

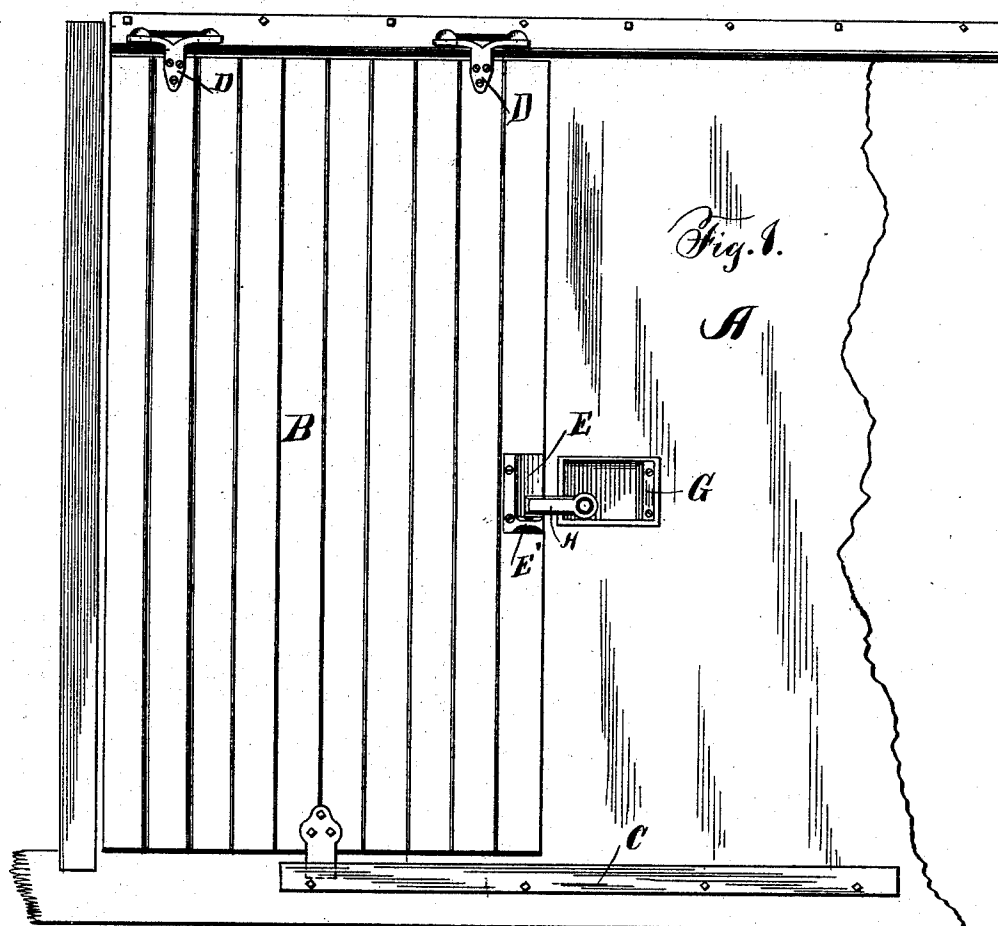
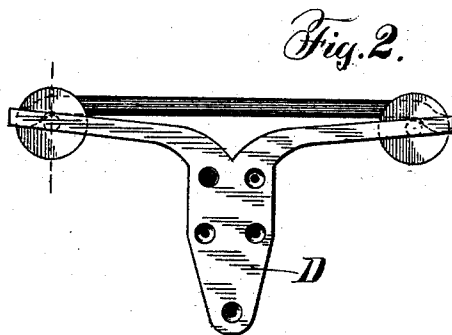
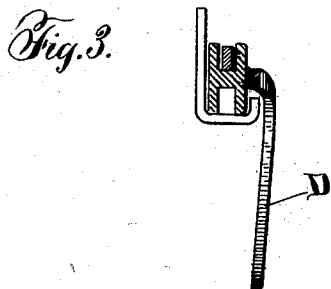
(No Model.)

2 Sheets—Sheet 1.

J. PEARSON.
CAR DOOR LOCK.

No. 509,939.

Patented Dec. 5, 1893.



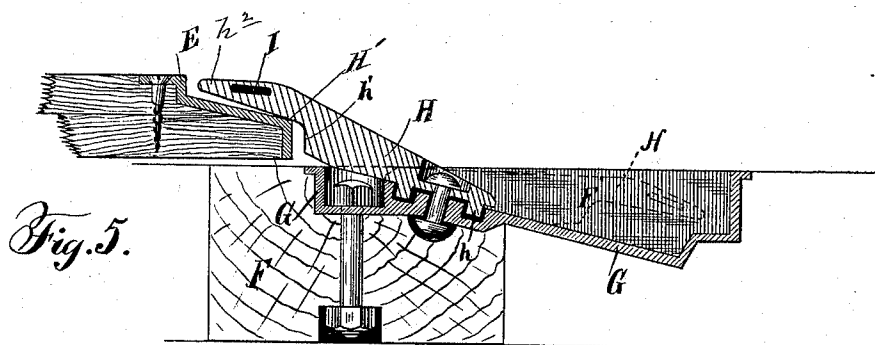
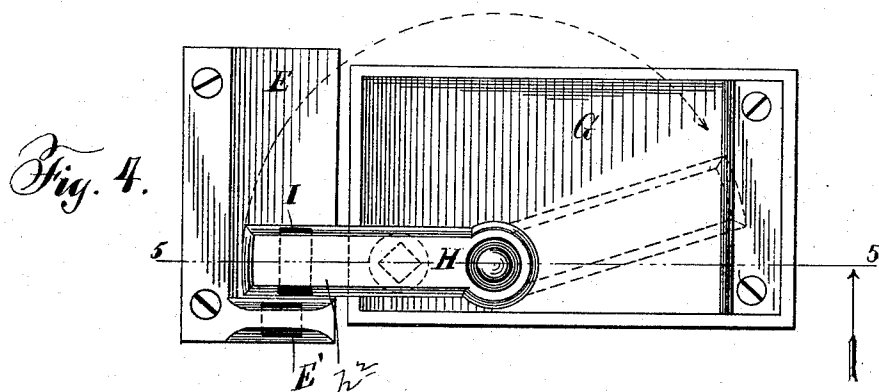
Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN PEARSON, OF CHICAGO, ILLINOIS.

CAR-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 509,939, dated December 5, 1893.

Application filed January 14, 1893. Serial No. 458,387. (No model.)

To all whom it may concern:

Be it known that I, JOHN PEARSON, of Chicago, Illinois, have invented a certain new and useful Improvement in Car-Door Locks, of which the following is a specification.

The particular object of my invention is to provide a lock for car doors which shall engage with the door to lock the same when the door is closed, but which shall be capable of rotation or motion into a position in which it shall not offer any obstacle to the movement of such door in opening.

My invention consists in the features, details and combinations hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of a portion of the side of a car showing a door provided with my improved lock. Figs. 2 and 3 are a front and side elevation respectively of the hangers used in connection with this door, and Fig. 4 and 5 are respectively an elevation and section of the locking mechanism, the last four figures being upon an enlarged scale.

The car A, door B, tracks C, upon which the door slides, and the hangers D, upon which it is supported upon the upper track, may be made in any of the well known forms, and inasmuch as they form no portion of my present invention their construction may be changed as desired, although I may prefer to use such a hanger as is shown more particularly in Figs. 2 and 3.

In speaking of the rearward edge of the door I mean that edge which is shown at the right hand of Fig. 1. That edge of the door is preferably cut away and beveled to bring it approximately into the shape shown more particularly in Figs. 4 and 5, and is protected at the point where the lock engages the same by a metallic plate E, preferably provided with a ring or loop E', for the purposes more particularly hereinafter pointed out.

The door post F adjacent to the rearward edge of the door and a portion of the side of the car are mortised or cut away, as shown at F', this mortise being made of any desired size and preferably of the shape shown in the drawings, although this shape may be varied as desired so long as the mortise or concavity affords space for the reception of the rotating

lock, as hereinafter to be described. To this mortise is preferably secured a metallic plate G, of a shape adapted to fit the same and secured in place by screws, bolts, or other suitable means. Pivottally supported in this plate is the lock H. As shown this lock is provided with an inwardly extending annular flange h adapted to engage with suitable bearings formed with the plate G. This pivot and bearing are so positioned that the lock swings and moves obliquely, at an angle to the plane of the wall, instead of parallel thereto. At its forward end the lock is preferably so formed as to adapt its overlapping edge h² to engage with the beveled recess in the edge of the car door, as shown at H', and is preferably further provided with a shoulder h', which abuts squarely against the edge of the door. This lock also preferably has a slot or opening I, the purpose of this being to allow any of the well known card seals to be passed through this slot and the loop E'.

The device having been constructed and put together as above described operates as follows: Supposing the parts to be in position indicated by the solid lines in the drawings, and the door being locked. If now it be desired to unlock the door the pivoted lock H may be raised and swung around in the position shown by dotted lines Figs. 4 and 5. As above stated the lock swings obliquely and when brought into this position it will rest within the cavity or mortise F, the outer edge of the lock being substantially flush with or within the face of the car wall thereby entirely withdrawing the lock from the path of the door and offering no obstacle to the motion of the latter as it is opened. When the door is again closed the lock may be swung back again into the position shown in the dotted lines, when the door will be firmly locked against any lateral or forward movements.

By the use of this lock I do away with all necessity of "cleating" the door or nailing a cleat against the car wall to hold the door closed, and since this cleating injures the sheathing of the car, dispensing with it is a great advantage.

By the above means I provide a simple and efficient lock for a car door which is capable

of rapid and easy operation to lock and unlock the door, and while I have described more or less precise means I do not intend to unduly limit myself thereto, but contemplate all proper changes in form, proportions and substitution of equivalent members that may be desirable or necessary.

I claim—

The combination of a sliding car door, a mortise in the car adjacent thereto, and a lock pivoted adjacent to the door provided

with a shoulder and overlapping edge, adapted to overlap the beveled edge of the door when the lock is rotated in one direction, and as it is rotated in the other direction to swing in the mortise out of the path of the door, substantially as described.

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