(Model.)

J. C. RAE.

SEAL LOCK.

No. 272,769. Patented Feb. 20, 1883.

Fig. 1

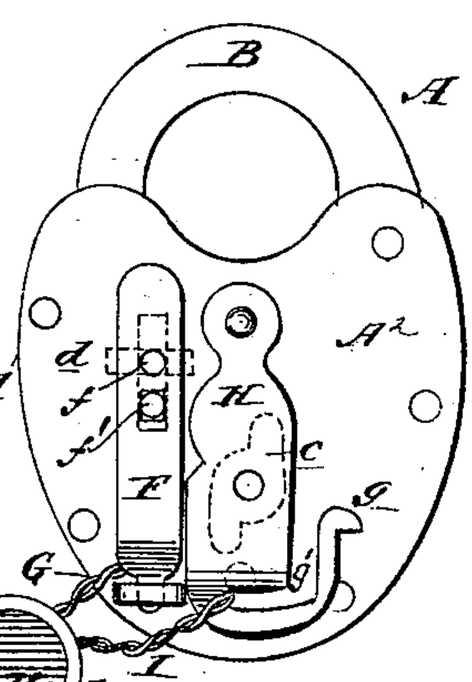


Fig. 8.

Fig. 2

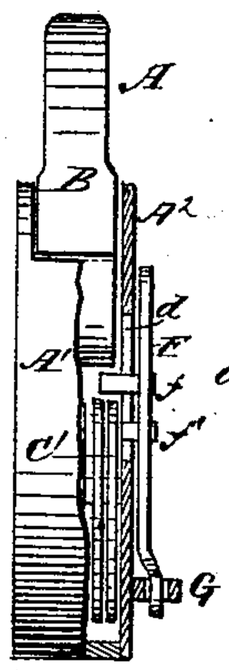


Fig. 5

Fig. 3.

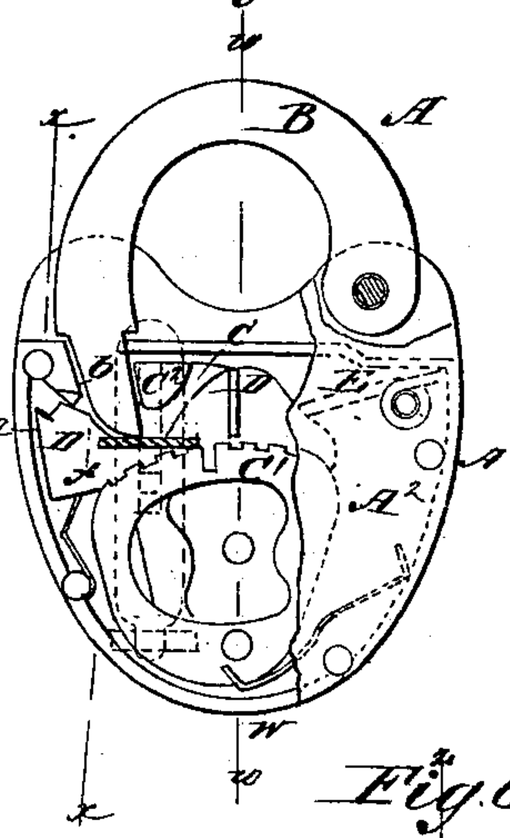


Fig. 4

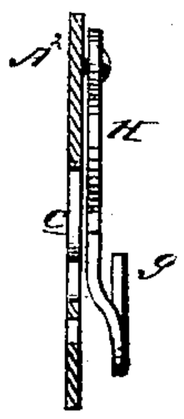
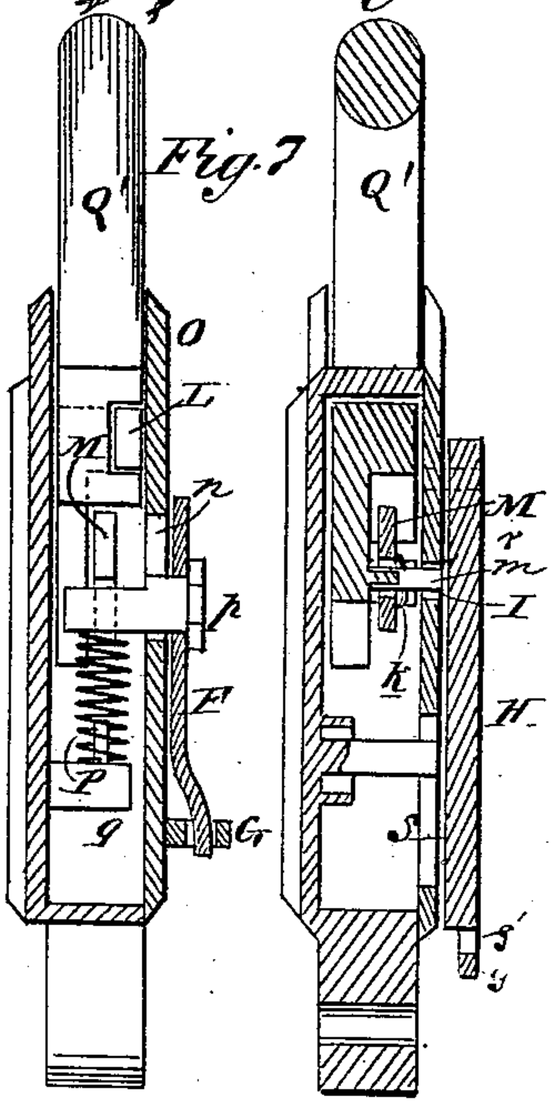


Fig. 6

Fig. 7



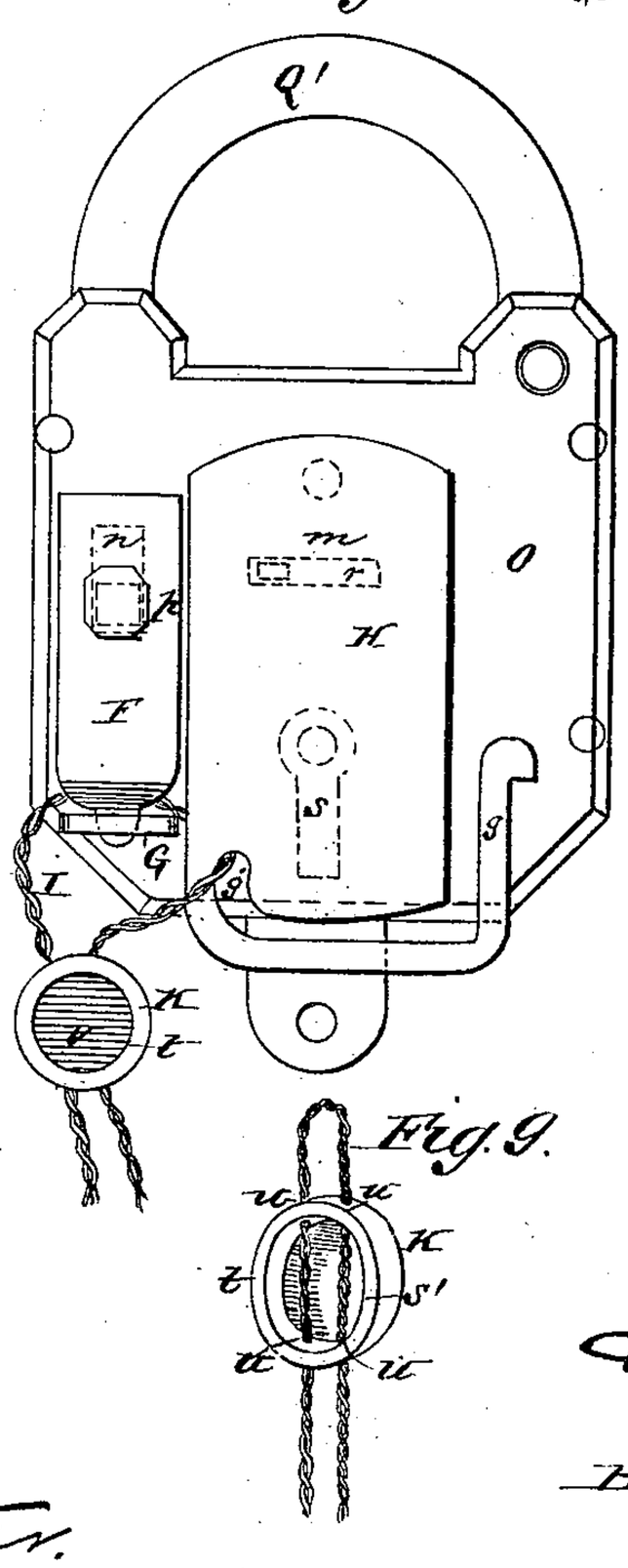


Fig. 9.

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UNITED STATES PATENT OFFICE.

JOHN C. RAE, OF ELMIRA, NEW YORK.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 272,769, dated February 20, 1883.

Application filed September 2, 1881. Renewed November 28, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN C. RAE, of Elmira, in the county of Chemung and State of New York, have invented new and useful Improvements in Seal-Locks, of which the following is a full, clear, and exact description.

Ordinary seal-locks are so constructed that the seal has to be formed or closed upon the seal wire or cord after the latter is applied to the lock, thereby involving much trouble and loss of time, and consequent delays, in forwarding express-cars, mail-bags, &c., which require first to be sealed.

The object of this invention is to facilitate the application of the seal, and thereby the dispatch of sealed cars, bags, and packages.

The invention consists of a lock provided with an outside bolt and keeper, and a key-hole cover, of hooked or other suitable shape, for the engagement of the seal-wire with attached seal; and it consists, further, in the combination, with the improved lock, of a looped wire or cord with attached seal, the loop of which seal wire or cord is designed to be engaged over and upon the key-hole cover and keeper before the locking of the lock, and to be held in place by the shooting and locking of the outside bolt, which latter is effected by the locking of the lock itself, whereby the lock is instantly sealed, so that it can be opened only on breaking the seal wire or cord, all of which will be hereinafter set forth.

Figure 1 is a front elevation of a spring-lock with my improvements attached. Fig. 2 is a partly-sectional side elevation of the same on line *x x*, Fig. 3. Fig. 3 is a front elevation of the lock with face-plate partly broken away to exhibit other parts. Fig. 4 is a partly-sectional side elevation on line *w w*, showing the position of the escutcheon. Fig. 5 is a front elevation, showing my improvements applied to a lock of another design. Fig. 6 is a front elevation, partly in section, of said lock with face-plate removed. Fig. 7 is a sectional elevation on line *y y*, Fig. 6. Fig. 8 is a sectional elevation on line *z z*, Fig. 6. Fig. 9 is a perspective elevation of my improved seal.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a spring-lock of the ordinary construction, of which A′ represents the case; B, the shackle; C, the lower tumbler with attached pivoted dog D, and E the spring actuating the said tumbler and bolt. Other spring-actuated tumblers are shown at C′. When the lock A is unlocked the notched end *a* of the dog D is held, by the spring E, engaged with the stop *b*, that forms a part of the case A′, and the tumbler-bolt C^2 is correspondingly retracted; but when the tongue B is entered it presses down the dog D, thereby disengaging it from the stop *b*, and the tension of the spring E operates to force the dog D to the position shown in Fig. 3 and the bolt C^2 into the socketed end of the shackle B, as shown in Fig. 3, and to thereby hold the lock locked. On applying a suitable key through the key-hole *c* and turning said key to the right the tumbler C and dog D are restored to their primary positions, so that the shackle B is released and the lock thereby unlocked.

In order to apply my improved device, a perpendicular slot, *d*, is made in the face-plate A^2 of the lock. An outside bolt or sliding plate, F, is then secured upon the face of the plate A^2 by a T-headed stud, *f*, that passes through said bolt F and slot *d*, and by an auxiliary stud, *f′*, to keep the said bolt F from turning. The lower end of said bolt F is slightly bent outward, as shown, to permit the introduction of the seal wire or cord I behind it. A keeper, G, is fastened in the face-plate A^2, below the end of the bolt F.

The key-hole cover H is pivoted on the face-plate A^2, over the key-hole *c*, in the usual manner, and has its lower end formed into a hook, *g*, as shown, and bent slightly outward to permit the introduction of the seal wire or cord I behind it. This hook *g* is designed to be made sufficiently strong to resist distortion from ordinary usage.

The application or operation of the device is as follows: The lock being applied to the car, bag, or other article to be sealed, and being still open, the key is withdrawn and the escutcheon H is turned down over the key-hole *c*. Then the operator, taking a seal wire or cord, I, with an attached seal, K, formed or closed thereon, passes the loop or bight of said wire or cord I over the hook *g* and draws it into the closed end of the slot *g′*, that forms the hook *g*, and then the operator holds the said loop or bight of the wire or cord I against the face-plate A^2, just above the keeper G, and then pushes down the lock-shackle B, whereby the lock is locked, as hereinbefore set forth, and as the shackle B is thus pushed down its extremity comes in contact with the T-head

of the stud *f*, and thereby forces the bolt F down, with its lower bent end outside of or over the bight of the wire or cord I, and into the keeper G, as shown in Fig. 1, so that the lock is sealed, and so that the key-hole cover H cannot be turned aside to give admission to the key-hole *c* for unlocking the lock without first breaking the cord or wire I or the seal K, and the bolt F being held firmly down in place by the contact of the extremity of the lock-shackle B with the bolt-stud *f*.

In Figs. 5, 6, 7, and 8 my improved device is shown applied to a lock of different construction—one that is locked with a key and is unlocked with a key or by hand. In this instance the lock-bolt or tumbler L is held in a locking position by a spring, L′, in the usual manner, as shown, and another tumbler, M, longitudinally slotted, as shown at *k*, is placed on the tumbler L, a stud, *m*, from the latter projecting up through the slot *k* of the former, so that when the tumbler L is retracted the tumbler M is also drawn back. A spiral spring, N, serves to hold the tumbler M forward in a locking position.

In the face-plate O, near an edge thereof, is formed a vertical slot, *n*, and the sliding bolt F is held to the face of the plate O by a shouldered stud, *p*, that is passed through said bolt F into the slot *n*. A spring, P, resting on a stud, *q*, within the lock and pressing upward against the stud *p*, holds the bolt F up disengaged from the nose-piece G.

Beneath the pivoted hooked key-hole cover H, above the key-hole *s*, a transverse slot, *r*, is formed in the face-plate O, and the stud *m* projects upward into said slot *r* within reach of the operator. The lock being applied to the car, bag, or other article to be sealed, and being still open, the hasp Q′ is then closed, a suitable key is introduced through the key-hole *s*, and the tumbler L is thrown, thereby locking the lock, the nose of the tumbler M meanwhile resting against the stud *p* of the bolt F, when the key is withdrawn and the key-hole cover H turned down in place. The seal wire or cord I is then passed over the hook of the key-hole cover H and above the keeper G, as in the former case, and then the operator applies his hand to the projecting head of the stud *p* and pulls down the bolt F to engage it over the cord or wire I and in the nose-piece G, and when the bolt F is so moved the spring N throws the tumbler M forward above and in contact with the inner end of the bolt-stud *p*, and thereby holds said bolt F locked, as indicated in Figs. 6 and 7. In this case, also, the wire or seal I K must be broken before the lock can be unlocked. On breaking either of them the key-hole cover H can be turned vertically upward, and the operator can apply a finger to the stud *m* through the slot *r*, and thereby throw back both the tumblers L M, and thus unlock the lock without the use of a key; or he may apply a key and unlock the lock in the usual manner.

The device can be applied to locks of other styles at slight expense and without making any alterations in them to decrease their strength or affect their security. The great advantage of the device is that it enables the operator to apply a fully-formed seal to the lock, and thereby instantly seal the latter, thus economizing in time and labor.

In sealing the locks I preferably use the style of seal shown in the drawings, though the ordinary seal will serve the purpose. This seal K is a simple disk or button, of metal or other suitable material, sunken in the center, as shown at *s′*, and having, in consequence, a raised annular rim, *t*, through which suitable perforations, *u*, are made for the passage of the seal cord or wire I, so that the latter, when passed through the said perforations *u*, lies nearly or quite in contact with the bottom of the depression *s′*. Then wax, lead, or other suitable sealing substance, as indicated at *v*, may be compressed or introduced into the depression *s′* to cover the cord or wire I and hold the seal K to it, and thus the seal is completed without the use of tools or instruments.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a lock designed to be used as a seal-lock, of a hooked key-hole cover, bolt, and keeper, arranged and operated substantially as herein shown and described.

2. In a lock designed for a seal-lock, the combination, with the lock face-plate having a vertical slot, of the bolt F, provided with a stud projecting inward through said slot, keeper G, and pivoted key-hole cover H, having hooked end *g*, substantially as herein shown and described, whereby a completed seal may be attached, as set forth.

3. The combination, with a lock provided with an outside sliding bolt and keeper and with a hooked key-hole cover, of the looped seal wire or cord I and completed seal K, substantially as and for the purpose described.

4. In a seal-lock provided with suitable means for holding the wire of the seal, a hooked key-hole cover pivoted on said lock, substantially as herein shown and described.

5. In a seal-lock, as a means for holding the seal-wire, and in combination therewith, a sliding bolt and immovable keeper applied and secured on the outside of said lock, substantially as herein shown and described.

6. As a means for sealing a lock that is constructed and arranged to be used as a seal-lock, the combination therewith of a completed seal or sealing device consisting of a looped wire or cord having its ends immovably fixed and held in a terminal seal or button before application to the lock, substantially as herein shown and described.

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