

N. L. ANTHONY.
 LOCK FOR CAR DOORS.
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1,038,815.

Patented Sept. 17, 1912.

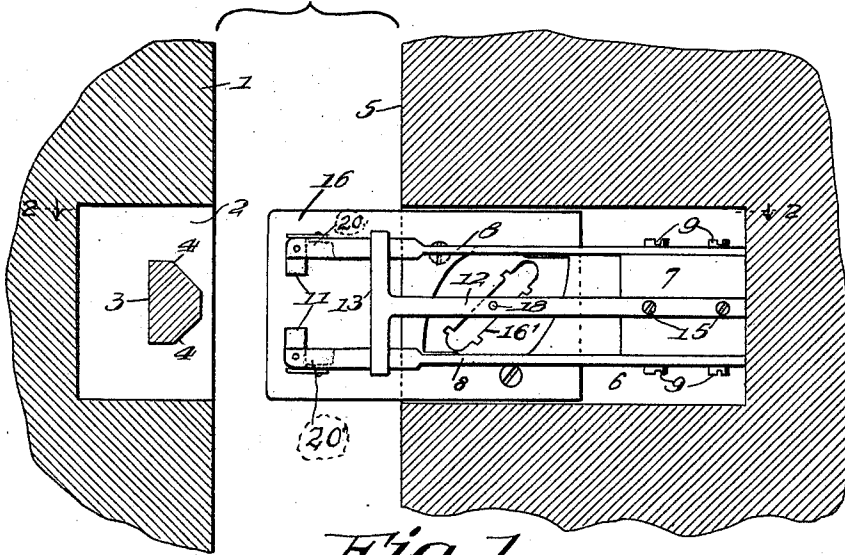


Fig. 1.

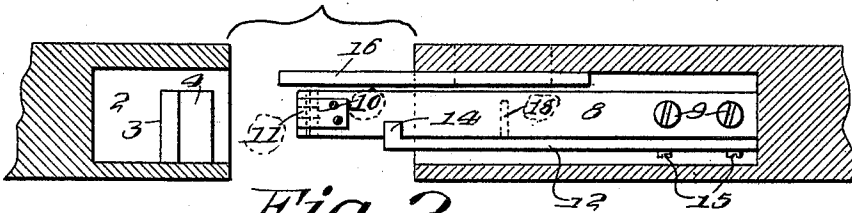


Fig. 2.

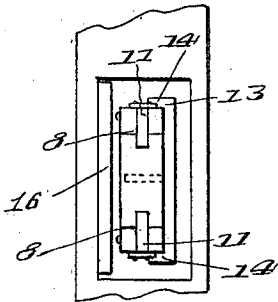


Fig. 3.

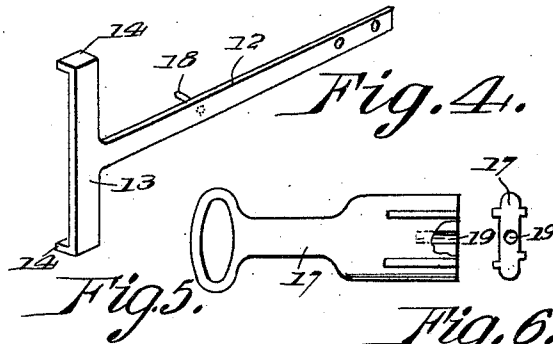


Fig. 4.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

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LOCK FOR CAR-DOORS.

1,038,815.

Specification of Letters Patent.

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Application filed March 13, 1912. Serial No. 683,468.

To all whom it may concern:

Be it known that I, NOEL L. ANTHONY, a citizen of the United States, residing at Cranston, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Locks for Car-Doors, of which the following is a specification.

This invention pertains to certain new and useful improvements in locks for car doors, or sliding doors of varying types, and the object of the invention is to provide an improved simplified form of lock in which a minimum number of parts are present.

A further object of the invention is to provide means for effectually holding the parts in locked position, thus preventing the lock from being easily picked, or opened by unauthorized persons.

Still further the invention aims to generally improve and increase the efficiency of locks of this character.

In the drawings, Figure 1 is a side elevation of the present invention. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a front elevation. Fig. 4 is a perspective view of the spring bridge member. Fig. 5 is a side elevation of the key, and Fig. 6 is an end elevation thereof.

The door frame 1 is provided with a socket 2 in which the keeper 3 is secured, the latter having oppositely beveled front faces 4 that converge toward the open end of the socket. The sliding door 5 is provided with a socket 6 in which a block 7 is rigidly secured at points between the top and bottom of the socket 6. Spring arms 8 are secured by means of screws 9 to the top and bottom sides of the block 7, the spring arms having their free ends projecting without the socket 6 and being bifurcated as indicated at 10, spring pressed detents 11 being received and pivoted in the bifurcated portions 10. The detents 11 are so mounted that they are capable of movement toward the spring arms 8, but not away therefrom, so that when the door 5 is closed, the detents 11 will ride up on the inclined faces 4 of the keeper 3 and will then be moved by the springs to a position where they engage the rear face of the keeper, in which position the parts will be held locked. A spring arm 12 is formed to have a cross piece 13 at its free end, the outer ends of the cross piece being turned

outwardly at right angles so as to engage the top side face of the top spring arm 8 and the bottom side face of the bottom spring arm 8, thus constituting a bridge member which holds the free ends of the spring arms 8 from being moved apart in an obvious manner. The spring arm 12 is secured by means of set screws 15 to one side face of the block 7 at points between the top and bottom thereof. A plate 16 is secured in the socket 6 and projects without the same so as to extend over the outer ends of the spring arms to protect the same, when the door is open. Plate 16 has a keyhole 16' to receive the key 17. The key 17 is of a width to spread the spring arms 8 apart when the opposite side edges of the keyward are brought into proper engagement therewith. The key hole 16' is inclined so that it will cause the keyward to occupy proper initial position prior to turning thereof to spread the arms 8 so that the latter will cause the detents 11 to occupy such position that they will pass the keeper 3 without engagement therewith when the door 5 is open. A pin 18 is secured at right angles to the spring arm 12 in such position that same will aline with the keyhole 16', the key 17 having a socket 19 to receive said pin so that when the key is inserted in the key hole, the socket 19 will receive the pin 18, and upon the key being pushed inwardly, the same will move the pin 18 and therewith the spring arm 12 to cause the fingers 14 to move out of engagement with the spring arms 8, and while the key is still held in the position just described, it is rotated to spread the spring arms apart. When the key is withdrawn, the spring arm 12 will return to normal position depicted in Fig. 3. Each spring arm 8 has a pocket 20 formed therein to receive the detents when they are moved toward the spring arms in riding upon the inclined faces 4 of the keeper.

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

1. In a sliding door lock, in combination with a keeper having oppositely inclined front faces, a block secured in the socket of the door, a spring arm secured to the top and a spring arm secured to the bottom of said block, the outer ends of said spring arms extending without the socket and having spring pressed detents pivoted to their

ends, which detents have movement toward the spring arms and limited movement away therefrom, a plate secured to the door and overlying the outer ends of the spring arms, said plate having a keyhole, a spring arm secured to the side of the block and having a cross-piece whose ends are turned at right angles so as to engage the outer sides of the first named spring arms, and a pin carried by the third named spring arm and alined with the keyhole.

2. In a sliding door lock, in combination with a keeper having inclined front faces, a pair of movably mounted members carried by the door and having pivoted detents at their outer ends which detents are movable toward said members and have limited movement away therefrom and are adapted to ride upon the inclined faces of the keeper, and means to move said detents to a vertical position when same are on the rear side of the keeper, said pair of members being stationary when the detents are moved to locked position.

3. In a sliding door lock in combination with a keeper, a pair of spring arms having detents which are pivoted to the outer ends of the arms and are spring pressed, said detents being movable toward the arms and having limited movement away therefrom, the spring arms being stationary when the detents are moved to locked position.

4. In a sliding door lock, in combination with a keeper, a pair of spring arms having detents which are pivoted to the outer ends of the arms and are spring pressed, said detents being movable toward the arms and having limited movement away therefrom, the arms having pockets to receive said detents, and a movable bridge member having parts for engagement with the outer sides of the spring arms.

5. In a sliding door lock, in combination with a keeper, a pair of movably mounted members having means which when the door is closed will ride over the keeper and which when in position on the rear side of the keeper will be moved outwardly so as to engage with the rear side of the keeper, said members being stationary when said means is moved to locked position.

6. In a sliding door lock, in combination

with a keeper, a pair of movable arms having spring pressed detents on their free ends for engagement with the rear side of the keeper, said detents being movable toward the arms and having limited movement away therefrom, and being received in pockets formed in the arms.

7. In a door lock, in combination with a keeper, a pair of members movable toward and away from each other, means on said members adapted to ride over the keeper to engage on the rear side thereof, means whereby the first mentioned means are held against movement away from said members to hold same locked, said members being stationary when the first mentioned means are being moved to locked position, and means to spread said members to permit the first mentioned means to move past the keeper.

8. In a door lock, in combination with a keeper, a pair of members movable toward and away from each other, means on said members adapted to ride over the keeper to engage on the rear side thereof, means whereby the first mentioned means are held against movement away from said members to hold same locked, means to lock said members against spreading movement, and means to move said last named means to inoperative position and to spread the members.

9. In a door lock, in combination with a keeper, a movable member, means on said member adapted to move toward the same and to ride over the keeper to engage on the rear side thereof, means whereby said first named means has limited movement away from said member to hold same locked in relation to the keeper, said member being stationary when the first named means is riding over the keeper, and means to move said member to permit the first named means to ride past the keeper.

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

NOEL L. ANTHONY.

Witnesses:

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