(No Model.)

L. CROUCH & W. E. STOKES.

LOCK.

No. 595,606. Patented Dec. 14, 1897.

Fig. 1.

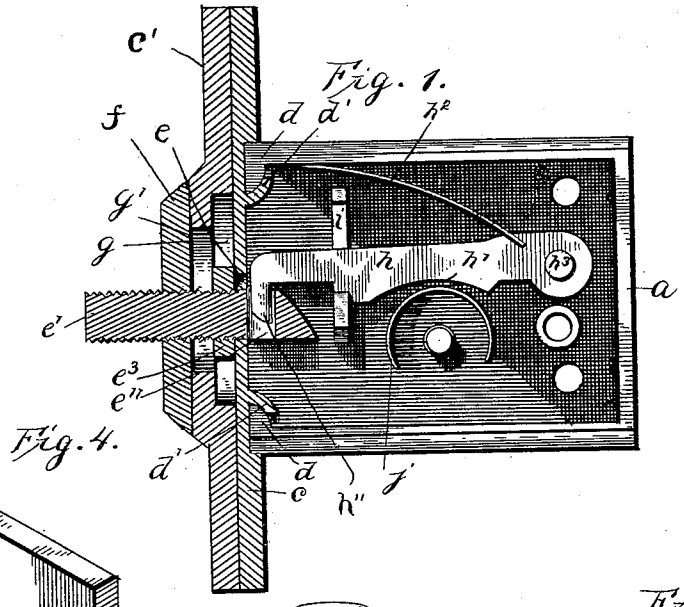


Fig. 4.

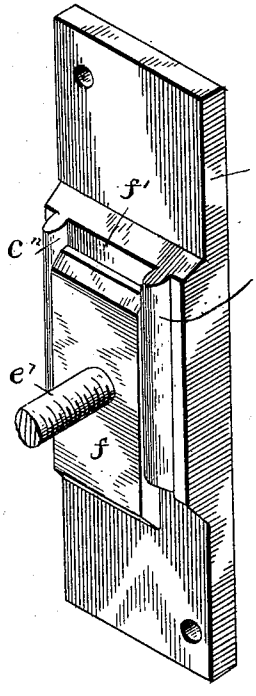


Fig. 5.

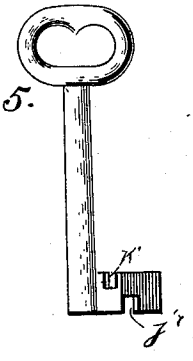


Fig. 2.

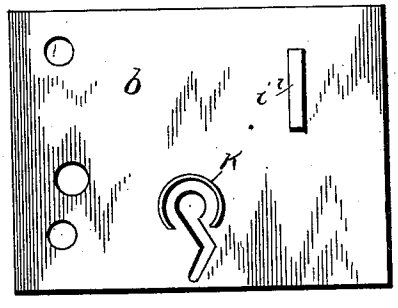
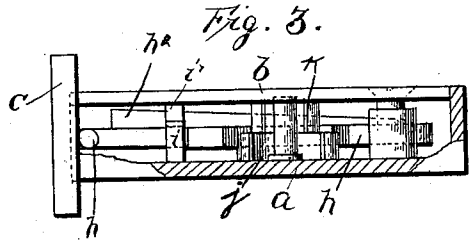


Fig. 3.



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UNITED STATES PATENT OFFICE.

LUTHER CROUCH AND WILLIAM E. STOKES, OF WABASH, INDIANA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 595,606, dated December 14, 1897.

Application filed January 12, 1897. Serial No. 619,008. (No model.)

To all whom it may concern:

Be it known that we, LUTHER CROUCH and WILLIAM E. STOKES, of the city of Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Locks; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain new and useful improvements in mortise-locks adapted to be used on all sliding and rolling doors, such as are used on freight and passenger cars, mills, factories, elevators, &c., and has for its object simplicity, durability, and cheapness of construction and a minimum number of parts.

A further object of the invention is to provide means to prevent the lock being easily opened or picked.

A further object is to provide a post, catch, or staple vertically and longitudinally adjustable.

A further object is to provide a bolt, spring-controlled, arranged in such relation to the front plate as to shift excessive strain to the front plate and relieve its post or pivot.

Another object of this invention is to provide a lock always in operative position and one that will not readily get out of order.

The great utility, efficiency, and accuracy of this lock are obvious; and it consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

In the drawings, Figure 1 is a partial vertical section through the post, catch, or staple, one side of the lock proper being removed, showing the parts in relative and operative position. Fig. 2 is an elevation showing the inner side of one of the sides as removed from Fig. 1. Fig. 3 is an inverted elevation of the lock, the bottom wall being broken away. Fig. 4 is a perspective view of the plate carrying the catch or staple, showing its vertical movement.

Referring by letter to the drawings, *a* is a lock-casing attached to the face-plate *c* and having the movable side *b*. At the front end of the casing and integral therewith are the shoulders *d*, engaging the ears *d'* of the face-plate and securely held thereby. In the face-plate *c* is an opening *e* for the reception of the post, catch, or staple *e'*, carried by the vertically-sliding block *f*, which slides in the way *f'*, formed in the stationary face-plate *c'*.

The catch or staple *e'* is beveled at its front end and is provided with an opening *e''* near said beveled front end and is screw-threaded its full length rearwardly and provided with a nut e^8, which moves vertically in the recess *g*, which is formed in the front face of the stationary face-plate. The catch or staple *e'* passes rearwardly through the nut e^8, through a slot *g* in the face-plate, and through the sliding block *f*.

The face-plate *c'* can be on the jamb where there is only one door used; but when double doors are used the stationary plate carried by the lock is on one, while the plate carrying the movable catch is fitted to the other, so that when the two face-plates come together the catch or staple will engage the bolt, the movable latch or bolt yielding to the irregularities of the door.

About or near the center of the casing *a* is pivoted the bolt or hook *h*, having within its length a concave or curved portion *h'* to receive the pressure of the key and raise the bolt against the tension of the flat spring h^2, which is carried by said bolt and bears its free end against the upper wall of the casing.

Just below the spring and integral with one side of the casing is a wall *i*, cut away in its center to allow the bolt to freely work therein, the bottom portion of the wall forming a stop to limit the downward, closing, or locking motion of the bolt. Integral with the movable side *b* is formed a wall *i'*, adapted to register and fill in the cut-away portion, leaving room for the bolt to move freely between the said two walls *i* and *i'*, thereby forming a guide and brace all around the bolt.

The bolt *h* is arranged so near the face-plate *c* that the lug *h''*, which is adapted to enter the opening *e''*, has just space to freely move, so that when there is a great or excess-

ive strain on the lock the bolt will bear against the face-plate and relieve the pivot h^3 of the strain.

Should the door or doors not snugly register, the post or staple e' can be longitudinally adjusted by means of the screw-threaded portion, thus locking the door or doors without coming flush together, and, again, should the doors sag or the face-plates not register vertically by any reason the post or staple can be adjusted vertically and held in position by the sliding block f and the nut e^3.

Around the keyhole is formed a wall or guard j in a semicircle or segment of a circle to register with the recess j' in the key, and on the movable side b is formed a similar wall k of smaller circumference, registering with the recess k' of the key. Thus it will be seen that to insert an instrument other than the key to open the lock said instrument would have to take a W-shaped course, which makes it very difficult and almost impossible.

It is evident that various slight changes might be made in the forms, constructions, and arrangements of the parts described without departing from the spirit and scope of our invention. Hence we do not wish to limit ourselves to the exact construction herein set forth, but consider ourselves entitled to all such changes that fall within the spirit and scope of our invention.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. A lock for sliding doors or the like having the two face-plates, a casing carried by one of said plates, a spring-controlled bolt having a lug at its end in close proximity to the face-plate for the purpose described, the other or stationary face-plate having ribs on its inner side, a sliding block movably adjustable between said ribs, a screw-threaded catch or staple carried by said block, a nut on said screw-threaded catch adapted to lock said catch in the desired position substantially as described.

2. The combination in a lock of the casing, the pivoted bolt, a spring controlling said bolt, the longitudinally-adjustable catch or staple adapted to engage said bolt, a sliding block carrying said catch or staple and a way in which said block moves, substantially as described.

3. A keeper for door-locks, consisting of the face-plate having a recess in its face, guideways on its back cast integral therewith, a movable catch or staple slotted for the reception of a bolt at one end, and screw-threads at the other, a nut adapted to slide in said way, and screwed on said catch or staple, and a check-nut adapted to move in said recess also screwed on said catch or staple, for retaining the catch or staple in a fixed position when the doors are adjusted, substantially as described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

LUTHER CROUCH.
WILLIAM E. STOKES.

Witnesses:
JOHN H. DICKEN,
CLAUDE D. STITT.