

*E. Miller,*

*Car Seat Lock.*

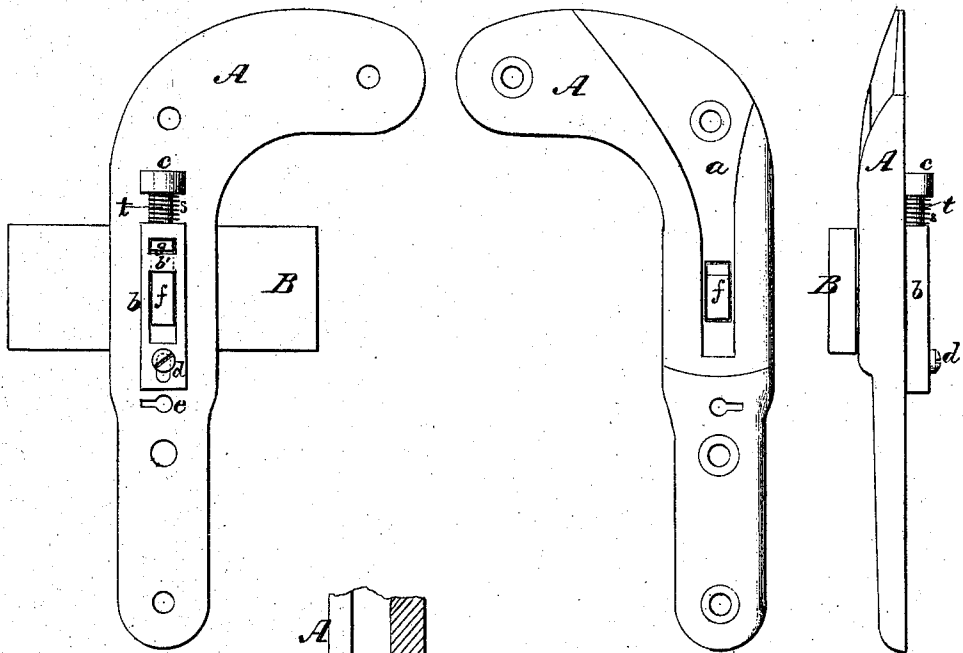
*No. 105,965.*

*Patented Aug. 2, 1870.*

*Fig. 1*

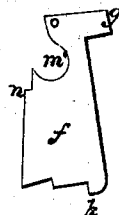
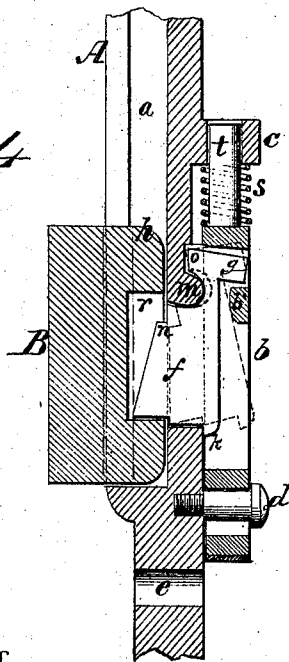
*Fig. 2*

*Fig. 3*



*Fig. 4*

*Fig. 5*



*Witnesses.*  
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# United States Patent Office.

EZRA MILLER, OF NEW YORK, N. Y.

Letters Patent No. 105,965, dated August 2, 1870.

## IMPROVEMENT IN CAR-SEAT LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, EZRA MILLER, of the city and county of New York, in the State of New York, have invented a new and improved Car-seat Lock; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a view of the inner side of a rest-plate and tenon-piece, showing lock applied.

Figure 2 is a front view of the rest-plate with lock applied.

Figure 3 is an edge view of fig. 1.

Figure 4 is an enlarged sectional view, showing more clearly the construction of the lock, and indicating, by the aid of dotted lines, the gravitating bolt or catch in two positions.

Figure 5 shows the gravitating bolt or catch detached from the rest-plate.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to improve seat-back locks for railroad-car seats, by the employment of a gravitating bolt or catch, in combination with a spring sash, which is adapted for being moved with a key, said lock or catch being so constructed that it cannot be forced back except by the use of the proper key, as will be hereinafter explained.

Seat-locks on the seats of passenger railroad cars, as hitherto constructed, can be readily "picked" by inserting a thin plate or blade between the bolts and the pieces which receive the bolts. This is an objection which I have successfully overcome, as will be seen from the following description.

To enable others skilled in the art to understand my invention, I will explain its construction and operation.

In the accompanying drawing—

A represents a rest-plate, and

B, a portion of a seat-arm, on which latter a tenon of a T-shape is formed, adapted to enter a groove, *a*, formed into the surface of the rest-plate A, as fully set forth in Letters Patent granted to me on the 12th day of April, 1870.

The T-shaped tenon *h*, which is formed on or applied to the seat-arm, is constructed with an oblong rectangular recess, *r*, in it, which is adapted for receiving a bolt or catch, *f*, and being firmly held by the same, as shown in fig. 4.

This bolt or catch is somewhat of a triangular form, and is fitted to the rest-plate A, so that its locking portion passes through an oblong slot made through said plate.

That portion of the bolt *f* which is exposed beyond the face of the rest-plate A, when the parts

are in the position indicated in full lines, fig. 4, is constructed with a shoulder, notch, or recess, *n*, which will prevent the bolt from being moved back by the introduction of a thin plate between the tenon *h* and rest-plate A.

Above this shoulder or recess *n* the bolt *f* is reduced, so as to receive a rounded bearing-piece, and to form a toe, *o*, by which the bolt has a fulcrum or point, about which it is allowed to swing.

Behind the fulcrum a lip, *g*, is constructed on the bolt, which is received into a slot made through the upper part of a sliding sash, *b*, above a cross-piece, *v*, of said sash.

At the lower back corner of the bolt *f* is a stop, *k*, which will, by its contact with rest-plate A, prevent the lower end of the bolt from swinging too far forward through the slot made through the plate A.

The sash *b* is simply a rectangular slotted plate, having a guide-pin, *t*, fixed into its upper end and inserted into a boss, *c*, on the back of the rest-plate.

The lower end of this sash is prevented from lateral displacement by a screw, *d*, which passes through an oblong slot made through the sash, and is inserted into the rest-plate.

A spring, *s*, which is coiled around the guide-pin *t*, and compressed between the boss *c* and upper end of the sash *b*, will keep the sash down upon the screw *d*, in the position shown in figs. 1 and 4.

It will be seen from the above description that the gravitating bolt *f* is operated to release the tenon *h*, by inserting a key through the key-hole *e*, and lifting the sash *b*.

When the sash is thus lifted, the cross-piece *v* strikes the lip *g* of the bolt *f*, and swings the lower portion of this bolt about its bearing or fulcrum until it assumes the position indicated in dotted lines, fig. 4.

When the key is withdrawn, the spring *s* will force back the sash *b*, and thus restore the bolt to its original position.

The bolt is self-locking, for it will be seen that its locking part is always exposed beyond the face of the rest-plate A, but protected by the jaws which form the groove *a*, whether the tenon *h* be in this groove *a* or not; also, it will be seen that the front edge of the bolt *f* is beveled or inclined, and the edges of the tenon *h* are rounded, in such manner that, in the act of bringing the said tenon to its place, the bolt *f* will at first be forced back, and then spring out into the recess *r* and hold the tenon.

Having described my invention,

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

1. The pendulous self-locking bolt or catch *f*, constructed with one or more shoulders at its lower end,

and with a shoulder, *n*, nearly midway between its upper and lower ends, a recess, *m'*, above said shoulder, and lateral extensions *g o*, the said catch being arranged and operating as a car-seat locking-bolt or catch, in the manner herein described.

2. The combination of the pendulous self-locking bolt or catch *f* and an open shouldered rest-plate, *A*, substantially in the manner described.

3. The combination of the pendulous self-locking car-seat bolt or catch *f*, constructed as described, spring slide *b b'*, constructed and arranged as described,

and rest-plate *A a*, substantially in the manner described.

4. The open slide *b*, constructed with the cross-piece *b'*, pin *t*, and with an oblong slot for the pin *d*, substantially in the manner and for the purpose described.

EZRA MILLER.

Witnesses:

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