

No. 776,089.

PATENTED NOV. 29, 1904.

E. H. ROY.
CAR DOOR LOCK.
APPLICATION FILED SEPT. 15, 1904.

NO MODEL.

Fig. 1.

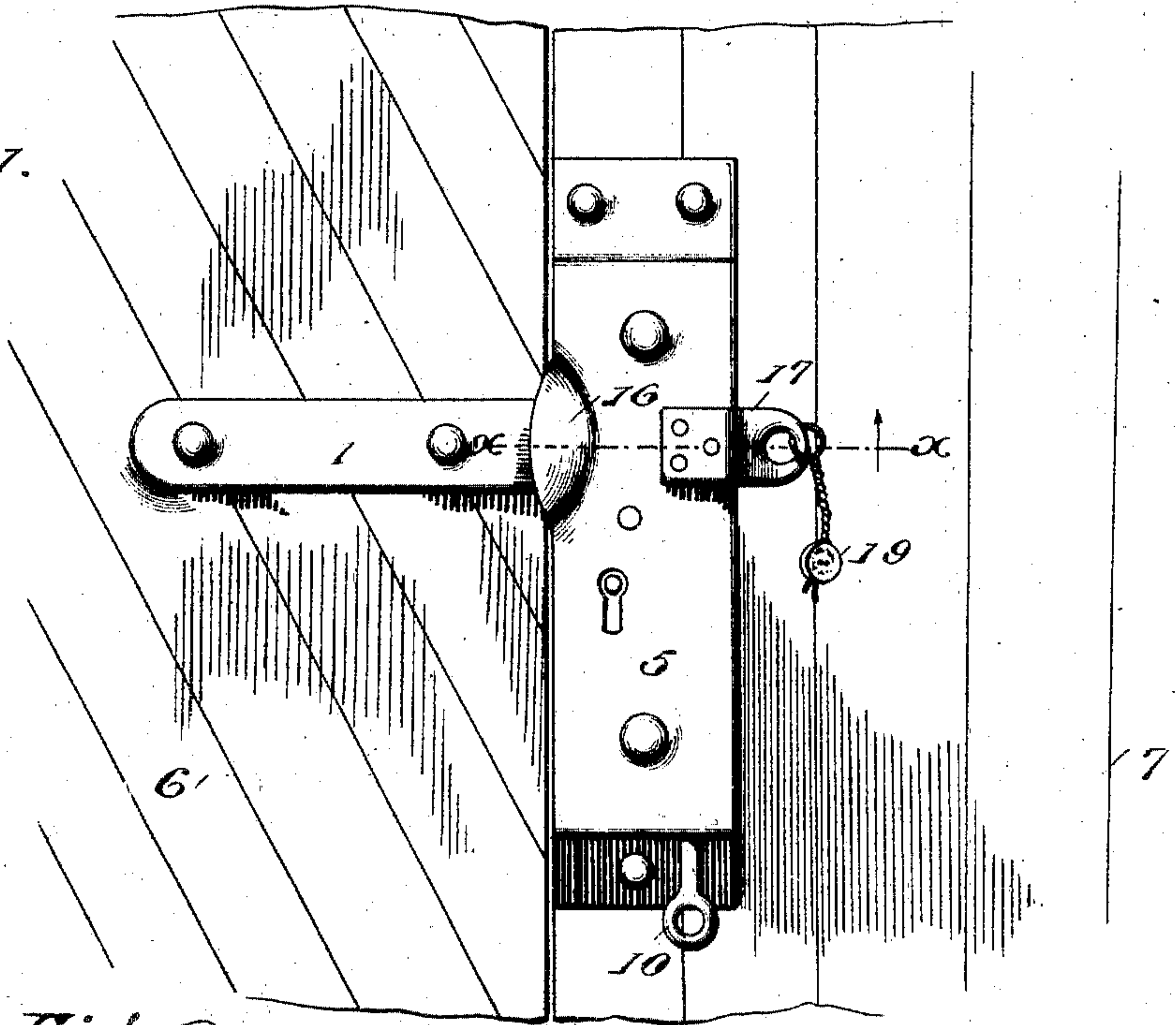


Fig. 2.

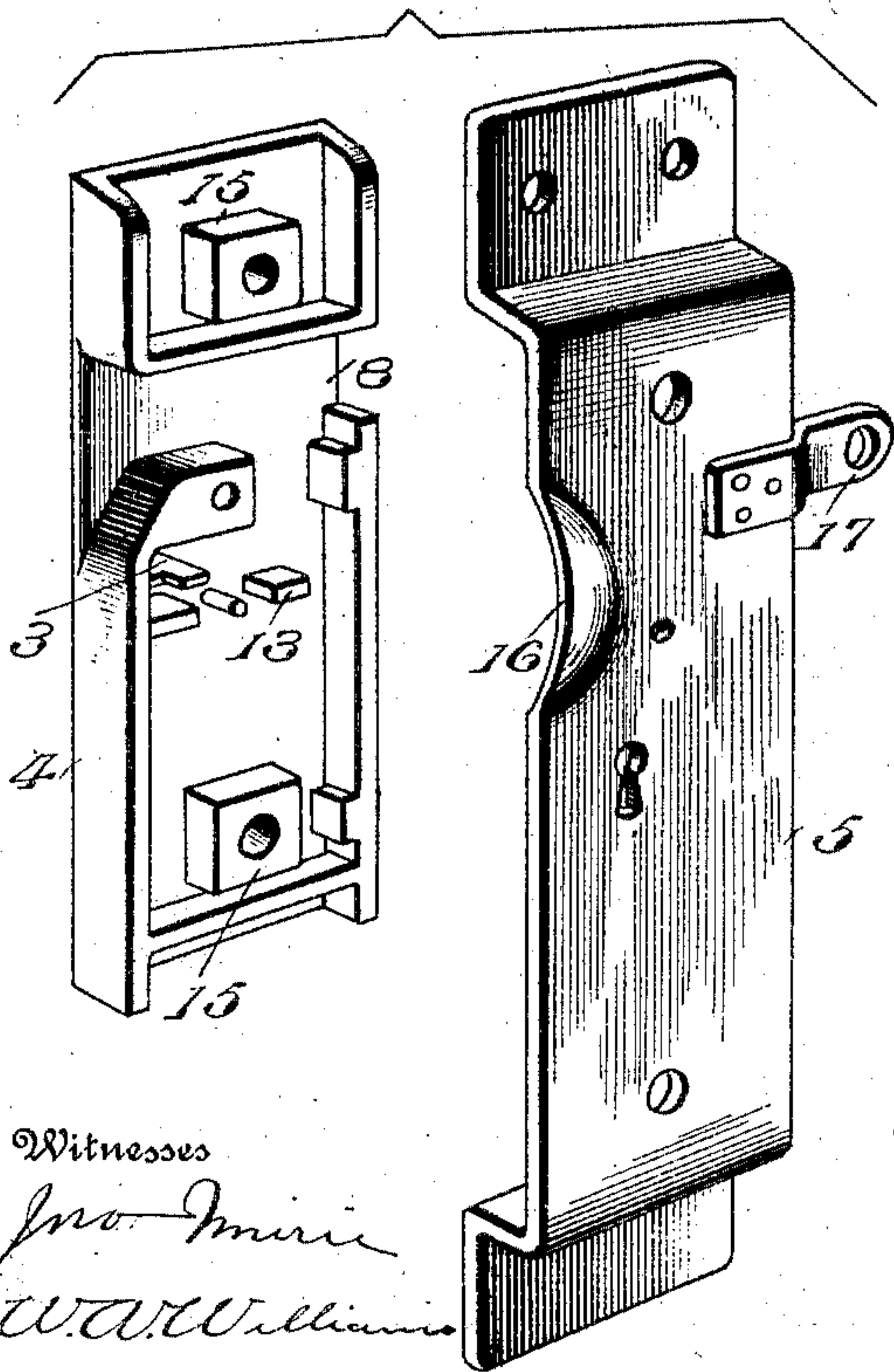


Fig. 3.

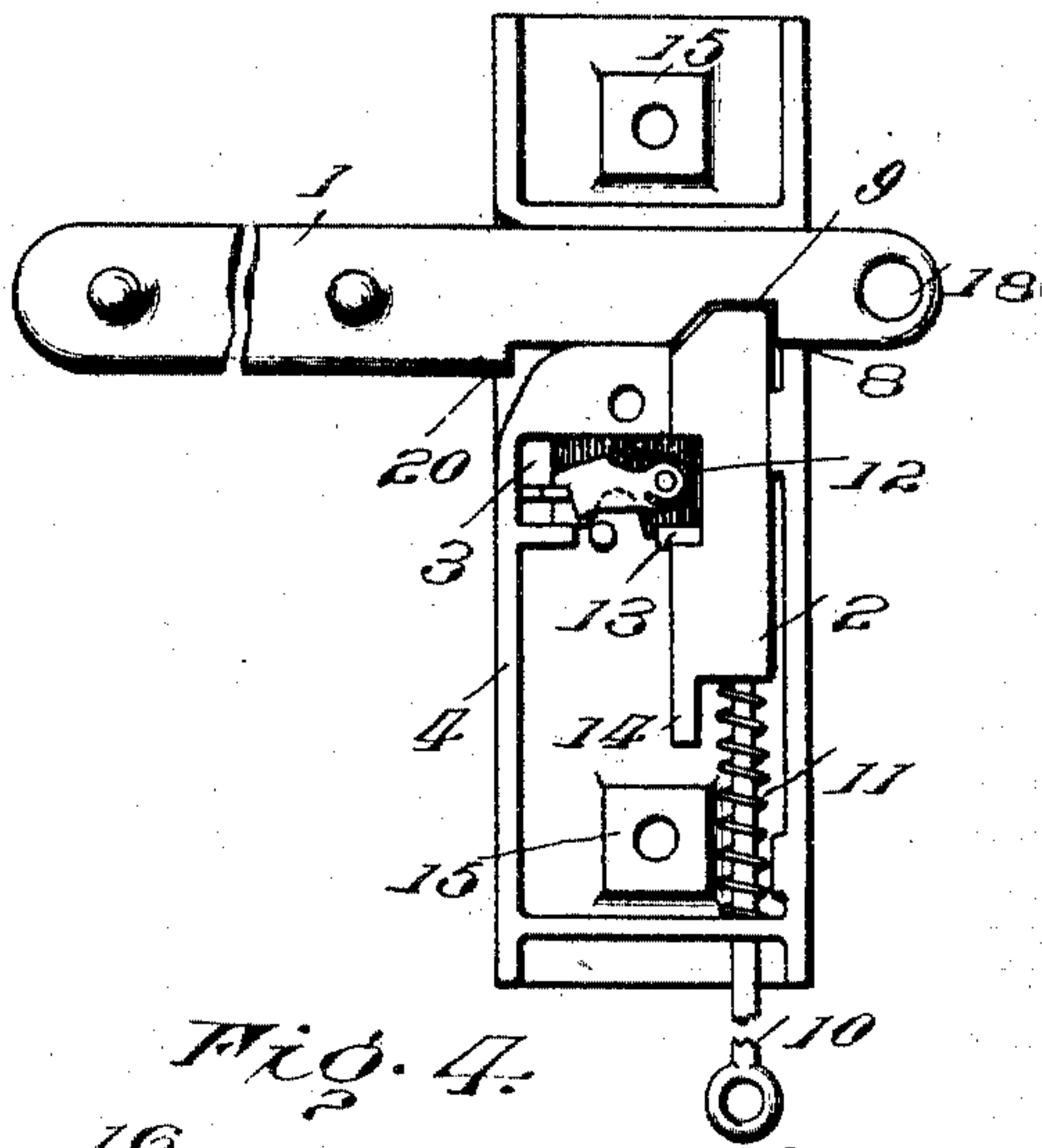
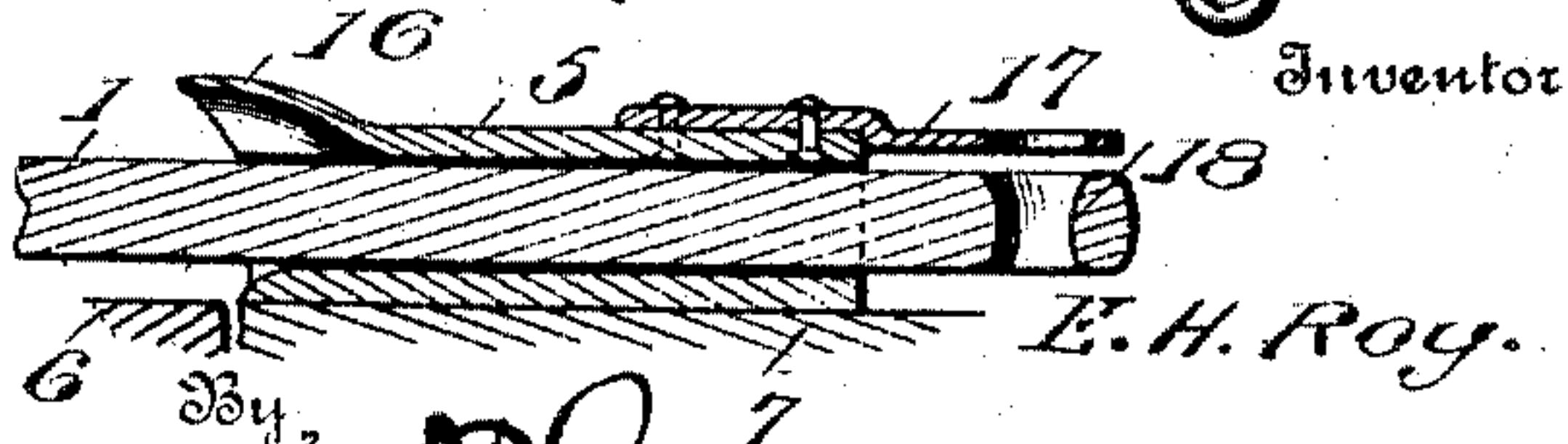


Fig. 4.



Witnesses
Jno. Mire
W.A. Williams

Inventor
E. H. Roy.
H. A. Racy, Attorneys

UNITED STATES PATENT OFFICE.

EDWARD H. ROY, OF NASHVILLE, TENNESSEE.

CAR-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 776,089, dated November 29, 1904.

Application filed September 15, 1904. Serial No. 224,617. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. ROY, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Car-Door Locks, of which the following is a specification.

This invention appertains to locks designed most especially for car-doors which are required to be sealed, so as to facilitate detection in the event of the lock being tampered with or the car entered.

This invention provides a novel form of lock which may be fastened at will and which will admit of the use of a seal, the fastening means serving to relieve the seal of all strain and adapted to sustain the stress incident to movement of the door when the car is in motion.

While the lock is peculiarly adapted for sliding doors, it may be used to advantage with gates and closures of any kind, whether mounted for sliding, swinging, or tilting movement, so long as the lock-bar receives a sliding movement to enter and leave the casing containing the coöperating lock elements.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a detail view in elevation of a lock embodying the invention, showing the same in connection with a portion of a car-door and car. Fig. 2 is a perspective view of the casing having the parts separated and the movable elements omitted. Fig. 3 is a view in elevation of the lock, the cap-plate being removed to show the relation of the parts when the lock-bar is in position and engaged by the latch-bolt and the latter in turn secured by means of the key-operated lock-bolt. Fig. 4 is a section on the line *x x* of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated

in all the views of the drawings by the same reference characters.

The lock comprises the lock-bar 1, latch-bolt 2, key-operated lock-bolt 3, and a casing for inclosing the parts 2 and 3 and the elements coöperating therewith, said casing consisting of a box or base piece 4 and a cap-plate 5. The casing is adapted to be secured to the side of the car, jamb, or other part of the casement surrounding or arranged at one side of the opening closed by means of the door, gate, or the like to which the lock-bar 1 is attached, the parts being arranged to admit of the lock-bar entering and leaving the casing by a sliding movement. As shown in Fig. 1, the door is indicated at 6 and the side of the car at 7.

The box or base 4 of the casing comprises a rimmed plate having a transverse passage 8 to receive the end portion of the lock-bar, the entrance end of said passage being flared to direct the end of the lock-bar therein when moving the lock-bar forward, so as to enter the casing. The latch-bolt 2 is mounted for sliding movement within the box or base, and its engaging end projects into the passage 8, so as to enter a depression 9, formed in an edge of the lock-bar, and secure the latter when shot into the casing. An operating-rod 10 projects from the latch-bolt to a convenient point beyond the casing, to be pulled upon when it is required to release the lock-bar. A coil-spring 11 exerts a pressure upon the latch-bolt to hold its end projected into the passage 8 and in engagement with the lock-bar when thrust into the casing. This spring surrounds the inner end portion of the operating-rod 10 and is confined between the latch-bolt and a part of the casing. The inner upper corner of the latch-bolt is beveled to insure its riding upon the lock-bar when the latter is shot into the passage 8. A depression or notch 12 is provided in an edge of the latch-bolt and is adapted to receive an end portion of the key-operated lock-bolt 3 and a stud 13, as indicated most clearly in Fig. 3, thereby preventing movement of the latch-bolt in either direction when locked by means of the bolt 3. The latch-bolt is limited in its movement in one direction by the stud 13, and a projection 14 serves, in con-

junction with a boss 15 of the box, to limit the latch-bolt in its movement in the opposite direction. The key-operated lock-bolt 3 is provided with tumblers in the usual manner, 5 thereby requiring a key of special construction to operate the lock-bolt and increase the difficulty of picking or surreptitiously opening the lock when secured.

The cap-plate 5 closes the open side of the 10 box or base 4 and retains the operating parts in place. An edge portion of the cap-plate is pressed to one side, as shown at 16, to give a flare to the entrance end of the passage 8. A plate 17 projects from the casing and is formed 15 in its outer end with an opening to correspond with a matching opening 18 in the end of the lock-bar 1, and through these openings is passed the wire of a seal 19, employed for securing the lock against being tampered 20 with after the door or like closure has been closed and fastened. The outer end of the lock-bar is reduced in width, a shoulder 20 being formed at the inner end of the reduced part and constituting a stop to limit the forward 25 movement of the lock-bar when shot into the casing.

The casing, with its adjunctive parts, is adapted to be secured either to the closure or to the part at one side of the opening, the 30 latter construction being preferable, and the lock-bar 1 is attached to the door, gate, or like closure. When the door or like part is closed and the lock-bar shot into the casing, it is engaged by the latch-bolt, as indicated 35 in Fig. 3, thereby preventing casual opening of the door, gate, or like part. The seal may be applied in the usual manner, as indicated, thereby preventing opening of the lock without rendering detection possible. For further 40 securance of the lock the key-operated lock-

bolt 3 may be moved into locking engagement with the latch-bolt, thereby preventing movement of the latter by pulling upon the operating-rod 10. It will thus be seen that the lock may be used with or without a seal and 45 may be secured solely by means of the latch-bolt or by the latter in connection with the key-operated lock-bolt.

Having thus described the invention, what is claimed as new is— 50

1. In a lock, the combination of a lock-bar, a spring-actuated latch-bolt, and a key-operated lock-bolt, the latter serving to secure the latch-bolt when in locking engagement with the lock-bar, substantially as set forth. 55

2. In combination, a casing having a passage, a lock-bar having an end portion reduced to enter said passage and having a shoulder at the inner end of the reduced part to form a stop, a latch-bolt arranged to engage the 60 lock-bar, an operating-rod projected from the latch-bolt, and a key-operated lock-bolt for securing the latch-bolt, substantially as specified.

3. In combination, a box consisting of a plate having a projecting rim and a passage, 65 a latch-bolt slidably mounted in said box, a cap-plate for closing the open side of the box and retaining the latch-bolt in position and having a portion pressed to one side to give a flare to the entrance end of the aforesaid passage, and a lock-bar adapted to be projected 70 into the casing and engaged by means of the latch-bolt, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD H. ROY. [L. s.]

Witnesses:

W. N. WOODSON,
A. B. LACEY.