

UNITED STATES PATENT OFFICE.

HENRY C. TROST, OF CHICAGO, ILLINOIS, AND FRANK A. WESTON, OF DODGE CITY, KANSAS.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 402,074, dated April 23, 1889.

Application filed March 30, 1888. Serial No. 269,025. (Model.)

To all whom it may concern:

Be it known that we, HENRY C. TROST, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, and FRANK A. WESTON, a citizen of the United States, residing at Dodge City, county of Ford, State of Kansas, have invented new and useful Improvements in Devices for Raising and Lowering the Top Sash of Windows, which are fully set forth in the accompanying specification, reference being had to the drawings forming a part thereof.

Figure 1 is a perspective of a portion of a window with our device applied. Fig. 2 is a cross-section of the upper and lower sashes of a window with our device applied. Fig. 3 is a detail of the case A with the top removed. Fig. 4 is a perspective view of the case A. Fig. 5 is a detail front view of the top sash-plate, C. Fig. 6 is a modification of the same. Fig. 7 is a modified form of the case A. Fig. 8 shows the plate F secured to the upper sash, for the purpose hereinafter described.

This device is an improvement upon that upon which Patent No. 311,049 was granted us January 20, 1885, and the improvements appear chiefly in the bolt-case A, the movement of the lifting and lowering bolt B, and the form of the sash-plate.

In the drawings the case is secured to the lower sash, having within the bolt B, swinging horizontally upon the pivot *b*, but stopped from movement up or down by the top and bottom of the case. The springs *a a* are on either side of the bolt, and, tending to keep it at right angles to the sash-rail, are stopped against the lugs *a' a'* on the sides of the case and in the notches *B' B'* in the edges of the bolt B. The case is formed of two parts, one comprising the bottom *A'* and the rim *A''*, and the other comprising the top *a''* and the side plate *a''*. These two parts are secured together by the rivet *b*, which passes through both top and bottom and through the bolt B, which swings upon it. The whole case is secured to the lower sash by the screws *b''* and *b''*, the latter passing through the side plate *b''*.

C is a trip-plate secured to the upper sash, and may be of the form shown in Fig. 5 or

that in Fig. 6. Its lateral edges consist each of two beveled portions and an indentation between them to engage with the bolt B, one indentation opening upward and the other downward.

The operation of the device is as follows: When the lower sash is raised, the bolt B will meet the lower beveled edge of the trip-plate C and be forced aside thereby until the end of this beveled portion be reached, when the bolt will be thrown by one of the springs *a* into the indenture *C'*, and by means of its engagement therein the upper sash can be lowered by pulling down the lower sash. When it is desired to raise the upper sash the lower sash will be raised, the bolt B be pushed aside by the beveled portion *C''*, and be returned by the spring *a* to its normal position when the upper end of the plate C is reached. The lower sash will then be lowered and the bolt B be forced in the other direction by the beveled edge *C''* until it reaches the indenture *C'*, when, by means of its engagement therein, the upper sash may be raised by raising the lower.

It will be seen that the operation of the device as now improved is simpler than that of the old device, as shown in the patent referred to, inasmuch as the bolt B has but the two motions—to the right and left—in the same horizontal plane, whereas in the old device it was also obliged to move back into the case, the construction of which was therefore much less simple than the one herein shown. Moreover, the construction of the plate C is considerably simplified, as the one herein shown can be stamped with a single die, and is also neater in appearance than the old one.

The case shown in Fig. 7 is intended to be let into the top or side rail of the lower sash and not secured to the upper side of the top rail. Its construction is slightly different from that shown in Figs. 1 and 2, inasmuch as but one spring is used, which spring is placed between the rear end of the bolt and the case. Its operation otherwise is precisely the same as that above described. The plate F (shown in Fig. 8) is secured to the upper sash, and when the window is closed fills the opening which is necessarily made in the top

rail of the lower sash to allow the plate C to pass when the sash is raised above said plate. This plate F has its edges beveled to guide the bolt past it when the sash is raised or lowered.

We claim—

1. The bolt-case comprising two parts, one of said parts forming the bottom and rim, and the other the top and side plate, substantially as set forth.

2. The combination of the trip-plate secured to the upper sash, its lateral edges each comprising two portions beveled in the same direction, and having between said portions an indentation with the bolt-case secured to the lower sash, the bolt located therein and projecting therefrom into the path of the trip-plate, and springs which resist but permit the movement of the bolt in a horizontal plane in both directions from the said plate, substantially as set forth.

3. The combination of the trip-plate secured to the upper sash, its lateral edges each comprising two portions beveled in the same direction, and having between said portions an indentation with the bolt-case secured to the lower sash, the bolt pivotally mounted therein and projecting therefrom into the path of the trip-plate, and springs which resist but permit the swinging of the bolt in a horizontal plane upon its pivot, said pivot having its axis fixed in location with respect both to the bolt and to the case, substantially as set forth.

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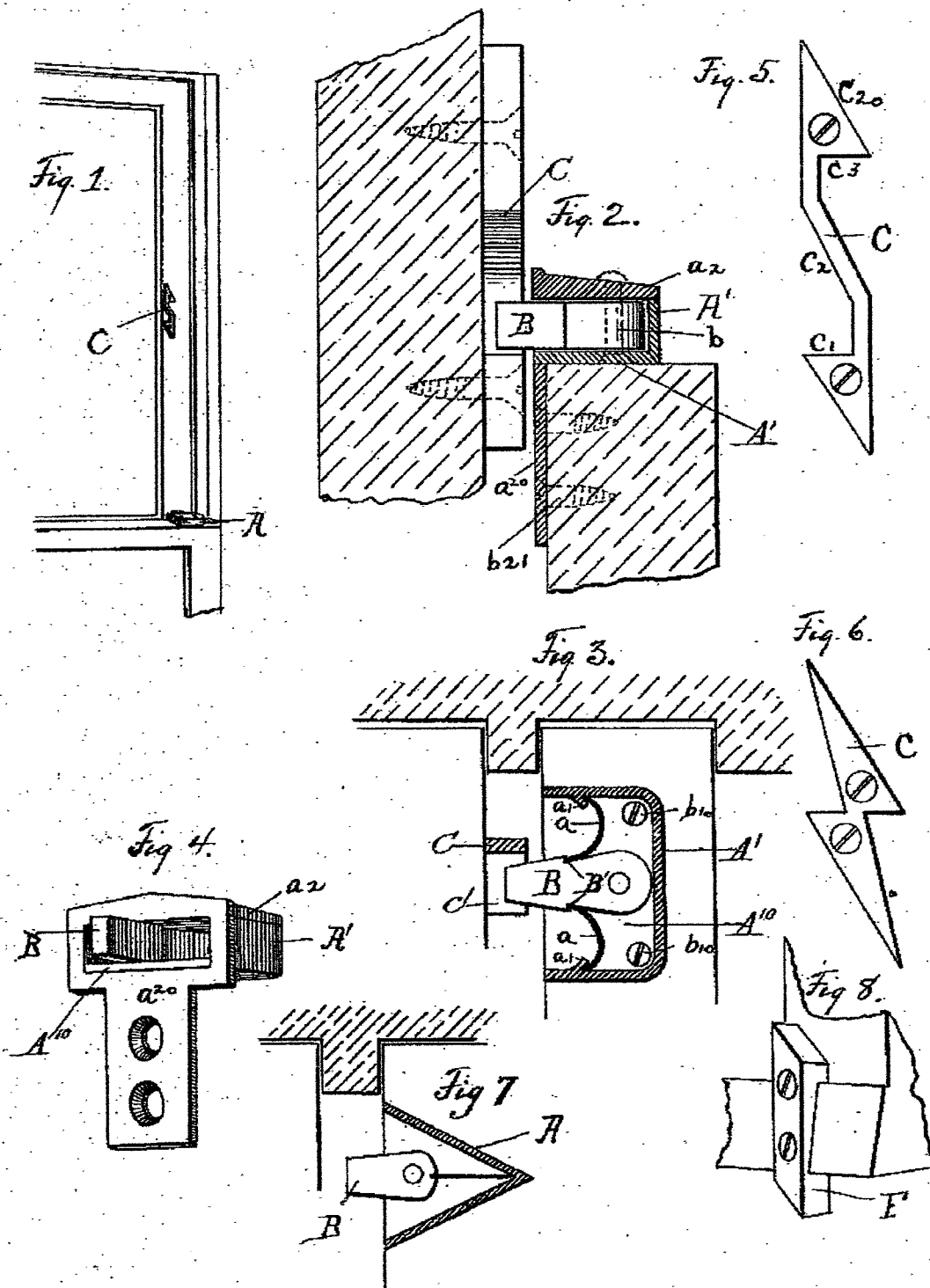
E. A. BOYER.

(Model.)

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SASH FASTENER.

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