(Model.)

A. H. PEIRCE.

SEAL LOCK.

No. 384,069. Patented June 5, 1888.

Fig. 1.

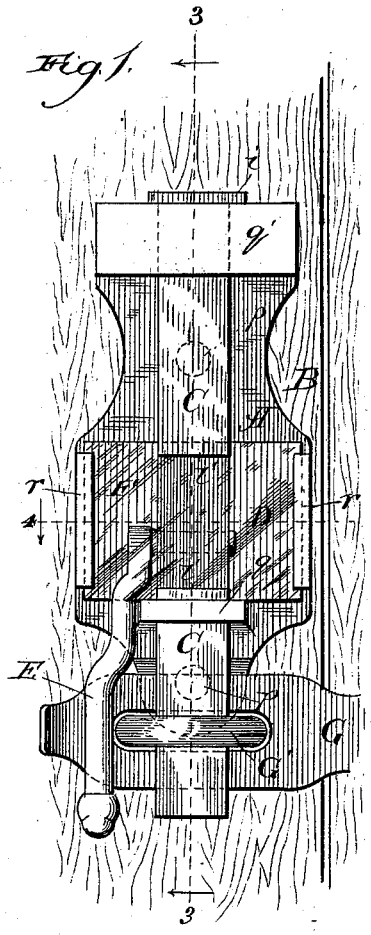


Fig. 3.

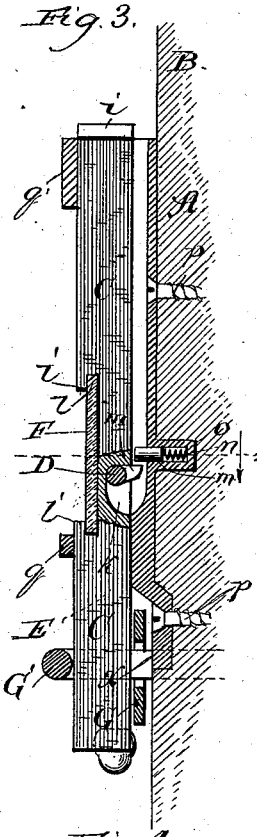


Fig. 2.

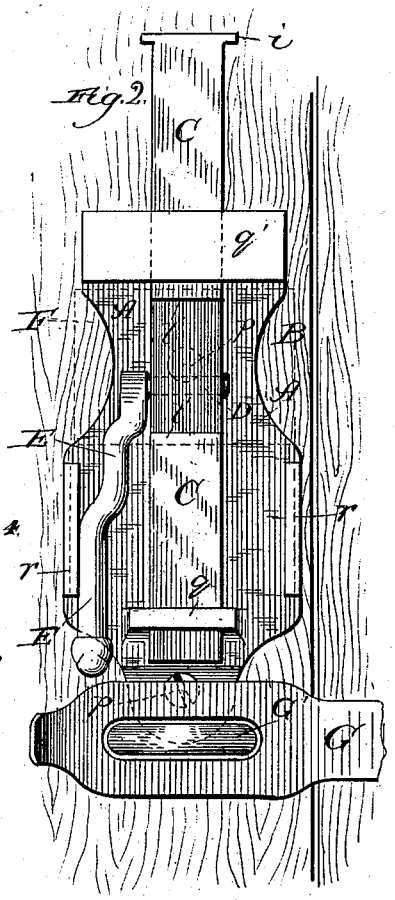
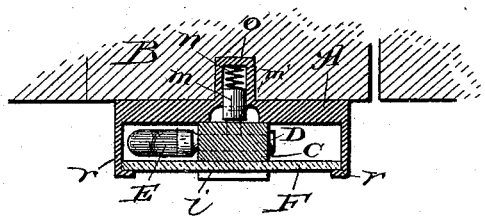


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARTHUR H. PEIRCE, OF CHICAGO, ILLINOIS.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 384,069, dated June 5, 1888.

Application filed February 14, 1888. Serial No. 263,956. (Model.)

To all whom it may concern:

Be it known that I, ARTHUR H. PEIRCE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Seal-Locks, of which the following is a specification.

My invention relates to the class of devices for use particularly in guarding the doors of freight-cars against being opened without detection, and comprising, generally stated, a bolt in a suitable housing adjacent to the staple on the door-post and adapted to be passed through the staple over the hasp extending from the freight-car door, and a frangible seal so adjusted with reference to the bolt that the latter cannot be actuated to unlock the hasp and permit opening of the door without thereby fracturing the seal, and thus leaving evidence of the fact of opening of the door, or at least the attempt to open it.

The object of my invention is to provide a seal-lock of peculiarly simple construction, effective in its purpose, and durable.

To this end my invention consists in the general construction of my improved device; and it also consists in details of construction and combinations of parts.

In the drawings, Figure 1 shows my improved seal-lock in front elevation as applied to a door-post, with the bolt extending through a staple over a hasp to lock a door. Fig. 2 shows the same with the bolt in its raised position to permit insertion of the frangible seal previous to adjusting the bolt into its locking position. Fig. 3 is a section taken on the line 3 3 of Fig. 1 and viewed in the direction of the arrows, and Fig. 4 a section taken on the line 4 4 of Figs. 1 and 3 and viewed in the direction of the arrows.

A is a plate, preferably of metal, substantially rectangular as to its main portion, provided with lateral guide-flanges *r*, and extended beyond both ends of the flanged portion directly below, and some distance above which it is provided with guides *q* and *q'* for the bolt, hereinafter described, the extensions at opposite ends of the flanged portion being provided with apertures, through which screws *p* are passed into the door-post B to secure the seal-lock in position. Near the center of the plate A and extending horizontally from its rear side is a socket, *o*, countersunk into the door-post and containing a spring, *n*, confined within it by a stud, *m*, projected through the plate normally beyond its front surface by the spring.

C is a bolt provided near its center and on one side, constituting the front side, with a rectangular recess as wide as the frangible seal, hereinafter described, which it receives, and provided with flanges *l'* at its opposite ends, which extend toward each other over the recess to confine the seal therein.

D is a pin extending transversely through the bolt at a right angle to the stud *m* and adapted to be rocked in its seat, and where the pin passes through the bolt is provided on its rear side with a recess, *k*, below the pin, and curved therefrom in a downward and outward direction to admit a stud, *m'*, extending transversely from the pin, shaped like the recess *k*, and extending normally in a horizontal direction from the pin.

E is a lever secured at one end to an end of the pin D, or formed as a part of the latter and extending alongside the bolt, and by its weight the lever E serves to maintain the pin D in a position wherein the stud *m'* projects normally in a horizontal direction. The bolt is applied to the plate E by being inserted through the guides *q'* and *q*, and when lowered to its locking position it rests at its upper end on a supporting-flange, *i*, which extends over the opening in the guide *q'*.

F is a frangible seal, preferably of glass, of a dimension to fit at two of its opposite edges in the recess *l* in the bolt and at its two other opposite edges between the flanges *r* on the plate A. To adjust the seal, the bolt is raised to bring the lower end of the recess *l* beyond the upper ends of the flanges *r*, when the seal is slid into the recess *l* from one side of the same, and after the hasp G is adjusted over the staple G' against the lower extension of the plate A (which is bent slightly backward and countersunk into the post B, as shown at *x* in Fig. 3, to permit the hasp to be flush with the plate, and thereby prevent its obstructing the bolt) the bolt is lowered to its seat afforded by the supporting-flange *i*, leading the lateral edges of the seal F between the flanges *r*.

In the downward passage of the bolt the stud *m'* comes into contact with the spring-stud *m* in its path and forces the spring-stud back

to pass it, when the latter is forced back by the spring *n* to its normal position, wherein it presents an unyielding obstruction to the straight upper side of the stud *m'*, and thus prevents raising of the bolt to unlock or release the hasp. To effect the raising of the bolt, the stud *m'* must be turned downward and backward into the recess *k*, to avoid presentation to the stud *m* of an obstruction. The only means of turning the stud *m'* out of the way, however, with the seal in place, as described, is the lever E, which extends below the lower edge of the seal. As the seal is in front of the lever, however, the latter is obstructed by it and must (since it cannot, owing to its vertical and lateral confinement, be otherwise removed) be fractured to remove it, the fracturing being accomplished by the pressure against the seal of the lever in pulling it backward to turn the pin D and stud *m'*. When the seal is broken, the stud *m'* is readily turned to permit raising of the bolt to release the hasp, and if the fracturing of the seal is performed by any person unauthorized to open the car-door the broken seal indicates that the car has been unwarrantably invaded, whereby the object of the device is accomplished.

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

1. In a seal-lock, the combination of a plate, A, provided with lateral flanges *r*, a bolt, C, on the plate, movable longitudinally thereon and immovable axially, and provided with a recess, *l*, and normally locked against longitudinal movement, and a frangible seal, F, confined in the recess *l* and between the flanges *r* and requiring to be fractured to permit access to the locking mechanism of the bolt, substantially as and for the purpose set forth.

2. In a seal-lock, the combination of a plate, A, provided with lateral flanges *r* and a yielding stud, *m*, a bolt, C, on the plate, movable longitudinally thereon, and provided with a recess, *l*, in its front side and with a recess, *k*, in its rear side, a rotary pin, D, extending through the bolt transversely to the stud *m* and carrying a stud, *m'*, adjacent to the recess *k*, a lever, E, extending from the pin D, and a frangible seal, F, confined in the recess *l* and between the flanges *r*, substantially as and for the purpose set forth.

3. A seal-lock comprising, in combination, a plate, A, having extensions at opposite ends, through which to secure the device in place, and provided with guides *q* and *q'*, lateral flanges *r* between the guides, and a yielding stud, *m*, a bolt, C, extending through the guides, movable longitudinally therein, and provided with a recess, *l*, in its front side and with a recess, *k*, in its rear side, a rotary pin, D, extending through the bolt transversely to the stud *m* and carrying a stud, *m'*, adjacent to the recess *k* and normally projecting into the path of the yielding stud, a lever, E, extending from the pin D, and a frangible seal, F, confined in the recess *l* and between the flanges *r*, substantially as and for the purpose set forth.

ARTHUR H. PEIRCE.

In presence of—
J. W. DYRENFORTH,
CHAS. E. GAYLORD.