

(No Model.)

J. WALLENSTEIN & H. C. OETTINGER.
AUTOMATIC SASH FASTENER.

No. 579,246.

Patented Mar. 23, 1897.

Fig. 1

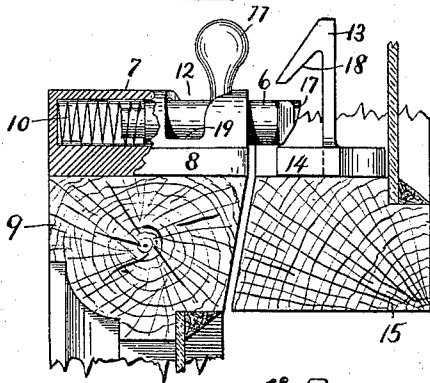


Fig. 2

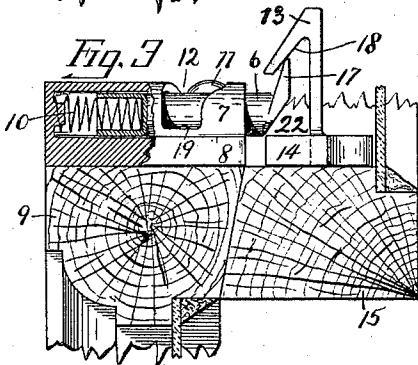
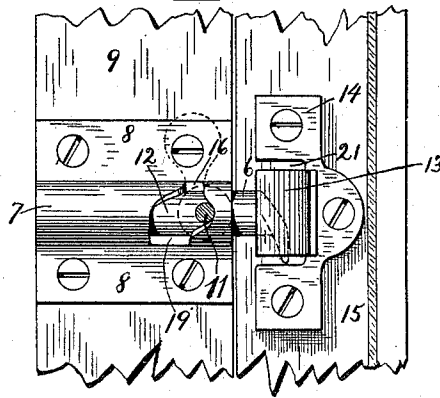
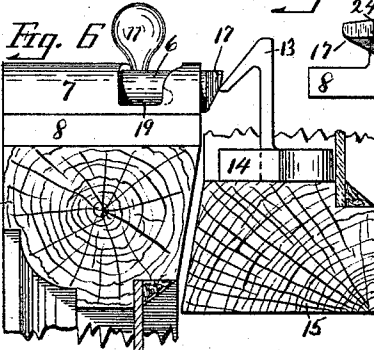
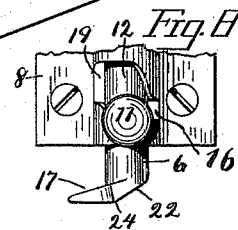
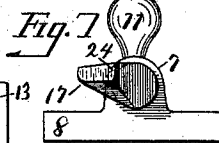
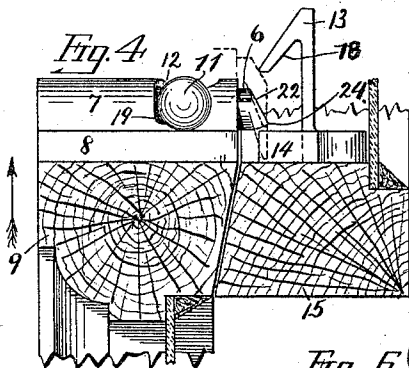
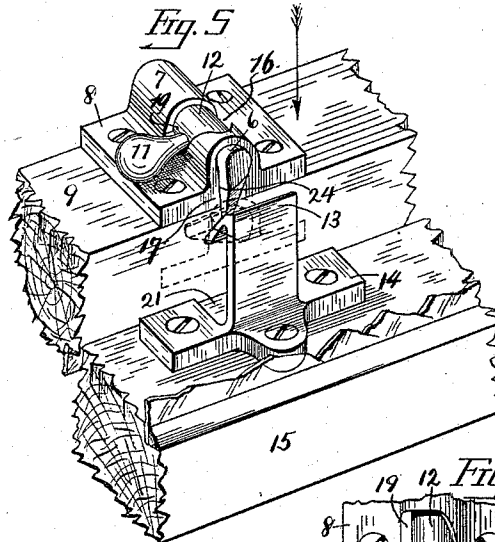


Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

JACOB WALLENSTEIN AND HERBERT C. OETTINGER, OF CINCINNATI, OHIO,
ASSIGNORS OF ONE-THIRD TO CORA D. OETTINGER, OF SAME PLACE.

AUTOMATIC SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 579,246, dated March 23, 1897.

Application filed June 8, 1896. Serial No. 594,648. (No model.)

To all whom it may concern:

Be it known that we, JACOB WALLENSTEIN and HERBERT C. OETTINGER, citizens of the United States, and residents of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Automatic Sash-Fasteners; and we do declare the following to be a clear, full, 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, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in sash-fasteners of the kind where, for the purpose of locking a window, the meeting-rails of the two sashes are locked to each other.

The novelty of this invention resides in a certain new construction and arrangement of parts whereby by the unlocking of the sashes the parts of the fastener are left in a condition that for subsequent locking the mere closing of the sashes, that is, bringing together of their meeting-rails, is only needed to cause the fastener to become locked again, thus making this latter action automatic; or, in other words, the act of unlocking provides and embraces in advance all the manipulations necessary for the subsequent locking of the fastener and window.

In the following specification, and particularly pointed out in the claim, is found a full description of the invention, its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in a sectional view the two meeting-rails, each provided with its particular part of the sash-fastener, which latter is in a locked condition. Fig. 2 shows in a top view the same parts in the same condition. Fig. 3 shows in a view similar to Fig. 1 the same parts with the bolt turned to a position to secure it in its locked position and for the purpose of drawing the sashes closer together. Fig. 4 shows in a sectional view the bolt turned to a position which permits the windows to be opened. Fig. 5 shows in a perspective view the parts in position immediately before closing or right after opening.

Fig. 6 shows in a sectional view the bolt in the act of locking; and Figs. 7 and 8 are detail views of the end of the locking-bolt, the first being an end view and the other a top view thereof.

In the drawings, 6 represents the bolt, contained in a housing 7, which is provided with flanges 8, whereby it is secured to the upper sash-rail 9 of the lower window-sash. Within this housing, into the bore of which it closely fits, this bolt is capable of a longitudinal movement, and behind it, between its end and the closed end of said housing, there is inserted a coil-spring 10, which imparts to the said bolt a normal tendency to move toward and out of the open end of the housing. This spring may be arranged either as shown in Fig. 1 or as shown in Fig. 3, where the bolt is partly hollow and occupied by a part of the spring.

11 is a knob secured by its shank to bolt 6, such shank passing for this purpose through a slot 12, cut out of the upper part of housing 7, which slot limits the movement of the bolt and prevents the spring from pushing it out from its housing.

13 is the other part of the fastener, that is, the keeper or catch for the bolt, and consists, substantially, of a hook-shaped member rising from a base 14, by which it is secured to the lower sash-rail 15 of the upper sash. Its position thereon is such as to enable the end of the bolt, which for such purpose projects sufficiently beyond the open end of its housing, to pass under the hook-shaped projection thereof, where it is held by the pressure of the spring behind. When in this position, the fastener is locked, as shown in Figs. 1 and 2, when neither one of the sashes can be moved past the other one. The bolt may be better secured in this position by turning knob 11 to the left, that is, into a notch 16, which forms a lateral branch of slot 12, and whereby a projection 17, extending at an angle from the end of bolt 6, is caused to turn up and engage with the inclined under surface of the catch at 18, whereby the bolt is not only securely held in its locked position, but by reason of projection 17 coming in engagement with the inclined surface 18 the two sashes are also closely drawn together in case they

should not fit properly, being thereby prevented from rattling and become also dust-proof and capable of excluding cold air and draft. This position of parts is shown in Fig. 3. For unlocking preparatory to opening the windows it is only necessary to turn the knob to the right to cause it to enter a notch or lateral enlargement 19 of slot 12, whereupon the parts assume a position as shown in Fig. 4, base 14 of catch 13 being cut out, as shown at 21, to admit projection 17. While the bolt is thus turned by knob 12, it is also incidentally partly retracted while passing out from slot 12, and whereby the straight part of its end is brought out from under the catch, so that when one of the sashes is moved the contact is between the projecting end of the catch and an inclined surface 22 at one side of the end of the bolt which the rotary motion of it has turned uppermost, thereby enabling the bolt to slide readily inwardly to clear the catch when it comes in contact with it. Notch 19 is long enough to clear the shank of knob 11, thereby making this inward or retracting movement of the bolt possible. As soon as the bolt has cleared and passed the catch it moves out again to the extent of length of notch 19, leaving the parts as shown in Fig. 5. If, now, at any time thereafter it is desired to close and lock the window, it is only necessary to close the open sash, whereupon the fastener becomes locked automatically as soon as the approaching meeting-rails of the sashes have brought the bolt end and the catch opposite each other.

In detail the incidents of this action proceed as follows: When the meeting-rails approach each other, the extreme outer surface 24 of projection 17 comes first in contact with the upper inclined surface of catch 13, as shown in Fig. 5. This preliminary contact causes the bolt to turn partially, because projection 17 is eccentric to the axis of rotation of the former, Fig. 6 and dotted lines in Fig. 5 showing this act plainly, with the bolt about turned, while Figs. 7 and 8 show the end of the bolt after it has been so turned. The effect of this partial (about a quarter) rotation is to release knob 11 from notch 19 and bring it out into the longer slot 12, so that when the meeting-rails have arrived in their final position the bolt is free to shoot out and under catch 13 to the full extent of its movement, thereby locking the sashes, as shown in Figs. 1 and 2. It will thus be seen that the mere turn of bolt 11 to the right at the previous opening of the window not only unlocked the fastener and permitted moving of the sashes, but it also did put and leave the bolt in a position in which it is enabled to automatically lock the fastener again as soon as its parts are brought opposite each other by the approaching meeting-rails. No extra

attention or action of any kind is required. The mere closing of the window locks the fastener and sashes, or, expressed in short, for unlocking and relocking of this fastener one manipulation only, a turn of knob 11 to the right at the time of opening, is required.

Part of the housing forming one end of notch 19 may be slightly undercut, as shown in dotted lines in Fig. 6, to hold the shank of knob 11 more securely in position while the same is occupying this notch, and whereby it is prevented from becoming disengaged in consequence of jars received by the sash in incidence to its manipulation or otherwise.

The advantages of this automatically-locking fastener are obvious and manifold. It guards against forgetfulness, because the fact that the window is open is readily observed, whereas the condition of the lock is easily overlooked. Such overlooking does not matter, however, in this case, and if the window is merely closed one may rest assured that its fastener is also locked. It saves time and is more convenient, especially where sashes are high and when the lock is difficult to reach.

Having described our invention, we claim as new—

In a sash-fastener, the combination of a spring-bolt contained in a suitable housing and capable of a longitudinal as well as rotary movement, a knob 11 on it, a slot 12 in the upper part of the housing through which said knob projects and thereby limits the movement of the bolt, the outer end of the latter having a lateral extension 17 eccentric to the axis of rotation of the bolt and with the beveled surfaces 22 and 24 at the extreme outer end, a hook-shaped keeper 13 inclined at its upper surface, notches 16 and 19 formed by lateral extensions of slot 12 one on each side thereof, knob 11 and projection 17 being arranged at an angle so that when the former is turned into notch 16, projection 17 is turned up and against the inclined under surface of catch 13 and when knob 11 is turned into notch 19 the beveled surface 22 is turned up to enable the bolt to yield when coming in contact with the catch on opening, notch 19 being of a length to permit such retractive movement, but leaving it still within the path of the catch so that when coming again in contact with the latter on closing, such contact is by eccentric extension 17 and its outer surface 24 whereby the bolt is partially rotated for the purpose of releasing it from notch 19 into slot 12 whereby the bolt becomes capable to lock automatically.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

JACOB WALLENSTEIN.
HERBERT C. OETTINGER.

Witnesses:

ARTHUR KLINE,
C. SPENGLER.