(No Model.)

2 Sheets—Sheet 1.

J. F. WITT.

LOCK.

No. 559,960. Patented May 12, 1896.

Fig. 1.

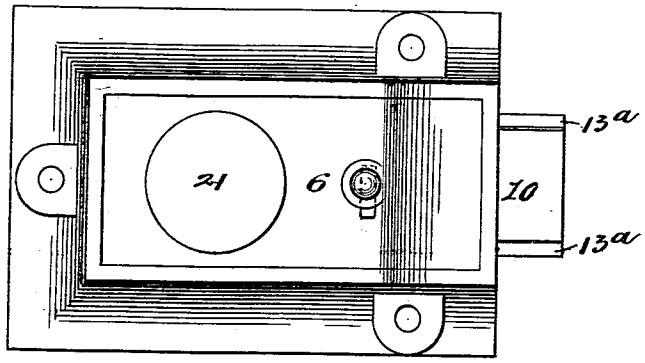
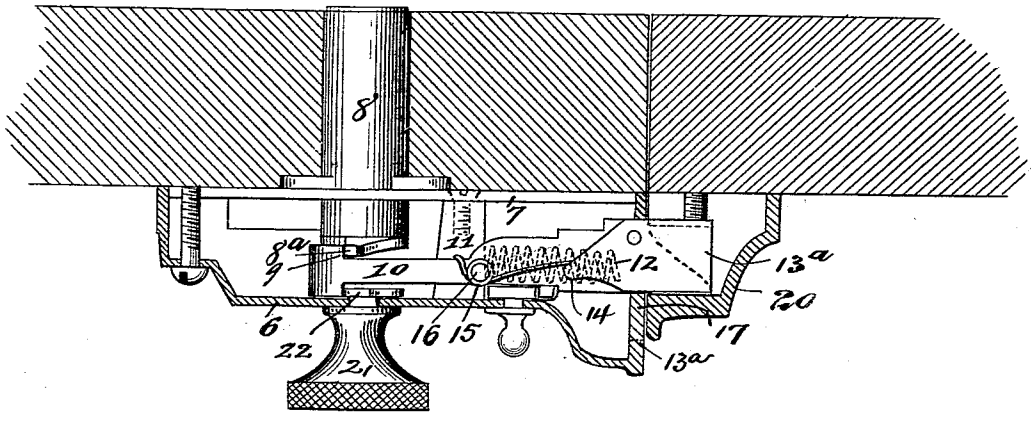


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

J. F. WITT.

LOCK.

No. 559,960. Patented May 12, 1896.

Fig. 3.

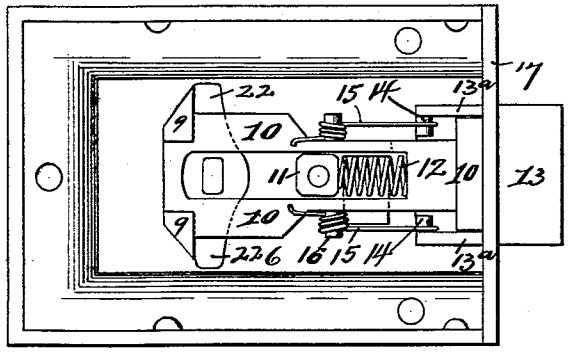


Fig. 4.

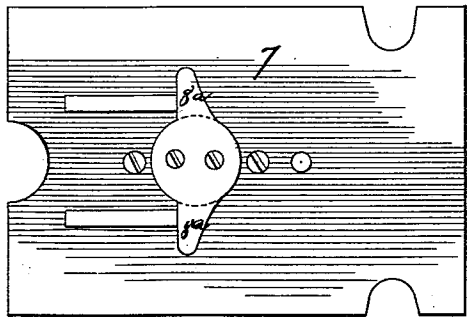
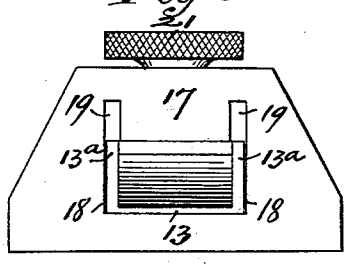


Fig. 5.



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UNITED STATES PATENT OFFICE.

JULIUS F. WITT, OF CHICAGO, ILLINOIS.

LOCK.

SPECIFICATION forming part of Letters Patent No. 559,960, dated May 12, 1896.

Application filed October 11, 1895. Serial No. 565,327. (No model.)

To all whom it may concern:

Be it known that I, JULIUS F. WITT, of Chicago, Illinois, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to an improvement in locks, and is designed to furnish a safeguard against the pressing back of the bolt by the insertion of an instrument between the edge of the door and the lock-case.

In the accompanying drawings, Figure 1 is an elevation of the lock-case with the bolt projected. Fig. 2 is a sectional plan view through the door, door-jamb, and showing the keeper in place, the bolt being engaged in the keeper. Fig. 3 is an inverted plan view of the lock-case with the back plate removed. Fig. 4 is a plan view of the inner side of the back plate; and Fig. 5, an end elevation of the case with the back plate removed, intended particularly to show the outlines of the apertures through which the bolt works.

In carrying out my invention I employ a reciprocating locking-bolt having a guard pivotally connected thereto and controlled by a suitable spring, in combination with an end plate having recesses in which the members of the bolt work.

In the drawings, 6 represents the case of the lock, which is provided with a back plate 7, carrying the barrel 8 for the tumblers. To the tumbler-post is secured the dogs or levers 8^a, which operate upon lugs 9 on the skeleton shank of the bolt 10. A fixed post 11 projects from the inner face of the case and has a threaded socket by means of which the back plate is secured. Said post also forms an abutment for the actuating-spring 12 and a guide for the bolt in its reciprocation. The forward end of said bolt is beveled or cut away, as shown by the dotted lines in Fig. 2, and a U-shaped guard 13 is pivoted thereto, the side members of said guard (marked 13^a) embracing the sides of the nose of the bolt. This guard-plate has lateral projections 14, upon which light springs 15 bear, said springs being turned around studs 16, projecting from the sides of the shank, and the extremities of said springs having bearings on the shank.

17 represents the end plate of the case, which has a rectangular opening 18 and two narrow slots communicating therewith and marked 19, said slots being in the same plane at their sides as the main opening and in line with the side members of the pivoted guard and of such width as to permit said side members to pass into them in the closing of the door.

20 represents the catch-plate, which may be of the usual form. The usual milled knob 21 is provided, having the arms or dogs 22 engaging the shoulders on the outer surface of the shank of the bolt, so that the latter may be withdrawn by the turning of said knob. Normally the guard is held in line with the bolt and is permitted to swing on its pivot against the action of its controlling-spring when it strikes the catch, and is then swung back to its normal position after it enters the catch. In this position the edges of its side members have a bearing upon the inner face of the keeper, and it is impossible by the insertion of an instrument between the end plate of the lock and the inner face of the catch to move the guard on its pivot. This guard therefore serves to prevent the forcing back of the bolt, which is comparatively easy when the beveled end of the latter is left unprotected.

It will be observed that my invention is applicable to the simplest form of locks, that shown being a cheap style of lock, which is, nevertheless, in general use, and can, by means of my improvement, be made as safe as locks of much more expensive construction.

My invention can be readily applied to other varieties of locks and requires no special construction of the catch, and indeed no special construction of any of the ordinary parts of the lock, with the exception of providing the end plate of the case with the extended slots, forming a clearance for the guard when turning on its pivot in closing the door.

The details of construction may be varied, and therefore I do not limit my invention specifically thereto, except to the extent indicated in the claims.

I claim—

1. A safety-lock, comprising in combination with a lock-case a reciprocating bolt having a guard-plate pivotally connected thereto

and embracing three sides of the bolt-nose and adapted to bear upon the inner side of the catch or keeper, substantially as and for the purpose described.

2. A safety-lock, comprising a case having an end plate with a rectangular opening and parallel slots communicating with said opening and in the plane of the sides thereof, a locking-bolt having the usual beveled nose and a guard-plate pivoted to the bolt and having a closed back and sides embracing the sides of the bolt-nose and adapted to pass into said slotted extensions of the opening during the closing of the door, substantially as described.

3. A safety-lock having a spring-actuated bolt, a U-shaped guard pivoted to said bolt at the base of the nose thereof, a spring normally tending to hold said guard in line with the bolt and an end plate having a bolt-opening provided with slots, substantially as and for the purpose described.

JULIUS F. WITT.

Witnesses:
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