(Model.)

H. C. BRUNER.

Sash Fastener.

No. 237,164. Patented Feb. 1, 1881.

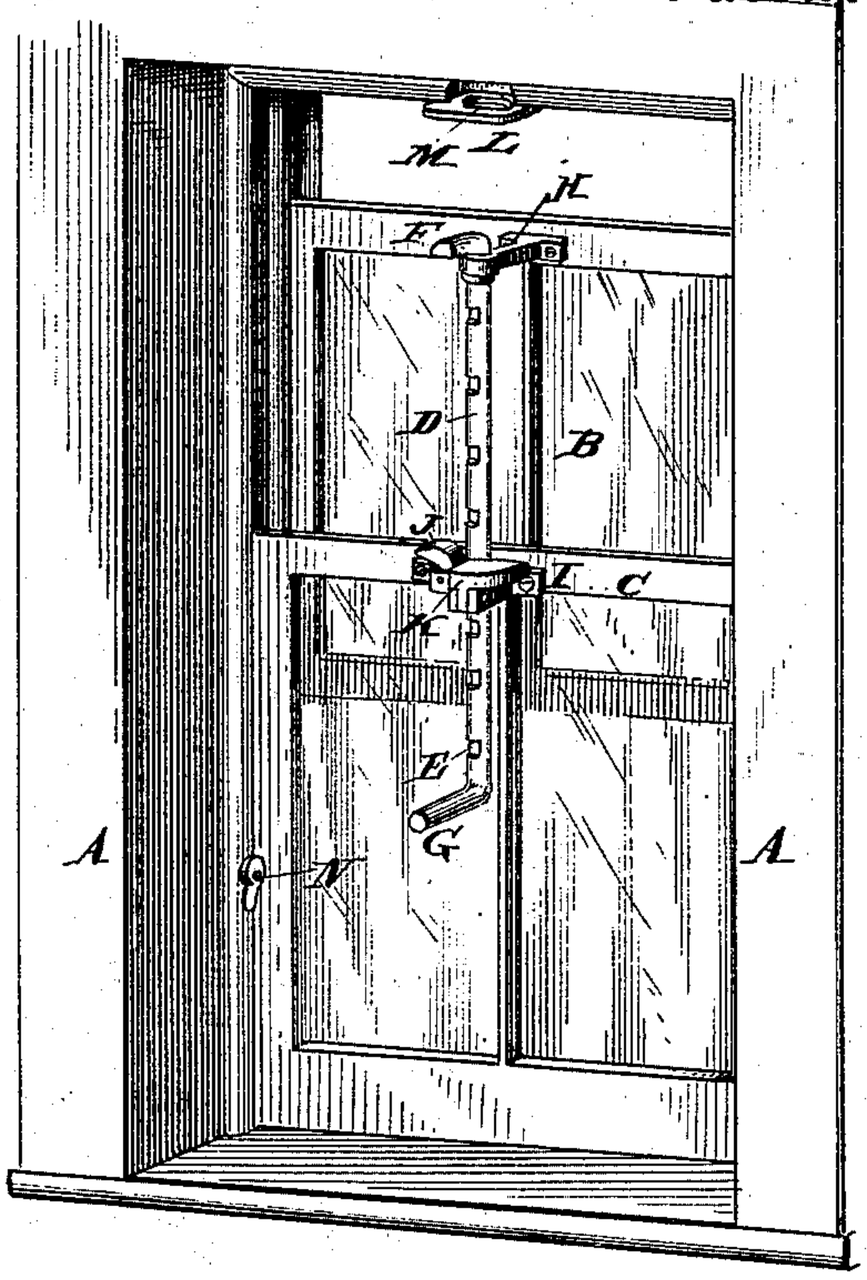

Fig. 1

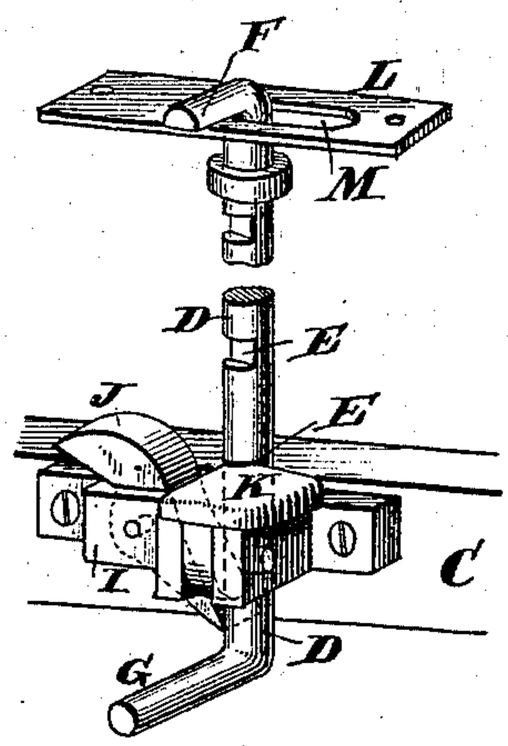

Fig. 4

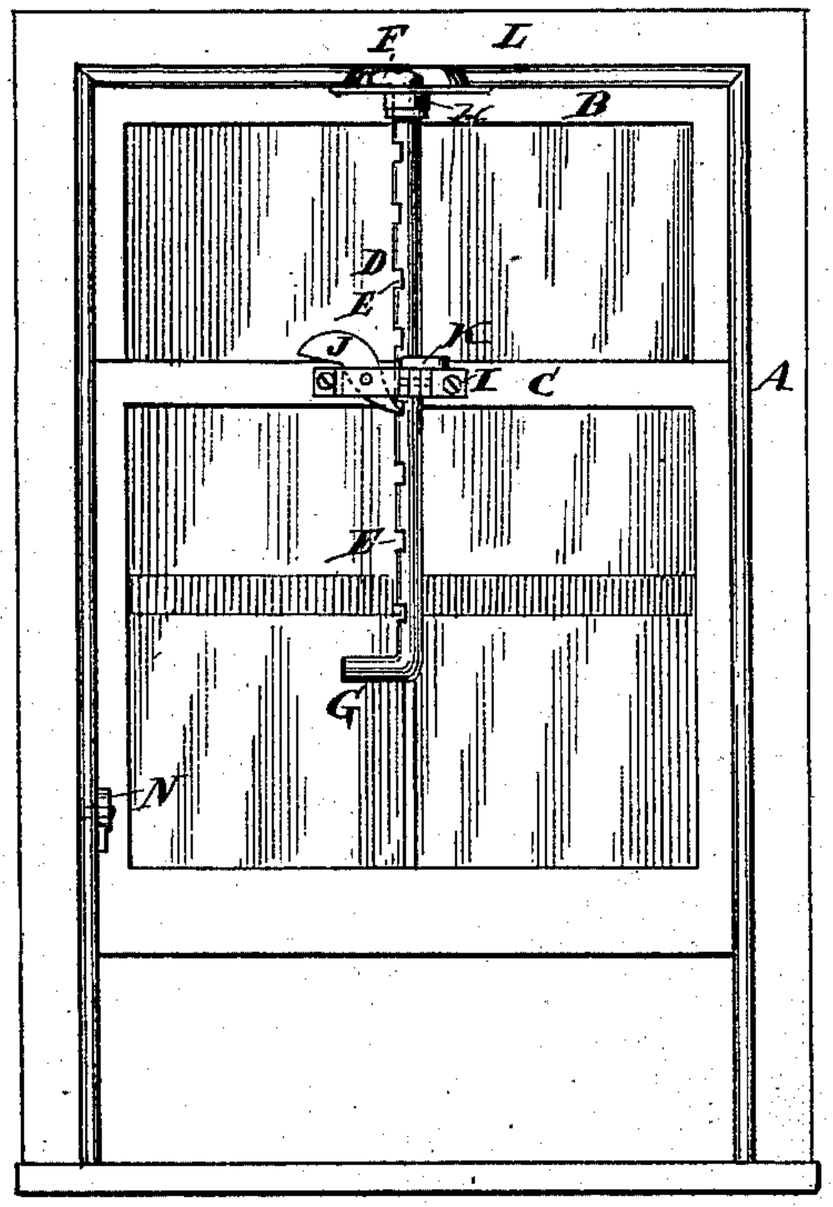

Fig. 2

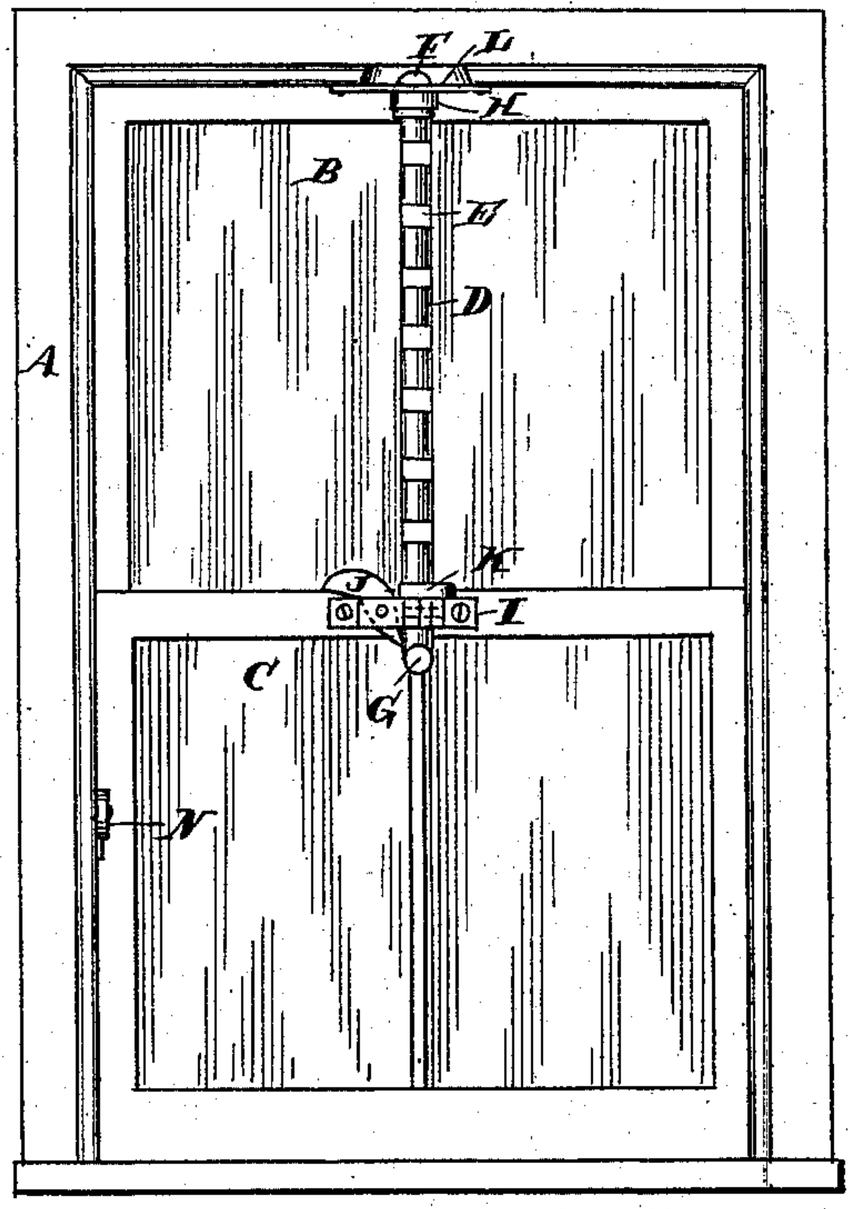

Fig. 3

Witnesses
Darius
L. J. Mathers.

Inventor
Hiram C Bruner
By his atty-
J. Thos Hunter

UNITED STATES PATENT OFFICE.

HIRAM C. BRUNER, OF LANSDALE, PENNSYLVANIA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 237,164, dated February 1, 1881.

Application filed December 2, 1880. (Model.)

To all whom it may concern:

Be it known that I, HIRAM C. BRUNER, of Lansdale, county of Montgomery, and State of Pennsylvania, have invented an Improvement in Window-Sash Locks, of which the following is a specification.

My invention relates to sash-locks for windows, but is more particularly designed to replace the balance-weights and their cords and boxes; and it consists in a notched arm or shaft free to be oscillated or rotated, and secured to the upper sash-frame, said bar working through a guide-box secured to the lower sash-frame, and provided with two pawls which operate in opposite directions; further, in securing to the window-frame proper a slotted plate in which a bent end at the top of the bar works, all of which mechanism is more fully set forth in the following specification, shown in the accompanying drawings, and referred to in the appended claims.

In the drawings, Figure 1 is a perspective view of a window embodying in it my invention. Fig. 2 is a front elevation of same, showing lower sash held up. Fig. 3 is also a front elevation, showing both sashes locked when the window is closed. Fig. 4 is an enlarged perspective view of pawl, lock, and rod.

A is the window-frame, and is made in the usual manner, but without weight-boxes.

B is the upper, and C the lower, window-sash.

D is a rod or bar, notched along one side at E, and provided on either end with bent arms F G, which extend from the bar on the same side upon which the notches are located. This bar D is held from vertical movement, but allowed oscillating or rotating movement in a box or bearing, H, secured to the top of the upper sash, B, as shown. The bar slides through the pawl-box I, located and secured to the lower sash, C, at the top, and directly under box H. This box I is provided with two pawls, J and K, which operate in opposite directions.

Secured to the top of the window-frame, and immediately above the box H, is a plate, L, provided with a slot, M.

The side of the lower sash, C, may be provided with a cam-catch, N, of any well-known construction.

The operation is as follows: To lock the window, let the lower sash, C, down to its lowest position; then turn the arm G to the right to a position parallel to the window; then raise it up, which action also raises the upper sash, B, and the arm F will pass through slot M in plate L; then turn the arm G to a position perpendicular to the window, and the pawl K drops into the lowest notch E in the bar D, and the upper sash will be locked by the plate L and the lower sash by the pawl K. This is shown in Fig. 3. To raise the lower sash, turn the arm G to the left until parallel to the window; then raise the sash C to any height desired, and the weighted pawl J, catching in the notches E of bar D, prevents the sash from descending, as shown in Fig. 2. To lower the upper sash, let the lower sash be down; then turn the arm G to the right until parallel to the window; then lower to the desired position, and then turn the arm to a position perpendicular to the window, and the pawl K will lock it in that position by engaging a notch, E, as shown in Fig. 1. To raise the lower sash and lower the upper sash for ventilation, turn the arm G perpendicular to the window and raise the lower sash to any desired height; then secure it there by the cam lock or catch N; then perform the operation described above to lower the upper sash, and both the upper and lower windows are opened.

If desired, the notches and pawls may be dispensed with and cam friction-catches used.

Sash-locks have been made in which a rod has been hinged to the upper part of the upper sash and provided with a hole in the lower end, which, when both window-sashes were closed, fitted over a pin in the lower sash, and the weight-boxes, cords, and weights were used; hence the upper window-sash could be raised or lowered by pushing or pulling on the rod, and the windows could be locked when closed, and then only. Sash-locks have also been made in which a notched rod was rigidly fixed in the window-frame and the windows provided with spring-catches, which caught in the notches and supported the window-sashes in any desired position; but neither of these is as good as mine, and both are very imperfect.

The object of my invention is to dispense

with the expensive weight-boxes, the weights, their cords, and sash-locks, and substitute therefor a simple device which will perform the same function at a much reduced cost.

I am aware of the patent to Danforth, No. 89,205, and do not claim anything therein shown and described.

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

1. A window-sash lock consisting of a rod oscillating or rotating in a fixed bearing secured to the upper sash, and at the bottom sliding through a box or bearing secured to the lower sash, in combination with mechanism on the lower sash to lock said rod in its highest, lowest, or any intermediate position, substantially as and for the purpose specified.

2. In a window-sash lock, a rod oscillating or rotating in a fixed bearing secured to the upper sash, provided with mechanism to lock it to the top of the window-frame and mechanism to lock it in any position to the lower sash, substantially as and for the purpose specified.

3. In a window-sash lock, the combination of notched bar D, oscillating or rotating in a fixed bearing secured to the upper sash, B, and provided with arm F, slotted plate L, secured to the top of the window-frame, box I, secured to the lower sash, C, to guide the bar D, and provided with pawls J K, or their equivalent, working in opposite directions, substantially as and for the purpose specified.

4. In a window-sash lock, the combination of bar D, secured to the upper sash, B, by a bearing, and capable of oscillating or rotating therein, arm F, and slotted plate L, secured to the top of the window-frame A, substantially as and for the purpose specified.

5. In a window-sash lock, the combination of upper sash, B, lower sash, C, rod D, secured to the sash B by a bearing, and capable of oscillating or rotating therein, and provided with notches E, guide-box I, and pawls J and K, which work in opposite directions, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

HIRAM C. BRUNER.

Witnesses:
ROBT. A. CAVIN,
SAMUEL E. CAVIN.