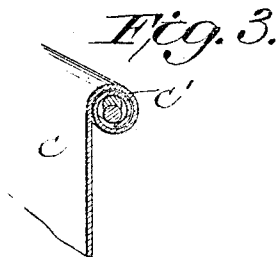
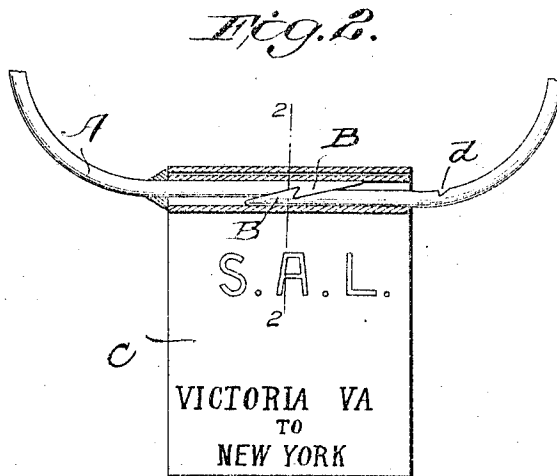
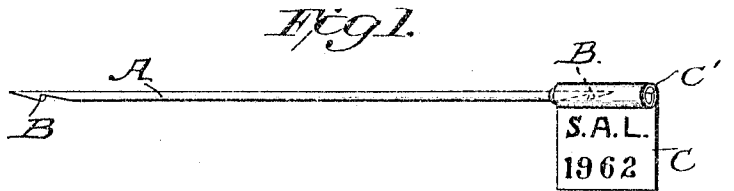


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CAR SEAL AND TAG.
APPLICATION FILED OCT. 23, 1912.

1,048,387.

Patented Dec. 24, 1912.



WITNESSES

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CAR SEAL AND TAG.

1,048,387.

Specification of Letters Patent.

Patented Dec. 24, 1912.

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To all whom it may concern:

Be it known that I, NATHANIEL BOHANNON, a citizen of the United States, residing at Victoria, in the county of Lunenburg and State of Virginia, have invented certain new and useful Improvements in Car Seals and Tags, of which the following is a specification.

My invention relates to certain new and useful improvements in devices for sealing the doors of freight cars and for sealing baggage, packages of valuable merchandise, &c.

A leading object of the invention is to provide a simple, cheap and effective seal which cannot be tampered with without detection; which is not subject to the injurious effects of climatic changes; which permits the car number to be exposed at all times so that it can be readily seen by an employee passing the car containing the seal; which may be readily ruptured or broken by any of the train's crew without detaining the train or causing material loss of time to such employee, and which cannot be reused after having been once applied to the car.

With the above and other objects in view my invention consists of the improved car seal and tag which I will hereinafter fully describe and claim.

In the accompanying drawings forming part of this specification and in which similar reference characters indicate like parts in the several views:—Figure 1 is a perspective view of my improved car seal and tag in normal condition. Fig. 2 is an enlarged sectional view showing the barbed ends of the shackle interlocked. Fig. 3 is a cross section on the line 2—2 of Fig. 2.

In carrying out my invention, I make the shackle portion, A, of suitable material and because of its simplicity and the difficulty of separating the seal after it has been interlocked, I prefer that the shackle shall be made of iron wire, preferably round, though other cross section configuration may be used. The wire is preferably of a ductile character which enables it to be bent from the straight form in which it is originally made, as shown in Fig. 1, into a curved or other shape suitable for a shackle designed to engage the fastening staple which usually secures the hasp with which the car is supplied. The opposite ends of the wire, A, I bevel or form with barbs, B, each portion of the wire adjacent the head of the barb be-

ing inclined to receive the corresponding beveled portion or head of the barb at the other end of the wire, whereby when the two ends of the wire are fitted together and the barbs are interengaged, a close union of these ends is effected.

In connection with a shackle formed as above described, I employ a tag, C, which I prefer to make of tin or other ductile metal, said tag having in practice stamped or otherwise imprinted upon its surface, the car number and such other data as desired, as the name of the railroad using the seal, and which number and data are always exposed so that any member of the crew or an official or other employee passing the car may at all times observe the car number and other data on the tag. The tag is formed with a sleeve portion, C', which is preferably produced by a plurality of coils sufficiently loosely wrapped one on the other to provide for a slight radial expansion when the barbed ends of the shackle are inserted into the sleeve portion from opposite ends and are made to interengage with each other. In practice, one end of the shackle is slipped into one end of the sleeve portion of the tag and the tag is brazed or otherwise rigidly secured to this end of the shackle, the barbed end of the shackle entering the sleeve for about one half of the distance thereof, although the exact distance the end of the wire enters the sleeve is immaterial. The other end of the wire is now passed through the usual staple on the car and is brought around and its barbed end is entered into the other or open end of the sleeve and it is forced through the sleeve so that the co-acting inclined surfaces at the terminals of the wire ride in contact with each other with a wedge-like action and until the barbed or hook-shaped portions pass each other. The normal inner diameter of the sleeve is about equal to the combined diameter of the overlapping portions of the barbed ends of the shackle; as a matter of fact, this inner diameter is a fraction less than the combined diameters of the overlapping portions mentioned and accordingly, when the sleeve portion of the tag is composed of a plurality of more or less loosely wrapped coils, it will be evident that when the second end of the shackle is passed into the sleeve and rides in engagement with the other end of said shackle, the sleeve is slightly expanded radially, the looseness of the coils provid-

ing for this action, and when the barbed portions pass each other, the resiliency of the metal in the sleeve causes the sleeve to return to normal position with the barbed portions in intimate engagement, when the seal will be effectively locked. The inner diameter of the sleeve being about equal to the diameter of the wire there is little opportunity for moisture to enter within the sleeve while the seal may be readily broken by one authorized to that end, by forming a notch or recess, *d*, or otherwise weakening the shackle at some point, whereby pressure upon the shackle at this point will break the wire and thus permit the seal to be removed from its engagement with the door staple. This broken shackle cannot, of course, be again engaged with the tag because the broken barbed end of the shackle remains locked in place in the sleeve portion of the tag, therefore, the parts cannot be made to appear that the seal has not been tampered with.

Among the advantages for the present device are the provision of the tag extension of the sleeve for the station numbers or other data with which a car seal is usually supplied and the forming of the sleeve portion of the seal by a double-rolling or a plurality of loose coils, whereby in pushing in the free end of the shackle into the sleeve, the sleeve may yield radially by the wedging action of the barbed ends of the shackle in passing each other, but the loose coils immediately respond when the barbed ends of the shackle pass each other and close in on the overlapped portions to more securely hold the barbed ends in locked engagement.

As my seal and tag are made of tin and wire, they are cheap and there is nothing about them to freeze or break; the seal may, however, be broken at any time when desired by bending it along the weakened line or notch made for that purpose. The shackle, being made of common iron, it is sufficiently ductile to enable it to be bent from its normal straight position into such form of shackle as may be desired, and when the barbed portions of the shackle have once been interengaged, they cannot be sepa-

rated, because the diameter of the sleeve is about equal to the diameter of the overlapped portions of the shackle, and accordingly the shackle must be broken to get access to the car, a condition which would be manifest by any of the crew passing a car having one of my seals attached.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. An improved car seal and tag, consisting of a shackle formed of bendable wire having its opposite ends beveled and barbed, and a tag adapted to receive the car designation and other data, said tag having a loosely coiled sleeve along one edge and secured to and normally projecting beyond and housing and concealing one of the barbed ends of the shackle, the other end of the shackle adapted to enter the other and normally open end of the sleeve and to ride in engagement with the concealed barbed end of the shackle until the barbed portions pass each other and interengage, the coils of the sleeve yielding radially as the barbed portions of the shackle ride past each other, and then returning to normal position to hold the barbed portions in locked position.

2. An improved car seal and tag comprising a shackle formed of a piece of normally substantially straight bendable wire having its opposite ends beveled and provided with barbs, and a tag having a radially yieldable sleeve portion adapted to admit the barbed portions of the shackle into its opposite ends, said sleeve being fixedly secured on one end of the wire and projecting beyond the same, and normally housing and concealing one of the barbed ends, and said sleeve adapted to yield radially in response to the internal pressure due to the other end of the shackle being entered into the sleeve and forced past the first-named barbed end of the shackle inclosed therein.

In testimony whereof I affix my signature in presence of two witnesses.

NATHANIEL BOHANNON.

Witnesses:

T. W. FOWLER,

W. H. HOFHEIMER.