(No Model.)

E. ROWLAND.

SEAL LOCK.

No. 267,261. Patented Nov. 7, 1882.

Fig. 1.

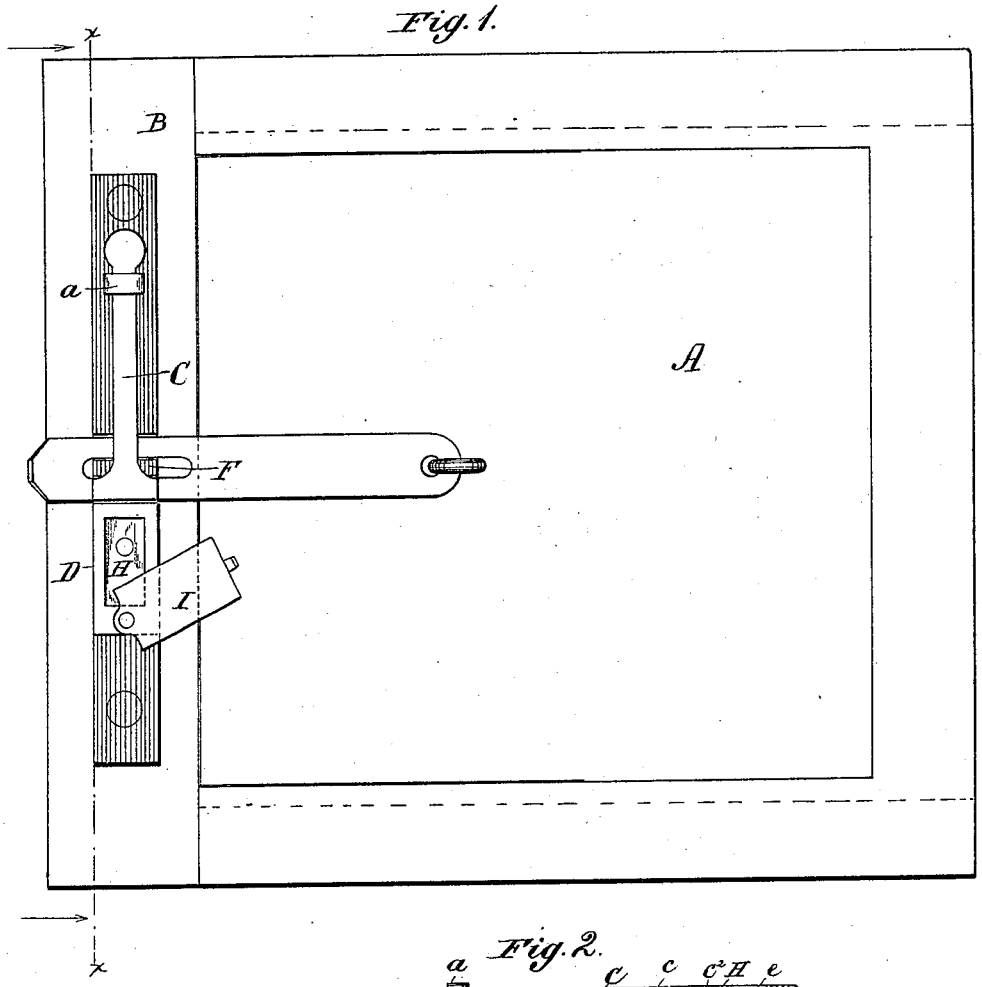
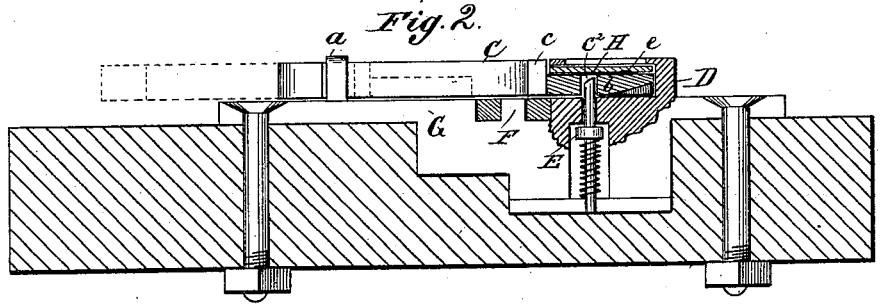


Fig. 2.



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EDWARD ROWLAND, OF TIFFIN, OHIO.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 267,261, dated November 7, 1882.

Application filed January 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD ROWLAND, of Tiffin, in the county of Seneca and State of Ohio, have invented a new and Improved Seal-Lock; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, and Fig. 2 is a section through the line *x x*.

My invention relates to an improvement in seal-locks for car-doors and other analogous applications, designed to prevent the surreptitious opening of the door. It is an improvement in that class of seal-locks in which the bolt-section enters a chamber and is there retained by a spring-catch, access to which spring-catch is prevented by a glass plate which has to be broken before the spring-catch can be removed to withdraw the bolt.

My invention consists in the peculiar construction and arrangement of parts, and in the means for detecting the surreptitious breaking of the seal-plate at the time at which the attempt is made, as will be hereinafter more fully described.

In the drawings, A represents a sliding car-door, and B the vertical portion of the door-frame, to which the door is to be secured. C is the main bolt, and D the socket or keeper. This main bolt slides loosely in the staple *a*, and its end next to the socket has a tongue, *b*, and shoulder *c*, while the other end is formed into a head, *d*, that prevents the bolt from getting loose from the staple *a*. The socket D is open at its end next to the bolt C, and has also an opening in its top or face. Within the socket-plate, and at right angles to the longitudinal axis of the bolt C, is a small spring-seated catch, E, whose outer end is arranged to be projected (when the tongue of the bolt is in the socket) through a hole, c^2, in said tongue to prevent it from being withdrawn.

F is the holding-lug for the hasp, arranged in a position between the bolt C, when drawn back, and the socket. The top of this lug F is on a level with the face of plate G, to which it is attached. Now, to fasten the door it is slid into a closed position, and the slotted end of its hasp is placed over the lug F. The tongue of the bolt is then arranged in position to slide over the hasp into the socket; but before thus inserting the bolt a plate of glass or cast-iron, H, corresponding in shape and size to the tongue, is placed upon the top of the same, and then the tongue and the glass plate together forced into the socket until the spring-catch enters the hole *c* in the tongue of the bolt to lock it in the socket. Now, it will be seen that the main bolt has passed over the hasp, and the latter cannot be lifted off its holding-lug, and the door is thereby firmly locked, and as the spring-catch is only accessible through the opening in the top of the socket, and this is closed by the glass plate, it will be seen that the spring-catch cannot be removed from the bolt to allow the latter to be withdrawn, except by first breaking said plate, and then depressing the spring-catch by a nail or other pointed article. To prevent the glass or cast-iron plate from being taken out without being broken, the shoulder of the bolt fits up against the end of the plate when the bolt is in, and prevents the glass plate from being slid out endwise, and as the hole in the top or face of the socket is smaller than the glass plate it is obvious that it cannot be taken out this way. The only method, then, of opening this lock is, as before stated, by breaking the glass or cast-iron plate and depressing the spring-catch, when the bolt can be slid back and the hasp removed. The necessity of breaking this glass plate, however, involves certain detection of the surreptitious opening of the door, for these glass or cast-iron plates may be made in twin pairs with corresponding designs or secret numbers thereon, one of which plates is put in the lock and the other (or a ticket indicating its number and identity) is sent to the destination of the car, so that even if a plate has been broken and a bogus one inserted and the car relocked the officer whose business it is to receive the goods of the car will by comparison detect the fraud.

In arranging the several working parts of my lock I mount them all on a removable block, G, casting, in that case, the socket, holding-lug for the hasp, and the base-plate for the bolt to slide on, all in one piece, which block bearing these parts is seated in a mortise in the car-door frame and held by bolts whose nuts are secured upon the inside of the car.

As an additional safeguard to the lock, I

place beneath the frangible plate H a percussion cap or tablet, *e*, which indirectly receives the blow delivered upon the plate to break it, and by which blow the cap is exploded, giving audible notice of the surreptitious opening of the door. The explosion of the cap may be made also to destroy or mutilate the figures on said plate. The frangible glass plate is preferably protected by a removable cover, I, as in Fig. 1.

I am aware of the fact that there are other seal-locks which in function approximate mine—such, for instance, as that shown and described in the patent to Kinzer, No. 160,338.

Having thus described my invention, what I claim as new is—

1. The plate G, cast in one piece with the lug F, the chamber for the spring-catch, and the keeper D, and with a straight flat face on a level with the top of lug F, forming, with the hasp, a solid backing for the bolt, in combination with the bolt C, the keeper *a*, the spring-catch, and the frangible seal-plate, as and for the purpose described.

2. The combination, with the keeper D, the perforated bolt, the spring-catch, and the frangible plate H, of an explosive cap, *e*, interposed between the frangible plate and its subjacent bearing, as shown and described.

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Witnesses:
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