JAMES H. OLIVER.

Improvement in Seal Locks.

No. 124,217. Patented March 5, 1872.

Fig. 1.

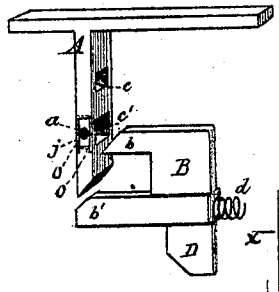

Fig. 3.

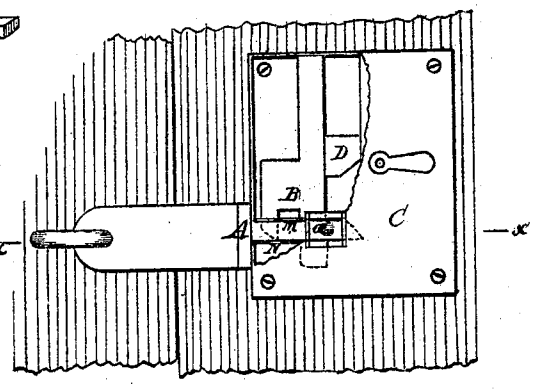

Fig. 2.

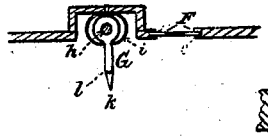

Fig. 4.

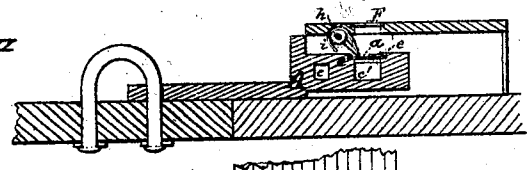

Fig. 5.

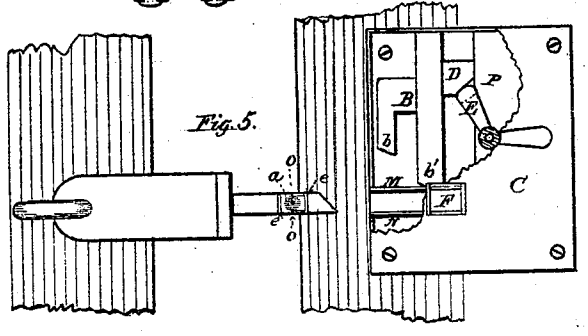

Fig. 6.

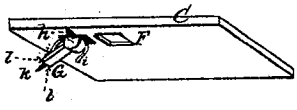

Fig. 7.

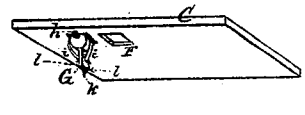

Fig. 8.

Witnesses.

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IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. 124,217, dated March 5, 1872.

Specification describing certain Improvements in Seal-Locks for Railroad Cars and other purposes, invented by JAMES H. OLIVER, of Baltimore, in the State of Maryland.

My invention relates to the application of a seal or other destructible device of suitable material to the hasp of a lock to be applied to the doors of railroad cars, &c. Withdrawal of the hasp will be detected and known by its mutilation or destruction by means of a pawl attached to the lock-case.

Figure 1 is a view of the bolt and hasp with the seal attached to the latter. Fig. 2 is a view of the punch or cutter, by means of which the seal is marked or destroyed. Fig. 3 is a view of the lock with the hasp in place and fastened by the bolt. Fig. 4 is a section of the same on line *x x* of Fig. 3. Fig. 5 is a view of the lock with the hasp withdrawn and the bolt held back by the key. Fig. 6 is a view of the under side of the top plate, showing the punch or cutter in the position assumed while the hasp is being withdrawn. Fig. 7 is a view of the same after withdrawal. Fig. 8 is a view of the same while the hasp is in position when the door is locked.

A is the hasp; *a*, the seal, made usually of paper with a mark or seal imprinted thereon; B, the bolt, composed of a single piece of metal divided into two beveled projections by a wide notch; C, the upper plate of the lock, a portion of it being broken away in Figs. 3 and 5 to show the internal arrangement. D is the projection, attached to the bolt and acted on by the key E. F is the opening in the plate C, protected by a glass cover, through and under which can be seen the portion of the hasp containing the seal *a*. G is the punch or cutter, made in the form of a pawl, which punches, cuts, or mutilates the seal in the act of withdrawing the hasp. *h* is the pivot on which the pawl turns; *i*, the spring which brings the pawl back to its proper position after acting upon the seal; *k*, the point of the punch G, placed between the two shoulders *l l*. The hasp passes into the lock between the two plates M and N, and the two beveled projections *b* and *b'* of the bolt B pass through the apertures *c* and *c'* in the hasp A and through corresponding holes in the plates M and N, said bolt being actuated by the spiral spring *d*. The seal-paper *a* is fitted into a couple of grooves, *e e*, on each side of a hole, *j*, in the hasp A, and is thereby kept securely in position. Half way across the edge of the hole *j*, and parallel to the sides of the hasp, are two spring-blades, *o o*. The pawl forming the punch G, in passing over the hasp as it is withdrawn, is directed downward by the striking of the shoulders *l l* against the ends of the blades *o o*, and the point *k* of the pawl perforates the seal exactly in the center, the movement of the hasp turning the pawl around its pivot till it is left by the hasp in the position shown in Fig. 6, whence it springs back to the position shown in Fig. 7. The hole punched in the seal can be of sufficient size to destroy it, or may be only large enough to leave a mark visible on close inspection.

The operation of the seal-lock is as follows: The seal or other paper, being already prepared of the proper width, and the door unlocked, it is placed under the spring-blades *o o* and in the grooves *e e* of the hasp. The latter being guided into the lock by the hand as the door is closed, the beveled end of the hasp encounters the projection *b* of the bolt, and forces it back so far as to permit the beveled end *b'* of the bolt to be reached by the hasp, which in turn is forced back and held till the holes *c* and *c'* of the hasp are respectively opposite the projections *b* and *b'* of the bolt, when the action of the spring *d* brings it back to the position it held before the entrance of the hasp, and the locking is completed. The seal *a* will now be found directly behind the glass cover of the aperture F, and its condition can at all times be readily observed. To unlock and withdraw the hasp, the key must be pressed down after one-half revolution, on account of a spring in the tube, to bring the end of the "bit" of the key to act upon the projection D, which is then thrown back with the bolt by turning the key, and there held until the key is removed. A projection on the end of the bit of the key strikes the edge of the plate P, and prevents its further movement in that direction; and the key can only be taken out by reversing the action of unlocking; and on doing so, the bolt

is carried forward by its spring *d*, and the lock is again ready for locking. The withdrawal of the hasp punches a hole in the seal *a* by the operation of the pawl G, and a fresh seal may now be put in its place.

Having thus described my invention, I claim—

1. A punch or cutter in the form of a pawl, in combination with a seal attached to the hasp of a lock, to be operated substantially as and for the purposes hereinbefore set forth.

2. The combination of a spring-lock, provided with a bolt, B, projection D, and spring *d* operated by a key, E, with the pawl G and hasp A, having a seal attached, substantially in the manner and for the purposes hereinbefore set forth.

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