

No. 818,303.

PATENTED APR. 17, 1906.

C. G. SEAMAN.
SASH FASTENER.

APPLICATION FILED AUG. 11, 1904.

Fig. 1.

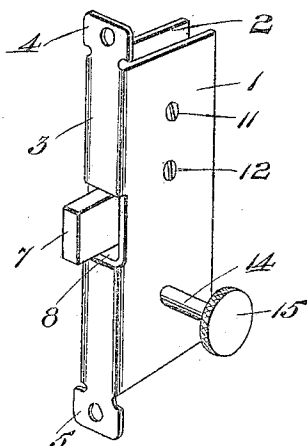


Fig. 2.

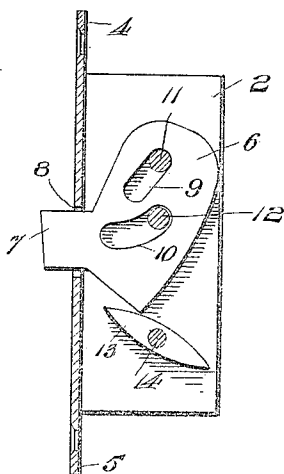
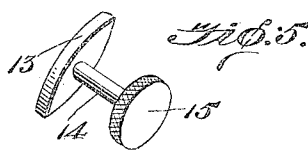
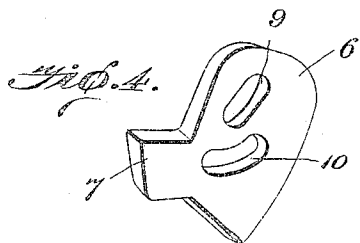
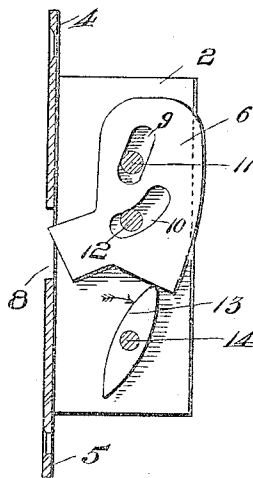


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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SASH-FASTENER.

No. 818,303.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed August 11, 1904. Serial No. 220,392.

To all whom it may concern:

Be it known that I, CHARLES G. SEAMAN, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Sash-Fastener, of which the following is a specification.

This invention relates to sash-fasteners, and is designed to provide a simple and improved device of this character capable of application to the sash or the window-frame, so as to lock the sash at any elevation.

Another object of the invention is to obviate the use of springs for connection with the bolt and to obtain a positive and effective locking of the bolt against vertical strains and at the same time to provide for conveniently controlling the bolt to move the same transversely or in a horizontal direction to disengage the same from its keeper.

A still further object of the invention is to assemble the parts thereof in compact relation and to effect the releasing and locking of the bolt with a minimum of motion, whereby the entire lock may occupy comparatively little space, which is an important item in connection with sash-locks.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a sash-fastener embodying the features of the present invention. Fig. 2 is a longitudinal sectional view thereof in the locked position of the bolt. Fig. 3 is a similar view showing the bolt retracted. Fig. 4 is a detail perspective view of the bolt. Fig. 5 is a detail perspective view of the tumbler for controlling the bolt.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The casing of the present device includes opposite side plates or cheek-plates 1 and 2 and a face-plate 3, the latter being projected at opposite ends to form attaching-ears 4 and 5, which are perforated for the reception of suitable fastenings, it being designed to have

the plates 1 and 2 fitted within a mortise in the sash or the window-frame, with the ears 4 and 5 connected to the outer face thereof. While not essential to the invention, it is proposed to bend the cheek-plates from a blank in order that all of the parts of the casing may be integral, thereby to produce a durable and inexpensive casing.

Within the upper portion of the casing is the gravity-bolt in the nature of a swinging arm 6, provided with a bolt projection 7, located at the lower front corner of the arm and inclined downwardly and forwardly therefrom, so as to pass through a suitable opening 8, formed in the face-plate 3. A slot 9 extends downwardly from the upper end portion of the arm at the front side of the median line thereof, while another arcuate slot 10 begins at the opposite side of the median line of the bolt, with its upper end overlapping the lower end of the slot 9 and its lower end extending toward and in the direction of the bolt projection 7 and terminated substantially in alinement with the longitudinal axis of the slot 9. Pins 11 and 12 are set through the sides of the casing and the respective slots 9 and 10, whereby the bolt is loosely supported upon these pins and is capable of being swung back and forth upon the pin 11 as a shiftable center. The pins 11 and 12 are disposed in vertical alinement, so that when the arm is swung forwardly to extend the bolt projection 7 through the opening in the front of the casing, so as to engage any suitable character of keeper, any vertical strain upon the portion 7 will be resisted by the pins 11 and 12, which therefore operate to lock the bolt. However, the bolt may be retracted by simultaneously lifting the same and swinging it rearwardly, whereby the lower end of the bolt swings to the right and the upper end swings to the left around the pin 11, whereby the pivotal bearing of the bolt upon the pin 11 shifts downwardly, so as to permit of the desired swinging movement of the bolt.

It will here be noted that it is not necessary to employ springs, detents, or any other extraneous means to hold the bolt in its locked position, as it readily gravitates to a position wherein it can be neither elevated nor depressed.

For convenience in controlling the bolt to swing the same outwardly and inwardly there is an elliptical tumbler 13, mounted within the casing upon a shaft 14, which

pierces the front of the casing and terminates in a suitable head or handle 15 for convenience in rotating the tumbler. This tumbler is located below and adjacent the lower free end of the swinging bolt and is designed to engage the lower free end of the bolt, as shown in Fig. 3 of the drawings, to swing said bolt inwardly or rearwardly, so as to disengage the same from its keeper. This action of the tumbler upon the bolt is made possible by reason of the fact that the bolt assumes an inclination to the vertical when it has gravitated to its lower limit with the part 7 projected through the casing, whereby the lower extremity of the bolt is set at an upward and forward inclination, and the tumbler is therefore capable of engagement with the inclined end of the bolt sufficiently to swing the latter inwardly. When the tumbler disengages the lower end of the bolt, the latter gravitates and swings automatically to its original locked position without the aid of springs. It will here be explained that the tumbler 13 does not operate to lock the bolt, but is used solely to retract the latter.

In releasing the bolt the tumbler 13 is turned in the direction of the arrow on Fig. 3 from the position shown in Fig. 2, the tendency of the tumbler being to elevate the arm 6, so as to bring the pins 11 and 12 in the lower portions of the slots and then to swing the arm rearwardly or inwardly to withdraw the bolt 7 into the casing and out of engagement with the keeper. So long as the tumbler remains in the position shown in Fig. 3 the bolt will be held retracted; but upon further movement of the tumbler sufficiently to disengage it from the arm the latter will gravitate to the position shown in Fig. 2, and thereby automatically return to its locked position.

From the foregoing description it will be understood that by the compact arrangement of the parts of the present device a long swing of the bolt around a fixed pivot is obviated, and the path of movement of the bolt is materially reduced in order that the entire lock may occupy a comparatively small space, so as to be particularly applicable to window-sashes.

Having thus described the construction

and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A sash-lock comprising a case, vertically-alined pins carried by the case, a swinging bolt having a straight upper slot receiving the upper pin and inclined downwardly and forwardly toward the outer lower corner of the bolt, said bolt also being provided with an arcuate slot struck from an elevated center and receiving the other pin, the lower free end of the bolt being provided with a locking projection which is in a substantially horizontal position in the locked position of the bolt, the case being provided with an opening through which the projection works, the bottom of the bolt being inclined downwardly and rearwardly from the projection, and a tumbler mounted upon the case and working in frictional engagement with the inclined bottom of the bolt to simultaneously elevate and swing the same rearwardly.

2. A sash-lock comprising a case, vertically-alined pins carried by the case, a swinging bolt having a straight upper substantially longitudinal slot receiving the upper pin and inclined downwardly and forwardly toward the outer lower corner of the bolt, said bolt also being provided with an arcuate slot struck from an elevated center and receiving the other pin, the lower free end of the bolt being provided with a locking projection which is in a substantially horizontal position in the locked position of the bolt, the case being provided with an opening through which the projection works, the bottom of the bolt being inclined downwardly and rearwardly from the projection, and means separate from the bolt to simultaneously elevate and swing the bolt rearwardly upon the pins as a support, the pins being at the rear ends of the slots in the locked position of the bolt and at the forward ends of the slots when the bolt is retracted.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES G. SEAMAN.

Witnesses:

D. K. McDONALD,
HOWARD SLATER.