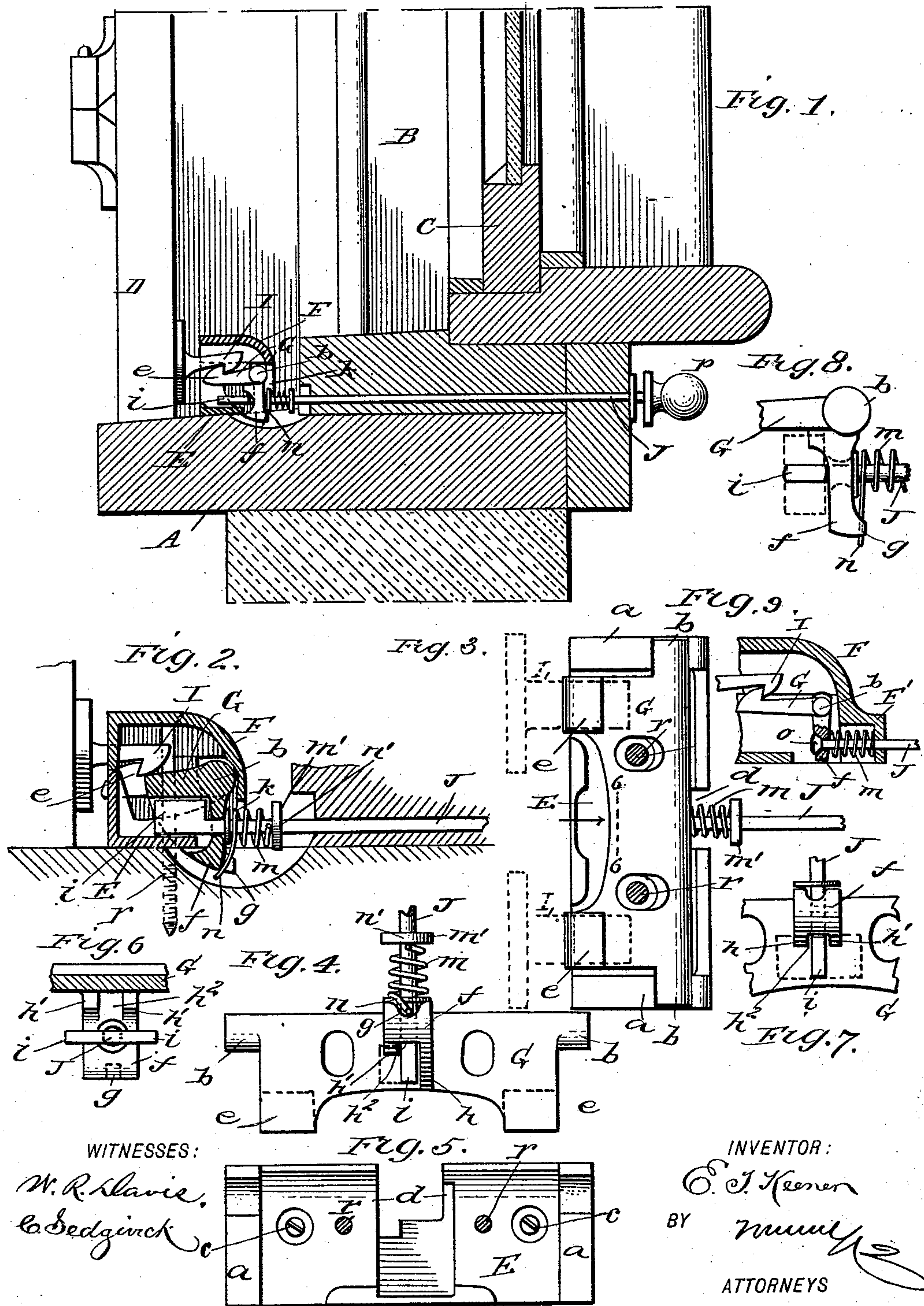


(No Model.)

E. T. KEENER.  
SHUTTER FASTENER.

No. 459,292.

Patented Sept. 8, 1891.





# UNITED STATES PATENT OFFICE.

EDWIN T. KEENER, OF MOBERLY, MISSOURI.

## SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 459,292, dated September 8, 1891.

Application filed January 8, 1891. Serial No. 377,111. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN T. KEENER, of Moberly, in the county of Randolph and State of Missouri, have invented a new and useful  
5 Shutter-Fastener, of which the following is a full, clear, and exact description.

My invention relates to improvements in shutter-fasteners of the latch-hook type, and has for its objects to produce a simple, inexpensive, and practical device of the class indicated which will afford means to securely  
10 lock a pair of shutters in closed adjustment and release them from within the apartment without raising the sash.

15 To these ends my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate  
20 corresponding parts in all the figures.

Figure 1 is a broken transverse section of a window-frame, the lower sash closed and one shutter with its fastener in cross-section indicating a locked condition, the improved shutter-fastener being represented in the initial  
25 stage of adjustment necessary for a subsequent release of the shutter. Fig. 2 is an enlarged view of the shutter-fastener in cross-section, a closed shutter broken, and the sub-sill of a window-frame, also broken, the parts of the fastening device being represented in a locked condition. Fig. 3 is an enlarged plan  
30 view of the shutter-fastener, the releasing-rod being shown broken and the shutter-hooks in dotted lines. Fig. 4 is an enlarged detached reversed plan view of the rocking latch-plate, which is part of the improved device. Fig. 5  
35 is a plan view of the base-plate and securing-screws therefor. Fig. 6 is a modified form for a locking and releasing device that is an important feature of the invention, embraced between the terminals of the line 6 6 in Fig. 3 and viewed in the direction of an adjacent  
45 arrow. Figs. 7 and 8 are plan and side views, respectively, of the device shown in Fig. 6; and Fig. 9 represents another modification for the device that operates the rocking latch-plate.

50 In the drawings, A represents the sub-sill; B, the window-frame stile broken; C, the lower part of a lower sash, and D the lower portion

of a shutter hinged to swing on the window-frame.

The shutter-fastener mechanism is mainly  
55 contained in or supported on a casing that consists of a base-plate E and a cap-plate F, said casing, when in position, being mounted upon and secured to the sub-sill A at a proper point to permit its internal latching device to  
60 be engaged removably with two shutter-hooks, preferably, or one hook if a single shutter is to be secured.

The construction of the fastener is as follows: The base-plate E is substantially rectangular on its edges, of a suitable length and  
65 width, and at each end has vertical ledges *a* formed on it of a proper height, each ledge being oppositely grooved on its top edge to receive the trunnion ends *b* of a rocking latch-plate G, the base-plate having screw-holes  
70 provided at proper points to receive the screws *c*, whereby it is secured on the sub-sill A, one of the edges of the base-plate being notched, as at *d*, for the free movement of another part  
75 of the device, which will be explained in its order. The rocking latch-plate G is of such a length proportioned to that of the base-plate E between its ledges *a* that it will rock freely  
80 thereon when its trunnions *b* are seated in the grooves of the ledges *a*. On the upper face of the rocking latch-plate G two hooks *e* of similar shape are formed at the edge, which  
85 is forward of the trunnions *b* and near the ends of the latch-plate, so as to adapt said hooks for an engagement with the shutter-hooks I, that are secured at proper points  
90 upon the shutters D and project therefrom rigidly, the cap-plate F having its face adjacent to the shutters cut away to afford freedom for the insertion of the hooks I above  
95 the hooks on the plate G, as shown by dotted lines in Fig. 3. Near the longitudinal center of the rocking latch-plate G a depending limb *f* is formed thereon substantially at a right  
100 angle to the general surface of said plate on its lower side, which limb is preferably constructed as shown in Figs. 2 and 4, the first figure indicating the side and the latter named the bottom of the limb, which is notched at *g*  
for the engagement therewith of an end of a wire spring, which will be further explained. A notch *h*<sup>2</sup> is cut in the limb *f* opposite the notch *g* and above it, there being a flange-



wall  $h$  permitted to stand integral with the  
 body of said limb and a shorter projection  
 formed on the limb, so as to afford a detent-  
 ear  $h'$ , the notch  $h^2$  separating the ear and  
 5 flange-wall, as shown in Fig. 4. The rod J is  
 made of such a proportionate length that it  
 will extend from the inner face of the sub-  
 sill A through a perforation made in said sill  
 transversely and project within the incase-  
 10 ment of the shutter-fastener, there being a  
 lateral lip  $i$  formed on its inserted end, either  
 of solid metal or in loop form, which is of a  
 proper thickness and breadth as well as length  
 to adapt it to rock within the case of the fast-  
 15 ener and enter the notch  $h^2$  when the rod is  
 longitudinally adjusted to effect such an en-  
 gagement of parts, the body of the limb  $f$   
 having a perforation of proper size formed in  
 it at a point which will allow the rod  $j$  to pass  
 20 loosely through the limb and the latter named  
 to vibrate without binding upon said rod.  
 There is an aperture  $k$  cut in the vertical wall  
 of the cap-plate F opposite the notch  $d$  in  
 the base-plate E, through which the rod J is  
 25 inserted, and upon said rod, adjacent to  
 the limb  $f$  of the latch-plate G, a washer is  
 preferably located, whereon one end coil of a  
 spiral spring  $m$  impinges, the other end coil  
 of said spring being in contact with a collar  
 30  $m'$ , that radially projects from the rod J at  
 such a point as will permit the reciprocal  
 movement of said rod and the proper vibra-  
 tion of the rocking latch-plate G. As repre-  
 sented in Figs. 2 and 4, the spring  $m$  has one  
 35 terminal end  $n$  interlocked with the notch  $g$   
 of the limb  $f$ , as before mentioned, this ex-  
 tended depending end portion being curved  
 toward the limb, so as to adapt it to exert  
 pressure upon the free lower extremity of the  
 40 same and when the parts are properly ad-  
 justed rock the plate G upwardly. Below the  
 ear  $h'$  on the limb  $f$  said limb is cut away to  
 produce a shoulder on the advanced portion  
 of the same, as shown in Fig. 1, so that the  
 45 partial rotation of the rod J in a proper di-  
 rection or away from the flange-wall  $h$ , when  
 released from the notch  $h^2$ , will carry the edge  
 of the lip  $i$  below the ear  $h'$ , as shown by dot-  
 ted lines in Fig. 4, and thus adapt the latch-  
 50 plate G to rock on its trunnions  $b$  in a down-  
 ward direction, so as to release the shutter-  
 hooks I when the rod J is pulled by its  
 thumb-knob  $p$  sufficiently to effect such a  
 rocking movement of the plate G.  
 55 As shown in Figs. 2 and 5, the cap-plate F  
 of the casing of the shutter-fastener and  
 contained parts is screwed fast by the screws  
 $r$  to the sub-sill A, and, if necessary, there  
 may be a slight excavation made in the lat-  
 60 ter to facilitate the freedom of action of the  
 parts, as represented in the figure named, ob-  
 long holes being made in the latch-plate G  
 for the insertion of the screws  $r$  and free  
 movement of said plate. In use the lip  $i$  is  
 65 turned by the rod J and knob  $p$  thereon so  
 as to give it a vertical position, the spring  $m$   
 causing the plate G to rock upwardly and en-

gage the hooks I and simultaneously inter-  
 lock its notch  $h^2$  with the adjacent end of  
 the lip, as shown in Fig. 4. The engagement 70  
 of parts just described will afford a support  
 for the horizontally-extended portion of the  
 latch-plate G, which, when hooked to the  
 shutter-hooks I and thus braced, will retain  
 the shutters closed and locked until a proper 75  
 manipulation of the rod J is effected to re-  
 lease them.

In Figs. 6, 7, and 8 a slightly-modified form  
 of the locking device for the rocking latch-  
 plate G is shown, which consists in the cut- 80  
 ting away of the flange-wall  $h$ , so as to pro-  
 duce two similar detent-ears  $h'$ . The rod J  
 is also provided with two lips  $i$ , extended op-  
 positely, the lower portion of the depending 85  
 limb  $f$  being formed to permit a half-revolu-  
 tion of the rod J and said lips, so that the rod  
 may be moved to the right or left when  
 pushed in so as to release the engaged lip  
 from the notch between the ears  $h'$ , the hori-  
 zontal adjustment of the lips permitting the 90  
 latch-plate G to rock on its trunnions and re-  
 lease the shutter-hooks I, as before explained.

In Fig. 9 there is another modification of  
 the device shown, which consists in provid- 95  
 ing the cap-plate F with a chambered projec-  
 tion  $F'$ , that is so located as to afford a receiv-  
 ing-case for the spring  $m$ , which spring has  
 one end in contact with the inner surface of  
 the end wall of the spring-case, the other ter-  
 minal end bearing upon the limb  $f$ , which lat- 100  
 ter is perforated to receive the rod J and its  
 head  $o$ . In use an inward draft upon the rod  
 J, effected by pulling the knob  $p$ , (shown in  
 Fig. 1,) will rock the plate G downward and re-  
 lease the hook I, the release of the rod per- 105  
 mitting the spring  $m$  to restore the latch-plate  
 G to its normal position, as represented in  
 Fig. 9.

Having thus described my invention, I  
 claim as new and desire to secure by Letters 110  
 Patent—

1. In a shutter-fastener, the combination,  
 with a rocking latch, of a sliding operating-  
 rod connected at its inner end with the said  
 latch to rotate therein and provided with a 115  
 locking device adapted to engage the said  
 latch and lock it against rocking when the  
 rod is rotated in one direction, substantially  
 as set forth.

2. In a shutter-fastener, the combination, 120  
 with a rocking latch having an apertured  
 arm at an angle thereto, of a sliding operat-  
 ing-rod extending at its inner end loosely  
 through said aperture and having a projec-  
 tion or lip to engage the lower or under face 125  
 of the latch and prevent it from being rocked  
 when the rod is rotated in one direction, sub-  
 stantially as set forth.

3. In a shutter-fastener, the combination, 130  
 with a rocking latch having an apertured arm  
 $f$  at an angle thereto and a notch  $h^2$  in the  
 front side of the arm above said aperture, of  
 the sliding operating-rod extending through  
 said aperture to turn therein and provided



with a projection or lip *i* to enter said recess and prevent the latch from being rocked, substantially as set forth.

4. In a shutter-fastener, the combination, 5 with the rocking latch having an apertured arm *f* at an angle thereto, vertically-extending flange-wall *h*, a detent-ear *h'*, and the notch *h*<sup>2</sup> above the aperture and separating the said flange-wall and ear, of the sliding operating-rod passed freely through said apertured arm and having a lateral lip *i*, adapted 10 to enter the notch *h*<sup>2</sup> and lock the latch from rocking, substantially as set forth.

5. In a shutter-fastener, the combination, 15 with the rocking latch *G*, having a depending apertured arm *f*, formed on its rear side below its aperture with a notch *g*, of the sliding rod *J*, extending through the apertured arm and having a lateral lip *i* to lock the latch 20 against rocking, a collar or shoulder *m'* on the rod, and the spring *m* between said collar and the arm *f*, the extremity *n* of the spring entering said notch *g*, substantially as set forth.

25 6. A shutter-fastener comprising the base *E*, having end walls *a a*, provided with recesses and a cover-plate *F*, the cover and base being apertured for the passage of securing-screws *r*, the latch *E* having end trunnions 30 resting in the said recesses and formed with the depending apertured arm *f*, having a notch *g* below its aperture, and the rod *J*, extending through the said aperture and formed with a lateral lip *i* to lock the latch against 35 rocking and provided at the opposite side of the arm *f* with a spring *m*, the extension *n* of

which enters the notch *g*, substantially as set forth.

7. In a shutter-fastener, the combination, with a separable casing, of a rocking latch- 40 plate having two catches on it, a depending limb intermediate of the catches and apertured laterally for the insertion of a releasing-rod, and a spring-actuated revoluble and reciprocating rod that extends to the house 45 interior and has a lateral lip on its outer end which may lock fast to or be released from the limb of the latch-plate by the manipulation of the extended rod, substantially as set forth. 50

8. In a shutter-fastener, the combination, with a casing that is separable and is adapted to revolvably support a trunnioned latch-plate having spaced catches on it, and a depending 55 limb between the catches, of a revoluble and reciprocating rod having a lateral lip on its end within the casing below the latch-plate, said rod being adapted to interlock with a notch on the depending limb and hold the latch-plate from vibration or to be turned 60 and engage a shoulder below the locking-notch on the limb of the latch-plate, and a spiral spring which is interlocked by one end with the latch-plate limb and bears upon a collar on the rod, and is thus adapted to exert 65 pressure and expansible force on the rod and the lip, substantially as set forth.

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Witnesses:

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