

J. SALZER.
Key-Hole Guards.

No. 146,715.

Patented Jan. 20, 1874.

FIG. 1.

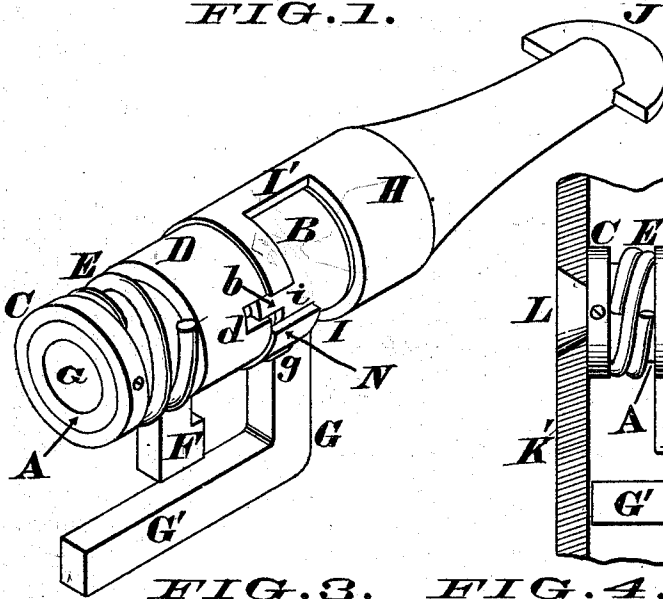


FIG. 2.

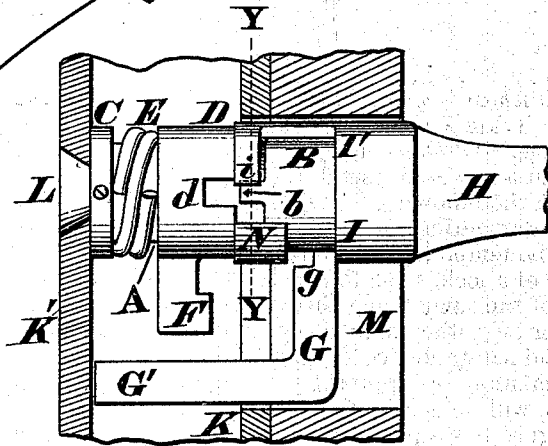


FIG. 3.

FIG. 4.

FIG. 6.

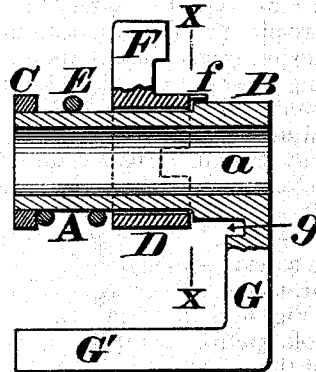
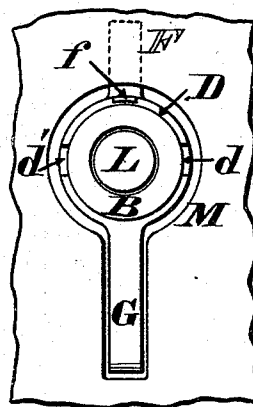
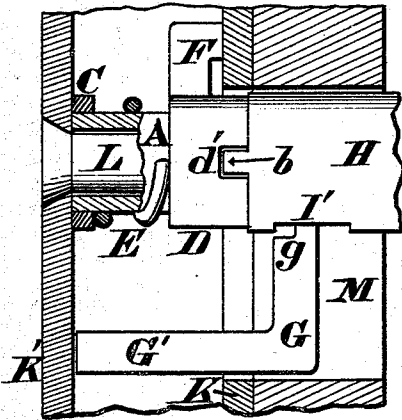


FIG. 5.

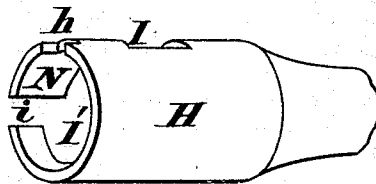
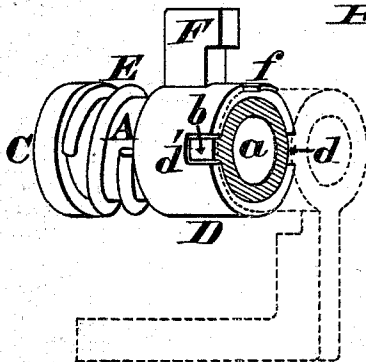
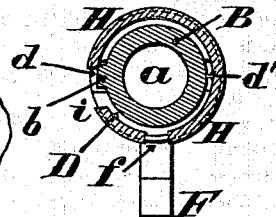


FIG. 7.



Attest.
 Jas. H. Layman,
 Walter Allen

Joseph Salzer
 Ray & Knight
 Att'ys.

UNITED STATES PATENT OFFICE.

JOSEPH SALZER, OF CARLISLE, KENTUCKY.

IMPROVEMENT IN KEY-HOLE GUARDS.

Specification forming part of Letters Patent No. **146,715**, dated January 20, 1874; application filed December 26, 1873.

To all whom it may concern:

Be it known that I, JOSEPH SALZER, of Carlisle, Nicholas county, Kentucky, have invented a new and useful Key-Hole Guard, of which the following is a specification:

This invention relates to a safety device which is to be temporarily applied to the key pin or pivot of a lock, so as to effectually prevent the bolt of the same being thrown either by a false key or any other implement; and the details of said safety device or guard, together with the manner of applying and operating the same, will be hereinafter fully explained.

Figure 1 is a perspective view of my safety device coupled to its special key, and ready for insertion within the key-hole of a lock. Fig. 2 represents the safety device applied to the key-pin pivot of a lock, and the key of said device forced back so as to disengage the rotating sleeve from the clutch-pin. Fig. 3 represents the position the various parts assume after the rotating sleeve has been turned half-way around. Fig. 4 is an elevation of the key-hole, showing the safety device in position, its key being detached and withdrawn from the lock. Fig. 5 is a perspective view of the safety device and its operating-key detached, the guard being sectioned at the line *x x*. Fig. 6 is an axial section through the key-hole guard, and Fig. 7 is a vertical section of the guard and its operating-key at the line *y y*.

The principal member of my key-hole guard consists of a short tube or cylinder, A, whose axial bore *a* is adapted to fit snugly around the key pin or pivot of the lock, to which said guard is to be applied. One end of this tube is "bushed," or otherwise enlarged in diameter, at B, while the other end of the tube has a collar, C, riveted to it. This enlargement B and collar C serve to prevent the detachment of a sleeve, D, from the tube A, while at the same time said sleeve is free to have a slight longitudinal movement, and to be rotated when desired. E is a spiral or other spring, that bears against the collar C and the opposing end of sleeve D. The sleeve D has a lug, F, attached to it, for a purpose which will presently appear. Secured to the end of tube A is a bar, G, having a horizontal projection, G', and a notch, *g*, said bar and its projection be-

ing just wide enough to pass through the slotted portion of the key-hole. Projecting externally from the tube A, at the line of junction with its enlargement B, is a pin, *b*, which is adapted to engage with either of the diametrically-opposite recesses or notches *d* or *d'* of the rotating or slidable sleeve D. Projecting from the notched end of said sleeve, and in line with its lug F, is a short stud or stump, *f*.

The above-described devices are the essential members of the guard proper; but, in order to apply said guard to a lock, and to disengage it therefrom, it is necessary to employ a peculiarly-constructed key, which is arranged as follows: H is a key, the barrel of which is of such dimensions as to fit snugly around the enlargement B of the tube without slipping over the sleeve D, and said barrel is provided with a circumferential slot, I, which is enlarged at I', and said slot extends about half-way around the barrel. The circumferential slot I has an interval, *i*, in it, which interval is large enough to receive the bar G of the tube A. The end of key H is notched at *h*, to engage with the stud *f* of the sleeve. This special key H may be provided with a thumb-piece, J, to enable it to be turned with facility. K is the front plate, K' the back plate, and L the pin or pivot, of a common pipe-lock. M is the key-hole of the lock.

The manner of using my safety-guard is as follows: Before being inserted in the lock, the guard must first be coupled to its special key, which is accomplished in this manner. The lug F being supposed to be elevated, the key H is applied to the guard, so as to cause the bar G to enter the interval *i*, after which said key is rotated to the left until the stud *f* engages with the notch *h* in the end of the key. By gently pressing upon the key, the sleeve D is forced back far enough to disengage its notch *d'* from the pin *b*, which having been accomplished, said key is rotated toward the right, carrying the sleeve around with it, until the stress of spring E causes the other notch *d* to snap over pin *b*. This longitudinal movement of the sleeve, which causes its notch *d* to engage with the pin *b*, also forces the tongue M of the key into the recess *g*, thereby coupling the safety-guard and its special key together, as clearly shown in Fig. 1.

The guard is now ready to be applied to a lock in the following manner: The key H, and the safety device coupled to it, are both inserted in the key-hole M, so as to cause the pivot L of the lock to enter the tube A, after which said key is pressed back far enough to carry the sleeve D away from the enlargement B, thereby disengaging the notch *d* from pin *b*, as seen in Fig. 2. The key H is then turned to the left, carrying the sleeve around with it, until its lug F assumes a vertical or almost vertical position, which semi-rotation brings the recess *d'* in line with the pin *b*. The stress of spring E causes the sleeve to advance sufficiently to engage its recess *d'* with the pin *b*, so as to prevent any further rotation of said sleeve, as seen in Figs. 3, 4, and 5. The key is then drawn slightly forward, so as to unship its notch *h* from the stud *f*. The key is now turned to the right until its interval *i* is brought in line with the bar G, and then said key is completely withdrawn from the lock, but leaving the guard therein, as seen in Fig. 4. When thus left remaining in the lock, it will be seen that the collar C and bar G' bear against the back plate K' of the lock, while the now up-turned lug F is forced against the front plate K by the outward stress of spring E. As the enlargement B of the tube about fills up the circular portion of the key-hole M, and as the bar G obstructs the straight portion or slot of the same, it will readily be understood that a

false key or other implement cannot be inserted in the lock so as to throw the bolt of the same, and consequently any ordinary lock can be rendered absolutely safe by merely applying my guard to the same. To disengage the guard, so as to allow the bolt of the lock to be thrown by the proper key provided for that purpose, it is only necessary to reverse the above-described operations.

In the drawings, the lug F is shown as brought to a vertical position when the guard is fitted within the lock; but it is evident that the pin *b* may be so located as to arrest the rotation of the sleeve before its lug reaches such a position. In fact, it will be necessary to vary the position of the pin *b* in different guards of one and the same size, or otherwise one key would operate every guard made of the same size.

I claim as my invention—

The within-described safety-guard for locks, consisting of the cylinder A B C, sleeve D, spring E, lug F, and bar G G', when arranged and adapted to be used, in connection with the special key P h I' i N, in the manner herein explained, and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

JOSEPH SALZER.

Attest:

GEO. H. KNIGHT,
WALTER H. KNIGHT.