

No. 613,388.

Patented Nov. 1, 1898.

S. T. NICKERSON.  
SEAL LOCK.

(Application filed Feb. 24, 1898.)

(No Model.)

Fig. 1.

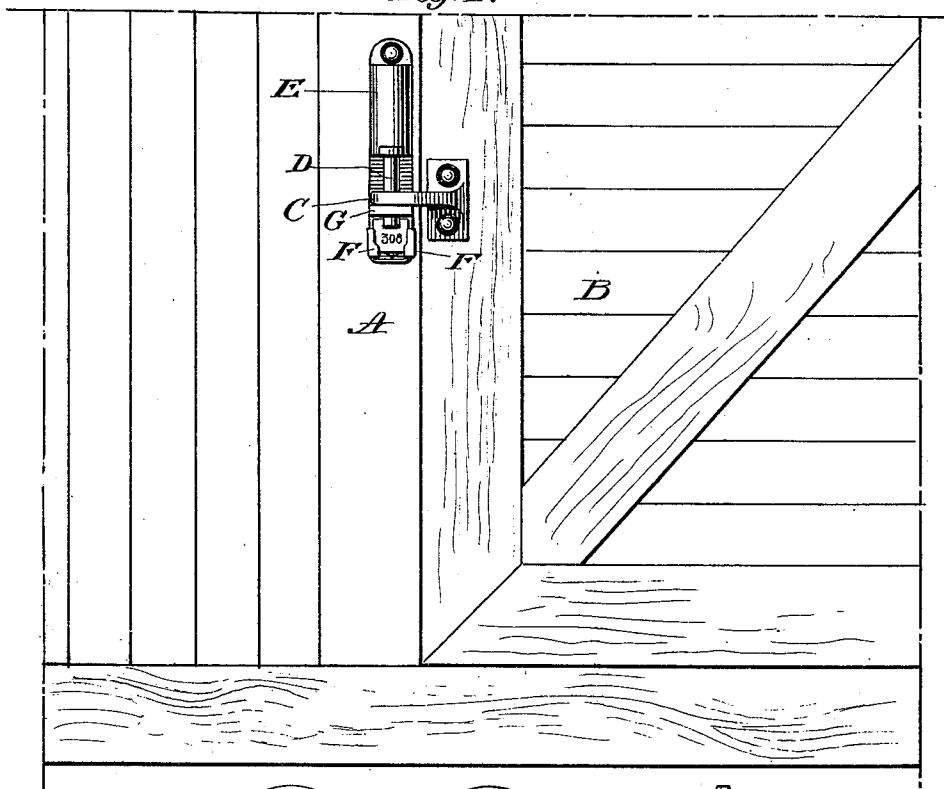


Fig. 2.

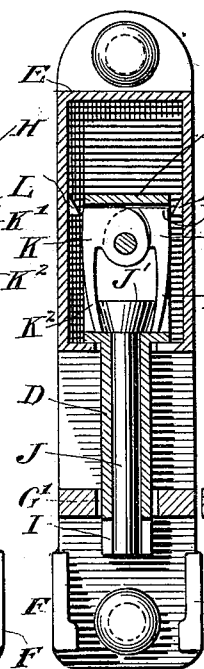
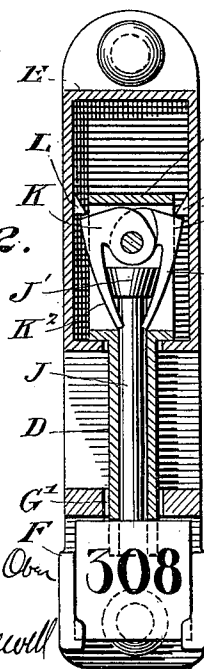
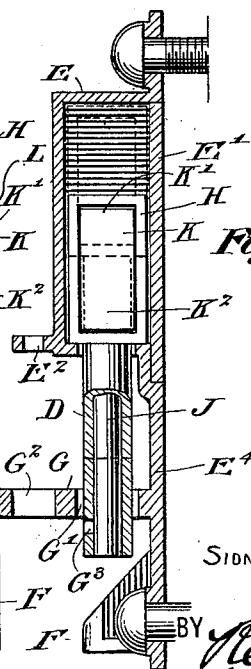


Fig. 3.

Fig. 4.



WITNESSES:

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## SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 613,388, dated November 1, 1898.

Application filed February 24, 1898. Serial No. 671,452. (No model.)

*To all whom it may concern:*

Be it known that I, SIDNEY T. NICKERSON, a citizen of the United States, residing at New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Car-Door Fasteners and Seal-Locks, of which the following is a full, clear, and exact description.

My invention relates to car-door fastenings and seal-locks; and it consists in the novel construction and arrangement of the parts thereof, hereinafter fully described.

The object of my invention is to provide a car-door fastening and a seal-lock of a simple, inexpensive, and effective character not limited to any particular field of usefulness, but of unusual value in connection with doors for freight-cars and the like.

Referring to the drawings, Figure 1 illustrates a side elevation of parts of a freight-car door and jamb, showing my invention in operation and as it appears when locked and sealed. Fig. 2 is a vertical section taken on approximately a central plane, the parts being indicated as in the same position as that shown in Fig. 1. Fig. 3 is a similar view, the operative parts being shown in a different position. Fig. 4 is a vertical section on a plane at right angles to the plane of the section indicated in Figs. 2 and 3, the parts being indicated in the same position as appears in Fig. 3.

A is a door-casing.

B is a door.

C is a hasp secured to the door B near its edge and projecting into the plane of operation of the sliding bolt D of the fastening means.

E is a casing within which the lock is largely contained.

F F are forward projections, by preference connected to a downward extension E<sup>4</sup> from the casing E and forming the seal-pocket hereinafter described.

G is a staple located between the casing E and the extensions F and preferably carried by the extension E<sup>4</sup>. Suitable perforations G<sup>1</sup> G<sup>2</sup> may be formed in the staple G.

The bolt D has secured at its upper end a frame H of suitable shape and sliding freely up and down within the casing E, excepting

at such a time as the movement of said bolt is locked against longitudinal movement.

The means thus far described constitute a door-fastening, in that without a locking means, as hereinafter described, the bolt D may be freely raised or lowered. Ordinarily the parts are so arranged that the bolt is moved downwardly by gravity, although it is manifest that a spring might be used to move the levers or tumblers. In Fig. 1 I have shown one form of hasp in which the body and shank thereof are not independently movable. It is desirable to state that a hinge-hasp may be substituted in place of the rigid hasp shown, and in such an event when the door B is closed the said hinge-hasp (which is so commonly known as to need no separate illustration) could be swung into such a position that the staple G will project through the longitudinal slot therein and so that the bolt D will drop down in front of the hasp and through the opening G<sup>1</sup>, securely fastening the same. In Fig. 1 the bolt projects through a vertical opening in the rigid hasp C and through the opening G<sup>1</sup> in the part G, the function of which is then primarily that of a reinforce to prevent the lateral displacement of the bolt D. When the cars are loaded, something more than a mere fastening means to prevent the door opening is desirable, and therefore I have provided incidental to this construction an effective seal-lock by which the movement of the bolt D is prevented unless the seal is broken.

I am aware that at the present time car-seals are well known. Witness the wire loop with the ends engaged by a piece of lead, which it becomes necessary to mutilate or destroy before the lock can be unfastened. In common practice it is the duty of the agent who superintends the filling and locking of the car to attach his seal, which bears a suitable number or other designation, by which the sealer of the car may be identified, thus imposing upon the said sealer an obligation which may be readily detected should such obligation be neglected. For that reason upon railroads or in other places where my improved seal-lock is employed the various agents may be provided with pieces of frangible material of a suitable shape and bearing

numbers or other designations peculiar to each agent. By preference I make these pieces of a frangible tile, and each of these pieces may be used as the seal. The edges  
 5 of the shoulders F are shaped so as to support the frangible seal, (indicated by the number 308.) This seal is of a sufficient width to approximately fit the space between said shoulders F F, and when in position its upper edge  
 10 projects well into a vertical slot I in the lower end of the bolt D. The lock to prevent the longitudinal displacement of the bolt D is of a most simple nature and comprises a follower J, moving freely in a central bore through the  
 15 bolt D. The upper end of the follower is provided with a head J' of suitable shape.

K K are tumblers or levers pivotally mounted at a suitable point and having locking-shoulders K', which levers may be moved in  
 20 or out according to the position of the follower-head J', which stands between downwardly-extending legs K<sup>2</sup> of the tumblers K K. The follower J' preferably drops under the influence of gravity, spreading the legs  
 25 K<sup>2</sup> K<sup>2</sup>, and thus drawing in the shoulders K' K' at the opposite ends of the tumblers. (See Fig. 3.) When the follower J' is elevated, the tumblers gravitate downwardly, throwing the locking-shoulders K' outwardly, in which position  
 30 they rest under retaining-lugs L L, formed in the adjacent walls of the casing E. (See Fig. 2.) When the parts are in the position indicated in Fig. 2, the bolt D cannot be elevated because of the presence of the retaining-lugs L L adjacent and above the locking-shoulders K' of the tumblers, which, as  
 35 previously described, are hung in the frame H at the upper end of said bolt D.

Operation: Assume the door B is open. The  
 40 bolt D (the parts being in the position indicated in Fig. 3) is elevated. The door B is then closed and the hasp C moved into the plane of action of said bolt or slipped over the staple G, according to the form of hasp  
 45 employed, when the said bolt may be released and allowed to drop into place to fasten said hasp. Before the bolt is dropped into its lowermost position the frangible seal 308 is slipped into place and in line with the slot in  
 50 the lower end of the bolt. As said bolt D continues to drop the frame and tumblers K also move downwardly, but the follower is held in the elevated position indicated in Fig. 2. When the bolt D has reached its lower-  
 55 most position, the tumblers have tilted, so as to cause the locking-shoulders to project under the retaining-lugs L L, in which position, as before stated, the bolt becomes locked and cannot be raised until the frangible seal 308  
 60 is broken to allow the follower J' to move in

a direction to retract said locking-shoulders from their engaged position underneath said retaining-lugs L L.

It should be understood that I contemplate that the arrangement and mode of operation  
 65 of the parts may be reversed or changed and that springs might be employed to actuate the moving parts instead of gravity, and it is also apparent that changes in the particular construction and arrangement of any of the  
 70 details may be resorted to without departing from the spirit and scope of my invention. The number of tumblers employed is also immaterial, as one or more would accomplish the desired ends. A door in the rear of the  
 75 casing, whereby access to the interior may be afforded, may also be provided, and any other changes by which the end for which my invention is intended and which accomplishes the same by the substitution of devices of a  
 80 mechanically-equivalent nature are all intended to be included herein.

The apertures E<sup>2</sup> and G<sup>2</sup> are for the purpose of inserting a common wire seal or other locking device, if desired. This is often ad-  
 85 vantageous to be used with the main sealing arrangement, as in this way the consignor has an additional protection.

The slot G<sup>3</sup> is for the purpose of observing whether the seal is cracked or in any way im-  
 90 perfect.

What I claim is—

1. In a device of the character described in combination, a main portion, a locking member, a lock therefor to prevent retraction of  
 95 the same, a seal, and means carried by said member and controlling the operation of said lock, a part of said means engaging said seal.

2. In a device of the character described in combination a main portion, a locking member, a lock therefor to prevent retraction of  
 100 the same, a seal, and a sliding bolt within said member, engaging said seal and controlling said lock.

3. In combination a main portion, a locking member, a lock for said member operated by a separate piece, said member being normally non-retractable without mutilating said  
 105 piece.

4. In combination a main portion, a locking member, a lock for said member, separate movable means engaging said lock to control the operation of the same, said means operated by a separate piece, said member being  
 110 normally non-retractable without mutilating said piece.

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Witnesses:

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