

(No Model.)

C. E. LUCAS.
SASH HOLDER.

No 509,042.

Patented Nov. 21, 1893.

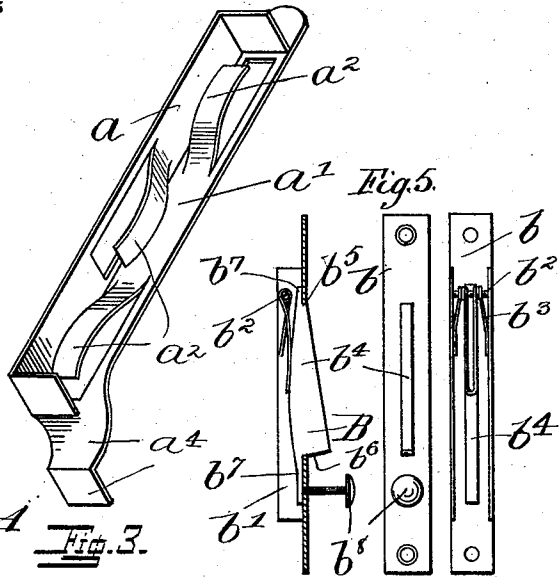
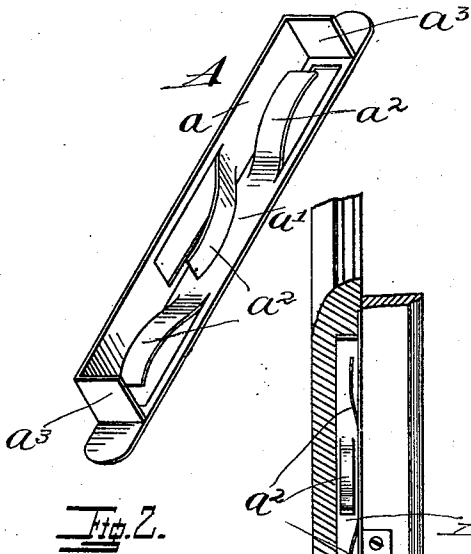
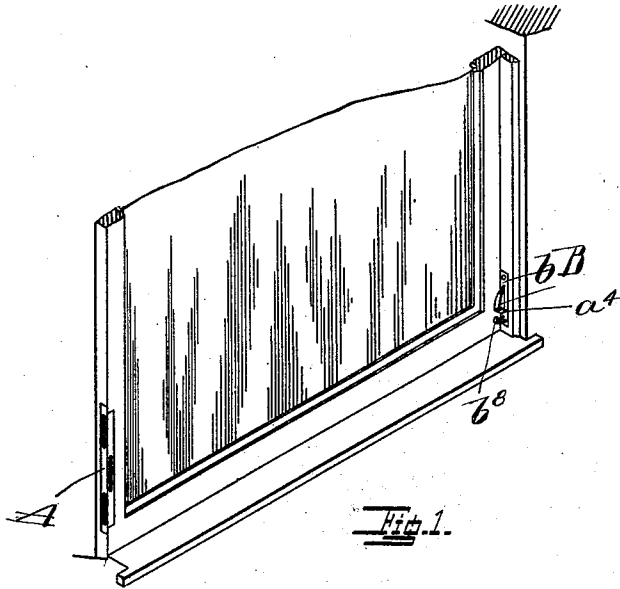
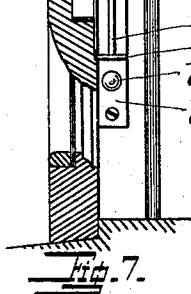


Fig. 4 Fig. 5.

Witnesses
L. P. Hayden.
E. P. Wood.



Christian E. Lucas, Inventor

By his Attorneys,

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UNITED STATES PATENT OFFICE.

CHRISTIAN E. LUCAS, OF ATLANTA, GEORGIA.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 509,042, dated November 21, 1893.

Application filed March 14, 1893. Serial No. 465,999. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN E. LUCAS, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Sash-Fitting Springs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to

10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

15 This invention relates to car windows especially having for its object the exclusion of dust and the prevention of rattle and the sudden closing of the window due to a looseness of the parts within the frame due to shrinkage and other causes, and to locking said sash down, the invention consisting in a novel spring-pressed friction piece which operates to hold the sash firmly pressed against the inside or outside stops of the frame, and an extension thereof and means for engaging same to lock the sash down the details of all of which will be hereinafter fully specified.

In the accompanying drawings:—Figure 1 is a perspective view of a portion of a sash showing the spring in position and also the projecting portion of the other spring. Fig. 2 is an interior view in perspective of a spring such as shown on the left hand side of the sash in Fig. 1 this figure showing the peculiar arrangement of the springs and angle plate. Fig. 3 is a perspective view of the interior of the other spring showing the projected portion thereof. Fig. 4 is a section of the spring latch. Figs. 5 and 6 are respectively front and back views. Fig. 7 is a sectional view showing the latch and projection-conveying spring and the manner of their engagement.

In the figures like reference marks indicate corresponding parts in the several views.

25 As ordinarily constructed, springs for the purpose specified, have been so faultily arranged or constructed as to abrade some part of the window construction, or to themselves wear sharp and catch in the woodwork not only preventing the operation of the window but being a constant source of trouble and injury to the woodwork. Upon an understand-

ing of my device and its operation it will be seen that all these troubles are obviated.

The angle piece A is composed of the sides a and a' riveted at approximately a right angle to each other to fit the sash frame each of which sides a and a' have springs a^2 projecting from their inner sides, properly cut and upset integrally, although this construction is obviously immaterial except as to cost of manufacture. These springs springing from their point of attachment on the inner faces of the sides a and a' are raised to a point for contact and then curved backwardly to the end so as to present a curved point for contact with the sash, and they may be of any number desired although the number and arrangement shown is considered sufficient. Guides a^3 are either affixed in the angle formed by the sides a and a' , or may be bent up integrally from one of the said sides as shown, said guides entering saw cuts made in the sash and having play therein so as to allow movement of either of the sides of the angle pieces to and from the sash but obviously compelling said angle-piece to follow the sash in its upward and downward movements. The corners formed by the sides and ends of the parts a and a' may be rounded by cutting or bending—to prevent any possible cutting into the woodwork.

The device is attached as shown in Figs. 5 and 6 by just making the incisions the required distance apart for the guides a^3 into each side rail of the sash and then affixing the piece A thereon in such a manner that one of the sides of each will press against the jamb and the other against one of the beads, the sides pressing against the jamb causing a resistance to the gravity of the sash and the sides pressing against the bead firmly holding the sash against the opposite bead excluding dust and assisting the other side in the frictional resistance to gravity and both operating to prevent rattling of the sash. At the lower end of one of these spring-plates an extension a^4 is formed, which projects downwardly and then outwardly as best shown in Figs. 3 and 7. When the plate is in place this projected portion rests along the front side of the sash, the end portion standing at a right angle therewith. In order to automatically engage said extension and so hold

the sash locked down, a spring latch B has been devised, which is constructed as follows: A plate b is punched out, and a slot made therein, also a hole for the push button and other holes for screws used in attaching. The edges of said plate are bent downwardly forming sides b' . A pin b^2 is suitably secured between and across these sides. A spring b^3 formed as shown in Fig. 5 is mounted on said pin b^2 and the latch b^4 having shoulders b^5 and b^6 and lips b^7 is soldered or otherwise suitably secured thereto, the main portion thereof projecting through the slot just mentioned. It will be seen that under strain in operation the entire resistance is furnished by the shoulder b^5 and the lips b^7 all said strain being thereby removed from the pivoting element and thrown directly on the plate B which obviously cheapens the construction and makes the device stronger than could be made otherwise in the same space. A push-button b^8 is so arranged that the latch may be caused to recede through the plate by the application of force to the said button. The latch is set together with its frame in the stop or other woodwork of the window frame in such a position that the latch will engage the horizontal portion of the extension a^4 and so lock the sash down until such engagement shall be disrupted.

This device is more especially designed for use in the windows of railway cars but it may

obviously be employed in connection with the sliding elements of any building where the exclusion of dust and the prevention of rattle are desired.

I am aware that devices used for like purposes and having out-thrusting springs, have been used, as is shown in the patent to Stone, No. 263,240, and I do not therefore, claim broadly such construction.

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

1. As a new article of manufacture, a sash spring consisting of the angle piece A formed of plates a and a' set substantially at a right-angle, and the springs a^2 projecting inwardly from said plates and guide pieces a^3 fixed in the angle of said piece A, substantially as and for the purpose specified.

2. The combination of the angle piece carrying on its inner sides springs acting to press same outwardly, guide-pieces a^3 set in the angle of said angle-piece, and an extension a^4 having its lower end turned outwardly, with a spring pressed catch, substantially as and for the purpose specified.

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

CHRISTIAN E. LUCAS.

Witnesses:

A. P. WOOD,
E. P. WOOD.