W. GRAYSON, Jr.

CAR SEAL.

APPLICATION FILED NOV. 15, 1911.

1,038,744. Patented Sept. 17, 1912.

Fig. I.

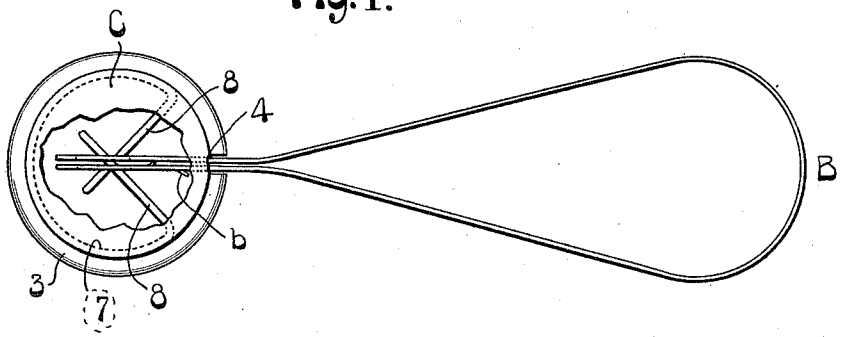


Fig. II.

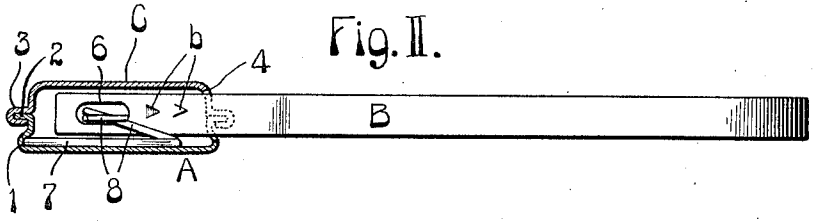
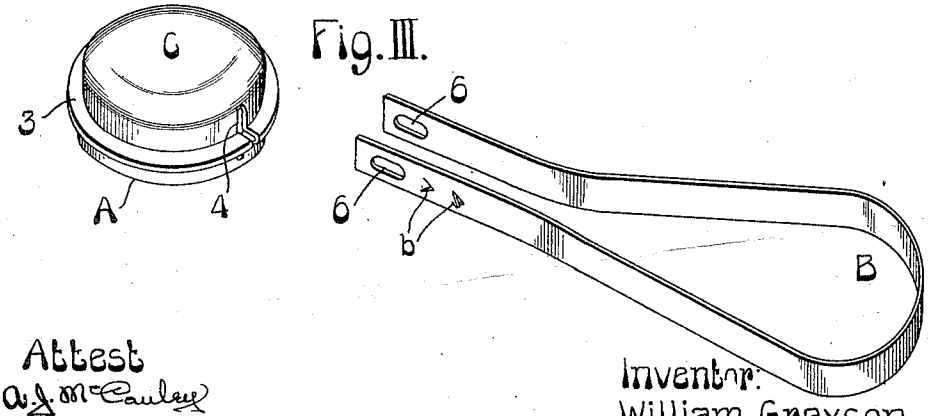


Fig. III.



Attest

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CAR-SEAL.

1,038,744. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed November 15, 1911. Serial No. 660,384.

To all whom it may concern:

Be it known that I, WILLIAM GRAYSON, Jr., a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Car-Seals, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of devices designed to serve as tell tales in the event of the opening of railroad cars by unauthorized persons for the purpose of theft; and the invention has for its object the production of a car seal involving slight expense for its manufacture, and which is so constructed as to preclude possibility of the seal being opened and again closed without the possibility of detection of the fact that the seal has been opened.

Figure I is a top or plan view of my car seal, with the top of the latch box partly broken out. Fig. II is a view showing the latch box in cross section, and the loop strip and latch in elevation. Fig. III is a perspective view of the latch box and loop strip as they appear previous to the introduction of the loop strip into the latch box.

In the accompanying drawings:—A designates the base, and C the cover of the latch box of my car seal. The latch box is of circular flat shape.

B is a loop strip adapted to be introduced into the latch box. The loop strip is formed of a flat piece of metal bent intermediate of its ends and doubled, thereby providing two parallel end portions, in each of which is an aperture 6.

The base A of the latch box of my seal is a dished member, provided with an internal annular rim groove 1, and having at its upper edge an outstanding annular flange 2. The cover C of the latch box has at its lower edge an outstanding annular flange 3, which is beaded onto the flange of the base A to unite the latch box members to each other. In the wall of the latch box is a slot 4, through which the parallel ends of the loop strip B may be introduced into the latch box.

7 designates the bow of a spring latch that is made of wire conforming to the circular wall of the latch box and is firmly located in the latch box facing the slot 4 so as to engage the ends of the loop strip B when they are introduced through the slot 4 into the latch box. The latch bow is segment shaped and lies in the rim groove 1 of the base A in such position as to provide for the ends of the bow being substantially equidistant from the slot 4 through which the ends of the loop strip are passed. Projecting from the ends of the bow are fingers 8 that extend upwardly and rearwardly from said ends. The fingers converge toward and cross each other, as seen most clearly in Fig. I, while their free rear ends are separated and diverge from each other.

In the practical use of my car seal, the loop strip B is applied to the device that is to receive it by passing said strip through said device, and then introducing its parallel ends through the slot 4 into the latch box to a degree that causes them to first spread the latch fingers 8 apart to a degree sufficient for the passage of the loop strip ends therebetween. As the fingers move outwardly, their divergent free ends approach each other and finally move outwardly from each other to permit the passage of the loop strip ends therebetween. Such movement is continued until there is opportunity for the free ends of the fingers moving toward each other, through the apertures in the loop strip, and assuming crossed relation with the ends again divergent and the seal strip in interlocked engagement with the fingers. When this interlocking movement has taken place, the loop strip is firmly held and its withdrawal from the latch box is prevented.

The interlocking members, namely: the latch fingers 8 and the loop strip of my seal are made of such dimensions and so disposed relative to the wall of the latch box at a point opposite to the slot 4 as to permit sufficient movement of the ends of the loop strip, while the interlocking of the members is being secured, and thereafter provide for said wall serving as an abutment that prevents any more than a very limited degree of forward movement of the loop strip, so that there is no possibility of the loop strip being manipulated to disengage it from the latch fingers.

As a precautionary measure to prevent the separation of the latch fingers from the loop strip by spreading them apart, I provide one of the end portions of the loop strip with spurs, or guard members, *b* that would be encountered by an implement, or implements, inserted through the slot 4 with the

object in view of withdrawing the latch fingers from their positions in the apertures 6 in which they normally rest.

I claim:—

A car seal comprising a latch box having a transverse slot in its peripheral wall, a spring wire latch formed with a bow secured to the back wall of the box, and arms extending rearwardly from the bow and having their ends crossed and projecting rearwardly opposite the transverse slot, and a doubled loop strip having its ends arranged parallel with each other and provided with registering slots and insertible through the transverse slot so as to first spread the ends of the arms of the spring apart and then permit them to spring back through the strip-slots into normal crossed position.

W. GRAYSON, JR.

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