H. W. EARL.

Improvement in Seal-Locks.

No. 130,201. Patented Aug. 6, 1872.

Fig. 1.

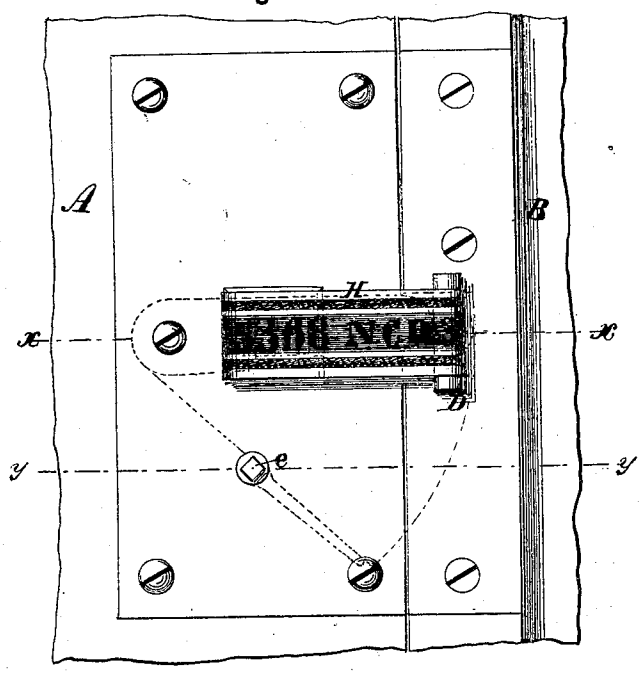


Fig. 5.

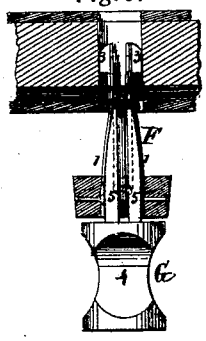


Fig. 6.

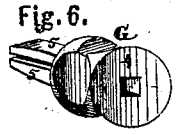


Fig. 2.

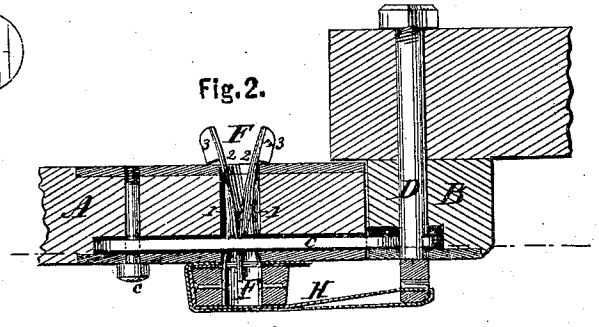


Fig. 4.

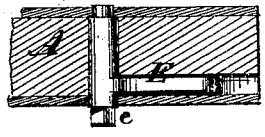
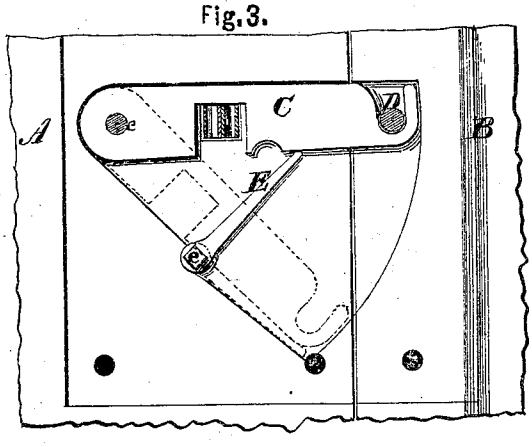


Fig. 3.



Witnesses.

Walter Allen

J. Sherstlin

Inventor.

Hy. Wm. Earl

By Knight Bros

Attys

UNITED STATES PATENT OFFICE.

HENRY WILLIAM EARL, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF AND SAMUEL SMOYER BLAIR, OF SAME PLACE.

IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **130,201**, dated August 6, 1872.

Specification of an Improved Seal-Lock, invented by HENRY WILLIAM EARL, of the city of Baltimore, in the State of Maryland.

Nature and Objects of the Invention.

My invention comprises a self-locking spring-bolt of peculiar construction, adapted to prevent the retraction of the latch or hook which secures the door, and also to receive and hold the ends of a metallic strap or ribbon, which, when in position, forms a supplementary connection between the door and its jamb, and also masks a key-hole in the said spring-bolt, so that the latter cannot be withdrawn without piercing or severing the strap or ribbon in order to admit the key. This strap or ribbon is marked in any suitable manner to distinguish it, and constitutes the seal of the lock. My invention further comprises a key of peculiar construction, adapted for use with the aforesaid spring-bolt. The invention is primarily intended for securing the doors of freight-cars of railways, but it is not limited thereto.

In the drawing, Figure 1 is a front elevation of a portion of the door and jamb of a freight-car with my invention applied. Fig. 2 is a horizontal section on the line *x x*, Fig. 1. Fig. 3 is a front elevation of the interior of the lock with the face-plates removed. Fig. 4 is a horizontal section of a portion of the door on the line *y y*, Fig. 1. Fig. 5 is a horizontal section of a part of the door on the line *x x*, Fig. 1, showing the key in the spring-bolt and the latter in course of being inserted or withdrawn.

General Description.

A represents a part of the sliding door of a freight-car, and B the door-jamb, or a part of another door if double doors be used. C is a hook turning on a pivot rod or bolt, *c*, in the door A, and catching over a bolt, D, in the jamb when the door is fastened. The hook C is thrown up into its locked position by a lever-arm, E, having a pintle, *e*, the square end of which projects from the door to receive a key, by which the said lever is turned up or down. F is my improved spring-bolt, which is formed of a perforated head, elastic shanks 1 1 and 2 2, and holding barbs, projecting or hooked ends 3 3. The shanks 1 1 2 2 are, collectively, made of four leaves of spring-steel in form similar to the letter **M**, the central leaves being joined together within the opening in the head, as shown in Fig. 2. This adapts the spring-bolt to receive the key G, which is formed, as shown in Figs. 5 and 6, with a head, 4, by which to hold it, and two bits, 5 5, adapted to pass within the spring-shanks and draw them together, as shown in Fig. 5. The spring-bolt may then be passed in or out. When released from the key the resilience of the spring-shanks tends to throw them apart, as illustrated in Fig. 2, in which position the barbs or projections 3 3 prevent the withdrawal of the spring-bolt. H represents my seal-strap, which is, preferably, made of metal, and is marked in any suitable manner to distinguish it. This strap is passed through a slot in the projecting end of the bolt D, and is provided with apertures in its ends to receive the spring-bolt F. The rear of the key G has a square socket to pass over the projecting end of the pintle *e* of the lever or arm E, for the purpose of throwing said arm up or down.

Operation.

To lock and seal the door, the hook C is first thrown up by means of the lever E. The seal-strap H is then passed through the staple or keeper, which may form a simple loop on the end of the bolt D and its ends brought together. The key being in position within the bolt F, the ends of the shank (being retracted by the key) are inserted through the apertures in the ends of the seal-strap in a direction outward from the door, or toward the operator. The spring-bolt is then reversed in position so as to bring the strap across its face, and is passed into its socket, locking itself therein, as shown in Fig. 2. It will now be seen, by Figs. 2 and 3, that the spring-bolt F forms a permanent support and lock for the hook C, preventing the latter from falling, and that the said spring-bolt cannot be removed until the seal-strap is destroyed in order to admit the key into the hasp.

Claims.

I claim as my invention—

1. The seal-strap H with perforated ends, adapting it, when passed through a suitable

staple or keeper, to be secured by the spring-bolt F and mask the face of the latter, all substantially as described.

2. The spring-bolt F, constructed with a perforated head and with barbed shanks, consisting of elastic leaves connected in M form to adapt the said shanks to be retracted or drawn together by means of an instrument inserted through the head, in the manner herein explained.

3. The key G, constructed with two bits, employed in combination with the spring-bolt F, as herein set forth.

To the above specification of my improvement in seal-locks I have hereunto set my hand this 11th day of July, 1872.

HENRY WILLIAM EARL.

Witnesses:

OCTAVIUS KNIGHT,

WALTER ALLEN.