W. E. STALLINGS.
SHUTTER FASTENER.
APPLICATION FILED JULY 21, 1915.

1,170,697. Patented Feb. 8, 1916.

Fig. 1

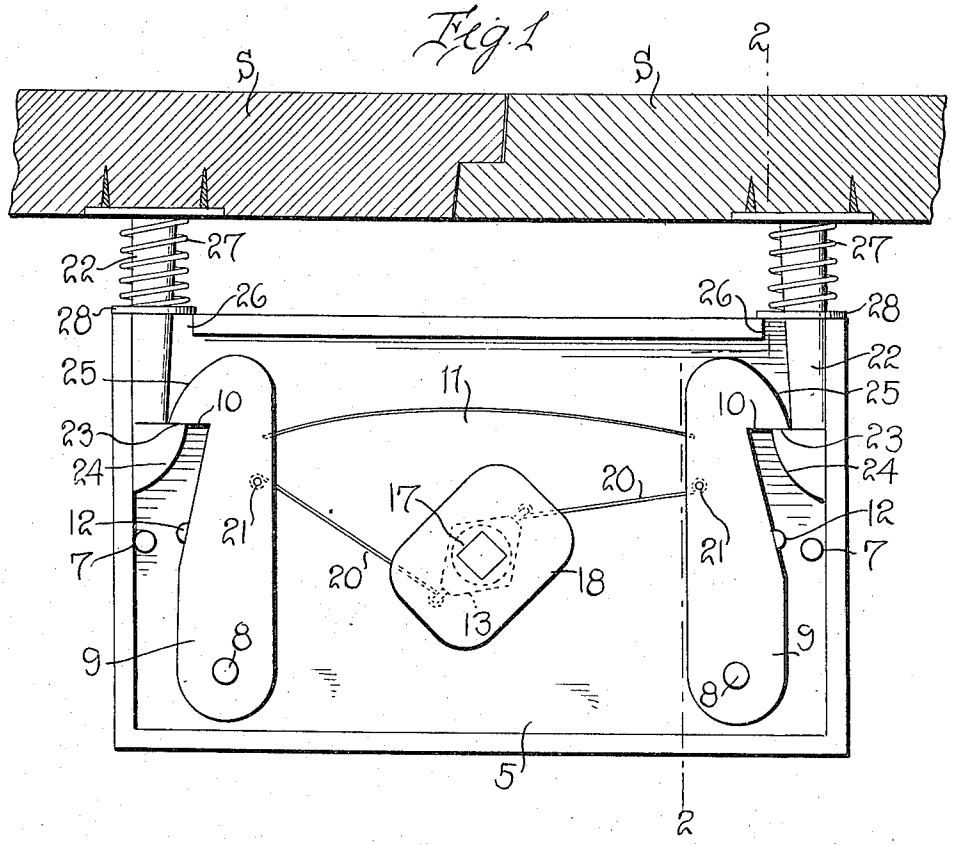


Fig. 2

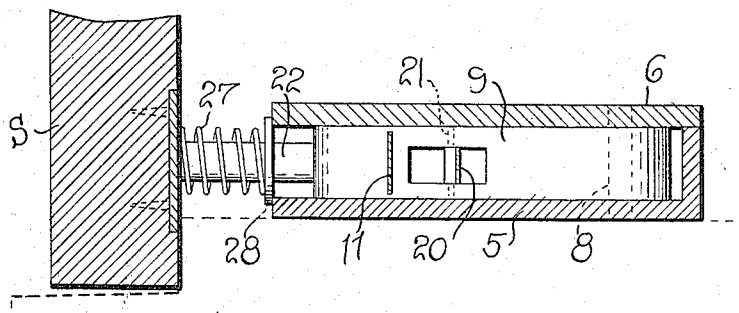
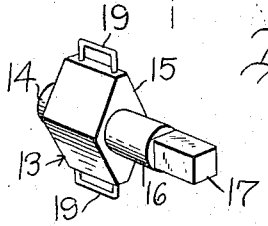


Fig. 3



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UNITED STATES PATENT OFFICE.

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SHUTTER-FASTENER.

1,170,697. Specification of Letters Patent. Patented Feb. 8, 1916.

Application filed July 21, 1915. Serial No. 41,159.

To all whom it may concern:

Be it known that I, WILFORD E. STALLINGS, a citizen of the United States, residing at Beaver Creek, in the county of Washington and State of Maryland, have invented certain new and useful Improvements in Shutter-Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved shutter fastener and has for its primary object to provide a simple device of this character for locking the window shutters in closed position, and means operating to forcibly move the shutters to open position when the same are released.

The invention has for a more particular object to provide a shutter lock or fastener embodying spaced spring-held locking pawls adapted for engagement with dogs carried by the respective shutters, springs arranged upon each of the dogs and placed under compression when the shutters are locked in closed position by the pawls, and means for simultaneously actuating the pawls whereby the shutters will be projected to their open positions by the expansion of the springs.

The invention has for an additional general object to provide a shutter lock which is of comparatively simple construction and may be easily and quickly applied in position for use in connection with the ordinary shutters without requiring any changes in the construction of the latter.

With the above and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which,

Figure 1 is a plan view of the top of the lock case removed and the shutters shown in section; Fig. 2 is a section taken on the line 2—2 of Fig. 1; and Fig. 3 is a detail perspective view of the pawl actuating spindle removed from the lock case.

Referring in detail to the drawing, 5 designates the body of the lock case and 6 the top or cover therefor which is secured in place by means of a plurality of screws 7 which extend through the base of the body 5 and are threaded into the window sill.

Adjacent to the opposite ends of the body of the case, pins 8 are fixed therein, and the top or cover 6 is provided with openings to receive the upper ends of these pins. Upon each of the pins 8 a locking pawl 9 is loosely mounted at one of its ends. At the other or free end of each locking pawl and in the outer longitudinal edge thereof, a shoulder 10 is formed. These pawls are yieldingly held against movement by a bowed leaf spring 11 which is engaged at its extremities in notches or seats provided in the inner longitudinal edges of the pawls. This spring normally holds the pawls in engagement with stop pins 12 which are fixed in the base of the lock case.

An operating spindle 13 has one of its ends reduced, as at 14, and rotatably mounted in the body wall of the lock case. This spindle is provided with a polygonal shaped enlarged section 15 extending between the body wall of the case and the cover thereof and is then formed with a cylindrical section 16 loosely engaged in an opening centrally provided in the cover 6. The upper end of the spindle is of square or rectangular form, as at 17, to receive the head or finger piece 18, whereby said bolt may be conveniently turned. In the opposite sides of the polygonal-shaped portion 15 of the spindle, staples 19 are fixed, to which the inner ends of the links 20 are loosely connected. The outer ends of these links are pivotally connected to pins 21 which are fixed in the respective pawls 9.

S designates the window shutters. At the bottom of each shutter, adjacent to the free longitudinal edge and on the inner face thereof, the horizontally disposed dogs 22 are securely fixed. These dogs are of cylindrical form and project inwardly at right angles to the shutter and have shoulders 23 formed upon their extremities. The end face of these shoulders is tapered, as at 24, to engage the rounded or tapering ends 25 of the pawls 9, whereby said pawls are forced inwardly against the action of the spring 11. When the shutters are closed, the dogs are adapted to extend through openings, indicated at 26, which are provided in the front longitudinal wall of the lock case. Upon each of the dogs 22, a coil spring 27 is loosely engaged and bears at one of its ends against the washer plate 28.

In the operation of the device, when the shutters are closed, the dogs 22 will be projected through the openings 26 and the shoulders 23 on said dogs will be engaged by the shoulders 10 on the pawls 9. The washer plates 28 bear against the longitudinal wall

of the case so that the springs 27 will be placed under compression in the inward movement of the dogs. Thus, the shutters will be securely held in their closed positions. When it is desired to open the shutters, the operator turns the rotatably mounted spindle by means of the finger piece 19 so that the links 18 will move the pawls 9 inwardly toward each other against the action of the spring 11, thereby disengaging the shoulders 10 on said pawls from the shoulders 23 on the locking dogs. The springs 27 will then expand and act to forcibly project the shutters to their open positions.

From the foregoing description, taken in connection with the accompanying drawing, the construction, manner of operation and several advantages of my invention will be clearly and fully understood. The device, while exceedingly simple, is also highly effective and serviceable in practical use and provides means which will automatically act to lock the shutters when they are closed and will also operate to move the shutters to their full open positions when the lock is actuated and the shutters released.

It is, of course, apparent that the size and proportions of the several parts may be greatly varied in order to adapt the device for use in connection with different types of window shutters, and the locking pawls may also be provided with independent operating means so that either shutter can be released while the other is held in closed position. The invention is also susceptible of many modifications in the form, proportion and arrangement of the several elements employed and I, therefore, reserve the privilege of resorting to all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:—

A shutter fastener including a lock case, a pair of pivotally mounted locking pawls mounted in said case, dogs fixed to the shutters adapted to extend into said case when the shutters are closed, a spring arranged between the pawls and acting to project the same into locking engagement with the dogs, a rotatable spindle mounted in the lock case, link connections between said spindle and the pawls to move the same out of engagement with the dogs and close the shutters, and springs arranged upon said dogs and placed under compression when the respective shutters are moved to closed position and acting by their expansive force, when the shutters are released, to forcibly move the shutters to their open positions.

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

WILFORD E. STALLINGS.

Witnesses:
ALBERT B. MARTIN,
JOHN P. NEWCOMER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."