

(No Model.)

G. S. HALL.
SASH FASTENER.

No. 547,883.

Patented Oct. 15, 1895.

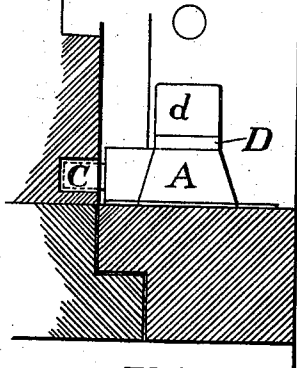


FIG. 1.

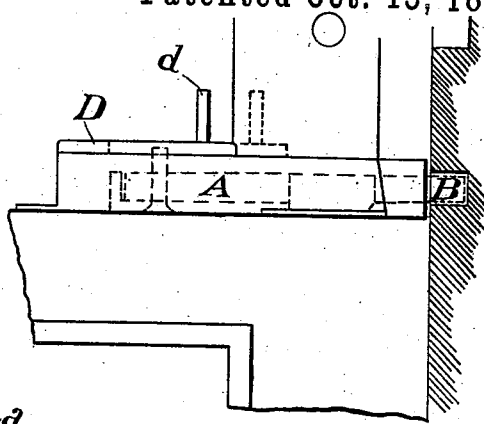


FIG. 2.

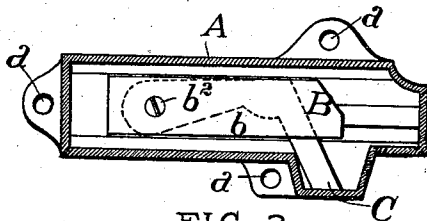


FIG. 3.

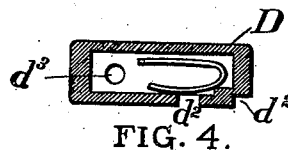


FIG. 4.

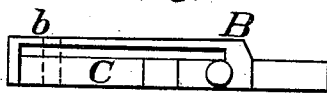


FIG. 5.



FIG. 6.

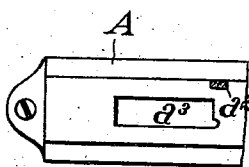


FIG. 8.

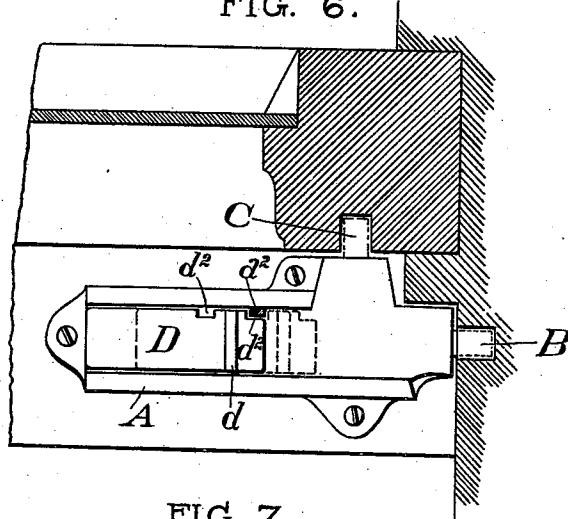


FIG. 7.

Witnesses
James Smith
E. A. Sullivan

Inventor
George Sylvester Hall
By *Edwin Guthrie*,
Attorney

UNITED STATES PATENT OFFICE.

GEORGE SYLVESTER HALL, OF SALEM, MASSACHUSETTS.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 547,883, dated October 15, 1895.

Application filed February 11, 1895. Serial No. 537,942. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SYLVESTER HALL, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sash-Fasteners; 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 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 certain new and useful improvements in sash-fasteners, referring more particularly to that class wherein two bolts acting at right angles fasten both the upper and the lower sash.

20 My invention provides an exceedingly simple and easily-operated sash-fastener, of which practically all the parts can be cast into their final shape, thus being most readily manufactured.

25 In the accompanying drawings, wherein like letters represent like parts in the several views, Figure 1 is a rear end view of the fastener. The breadth of the finger-piece by which the slide is pushed back and forth and the width of the slide are shown as equal to each other. The incline of the sides of the casing is also presented. Fig. 2 is a side elevation from within the house, looking out of the window, and the usual thickness of slide and finger piece with relation to the height of the casing is shown. In these two figures will be seen more than one bolt-hole, each in the window sash and frame, allowing the two sashes to be fastened in various positions. 30 Fig. 3 represents one of my fasteners removed from the sash and viewed from beneath in order that the outline of both bolts may be seen, the partly-hidden one in dotted lines. Fig. 4 shows a modification of the slide. It is a view from beneath and represents a recess in the under surface to make room for a spring, as will be more fully explained hereinafter. If while the casing is in the inverted position of Fig. 3 the two bolts be 35 lifted out and viewed from the side, the outline presented by Fig. 5 will appear. Fig. 6

shows in outline a plan of the straight bolt viewed from below. Fig. 7 is a top plan of my invention, showing the sash and pulley-stile in section, and in dotted lines the positions of the ends of both bolts and of the slide when the latter has been pushed forward. The form of the slide, showing the recesses in the side alternately occupied by the lug upon the upper surface of the casing, appears in this figure. Fig. 8 is a top plan of the inner end of the casing, showing the slot through which the screw joining the bolts reaches the slide. The lug projecting vertically upon one side of the upper surface of the casing is shown in both Figs. 7 and 8.

A is the casing, having flanges drilled and countersunk for the passage of screws to fix the fastener upon the sash. The sides of the casing incline inwardly toward the top. Near the end of the casing opposite to that through which the ends of the bolts project the upper surface is provided with a slot a^3 , and near the inner end of the said slot and at the edge of the said upper surface of the casing a lug a^2 rises to about the height measured by the thickness of the slide. Near that end of the casing which lies nearest the pulley-stile when in proper position a lateral extension of the walls is constructed, as shown in Figs. 1, 3, and 7. The outer wall of this extension and the adjacent end wall of the casing are pierced by apertures suitably placed to receive the cylindrical ends of the bolts.

B represents the straight or direct-acting bolt. The lower surface b of the said bolt is plane and smooth, and when in position this surface rests upon the meeting-rail of the lower sash and slides back and forth thereupon when the device is operated. At one end the flat surface b turns perpendicularly upward and at right angles with the parallel sides of the main or body portion of the said bolt. This perpendicular part and the horizontal portion of this section of the bolt are of uniform thickness, as ordinarily constructed. Near the other end of the flat and horizontal division of the bolt the upper surface rises perpendicular to but diagonally across the said flat surface, and this diagonal usually bears a fixed relation to the angle formed in the second bolt hereinafter to be described.

Both perpendicular sections of the said bolt B are of the same height, that last described being of greater thickness and of the somewhat irregular shape best shown in Fig. 6.

5 The conformation of the piece as above set out leaves one side of the upper surface of the horizontal part longer than the other, and on that side of the bolt parallel with the lateral lines of the horizontal part, but having

10 its highest line on a level with the upper surface of the perpendicular sections described, the cylindrical end of the bolt B projects. This last-mentioned part is less in diameter than the height of the perpendicular

15 parts, and it is therefore raised a certain distance above the sliding surface b . The bolt-hole in the end of the casing, which has been already mentioned, is so placed as to receive the said cylindrical end. A smooth

20 hole drilled through the horizontal flat section of this piece and countersunk on the lower surface near the perpendicular and rectangular end finishes this part of my invention. Its shape is unique, but it is set out in

25 the three different views given in Figs. 3, 5, and 6. The second bolt C is bent at an angle corresponding to that formed by the meeting of the shorter side line of the upper surface of the horizontal section of bolt B, of which b is

30 the lower surface, and the surface previously described as rising perpendicularly to but diagonally across the said upper surface. The bolt C possesses a cylindrical section and a section of which the upper and lower surfaces are flat. The greatest breadth of this

35 part is near the end of the bolt, and it is provided with a smooth hole through this broad end, the diameter of the aperture being the same as of that bored through the first bolt.

40 The cylindrical section of bolt C is adapted to pass through the bolt-hole in the outer wall of the lateral extension of the casing already mentioned. Figs. 3 and 5 will show the form and relative thickness of bolt C with relation

45 to the remaining parts of my invention.

D represents the slide, a plain flat block of metal, usually of about the same width of the upper outside surface of the casing upon which it rests. Near one end a hole is drilled

50 from the under side partly through the said slide and a screw-thread tapped therein, or the hole may be bored quite through the piece, and the part connecting the two bolts with the slide can be treated as a rivet and headed

55 up on the upper surface of the slide. Near its remaining end the slide has a perpendicular cross-piece d , to be grasped by the thumb and forefinger when operating the fastener, and at and near this end are located the recesses d^2 in one side, which are adapted to

60 receive the lug a^2 , already mentioned. The recess nearest the end of the slide enables the part to rest evenly upon the casing when both bolts are completely drawn in. The second

65 recess retains the slide in position when the bolts have been thrown and prevents accidental displacement. I may prefer to modify

the construction of the slide D by providing a recess in its under surface to permit the use of a bent spring E. The office of the said

70 spring is to maintain the contact between the recesses d^2 in the slide and the lug a^2 . An extremity of one leg of the spring is bent at right angles with the plane of the remainder and enters a hole drilled into the casing. The

75 other leg of the spring presses against the inside of the slide near the recesses d^2 .

The parts of my fastener may be assembled as follows: In the inverted casing is laid the angle-bolt C with its cylindrical end just

80 entering the bolt-hole in the lateral extension. The bridge of the straight bolt B then covers the first-mentioned bolt, and a screw b^2 , having a smooth shank and a threaded end, is passed through both bolts and through the

85 slot a^3 in the casing, and the screw portion engages the threads provided in the hole bored in the under surface of the slide. The parts are now held together, and the fastener may be turned right-side uppermost.

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The operation is thus performed, supposing the bolts to have been drawn into the casing as far as possible. This condition is reached when the screw-joining bolts and slide come in contact with the end of the slot

95 a^3 which is farthest from the lug a^2 . In this situation the cylindrical ends of both bolts rest within but do not project through the bolt-holes in the end and side of the casing, being therefore always so placed as to

100 be readily shot forward. The recess at the end of the slide is occupied by the lug, and it will be observed that a motion to one side made upon the connecting-screw as a pivot enables the slide to clear the said lug, and

105 the bolts may be moved forward, as indicated. When the second recess d^2 is brought opposite the lug, the slide is again turned parallel with the casing and the fastener is locked. The spring E, when used, aids in making and

110 maintaining this position of the parts. It will be noticed that the cylindrical extremity of bolt C turns in the lateral hole in the casing as the parts move forward and approaches more and more nearly a perpendicular to the

115 path of the straight bolt as the movements proceed.

Having thus described my invention, what I claim is—

1. In a sash fastener of the character described, a suitable casing having a longitudinal slot through the top and a lug projecting vertically from the upper surface, in combination with the pivoted operating thumb slide provided with recesses in its side to engage

125 the said lug, the direct acting bolt and the pivoted angle bolt both within the casing and pivotally connected through the said slot with the said slide, the whole substantially as and for the purposes shown and described.

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2. In a sash fastener of the character described, the casing, A, having the lug, a^2 , and the slot, a^3 , in combination with the pivoted operating thumb slide, D, provided with re-

cesses in the side to engage the said lug and a shallow cavity for the admission and operation of the bent spring, E, the bolt, B, the pivoted angle bolt, C, both connected through
5 the said slot, pivotally, with the said thumb slide, the whole as and for the purposes shown and described.

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

GEORGE SYLVESTER HALL.

Witnesses:

A. G. RICHARDSON,
FLORENCE I. BRADFORD.