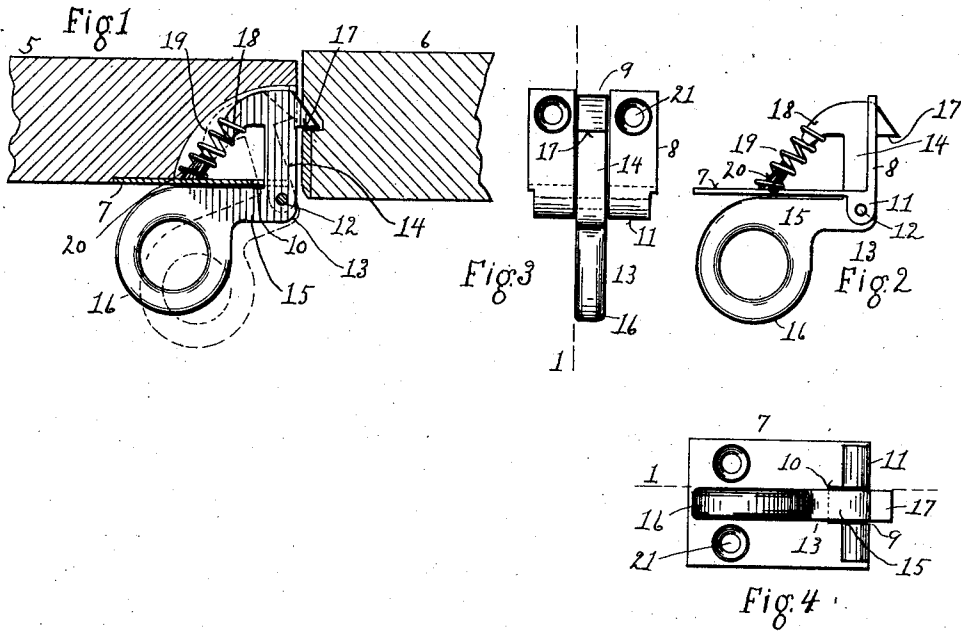


T. W. COTTLE.
LOCK.

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1,063,157.

Patented May 27, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

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LOCK.

1,063,157.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS W. COTTLE, a citizen of the United States, residing at Oakland, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to latches for transoms, doors, windows, and the like. It is a self-closing latch that is automatically unlatched by merely pulling on the handle. A latch of this kind is specially adapted for deck-sash in railway passenger cars, sleepers, etc., and the latch which I have invented is especially adapted for such use. In such cases, the latch is up out of the reach of the hand, and is to be opened and closed and adjusted by means of a rod with a hook on the end. And my latch is especially adapted to be so manipulated.

The object of my invention is to provide a simple, durable, and efficient latch of this kind and one that is economical in construction and not likely to get out of order. And my invention consists of the parts, improvements, and combinations as hereinafter set forth and claimed.

In the drawings accompanying and forming part of this specification, and in the description of the drawings, I have shown my invention in its preferred form, and have shown what I deem to be the best mode of applying the principles thereof; but it is to be understood that, within the scope of the appended claim, I contemplate changes in form, proportions, and materials, the transposition of parts, and the substitution of equivalent members, without departing from the spirit of my invention.

Figure 1 is a sectional elevation, on a plane indicated by the line 1 in Figs. 3 and 4, of a latch made in accordance with the principles of my invention, with sections of the adjacent parts of the frame or casing and the swinging member. Fig. 2 is a side elevation of the latch. Fig. 3 is a face view of the latch taken from the locking side or edge of the swinging member. Fig. 4 is a face view taken from the face of the swinging member.

Similar reference characters indicate similar parts throughout the several views.

5 is the swinging member and 6 is the casing or frame in which the swinging member is pivoted or hinged. An L-shaped plate

has a face plate 7 and an edge-plate 8, each provided with suitable screw-holes 21, 21, whereby it may be secured to the swinging member as indicated in Fig. 1.

9 is a slot extending centrally through the edge plate and partly through the face-plate, as shown at 10.

11, 11 are lugs on opposite sides of the slot projecting outwardly from the face plate and approximately in line with the edge plate, and 12 is a pin supported by said lugs and extending across the slot.

13 is an L-shaped latch pivoted at its elbow on said pin 12, so that one of its legs, 14 extends inwardly through the slot, and so that its other leg, 15 extends along the face-plate. The latter leg is provided with an integral ring 16 which serves as an operating handle. The first-named leg has at its inner end a beveled locking lug 17 adapted to engage the mortise in the adjacent frame. It also has a rearwardly extending integral lug or pin 18, which is adapted to strike against the pin 20 projecting from the back of the face-plate.

19 is a compression spring whose respective ends are coiled around these two pins and which tends to force the latch to locking position.

The latch is limited in its locking movement by the leg 15 striking against the face-plate. The locking position is shown in the full outlines. Now, by pulling outwardly on the ring 16, the latch will be moved against the force of the spring to the position shown in dotted outline in Fig. 1, withdrawing the locking lug from the mortise. This movement is limited by the pin or lug 18 striking against the lug or pin 20, so that when the tool or hooked rod is applied to the ring to withdraw the latch, the same pulling movement may be used for pulling open the sash, and the bumpers I have provided are well adapted to withstand this strain and prevent as well any injury to the spring.

It will now be understood that my latch is not only simple in construction and operation, but that it is very substantial and durable and is made up of a minimum number of parts, there being only the two parts besides the spring 19 and the pivot pin 12. It will also be understood that it is well adapted to withstand the buffeting and hard usage which is inevitable in rail-

way service, and especially to withstand the strain to which it is subjected by reason of being applied to a deck sash and by further reason of being manipulated by a hook.

5 In an application heretofore filed by me for a deck sash, Serial No. 623,649, I have shown the entire sash equipped with adjuster, hinge, and latch; and this application is filed as a division of that former
10 application.

What I claim is:

In combination, an L-shaped plate adapted to fit the face and edge of a sash, door, window and the like and having a slot
15 extending through the edge part and continuing partially through the face portion, and said face portion having a backwardly extending lug and two outwardly projecting lugs on opposite sides of said
20 slot at the junction of said two portions of said L-shaped plate; an L-shaped latch pivoted at its elbow between said two last-

named lugs, one leg extending along said face portion and terminating in a ring, and the other leg extending inwardly in
25 said slot and having a beveled locking lug projecting from the edge portion of the L-shaped plate and a rearwardly projecting lug adapted to engage against the first-named lug when the locking lug is with-
30 drawn from locking position; and a coil compression spring secured at its respective ends about said first-named lug and said lug adapted to engage against it, and tend-
35 ing to force the latch to locking position; the outer leg of the latch bearing against the face portion of the L-shaped plate when the latch is in locking position.

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

THOMAS W. COTTLE.

Witnesses:

J. M. STARK,

GEORGE LEARY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."