(No Model.)

M. E. KANALY.

SEAL LOCK.

No. 558,181. Patented Apr. 14, 1896.

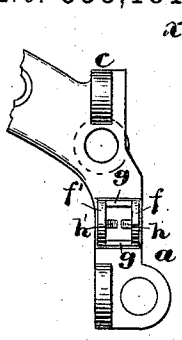

Fig. 6.

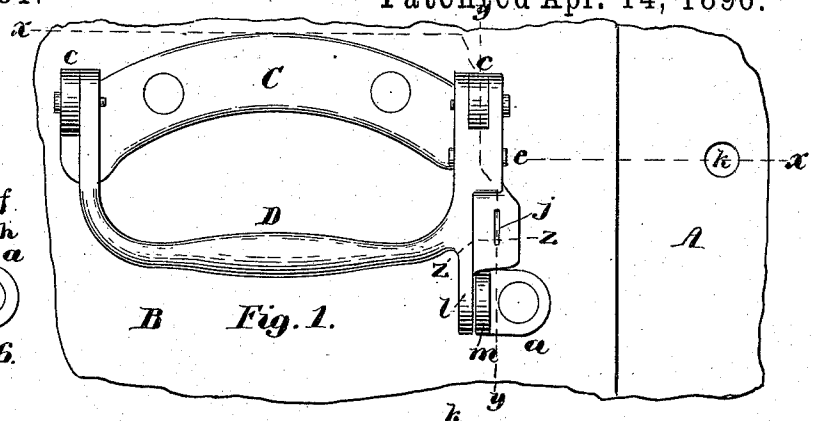

Fig. 1.

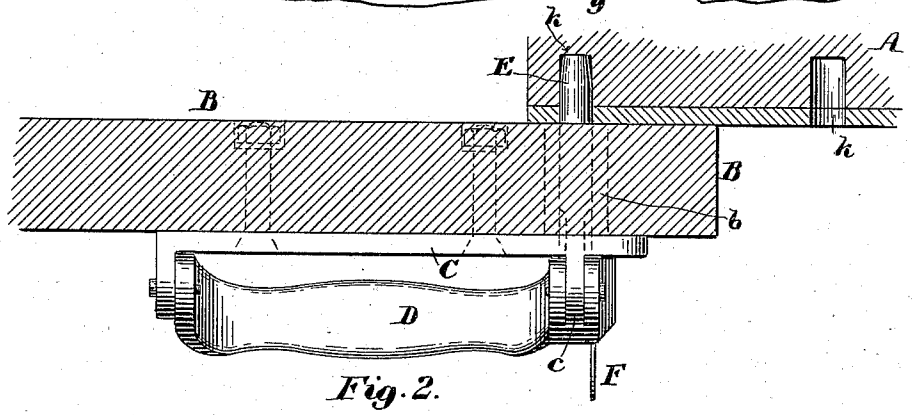

Fig. 2.

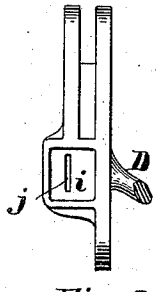

Fig. 5.

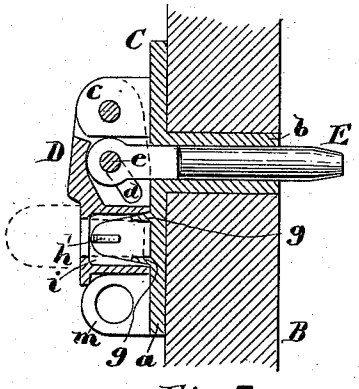

Fig. 3.

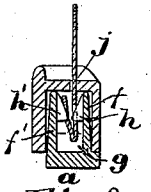

Fig. 4.

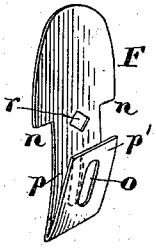

Fig. 7.

Witnesses:
Walter E. Lombard.
L. C. Greenleaf.

Inventor:
Morris E. Kanaly,
by N. C. Lombard
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UNITED STATES PATENT OFFICE.

MORRIS E. KANALY, OF SOMERVILLE, MASSACHUSETTS.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 558,181, dated April 14, 1896.

Application filed December 3, 1895. Serial No. 570,882. (No model.)

To all whom it may concern:

Be it known that I, MORRIS E. KANALY, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Seals and Seal-Locks for Sliding Doors, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to seals and seal-locks for sliding doors, is especially designed for use on freight-car doors, and is an improvement upon the invention shown and described in the Letters Patent No. 549,673, granted to me November 12, 1895; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the accompanying drawings and to the claims hereto appended and in which my invention is clearly pointed out.

Figure 1 of the drawings is an elevation of a small portion of a car-body and its door with my improved seal-lock applied thereto with the door bolted in closed position. Fig. 2 is a sectional plan of the same parts, the cutting plane being on line $x\ x$ on Fig. 1. Fig. 3 is a section on line $y\ y$ on Fig. 1 and looking toward the left of said Fig. 1, with the seal indicated in position by dotted lines. Fig. 4 is a section on line $z\ z$ on Fig. 1. Fig. 5 is an inverted plan of a portion of the right-hand end of the bolt-operating handle. Fig. 6 is an elevation of a portion of the pendent arm of the handle-carrying plate, and Fig. 7 is a perspective view of the seal.

In the drawings, A represents a portion of a car-body at one side of the door-opening. B is a portion of the door.

C is a plate bolted firmly to the exterior of the door B and provided with the pendent arm a, the perforated hub b, and the ears $c\ c$, to which is pivoted the bail-like handle D, provided with the oblique slots d, and E is the bolt having a bearing in the hub b and connected by the pin e to said handle, all of which, except as hereinafter described, are constructed, arranged, and operate substantially as in my before-cited patent.

The pendent arm a is provided with the outwardly-projecting ears $f\ f'$, connected together at their bases by the transverse ribs g g, as shown in Figs. 3, 4, and 6. These ears $f\ f'$ have formed upon their inner faces the inwardly-projecting triangular lugs or teeth h and h', respectively, having their upper edges inclined toward each other, their lower edges horizontal, and their inner points just far enough apart to permit the passage of the folded lever or inner end of the seal.

The handle has a rectangular chamber i, formed in the inner face of one of its end portions of sufficient size to receive the ears $f\ f'$, which it incloses when said handle is in its pendent position, the front outer wall of said chamber having cut through it the narrow slot j, through which the folded end of the seal F may be introduced into said chamber and made to engage the lugs or teeth h and h' when said handle is in its pendent position, and the bolt E is projected into the sockets k to lock the door in position. The handle D is also provided with the perforated ear l, through which and a similar ear m on the pendent arm a the bow of a padlock (not shown) may be passed to lock said handle against displacement.

F is a seal made of thin sheet material, provided with the shoulders $n\ n$, to rest upon the outer face of the handle D and having its shank portion folded upon itself and having a slot o cut through each of the arms p and p' to receive the points of the lugs or teeth h and h', as shown in Fig. 4.

The seal F has cut through it between the shoulders $n\ n$ an opening r for the purpose of weakening it at that point, so that it will break at that point when the handle D is forcibly moved outward about its axis of oscillation.

The operation of bolting the door in any desired position is the same as in my before-cited Letters Patent; and my present invention consists in the construction of the seal and the means employed for securing the handle in locked position thereby, and the operation of this device is as follows: The door of the car being closed or partially closed, as may be desired, and the bolt E being projected by moving the handle D about its axis of motion into the position shown in the drawings, with the chamber i inclosing the ears $f\ f'$ and the lugs h and h', the folded shank of the seal F is passed through the slot j and between the points of the lugs or

teeth h and h' until the shoulders n n rest upon the outer face of the chambered portion of the handle D, when the points of the lugs h and h' will enter the slots o o in two arms of the seal-shank in such a manner that the handle D cannot again be moved outward about its axis without fracturing said seal.

It will be observed that the folded portion p' of the shank of the seal F diverges from the part p in the form of an acute V, so that in passing downward between the lugs h h' said parts p and p' are sprung together, and when the lower end of the slots o o have passed below the lower edges of the lugs h h' said arms p p' will expand and cause said lugs to enter said slots.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A seal for seal-locks made of a thin flat sheet of material, comprising a shank-section, the end portion of which is folded upon its main body into a position slightly diverging therefrom, and having a slot cut through both portions thereof; and a head-section shaped to form shoulders adapted to limit the distance to which the seal can be inserted through a slot having a length corresponding to the width of its shank.

2. In combination with a pivoted and oscillating handle; and a fastening device operated thereby; a pair of fixed triangular lugs or teeth, attached to the door with their inclined edges toward each other and their points in near proximity; a chamber formed in said pivoted handle and adapted to receive and inclose said lugs; a thin slot opening into said chamber from the outer face of said handle; and a seal constructed and adapted to be passed into said chamber through said slot and to engage said triangular lugs and lock said handle against a movement about its pivotal axis.

3. The combination in a seal-lock, of a plate provided with a pendent arm having a pair of outwardly-projecting ears and a pair of triangular lugs or teeth projecting from said ears toward each other; a handle pivoted to said plate and provided with a chamber or recess in its inner face to receive said ears and lugs, and with a narrow slot cut through the outer wall of said chamber; the bolt E fitted to a bearing in the plate C and movable endwise therein; means of connecting said bolt and handle so that a movement of said handle about its pivotal axis shall move said bolt endwise; and the seal F provided with the shoulders n, n, and having the end portion of its shank folded upon its main body in a slightly-diverging position and having a slot o cut through each of the two parts of said shank.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 29th day of November, A. D. 1895.

MORRIS E. KANALY.

Witnesses:
N. C. LOMBARD,
GEORGE H. BROWN.