(No Model.)

E. P. GILMAN.

SASH LOCK AND HOLDER.

No. 345,779. Patented July 20, 1886.

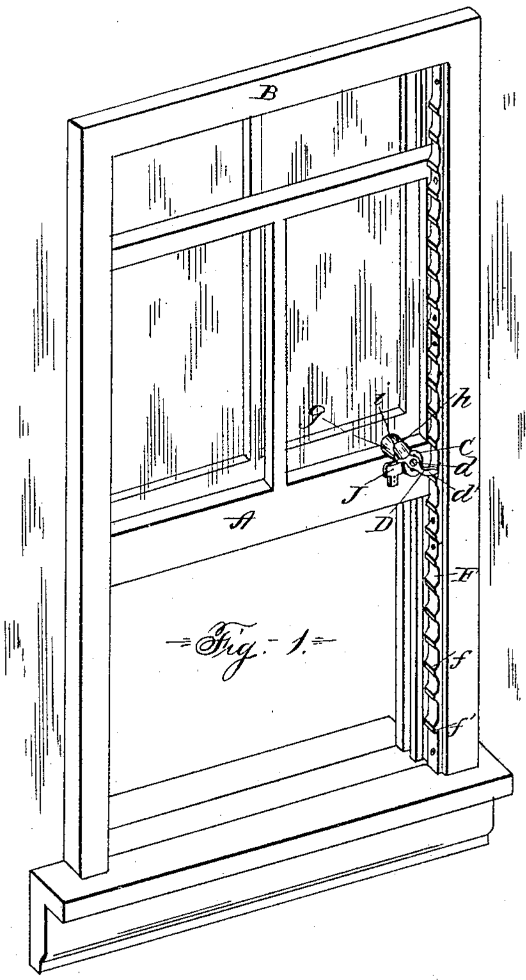

Fig. 1.

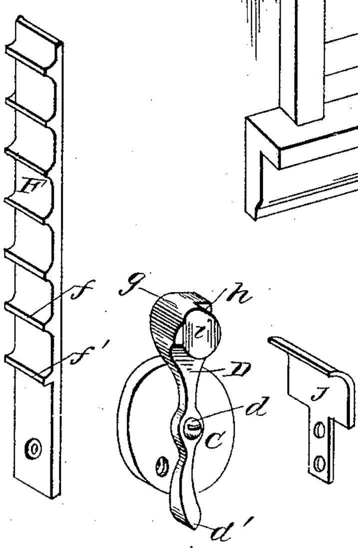

Fig. 3.

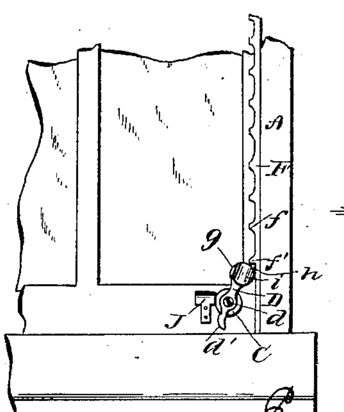

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

EVERETT POWERS GILMAN, OF JACKSONVILLE, FLORIDA, ASSIGNOR OF THREE-FOURTHS TO EDWARD D. ROCKWELL AND DANIEL T. GEROW, BOTH OF SAME PLACE.

SASH LOCK AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 345,779, dated July 20, 1886.

Application filed April 21, 1886. Serial No. 200,055. (No model.)

To all whom it may concern:

Be it known that I, EVERETT POWERS GILMAN, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented a new and useful Improvement in Combined Sash Locks and Holders, of which the following is a specification.

My invention relates to improvements in window-sash holders and locks; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and specifically pointed out in the claim.

The object of my invention is to provide an improved sash holder and lock which shall be simple and strong in construction and cheap and inexpensive of manufacture.

With these ends in view my invention may be said briefly to consist in a swinging arm or bar that is pivoted centrally to the sash and carried thereby in its adjustments, one end of the arm being adapted to engage with the teeth of a rack-bar that is secured to the window-frame, and to support the sash at any desired elevation, while the other end of the swinging arm is weighted and provided with an angular shoulder that is adapted to take against the lowermost tooth of the rack to lock the sash against vertical movement, and in other minor details of construction, that will be presently pointed out and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a sash holder and lock embodying my invention. Fig. 2 is a front elevation showing the device adjusted for use as a sash-lock. Fig. 3 is a detached perspective view of the parts of my invention detached from the sash and the frame thereof.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the vertically-sliding sash, and B the window-frame, both of which are of the ordinary or any preferred form at present in use, my improved sash-holder being applicable to windows of all classes.

C designates the base-plate of my improved sash fastener or lock and holder, which is of any desired shape and size and secured to the sash A and carried thereby, said base-plate being arranged at one of the lowermost corners of the sash, and secured thereto by screws or other suitable fastening devices.

D is the swinging arm or bar of my improved sash lock and holder, which is pivoted at or near its middle on a pin or shaft, *d*, that is secured in and carried by the base-plate C of the device, and the lower end of the swinging arm or bar is reduced and tapered to form a narrow end or point, *d'*, that is adapted to engage with one of a series of teeth, *f*, on a rack-bar, F, that is secured by means of screws or equivalent devices to the window-frame B, adjacent to the sides of the sash on which the base-plate and swinging arm are arranged. The upper or opposite end of the swinging arm or bar is enlarged to provide a counter-weight, *g*, and this weight is provided on one side, adjacent to the rack F, with an angular shoulder, *h*, that projects outwardly therefrom, and is adapted to engage with the lowermost tooth, *f'*, of the rack-bar F when the sash is lowered, to lock the latter in place and prevent it from being raised from the outside of the house. The enlarged counterweighted end of the swinging arm is further provided with a concave face, *i*, that provides means whereby the thumb or finger of the operator can readily oscillate it on its pivot. The swinging arm is arranged in a vertical position, and when it is oscillated the counter-weight on the upper end thereof is thrown out of the line of gravity, so that the upper or lower end is normally maintained in engagement with the teeth of the rack. The sash is provided with a stop-pin or finger-piece, J, that is secured thereto by screws or otherwise, and in close proximity to the swinging arm, so that when the lower end of the arm is thrown inwardly to engage with the rack, to adapt the device for use as a holder, the counterweighted end of the arm rests on the stop or finger-piece J, and is limited thereby in its movements and prevented from being accidentally thrown out of operative position.

The rack F may be made in one continuous piece or in sections, and it is suitably secured to the window-frame, as described.

This being the construction of my invention, the operation thereof is as follows: When the sash is lowered, the upper counterweighted end of the swinging arm is forced toward the rack F, so that it is thrown away from the finger-piece J, and its shoulder *h* engages with the lower tooth, *f'*, of the rack, and thus prevents the window from being raised by a person from the outside, the device in this position serving as a lock or fastener to the sash. To raise the sash it is only necessary to force the counterweighted end of the swinging arm laterally and away from the rack, and thus throw the lower end thereof in engagement with the teeth and the upper end in contact with the finger-piece J. The teeth of the rack are inclined or curved as shown, and when the sash is raised the lower end of the swinging arms slides over the teeth, and consequently cannot engage with the same until the sash is lowered or stopped, when the pointed end will engage with one of the series of teeth and hold the sash at the point of elevation to which it is raised. When the sash is being raised, the counterweighted end of the arm serves to normally hold the lower end in contact with the teeth of the rack, over which they slide, and when it is desired to lower the sash the swinging arm is oscillated, so that the lower end thereof is forced away from the rack-teeth, and the shoulder *h* of the head of the arm glides over the teeth until it reaches the lower tooth, *f'*, and the sash touches the bottom of the window-frame, where the shoulder engages with the tooth, and prevents the sash from being elevated until the position of the swinging arm is reversed.

I attach especial importance to the swinging arm being pivotally connected centrally to and carried by the sash, and having the pointed and counterweighted end, the latter end being provided with an angular shoulder and adapted to engage with a rack, whereby the device can be adjusted for use, and subserve the functions of a combined sash holder and lock, as therein lies the gist of my invention.

If desired, the swinging arm may be pivoted directly to the sash and the base-plate dispensed with; but I prefer to employ the base-plate, and to pivot the arm thereto, and other slight changes in the form and proportion of parts can be made without departing from the spirit of my invention.

By the use of the centrally-pivoted swinging arm having the upper counterweighted end and the lower jointed end, the device serves both as a lock and holder, and both of the hands of the operator are free to elevate or lower the sash, which is very desirable at times, because the sash is liable to swell in damp or wet weather, and is difficult to raise with one hand. In elevating the sash, the counterweighted upper end of the swinging arm is thrown to one side, to bring the lower end thereof in engagement with the rack, and the said lower end slides easily over the rack without requiring the attention of the operator, whose hands are left free to elevate the sash; and when the sash is lowered the position of the arm is reversed to throw the lower end thereof away from the rack and the upper end in engagement with the rack, that is free to slide over the same without requiring the operator to hold the arm in place, as will be readily understood.

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

As an improvement in combined sash holders and locks, a rack having the teeth *f* and the shoulder *f'*, in combination with a swinging arm, C, formed of a straight piece and pivoted at its middle to a sash and carried thereby, the lower end of the arm being pointed and adapted to engage with the teeth *f*, to retain the sash in an elevated position, and the upper end of the arm having an enlargement that forms a counter-weight, *g*, and a projecting shoulder, *h*, adapted to engage with the shoulder *f'*, and prevent the sash from being moved vertically, substantially as described, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EVERETT POWERS GILMAN.

Witnesses:

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WHITFIELD WALKER.