No. 783,047. PATENTED FEB. 21, 1905.

C. KACHEL.

CAR SEAL.

APPLICATION FILED MAY 9, 1904.

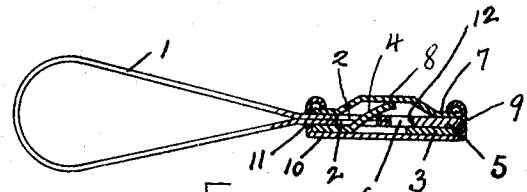


Fig. 1

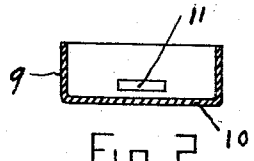


Fig. 2

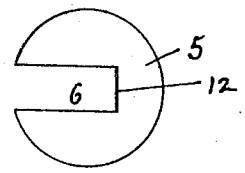


Fig. 4

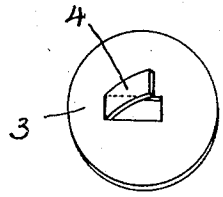


Fig. 3

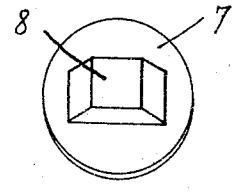


Fig. 5

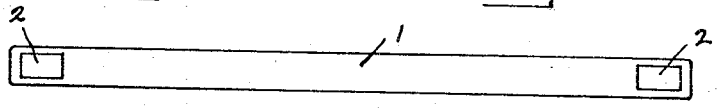


Fig. 6

Witnesses
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No. 783,047. Patented February 21, 1905

UNITED STATES PATENT OFFICE.

CHARLES KACHEL, OF BUFFALO, NEW YORK.

CAR-SEAL.

SPECIFICATION forming part of Letters Patent No. 783,047, dated February 21, 1905.

Application filed May 9, 1904. Serial No. 207,018.

To all whom it may concern:

Be it known that I, CHARLES KACHEL, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Car-Seals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car-seals, and more particularly to what is known as the "self-locking" class.

The object of my invention is to provide a simple, economical, and reliable construction which involves a positive automatic locking engagement of the two ends of the shackle within the shell or casing and which will not permit of the withdrawal of such ends after engagement without apparent mutilation of the shell or casing.

To that end my invention consists of certain details of construction, all of which will be fully hereinafter described and claimed.

In the drawings, Figure 1 is a central transverse section of my improved seal in locked engagement with the shackle. Fig. 2 is a similar view of the shell or casing before the plates are inclosed. Fig. 3 is a perspective view of the locking-lip plate. Fig. 4 is a face view of the space-plate. Fig. 5 is a perspective view of the dome-plate, and Fig. 6 is a face view of the shackle.

Referring to the drawings, 1 is the shackle in the form of a narrow strip of sheet metal, having at each end the rectangular slot 2.

3 is the locking-lip plate, having the locking-lip 4 cut and struck up from such plate at an angle thereto and preferably slightly curved, as shown.

5 is the space-plate, having a portion thereof cut away to provide the space 6 of substantially the width of the shackle 1 and extending from its periphery centrally across to a point beyond the center of the plate.

7 is the dome-plate, in which is centrally struck up the dome 8.

9 is the shell or casing with closed bottom 10, its top being open, as shown.

11 is the entrance-orifice cut in its side wall and of a width substantially that of the shackle 1.

The three plates 3, 5, and 7 are preferably circular and the shell or casing 9 cylindrical. These three plates in the order named are placed one upon the other within the shell or casing, and the outer edge of its open end is turned down upon the plates, as shown in Fig. 1, thus compactly and rigidly holding such plates within the shell or casing. The entrance-orifice 11 in the shell or casing 9 registers with the space 6 in the plate 5, and the locking-lip 4 extends up through the space 6 in plate 5, its upper end resting in loose contact with the outer wall of the dome 8 in the plate 7.

The slotted ends of the shackle 1 are brought together, the slots registering with each other, and are thrust through the entrance-orifice 11 of the shell or casing and into the space 6 in the plate 5, the dimensions of the orifice and space being just sufficient to permit of a snug reception of the shackle ends, which as they progress inwardly strike and depress the locking-lip 4 until its extreme inner end reaches the registering slots 2 2 in the shackle. The locking-lip 4 then springs back through these slots to its normal position against the dome 8, and the ends of the shackle rest against the rear wall 12 of the space 6, which is the extreme limit of their inward thrust. A slight backward pull places them in contact with the locking-lip 4, as shown in Fig. 1. With the parts in locked position, as just described, it will be seen that it is utterly impossible to make the slightest movement toward releasing the shackle ends for the following reasons—viz., first, by reason of the locking-lip being at all times in normal contact with the dome 8 after the locking has been effected; second, owing to the fact that the wall 12 of the space 6 will prevent the shackle ends from being manipulated in connection with the locking-lip, and, third, owing to the close fit of the shackle ends within the orifice 11 and space 6, as well as the compact and rigid holding together of the plates 3, 5, and 7 within the

shell or casing, thus making it impossible to disturb the locked parts without an easily-apparent mutilation of the inclosing shell or casing.

My aim has been in reducing my invention to practical form to have no unnecessary space within the shell or casing and to have the seam which closes the plates within the casing compressed upon a solid foundation, which in this instance is the intermediate space-plate, so that it is a physical impossibility to enlarge the entrance-orifice 11 for the insertion of a manipulating-tool without tearing the casing beyond possible restoration to avoid detection.

I claim—

The self-locking seal, consisting of the plate 3 provided with the locking-lip 4, the intermediate plate 5 provided with the space 6, the plate 7 provided with the dome 8, the shell or casing 9 provided with the entrance-orifice 11 communicating with the space 6 in the intermediate plate 5, the three plates 3, 5 and 7 being compactly and rigidly inclosed within the shell or casing 9, in the order above named, the locking-lip 4 extending up through the space 6, in the intermediate plate 5 and in loose contact with the dome 8 in the plate 7, and the shackle 1 provided with slotted ends, adapted for automatic locking engagement, in the space 6 in the intermediate plate 5, with the locking-lip 4 of the plate 3, all combined and operating substantially as and for the purpose stated.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES KACHEL.

Witnesses:
J. F. WITMER,
JOHN O. ADSIT.