

(No Model.)

H. MAEURER. WINDOW.

No. 404,792.

Patented June 4, 1889.

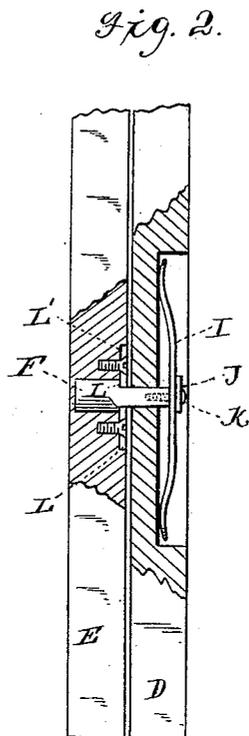
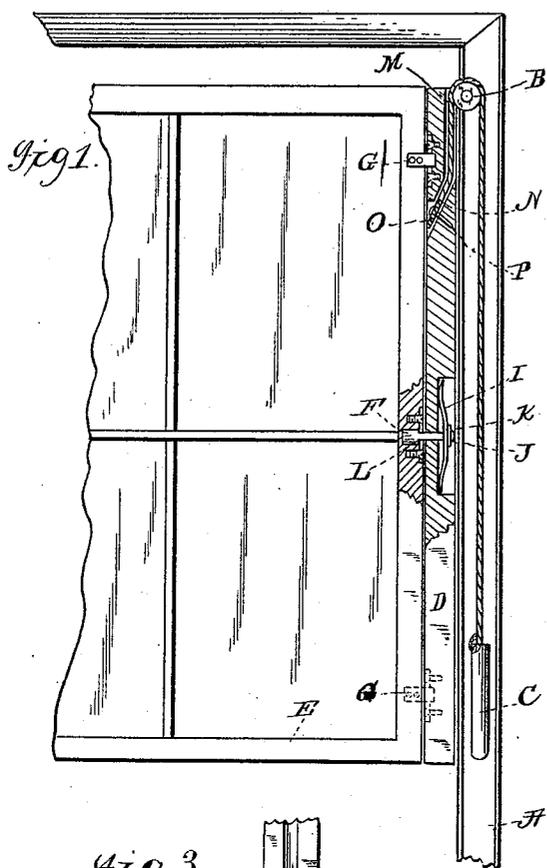


Fig. 3.

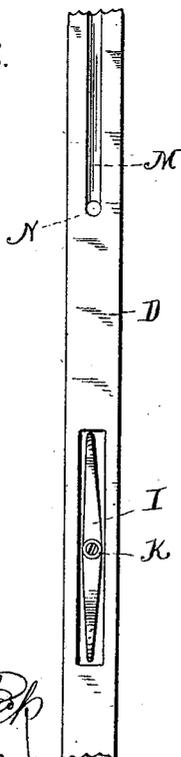
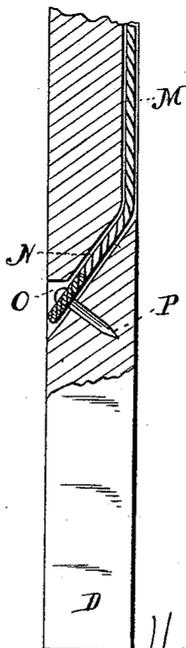


Fig. 4.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

HENRY MAEURER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO
WILLIAM HEINZMANN, OF SAME PLACE.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 404,792, dated June 4, 1889.

Application filed October 16, 1888. Serial No. 288,237. (No model.)

To all whom it may concern:

Be it known that I, HENRY MAEURER, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates to improvements in window-sash of the class in which the glass-holding frame swings on pivots, thus enabling the glass to be cleaned from the inside of the room. A United States patent was granted to me for window-sash of this kind dated September 25, 1888, numbered 390,179, and my present invention is an improvement upon the invention therein described, although it is not confined to swinging sashes of the specific construction set forth in that patent, but may be advantageously employed in all sashes of an analogous construction.

My present invention consists in the application of spring-pressure acting upon the sash-rabbit strip which slides in the rabbet in the window-casing, whereby it is held in close contact with the side upright of the glass-holding frame, thus excluding cold, heat, and dust, and also preventing rattling of the swinging frame.

My invention extends also to improvements in the method of introducing and fastening the weight-cord, whereby it may be quickly and easily replaced, if broken, without removing the glass-holding frame or the sash-rabbit strips from the window-casing, and whereby also better contact is secured between the sliding strips and the glass-holding frame.

In the drawings the same reference-letters indicate the same parts in all the figures.

Figure 1 illustrates a view, partly broken away and partly in section, of the window-casing, the front of which is removed and the sash slightly dropped, also the glass-holding frame and sash-rabbit strip. Fig. 2 illustrates an enlarged view of the pivot connecting the glass-frame with the sash-rabbit strip and the compression-spring applied thereto. Fig. 3 illustrates an edge view of a sash-rabbit strip, showing the spring-containing and the cord-containing recesses. Fig. 4 illustrates a sectional view of a sash-rabbit strip,

showing the direction of the cord-containing recess.

A is the window-casing, provided with the usual cord-wheel B and weight C.

D is the sash-rabbit strip.

E is the glass-holding frame, which is pivoted to the sash-rabbit strips on each side by the pivot F, all as described in my said former patent, or otherwise, if preferred. The upper and lower ends of the sash-rabbit strip D are also locked to the glass-holding frame and held firmly thereto, when closed, by the locking-fasteners G, also as set forth in said patent. These may be omitted, however, if preferred, and other means employed of holding the glass-frame from swinging when locked.

In order that the sash-rabbit strip may be held close to the side uprights of the glass-frame, I provide a recess *h* in the rear edge of the sash-rabbit strips, in which I place a spring I, the ends of which bear on the bottom of the recess. This may be a spiral spring, if preferred. If so, it encircles the end of the pivot F. If a flat spring, then a hole is made in it which fits over the end of the pivot, and in either case the spring is held in position by means of a washer J, which rests against the end of the pivot and overlaps the spring. It may be held in place by a screw K, tapped into the end of the pivot. In order that the tension of the spring may not work the pivots loose from their hold in the side uprights of the glass-holding frame, I provide a shoulder L on the pivot, against which a plate L', which is provided with a hole whereby it may fit over the small end of the pivot, rests, and this plate is firmly secured to the side of the glass-holding frame, as shown. By this means, as will be readily understood, the sash-rabbit strips are always firmly pressed against the sides of the glass-frame, and dust, heat, and cold are excluded, and all rattling of the frame prevented, and also a good smooth motion is given to the glass-frame during the act of swinging it, some little force being required so to do. This friction also prevents the frame from being swung too quickly, consequent on accidental dropping or letting go thereof while opening

the sash or as a result of gusts of wind or the like, which might occasion fracture of the glass.

The improvements in the weight-cord are as follows: I form a cord-recess M in the back edge of the sash-rabbit strips at their upper ends, and after extending it down the proper distance I continue it, in the form of a bored hole, as at N, preferably on an angle, as shown, through to the front edge of the sash-rabbit strips. Here I enlarge the hole somewhat, as at O, to receive the usual knot made in the end of the cord. I prefer, however, that the enlargement O should not be so great as to receive a knot, but simply that the wood at the upper angle formed by the intersection of the inclined cord-hole and the inner edge of the strip should be cut away, whereby I am enabled to drive or screw in a suitably-sharpened metallic peg or pin P, which may be threaded, if desired, and which, passing through the cord, the end of which should be preferably tightly wound with string, will firmly and very neatly fasten the cord.

From the foregoing it will be apparent that whenever it is desired to replace the cord all that is necessary to do is to tilt the glass-holding frame on its pivots. This exposes the end of the cord in the recess O. Then the pin can be readily withdrawn by pinchers if not threaded, or with a screw-driver if threaded, and the worn-out or broken cord withdrawn, and the new cord may then be pushed up through the cord-hole N and recess M until it appears at the upper end of the sash-rabbit strips, when it will be pulled through as far as required and the wound end thereof fastened by replacement of the pin, as before, and also that by reason of the cord passing from the rear side to the front side of the strip the effect of the weight is to tip the upper end of the strip forwardly into close contact with the sash-frame, thus supplementing the action of the spring I.

I prefer that the pin should pass through the cord and enter the edge of the strips; but it is obvious that it may pass through from side to side, if preferred; also, that the pin may be permanently left in the edge of the strip, its exposed end being sharpened, whereby the cord may be impaled upon it, room being of course left for the introduction of a new cord, when necessary, above the permanent pin; also, the pin may be blunt-ended, but permanent in the strip, and the cord may be untwisted or its strands opened above the wound extremity thereof to fit over the end of the pin, as by a loop.

Having described my invention, I claim—

1. The combination of a glass-holding frame pivoted at opposite sides to sliding sash-rabbit strips, said strips being provided with cord receiving recesses extending from the upper rear edge thereof through to the front edge thereof, substantially as set forth.

2. The combination of a glass-holding frame pivoted at opposite sides to sliding sash-rabbit strips, said strips being provided with cord-receiving recesses extending from the upper rear edge thereof through to the front edge thereof, and a cord-fastening pin, substantially as set forth.

3. The combination of a glass-holding frame pivoted at opposite sides to sliding sash-rabbit strips, said strips being provided with cord receiving recesses extending from the upper rear edge thereof through to the front edge thereof, and a spring which presses the sliding strip to the glass-frame, substantially as set forth.

Signed at Brooklyn, in the county of Kings and State of New York, this 11th day of October, A. D. 1888.

HENRY MAEURER.

Witnesses:

CHAS. LEOPOLD,
ALF. BERNHEIM.