

(No Model.)

H. M. GROVER.
CAR SEAL.

No. 559,328

Patented Apr. 28, 1896.

Fig. 1.

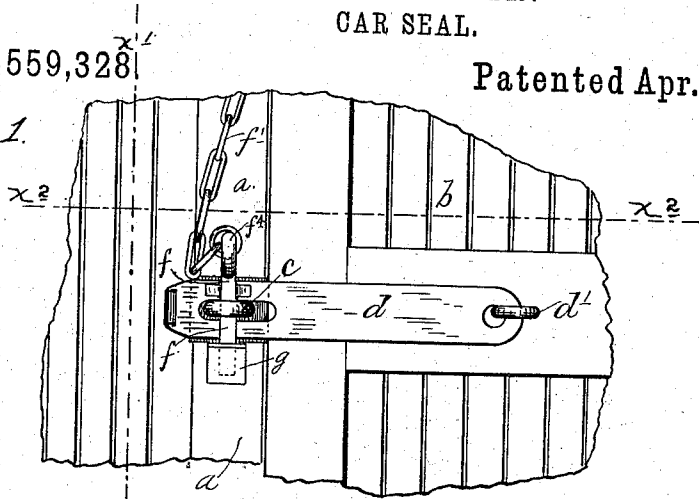


Fig. 2.

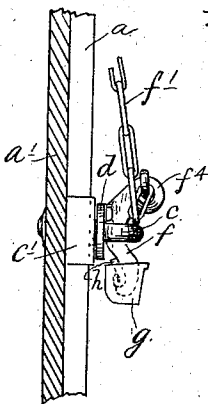


Fig. 3.

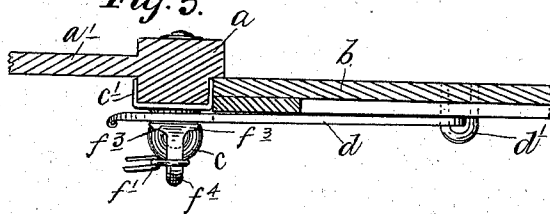


Fig. 5.

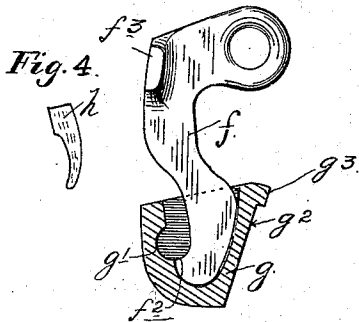


Fig. 6.

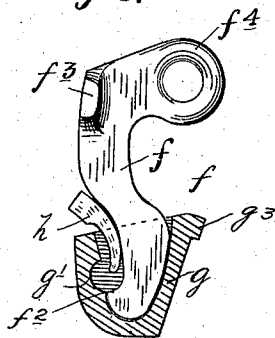
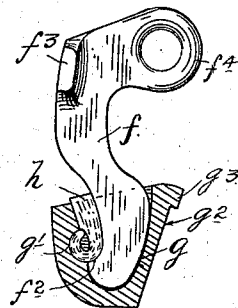


Fig. 7.



Witnesses:

E. F. Elmore

C. F. Kilgore

By his Attorney, Henry M. Grover,
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UNITED STATES PATENT OFFICE.

HENRY M. GROVER, OF ANOKA, MINNESOTA, ASSIGNOR OF ONE-HALF TO
JOHN H. NILES, OF SAME PLACE.

CAR-SEAL.

SPECIFICATION forming part of Letters Patent No. 559,328, dated April 28, 1896.

Application filed July 6, 1895. Serial No. 555,093. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. GROVER, a citizen of the United States, residing at Anoka, in the county of Anoka and State of Minnesota, have invented certain new and useful Improvements in a Car-Seal; 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.

My invention has for its object to provide an improved car-seal of simple construction, and especially adapted to the existing requirements of the traffic.

To these ends my invention consists of the novel features of construction hereinafter described, and defined in the claims.

The accompanying drawings illustrate the invention, wherein like letters refer to like parts.

Figure 1 is a side elevation showing a part of a car-body with my improved seal in working position on the car-door. Fig. 2 is a vertical section on the line $x'x'$ of Fig. 1, looking toward the right. Fig. 3 is a horizontal section on the line x^2x^2 of Fig. 1. Fig. 4 is a detail of the filling-piece of soft metal detached. Figs. 5, 6, and 7 are sectional views for illustrating the way in which the cap of breakable material is secured to the hasp-pin or other locking-body, said Fig. 5 showing the cap in position on the pin before the filling-piece has been applied, said Fig. 6 showing the same parts, together with the filling-piece in its entering position, and Fig. 7 showing the same parts as in Fig. 6 after the filling-piece has been driven home, so as to engage and lock the said parts fast together.

a and a' represent, respectively, one of the door-frame posts and a part of the siding of the car-body.

b represents the car-door.

c represents the staple for engagement with the hasp b on the door. The said staple c differs from the ordinary form in having an angle-iron clasp c' formed integral therewith and adapted to embrace or engage the outwardly-projecting part of the door-post a , as shown best in Fig. 3. The said improved construction of the staple enables the same to be

applied to the door-post without splitting the post and renders the staple firm and secure.

The hasp d is applied to the door b by staple d' in the usual way.

The hasp-pin f is permanently secured to the door-post or car-body by means of a chain f' in the usual way; but the said pin f , instead of being straight, is provided with an outwardly-curved tip portion having a shoulder on its back, as shown at f^2 . The said pin f is also provided with side lugs f^3 at its head, and its eye portion f^4 projects outward at right angles to the side lugs f^3 . In virtue of these peculiarities of construction the hasp-pin can only be inserted into the staple c to hold the hasp d when the pin is right side out, or, otherwise stated, when the side lugs f^3 are parallel with the hasp d . The purpose of this will presently more fully appear.

g represents an open-mouthed hollow cap composed of some suitable breakable material—such as glass, porcelain, pottery, &c.—and is of suitable shape and size to readily fit over the lower end of the hasp-pin f or other locking-body, which is used to hold the hasp d in its door-locking position. The said cap g is provided with a side recess g' in one of its walls, preferably in its back wall, as shown in the drawings, for engagement with the filling-piece h when driven home, as shown in Fig. 7. The said filling-piece h is composed of some suitable soft metal, such as lead or some alloy thereof, and is preferably made wedge-shaped or tapering toward its outer end. The said cap g is applied as shown in Fig. 5. The filling-piece h is then entered, as shown in Fig. 6, and is driven or otherwise forced home, as shown in Fig. 7. When the said filling-piece h has thus been forced home, as shown in Fig. 7, the lower end of the same will have been curled up into the recess g' of the cap and will engage with the said recess or the walls of the same and with the shoulder f^2 on the pin f . The upper or body portion of the filling-piece h will also be wedged between the back of the hasp-pin f and the rim of the cap g . Hence the breakable cap g will be securely made fast to the lower end of the hasp-pin f , thus sealing the car. The filling-piece h cannot be pulled out or be removed in

any way otherwise than by boring it out, and hence the cap *g* will remain in position on the hasp-pin *f* until the cap is broken by a blow or violent pressure.

5 The face of the cap *g* is expanded, as shown at *g*², and is provided with an outwardly-projecting lip or flange *g*³ at its upper end. The expanded surface *g*² forms a convenient place for the attachment of a paper tag marked
10 with such identification or other numbers or marks as may be necessary or desirable, and the projecting flange or ledge *g*³ at the top will protect the paper tag by preventing the water, in case of rain or otherwise, from getting in behind the tag. The paper tag is secured to the face *g*² of the cap by mucilage, glue, or other adhesive material. The cavity
15 of the cap *g* is of such shape, in conformity to the lower end of the hasp-pin *f*, that the said cap can only be applied to the hasp-pin when the surface *g*² is facing outward. It has already been noted that the hasp-pin *f* can only be inserted into the staple *c* for holding the hasp *d* in its locked position when the
25 pin has the lugs *f*³ parallel with the hasp, or, in other words, so that the same surface of the pin must always face outward. Hence the expanded part *g*² of the cap *g* will always face outward and display the tag in open
30 view.

If so desired, a pair of die-pincers can be employed to force the filling-piece *h* into its locking position and the die on the pincers be made to mark the head of the *f*¹ ling-piece
35 with the seal-number, so as to prevent mutilation of the filling-piece *h* without rendering the same observable. It should also be noted that the fact of the hasp-pin being outwardly curved at its tip or lower end and in-
40 sertible into the staple only when its right side faces outward insures the outward projection of the cap *g* a short distance from the body of the car, thereby bringing the seal into a position where it can be readily seen
45 and inspected by any person passing by.

The general advantages of the above-described invention must be obvious. The ordinary door-fastening is utilized exactly as found, with the single exception of the substitution of the special hasp-pin. The cap
50 for sealing is readily applied to the hasp-pin. When the sealing-cap is in position, it is impossible to remove the seal in any way with-

out breaking the same. If the seal should be removed by breaking the cap, the fact 55 must of necessity become immediately observable to the trainman or yardman passing by the car. This is a most important advantage over the ordinary seal. The ordinary seal can be tampered with and restored 60 either by repairing the cut of the sealing-strip or by doubling the same together, so as to continue to support the seal apparently in its working position, without bringing the fact of the broken seal to the notice of the 65 trainman or yardman without a careful inspection. With my device the seal could not be broken without the fact becoming speedily known. After the hasp-pin has once been supplied it may be used indefinitely, both to 70 serve the purpose of the ordinary hasp-pin and the purpose of coöperation with the cap for sealing the car.

What I claim, and desire to secure by Letters Patent of the United States, is as follows: 75

1. A car-seal, comprising a locking-pin, a cap of brittle or breakable material engageable with said locking-pin, and a soft-metal filling-piece adapted to be inserted between 80 said pin and cap to lock said parts together, substantially as and for the purposes set forth.

2. A car-seal, comprising the combination with the hasp-pin *f*², of the cap *g* of breakable material having the recess or shoulder *g*¹ 85 in one of its side walls, and the filling-piece of soft metal adapted to be forced between the parts *f*² and *g*¹, respectively, for fastening said pin and cap together, substantially 90 as described.

3. The combination with a door hasp and staple, of the hasp-pin curved outward at its lower or tip end and having the shoulder *f*² 95 and side lugs *f*³, the sealing-cap *g* of breakable material having the recess *g*¹, expanded face *g*², flange *g*³ and the filling-piece *h* of soft metal, all for coöperation, substantially as described.

In testimony whereof I affix my signature 100 in presence of two witnesses.

HENRY M. GROVER.

Witnesses:

C. H. FITCH,

J. H. NILES.