A. C. CHESLEY.

MORTISE LATCH AND LOCK.

APPLICATION FILED NOV. 3, 1913.

1,089,324. Patented Mar. 3, 1914.

Fig. 1.

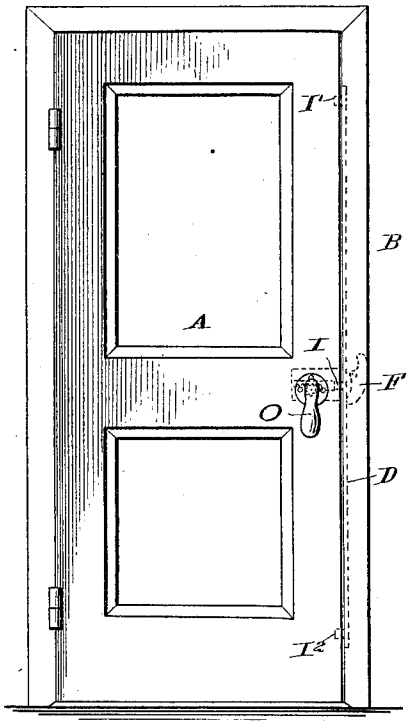


Fig. 2.

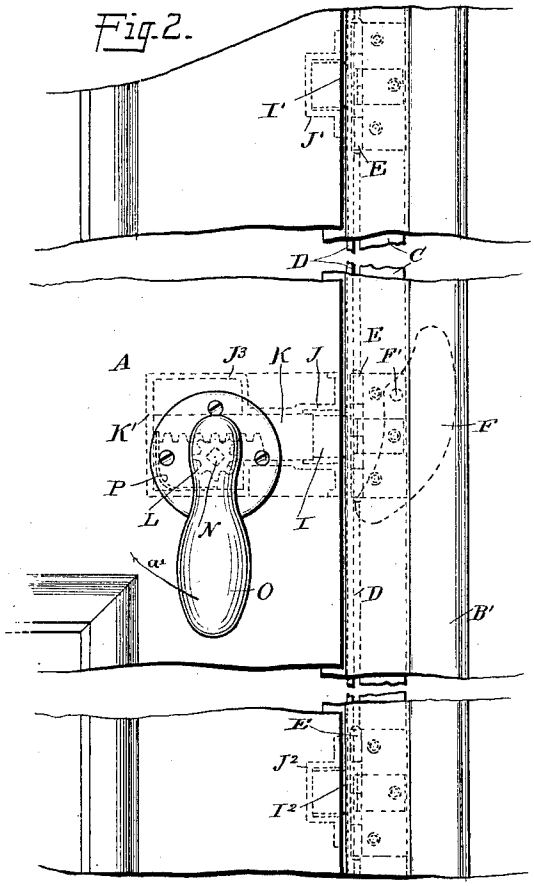
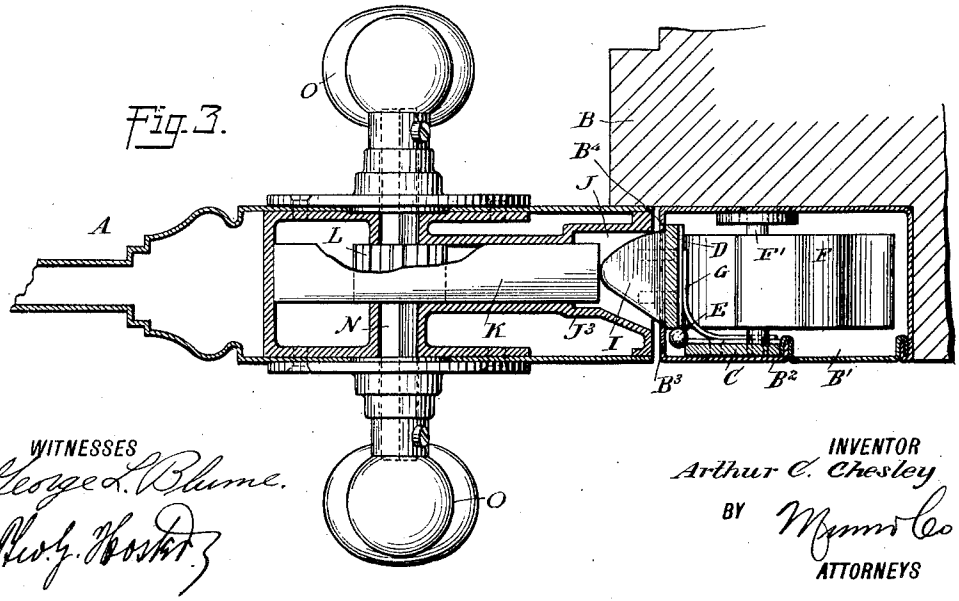


Fig. 3.



WITNESSES

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MORTISE LATCH AND LOCK.

1,089,324. Specification of Letters Patent. Patented Mar. 3, 1914.

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To all whom it may concern:

Be it known that I, ARTHUR C. CHESLEY, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county of Bronx and State of New York, have invented a new and Improved Mortise Latch and Lock, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved mortise latch and lock, more especially designed for use on fireproof swing doors and hollow metal casings, and arranged to provide multiple locking contacts in a simple and effective manner.

In order to accomplish the desired result, use is made of a latch bar mounted to swing in the door casing and provided with a series of latches or heads adapted to engage keepers in the door, a manually-controlled bolt mounted to slide in the door and engaging one of the said latches, the bolt when shot out being adapted to impart a swinging motion to the latch bar with a view to move the several latches out of engagement with their keepers, and means engaging said latch bar to normally hold the same in closed position with the latches engaging the keepers.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a face view of the mortise latch and lock as applied to a door and its casing; Fig. 2 is an enlarged face view of the same; and Fig. 3 is an enlarged sectional plan view of the same with part of the bolt broken out.

The door A and the door casing B on which the latch and lock is applied are preferably of metal and fireproof, the door casing having a jamb pocket B′ in which is arranged a vertically-disposed metal bar C riveted or otherwise fastened to the inner face of the front B^2 of the pocket B′. This fixed bar C is connected with a latch bar D by the use of a series of hinges E to allow the latch bar to swing toward and from the outer side B^3 of the jamb pocket B′, it being understood that when the latch bar D is in outermost position it rests against the inner face of the said outer side B^3. A weighted lever F is pivoted at F′ in the pocket B′ and bears with one end on the inner face of the latch bar D with a view to hold the said latch bar normally in outermost position. If desired, springs G attached to the fixed bar C and bearing on the inner face of the latch bar D may be employed to aid the weighted lever F in holding the latch bar D normally in outermost position. On the outer face of the latch bar D are secured a number of latches or heads I, I′, I^2 projecting through openings B^4 in the outer side B^3 of the pocket B′. The latches I, I′, I^2 are adapted to engage keepers J, J′, J^2 held on the door A, the keeper J forming part of a lock casing J^3 secured to the door, as plainly indicated in the drawings. The middle latch I is adapted to be engaged by a bolt K mounted to slide in the casing J^3, and the under side of the bolt K is provided with a rack K′ in mesh with a pinion L secured on a spindle N extending transversely in the door and casing J^3, as plainly shown in Fig. 3. The ends of the spindle N are provided with suitable handles O preferably in the form of weighted arms hanging down so as to normally hold the bolt K in retracted position.

When the door A is in closed position the several latches I, I′, I^2 engage their keepers J, J′, J^2 so as to hold the door A locked against accidental opening. When it is desired to open the door the operator turns either of the handles O in the direction of the arrow *a′* to cause the pinion L to shoot the bolt K outward whereby the latch I is pushed out of the keeper J and in doing so an inward swinging movement is given to the latch bar D so that the other latches I′ and I^2 are moved out of engagement with their keepers J′ and J^2. When this takes place the bolt K is unlocked and the door can be readily swung into open position. As soon as the door has moved into open position the latch bar D returns to normal closed position by the action of the weight F or the springs G or both, but when the door A is swung shut with the bolt K in retracted position the latches I, I′ and I^2 reëngage their keepers J, J′ and J^2 to hold the door in closed position.

By extending the bars C and D nearly the entire height of the door and locating the latches I′ and I^2 near the upper ends of the said bar, and locating the latch I about the middle of the height of the door a very se-

cure fastening of the door is had as the door is locked against accidental opening at three different points.

Instead of relying on the weighted handles O to hold the bolt J normally in retracted position, use may be made of a spring P, as indicated in dotted lines in Fig. 2.

The mortise latch and lock has been described as being applied to a swing door but it is evident that the latch and lock may be equally well applied to a sliding door.

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

1. A mortise latch and lock, comprising a bar hinged in the door casing and provided with a series of latches, keepers held on the door and adapted to engage the said latches, and a manually-controlled bolt mounted on the door and adapted to pass through one of the said keepers to engage the corresponding latch.

2. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, and means for normally holding the said latch bar in closed position.

3. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, and a weighted lever pivoted in the door jamb and bearing against the inner face of the said latch bar.

4. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, the said bolt being provided with a rack, a spindle held in the door and provided at its ends with handles, a pinion on the said spindle and in mesh with the said rack, and means for normally holding the said latch bar in closed position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR C. CHESLEY.

Witnesses:
THEO. G. HOSTER,
GEORGE H. EMSLIE.

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