No. 840,125. PATENTED JAN. 1, 1907.

L. A. FOOTE.

SEAL.

APPLICATION FILED JAN. 10, 1906.

Fig. 1.

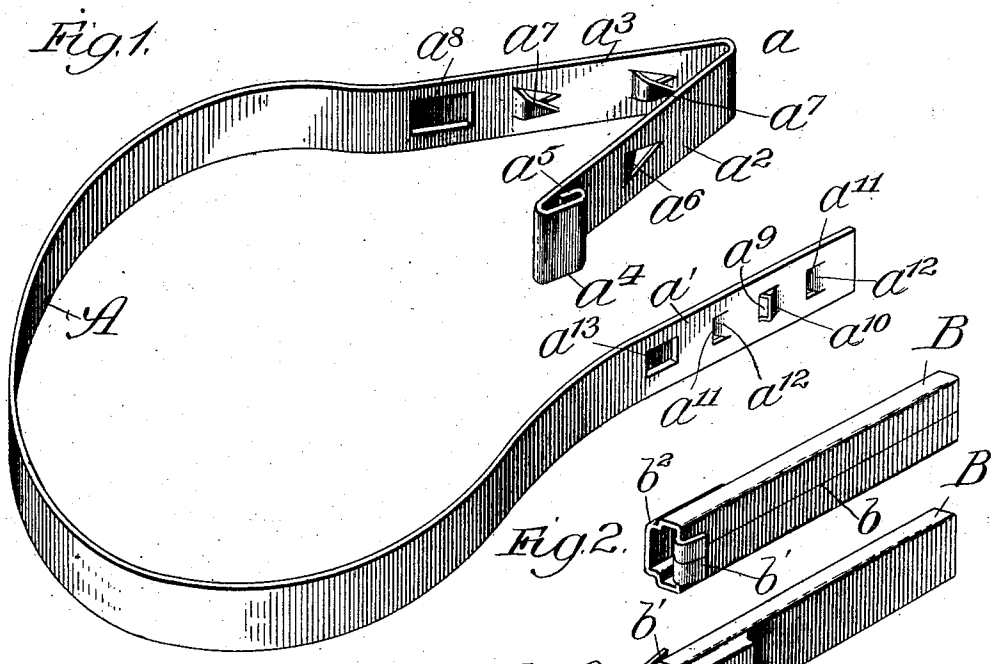


Fig. 2.

Fig. 3

Fig. 4.

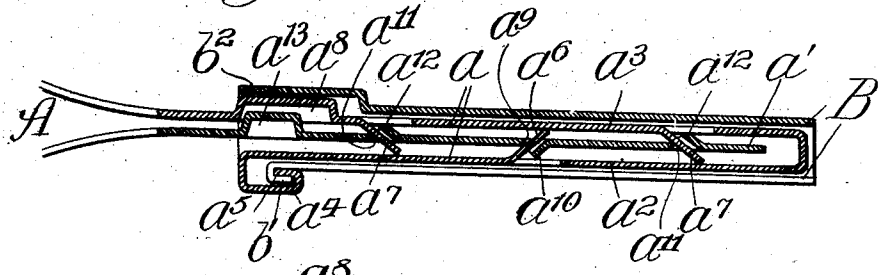
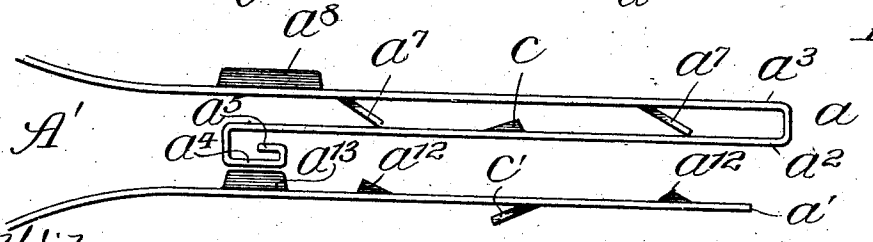
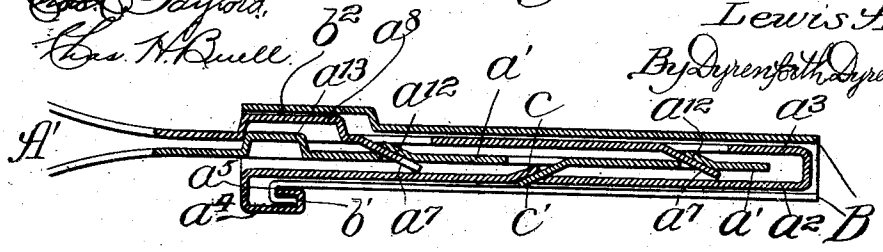


Fig. 5.



Witnesses:
Chas. S. Gaylord.
Chas. N. Bull.

Fig. 6.



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UNITED STATES PATENT OFFICE.

LEWIS A. FOOTE, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHICAGO CAR SEAL & MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SEAL.

No. 840,125. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed January 10, 1906. Serial No. 295,389.

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 Seals, of which the following is a specification.

My invention relates more particularly to self-locking car-seals, and my primary object is to provide an inexpensive seal of practically absolute security.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of the shackle of my improved seal; Fig. 2, a perspective view of the casing thereof; Fig. 3, a similar view showing the opposite side of the casing; Fig. 4, an enlarged broken sectional view showing the casing securely connected with one end of the shackle (which it incases) and the other end of the shackle inserted and locked in position; Fig. 5, a broken side elevational view of a slightly-modified form of the shackle, and Fig. 6 an enlarged broken sectional view illustrating the manner in which the shackle ends become interlockingly connected (in the modified form) upon the insertion of the free end of the shackle.

It is to be understood that the lock-forming portion of the normally incased end of the shackle has its members abnormally separated in Fig. 1 and, further, that the casing is for convenience omitted from illustration in Fig. 5.

In the construction shown in Figs. 1 to 4, inclusive, the device comprises a shackle A and a casing B. The shackle is formed of sheet metal (tin) and has a normally incased lock-forming end portion a and a normally free lock-entering end portion or locking member a'. The portion a comprises members a^2 a^3, formed by bending the shackle back on itself near one of its ends. The member a^2 has its free end bent away from the member a^3 and forwardly to form a portion a^4 and then recurved to form a protected flange a^5. Said member a^2 is equipped with a prong a^6, pointing toward the member a^3 and in the direction of the point or apex of the part a, and the member a^3 has prongs a^7 pointing toward the member a^2 and in the direction of the apex of the part a. These prongs are preferably formed by stamping the metal inwardly, as shown, the metal being resilient enough to insure the performance of the necessary yielding and locking actions of the prongs hereinafter described. The member a^3 is further provided at its base with an outwardly-struck embossment a^8. The member a' is provided with a perforation a^9, with an embossment a^{10} thereat adapted to engage the hook a^6, and said member is provided also with perforations a^{11} in advance and rear of the perforation a^9 and having thereat embossments a^{12}, adapted to engage the hooks or prongs a^7. Thus it appears that the embossment a^{10} is on one side of the member a' and the embossments a^{12} on the other side thereof, the embossments forming virtually hooks or projections pointing toward the base of the member a' and insuring engagement with the corresponding prongs of the members a^2 a^3. Said projections have the further function of preventing the effective insertion of an implement for disconnecting the locking members of the seal, since they point in the right direction to engage and pocket the point of an inserted implement. As a further protection an embossment a^{13} is provided at the base of the member a', adapted to fit within the embossment a^8 of the member a^3.

The case B is shown formed separately from the shackle, although this is not essential to my invention. It comprises in the form shown an open-ended hollow rectangular member formed by bending a rectangular piece of sheet metal into box form and joining the meeting edges by soldering along a line b. It is equipped at the inner or base end of the seamed side with a forwardly-pointing hook or flange b', which underlies the part a^4 and engages the flange a^5, as shown in Fig. 4. The lock portion a of the shackle, it will be understood, fits within the casing, with the members a^2 a^3 substantially parallel with each other and with just sufficient space between them to enable the member a' to be inserted. The casing is provided at a point opposite the flange b' with an embossment b^2, which receives the boss a^8 of the member a^3.

The manner of use will be readily understood. Assuming the lock a of the shackle to be entered in and firmly anchored to the

casing, the free end of the shackle may be inserted between the members a^2 a^3, the prongs a^6 a^7 yielding to permit insertion and then springing into locking engagement with the embossments a^{10} a^{12}, finally fully entering the perforations a^9 a^{11}, when an effort is made to withdraw the member a'. It is understood, of course, that the prongs and sockets therefor are accurately spaced with relation to each other, so that a simultaneous engagement of all the prongs occurs.

In the modification shown in Figs. 5 and 6 A′ represents a shackle having locking members like those of the shackle A, (and similarly lettered,) except that for the prong a^6 of the member a^2 is substituted an inwardly-struck socket c and for the socket at a^9 of the member a' is substituted a prong c', adapted to engage said socket c. The prong c' points rearwardly (toward the loop of the shackle) and provides with great certainty against the effective insertion of an implement between the members a' and a^2.

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

1. A seal comprising a casing and sheet-metal shackle, said shackle having a fold at one end affording substantially parallel members separated by a space, said members extending within the casing and secured thereto, inwardly-struck forwardly-pointing prongs carried by said members, and a member at the free end of the shackle insertible between said first-named members and provided with sockets comprising perforations with rearwardly-pointing embossments thereat, part of said embossments being on one side of said last-named member and part on the other side thereof, for the purpose set forth.

2. A seal comprising a casing and sheet-metal shackle with a fold at one end thereof affording substantially parallel members having inwardly-struck forwardly-pointing yielding prongs, said members received within said casing and secured thereto, and a member at the free end of the shackle insertble between said first-named members and having perforations with embossments thereat spaced to correspond with said prongs, for the purpose set forth.

3. A seal comprising a rectangular casing, and a sheet-metal shackle, the shackle having a fold at one end affording substantially parallel members separated by a space, a member at the free end of the shackle insertible between said first-named members, transversely-struck projections carried by said members adapted to interlock, and registering embossments carried on the casing and the members of the shackle in the rear of the interlocking means, for the purpose set forth.

4. A seal comprising a rectangular casing equipped at its base end with an outwardly-turned forwardly-directed flange, and a shackle having a fold at one end affording substantially parallel members with a space between them, one of said members having at its free end a flange interlocking with the flange of the casing, a member at the free end of the shackle insertible between said first-named members, and transversely-struck-locking means carried by said members, for the purpose set forth.

5. A seal comprising a rectangular open-ended casing with an outwardly-struck embossment at one side and an outwardly-turned forwardly-directed flange at the other side of its base, and a sheet-metal shackle having a fold at one end affording parallel members with a space between them said members lying within said casing, the free end of one of said members having a flange interlocking with said first-named flange, inwardly-struck forwardly-pointing yielding prongs carried by said members, a member at the free end of the shackle insertible between said first-named members and having a series of perforations with rearwardly-pointing embossments thereat adapted to engage said prongs, and registering embossments on said members registering with the embossments of the casing, for the purpose set forth.

LEWIS A. FOOTE.

In presence of—
A. U. THORIEN,
J. H. LANDES.