(No Model.)

E. S. WINCHESTER.

SASH FASTENER.

No. 534,185. Patented Feb. 12, 1895.

Fig. 1.

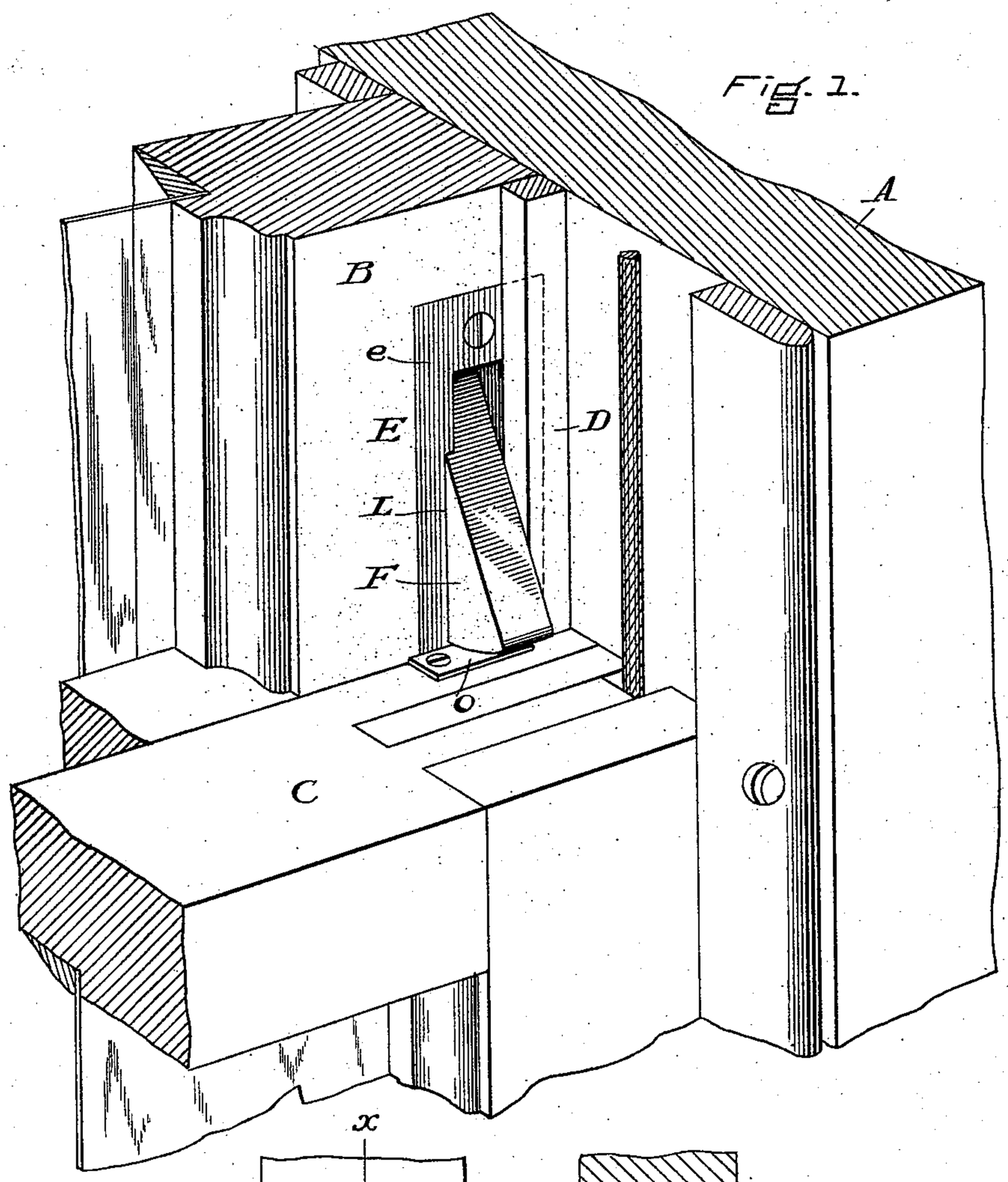


Fig. 4.

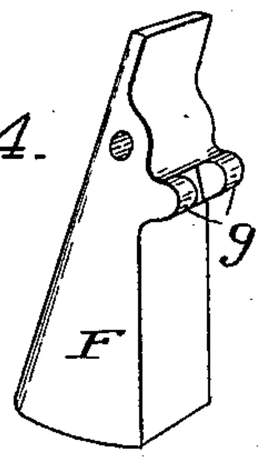


Fig. 2.

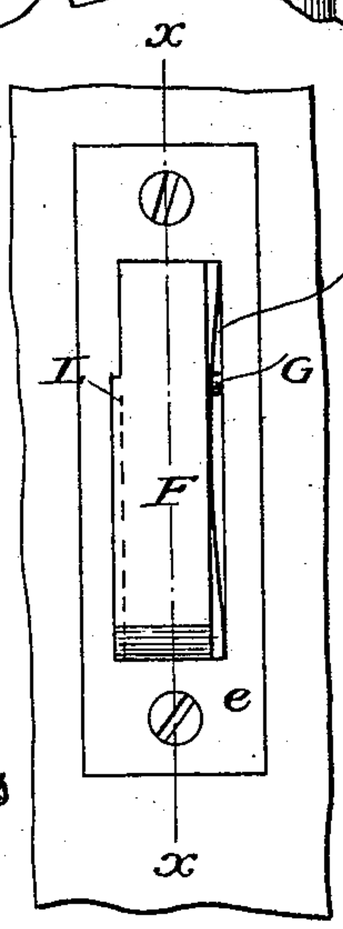


Fig. 3.

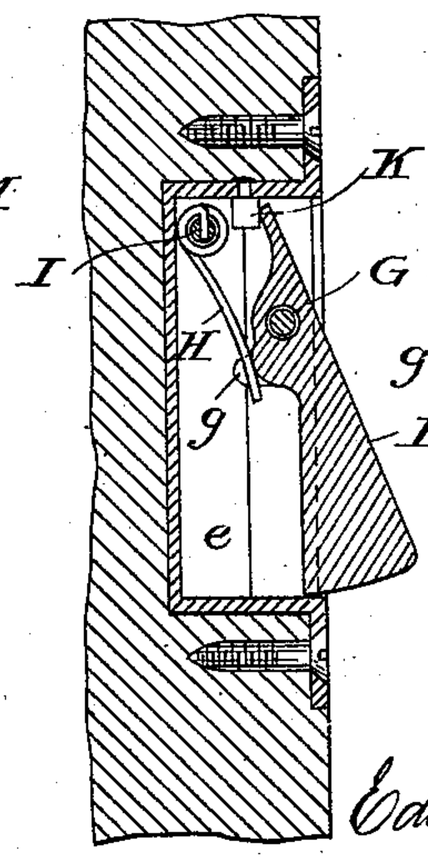
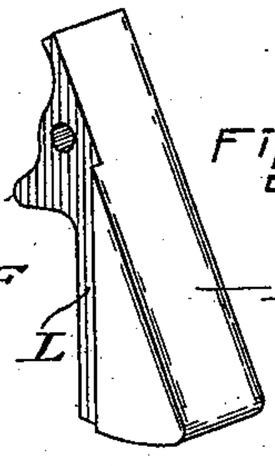


Fig. 5.



WITNESSES.
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EDWARD S. WINCHESTER, OF BOSTON, MASSACHUSETTS.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 534,185, dated February 12, 1895.

Application filed February 23, 1894. Serial No. 501,229. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. WINCHESTER, of Dorchester, (Boston,) county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Sash-Fasteners, of which the following is a specification.

The object of my invention is to provide a simple and effective sash fastener which when the sash is closed will operate automatically to lock and hold the same in position.

To this end the invention comprises a tumbler or dog adapted to be mortised, preferably into the upper sash, and arranged to be urged constantly forward to an operative position by a spring, the construction being such that when projected forward, the dog will overlie the lower sash and will move laterally and engage the casing thereby locking itself in a projected position.

The invention also consists in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a portion of two sashes, the same being provided with one of my improved fasteners. Fig. 2 is a front elevation of a portion of the sash with my fastener applied thereto, the locking spring being shown in modified form. Fig. 3 is a vertical longitudinal section through the same on the line *x*—*x*. Fig. 4 is a perspective view of the tumbler removed. Fig. 5 is a similar view of the tumbler as seen from the opposite side.

Referring to the drawings, A represents a portion of a window frame; B, the upper sash; C, the lower sash; D, the parting rail, and E, the sash fastener which, as shown in the present instance, is applied to the upper sash.

My improved fastener comprises a rectangular casing *e*, open at its front, in which a tumbler or dog F is mounted, the casing being mortised into the upper sash and secured by screws as plainly shown. The tumbler is so sustained by a guiding device within the casing, that it may be projected longitudinally to overlie the lower sash and also be moved laterally when projected to engage the casing and lock itself in position.

Various forms of guides for sustaining the tumbler so that it may partake of the above movements may be adopted, but I prefer to employ the construction shown in the drawings in which it will be seen that the tumbler is pivoted near its upper end on a horizontal pin G extending between the sides of the casing, and is so formed that when moved on its pivot rearward to an inoperative position, its front face will be flush with the front of the casing, and when projected to an operative position, its lower end will extend beyond the casing, as shown in Figs. 1 and 3, forming in effect a stop or shoulder. On its rear face the tumbler is provided with two ears *g*, a slight distance below its pivot, between which one end of a coiled spring H bears, the opposite end of the spring being secured in any suitable manner to a horizontal pin I fixed to the casing, the coils of the spring encircling said pin and receiving support therefrom. The end of the spring tends to constantly urge the tumbler forward and to yieldingly hold the same in this position, the forward motion of the tumbler being limited by a stop K projecting downward from the upper end of the casing on its interior, in position to be engaged by the upper end of the tumbler.

In order that when the tumbler is projected forward to an operative position it may automatically lock itself in this position, I cut away a portion of the side of the tumbler as at L, in Fig. 5, thus forming a shoulder *l*, the rear portion of the dog in this manner being of less width than its front portion. The shoulder is in such position that when the dog is projected, it will just clear the front of the casing, the result being that when in this position, the dog will have a limited lateral play on its pivot, so that when it is pushed laterally, the shoulder *l* will overlap the edge of the casing, and will prevent the dog from being pushed back until it is first slid in the opposite direction to its former position. To effect the automatic lateral movement of the tumbler to cause it to thus lock itself in an operative position, I contemplate employing either the coiled spring H, or a separate spring M, shown in Fig. 2.

In employing the coiled spring for this purpose, the end which bears against the rear face of the dog is bent laterally so as to exert a pressure in this direction, in addition to this forward pressure. In this way the spring will not only urge the dog forward, but also laterally, the result being that when the dog

is sufficiently far advanced for its shoulder to clear the front of the casing, it will be slid along its pivot by the spring and the shoulder will overlap the casing and prevent its return.

In Fig. 2 the separate spring is in the form of a plate bent slightly upward at its center to give it elasticity, it being inserted between the side of the tumbler and the casing, and tends constantly to urge the tumbler laterally. Under this arrangement the same result effected by the spiral spring H, as far as its lateral pressure is concerned, will be attained.

When the lower sash is closed and the tumbler is projected to lock the same, the unlocking of the tumbler is effected by pressing the same laterally on its pivot against the pressure of the spring and then pushing it inward, when the sash may be raised.

In applying my fastener, I prefer to secure the casing to the sash in such a position that the side will underlie the parting rail D, and this for the purpose of preventing its removal from the outside. The upper edge of the lower sash which underlies the tumbler when the latter is projected, is provided with a bearing plate O, in order that injury to the sash may be avoided.

It will, of course, be understood that my invention may be modified within reasonable limits provided the operation will be substantially as above described, the essence of the invention residing in so mounting the tumbler that it will, when projected forward, engage the casing and automatically lock itself in this position.

Having thus described my invention, what I claim is—

1. In a sash fastener the combination of the casing, a guiding device therein, a tumbler sustained by said guiding device movable both longitudinally and laterally and adapted to engage the casing when moved laterally, projecting mechanism acting on the tumbler and tending to impel the same longitudinally, and transversely acting mechanism for moving the tumbler laterally to cause it to engage the casing and lock itself in position.

2. In a sash fastener the combination with a pivoted tumbler movable laterally to a limited extent on its pivot when projected, of means tending constantly to project the same to an operative position, and means for moving the tumbler laterally to lock it when projected.

3. In a sash fastener the combination of the casing, a tumbler pivoted therein and movable laterally on its pivot when projected and formed with a shoulder to engage the casing, a spring tending normally to project the tumbler to an operative position, and means for moving the tumbler laterally to lock the same.

4. In a sash fastener the combination of the casing, a tumbler pivoted therein and movable laterally when projected and provided with a shoulder to engage the casing, and a spring having one end fixed and its opposite end arranged to bear both laterally and longitudinally against the tumbler; whereby when the tumbler is projected by the longitudinal pressure of the spring it will be caused to be moved also laterally by the spring and to be locked in position.

In testimony whereof I hereunto set my hand, this 19th day of February, 1894, in the presence of two attesting witnesses.

EDWARD S. WINCHESTER.

Witnesses:
HARRY P. BOSSON,
EUGENE M. SMITH.