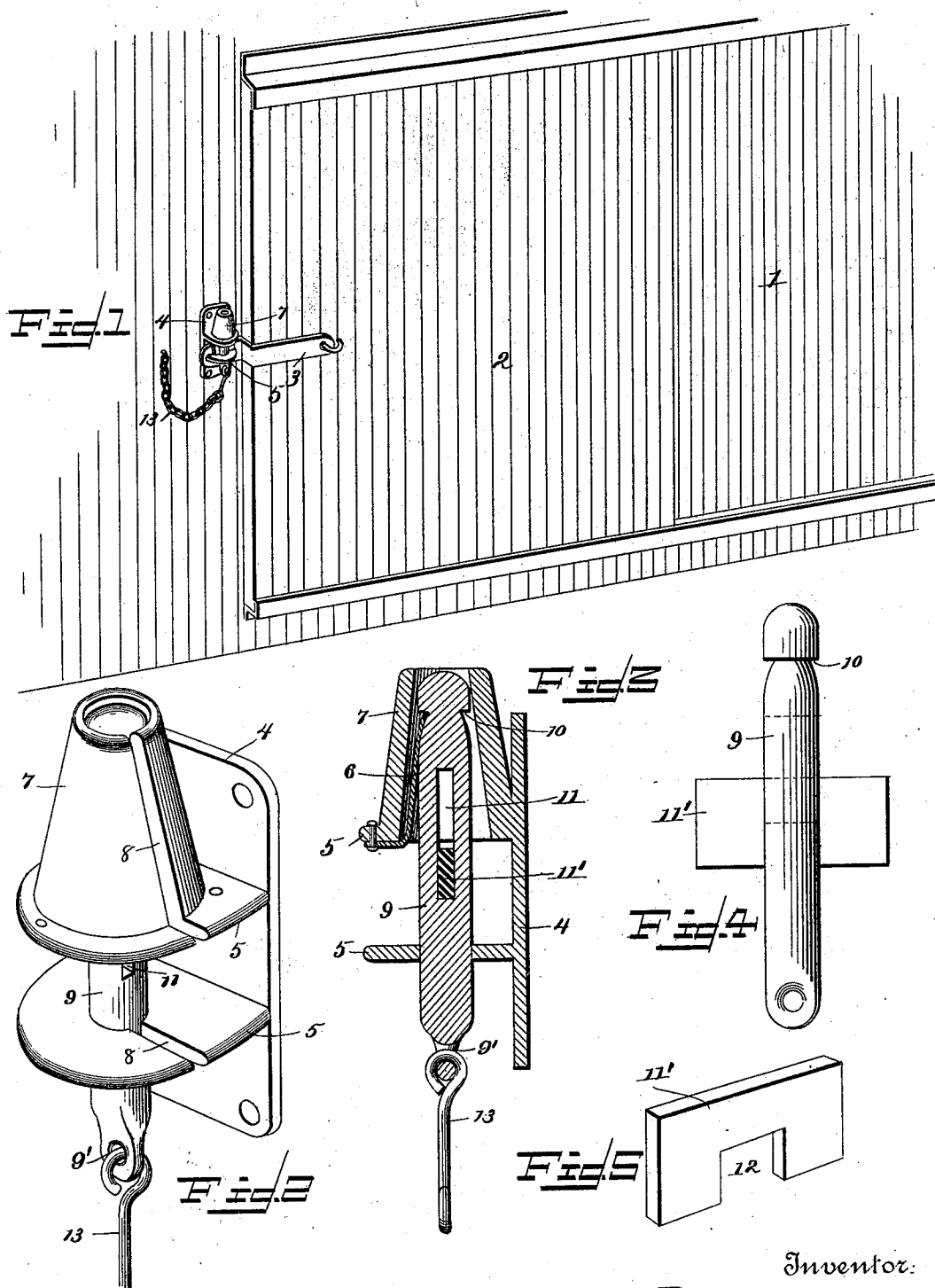


(No Model.)

J. DOWLING.
SEAL LOCK.

No. 506,214.

Patented Oct. 10, 1893.



Witnesses:

As B. Mattingly
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Inventor:

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UNITED STATES PATENT OFFICE.

JOHN DOWLING, OF ALTOONA, PENNSYLVANIA.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 506,214, dated October 10, 1893.

Application filed May 5, 1893. Serial No. 473,122. (No model.)

To all whom it may concern:

Be it known that I, JOHN DOWLING, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented a new and useful Seal-Lock, of which the following is a specification.

My invention relates to improvements in seal-locks, and has special reference to certain improvements upon United States Patents No. 476,617, dated June 7, 1892, and No. 482,118, dated September 6, 1892, both of which were granted to me. In the constructions of the locks in these aforesaid patents there was included a hasp adapted to engage over the central perforated staple or eye of a series arranged in vertical alignment and extending from a base-plate, and through the eyes, in front of the hasps, locking-pins were inserted. In both instances the upper heads were as small if not smaller than the bodies of the pins upon which they were formed and this for the purpose of permitting the ready application of circular seals over said heads and to the body portions. The upper eyes of the series were surrounded and had rising therefrom a series of spring tongues which engaged under the upper heads, and thus prevented the downward withdrawal, while the seals prevented the upward withdrawal. These tongues were in turn surrounded by hoods or guards. By practice it was found that the heads being necessarily small upon the upper ends of the pins rendered it possible to insert a thin instrument down into the hoods or guards and thus pry the tongues from under the heads and permit of a downward withdrawal of the pins, whereby the lock could be disconnected without a fracture or destruction of the seal.

My invention therefore relates particularly to this latter part of the construction, the objects in view being to prevent or overcome this danger of unauthorized tampering with and disconnection of the parts, which I accomplish by means hereinafter described and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a portion of the wall of a car, the door of which is secured in position by means of a lock constructed in accordance with my invention. Fig. 2 is an enlarged detail in perspective of the lock. Fig. 3 is a

longitudinal vertical sectional view thereof. Fig. 4 is a detail of the locking-pin. Fig. 5 is a detail of the seal.

Like numerals of reference indicate like parts in all the figures of the drawings.

The wall 1 of the car, has the usual opening, and over the same there is located the sliding door 2, of the usual construction, said door being provided with the hasp 3, designed to be swung to one side and overlap said wall.

Secured to the wall of the car in line with the hasp is the metal base or securing-plate 4, and the same has projecting from its front a pair of lateral eyes 5, over the lower one of which the said hasp is designed to loosely fit at its free end and thus overlap the plate. From the upper eye 5 there extends a series of converging spring-tongues 6 whose lower extremities are laterally bent and take under the eye to which they are riveted or otherwise connected. A guard 7 is formed integral with said upper eye and is of truncated-cone shape, being hollow and having the upper end of its opening corresponding in size or substantially the same as the opening in the eye upon which it is formed. The guard and the two eyes are provided with vertically aligning slots 8.

9 designates the locking-pin, and the same is of a uniform diameter from end to end with the exception that its lower end is flattened and perforated to form an eye 9' and that near its upper end it is reduced to form an annular groove 10. Between its ends it is provided with a transverse slot 11 which is so located that when the pin is inserted upwardly through the eyes and its groove is engaged by the upper ends of the spring-tongues a portion of the slot is within the guard or in other words above the upper eye. A seal 11' is provided upon its under side or edge with a recess 12 of a width agreeing with the diameter of the pin, the said seal about agreeing with the length of the slot in the pin, and when inserted and its recess is in line with the slot, the said seal may be forced down upon the pin so as to embrace the opposite sides thereof below the slot. This completes the construction, with the exception of a chain 13, which is attached to the eye 9' and has its remaining end secured to the wall of the car. When it is desired to fasten the car-door

the hasp is swung over the lower eye of the lock and the pin inserted upwardly through the eyes until its slot is between said eyes when the seal is inserted in the slot until its recess registers therewith. A further upward movement of the pin causes the seal to move down thereupon, so that its narrow portion is within the recess; at the same time the pin moves upward until its annular groove is engaged by the upper ends of the prongs which taking into said groove or against the shoulder formed thereby will prevent any downward withdrawal of the pin, while at the same time the seal lying across the under side of the upper eye will prevent any upward withdrawal. In order to unlock the parts it is necessary to destroy the seal by cutting or severing the same along the side of the pin and withdrawing the said seal from the slot of the pin, when as will be obvious the pin may be forced upward through the guard, and the chain passed through the slots in the eyes and guard. The diameter of the pin is such that it fits loosely in the upper end of the guard and in such a manner as to prevent the insertion of any thin instrument for the purpose of prying the spring tongues from under the shoulder and this is aided by the conical contour given the guard, in that any such instrument even if inserted would have to follow the wall of the guard and would thus be deflected away from the pin.

Having described my invention, what I claim is—

1. The combination with the lock-plate having the vertically opposite eyes, the conical

guard rising therefrom, said eyes and guard being slotted in alignment, and the tongues surrounding said eyes and located within the guard and converged, of the cylindrical locking-pin provided near its upper end with an annular groove forming a shoulder, between its ends provided with a slot which when the pin is in position extends into the eye and guard, a chain connected to the lower end of the pin and adapted to pass through the slots, a hasp over the lower eye and traversed by the pin, and a seal of a width agreeing with the length of the slot and provided upon its lower side with a recess as wide as the diameter of the pin, substantially as specified.

2. In a seal lock, the combination with the securing-plate having the upper and lower eyes, the conical guard surrounding the upper eye, the spring tongues arranged within the guard and also surrounding the eye, of the locking-pin adapted to pass through the guard provided near its upper end with an annular groove for engaging the tongues, a seal-opening formed in the pin below one of said eyes, a seal for the opening and provided with a pin-receiving notch, and a hasp adapted to take over the eye in rear of the pin, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN DOWLING.

Witnesses:

W. D. COUCH,
CHARLES LONG.