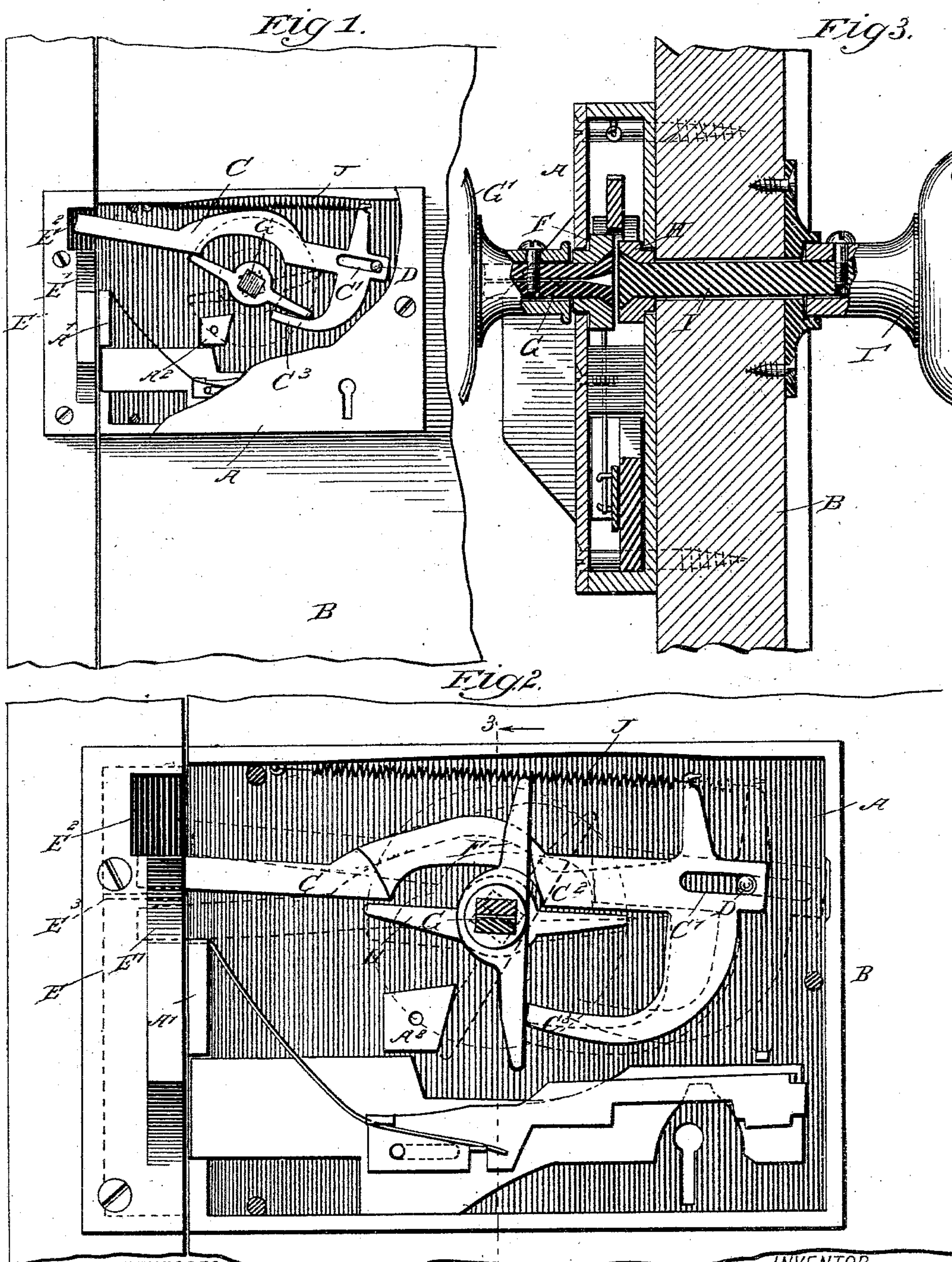


(No Model.)

W. E. WINTERS.
LOCK.

No. 553,090.

Patented Jan. 14, 1896.



WITNESSES:

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LOCK.

SPECIFICATION forming part of Letters Patent No. 553,090, dated January 14, 1896.

Application filed August 8, 1895. Serial No. 558,666. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. WINTERS, of White Lake, in the county of Sullivan and State of New York, have invented a new and Improved Door-Lock, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved door-lock especially designed for use on doors desired to be secured rapidly and requiring no key to lock or unlock the door, the door being locked on the inside by turning the knob and the lock being arranged so as not to unlock from the outside.

The invention consists, principally, of a bolt adapted to receive a sliding motion from one knob-spindle and a swinging motion from the other knob-spindle; and it further consists of a keeper provided with a partition forming a rest for the bolt.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a face view of the improvement as applied with part of the cover-plate and other parts removed. Fig. 2 is an enlarged sectional side elevation of the improvement, and Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 2.

The improved door-lock is provided with a casing A, fastened to the inside of the door B and provided with a bolt C mounted to swing and to slide, as hereinafter more fully described, the said bolt being for this purpose provided at its rear end with a longitudinally-extending slot C', engaged by a pivot-pin D held in the casing and forming a fulcrum for the said bolt.

The free end of the bolt C is adapted to engage a keeper E, attached in the usual manner to the door-casing, and this keeper is provided on its front face with an incline E' leading to an opening E² in the front face of the keeper, to permit the free end of the bolt C to slide up the incline E' and then pass through the opening E² to the inside of the keeper and drop upon a partition E³ ar-

ranged horizontally and a suitable distance below the bottom of the opening E². Thus when the bolt C is dropped upon the said partition E³, as indicated in Fig. 2, then the bolt is locked in the keeper and must be raised before the door can be opened, or the said bolt C must be slid inward for the same purpose, as hereinafter more fully described.

Now in order to impart a sliding motion to the bolt C, I provide a vertically-disposed tumbler F, adapted to engage the projections C² and C³ on the said bolt, the tumbler being secured on the inner end of a spindle G, extending through the cover-plate of the casing A to the inside of the rim to carry at its inner end a knob G'. A swinging motion is given to the spindle G by a horizontally-disposed tumbler H, engaging the under side of the bolt and secured on the inner end of a second spindle I, preferably in alignment with the spindle G, but extending in an opposite direction—that is, through the door B to the outside thereof, as is plainly shown in Fig. 3. On the outer end of this spindle I is held a knob I', which, when turned, imparts a swinging motion to the tumbler H, so that a swinging motion is given to the bolt C at the time the latter rests on the top of the partition E³. A spring J arranged longitudinally within the casing A draws on the bolt C, so as to hold the outer end of the slot C' on the pivot D. Now it will be seen that when the door is opened and the tumblers are in their normal position then the free end of the bolt C rests on the stop A', forming part of the casing, and when the door is closed then the free end of the bolt C which projects beyond the end of the casing A travels up the incline E' to finally pass through the opening E² in the keeper E and drop upon the partition E³.

When the operator who closes the door from the inside turns the knob G' in either direction, he causes the tumbler F to move the bolt C rearward to the position shown in dotted lines in Fig. 2 by the tumbler engaging either projection C² or C³. When the operator now releases the knob G', then the bolt C swings downward and is turned forward or outward by the action of the spring J, so that the bolt C with its free end passes over the stop A' and into the keeper E below

the partition E³. When the bolt is in this position, it cannot be actuated from the outside by any one turning the knob I', as the bolt cannot be swung upward, owing to the partition E³ on top of the free end of the said bolt. Now in order to open the door it is necessary that the operator turn the inside knob G' to shoot the bolt C inward to disengage it from the keeper and then pull the door open.

It is understood that when the door is opened and the operator releases the knob G' the bolt C passes to its normal outer position by the action of the spring J and with the free end of the bolt resting on the stop A'. When the door is now closed, the free end of the bolt again travels up the incline E' and through the opening E² into the keeper to rest on the partition E³. A person turning the knob I' can open the door, as the tumbler causes an upward swinging of the bolt, so as to bring the free end of the latter in alignment with the opening E².

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

1. In a door lock, the combination, with a keeper having a transverse partition, of a bolt mounted to swing and to slide, and adapted to engage with its free end the said keeper above and below the partition, a spindle and tumbler for imparting a swinging motion to the said bolt, and a second spindle and tumbler for imparting a sliding motion

to the said bolt, substantially as shown and described.

2. In a lock, the combination with a casing, of a bolt capable both of sliding and swinging, and two independently operative means respectively for imparting to the bolt sliding and swinging movement, substantially as described.

3. In a lock, the combination with a casing, of a keeper, the same being divided into two compartments, one of which has an opening in its side, a bolt mounted within the casing and capable both of sliding and swinging, and two independently operative means for respectively imparting to the bolt sliding and swinging movement whereby the bolt may be put in position to move laterally into the compartment of the keeper having the opening in its side and to move longitudinally into the compartment which has no opening in its side, substantially as described.

4. In a lock, the combination with a casing, of a bolt capable of both reciprocal and swinging movement, two spindles, and a tumbler operated by each spindle, one of said tumblers being engaged with the bolt to swing the same and the remaining tumbler being engaged to reciprocate the bolt, substantially as described.

WILLIAM E. WINTERS.

Witnesses:

GEORGE ARMSTRONG,
FRANK KEWLEY.