T. Slaight,

Latch,

No. 57,986, Patented Sep. 11, 1866.

Fig. 2.

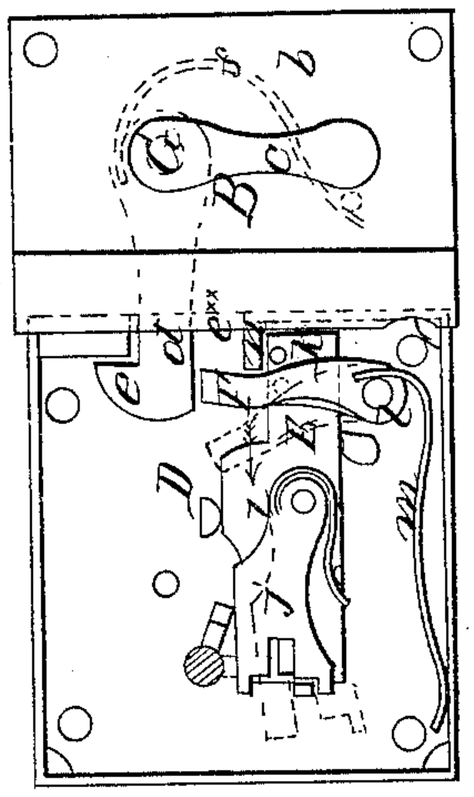
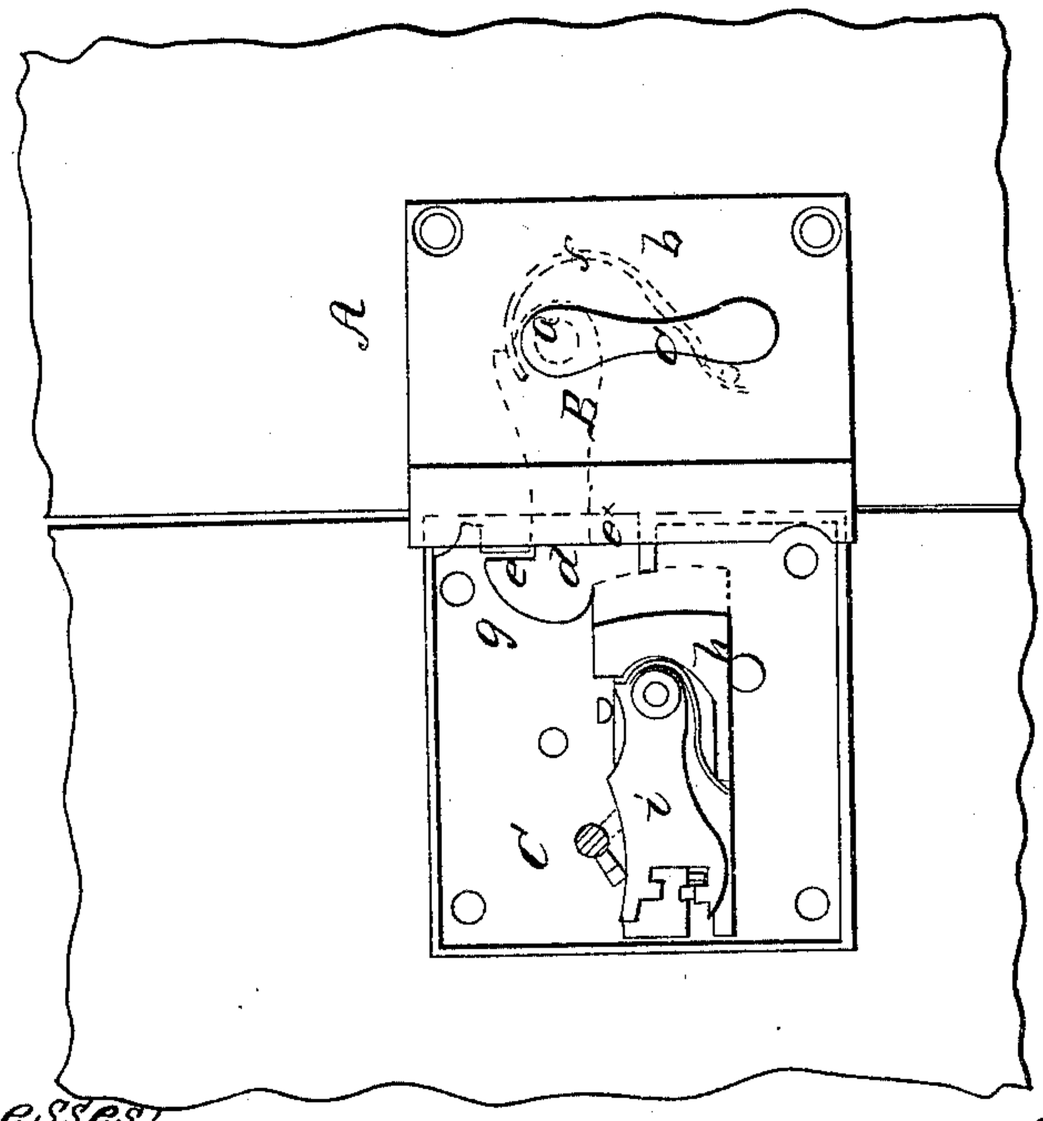


Fig. 1.



Witnesses;

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UNITED STATES PATENT OFFICE

THOMAS SLAIGHT, OF NEWARK, NEW JERSEY.

IMPROVED LOCK FOR DOORS OF BAGGAGE-CARS.

Specification forming part of Letters Patent No. **57,986,** dated September 11, 1866.

To all whom it may concern:

Be it known that I, THOMAS SLAIGHT, of Newark, Essex county, State of New Jersey, have invented a new and Improved Lock for the Doors of Freight and Baggage Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are internal views of my invention.

Similar letters of reference indicate like parts.

This invention relates to a new and improved lock and fastening for the sliding doors of freight and baggage railroad-cars; and it consists in combining a latch with a lock in such a manner that the lock will serve to secure the latch or prevent the door being opened without unlocking the lock and releasing the latch. The lock and latch being thus combined, all other fastenings are rendered unnecessary, while the door when locked is rendered equally as secure as if a special lock were applied to it.

A, Fig. 1, represents the sliding door of a freight or baggage car, and B the ordinary latch secured thereto. This latch is composed of an —— *a*, fitted in a case, *b*, and having a thumb-piece, *c*, extending down from it at the outer side of the case, and an arm, *d*, extending from it within the case, the thumb-piece and arm being at right angles with each other, and the latter having a notch or recess made in it to form a shoulder, *e*, as shown in both figures. The arm *d* has a spring, *f*, bearing against it, which spring has a tendency to keep the arm *d* pressed upward in a horizontal position and against the upper edge of an opening in the side of the case *b*, through which opening the arm passes. This latch B is not new, in itself considered, and is now in use as a simple latch or catch, no lock of any kind being connected with it.

C is a tumbler-lock attached to the side of the car, and in such a position that the outer part of the arm *d* will enter the case *g* of the lock when the door A is closed, as shown in Fig. 1.

The bolt *h* and tumblers *i* of the lock may be arranged in the usual way, the bolt having such a relative position with the arm *d* of the latch that when said bolt is shoved out under the action of the key, and the arm *d* of the latch is within the case *g* of the lock, the bolt *h* will be underneath the arm *d*, and the shoulder *e* behind the side of the case above the opening $e^{\times}$, through which the arm enters the case. It will be seen, therefore, that when the parts are in this position the door A will be in a locked state, as the arm *d* of the latch cannot be moved down to bring the shoulder *e* below the upper edge of the opening $e^{\times}$ until the bolt *h* is drawn back, and this can only be done by means of a proper key; and when it is not required to lock the door the bolt *h* may be thrown back, and the latch B may engage with the lock-case *g* when the door is closed, and disengaged from it, when it is required to open the door, by simply actuating the thumb-piece *c*. Thus the latch only may be used when the lock is not required, and the lock used in connection with the latch when it is necessary to lock the door.

If necessary or desired, and in certain cases, it may be preferable to use a tumbler spring-lock, D, in connection with the latch, as shown in Fig. 2. In this arrangement the tumblers *j* are attached to a slide, E, having a pin, *k*, projecting from it, and F is an arm which works on a stump or pin, *l*, in the case, and has a spring, *m*, connected with it, which spring has a tendency to keep the arm F pressed against a projection, *n*, within the lock-case.

When the arm *d* enters the lock-case in closing the car-door, the former strikes the upper end of the arm F, and shoves it inward until the shoulder *e* of the arm passes the upper edge of the opening $e^{\times}$ in the side of the lock-case, when the arm F, under the action of the spring *m*, throws up the shoulder *e* behind the upper edge of the opening $e^{\times\times}$, and the arm cannot be disengaged until the key is applied to the lock D and the slide E moved in the direction indicated by arrow 1, so that the pin *k* may draw the arm from underneath the shoulder *e* of the arm *d*, to admit of said arm being moved down by actuating the thumb-piece *c*. The spring-lock would be preferable in those cars where the doors are not frequently

opened—as in freight-cars, for instance—and the tumbler side-bolt lock shown in Fig. 1 would be preferable for baggage-cars.

I do not claim the latch B, for that has been previously used; but

I do claim as new and desire to secure by Letters Patent—

The combination of the tumblers *j* and slide E, provided with pin *k*, and the spring-arm F, operating with the shouldered arm *d*, having the thumb-piece *c*, substantially as described, for the purpose specified.

The above specification of my invention signed by me this 23d day of February, 1866.

THOS. SLAIGHT.

Witnesses:

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