(No Model.)

E. W. PHILBROOK.

WEATHER STRIP.

No. 305,471. Patented Sept. 23, 1884.

Fig. 1.

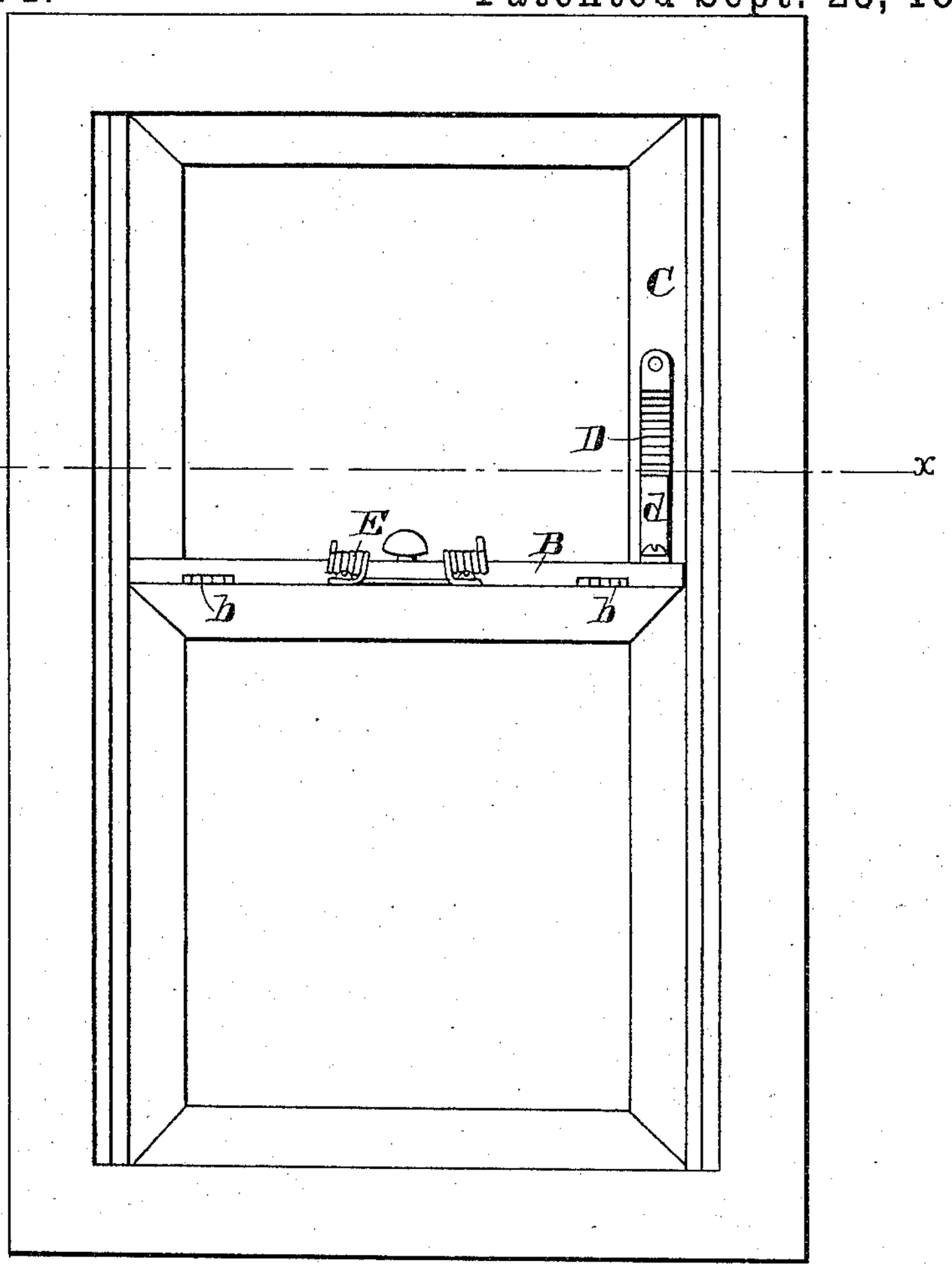


Fig. 2.

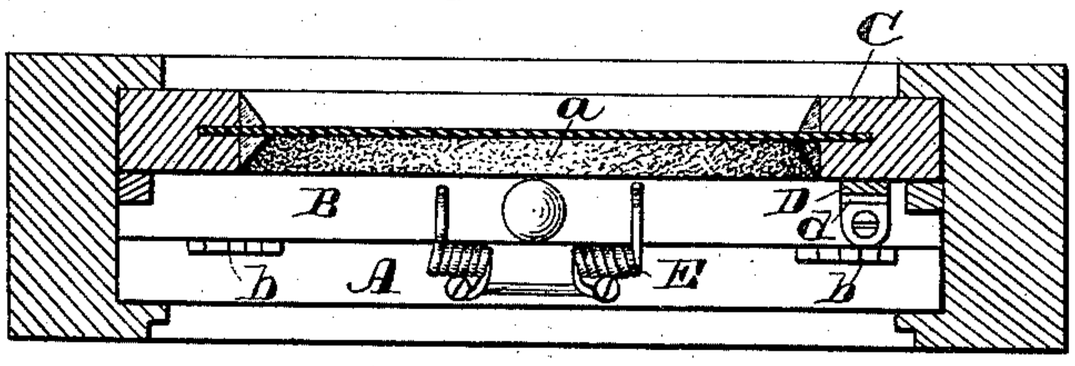
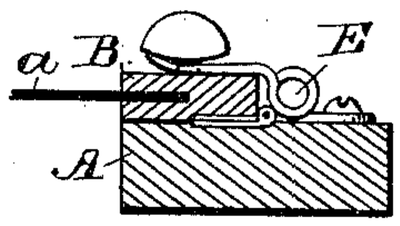


Fig. 3.



Witnesses
Wm. J. Danner
Philip Baumann.

Inventor
Emmeline W. Philbrook
by A. Pollok
her attorney.

UNITED STATES PATENT OFFICE.

EMMELINE W. PHILBROOK, OF BOSTON, MASSACHUSETTS.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 305,471, dated September 23, 1884.

Application filed May 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, EMMELINE W. PHILBROOK, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in a Combined Weather-Strip and Window-Lock, which improvement is fully set forth in the following specification.

The object of this invention is to provide a device or attachment to be applied to the windows of houses, railway-cars, &c., whereby air may be prevented from entering between the meeting-rails of the sashes, and whereby, also, the window may be locked in any position—either closed or more or less open.

It is often desirable to leave a window slightly open at night for the purpose of ventilation, but with the window-locks in general use this necessitates leaving the window unfastened. With the locking attachment herein described the window is secured in any position and cannot be opened farther from the outside. The device is also useful for railway-cars, the windows of which are usually so contrived as to be fastened only in two or three positions, and if raised but slightly are liable to fall by reason of the jar of the train.

In carrying out the invention a thin strip of wood as long as the width of the sash is hinged at its outer edge to the top rail of the lower sash. From its inner edge projects a strip of stiff rubber-cloth or similar material, extending to the glass of the upper sash. By this device the space between the two rails is closed to the passage of air, whether the window be open or closed. At one end of the strip is a fastening device—such as a spring catch or pawl—which, when the strip is flat upon the rail, (in which position it is or may be normally held by a spring,) engages a corresponding device on the upper sash-frame. To raise the window, the strip is turned on its hinges, disengaging the fastening devices. When released, the spring restores the strip to its normal position.

The device is particularly advantageous for use in connection with a ventilating window-screen—such as introduced into the window-frame above or below the sash—since it locks the sash against the frame of the screen, and by closing the aperture between the two sashes compels all the air entering the room to come through the wire-gauze screen.

The accompanying drawings, which form a part of this specification, illustrate a window attachment constructed in accordance with the invention, Figure 1 being a front elevation, Fig. 2 a cross-section on line *x x*, and Fig. 3 a partial vertical section.

B represents a thin strip of wood secured by hinges *b* to the top rail, A, of the lower window-sash. From the inner edge of strip B projects the weather-strip *a*, of rather stiff rubber-cloth, felt, or similar material, entirely filling up the space between the rail A and the glass of the upper sash, C. The ends of strip *a* are cut to fit the molding of the upper sash-frame. The strip B carries at one end a spring catch or pawl, *d*, which normally engages one of the teeth of the rack-bar D, fastened by screws or otherwise to upper sash-frame. When the strip B is in its normal position, the engagement of these devices effectually prevents the opening of the window either at top or bottom.

The action of the weather-strip and locking device is rendered automatic by means of a suitable spring, E, bearing upon the strip B. If preferred, however, the spring need not be used, in which case the strip must be manually returned to its proper position when the sash has been raised to the desired height.

To raise or lower one of the sashes, the strip B is turned on its hinges sufficiently to disengage the devices D *d*, when the window can be raised the desired distance. On releasing the strip B it immediately resumes its normal position under the influence of spring E, and the catch or pawl *d* engages one of the teeth of bar D, automatically locking the window at that point. Since the strip *a* extends to the pane of glass of the upper sash, it acts to exclude the air at that point when the window is open as well as when closed. This is specially desirable when the device is used in connection with a window-screen ventilator, such as described in Letters Patent No. 286,555, granted to me October 9, 1883. When such device is inserted in the window-frame, the sash being sufficiently raised (or lowered) to admit it, there would ordinarily be a considerable opening between the glass of one sash

and the rail of the other through which quantities of dust and insects can pass, thus to a certain extent defeating the purposes of the screen. By the present invention, however, this objection is removed, and all the air entering the apartment must pass through the wire-gauze of the screen.

The locking device described, besides possessing the advantages of automatic action and of securing the window in an open as well as a closed position, is much more efficient than the devices ordinarily applied to the meeting-rails of sashes, which, as commonly constructed, can be pushed aside by inserting a knife-blade between the two sash-rails. In the present case the crack between the rails is effectually closed by the weather-strip, which itself is locked by the devices D *d* as well as the window.

Where the sash has two panes or more, the strip *a* must be cut to fit the vertical divisions of the sash, and where the sash is divided horizontally as well, the strip B must be turned on its hinges enough to clear the part *a* of such divisions on raising the window to its full height.

If it is desired that the lock shall prevent the closing as well as the opening of the window, (as in case it is applied to the car-windows,) the teeth of bar D would of course be made with two straight faces to engage the catch or pawl *d* on both sides.

The strip B would preferably be made of the same material and finish as the window-frame, since it may be made a permanent part thereof, being useful in all seasons.

It is obvious that parts of the invention may be used separately—for example, the window-lock without the weather-strip—and that modifications in details of construction may be made without departing from the spirit of the invention.

Having now fully described the said invention and the manner of carrying the same into effect, what I claim is—

1. The combination, with the meeting-rails, of the weather-strip and locking device for locking the window in either an open or closed position, substantially as described.

2. The combination, with the meeting-rails, of the hinged weather-strip and the spring bearing upon the latter, substantially as described.

3. The combination, with the meeting-rails, of the weather-strip hinged to one of the rails and extending to the glass of the other sash, and the locking devices, substantially as described.

4. The combination of the hinged weather-strip and the automatic locking device, substantially as described.

5. The combination of the weather-strip, the spring catch or pawl carried thereby, and the rack-bar on the sash-frame, whereby the window may be locked either open or closed and the strip simultaneously locked in place, substantially as described.

6. The combination of the hinged strip, the locking devices, and the spring acting to throw said devices into engagement.

7. The combination of the sash-frames, weather-strip hinged to one of the meeting-rails, spring acting on said strip, spring catch or pawl carried by said strip, and rack-bar on the sash-frame, all constructed and operating substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EMMELINE W. PHILBROOK.

Witnesses:
RODNEY F. JOHONNOT,
JAMES A. L. WHITTIER.