No. 610,380. Patented Sept. 6, 1898.

L. H. BROOME.

SWINGING WINDOW SASH.

(Application filed Sept. 13, 1897.)

(No Model.)

Fig. 4.

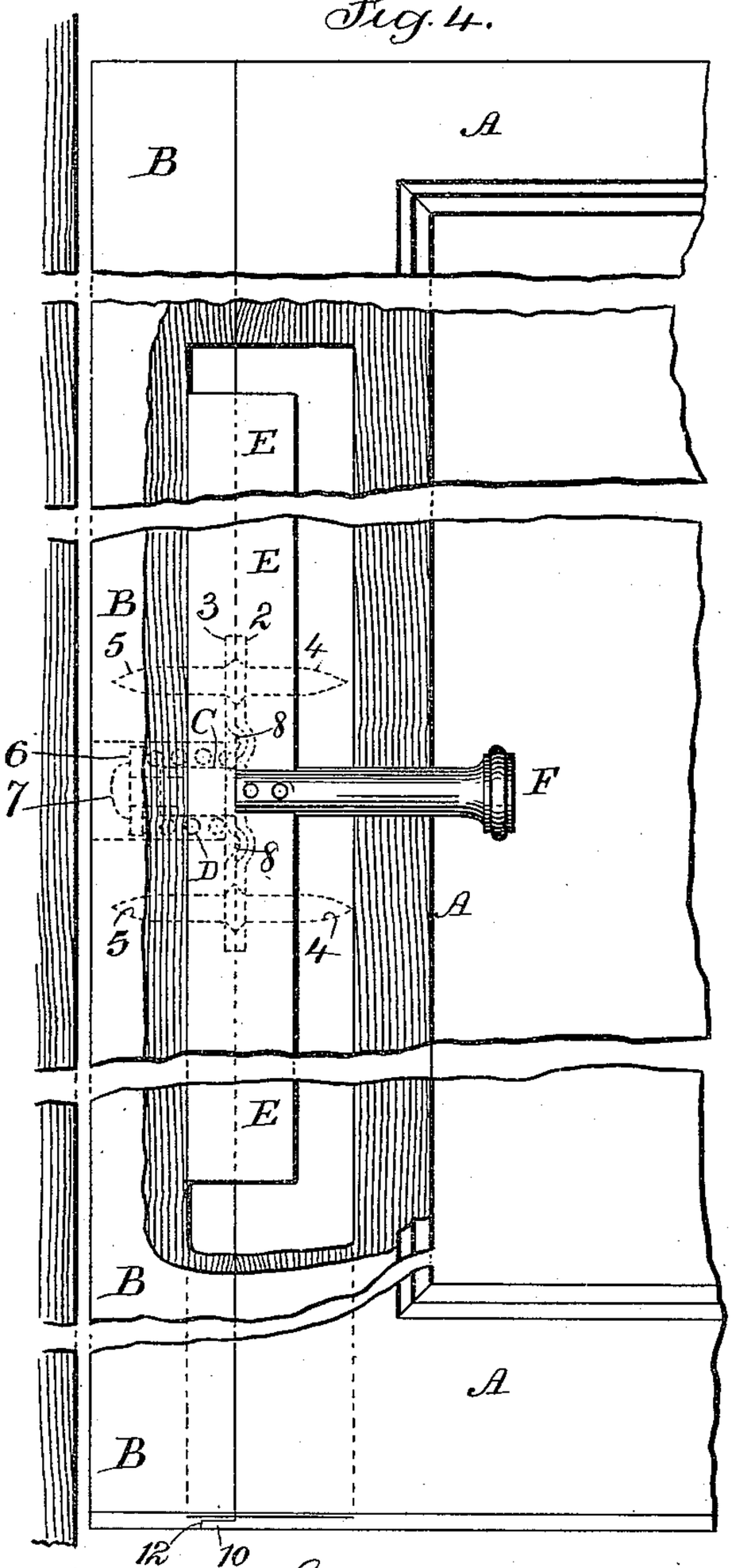


Fig. 2.

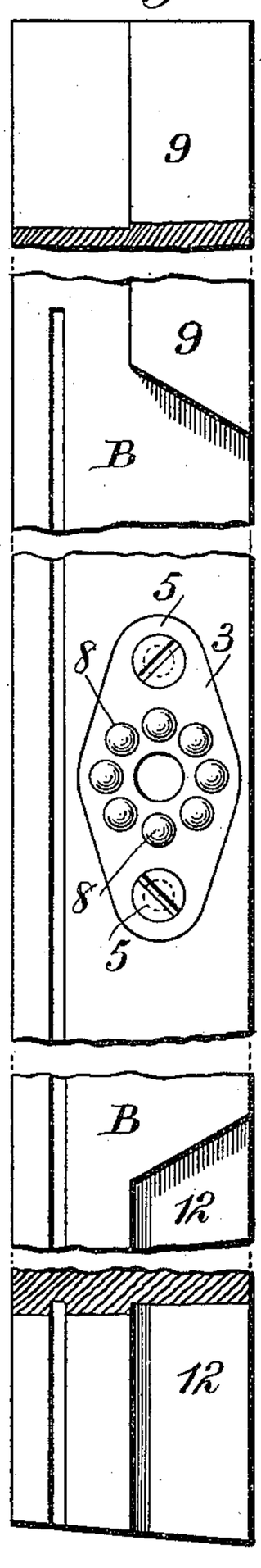


Fig. 3.

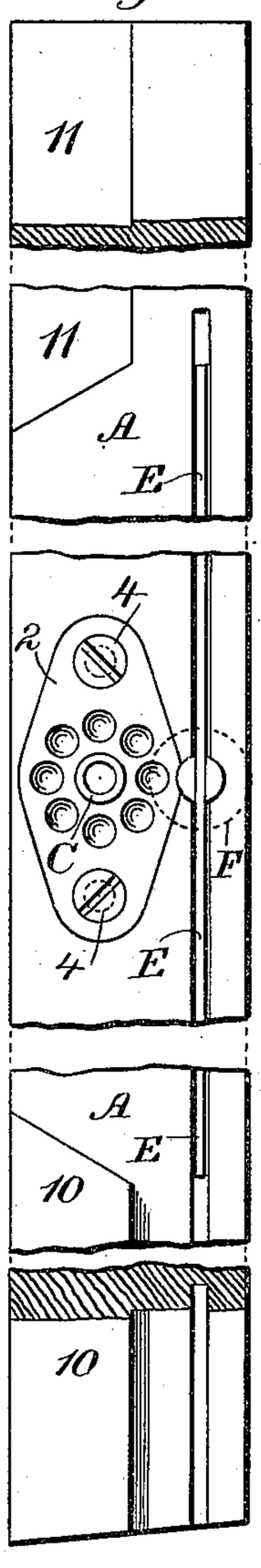
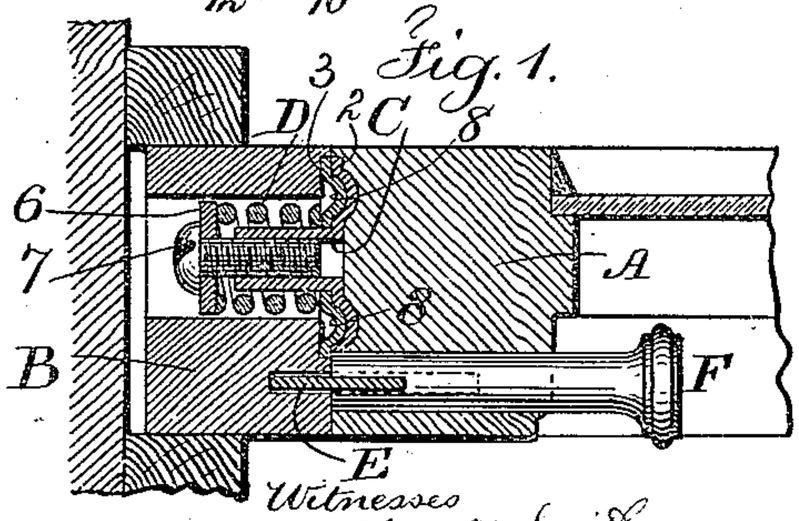
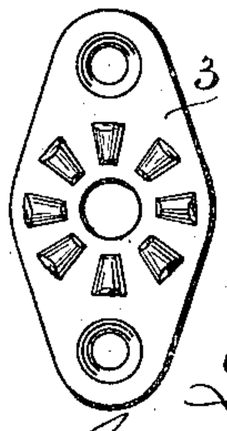


Fig. 1.



Witnesses
Chas. H. Smith
J. Stair

Fig. 5.



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Attys

UNITED STATES PATENT OFFICE.

LEWIS H. BROOME, OF JERSEY CITY, NEW JERSEY.

SWINGING WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 610,380, dated September 6, 1898.

Application filed September 13, 1897. Serial No. 651,398. (No model.)

To all whom it may concern:

Be it known that I, LEWIS H. BROOME, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented an Improvement in Swinging Window-Sashes, of which the following is a specification.

In Letters Patent No. 583,976, granted to me, a strip of metal is contained within a saw-cut in the sash, and it engages a saw-cut in the sash-strip that slides in the window-frame, and this metal strip has been drawn back by a handle passing through the sash. Sashes and transoms have also been fitted to swing upon horizontal pivots, and stop-beads have been provided above and below the pivots for the sashes to close against.

In the present instance the pivot-plates are pressed toward each other by a spring, and these pivot-plates are provided with interlocking sections for stopping the sash at definite places as it is swung upon the pivots, but such stops yield as the sash is swung, and stop-ribs are provided upon the sash and the sash-strips, so as to arrest the movement of the sash when it coincides with the strips, and interlocking metal strips are provided in the middle portions of the sash for holding the sash and sash-strip together rigidly and for closing any opening that may exist between the sash and sash-strip, and these parts are constructed in such a manner that snow or rain is prevented from beating through between the sash and the sash-strips.

In the drawings, Figure 1 is a horizontal section through the pivot. Fig. 2 is an elevation of the sash-strip. Fig. 3 is an elevation of the edge of the sash. Fig. 4 is an elevation, partially in section, of the sash and sash-strip at one side. Fig. 5 is an elevation of a modified pivot-plate.

The drawings represent only the left part of the sash, it being understood that the right part is similarly constructed, so that the sash hangs on the two horizontal pivots.

The sash A is provided with top and bottom rails, as usual, and may be of any desired size or character, and the sash-strips B are fitted to slide in the window-frame, and they are provided with any desired counterbalancing device, such as cords and weights, for holding the sash and sash-strips at any place to which the sash may be raised, it being understood that the present invention is not limited to any particular character of window-frame or counterbalancing devices.

The pivot-pins C are each provided with plates 2 and 3, that are adapted to be screwed at 4 5 to the surfaces of the sash and sash-strip, respectively, such plates being countersunk or let into the wood, and the plate 2 is advantageously made with or attached to the pivot-pin that passes through the plate 3, and the spring D intervenes between the plate 3 and a washer 6, and a screw 7 passes into the end of the pivot-pin, so as to compress the spring D and produce the desired pressure or friction of the plates 2 and 3 upon each other, and the sash or sash-strip is recessed or bored through for the reception of the spring, the washer, and the screw. The opposing surfaces of the plates 2 and 3 are made to interlock either by radial projections, as shown in Fig. 5, or by a range of rounding studs 8 upon one plate passing into corresponding recesses or holes in the other plate, and these interlocking projections are at uniform distances apart and advantageously eight in number, so that they engage each other and will hold the sash when closed into line with the sash-strips when swung down horizontally or when occupying an intermediate position. Hence by this feature of the present invention the swinging sash can be held in any desired position, and when turned the interlocking projections, acting as inclines one against the other, compress the springs at the respective pivots and slightly separate the sash from the sash-strips, there always being sufficient play in the window-frame to allow for this separation, and the sash is supported or sustained in the position to which it may be turned with sufficient force to prevent the sash being swung by the wind and also to allow for the glass being cleaned with facility.

The sash-strips are formed with projecting ribs and the sash with recesses to receive such ribs—that is to say, upon one sash-strip is a rib 9 at the upper part and a rib 10 upon the lower part of the adjacent sash, and upon the sash is a recess 11, corresponding to the rib 9, and upon the sash-strip a recess 12, corresponding to the rib 10—and by this construc-

tion the adjacent surfaces of the sash and sash-strip at the inner side of the sash are straight, and when the sash is closed against the sash-strips the ribs enter the respective recesses and form stops for the sash when such sash is in line with the sash-strips, and into the edge of the sash a saw-cut is made sufficiently deep for receiving the metal strip E, to which a knob or handle F is connected, the same passing through the sash and in front of the glass, and in the sash-strip a corresponding saw-cut is made for receiving the edge of the metal strip when the sash and sash-strip coincide, and the handle F is pressed to carry the metal strip outward into the sash-strip, and thereby not only lock the sash and sash-strip effectually to prevent the sash swinging on its pivots, but at the same time to close any opening that may exist between the sash and sash-strip at the space between the ends of the respective ribs and recesses, so that there is no opportunity for rain or snow to beat through between the sash and sash-strip, and should there be any water in the space the groove or saw-cut receiving the metal strip E and extending down to the bottom of the sash conducts such water down to the bottom of the sash and prevents the same passing to the inner side of such sash.

I claim as my invention—

1. The combination with the sash and sash-strip and the horizontal pivots for the same, of pivot-plates around the pivots and having interlocking projections with inclined surfaces and a spring for pressing the pivot-plates toward each other, whereby the swinging sash is held in the positions to which it may be swung, substantially as set forth.

2. The combination with the sash and horizontal pivots, of sash-strips, a rib upon the upper and outer portion of each sash-strip and the lower and outer portions of the sash at each side, there being recesses in the edges of the sash at the upper and outer parts and in the lower and outer parts of the sash-strips for receiving the ribs, so that the inner adjacent edges of the sash and sash-strips are straight, substantially as specified.

3. The combination with the sash and sash-strips, of horizontal pivots upon which the sash can be swung, pivot-plates with interlocking projections and a spring for pressing the pivot-plates toward each other and projecting ribs upon the sash and sash-strip, there being corresponding recesses in the edges of such sash and sash-strip for receiving the ribs, substantially as specified.

4. The combination with the sash and horizontal pivots, of sash-strips, a rib upon the upper and outer portion of each sash-strip and the lower and outer portions of the sash at each side, there being recesses in the edges of the sash at the upper and outer parts and in the lower and outer parts of the sash-strips for receiving the ribs, so that the inner adjacent edges of the sash and sash-strips are straight, saw-cuts in the adjacent surfaces of the sash and sash-strips respectively, and a metal strip within each saw-cut at the edge of the sash, and a handle to the same for drawing such strip inward or projecting the edge of such strip into the saw-cut in the sash-strip, substantially as set forth.

Signed by me this 10th day of September, 1897.

L. H. BROOME.

Witnesses:
GEO. T. PINCKNEY,
S. T. HAVILAND.