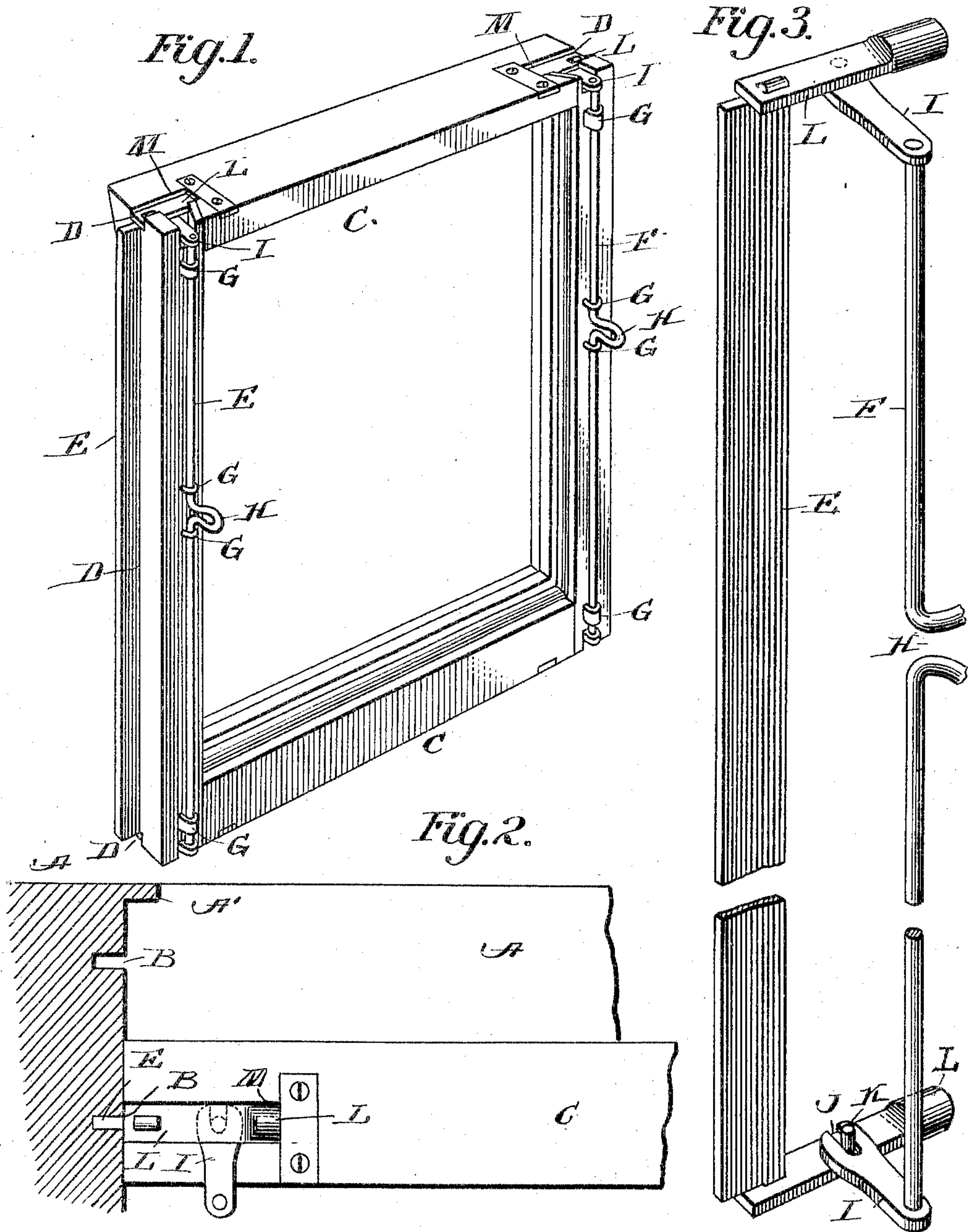


No. 780,264.

PATENTED JAN. 17, 1905.

M. J. CARTER.  
WINDOW.

APPLICATION FILED OCT. 31, 1904.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

MARTIN J. CARTER, OF ST. LOUIS, MISSOURI.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 780,264, dated January 17, 1905.

Application filed October 31, 1904. Serial No. 230,764.

*To all whom it may concern:*

Be it known that I, MARTIN J. CARTER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented new and useful Improvements in Windows, of which the following is a specification.

This invention relates to improvements in windows; and it has for its object the provision of means whereby the use of parting-beads and inside holding-stops is dispensed with and whereby the sash can be readily removed from the frame for cleaning and other purposes.

It consists in the novel construction, combination, and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a perspective view of a window-sash embodying the invention. Fig. 2 is an enlarged detail view showing a section of the frame and the upper corner of the inner sash. Fig. 3 is an enlarged detail perspective view, broken away in parts, showing the holding-blade and its operating mechanism.

In carrying out the invention an ordinary window-frame A is used. It is without parting-beads or inside stops, but may be provided with the outside stop A' for the outer sash to move against. In the sides of the frames are the vertical grooves B. The window-sash C is also of the ordinary construction, and in its edges are the recesses D. The latter are in such a position as to be directly opposite the grooves B in the frame. In each recess D is the metal blade E, provided with mechanism for moving the same into and out of engagement with the groove B of the frame.

Mechanism for operating the blade consists of the rod F, rotatably mounted in the bearings G on the stile of the sash. A handle H is provided for rotating the rod. At each end of the rod is the lever I with a bifurcated end J, that engages with the pin K on the arm L, secured on the end of the blade E. The sash is suitably recessed to receive the lever I and the arm L. The inner end of the arm

L enters the socket M in the sash and serves to steady and to guide the blade in its movements.

By turning the rod F through the intervening mechanism the blade E can be moved into and out of engagement with the groove B in the frame, so that the sash can be either held in the frame or be removed from the same. The blades on the opposite sides of the sash, registering with their respective grooves in the frame, permit the sash to be raised and lowered in the usual manner. As the blade is connected both at its top and bottom with the rotatable rod, a movement of the latter will move the blade the same extent throughout its length. This will prevent the blade from catching at its corners in the frame and also will permit a quick disengagement of the blade from the recess in the frame, and as both blades can be operated simultaneously the sash can be readily removed from the frame.

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

1. In a window, a frame provided with a groove, a sash having a recess in its edge, a blade movable back and forth in said recess in the sash and adapted to engage with said groove in the frame, a rotatable rod, a lever on said rod and engaging with said blade, and means for rotating said rod to move said blade into and out of engagement with said groove in the frame.

2. In a window, a frame provided with a groove, a sash having a recess in its edge, a blade movable in the recess in said sash, an arm on said blade, a rod rotatably mounted on said sash, a lever on said rod and having a sliding connection with said arm, and means for rotating said rod to move said blade into and out of engagement with the groove in said frame.

3. In a window, a frame provided with a groove, a sash having a recess in its edge, a blade movable in said recess in the sash, an arm on said blade, a pin on said arm, a rod rotatably mounted on said sash, a lever on said rod and having a bifurcated end engaging with said pin, and means for rotating said

rod to move the blade into and out of engagement with the groove in the frame.

4. In a window, a frame provided with a groove, a sash having a recess in its edge and  
5 provided with a socket adjacent to the recess, a blade movable in said recess in the sash, an arm on said blade and movable back and forth in said socket in the sash, a rod rotatably mounted on said sash, a lever on said rod and  
10 having a sliding engagement with said arm, and means for rotating said rod to move the blade into and out of engagement with the groove in the frame.

5. In a window, a frame provided with a  
15 groove, a sash having a recess in its edge and

provided with a socket adjacent to the recess, a blade movable in said recess in the sash, an arm on said blade and movable back and forth in said socket in the sash, a pin on said arm, a rod rotatably mounted on said sash, a lever 20 on said rod and having a bifucated end engaging with said pin, and means for rotating said rod to move the blade into and out of engagement with the groove in the frame.

In testimony whereof I affix my signature in 25 presence of two subscribing witnesses.

MARTIN J. CARTER.

Witnesses:

GRANT BURROUGHS,  
FRANCIS S. MAGUIRE.