

(No Model.)

C. HOFFMAN.
SASH FASTENER.

No. 570,665.

Patented Nov. 3, 1896.

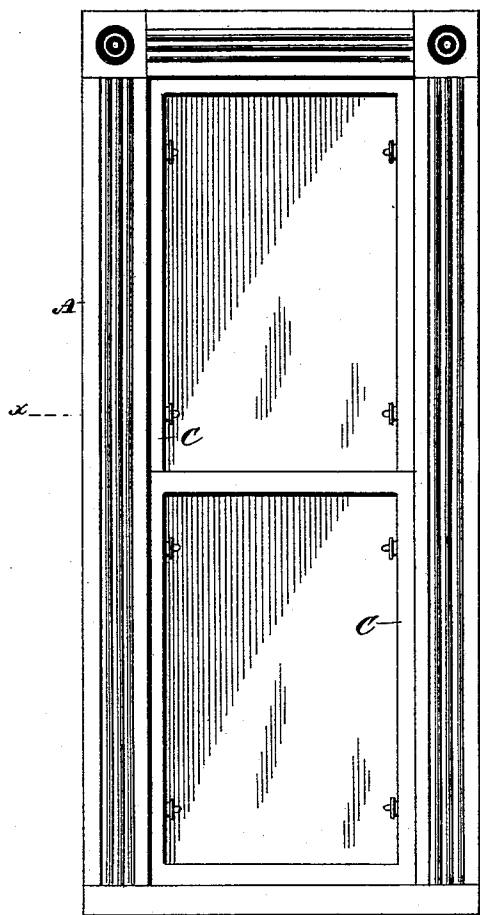


Fig. 1.

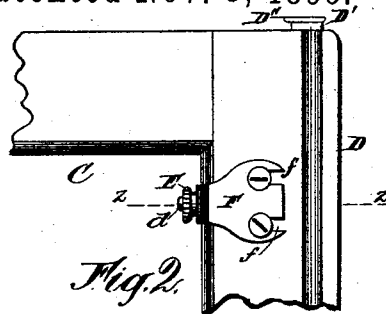


Fig. 2.

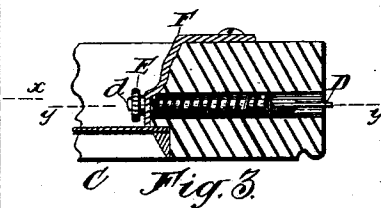


Fig. 3.

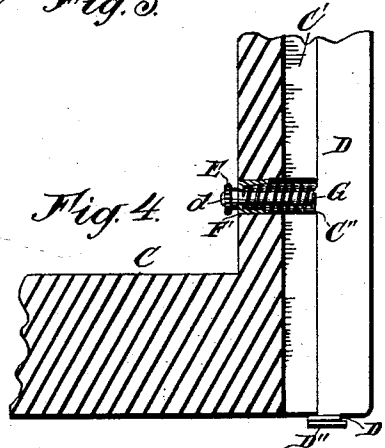


Fig. 4.

Fig. 5.

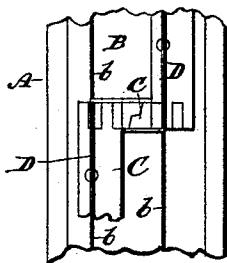
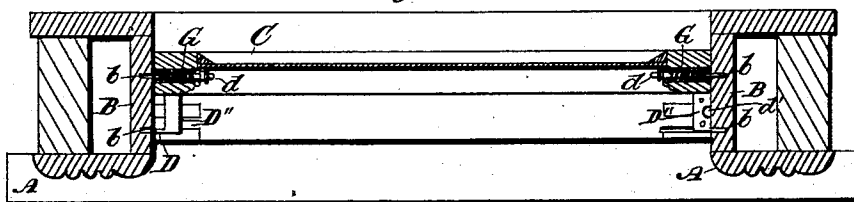


Fig. 6.

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SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 570,665, dated November 3, 1896.

Application filed December 30, 1895. Serial No. 573,840. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HOFFMAN, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Window Sash and Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to produce a window sash and fastener so constructed as to hold the sash automatically in any desired position and adapted to close the window-opening tightly without the use of stops.

A device embodying the invention will be hereinafter fully set forth and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of a device embodying such invention as applied to an ordinary house-window. Fig. 2 is a fragmentary front elevation of one of the window-sash with an improved metallic spring-stop attached. Fig. 3 is a section of the same in the line *z z* of Fig. 2 as seen from the under side. Fig. 4 is a section in a vertical plane in the line *y y* of Fig. 3, showing a modified form of spring-stop. Fig. 5 is a transverse section of Fig. 1 in the line *x x*. Fig. 6 is a fragmentary side elevation showing the meeting portions of a pair of sashes embodying my improvements.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A designates an ordinary window-casing, and B the jamb. Between the jambs are mounted the window-sashes C C. Instead of being provided with the usual stops each side of the sash-rail both the jambs and the sash are provided with a narrow rabbet or groove *b C'*, respectively. These grooves, it will be understood, extend the whole length of each sash and of the jamb. They are simply the kerf made by a circular saw, and therefore may be made very rapidly and at a trifling expense.

In each sash-groove is fitted a metallic strip D, provided with lateral studs *d d*, extending through holes *C''*, and provided at the end with small thumb-nuts E E. On

these studs are placed coil-springs G G, one end bearing on the inner edge of the plate D and the other on a suitable shoulder between the spring and the nut. In its simplest form this shoulder may be formed in the hole itself, as shown in Fig. 5, the hole for the spring being bored nearly through the sash-rail and a smaller hole provided for the stud. A modification of this construction is shown in Fig. 4, where the hole for the spring is bored clear through the sash-rail and a small metallic thimble F' driven in to serve as a bearing for this end of the spring.

The preferred form is shown in Figs. 2 and 3. This is a thin metallic plate conforming to the inner edge of the sash-rail and secured in place by a pair of screws. For convenience in attaching and detaching, slots *f f* are provided, so that the plate may be slipped out and in by loosening the screws. A suitable hole in the other end of the plate receives the stud *d*.

In order to exclude cold air that might otherwise find its way between the jamb and the meeting ends of the sashes, especially if shrunk away therefrom, a lateral lip D' is formed on this end of the plate D and overlaps the end of the sash alongside the jamb and at one side of the friction-plate. To insure tightness, a strip of rubber D'' or the like is fastened to the lip, thus excluding the air without marring the jamb. When a cord and weight are used, a circular notch *d'* is made in the lip, as shown in Fig. 5.

An improvement in the meeting-rail of the sash is illustrated in Fig. 6. This consists in forming a shoulder *c* on each meeting-rail, so that they overlap in a zigzag line. The shoulders thereby make a tight joint, notwithstanding the meeting-rails may be shrunk away from each other considerably.

In the case of the simple form shown in Fig. 5 the studs should be threaded back quite a distance, so that the plate D may be withdrawn from the groove in the jamb by screwing up the thumb-nuts. In the case of the device shown in Figs. 2 and 3, however, this is not necessary, as the plate is quickly detached from the jamb by loosening the bearing-plates F.

The plate D should play freely in the grooves of both the jambs and the sashes, so

as to allow the pressure of the springs to be fully exerted laterally and allow the sash to move freely up and down, save for such lateral pressure.

- 5 The operation of the device will be readily understood. The combined pressure of the springs G G and the friction of the plates D D in the jamb-grooves (principally at the edges) serves to hold the sash at any desired elevation. The device dispenses with the necessity for the ordinary stops, though such stops may be used if desired. It is equally applicable to car as to house windows, and may be applied with advantage to window-screens in the same manner as to window-sash.

15 The sash may be beaded at the sides, as shown in Figs. 2 and 3, so that when it shrinks

away from the jamb the gap is not objectionably visible.

Having thus described my invention, I claim—

The combination with longitudinally-grooved sash and jamb, of a friction-plate fitted in the sash-groove, springs adapted to press the same outwardly, and a lateral lip at the end of said plate adapted to bear close to the jamb and crosswise thereof, to exclude air, as described.

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

CHARLES HOFFMAN.

Witnesses:

CORDELIA HOFFMAN,
WM. B. COWGILL.