(No Model.)

J. P. SANDBERG.

LATCH.

No. 451,526. Patented May 5, 1891.

Fig. 1.

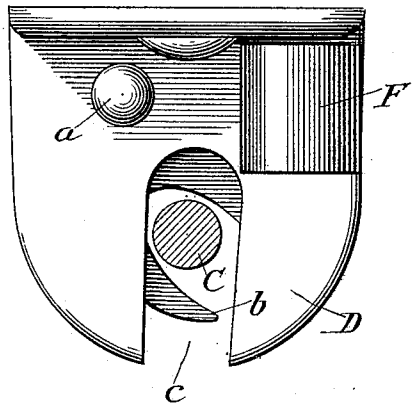


Fig. 2.

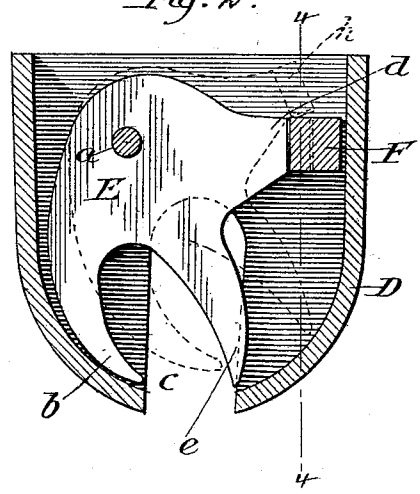


Fig. 3.

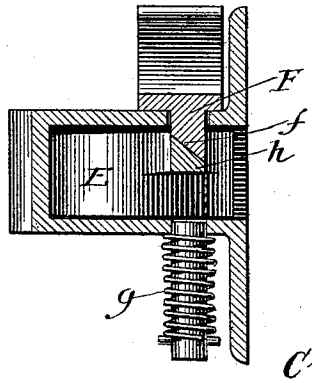


Fig. 4.

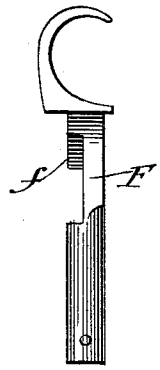
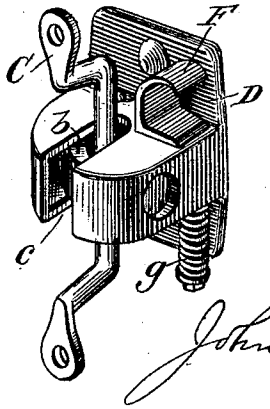


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN P. SANDBERG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE STREETS' WESTERN STABLE CAR LINE, OF SAME PLACE.

LATCH.

SPECIFICATION forming part of Letters Patent No. 451,526, dated May 5, 1891.

Application filed December 13, 1890. Serial No. 374,637. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. SANDBERG, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Spring-Locks for Doors, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view. Fig. 2 is a horizontal section. Fig. 3 is a vertical section on line 4 4 of Fig. 2. Fig. 4 is a detail, being a side elevation of the bolt; and Fig. 5 is a perspective view of the spring-lock and the handle of the door locked therein.

This invention relates to locks for doors, and is particularly designed to be applied to doors in stock-cars, which doors are used for the purpose of dividing the car into compartments and for assisting in loading the cars.

In stock-cars employing doors of the character described and shown in Letters Patent No. 336,872, dated February 23, 1886, it is desirable to fasten the door in its open position—that is, to fasten it against the side of the car when the car is used for other purposes than transporting stock.

The object of my invention is to provide an improved spring lock which will engage with the handle of such a door and automatically lock it in its open position, which I accomplish as illustrated in the drawings and as hereinafter described. That which I claim as new will be pointed out in the claim.

In the drawings, D represents the shell or casing of the lock. This shell or casing is adapted to be attached to the car-body by bolts or other suitable means, and is provided with a slot *c*, which is adapted to receive a handle on the car-door. The shell D is to be secured to the body of the car in such position that when the door is swung open—that is, around against the side of the car—the handle will enter the slot *c*.

E represents a dog, which is secured upon a pivot *a* in the shell D, as best shown in Fig. 2. This dog E is provided with two jaws *b* and *e*, arranged in such position that one of them will at all times be across the slot *c*, as shown and indicated in Fig. 2. This dog E is also provided with a heel *d*, as best shown in Fig. 2.

F represents a spring-bolt located, as shown in Fig. 3, near the heel *d* of the dog E. The bolt F is provided with a shoulder *f*, which is beveled on one side only, and with a spring *g*, which normally presses it downward. The heel *d* is also provided with a beveled portion *h*, as indicated in Fig. 2, which is adapted to engage with the beveled portion of the shoulder *f* of the spring-bolt F.

The engagement of the car-door handle with the jaw *e* will cause the dog E to swing on its pivot *a*, the spring-bolt F being slid rectilinearly in a plane at right angles to the plane of movement of the dog by the engagement of the heel *d* with the beveled surface of the shoulder *f*. When the car-door handle reaches the position shown in Fig. 1, (indicated by dotted lines in Fig. 2,) the jaw *b* will close the slot *c* and prevent the withdrawal of the car-door handle until the dog E is returned to the position shown in Fig. 2. The dog E is prevented from returning by the engagement of the heel *d* with the square surface of the shoulder *f* of the bolt F until the bolt is lifted by the operator. The spring *g* causes the bolt F to descend as soon as the heel *d* has passed the shoulder *f* in locking, and when the dog is returned to the position shown in Fig. 2 it holds the bolt F against the dog E, preventing any movement until the dog is moved by the engagement of the car-door handle with the jaw *e*. When the operator wishes to close the door, all that is necessary is to raise the bolt F, when the door will be free to be closed, as the dog E is free to swing, and thereby permit the handle C to be withdrawn from the slot *c*. By this construction the door will be automatically locked in open position when swung around against the side of the car, and can be readily closed, as all that is necessary is to lift the bolt F.

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

The combination, with a slotted shell or casing D and a pivoted dog E, having a heel *d*, provided with a beveled portion *h*, of a sliding spring-bolt F, having a shoulder *f*, which is acted upon by the beveled portion of the heel to slide the bolt outwardly as the dog swings to its locking position, substantially as described.

JOHN P. SANDBERG.

Witnesses:
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ALBERT H. ADAMS.