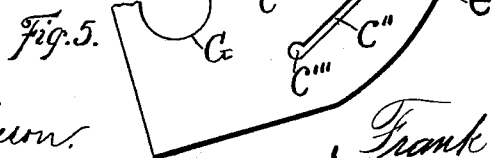
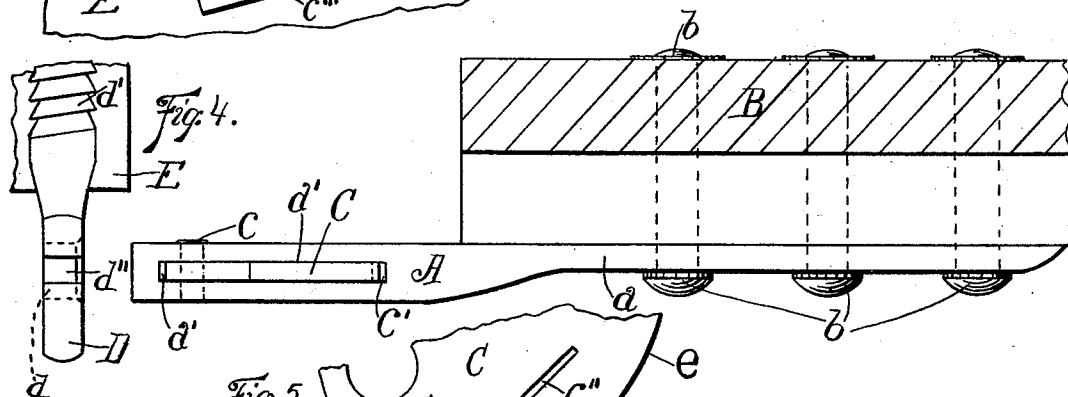
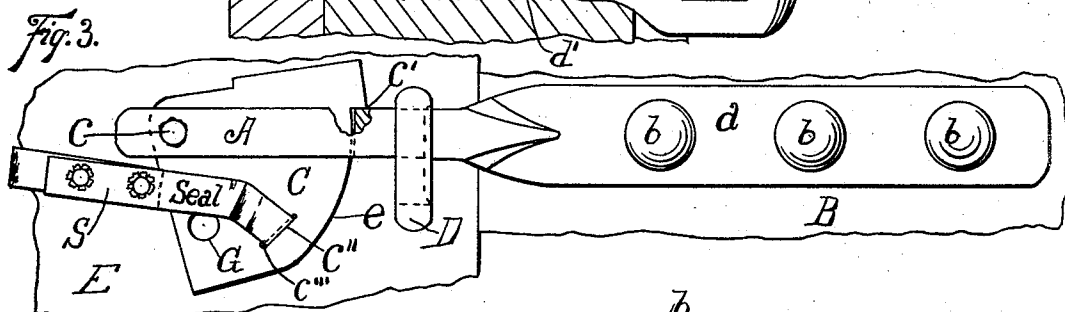
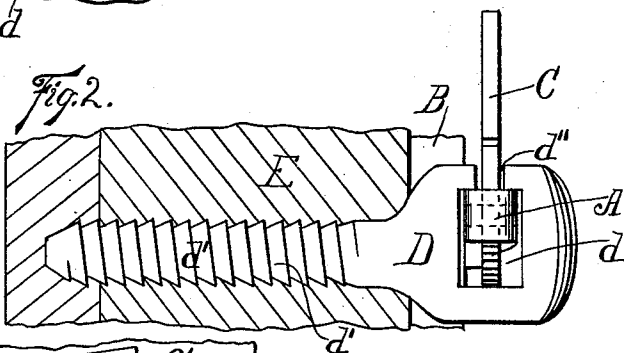
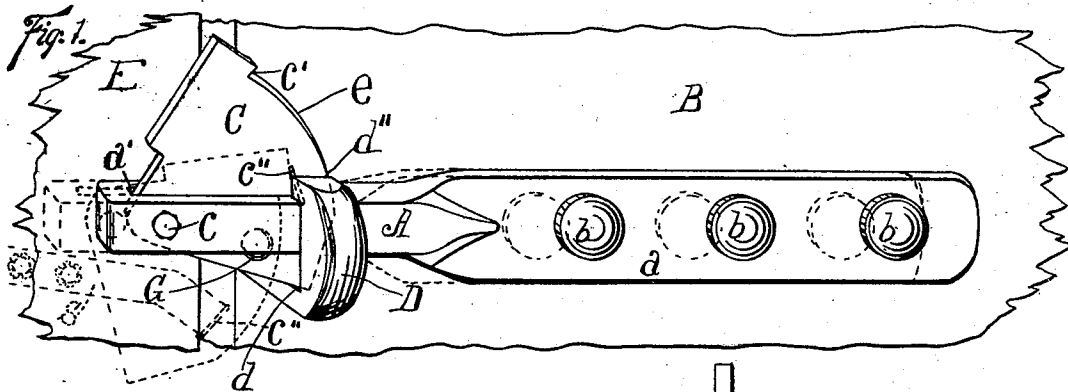


(No Model.)

F. F. GETZE.
SEAL LOCK.

No. 509,077.

Patented Nov. 21, 1893.



Witnesses.

O. W. Harburn.

F. M. Townsend.

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Frank F. Getze by
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His Attorneys.

UNITED STATES PATENT OFFICE.

FRANK F. GETZE, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO NATHAN D. MUSSEY, OF SAME PLACE.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 509,077, dated November 21, 1893.

Application filed August 31, 1892. Serial No. 444,611. (No model.)

To all whom it may concern:

Be it known that I, FRANK F. GETZE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Self-Locking Seal-Fastening for Slide-Doors, of which the following is a specification.

My invention relates to that class of sliding door locks in which a pivoted latch is arranged to automatically operate to prevent the retraction of the hasp or bolt after the door is closed.

One object of my invention is to provide side guards which will prevent the latch from being sprung sidewise out of operative position. This I accomplish by pivoting the latch to the bolt within the slot in the bolt so that the bolt itself forms side guards to prevent lateral springing or displacement of the latch. I have made this arrangement possible in practice by slotting the staple or eye stud on its upper side to allow the latch to pass therethrough and afterward drop down and engage the lower portion of the stud to prevent withdrawal of the bolt.

A further object is to provide a fastening which may be sealed with the simplest and most inexpensive seal in use, and still absolutely prevent opening the car door without so injuring the seal that it will be easily detected by the seal examiner.

My invention comprises the combination of a staple or detaining stud having a bolt eye and provided with a transverse slot in its top opening into such eye; said stud being arranged for attachment to the door stop of a car, &c.; a bolt arranged for attachment to a door or shutter and having at its front end a longitudinal slot passing vertically through the bolt; a gravity catch arranged in such slot and pivoted to the bolt by a pivot arranged near the front end of the catch, and having a portion of its body normally projecting below such bolt and arranged to slide up through the slot in the bolt when force is applied to lift the latch, all so arranged, and proportioned that when the bolt is shot into the eye the latch will be shot up through the slot in the bolt and will pass through the slot in the eye as the bolt is forced into the eye,

and, when the bolt has fully entered the eye, will drop down through the slot in the bolt and engage the lower side or wall of the eye to prevent the bolt from being withdrawn from the eye.

My invention also comprises the peculiar arrangement of the seal opening in combination with the above mentioned features.

My invention also comprises various other features and combinations hereinafter set forth.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective side view of my device attached to fragments of a car and door, and in the act of locking, dotted lines showing the bolt fully entered. Fig. 2 is a plain front view of the same, the door stop being in section. Fig. 3 is a plain side view of the same, with the fastening locked and sealed. Fig. 4 is a fragmentary plan view of my device with the bolt ready to be shot into the eye. Fig. 5 is a fragmentary view of the latch to show the seal slot.

A represents the bolt, the shank *a* of which is provided with suitable perforations to receive the rivets *b*, which secure it to the car door B. The front portion of the bolt A is provided with a longitudinal slot *a'* extending through the bolt.

C is the latch which is shown formed of a substantially triangular shape and is of such thickness as to fit in the slot *a'* in the bolt, and to slide easily therethrough. This latch is pivoted in the slot by a pivot *c* arranged at the front end of the bolt and passing through the bolt A and through the latch near one of its corner angles. The rear side *e* of the latch is preferably formed in the arc of a circle having the pivot *c* for the center, and is provided near its top with a stop shoulder *c'* arranged to engage the bolt when the latch is in its normal position.

D is the stud having the bolt eye *d* and is provided with means for attachment to the door stop E such as the screw shank *d'*. The eye *d* is arranged to receive the bolt A, and is provided in its top with a transverse slot *d''* arranged to allow the passage of the latch therethrough when the bolt is shot into the eye.

c'' is the seal slot provided in the lower portion of the latch C and is of just sufficient width to allow the passage of the ordinary tin seal S therethrough, and is enlarged at its lower end as shown at c''' so that when the seal is sheared off by forcing the latch up through the bolt, and the lower edge of the seal is curled up thereby the tin will not become bound tightly in the slot and be difficult to remove. The enlargement of the slot allows the tin to be slipped out very easily. This slot is preferably arranged substantially at right angles with the radius of the pivot c so that when the seal is in place in the seal slot, and the latch is raised the seal strip will stand at a right angle to the bolt A, and will be sheared off by the walls of the slot a' if the latch and the seal are forced upward through the slot in the bolt to release the bolt.

The cheapest and most convenient seal in present use on railway cars consists in a thin strip of tin, the ends of which are secured together by punching a hole through both ends of the strip so that the burr around one of the holes will project through the other hole; this burr is then flattened down upon the strip, thus securing the ends of the seal together. A difficulty to be overcome in the adaptation of my lock to be perfectly sealed by this class of seal arises by reason that there must be a reasonable clearance for the latch to allow it to move freely within the slot in the hasp; and if the seal which is of thin tin is made to lie flat upon the face of the latch, it might be possible to force the latch thus sealed up far enough through the slot to release the bolt. I provide against this possibility by the peculiar form and arrangement of the hole through which the seal strip is passed. That is to say, I provide the narrow slot c'' and arrange it transverse the radius of the latch so that the ends of the seal strip can be brought together only by extending them over the pivot c or by bending them as shown in Fig. 3. If carried over the pivot, they will clasp the hasp and so cannot be made to pass through the latch slot in the hasp. If bent as shown in Fig. 3, they will be crimped as indicated by the shading after the word "Seal" Fig. 3, and such crimp will project out from the latch and preclude the possibility of flattening the strip against the latch to allow it to pass through the slot. The narrow slot serves as additional security in that though, as is sometimes possible, the seal is opened by straightening the burr out sufficiently to allow the ends of the strip to be separated, the lock cannot be opened until the seal is slipped out of the slot in the latch; and to accomplish this, the burr must first be flattened so completely that it becomes impossible to

restore the fastening afterward, because the burr breaks by reason of the repeated bendings.

G is a hole provided in the latch to allow the latch to be secured by a lock when deemed desirable.

In practice the bolt A is secured to the car door and the stud is secured to the door stop as illustrated. When the door is closed, the end of the bolt A enters the eye d , and the under face of the latch C strikes upon the bolt and is thereby pushed up through the slot a' in the bolt. The slot d'' in the top of the eye permits the latch to pass therethrough and when it has fully passed therethrough the latch will drop as shown in Fig. 3, and prevent the bolt from withdrawing from the eye until the latch is raised so it will pass over the under portion of the stud as shown in Figs. 1 and 2. The seal S is then inserted and sealed and the door cannot be opened without breaking the seal.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A fastening for doors having a detaining stud, and a bolt provided near its end with a longitudinal vertical slot and a gravity latch pivoted to such bolt at the front end of such slot and arranged to extend backward from its pivot and to slide up and down through such slot to pass the detaining stud at the advance movement of the bolt and to catch upon such stud when the bolt is retracted.

2. A fastening for slide doors, comprising the combination of a longitudinally vertically slotted bolt arranged for attachment to the door; a latch pivoted to such bolt arranged in such slot and adapted to slide up and down in the slot; a stud arranged for attachment to the door stop or post, and provided with an eye adapted to receive such bolt, and a slot in the top of such stud arranged to allow the latch of the bolt to pass therethrough when the latch is raised to pass the bottom wall of the bolt eye.

3. A car seal having a pivoted latch arranged to slide through its bolt and having a narrow seal receiving slot arranged in such latch substantially at right angles with the radius of its pivot.

4. A car seal having a pivoted latch arranged to slide through its bolt and having a narrow seal receiving slot enlarged at its lower end and arranged substantially at right angles with the radius of its pivot.

FRANK F. GETZE.

Witnesses:

JAMES R. TOWNSEND,
ALFRED I. TOWNSEND.