(Model.)

H. U. LA RUE.

SEAL LOCK.

No. 331,202. Patented Nov. 24, 1885.

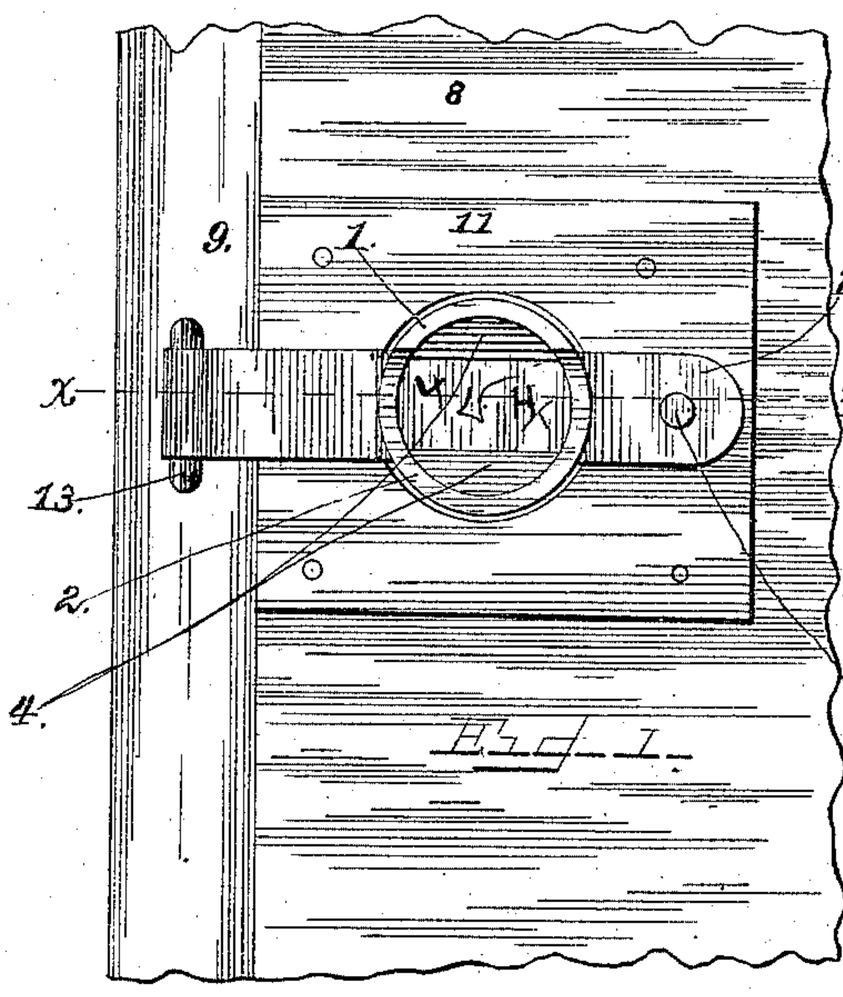


Fig. 1.

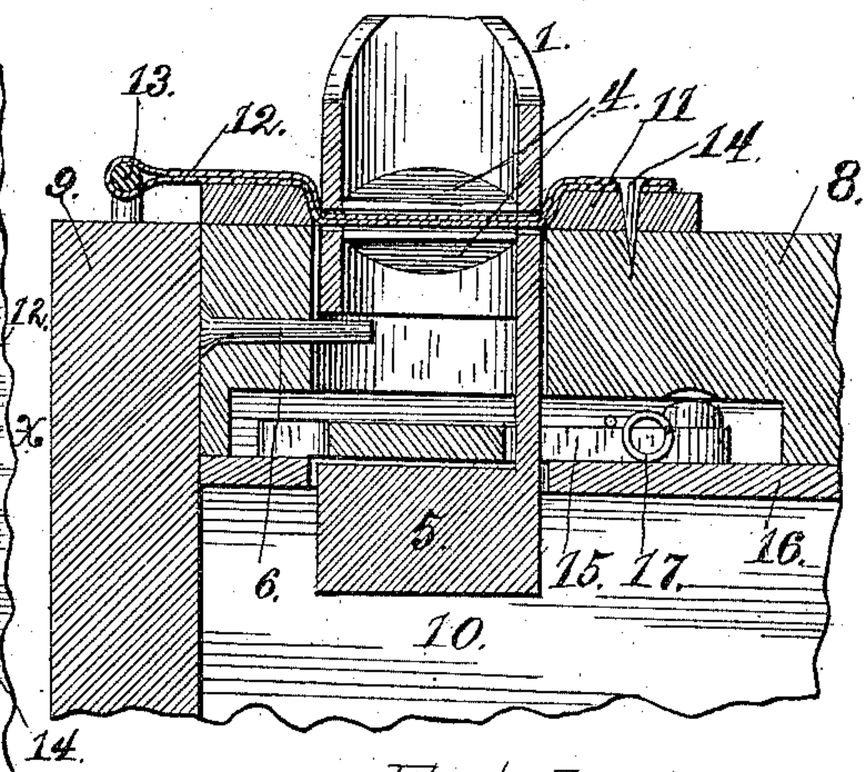


Fig. 2.

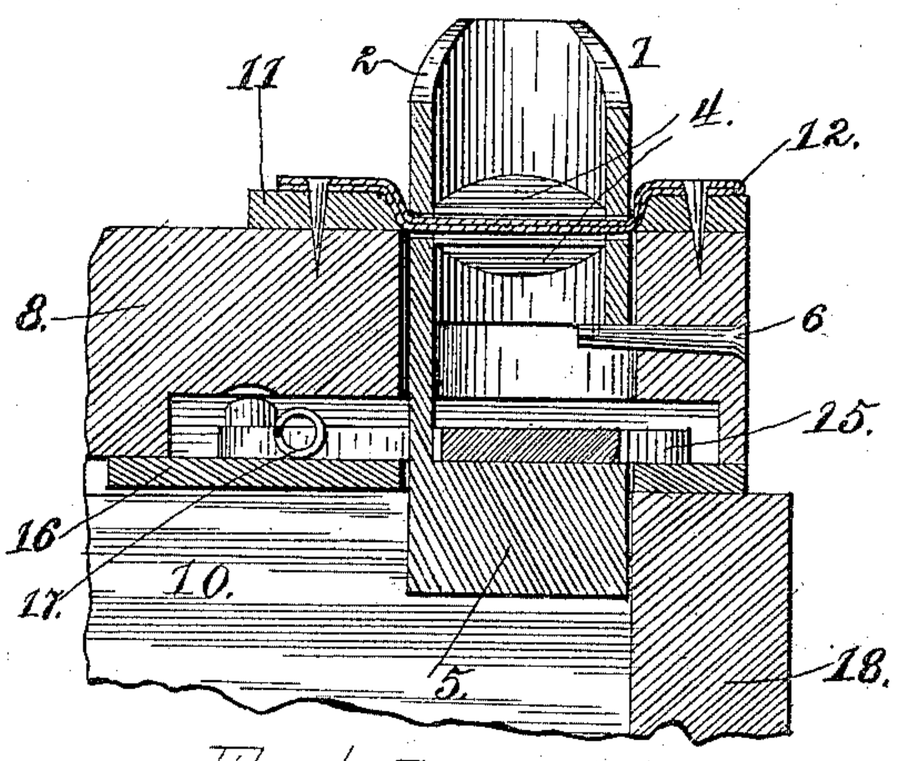
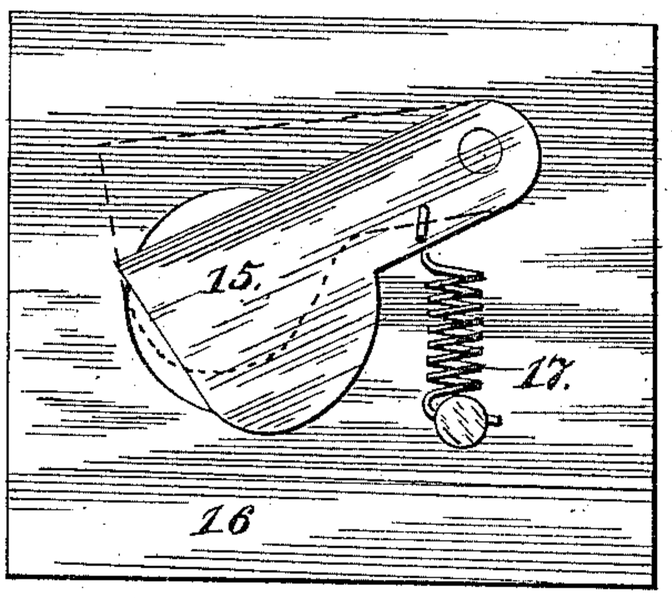


Fig. 3.

Fig. 4.



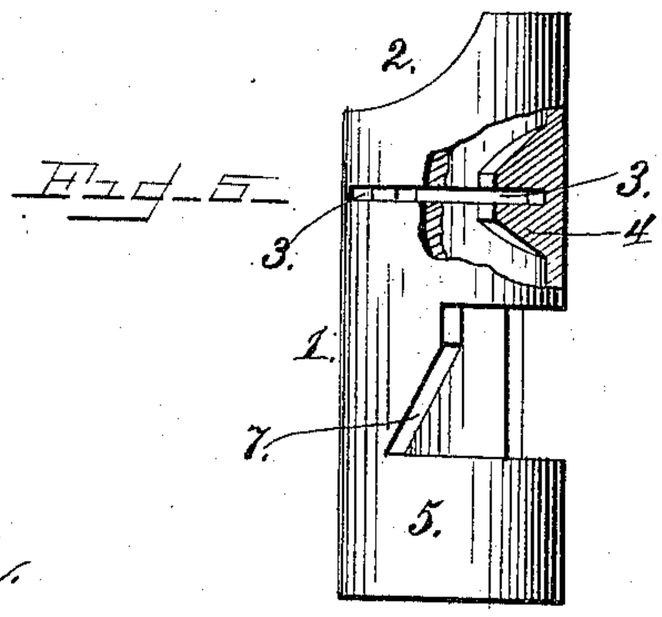


Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY U. LA RUE, OF TOPEKA, KANSAS, ASSIGNOR OF ONE-HALF TO SAMUEL M. WARNER, OF SAME PLACE.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 331,202, dated November 24, 1885.

Application filed July 18, 1885. Serial No. 171,953. (Model.)

To all whom it may concern:

Be it known that I, HENRY U. LA RUE, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Seal-Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in that class of locks known as "seal-locks," and has for its object to provide a seal-lock for freight-car doors which cannot possibly be tampered with without such tampering being readily detected.

It consists, broadly, in a tube held in the car-door, and adapted to receive and retain the seal in such manner that in order to open the door the seal must first be broken.

It also consists in the means employed for retaining the tube in position, and in certain other novel features of construction, combination, and arrangement hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of my device. Fig. 2 is a horizontal section on the line *x x*, Fig. 1. Fig. 3 is a similar view showing a modification. Fig. 4 is a detail plan view of the tube-retaining latch. Fig. 5 is a detail view of the tube.

1 is the seal-holding tube. It is inserted through an opening formed through the door, and is made somewhat longer than the width of the same, as shown. Its front end is cut away, as at 2, so as to present a somewhat ornamental appearance. Near its front end, through its sides, I form the slots 3 3, through which the seal is inserted. Inside the tube I form the guides 4, which are provided with grooves to receive the edge of the seal and guide the same as it is inserted through the tube. These grooves are placed at right angles to the slots, and connect the same at their ends. The rear end, 5, of the tube is closed, as shown. One side of the tube is cut away about midway the slots 3 3 and the closed end of the tube. A pin, 6, is secured in the door, and enters this cut-away portion of the tube. As the tube is pushed in or pulled out in the operation of the device, this pin 6 will be met by one or the other of the walls of the cut-away portion, and the motion of the tube thereby be limited. One side of the cut-away portion is cut straight in the direction of the length of the tube, while the other side, 7, is cut at an angle thereto, as clearly shown in Fig. 5. By this construction the tube is always kept in its proper position, for should it get turned over and the inclined side 7 rest against the pin 6, the tube will be caused to rotate as it is pushed in or out, and the operator could continue the rotation until the tube assumed its proper position.

8 is the door, and 9 is the door-jamb.

10 represents the car-roof. A plate, 11, is secured to the door, and the seal is held upon this plate.

12 is the seal. It is made of sheet metal, and is bent at its middle portion around the staple 13, secured to the door-jamb. Its ends are then placed together and inserted in the tube through the slots 3 and guides 4, before described, and then secured by a pin, 14, which is riveted or driven through the plate into the door. The tube is then pushed in, bending the seal, as clearly shown in Figs. 2 and 3, and drawing it taut, as will be understood. That portion of the seal which will be seen through the end of the tube may be stamped with some arbitrary sign, if desired, but such stamping is not essential to my invention.

As the tube is pushed inward, a spring-latch, 15, will enter the cut-away portion of the same and rest against the closed end, thereby preventing the withdrawal of the tube without first breaking the seal, as will be presently described. The spring-latch 15 is pivoted to a plate, 16, secured to the rear side of the door. This plate is provided with a suitable opening, through which the end of the seal-holding tube is inserted. The latch consists of an arm

provided at one end with an enlargement to enter the cut-away portion of the tube, and pivoted to the plate 16 at its other end. A coil-spring, 17, is secured to the plate 16, and has one end connected to the latch. In operation the latch will be drawn into the cut-away portion of the tube by this coil-spring. A flat spring could be used bearing on the latch; but I prefer the coil-spring, as shown, and just described.

To lock the car-door the seal-holding tube is drawn outward until the slots 3 3 are visible, when the seal is inserted, as before described, and the tube pushed in, when the latch 15 will enter the cut-away portion of the same.

It will be seen that it will be impossible to open the door without first breaking the seal. Should it be attempted to open the door by force, the seal will break at some point between the staple and the tube.

In order to draw the seal from the tube, it is necessary to raise the latch 15, so that the tube may be drawn outward. This can be done only by inserting a knife, stick, or some equally simple device through the tube from the front end of the same.

On referring to Fig. 1 it will be seen that the seal entirely closes the front end of the tube, and it will be readily understood that the seal must be broken in order to operate the latch 15.

From the foregoing description it will be seen that I provide a perfect safeguard against thieves.

The construction shown in Figs. 1 and 2, and just described, is that which is used when the lock is applied to the left-hand side of the door.

In Fig. 3 I show a slight modification by which I apply the lock to the right-hand side of the door. The seal is held to the plate 11 by two pins placed one on each side of the tube. The tube is made of such a length that when it is drawn out the inner or closed end will pass the door-jamb 18 as the door slides to one side or the other. When the door has been closed, the tube is pushed in, and its inner end will bear against the jamb 18 and prevent the sliding of the door.

It will be seen that I have provided a seal-lock which exposes but a very small portion of its parts, is effective in use, and can be manufactured at a slight cost by reason of its simplicity.

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

1. In a seal-lock, a tube closed at its inner end, and provided near its open outer end with means for receiving and retaining the seal, in combination with a latch to engage said closed end, substantially as shown and described.

2. In a seal-lock, a seal-holding tube closed at its inner end, and provided near its open outer end with slots to receive the seal, and grooved guides to retain the same, substantially as shown and described.

3. In a seal-lock, a seal-holding tube closed at its inner end, and provided near its open outer end with means, substantially as described, for receiving and retaining the seal, and having a portion of one side between the two ends cut away, in combination with a pin or lug secured to or in the door, whereby the tube is given a limited in-and-out motion, substantially as specified.

4. The combination of the seal, the seal-holding tube, a pin or lug to limit the in-and-out motion of the tube, and the tube-retaining latch, substantially as specified.

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

HENRY U. LA RUE.

Witnesses:
SAMUEL M. WARNER,
GEO. P. WHITESIDE.