(No Model.)

# R. W. DUNCAN.

## SLIDING DOOR LOCK.

No. 540,728. Patented June 11, 1895.

Fig. 1.

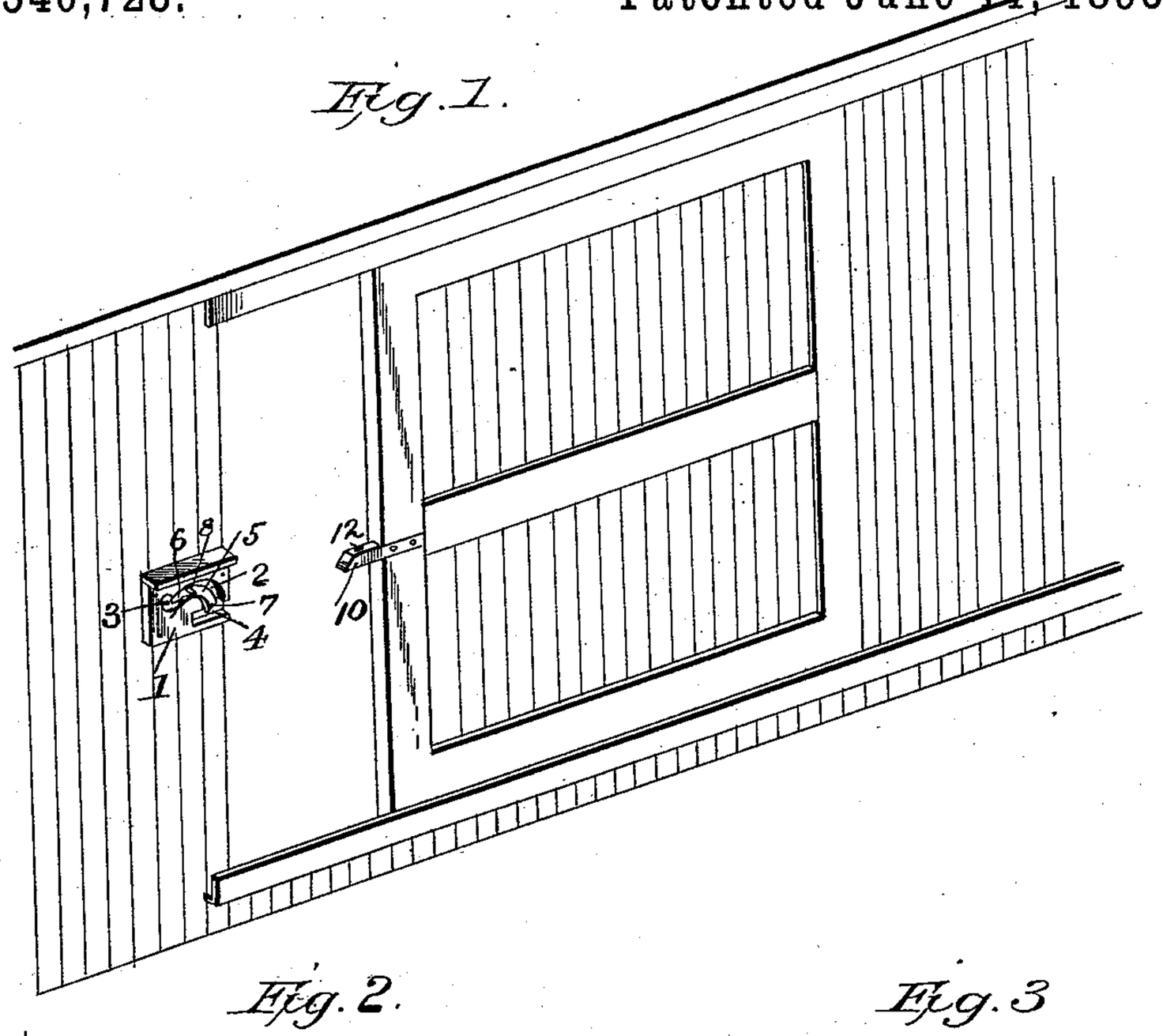


Fig. 2.

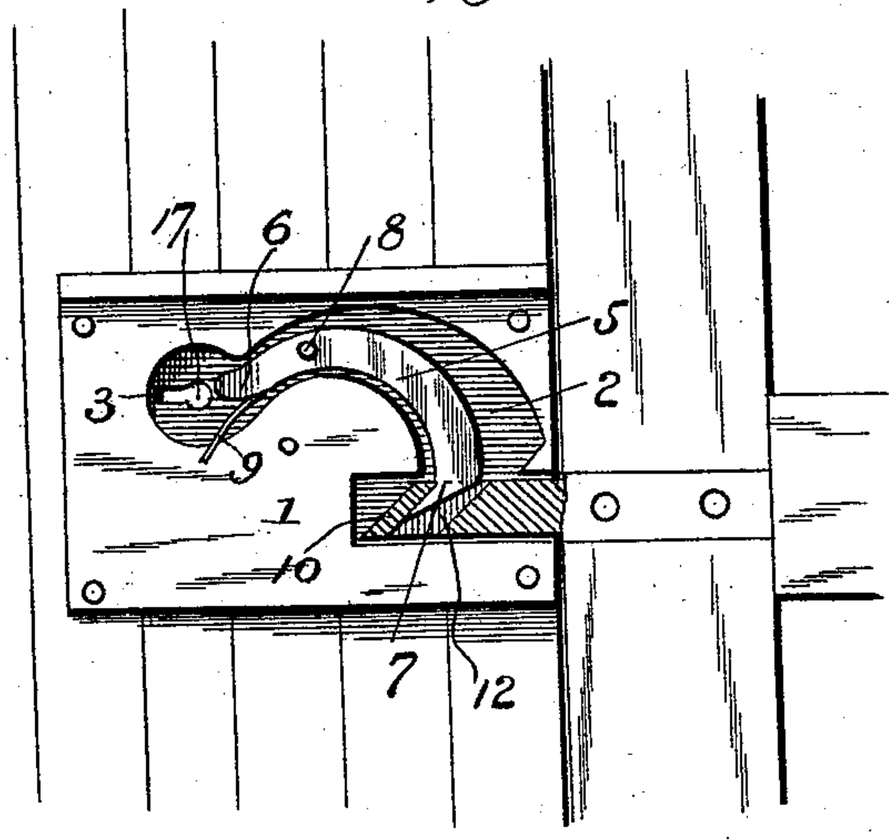


Fig. 3

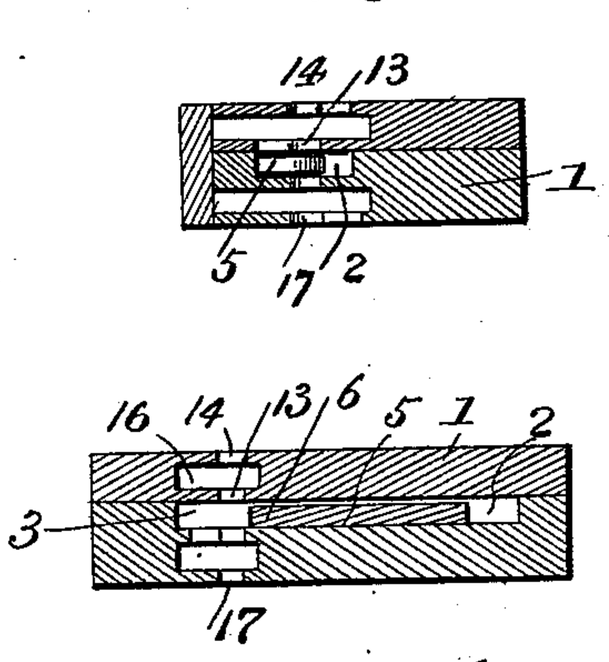


Fig. 4

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# UNITED STATES PATENT OFFICE.

ROBERT W. DUNCAN, OF ROANOKE, WEST VIRGINIA.

## SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 540,728, dated June 11, 1895.

Application filed February 15, 1895. Serial No. 538,550. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT W. DUNCAN, a citizen of the United States, residing at Roanoke, in the county of Lewis and State of West Virginia, have invented certain new and useful Improvements in Locks for Sliding Doors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to locks for sliding doors, my said invention being particularly applicable to railway car doors in place of the usual seal-locks employed thereon, and among the objects in view is to provide a lock of the character referred to, which is of an inexpensive and simple construction and strong and durable, and my invention consists in the novel construction, arrangement and combination of parts as hereinafter fully described, illustrated in the drawings and pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view illustrating a railway-car (broken away) provided with my improved lock, one face of the lock-casing being removed and showing the locking-lever or catch raised for the entrance of the bolt. Fig. 2 is a similar view showing the bolt as engaged by the locking-lever and locked by the latter. Figs. 3 and 4 are sectional views at right angles to each other, taken through the key-openings to show the construction thereof.

In carrying out my invention I provide a suitable casing 1 preferably constructed of metal and provide the same interiorly with a curved recess 2, terminating at one end in the circular portion 3 and at the opposite end terminating in the rectilinear portion 4.

5 indicates a curved lever or arm arranged within the recess 2 and having a tail portion 6 projecting within the circular portion 3 of the recess. Said lever 5 has its opposite end terminating in a tapered point 7, which in the normal position of the lever extends across the portion 4. The lever 5 is pivotally mounted upon a pin 8 secured in the lock casing and is held in the described normal position by means of a suitable spring 9, which bears upon the inner end of the lever as shown.

The casing 1 is designed to be applied to either the door or the frame of the car adjacent to the door opening. I show the same applied to the car-frame, and 10 indicates a bolt which is suitably secured to the sliding door and adapted to enter within the portion 4 of the recess 2 when the door is closed. The outer end of the bolt is beveled so as to adapt it to freely slide beneath the point 7 of the lever 5 and said bolt is provided with a slot 12, within which the point 7 of lever 5 is adapted to engage when the bolt is fully within the lock casing. Thus when the door is to be closed and locked, the bolt 10 entering the lock casing raises the lever 5 until the point clears the forward edge of the slot 12 when it will be forced into engagement with said slot by the stress of the spring 9.

For unlocking the bolt to permit the opening of the door, I provide the lock casing at one side with key openings 13, 14, through which a suitable key may be inserted and when inserted, said key is turned to cause its bit to press downwardly upon the tail portion 6 of the lever 5 and thus rock the latter upon its pivot to cause its point 7 to be raised free of the slot 12, when the door may be opened.

I preferably construct the key openings 13, 14, as shown, that is to say, at right angles to each other and communicating with an intermediate recess 16 in the casing, so that when a key is inserted in the opening 13, it must then be turned at right angles to enable it to engage the opening 14 before it can engage with the locking lever.

If desired, I may provide the opposite side of the casing with a key opening 17 to enable the lock to be operated from within a car.

What I claim, and desire to secure by Letters Patent, is—

1. The herein described lock comprising a casing provided in its interior with a recess 2, terminating at one end in the circular portion 3 and the rectilinear portion 4, a spring actuated curved lever or arm 5, pivotally arranged within the recess and having a tail

portion lying within the portion 3 of the slot and a point adapted to extend across the portion 4, said casing having a key opening communicating with the portion 3 of the recess for the purpose specified.

2. The herein described lock comprising a casing provided with an interior recess, a curved lever or arm pivotally arranged within said recess and having a tail portion at one end and a point or spur at the opposite end, the said casing being provided with key openings 13, 14 at right angles to each other and communicating with a recess 16, for the purpose specified.

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

ROBERT W. DUNCAN.

Witnesses:

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TILITSON A. WATSON.