

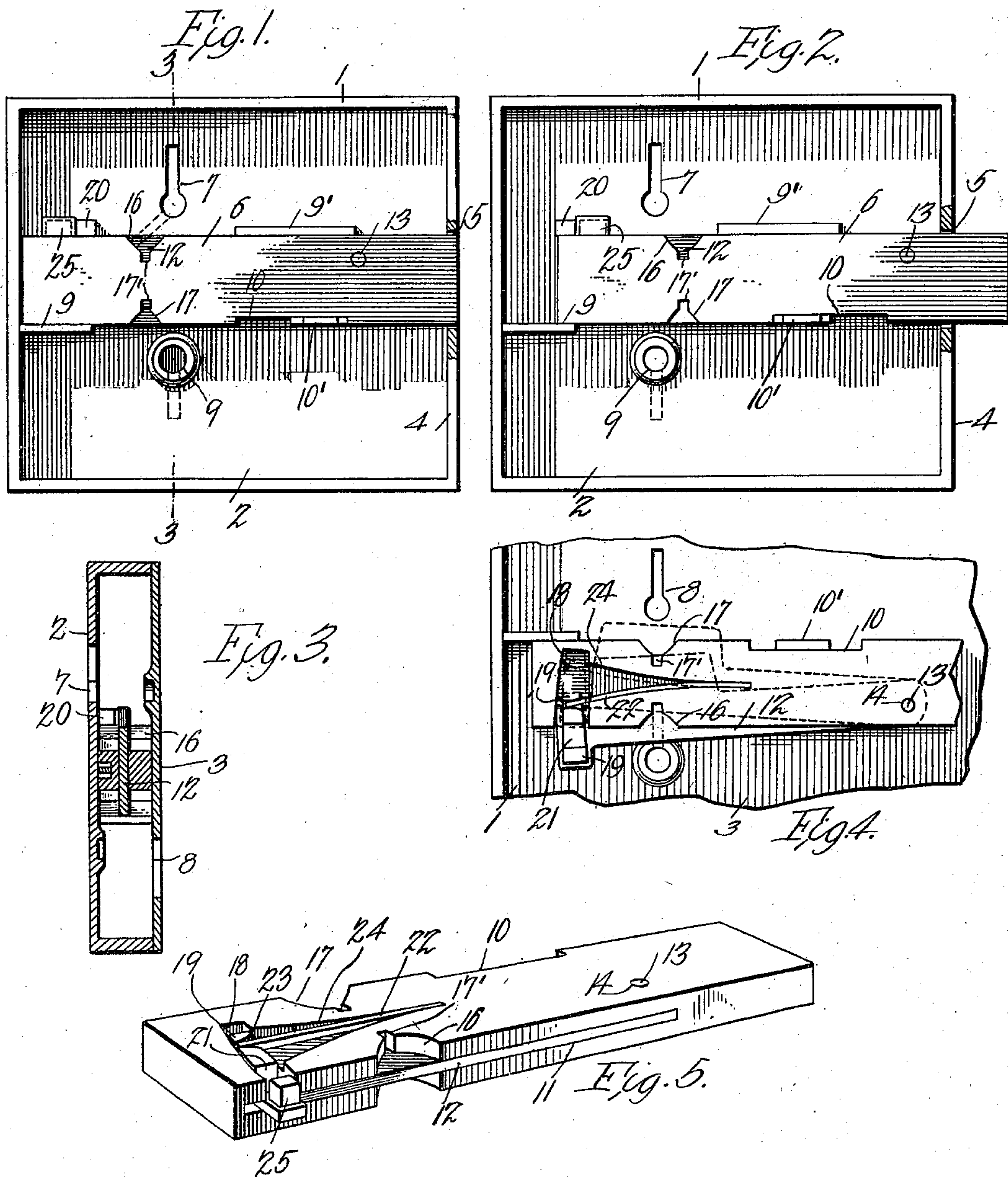
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J. M. OWEN.
LOCK.

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NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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LOCK.

SPECIFICATION forming part of Letters Patent No. 726,741, dated April 28, 1903.

Application filed December 31, 1902. Serial No. 137,341. (No model.)

To all whom it may concern:

Be it known that I, JAMES MARVIN OWEN, a citizen of the United States, residing at Ukiah, in the county of Mendocino and State of California, have invented a new and useful Lock, of which the following is a specification.

This invention relates to certain improvements in locks, more particularly to door-locks, and has for its object to provide an efficient inexpensive device of this character which is simple in construction and composed of few parts, so as to render it less liable to get out of order.

A further object of the invention is to protect the locking mechanism in such a manner that if the key is left in the lock on the inside a burglar or other unauthorized person is prevented from inserting a pair of pincers or other tool through the keyhole and turning the key from the outside, or vice versa.

A further object is to provide the lock-casing with non-incident key-openings, whereby a view of the interior of an apartment through the keyhole is prevented and conversation in an adjoining room rendered indistinct.

A still further object of the invention is to provide a lock with a sliding bolt having a single pivoted locking-tumbler movable in opposite directions to unlocking positions by keys inserted from opposite sides of the lock-casing.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is an elevation of the lock with the inner portion of the casing removed, the bolt being shown in unlocked position. Fig. 2 is a similar view of a portion of the same with the bolt in locked position. Fig. 3 is a transverse sectional elevation on the line 3 3 of Fig. 1. Fig. 4 is a detail view showing the movements of the tumbler when engaged by keys from opposite sides of the lock-casing. Fig. 5 is a detail view of the lock and tumbler.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the lock-casing, which is made

of cast or sheet metal or other suitable material and is of the ordinary form, having side plates 2 and 3, one of which forms a base and the other a removable cover, and an end plate 4, provided with an opening 5 for the passage of the bolt 6. The plates 2 and 3 are provided with key-openings 7 and 8, and the inner sides of said plates are provided with corresponding key-sockets 9 opposite said openings. The key-openings 7 and 8 are arranged in vertical alinement in the side plates, but are non-incident, so that the key may be left in the opening in one side of the lock and a burglar or other unauthorized person prevented from introducing a pair of pincers or other tool in the key-opening with a view to turning the key and opening the lock from the opposite side. The bolt 6, which slides in guide 9', arranged on the inner sides of the plates 2 and 3, respectively, is recessed, as shown at 10, for the reception of a post 10', which serves as a means for securing said plates together and also acts as a guide and a stop for limiting the forward and backward movement of the bolt. The bolt 6 is provided with a longitudinal slot 11, adapted to secure a spring-retained tumbler 12, which is pivoted in the slot by means of a pin 13, passing through transversely-disposed openings 14 in the bolt and tumbler. Recesses 16 and 17 are arranged on opposite sides of the bolt 6, the side walls of which are concentric with the keywards, so that when the key is inserted in the key-opening and turned the end thereof will ride on the inclined side walls of the recess until the key engages the walls of a centrally-disposed notch 17, when a further turning of the key will throw the bolt.

The bolt 6 is provided with a recess 18, communicating with the slot 11 and adapted to receive a locking-catch 19 on the end of the tumbler 12. The tumbler normally lies within the slot 11 with the end of its catch or lug projecting slightly above the top of the bolt and in the path of a dog 20, secured to the inner side of the base-plate 2. The catch 19 is provided with a transversely-disposed recess or slot 21, which allows the catch to clear the dog 20 on the base-plate 2 when the lock is operated from the outside by the insertion of a key in the lower keyhole 8, as will be more fully described hereinafter. As

a means for returning the tumbler after it has been moved to unlocking position by engagement with the key inserted either from the inside or outside I provide a spring 22, one end of which is fastened in a groove 23 in the end of the catch 19, and the other end thereof seated in a V-shaped depression near the end of the bolt 6 and communicating with the recess 18. The catch 19 is provided with an outwardly-extending lug 25, which normally lies in the path of the dog 20 on the side plate 2, but is adapted to be disengaged therefrom when the key engages the tumbler, and thus permit the bolt to be moved forward.

The operation of the lock is as follows: When it is desired to lock the bolt from the inside, the key is inserted in the opening 7 and turned, whereupon the key-wards will enter the recess 16, forcing the tumbler downward and carrying with it the catch 19 until the lug 25 is depressed below the dog 20, after which the key engages the notch, and further movement of the key will move the bolt forward, allowing the lug 25 to pass beyond the dog 20. The end wall of the recess 10 then engages the post 10' and limits the forward movement of the bolt. The tumbler being now released forces the catch to its normal position and in advance of the dog 20, thereby locking the bolt, as clearly shown in Fig. 2 of the drawings. To unlock the same from the inside, it is only necessary to reverse the movement of the key, whereupon the tumbler will be forced downwardly, carrying with it the catch 19, which will clear the dog 20 and allow the bolt to be withdrawn. To lock the bolt on the outside, the key is inserted in the opening, and coming in contact with the tumbler will force it upward until the opening 21 in the catch 19 is brought into horizontal alinement with the dog 20, when a further movement of the key will move the bolt forward and return the catch to its normal position and lock the bolt. To unlock the bolt on the outside, the key is turned in the proper direction and the parts will be operated as above stated, but in reverse order.

By having the casing arranged with non-incident openings a burglar or other unauthorized person is prevented from picking the lock by inserting a pair of pincers or other tool in the key-opening from the inside or outside and turning the key and prevents inquisitive persons from obtaining an interior view of the apartment through the key-hole of the door to which it is attached.

In the drawings I have shown the mechanism applied to a mortise-lock; but any style of lock may be used and various changes in form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed is—

1. In a lock, a bolt, a pivoted locking-tumbler carried by the bolt and movable to un-

locking positions from above and below the bolt.

2. In a lock, a bolt, a locking-tumbler, and a tumbler-holding dog, said tumbler being movable from above and below the bolt to effect its disengagement from the dog.

3. In a lock, a bolt, a locking-tumbler carried by the bolt, a tumbler-engaging dog, and a lock-casing having in its opposite walls two non-incident key-openings for the insertion of a tumbler-engaging key, said tumbler being movable by the keys from above and below the bolt to effect its disengagement from the dog.

4. The combination in a lock, of a casing having non-incident key-openings, a bolt slidably mounted in the casing, a locking-tumbler carried by the bolt, and movable from above and below the bolt to unlocking position, and a stationary tumbler-locking dog carried by the casing.

5. The combination in a lock, of a casing having non-incident key-openings in its opposite walls, a bolt slidably mounted in the casing and provided with upper and lower recesses for the passage of the key-wards, a single tumbler pivoted to the bolt and having portions of its opposite edges projecting into the recesses and exposed to the action of the keys, said tumbler being movable to unlocking position in either direction of movement.

6. The combination in a lock, of the casing having non-incident key-openings in its opposite walls, a bolt slidably mounted in the casing and provided with oppositely-disposed recesses in its upper and lower faces, a single tumbler pivotally mounted in said bolt and having portions of its opposite edges projecting into said recesses and exposed to the action of the keys, and a spring extending between the bolt and the tumbler and tending normally to maintain said tumbler in a central locking position.

7. The combination in a lock, of a casing having non-incident key-openings in its opposite walls, a slotted bolt slidably mounted within the casing and provided with recesses in its upper and lower faces, the central portions of the walls of said recesses being notched to form engaging shoulders for the key-wards, a pivoted tumbler mounted within the bolt-slot and having portions of its opposite edges exposed to the action of a key by the bolt-recesses, a stationary tumbler-engaging dog carried by the casing, and a lug carried by said tumbler for engaging the dog, said lug being movable in opposite directions under the action of a key inserted through the opposite key-openings and adapted to pass either under or over the locking-dog.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES MARVIN OWEN.

Witnesses:

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W. P. THOMAS.