates a window frame or casing, 11 the lower sash, 12 the upper sash, and 13 the glass. As is well known, the stiles of the upper sash are not flush with the meeting rail, but are set back slightly, as shown in Fig. 3, so that there is a space between the stile and the meeting rail of the lower sash. This space is sufficient to receive a thin plate 14 of sheet metal, which is secured by countersunk screws 15 flush with the plate. The plate is provided, along one edge, with a plurality of notches 16, and this edge is turned rearwardly to form a rearwardly projecting flange or rib 17. The corners of the notches are rounded, as shown at 18, so as to flare, for a purpose hereinafter to be described.

Adapted for attachment to the lower sash is a base plate 19 which has mounted thereon a bracket or carrier 20 having a laterally turned base 21 and pivoted on the plate by a suitable rivet 22. The base 19, as well as the carrier 20, is preferably constructed of sheet metal, and the carrier preferably has ribs 23 struck up therefrom to strengthen the same. Secured to the carrier in any suitable manner, as by riveting, is a shell 24 preferably formed of pressed metal and having a thread or cam groove pressed therein. The carrier is also bored to receive a bolt 25 having a shoulder 26 at its inner end adapted to receive an attached shell 27 preferably formed of pressed metal and having a thread pressed thereon to telescope on the shell or boss 24 and thread thereon. This shell 27 forms the adjusting head or knob of the bolt 25, and for that purpose is corrugated or knurled as shown. The end of the bolt 25 is reduced in diameter at its outer end, as shown at 28, to provide a head 29. The base is secured to the lower sash by screws 30, which are countersunk.

When the parts are in the position shown in Fig. 1, the sashes are adapted to move freely relatively. In order to secure the sashes in any desired relative position of adjustment, the bolt is screwed toward the sash, and then swung into engagement with the plate. If a notch is now opposite the reduced end 28 of the bolt, this part will pass into the notch. If not, the upper or lower sash is moved while pressing the bolt against the notched edge of the plate, when, on account of the flared construction of the notches, the bolt will readily slip into the proper notch. The head or knob 27 is now turned to the right, which will move the bolt toward the observer with the head 29 against and clamping the plate, thereby drawing the sashes tightly together. At this time the head 29 is behind the ridge or flange 17, so that the bolt cannot be forced out of the notch at this time. In order to unlock, the operations are reversed.

It will thus be seen that the invention accomplishes its objects. The device forms not only a fastener for relatively securing two sashes in a plurality of positions, but also

forms a clamp which securely clamps the sashes together, and, thereby, forms an anti-rattler. The lowest notch in the plate is in such a position that, when in engagement with the bolt, it will lock the sashes with the upper sash up, and the lower sash down. Although one fastener will ordinarily be sufficient, a separate fastener may be placed on each side.

Since the device is very simple in construction, it is not only cheap to manufacture, but also presents a neat and pleasing appearance. The telescoping shell construction permits the parts to be readily assembled, since the head 29 is of the same diameter as the body of the bolt, and the bolt can, therefore, be slipped through the hole or guide in the carrier 20.

It is obvious that various changes may be made in the details of construction without departing from the spirit of this invention, and it is, therefore, to be understood that this invention is not to be limited to the specific construction shown and described.

Having thus described the invention what is claimed is:

1. A sash fastener comprising a notched plate attached to the upper sash, a bolt pivoted on the lower sash and adapted to swing laterally into engagement with the notched plate to lock the sashes relatively, said bolt being adapted to ride along the edge of the plate and guide the parts into engagement, and means for moving the bolt to clamp the plate.

2. A sash fastener comprising a notched plate attached to the upper sash, said plate having an outer flange, and a bolt pivoted on the lower sash and adapted to swing laterally into engagement with the notched plate to lock the sashes relatively and to seat behind said flange, said bolt being adapted to ride along the edge of the plate and guide the parts into engagement.

3. A sash fastener comprising a notched plate attached to the upper sash and having an outer rearwardly disposed flange, a bolt pivoted on the lower sash and provided with a head, said bolt being adapted to ride along the edge of the plate and guide the parts into engagement and to swing laterally into said notches with its head engaging the rear face of said plate, and means for moving the bolt longitudinally to clamp the plate and engage the head behind said flange.

4. A sash fastener comprising a notched plate attached to the upper sash, a carrier vertically pivoted on the lower sash and provided with a pair of sleeves having co-operative threaded engagement, and a bolt adapted for engagement with said notched plate, said bolt being connected with the outer sleeve for movement longitudinally through the medium of said sleeve.

5. A sash fastener comprising a notched plate attached to the upper sash, a carrier pivoted on the lower sash and carrying a longitudinally movable bolt adapted, through movement of the carrier, to laterally engage said plate, and a pair of co-operatively threaded sleeves mounted on the carrier, one of said sleeves being operatively connected with and for moving said bolt longitudinally.

6. A sash fastener comprising a notched plate attached to the upper sash, a bolt having a vertical pivotal connection with the lower sash, and a pair of coöperating threaded sleeves connected for moving said bolt longitudinally.

7. In a sash fastener, a carrier adapted for attachment, a bolt having a bearing in said carrier, a sleeve on said carrier and a second sleeve on said bolt having adjustable telescopic engagement with the first named sleeve.

8. In a sash fastener, a carrier adapted for attachment, a bolt having a bearing in said carrier, and a pair of coöperating threaded sleeves connected for moving said bolt longitudinally.

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

FREDERICK HACHMANN.

Witnesses:

JOHN A. DOWDALL,

ARTHUR B. CREMER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."