

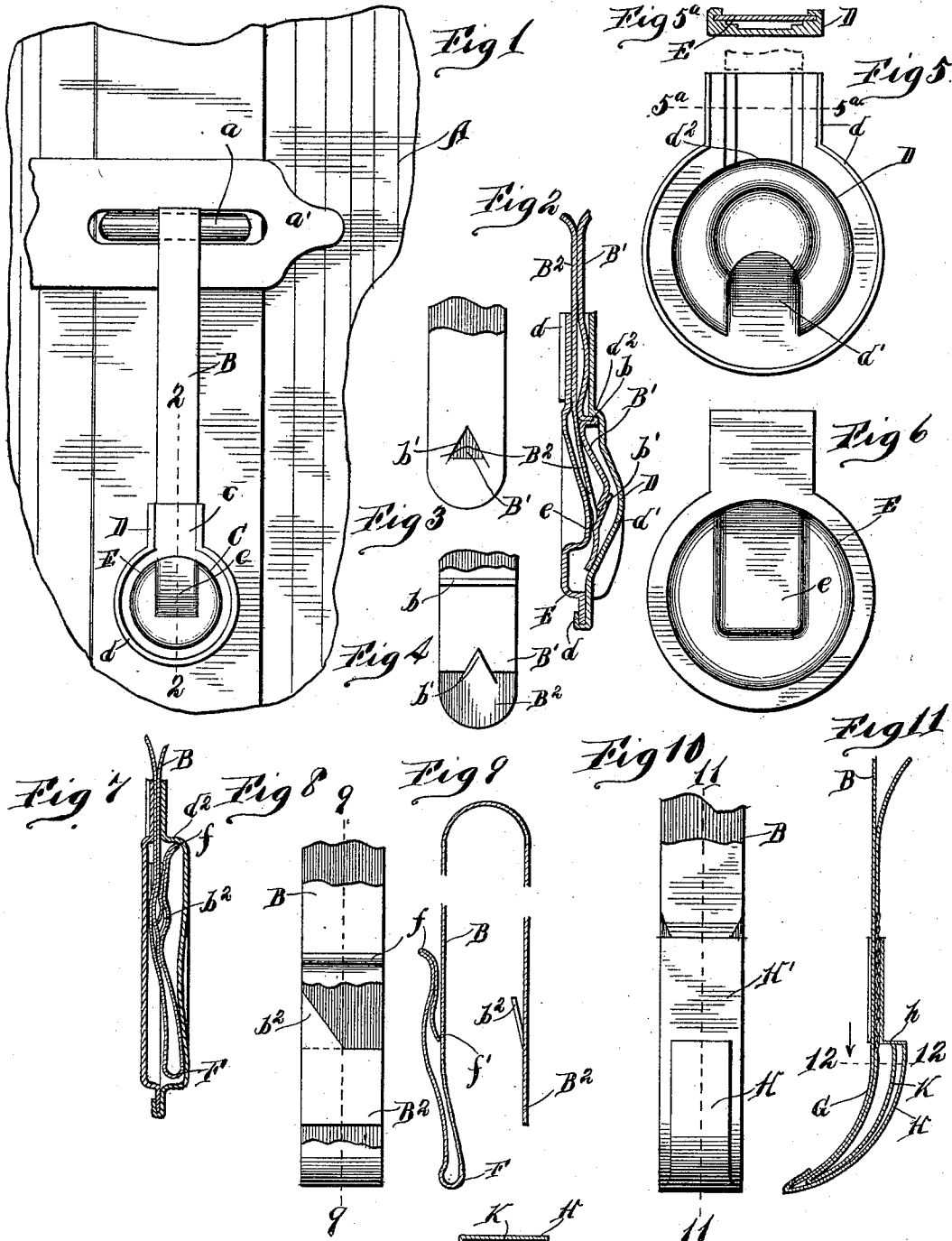
No. 617,426.

Patented Jan. 10, 1899.

C. F. ROBERG.
CAR SEAL.

(Application filed Oct. 11, 1897.)

(No Model.)



Witnesses
W. C. Corlies
C. H. Crawford

Fig 11
By
K
H

Inventor:
Charles F. Roberg
Louis K. Gleson
Atty

UNITED STATES PATENT OFFICE.

CLAES F. ROBERG, OF CHICAGO, ILLINOIS.

CAR-SEAL.

SPECIFICATION forming part of Letters Patent No. 617,426, dated January 10, 1899.

Application filed October 11, 1897. Serial No. 654,906. (No model.)

To all whom it may concern:

Be it known that I, CLAES F. ROBERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Seals; and I do 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 the letters of reference marked thereon, which form a part of this specification.

The objects of this invention are to secure simplicity and cheapness of construction and to provide a seal which can be secured to a car-door and locked thereto without the use of tools of any kind or of solder and yet which cannot be detached after being so locked without being destroyed beyond the possibility of repair.

The invention consists of a metallic case and a metallic strap having its ends secured within or to the case, one end being preferably permanently attached thereto and the other being provided with a barb, so that when it enters the case the barb will prevent its withdrawal.

The invention consists of further details of construction, as hereinafter fully pointed out.

In the drawings, Figure 1 is a detail elevation of a car-door fastening with the seal applied. Fig. 2 is a detail sectional view of the seal on the line 2 2 of Fig. 1. Figs. 3 and 4 are details of the barbed end of the strap. Figs. 5 and 6 are inside views of the two sections of which the case is made in the preferred form of construction. Fig. 7 is a sectional view of a modified form of the seal, taken on the line 2 2 of Fig. 1. Fig. 8 is a detail elevation of the ends of the strap, showing the positions assumed by them in the modification shown in Fig. 7. Fig. 9 is a sectional view on the line 9 9 of Fig. 8. Fig. 10 is an elevation of a modified form of case. Fig. 11 is a sectional view on the line 11 11 of Fig. 10; and Fig. 12 is a detail, partly in section, viewed from the line 12 12 of Fig. 11.

The details of the invention may be worked out in a variety of ways. I have shown three modifications as being, possibly, the best, but as being rather suggestive of the forms in which the invention may be applied than exhaustive thereof.

In the drawings a portion of the side of a car is shown at A. The bow of the staple to which the door is secured is indicated at *a*, and the hasp for engaging this staple is marked *a'*.

The seal comprises a metallic strap B, adapted to be looped through the staple *a* and having its ends secured by a head C. In the preferred form of construction the head C of the seal is a cylindrical chambered case having a projecting slotted neck *c* for receiving the ends of the strap B. The head C is formed of two plates of sheet metal D E, one, as D, being formed from a blank sufficiently larger than the other, as E, so that it may be provided with a flange *d* at the margin of its body portion and extending along the sides of the neck portion to be crimped over the edges of the section E, so as to permanently attach the two sections together. Both sections are stamped or blocked out so that their adjacent faces are generally concave, thereby forming a chamber within the case, and the throat portions are pressed out, though to a less degree, so as to provide a passage or slot of sufficient width to receive the two ends of the strap B. One of the sections of the case, as E, is indented, so as to form upon its inner surface an incline *e*, starting from approximately the inner end of the throat of the case and bearing toward the center of its chamber. The other section is indented so as to form an incline *d'*, starting, approximately, from the center of the section and bearing inwardly and away from the throat of the case.

One end, B', of the strap B is intended to be permanently secured within the case when the two members of the latter are brought together, and in order to prevent its withdrawal it is provided with a lateral transverse rib *b*, which may be formed by simply creasing the strap, adapted to engage the shoulder *d''*, forming the juncture of the depressed portion of

the member D of the case with the throat of the latter. This transverse rib is located a sufficient distance from the end of the strap so that the latter is bent backwardly by the incline e and extends a short distance down the incline d' , but terminates short of the rearward edge of the case. The other end, B^2 , of the strap B is provided with a barb b' , which may be formed by a simple V-shaped cut.

In attaching the seal to the car the end B^2 is passed through the staple and then inserted within the throat of the case C. As it is forced inwardly it is deflected first by the incline e and then in the opposite direction by the incline d' , the latter deflection tending to force the barb outwardly toward the strap end B' . The end B^2 is inserted a sufficient distance so that the barb, as b' , passes beyond the strap end B' , so that strain upon the strap tending to withdraw the end B^2 will cause the barb to engage the tip of the end B' . This permanently locks the parts together, so that they can be separated only by mutilation. It is impossible to disengage the barb by the insertion of a knife-blade or other instrument within the throat of the case for the reason that such instruments would fall under the barb and tend to more widely deflect it. Should the seal be disengaged by opening the seam of the case, it would be impossible to restore it without leaving traces of the mutilation.

It is entirely immaterial whether the barb be of the particular form already described or be made by a simple diagonal cut extending inwardly from the edge of the strap, as shown at b^2 in Figs. 8 and 9, or it may be a simple flap, as shown at K in Fig. 11, formed by folding backwardly the end of the strap.

The deflecting-inclines for extending the barb may be provided in a variety of ways. In Figs. 7 and 9 a modification is shown in which these inclines are provided in part by the manner of folding the permanently-secured end of the strap B. In this construction the strap is doubled upon itself at F and again nearer its extreme end at f and at this point is turned backwardly, so as to form a stop for engaging the shoulder d^2 . The end B^2 being inserted, its barb is deflected so as to catch the extreme backwardly-folded tip of the secured end of the strap.

In the modification shown in Figs. 10, 11, and 12 the secured end of the strap itself forms a portion of the case, as indicated at G, and is bent backwardly and longitudinally corrugated, so that it will be less liable to straighten, and it is inclosed by a piece H, crimped over its side edges and tip, the portion H extending backwardly from the tip of the strap upon a less-decided curve than that given to the end of the strap, so as to form therewith a chambered case, the curvature of the portion H terminating at an inward offset, forming a shoulder h , the metal being con-

tinued still farther backwardly on the strap and spaced apart therefrom, so as to form the throat, adapted to receive the free end of the strap. The latter end of the strap is folded backwardly, so as to provide the flap form of barb shown at K. When inserted within the throat of the case and deflected by the curved conformation of the interior thereof, the end of the barb is thrown outwardly or away from the body of the strap, so that it will engage the shoulder h to prevent withdrawal. As the throat must be of sufficient depth to receive the double thickness of the strap, that portion of the latter which will occupy the throat when the barb is in place is corrugated, so as to prevent the insertion of a picking instrument.

The permanently-attached end of the strap is laterally recessed to fit within a depression in the throat of the case, as shown in Fig. 5^a and indicated by dotted lines in Fig. 5, thereby forming shoulders which prevent this end from being pushed farther into the case than is desirable.

I claim as my invention—

1. In a car-seal the combination with a slotted chambered case having its walls internally inclined, of a barbed strap adapted to have one of its ends permanently secured to the case, and its free end inserted through the slot thereof, and bent by the inclined wall so as to extend its barb.

2. In a car-seal, the combination with a chambered case having a slot-opening to its chamber, one of the walls of the case being internally inclined so as to cross the plane of the slot, of a strap having one of its ends permanently secured to the case, its free end being adapted for insertion into the case through its slot, and being provided with a backwardly-projecting barb.

3. In a car-seal the combination with a chambered case having a slot-opening to its chamber and having opposing walls internally inclined in opposite directions, such inclined portions being at different distances from the slot, of a strap adapted to have its ends inclosed within the case and to extend through the slot, one of such ends having a lateral projection of greater extent than the width of the slot, and the other end of the strap having a barb for engaging the other strap end.

4. In a car-seal, the combination with a chambered case having a slot-opening to its chamber, and having its inner walls respectively concave and convex, of a strap having one of its ends secured within the case and extended only partially across its interior from its slot and bent at its extremity toward the convex wall of the case, the opposite end of the strap having a barb near its extremity and being adapted to enter the chamber of the case through its slot, whereby the barbed end of the strap may be engaged

with the secured end by being bent by the curved interior walls of the case so as to dis- tend its barb.

5 5. In a car-seal, in combination, a strap having a barb at one end, and a chambered case having a slot-opening to its chamber and being capable of receiving the barbed end of the strap, the inner side wall of the case to- ward which the barb is intended to project

obliquely crossing the plane of the slot, where- 10 by the deflection of the strap end by contact with the inclined wall will extend the barb.

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

CLAES F. ROBERG.

Witnesses:

HESTER BAIRD,

LOUIS K. GILLSON.