

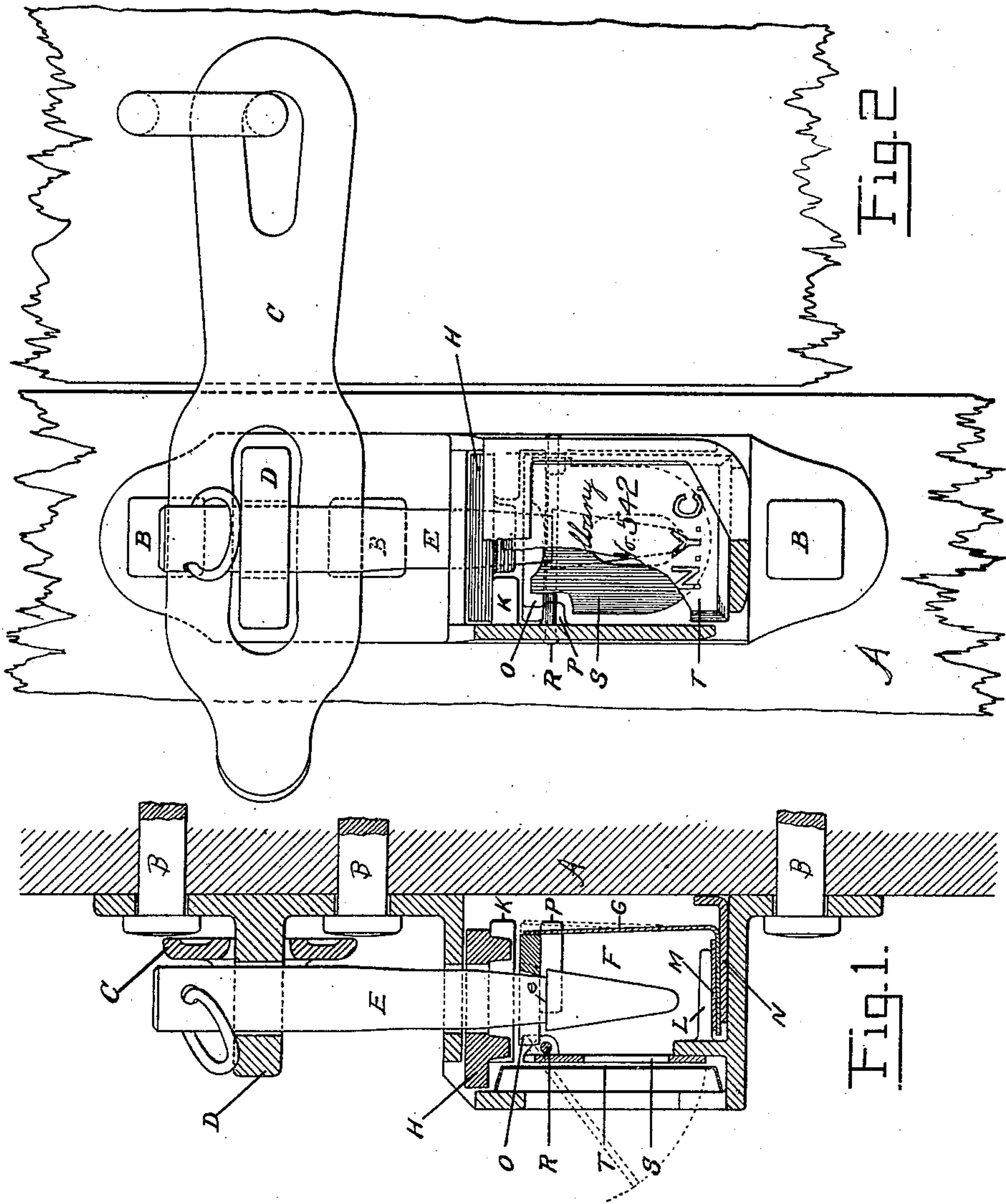
J. MacKENZIE.

SEAL LOCK.

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917,090.

Patented Apr. 6, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN MacKENZIE, OF WATERVLIET, NEW YORK.

## SEAL-LOCK.

No. 917,090.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed December 24, 1908. Serial No. 469,046.

*To all whom it may concern:*

Be it known that I, JOHN MacKENZIE, a citizen of the United States, residing at Watervliet, in the county of Albany and State of New York, have invented certain new and useful Improvements in Seal-Locks, of which the following is a specification.

My invention relates to locks and seals for freight cars and the objects of my invention are to construct a lock which will be simple, durable and inexpensive and which will hold the door of a freight car securely locked so that it cannot be opened without breaking the seal and when the seal is broken the lock can be easily opened. I obtain these objects by means of the mechanism illustrated in the accompanying drawings in which:

Figure 1 is a longitudinal section of my lock bolted to the door frame of a car. Fig. 2 is a front elevation of the same with parts broken away.

Similar letters refer to similar parts throughout the several views.

The reference letter A designates the door frame of the car. To this frame my lock is fastened by the bolts B, B.

C is a hasp one end of which is attached to the door of a car and the other end passes over the staple of my lock.

E is the pin passing through the staple D outside of the hasp C and holding the hasp securely upon the staple D. The lower end of the pin E is pointed and passes down through the staple into the body of the lock.

The walls of the lower portion of the lock form a chamber F into which the pin E passes.

G is a spring preferably made of steel having a bottom flange or ell held securely by wedges M and N under the bracket or shoulder L in the chamber F. The top body of the spring G presses against the slide O as hereinafter described.

H is a slide inserted in the chamber F of the lock from the rear thereof directly under the top wall of the chamber and is supported slidably on the brackets K, K. The slide H has a hole in the top to correspond with the hole in the top wall of the chamber F so that the end of the pin E in passing into the chamber F also passes through the hole in the slide H. The front part of the slide H is of a sufficient length to completely fill the space between the pin E and the inner surface of the front wall of the chamber F when the pin E is inserted in the lock. When the

pin E is withdrawn from the lock the slide H may readily slide along the brackets K, K toward the rear of the lock leaving an open space between the front of the slide H and the inner surface of the front wall of the chamber F, for the insertion of the seal, it being arranged so that the hole in the slide H will not be completely withdrawn from under the hole in the upper wall of the chamber F so that when the pin E is inserted in the lock the pointed end will enter the side of the hole in the slide H and the beveled end of the pin E will push the slide H forward until the front portion of the slide H occupies the entire front part of the chamber F as above described. The pin E has a groove *e* at or near the top of the tapering part of the end located at the proper distance from the end so that when inserted in the lock the groove *e* will be so located that the slide O hereafter described will fit into the groove *e* of the pin E. The bottom of the groove *e* is undercut or cut deeper at the rear of the groove than at the periphery and the rear side of the hole in the slide O is beveled so as to be larger at the top than at the bottom so that the beveled end of the pin E will readily pass through the hole in the slide O and the underside of the rear edge of the slide O will fit in the undercut in the groove *e* and make a better catch to hold the pin E within the chamber of the lock. The sides about the groove *e* form shoulders for the bottom of the slide O to catch upon.

O is a slide inserted in the chamber F below the slide H and is supported slidably upon the brackets or shoulders P, P. The rear end of the slide O bears against the upper end of the spring G so that the spring G holds the slide O forward against the groove *e* in the pin E. The slide O has a hole adapted for the pin E to pass into and the rear side of said hole is on a bevel as above described and the front of said slide may open or said hole may be oblong so that the front end of said slide will extend to or near the front side of said chamber. S is a door occupying the front of said chamber and hinged on a pivot near the top of said chamber. The pivot upon which the said door is hinged is located just below the slide O and so constructed that the spring G will press the slide O toward the front of said lock so that the front end of said slide O will press against or be near and back of the top of the door S in such a position that when the lower portion of the door is swung outwardly



upon the pivot R the upper end of the door S will act against and push backward the slide O, thus pressing the slide O backward so as to allow the pin E to be withdrawn from the chamber of the lock.

T is a seal made of thin brittle metal and of suitable size to slide down in front of the chamber F when the pin E is withdrawn and the slide H is slid backward so as to allow the seal T to be inserted through an opening in the top wall of the chamber F and is held in place by the front portion of the slide O. The front of the chamber F of the lock is open as shown in Fig. 2 and the seal may have the letters of the railroad upon which the car is used stamped in or may have the name of the shipper or the number of the station to which it is being sent, or any other number, stamped upon the face of the seal.

The operation of my lock and seal is as follows: The lock is bolted to the frame of the car door as shown and the hasp is attached to the door so that the open end will pass over the staple D of the lock. Then before the pin is inserted the slide H is pushed backward and the seal T inserted in the opening in the top of the chamber F, and the pin E is then inserted through the staple and through the hole in the top of the chamber F and through the hole in the slide H. This will force the slide H forward so as to completely cover the opening over the seal T. The pin E at the same time is inserted through the opening in the slide O and the spring G pressing against the rear end of the slide O will press the slide O against the pin E until the rear side of the hole in the slide O occupies the groove e in the pin E. When in this position it is impossible to withdraw the pin E without pushing backward the spring G and thus release the groove e from contact with the lower edge of the rear side of the opening in the slide O, the seal T covering the entire opening in the front of the lock it is impossible to force the spring G backward without first breaking or removing the seal. The seal being thin metal is not easily broken but a hole may be forced into it by a sharp instrument and the seal may thus be torn to pieces and destroyed. When the seal is thus torn to pieces and destroyed and removed from the chamber F the door S may be swung open by any suitable means, as by inserting the end of pliers in the hole in the door and thus the bottom part of the door is swung outwardly. When the door is thus swung outwardly and turned upon the pivot R the upper portion of the door will press backward the slide O, thus pressing the spring G and releasing the pin E. The pin E is then withdrawn and the car door may be opened.

Constructed in this manner the lock is cheaply made, is very strong and durable and cannot be opened without first destroying the seal. The seals being made of thin metal

such as thin tin they are inexpensive and are readily destroyed and easily removed and any desired letters or numbers may be stamped thereon.

What I claim as my invention and desire to secure by Letters Patent is:

1. A seal lock for railway freight cars consisting of a frame adapted to be bolted to the door frame of a car, the upper portion of said frame having a staple and the lower portion of said frame having a chamber, an opening in the top of said chamber adapted to allow the insertion of the seal, a hole in the top of said chamber adapted for the end of the pin passing through the staple to enter said chamber, a pin having the lower end beveled adapted to pass through said staple into said chamber, a slide under the top of said chamber adapted to be moved over the seal in said chamber by the insertion of said pin and to be held rigidly by said pin over said seal while the pin is in said chamber, a groove in said pin near the lower end thereof where the same will be within said chamber when the pin is in the staple, a second slide in said chamber adapted to fit into said groove, a spring within said chamber adapted to hold the said second slide in the groove in said pin within said chamber, an opening in the front of said chamber, a thin metallic seal adapted to be placed in said chamber when the pin is withdrawn therefrom and a hasp adapted to be attached to the car door at one end and passing over the said staple at the other end, substantially as described.

2. In a seal lock for a railway freight car a lock frame adapted to be bolted to the door frame of the car, a staple at the upper end of said frame, a hasp adapted to be fastened at one end to the door of the car and the other end to pass over said staple, a chamber in the lower end of said frame having an opening in the front thereof and also an opening at the top thereof adapted for the insertion of a thin seal, said opening so located that the seal when inserted in said chamber through said opening will lie directly back of and cover the opening in front of said chamber, a hole in the top of said chamber adapted for the insertion of a pin passing through said staple, a slide within said chamber under the top thereof having a hole corresponding to the pin hole of said chamber said slide being of a sufficient size that when the hole therein is directly under the hole in the top of the chamber the side of said slide will completely occupy the opening for the insertion of the seal, the said slide being adapted to slide backward in said chamber leaving said opening unoccupied, a pin adapted to pass through said staple and through the holes in the top of said chamber and said slide into said chamber, the lower end of said pin being pointed, a groove in said pin, sufficiently above the pointed end to be within



the upper portion of said chamber when said pin is in the staple, a second slide within said chamber adapted to occupy the groove in said pin, a spring within said chamber adapted to hold the second slide in said groove, and a thin seal adapted to be inserted in said chamber and to occupy the space back of said front opening, means for pressing said second slide backward out of said groove when the seal is removed, whereby the destroying or removal of said seal will allow force to be exercised upon said slide thereby releasing said pin, substantially as described for the purposes set forth.

3. In a lock, a frame, a staple upon said frame, a hasp, a chamber formed by the frame of the lock, a pin adapted to pass through said staple and into said chamber, said pin having a groove near the end thereof, a slide within said chamber adapted to occupy the groove in said pin and retain it within said chamber, a spring within said chamber adapted to hold said slide in said groove in contact with said pin, a door hinged on a pivot within said chamber whereby the swinging of said door outwardly will force said slide from said groove thereby

allowing said pin to be withdrawn from said lock, substantially as described.

4. In a lock, a frame, a staple upon said frame, a hasp, a chamber formed by the frame of the lock, a pin adapted to pass through said staple and into said chamber, said staple having a groove near the end thereof, a seal within said chamber adapted to occupy the groove in said pin and retain it within said chamber, a spring within said chamber adapted to hold said slide in said groove in contact with said pin, an opening in the front of said chamber, a thin seal adapted to be inserted in said chamber and to occupy the space back of said opening, a door back of said seal within said chamber, said door being pivotally hinged within said chamber, whereby the turning of said door upon its pivot will press said seal out of said groove substantially as described for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN MacKENZIE.

Witnesses:

WALTER E. WARD,

ELISABETH L. STYRING.