J. T. KILHAM.

Seal-Lock.

No. 218,277. Patented Aug. 5, 1879.

Fig. 1.

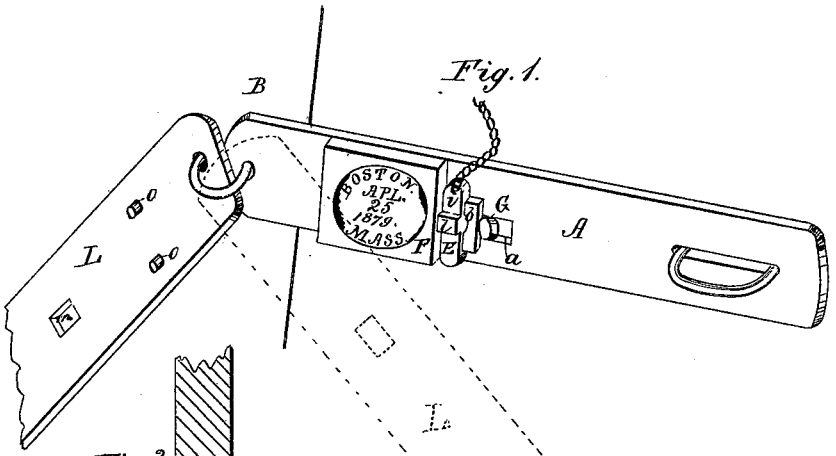


Fig. 3.

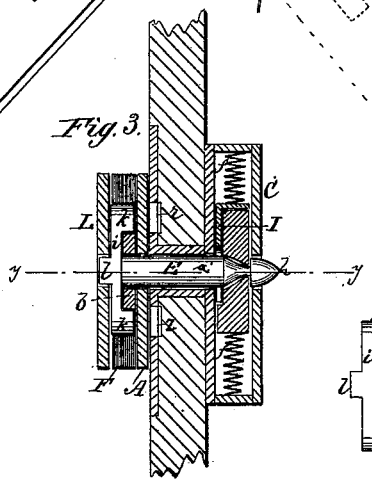


Fig. 5.

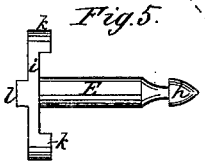


Fig. 6

Fig. 4

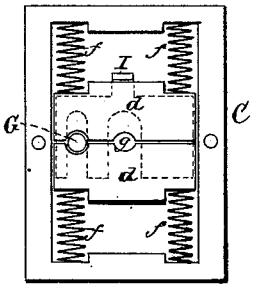


Fig. 2.

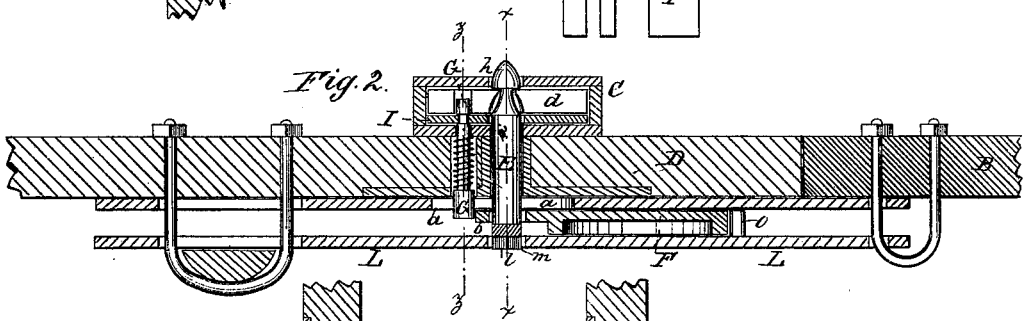


Fig. 7.

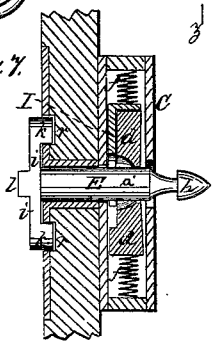
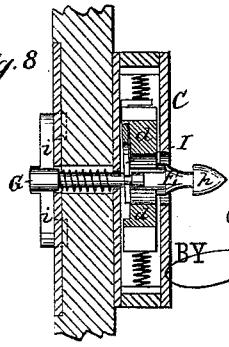


Fig. 8



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JOHN T. KILHAM, OF HARPER'S FERRY, WEST VIRGINIA.

IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **218,277**, dated August 5, 1879; application filed April 29, 1879.

To all whom it may concern:

Be it known that I, JOHN T. KILHAM, of Harper's Ferry, in the county of Jefferson and State of West Virginia, have invented a new and Improved Car-Lock and Seal; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention includes both a seal and a lock for doors of freight-cars, and also stationary structures, the two having such relation in construction as to constitute inseparable and indispensable parts of one device—that is to say, when the seal or plate containing the seal proper is duly attached it prevents the lock-bolt which secures the hasp from being withdrawn, and hence the door cannot be opened. When the seal-plate is broken the lock-bolt is released, and by proper manipulation can be withdrawn from the lock proper, thus in turn releasing the hasp and allowing the door to be opened.

The details of construction and operation of parts are as hereinafter described, reference being had to accompanying drawings, in which—

Figure 1 is a perspective view of the fastening device with the outer hasp or seal-protecting plate detached. Fig. 2 is a longitudinal section of the device with its several parts in the position they occupy when the fastening is complete. Fig. 3 is a cross-section on line *x x*, Fig. 2. Fig. 4 is a rear view of the lock proper without its outer plate. Figs. 5 and 6 are, respectively, plan views of the lock-bolt and the friction-plate which holds the lock-jaws fixed when open. Figs. 7 and 8 are sections of the device without the hasps, showing the position of the parts required to enable the bolt to be withdrawn.

The slotted hasp A is attached to the outer side of the car-door B by means of a staple; but the lock proper, C, is attached to the inner side of the body D of the car. When the door B is secured by the hasp A, the latter is raised to the horizontal position, and its slot *a* is then opposite the lock C on the other side of the wall D. The detachable fastening-bolt E passes through the slotted shank *b* of the seal-plate F, also through said slot *a* and the car-wall D, and enters lock C, by whose spring-jaws *d* it is held from withdrawal. Its head prevents both the seal-plate and hasp from being detached, and hence the door B cannot be opened until the lock C releases the bolt F, which is effected as hereinafter explained.

The cast-metal seal-plate F has a recess in its face to receive the wax seal or seal proper, which is to be impressed with the name of the place at which and the day on which the car was loaded. The slotted shank *b* of the seal-plate is made sufficiently thin to cause it to break under a light blow of a hammer or other like implement.

In lock C, *d d* indicate two jaws adapted to slide vertically toward and from each other in the lock-case. The said jaws are held together with a yielding pressure by means of the springs *f f*, which are interposed between them and the respective ends of the lock-case. The contacted or inner edges of the jaws *d d* have central and opposite semicircular cavities or grooves, which together form a transverse opening, *g*, Fig. 4, to receive the conical and shouldered point *h* of the fastening bolt E. Contiguous to such opening *g* is a recess, also formed in the contacted edges of the jaws *d d*. The head of push-bolt G enters such recess, and when pressed in with the requisite force it holds the slotted plate I, Figs. 6 and 8, so firmly against the jaws *d d* that they are prevented from closing, thus permitting withdrawal of the bolt E, as hereinafter more fully explained. The head *h* of push-bolt G has a circumferential groove to adapt it to enter the narrower slot of the plate I.

The bolt E is T-shaped or provided with arms *i*. On the ends of the latter are pendent projections or lugs *k*, which embrace the sides of the shank *b* of seal-plate F, Figs. 1 and 3. The square head *l* of the bolt E enters a slot, *m*, in the supplementary or outer hasp, L, when the latter is closed, as shown in Fig. 2; and since the bolt E is thus prevented from turning, it holds the seal-plate horizontally between the hasps A and L, so that it is covered and protected by the latter, as shown in Figs. 2 and 3. As an additional means for holding the seal-plate F parallel with the hasps when the latter are closed, I provide the outer hasp, L, with studs *o*, Fig. 2, which are so located as to abut against the end of the plate. These studs may, however, be dispensed with.

To fasten and seal the car-door B the hasp A is raised to a horizontal position, and the seal-shank *b* placed on the same, and the bolt E inserted through their slots and through the car-wall D successively, and then forced home, to cause its conical point *h* to enter opening *g* and separate the jaws *d d*, which instantly close again and embrace its neck, so that it cannot be withdrawn. Thus the lock-jaws *d* hold the bolt E, which, in turn, holds the seal F and hasp A together and in place, so that the door B is secured. The requisite impression being then made on the wax in the recessed plate F, the latter is held horizontally and the outer hasp, L, raised and secured parallel to the other hasp, A, Figs. 2, 3, the head *l* of bolt E in such case entering slot *m* in hasp L, for the purpose above stated. The car is then ready to proceed on its journey.

Having arrived at its destination the outer hasp, L, is thrown down and the seal examined and compared with the bill of lading, &c., and if the inspection is satisfactory the car may be opened. To do this the seal-shank *b* is broken by a blow of a hammer and the plate removed. The bolt E is then turned half-way round to bring its arms *i* into coincidence with the slot *a* in the hasp A, when the latter may be also detached and the car-door B opened.

When it is desired to detach the bolt E from lock C, (for the purpose of refastening the door,) the bolt is again turned half round, so that its arms are in the original position, parallel to the edge of the door B, and the bolt E is then pushed in, so that the portion *a'* will force the spring-jaws *d d* apart, Figs. 7 and 8, whereupon the push-bolt G is similarly pushed in, Fig. 8, to push the plate I against the jaws *d d*, which are thus held separated to allow the bolt E to be drawn out, which being done the pressure on spring-bolt G is removed and the jaws *d d* allowed to resume their normal position.

The plate I slides with one of the jaws *d*, but is of such width that its lower edge, Figs. 4 and 7, overlaps the upper edge of the lower jaw, even when the jaws are separated by the bolt E. To enable the bolt to be pushed in the requisite distance, I provide recesses *r*, Figs. 3 and 7, in the car-wall to receive the lugs *k* of its arms *i*.

It will be observed that the seal-shank *b* prevents the bolt G being pushed in until the seal-plate has been broken. I may in some cases dispense with the shank of the seal-plate and form a slot in the plate proper.

I do not claim, broadly, securing the hasp of a lock by means of a bolt which cannot be withdrawn until a seal or seal-plate through which the bolt passes has been broken and detached.

What I claim is—

1. In a seal-lock, the combination of the bolt E, having the head provided with lugs *k*, the seal-plate having the slotted shank, which enters the recess in said head, and a cover-plate for the seal, substantially as shown and described.

2. The combination of the push-bolt G and a friction-plate, I, with the yielding jaws, the slotted hasp A, and the fastening-bolt, substantially as shown and described.

3. The combination of fastening or lock bolt E, having a cross-head or lateral arms, *i i*, provided with lugs *k*, the slotted seal-plate shank *b*, and the outer hasp or seal-protector, L, having slot *m* to receive the bolt-head, substantially as shown and described, whereby the seal-plate is held fixed in horizontal position, as specified.

The above specification of my invention signed by me this 31st day of March, 1879.

JOHN T. KILHAM.

Witnesses:

SOLON C. KEMON,

CHAS. A. PETTIT.