(No Model.)

L. A. FOOTE.

CAR SEAL.

No. 552,175. Patented Dec. 31, 1895.

Fig. 1.

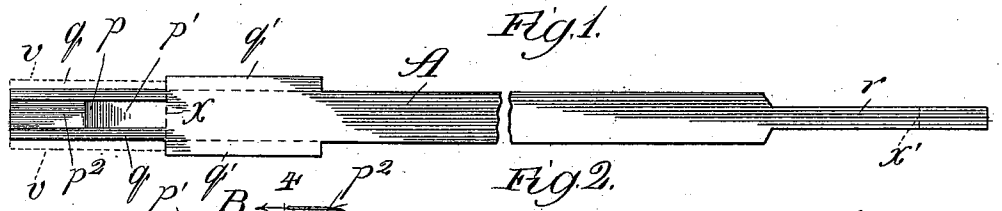


Fig. 2.

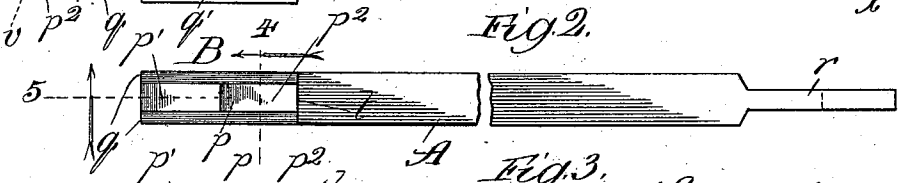


Fig. 3.

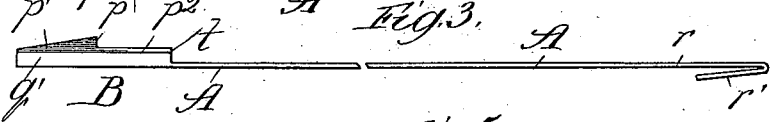


Fig. 4.

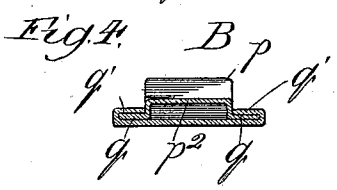


Fig. 5.

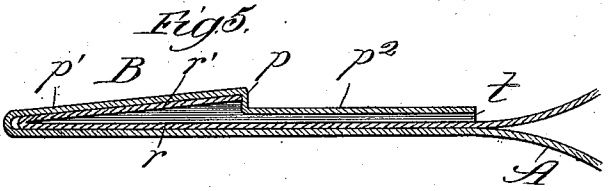


Fig. 6.

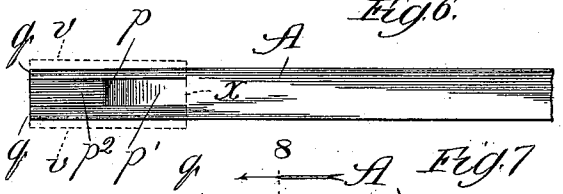


Fig. 8.

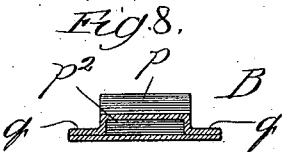


Fig. 7.

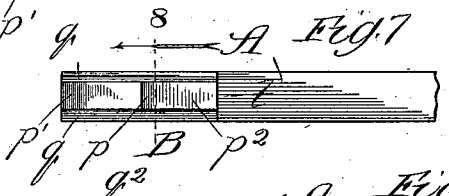


Fig. 9.

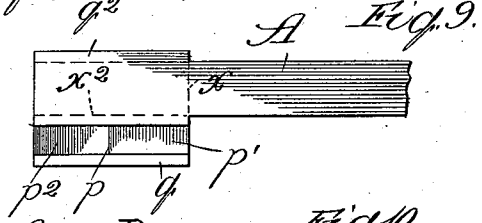


Fig. 10.

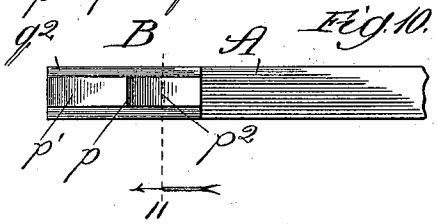
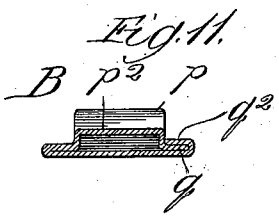


Fig. 11.



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Little & Ritter.

Inventor:
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By Dyrenforth & Dyrenforth,
Attys.

UNITED STATES PATENT OFFICE.

LEWIS A. FOOTE, OF CHICAGO, ILLINOIS.

CAR-SEAL.

SPECIFICATION forming part of Letters Patent No. 552,175, dated December 31, 1895.

Application filed September 16, 1895. Serial No. 562,661. (No model.)

To all whom it may concern:

Be it known that I, LEWIS A. FOOTE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Seals, of which the following is a specification.

My invention relates to an improvement in the class of car-seals in which the seal comprises a shackle portion formed of a strip of frangible sheet metal, provided at one end with a tongue, having formed upon it a spring-hook affording a stop, and provided at its opposite end with a socket containing an abutment to be passed by the stop on the tongue in inserting the latter into the socket, whence it is prevented from withdrawal, and thus automatically locked by the presentation of the abutment to the spring-stop. Moreover, my invention relates to an improvement in that variety of the class of so-called "automatically-locking" car-seals referred to, in which both the shackle and socket portions are formed of frangible sheet metal, and it relates, particularly, to the construction of the socket portion, my object being to provide a novel and simple construction thereof, which shall effectually serve to retain the end of the shackle inserted into it against withdrawal without leaving evidence of tampering with the seal. To this end I have devised the construction illustrated in the accompanying drawings, in which—

Figure 1 is a broken plan view of the stamped blank ready to be formed into my improved car-seal; Fig. 2, a similar view of the completed car-seal; Fig. 3, an edge view of the same; Fig. 4, a section taken at the line 4 on Fig. 2 and viewed in the direction of the arrow; Fig. 5, a section taken at the line 5 on Fig. 2, viewed in the direction of the arrow and showing the seal in its locked condition; Fig. 6, a broken plan view of the stamped blank for a modified construction of the socket; Fig. 7, a similar view of the car-seal formed from the blank illustrated in Fig. 6; Fig. 8, a section taken at the line 8 on Fig. 7 and viewed in the direction of the arrow; Fig. 9, a view like that presented in Fig. 6, but showing another modification; Fig. 10, a similar view of the car-seal formed from the blank illustrated in Fig. 9, and Fig. 11 a section taken at the line 11 on Fig. 10 and viewed in the direction of the arrow.

A is the shackle comprising a strip of frangible tin reduced in width toward one end to form a tongue r, bent upon itself at x' near its extremity into a hook-shaped spring-stop r'. As shown in Fig. 1, the end portion of the tin strip opposite that provided with the tongue r is stamped to form the recesses p' and p^2, of which the former is the shorter and should expand, as shown, toward its junction with the latter to form the offset or shoulder p and conform to the shape of the hook r', and along the edges of the recesses extend the flanges q q, from the inner ends of which the shackle is widened throughout a portion of its length, which should correspond with the length of the flanges q to afford flanges q' q' along its opposite edges. To form the socket portion B of the car-seal from the blank shown in Fig. 1 and thereby produce the construction represented in Figs. 2 to 5, inclusive, the recessed extension of the blank is bent upon itself at x, thereby bringing the flanges q adjacent to the flanges q', which latter are thereupon bent over the flanges q and should be soldered. Thus the socket B is formed securely closed on all sides except at its inner end, where the entrance t for the tongue r into the recess p^2 is afforded. The length of the spring-stop r' is slightly less than that of the recess p', so that, after the seal has been applied in its operative position in locking it by inserting the tongue into the socket B at the entrance t, the hook r', in being passed through the recess p^2 into the recess p', clears the shoulder p and recoils from its compressed condition in the first recess into the enlarged recess p' and presents its free extremity to the abutment afforded by the shoulder, whereby it is effectually obstructed against any attempt to withdraw it, and the dimensions of the recess p^2 are so nearly those of the hook end of the tongue r that no instrument can be introduced into the socket B as a medium for disengaging the spring-stop from the abutment without so disorganizing the socket as to leave unmistakable evidence of the tampering.

The only difference between the construction thus described at length and that illustrated by Figs. 6 to 8, inclusive, lies in omitting the shackle-flanges q', whereby the flanges q are alone depended on for affording the surface at which to solder the socket B.

As will be understood, the width of the blank at the part thereof which is stamped to form the flanged recesses p' and p^2 should be originally as great as indicated in Figs. 1 and 6 by the dotted lines at v to compensate for the reduction in width by the bending in stamping out the parts of the socket.

As the construction is represented in Figs. 9 to 11, inclusive, the socket B is formed from a blank having a lateral extension of adequate width on the tin strip to adapt it to be stamped into the shape affording the recesses p' and p^2 and the abutment p between them, and along the edge of the strip opposite that provided with the aforesaid stamped lateral extension is formed a flange q^2. To form the socket B, the stamped extension is bent along the line x^2 upon the tin strip to bring the flange q at its free edge adjacent to the flange q^2, which is thereupon bent over and soldered to it, and the end of the socket opposite the entrance t should also be sealed by soldering.

What I claim as new, and desire to secure by Letters Patent, is—

1. A car-seal comprising a shackle of frangible sheet-metal having formed upon one end a tongue provided with a spring-stop and provided upon its opposite end with a socket B formed with the recesses p' and p^2 having the abutment p between them, substantially as and for the purpose set forth.

2. A car-seal comprising a shackle of frangible sheet-metal having formed upon one end a tongue provided with a spring-stop and having at its opposite end a socket B formed of a longitudinal extension of the shackle having the flanged recesses p' and p^2 and the abutment p between them and bent lengthwise of the shackle thereon, and flanges q' bent over and secured upon the flanges of said recesses, substantially as and for the purpose set forth.

LEWIS A. FOOTE.

In presence of—
J. N. HANSON,
J. H. LEE.