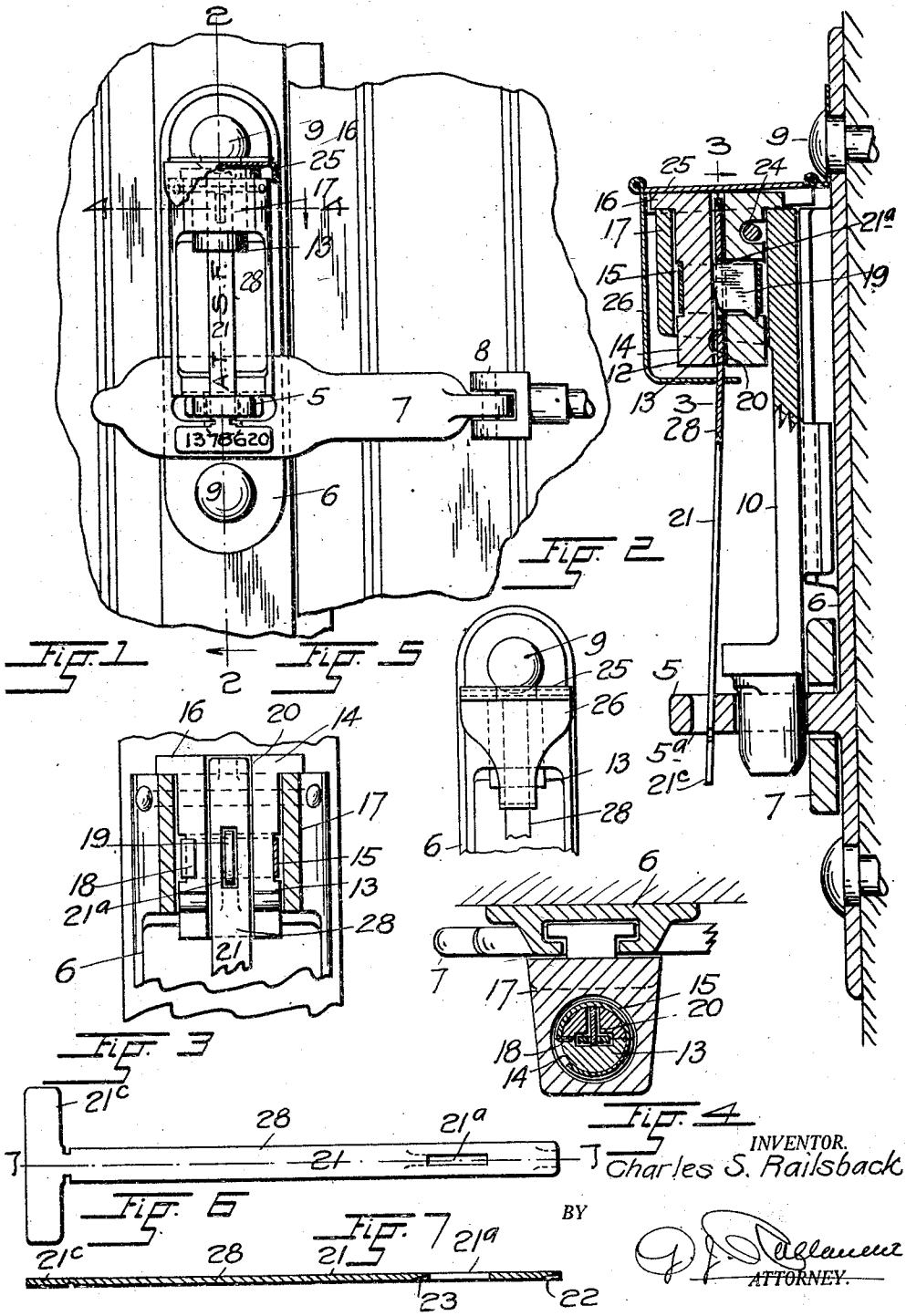
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C. S. RAILSBACK

CAR SEAL

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UNITED STATES PATENT OFFICE.

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CAR SEAL.

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To all whom it may concern:

Be it known that I, CHARLES S. RAILSBACK, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented certain new and useful Improvements in Car Seals, of which the following is a specification.

My invention relates to seals for fastenings of the type used on the doors of railway freight cars and an object of the invention is to provide a seal of very simple construction which reduces to a minimum the chances of its being broken and restored without immediate detection.

Another object of the invention is to provide a seal, the locking element of which is a permanent part of the fastening. A further object is to provide a seal co-operative with said locking element, consisting of a single part which is applied to the fastening without its being bent or doubled, and still other objects reside in details of construction and a novel arrangement of parts, as will fully appear in the course of the following description taken in connection with the accompanying drawings.

In the drawings in which similar reference characters designate corresponding parts throughout the several views,

Figure 1 represents a partially sectional face view of a fastening of the type used on railway car doors, with my improved sealing means in operative relation to the members thereof;

Figure 2, a section taken on the line 2—2, Figure 1, drawn to an enlarged scale;

Figure 3, a section along the line 3—3, Figure 2;

Figure 4, a transverse section on the line 4—4, Figure 1;

Figure 5, a face view of the upper part of the fastening showing in elevation, a part partially broken away in Figure 1;

Figure 6, a face view of the strap-member of the seal; and

Figure 7, a section along the line 7—7, Figure 6.

Referring to the drawings, the fastening to which my improved seal is applied, consists of two co-operating members, to wit, a staple member 5 formed integrally with a plate 6 by means of which it is fastened to the car or other object to which the fastening is applied, and a hasp-member 7 which is pivoted at one end as at 8, and which at its free end, has a slot to admit the staple.

The staple-plate 7 is fastened by means of bolts 9 and has two parallel ribs which conjointly provide a slideway for a locking bolt 10. The staple has an opening to receive the end of the locking bolt after the hasp is in place thereon as shown in the drawings, and it has furthermore, at its extremity, an aperture 5^a for the passage of the strap-member of the seal.

The seal which, in practice, prevents the removal of the hasp from the staple by locking the bolt against removal from the opening of the latter in which it is normally disposed, consists of a lock-member 12 which is carried by the bolt 10 and a strap-member 28 which passes through the aperture of the staple and cooperates with the internal mechanism of the lock to secure it against withdrawal.

The locking bolt has to this end a head 17 provided with a cylindrical bore in which the locking-member of the seal is loosely fitted.

The locking member is composed of a cylindrical barrel 14 preferably made in two halves which are held together by a circular leaf spring 15 disposed in a circumferential recess of the barrel.

A flange 16 at the upper end of the barrel suspends the lock in the bore of the bolt-head 17, and an angularly bent lip 18 at an end of the spring is inserted between the sections of the barrel, to hold the spring against circular displacement.

The two halves of the barrel are at their adjoining faces, longitudinally grooved to provide a passage 20 for the strap-member 28 of the seal, and one of them has a transverse slot which provides a slideway for a bevel edged tumbler or locking-dog 19 engaged by the circular spring to extend in its normal position across the passage 20.

The strap-member of the seal consists of a flat blade 21 of substantially uniform width which at one end has a slot 21^a to admit the tumbler of the locking-member, and which at its opposite extremity has an integral transverse head 21^c to engage with the underside of the staple when the strap is passed through the aperture thereof. The head of the strap-member bears a stamped number or other identification mark which serves to prevent the substitution of one

seal for another without its being detected by officials of the railroad at stations where the sealed cars are inspected.

The edge of the blade at its slotted end is beveled as at 22, to facilitate its moving past the spring-pressed dog of the locking member by engagement with the beveled edge thereof, and the corresponding end of the slot is likewise beveled, as at 23, to facilitate the removal of the blade from the lock after the head thereof has been broken off to open the fastening.

The locking member is secured in the head of the bolt 17 by a rivet pin 24 driven through a transverse groove thereof, and the opening of the passage at the upper end of the lock is protected from rain and dirt by a hinged and flanged lid 25 which covers the bolt-head and which is fastened to the staple-plate 7 preferably by means of the upper bolt 9.

In order to prevent access to the passage of the lock for the insertion of a tool when the seal is in its locked condition, the lid is provided with a hinged latch 26, the end-portion of which extending beneath the head of the bolt-head, has a slot in alinement with the longitudinal channel of the lock for the passage of the blade of the strap-member.

Having thus described my invention, it will be seen that when the strap-member of the seal is inserted into the passage of the lock, the spring pressed dog after having been retracted from the passage by the contact of the end of the longitudinally advancing blade, will enter the slot of the blade the moment it is brought in register with the transverse slot of the barrel in which the dog has its movement and thereby securely locks the strap-member against withdrawal.

The head at the lower end of the blade engaging with the underside of the staple prevents further movement of the blade and the locking bolt of the fastening is thus sealed against withdrawal from the opening of the staple.

The lid which covers the head of the bolt, prevents access to the end of the blade through the passage of the lock, and the latch through which the blade is passed, holds the lid in its closed position.

With the parts of my invention arranged as shown and described, it will be seen that fraudulent manipulation of the seal for the purpose of removing it and later restoring it to a semblance of its original condition, is practically impossible.

The lock inside the head of the locking bolt is completely protected against being tampered with, and breakage of the strap-member of the seal can not be resorted to without immediate detection since each member bears its individual identification number which can not be imitated without the use of special tools.

The fact that the locking member of the seal remains permanently in place on the locking bolt, and the only replaceable part consists of a single strap of simple construction, represents a great saving of expense to railroad companies or other concerns using the seals in large quantities, over the car seals at present in common use, each of which carries its individual lock which is discarded after the strap thereof is broken, and the method of applying my improved seal without bending, permits of making the strap-member thereof of heavier and stronger material, than those of the seals which are doubled for their attachment to the fastening.

My improved seal is readily removed by breaking the strap-member and drawing its blade through and from the passage of the locking member and it will be understood that it may be employed in connection with fastenings which differ in construction from that shown in the drawings.

What I claim and desire to secure by Letters Patent is:

1. The combination with a fastening and a locking bolt thereof, of a seal comprising a headed strap-member, a locking-member on the bolt, having a passage to receive the strap-member, and means to fasten the strap-member in said passage, and a movable lid on the fastening adapted to cover the passage.

2. The combination with a fastening and a locking bolt thereof, of a seal comprising a headed strap-member, a locking-member on the bolt, having a passage to receive the strap-member, and means to fasten the strap-member in said passage, a movable lid on the fastening adapted to cover the passage, and means co-operating with the strap-member to lock the lid against removal.

3. The combination with a fastening and a locking bolt thereof, of a seal comprising a headed strap-member, a locking-member on the bolt, having a passage to receive the strap-member, and means to fasten the strap-member in said passage, a movable lid on the fastening adapted to cover the passage, and a latch on the lid having an aperture for the passage of the strap member.

4. The combination with a fastening and a locking bolt thereof, of a seal comprising a headed strap-member, and a locking-member on the bolt, having a longitudinal passage to receive the strap-member, and a spring-pressed dog projecting into said passage.

5. The combination with a fastening and a locking bolt thereof, of a seal comprising a headed strap-member, and a locking-member on the bolt, having a longitudinal passage to receive the strap-member, and a slot

transverse to said passage, a locking dog in the slot, and a spring exteriorly of the locking member, engaging with the dog.

6. In a seal of the character described, a locking-member comprising a barrel having a longitudinal passage and a transverse slot, a locking dog in said slot, and a spring exteriorly of the barrel, acting upon said dog.

7. In a seal of the character described, a locking-member comprising a barrel composed of halves which are recessed to provide a longitudinal passage and a transverse slot, a locking dog in said slot, and a spring encircling the barrel and acting upon said dog.

8. The combination with a fastening including a hasp and an apertured staple, of a locking bolt engaging with the staple at one end to secure the hasp thereon, an automatic lock at the other end of the bolt, and a strap passing through an aperture of the staple and having at its opposite ends a shoulder and a head co-operative with the lock and the staple respectively, to seal the bolt against withdrawal.

9. The combination with a fastening including a hasp and an apertured staple, of a locking bolt engaging with the staple at one end to secure the hasp thereon, an automatic lock at the other end of the bolt, and a strap passing through an aperture of the staple and having at its opposite ends an aperture and a head co-operative with the lock and the staple respectively, to seal the bolt against withdrawal.

10. The combination with a fastening including a hasp and an apertured staple, of a locking bolt engaging with the staple at one end to secure the hasp thereon, an automatic lock at the other end of the bolt and a strap passing through an aperture of the staple and having at its opposite ends means co-operative with the lock and the staple to seal the bolt against withdrawal.

11. The combination with a fastening including a hasp and an apertured staple, of a locking bolt engaging with the staple at one end to secure the hasp thereon, an automatic lock at the other end of the bolt and a flat metal strap having at its ends an aperture and a tranverse head co-operative with the staple and the lock respectively to seal the bolt against withdrawal.

12. The combination of a fastening including two slotted members one of which is movable relative to the other, of a seal in the slots of said members, having a head at one end and an aperture at its other end, and a locking device on one of the members engaging in the aperture of the seal.

13. The combination of a fastening including two slotted members one of which is movable relative to the other, of a seal in the slots of said members, having a head at one end and an aperture at its other end, and a spring-pressed device on one of the members engaging in the aperture of the seal to lock it against withdrawal from the slots.

14. The combination of a fastening including two slotted members one of which is movable relative to the other, of a seal in the slots of said members, having a head at one end and an aperture at its other end, and a locking device on one of the members engaging in the aperture of the seal, the device and an edge of the aperture of the seal being correspondingly beveled to permit of withdrawing the seal from the slots after its head is severed.

In testimony whereof I have affixed my signature.

CHARLES S. RAILSBACK.