C. OISHEI.

SEAL LOCK.

APPLICATION FILED APR. 6, 1914.

1,166,779.

Patented Jan. 4, 1916.

2 SHEETS—SHEET 1.

Fig 1.

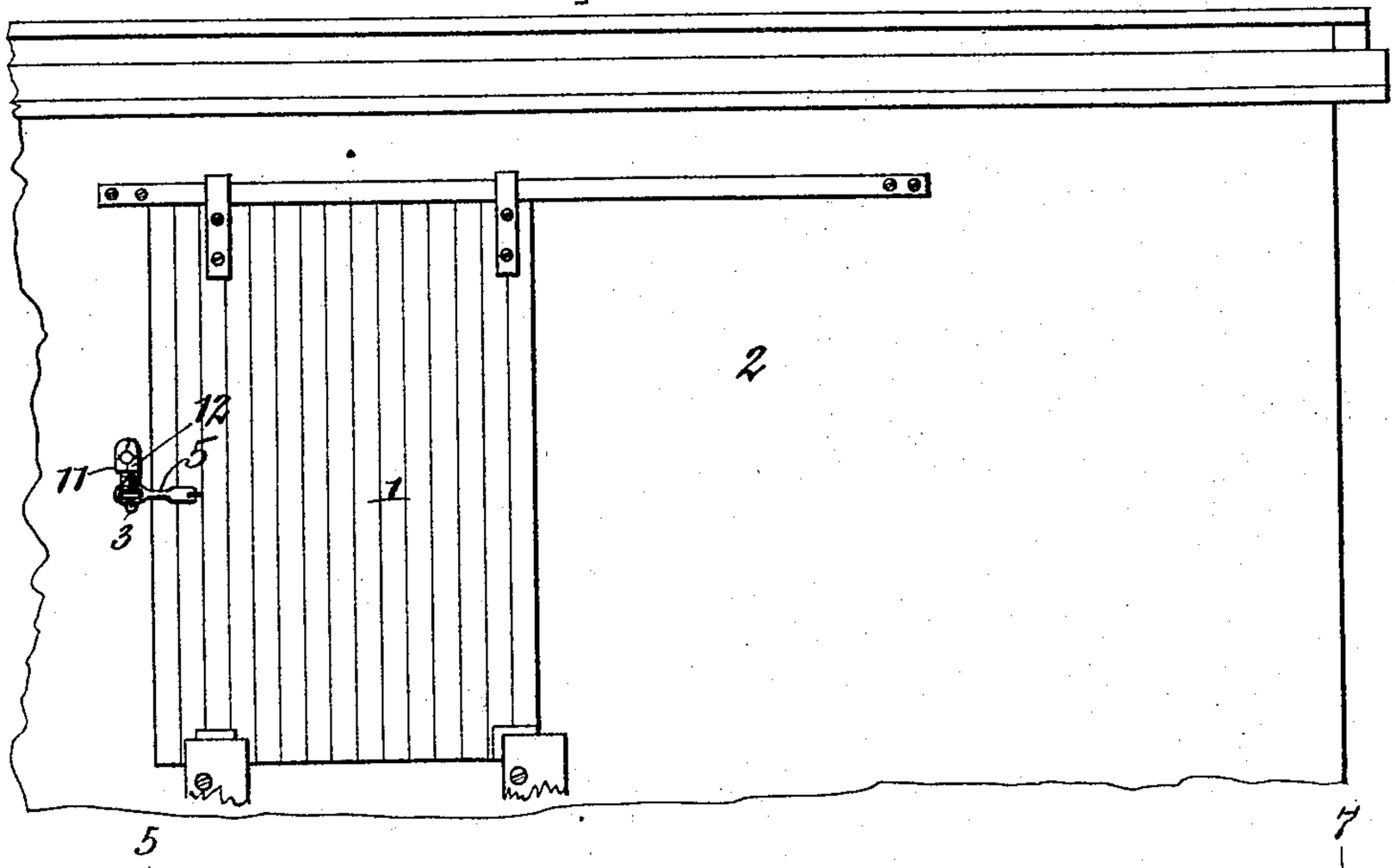


Fig 2.




Fig 3.

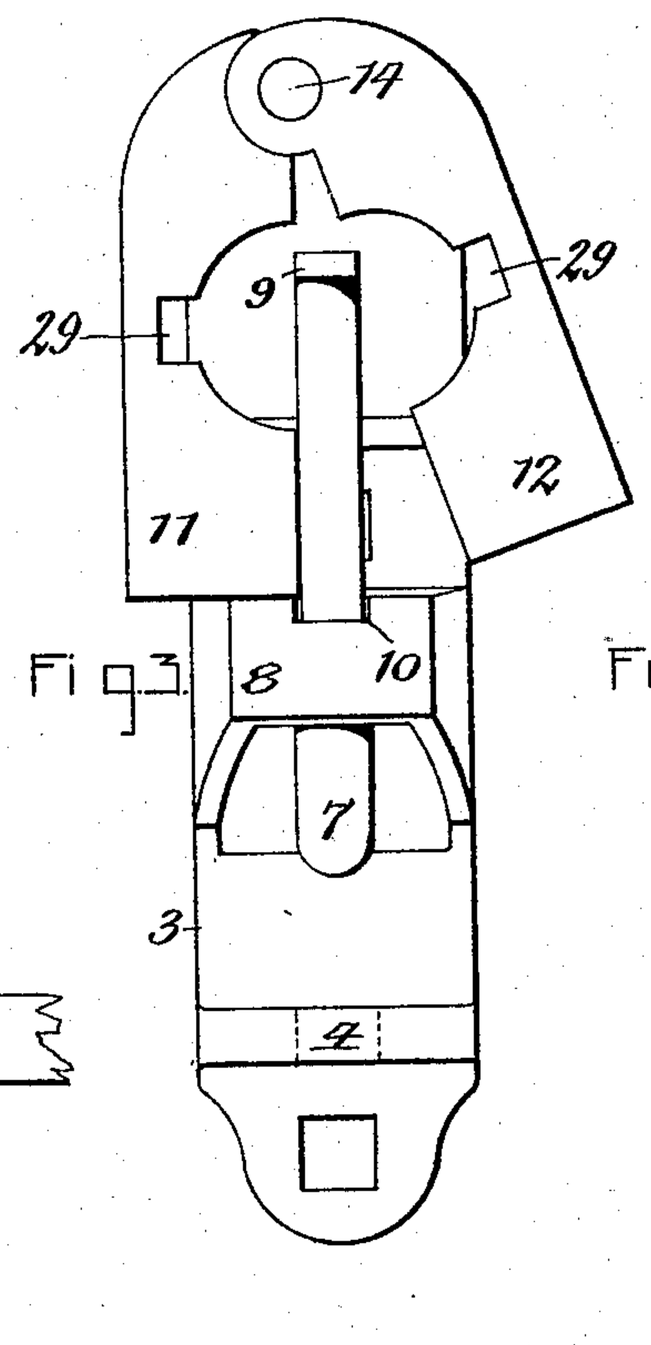


Fig 4.




WITNESSES

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2 SHEETS—SHEET 2.

Fig 5.

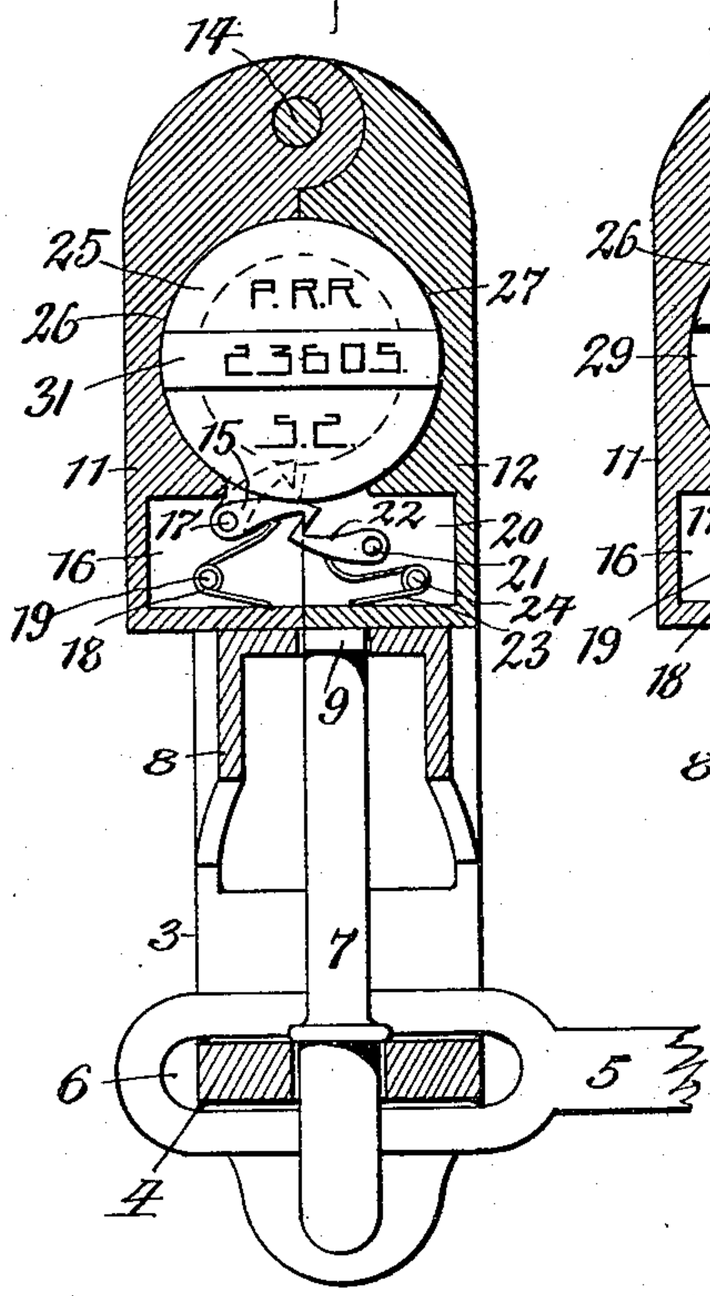



Fig 6

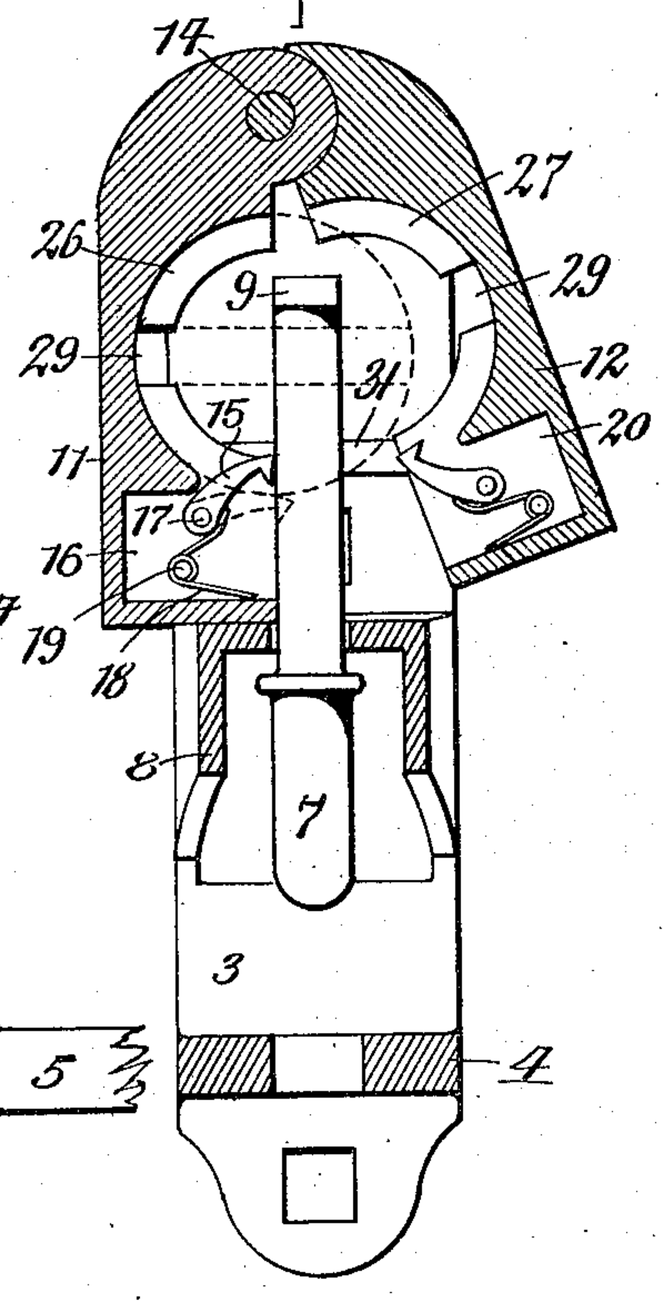



Fig 7.

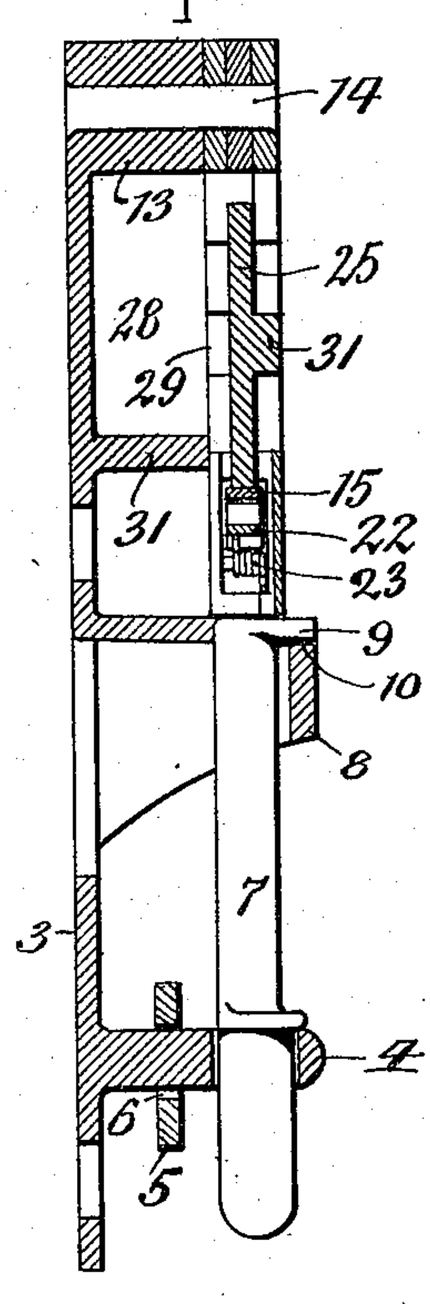



Fig 8.

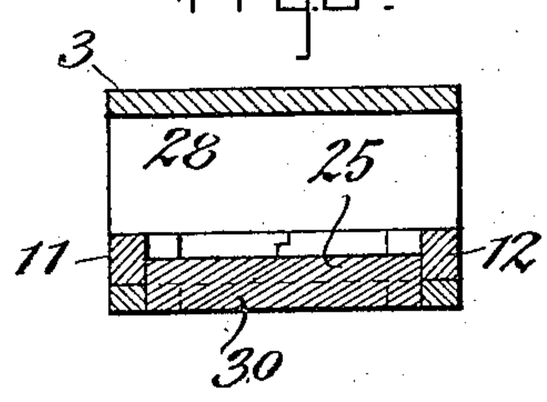



Fig 9.

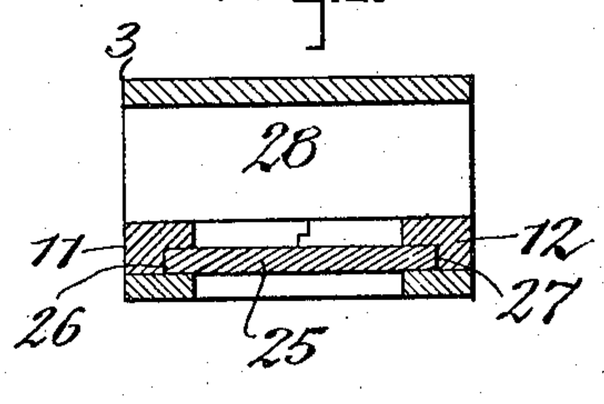
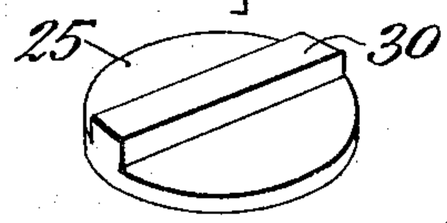



Fig 10.

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# UNITED STATES PATENT OFFICE.

CHARLES OISHEI, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO HENRY V. CONOVER, OF BUFFALO, NEW YORK.

## SEAL-LOCK.

1,166,779. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed April 6, 1914. Serial No. 829,820.

*To all whom it may concern:*

Be it known that I, CHARLES OISHEI, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Seal-Locks, of which the following is a specification.

This invention relates to a seal lock which is more particularly designed for use on the doors of freight cars for the purpose of preventing opening of the doors and tampering with the contents thereof without detection by the parties having supervision of the cars, although if desired this seal lock may be also used for other purposes.

It is the object of this invention to produce a lock of this character which is simple in construction and capable of easy operation and which is so designed that all of the parts thereof are permanently connected with the car or other body to which the same is applied.

In the accompanying drawings: Figure 1 is a fragmentary side elevation of a box freight car equipped with my improved seal lock. Fig. 2 is a front elevation, on an enlarged scale, of the seal lock embodying my invention and showing the parts thereof in a closed and sealed condition. Fig. 3 is a similar view of the same showing the parts thereof in an opened or unsealed position. Fig. 4 is a side elevation of the seal lock in its closed position. Fig. 5 is a vertical longitudinal section of the seal lock taken in line 5—5, Fig. 2, showing the same in its closed or locked position. Fig. 6 is a similar view showing the parts thereof in an open position. Fig. 7 is a vertical transverse section, taken in line 7—7, Fig. 4. Figs. 8 and 9 are horizontal sections in the correspondingly numbered lines in Fig. 2. Fig. 10 is a detached perspective view of one of the seals for holding the lock in its closed position.

Similar characters of reference indicate corresponding parts throughout the several views.

Although my improved seal lock is capable of being used in various ways for protecting inclosures, or rooms containing merchandise from which unauthorized persons are to be excluded I have shown the same in the drawings, for example, applied to the sliding door 1 and the side wall 2 of the body of a box freight car so that the door cannot be opened and its passageway uncovered without detection on the part of the persons having charge of the same.

In its general organization my improved seal lock comprises an upright base plate 3 which is secured to the outerside of the body of the car in any suitable manner so that it cannot be removed. On its lower part this base plate is provided with a forwardly projecting perforated lug 4. A hasp 5 is pivotally connected at one end with the outerside of the door and provided at its free end with a slot or opening 6 which is adapted to engage with the locking lug 4 in the closed position of the door. A vertically movable locking bolt 7 is adapted to pass through the opening of the locking lug on the outerside of the hasp for confining the latter on this lug. The upper part of this locking bolt is guided in a lower bracket 8 projecting forwardly from the base plate and is provided with a forwardly projecting lip 9 which is adapted to overhang the front part of this bracket and engage with a notch 10 therein, so as to act as a stop for limiting the downward movement of the locking bolt and also serve as a handle or fingerpiece for lifting the same after the same has been partly lifted by engaging its lower end.

11, 12 represent two locking arms one of which, preferably the left 11, is adapted to be arranged fixedly in an upright position above the bracket 8 and on one side of the vertical path of movement of the locking bolt, while the other arm 12 is adapted to be moved into and out of a vertical position above said bracket so as to either project across the path of the locking bolt or clear said path. For this purpose the lower end of the fixed arm 11 is connected at its lower end with the front part of the lower bracket 8 and its upper end is connected with an upper bracket 13 projecting forwardly from the upper part of the base plate, and the movable arm 12 is pivotally connected at its upper end by means of a rivet 14, as shown or otherwise, with the upper end of the fixed arm and with the upper bracket, so that the lower end of the movable arm may be swung in a vertical plane either across the path of the locking bolt or out of said path. When the locking bolt is in its depressed position and the movable locking arm is swung across the path of the locking

bolt the lower end of this arm is arranged above the upper end of a locking bolt, as shown in Figs. 2, 5 and 7, thereby preventing the locking bolt from being raised and confining the hasp 5 on the locking lug 4. Upon swinging the movable locking arm outwardly so as to clear the path of the locking bolt the latter is free to be lifted for disengaging its lower end from the locking lug and releasing the hasp so as to permit of sliding the door into an open position. With these locking arms are associated seal controlled means which operate, when a seal is inserted between these arms, to cause the same to become automatically locked together upon swinging the movable locking arm into its operative position and to hold these arms into this relative position so long as the seal between the same remains intact. In its preferred means this automatic fastening device comprises a bodily fixed catch, latch or hook 15 pivotally supported within a pocket 16 on the fixed locking arm by means of a pin 17 formed on this arm and yieldingly held in its raised or inoperative position by means of a spring 18 mounted on a pin 19 arranged on this locking arm within its pocket and having a lower arm engaging with the bottom of its pocket and an upper arm engaging with the underside of the catch 15. Within a pocket 20 formed in the lower part of the movable locking arm and pivotally mounted on this arm by means of a pin 21 arranged in the pocket thereof is another locking catch or latch 22 which is yieldingly held in its elevated or operative position by means of a spring 23 mounted on a pin 24 within the pocket of the movable locking arm and having an upper arm engaging with the underside of the respective catch and a lower arm engaging with the bottom of the respective pocket. The nose of the bodily fixed catch or latch on the fixed arm is arranged on the inner end of this latch and projects downwardly while the nose of the bodily movable catch or latch on the movable locking arm is also arranged on the inner end of the last mentioned catch and projects upwardly. In the absence of a seal between the opposing edges of the locking arms the bodily fixed latch or catch is held in its inoperative position indicated by dotted lines in Fig. 5 and by full lines in Fig. 6 by the action of its spring in which position of the same the nose thereof is arranged above the path of the nose of the bodily movable latch or catch so that each nose of these two catches cannot become interlocked with each other upon swinging the movable locking arm into or out of its operative position, thereby leaving the movable locking arm free to be swung outwardly and the locking bolt free to be raised so as to permit of either applying the hasp over the locking lug 4 or removing the same therefrom. When, however, the bodily fixed catch is depressed into its operative position in opposition to the resilience of its spring, its nose is arranged in the path of the nose on the bodily movable catch, so that upon lowering the locking bolt into its operative position through the locking lug and then swinging the movable locking arm inwardly over the upper end of the locking bolt, the nose of the bodily movable catch will snap past the nose of the bodily fixed catch and become interlocked therewith, as shown by full lines in Fig. 5. So long as these two catches remain thus interlocked the movable locking arm is held in its operative position and the bolt cannot be raised for releasing the hasp. The retention of the bodily fixed catch in this operative position is effected by means of a seal which is preferably constructed of frangible material such as glass, porcelain or plaster-of-Paris and has a circular body 25 which is adapted to be seated with opposite halves of its peripheral or marginal portion in two semicircular grooves or seats 26, 27 formed in the opposing edges of the locking arms between the pivot 14 and the pockets thereof. Upon placing such a seal within these semi-circular seats and swinging the movable locking arm inwardly toward the fixed locking arm this seal will be confined between these arms and the lower edge portion of the seal will operate as a cam or wedge which deflects the bodily fixed catch downwardly from its inoperative position to its operative position and the bodily movable catch will engage its nose with that of the bodily fixed catch, thereby connecting the locking arms and preventing the locking bolt from being raised, as shown in Fig. 5. When it is desired to open the door of the car the seal is broken by a hammer or otherwise and as the pieces of the seal are discharged from between the opposing locking arms, the bodily fixed catch is released permitting its spring to raise the same from its operative position in which its bill engages with that of the bodily movable catch into an inoperative position in which its nose is disengaged from that of the bodily movable catch, thereby permitting the movable locking arm to be swung laterally out of the path of the bolt and enabling the latter to be raised, so that the hasp can be removed from the locking lug 4 and the door moved into its open position.

The upper and lower brackets 13, 8, support the upper and lower ends of the locking arms at a distance from the base plate so as to form an intervening space 28 between the base plate and the arms. This space furnishes the necessary room into which the fragments of the broken seal are driven when delivering a blow against the

front side of the seal and from which the pieces of the seal can be readily removed without interfering with the subsequent resetting of the seal lock for again sealing the car. In order to permit of more quickly and conveniently removing any small particles of the seal which may remain in the grooves or seats of the locking arms each of these arms is provided in the walls or flanges of these seats about midway between the upper and lower edges thereof with notches or passageways 29 through which any seal fragments can be readily ejected by means of the fingers. The front side of the seal may be provided with an inscription of any suitable character indicating the name of the railroad, manufacturer or shipper under whose direction the car was sealed, the number of the car or any other identifying mark. In order to always retain this seal between the locking arms in a position in which the seal may be conveniently read, the front side of the seal is provided with a transverse rib or projection 30 which preferably extends diametrically across the same and is adapted, in the closed position of the locking arms to engage with the front notches in the front walls of these arms, thereby locking the seal against rotation and insuring retention of the same in a position in which the inscription or data on the front side of the same can be easily read.

In order to reliably support the lower ends of the locking arms against inward or rearward displacement when the seal is broken by a blow from the front side, a supporting or retaining flange or rib 31 is provided which projects forwardly from the base plate above the lower bracket and engages with the rear side of the locking arms preferably adjacent to the lower end of the seal receiving seats thereof, as shown in Figs. 4, 6 and 7.

It will be obvious from the foregoing description that so long as the seal remains intact between the locking arms the car cannot be opened, thereby insuring the safety of the goods which are being transported and preventing pilfering of the same without this fact becoming known to the parties in authority.

I claim as my invention:

1. A seal lock comprising a movable locking bolt, two locking arms one of which is movable relatively to the other and to be arranged in the path of the locking bolt when in their operative positions, and seal controlled means for holding one of said locking arms in its operative position.

2. A seal lock comprising a movable locking bolt, two locking arms one of which is movable relatively to the other and to be arranged in the path of the locking bolt when in their operative positions, and seal controlled means for holding one of said locking arms in its operative position, comprising a bodily fixed catch mounted on one of said arms and adapted when free to be moved into its inoperative position and to be moved into an operative position by a seal adapted to be placed between said locking arms, and a bodily movable catch mounted on the other locking arm and adapted to engage the bodily fixed catch.

3. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of said locking bolt when in their operative positions and the opposing edges of said arms being provided with seats for the reception of a seal, a bodily fixed catch movably mounted on one of said locking arms and adapted to be shifted into its operative position by said seal, and a bodily movable catch mounted on the other locking arm and adapted to engage with the bodily fixed catch when the latter is in its operative position.

4. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of said locking bolt when in their operative positions and the opposing edges of said arms being provided with seats for the reception of a seal, a bodily fixed catch movably mounted on one of said locking arms and adapted to be shifted into its operative position by said seal, a bodily movable catch mounted on the other locking arm and adapted to engage with the bodily fixed catch when the latter is in its operative position, a spring for yieldingly holding the bodily fixed catch in its inoperative position, and a spring for yieldingly holding the bodily movable catch in its operative position.

5. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of said locking bolt when in their operative positions and the opposing edges of said arms being provided with seats for the reception of a seal, a bodily fixed catch movably mounted on one of said locking arms and adapted to be shifted into its operative position by said seal, a bodily movable catch mounted on the other locking arm and adapted to engage with the bodily fixed catch when the latter is in its operative position, a spring for yieldingly holding the bodily fixed catch in its inoperative position, and a spring for yieldingly holding the bodily movable catch in its operative position, each of said arms being provided with a pocket for the reception of the catch mounted thereon and the spring associated therewith.

6. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of the locking bolt when in their operative positions. and coöperating seal controlled catches mounted respectively on said locking arms.

7. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of the locking bolt when in their operative positions, and coöperating seal controlled catches mounted respectively on said locking arms, one of said catches being adapted to be shifted into its operative position by a seal placed between said locking arms and the other catch being adapted to engage with the last mentioned catch when the same is in its operative position.

8. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to be arranged in the path of the locking bolt when in their operative positions, and coöperating seal controlled catches mounted respectively on said locking arms, one of said catches being adapted to be shifted into its operative position by a seal placed between said locking arms and the other catch being adapted to engage with the last mentioned catch when the same is in its operative position, the opposing edges of said locking arms being provided with opposing seats for the reception of opposite edge portions of a seal.

9. A seal lock comprising a movable locking bolt, two locking arms which are movable one relatively to the other and one of which is adapted to move into and out of the path of the locking bolt, and coöperating seal controlled catches mounted respectively on said locking arms, one of said catches being adapted to be shifted into its operative position by a seal placed between said locking arms and the other catch being adapted to engage with the last mentioned catch when the same is in its operative position, the opposing edges of said locking arms being provided with opposing seats for the reception of opposite edge portions of a seal, and the central parts of the walls of these seats being provided with notches.

10. A seal lock comprising a movable locking bolt, a pair of coöperating locking arms which are movable one relatively to the other and one of which is adapted to move into and out of the path of the locking bolt, coöperating catches mounted on said locking arms and adapted to engage with each other for holding the same together so that one of these arms is arranged in the path of the locking bolt, the opposing edges of said locking arms being provided with seats for the reception of a seal which is adapted to shift one of said catches from its inoperative position to its operative position, and a base plate provided with brackets which support said locking arms at a distance from the base and form a clearance space between this base and said arms.

11. A seal lock comprising a movable locking bolt, a pair of coöperating locking arms which are movable one relatively to the other and one of which is adapted to move into and out of the path of the locking bolt, coöperating catches mounted on said locking arms and adapted to engage with each other for holding the same together so that one of these arms is arranged in the path of the locking bolt, the opposing edges of said locking arms being provided with seats for the reception of a seal which is adapted to shift one of said catches from its inoperative position to its operative position, a base plate provided with brackets which support said locking arms, and a retaining rib or lug arranged on said base and supporting said locking arms between said brackets.

Witness my hand this 3rd day of April, 1914.

CHARLES OISHEI.

Witnesses:
HENRY V. CONOVER,
E. M. GRAHAM.