(Model.)

J. A. KIRBY.

SEAL LOCK.

No. 344,049. Patented June 22, 1886.

Fig. 1.

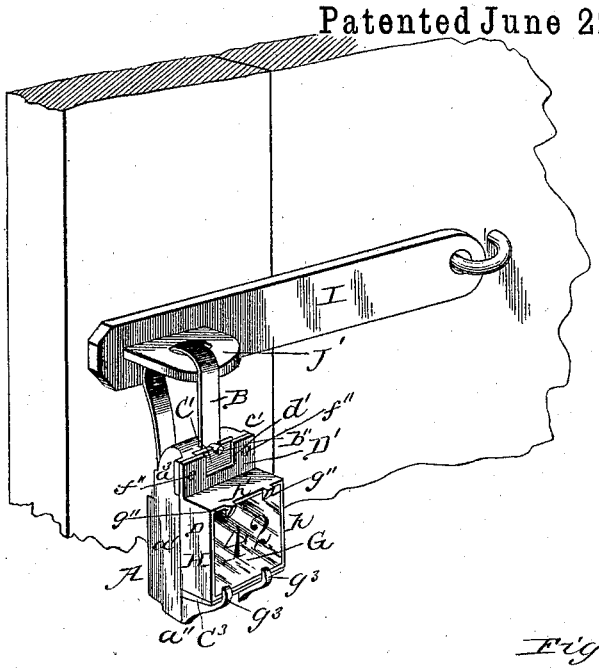


Fig. 2.

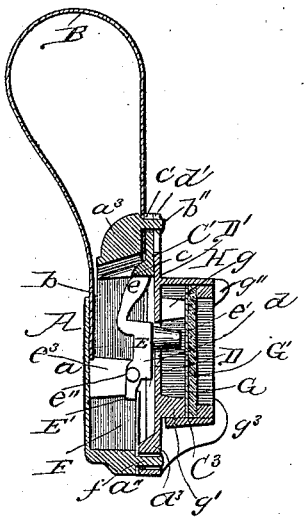


Fig. 3.

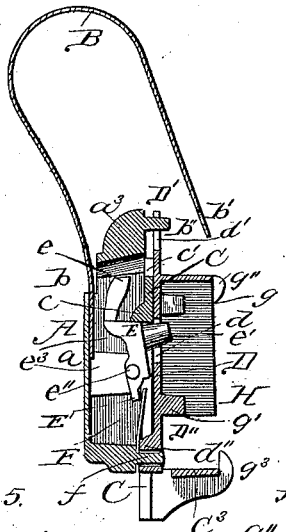


Fig. 4.

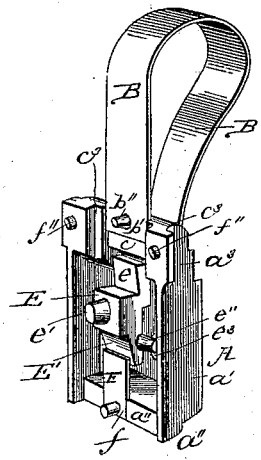


Fig. 5.

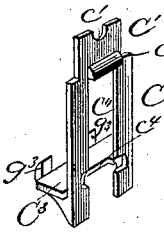


Fig. 6.

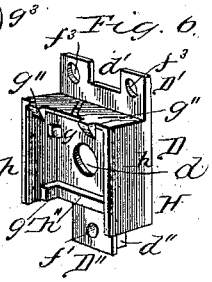
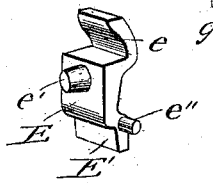


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES A. KIRBY, OF CHICAGO, ILLINOIS, ASSIGNOR TO LEWELLYN MASON AND WILLIAM H. KIRBY, BOTH OF SAME PLACE.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 344,049, dated June 22, 1886.

Application filed July 28, 1885. Serial No. 172,918. (Model.)

To all whom it may concern:

Be it known that I, JAMES A. KIRBY, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Car-Door Seal-Locks, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing the seal-lock in position; Fig. 2, a longitudinal section showing the parts in locked position; Fig. 3, a longitudinal section showing the parts in unlocked position; Fig. 4, a perspective view of the casing strap or loop and spring catch or dog; Fig. 5, a perspective of the slide or keeper; Fig. 6, a perspective of the cap; Fig. 7, a perspective of the dog or catch.

This invention is primarily designed for sealing the doors of transportation-cars, but can be applied to and used for locking other receptacles, which it is desirable to have effectually guarded against being tampered with, and has for its object to produce a seal-lock simple in construction, readily locked, and which cannot be unlocked without having such performance at once disclosed; and its nature consists in the several parts and combination of parts hereinafter described, and pointed out in the claims as new.

In the drawings, A represents a shell made of brass, malleable iron, steel, or other suitable material, which can be cast or otherwise formed into shape to have a bottom part, *a*, side walls, *a'*, and end walls, *a''* *a*³, and, as shown, the juncture of the bottom *a* to the end wall, *a*³, is cut away, so as to leave an opening, *b*, and the face of the end wall, *a*³, is provided with a stud or pin, *b''*, either formed therewith or permanently secured therein or thereto.

B represents a strap or loop of steel or other material, one end of which enters the opening *b*, and is firmly secured to the inner face of the bottom *a* by brazing, riveting, or otherwise, and the other end is provided with a hole, *b'*, to receive the pin or stud *b''*, to connect this end with the casing.

C represents a slide or keeper formed of a metal plate, and corresponding in length, or nearly so, to the length of the casing A as a whole. The inner face of C is provided with a catch, *c*, and its acting end C', as shown, is provided with a notch or recess, *c'*, to receive the stud or pin *b''*, and this end C', as shown, is of less width than the body of the slide, and its edges rest on shoulders *c*³, formed in the face of the end *a*³, and the face of the end *a*³, as shown, is cut away between the shoulders to leave a space for the end of the strap or loop B beneath the end C'. The body of the keeper C is provided with a longitudinal slot, C'', as shown in Fig. 5, and the outer face of the keeper has a cross-piece, C³, which, as shown, is of the same width as the casing, and this cross-bar C³, as shown, is cut away adjacent to the slot C'', so as to leave a space, C⁴, to allow the keeper to move.

D represents a cap or plate of metal, having, as shown, a hole or opening, *d*, and having an end, D', provided with an opening, *d'*, to allow the end of B to pass over the pin or stud *b''*, and having an end, D'', with a guide, *d''*, to enter the slot C'' and maintain the slide or keeper C in a straight line of travel.

E represents a catch or dog located inside of the casing A, beneath the slide or keeper C, and having its end *e* arranged to engage the catch *c*, when the slide or keeper C is projected, and prevent the withdrawal of the slide or keeper until the end *e* is disengaged from the catch *c*. The acting end of this dog or catch is cut away, so as to form a second stop to limit the withdrawal of the slide or keeper in the form of construction shown, and, as shown, the tail end E' of the dog or catch is provided on each side with a trunnion, *e''*, which drop into rests *e*³ on the inside face of the walls *a'*, so as to give the dog or catch a pivotal support by which its free end can be made to rise and fall. The body of the dog or catch on the outer face is provided with a projection, *e'*, which, when the parts are together, projects into the hole *d* of the cap or plate D.

F represents a spring, one end of which, as shown, is secured around a pin, *f*, on the end *a''*, and the other end engages the tail end of the dog or catch E, and bears thereon to hold the free end *e* in contact with the slide or

keeper, except when such end is forced away, by pushing in the projection e'. As shown, the end of the spring F, around the pin f, is in a recess in the end bar, a'', and is held therein by the guide d'' on the cap or plate D, which, as shown, also enters this recess, the pin f passing into a hole, f', through the guide d'' and end D'', and, as shown, the end a^3 at each side has a pin, f''', which enter holes f^3 in the end D'. The pins $f\,f''$ and holes $f'\,f^3$ furnish the means for securing the cap or plate D to the casing, and the attachment is made secure by riveting down or upsetting the ends of the pins $f\,f''$, so that they act as rivets, and when together the slide or keeper C is free to move between the casing and cap or cover.

G represents a plate of glass or other fragile material having a backing, G', of paper or other material, with letters and numerals to indicate the sealing of the article with which the lock is used. This seal, as shown, rests on supports $g\,g'$, and is held in place by catches $g''\,g^3$, the catches g^3 being formed on the edge of cross-bar C^3, and being movable therewith to allow of the insertion and locking of the seal, and, as shown, the catches are continued in ribs on the side of the cross-bar to give additional strength.

H represents a receptacle for the seal, formed with or suitably secured to the cap or plate D. As shown, the receptacle is formed with side walls, h, end wall, h', and end bar, h'', and the end wall, h', has on its edge the catches g'', while the end bar, h'', has at its ends the supports g', and the other end wall is formed, when the parts are locked together, by the cross-bar C^3, so that when the seal is in place it is completely inclosed by the walls $h\,h$, h', and C^3 resting on the supports $g\,g'$ and secured by the catches $g''\,g^3$, and when in place access cannot be had to the projection e' to disengage the dog or catch E until the seal is broken.

I represents a hasp fitting over a staple, J', through which the strap or loop B passes to secure the door-lid or other article to be secured. These parts I J' are simply shown to illustrate the use of the seal-lock.

The parts forming the lock are put together by securing the strap or loop B at one end firmly to the casing, to have its free end engage with the pin b''. The catch or dog E is dropped into the casing with its trunnions e'' resting in the blocks e^3; the spring is placed in position to have its free end engage the tail E' of the dog or catch E, with its other end resting on the end wall, a''; the slide or keeper C is dropped into place with its acting end resting on the ledges c^3, and its tail end on the end wall, a'', with the body of the dog E in the slot C'', and then the cap or plate D is dropped onto the pins $f\,f''$, and the pins riveted down, securing the several parts together, so that the slide or keeper C is free to move when disengaged from the catch E. The lock is then ready for use; and in use for locking and sealing purposes, the strap or loop B is passed through the staple or eye or other receiver on the article to be locked and sealed. The slide or keeper C being withdrawn, a seal is placed in the receptacle H, the free end of the strap or loop is passed over the pin b'', and the slide or keeper advanced to have its acting end pass over the free end of the strap or loop, and by this same movement the catches g^3 are advanced to lock the seal in place; and when the keeper is advanced the dog or catch E, by the action of the spring F, is thrown behind the catch c, its free end engaging such catch and locking the keeper against withdrawal until the end e of the catch is disengaged from the catch c, and this can only be done by breaking the seal and disengaging the catch or dog by pressing on the projection e', by which means it will be seen that in case of unlocking, such unlocking will be disclosed by the broken seal.

The lock and seal can be used on cars, package-chests, safes, mail-bags, and other receptacles which it is desired to lock and seal securely, and when opened by the proper party the lock is not injured for further use, as the seal only is broken, so that the lock can be used again by inserting a new seal.

The lock is very simple, will not be easily broken, and if broken, can be easily repaired, and cannot be unlocked readily, except by breaking the seal, and in use the parts cannot be released by a sudden blow, as the keeper or slide is independent of the attaching casing and strap, and by having the strap or loop attached to the casing, pulling on the casing does not affect the slide or keeper C, which is held by the catch or dog E.

Where the looped strap is secured entirely to the slide or keeper, as heretofore, a sudden blow on the lock will sometimes dislodge or throw the slide, so that the looped strap can be unfastened. This is avoided by attaching the looped strap at one end to an immovable part of the lock-case, and having its other end engaging a stud, also on the lock-case, so that the slide or keeper is not directly attached in any manner to the strap.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the lock-case A, having the attached stud or pin b'', and the slide or keeper C, with the looped strap rigidly attached at one end to an immovable part of the lock-case, and at the other end adapted to engage the stud or pin, substantially as described.

2. A casing, A, having a stud or pin, b'', and loop or strap B, fastened at one end securely to the casing, in combination with a slide, C, having catch c and spring-dog E, for holding the free end of the strap when on the stud or pin, substantially as and for the purposes specified.

3. A casing, A, strap or loop B, fastened at one end securely to the casing, and stud or

pin b'', in combination with the slide C, having catch c, and spring-catch E, having projection e', substantially as and for the purpose specified.

4. A casing, A, having a stud or pin, b'', strap or loop B, fastened at one end securely to the casing, and slide C, having catch c, in combination with the spring-catch E, having projection e', and cap D, having opening d', substantially as and for the purposes specified.

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