

D. D. DAVIS.
CAR SEAL.
APPLICATION FILED DEC. 9, 1910.

1,016,985.

Patented Feb. 13, 1912.

Fig. 1.

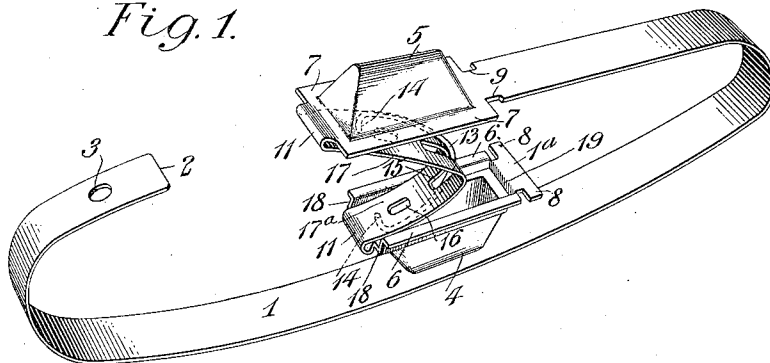


Fig. 2.

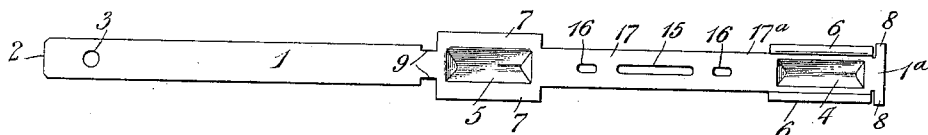


Fig. 3.

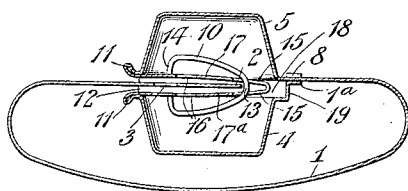


Fig. 4.

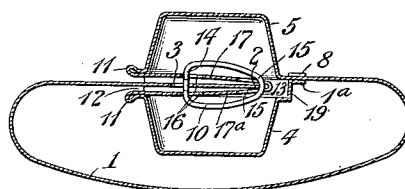


Fig. 5.

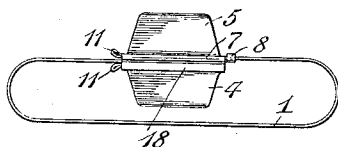


Fig. 6.

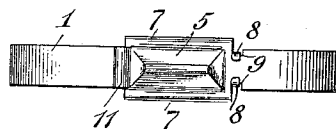
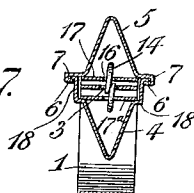


Fig. 7.



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UNITED STATES PATENT OFFICE.

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CAR-SEAL.

1,016,985.

Specification of Letters' Patent.

Patented Feb. 13, 1912.

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To all whom it may concern:

Be it known that I, DON D. DAVIS, a citizen of the United States of America, residing at Saginaw, Saginaw county, Michigan, have invented certain new and useful Improvements in Car-Seals, of which the following is a specification.

This invention relates to car seals, one object being to improve and simplify devices of this nature whereby their manufacture is rendered less expensive and the lock made secure against disengagement after the parts are latched together.

Accordingly, I have provided a seal formed of one piece of metal, one end of which is stamped to form a housing and support for a locking member, which locking member coöperates with the opposite free end of the strap.

Another object is to facilitate the locking of devices of this nature without restricting the uses to which they may be adapted, to accomplish which the opening affording access to the locking mechanism, is located at the outer end of the housing, to enable the opposite free end of the strap to be inserted therein when either side of the device is held uppermost. This arrangement renders the use of caution in passing the strap through the parts which are to be locked unnecessary. The free end of the strap may be passed through openings of about the same cross-sectional area as the strap.

To these and other ends my invention comprises certain novel features and combinations which will be more fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a perspective of one embodiment of my invention, showing the housing dismantled. Fig. 2 is a plan of the blank after it has been stamped. Fig. 3 is a longitudinal section, showing the free end of the strap about to trip the lock. Fig. 4 shows the lock tripped to secure the ends of the strap together. Fig. 5 is a side view, the seal being locked. Fig. 6 is a plan, and Fig. 7 is a sectional view at right angles to Figs. 3 and 4.

The car seal comprises a flexible strap 1, preferably of metal, having at one end 2, an

opening or locking aperture 3, said end being inserted and locked within a housing formed preferably integral with the opposite end of the strap (Fig. 2). Said housing comprises a pair of pockets 4, 5 formed or stamped in tandem at that end of the strap opposite the end 2, the open ends of which pockets are registered to form a chamber in which the locking mechanism is confined. The side edges of the pockets at their open ends have lateral flanges 6, 7 which support the pockets relatively to each other, said flanges contacting with each other. To secure the pockets together and prevent access to the chamber through the sides of the pockets, said flanges 6 may be bent or folded over the edges of the opposite side flanges 7. Also one end of the chamber inclosed by the pockets, is held closed by laterally extending lugs 8 formed on an extension 1^a, of the strap and bent or clenched over the edges of that portion of the strap located in advance of the housing 4, 5. The strap is notched as at 9, to accommodate said lugs and hold them in place.

The free end 2 of the strap is locked within the housing after having been passed through the parts which it is desired shall be secured together, such free end 2 being first inserted between divergent lips 11 projecting from the rear ends of the pockets 4, 5 at the open rear end of the seal. As the free end of the strap passes into the mouth 12 of the chamber, it enters between rearwardly converging guide arms 17, 17^a. The divergent lips facilitate the entrance of the free end 2 into the housing and the guide arms direct its travel after insertion. A spring latch 10 is carried by said guide arms and comprises a substantially triangularly-shaped split member of any suitable resilient material, the ends 14 forming the base of which tend to overlap. When in unlocked position, the ends 14 are held apart by engagement with the outer faces of the converging arms 17, 17^a of the guide, at points near the mouth of the housing. (Fig. 3.) The apex 13 of the latch preferably lies in a guide slot 15 formed in the converging arms 17, 17^a, and extending forwardly from the rear ends thereof, the two portions

of said slot in the respective arms lying in register with each other.

As the free end 2 of the strap is advanced into the housing, it is led by the guide 17, 17^a between the separated ends 14 to the apex 13 of the latch and slides the latter rearwardly in the slot 15 until the tensioned ends 14 of the latch register with openings 16 formed in the guide arms, whereupon the ends spring together and overlap. In so doing, they pass through the locking aperture 3 in the free end of the strap, said aperture being spaced back from the end 2 of the strap sufficiently to substantially register with the openings 16 at the time when the latch is tripped. This operates to lock the inner end of the strap within the housing, nor can it be withdrawn without irreparably damaging the lock so that it can not again be used. Access to the housing being prevented, the seal cannot be unfastened.

The seal is preferably formed of one piece of metal (the spring latch 10 only being separate therefrom) and comprises a strap 1 merging at one end into one end of one of the pockets (5) which has the lateral flanges 7, the strap being notched as at 9 adjacent the pocket 5. The opposite end of the pocket 5 merges into a directing lip 11, the material then being bent backwardly and then forwardly to form the converging guide arms 17, 17^a, having the guide slot 15 and the locking openings 16, the outer end of the arm 17^a, merging into the remaining lip 11 which is bent backwardly to form the second pocket 4, the metal terminating in an extension 1^a, having the laterally projecting lugs 8 to grip the notched portion 9 of the strap.

It will be observed that the mouth of the housing is at the rear end of the device, thereby enabling the seal to be locked when either side is uppermost. The side flanges on one of the pockets, as 4, may be shouldered, as at 18, and the end of the strap 1^a is similarly shouldered, as at 19, whereby to separate the pockets sufficiently to enable the insertion of the free end of the strap into the open end of the housing.

Variations may be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention.

What I claim as new, is:—

1. In a car seal, the combination with a strap having a locking opening, of a housing formed integrally with the strap and comprising a pair of pockets, spaced apart from each other along the strap, the open ends of which pockets are registered, means to close the sides and one end of the housing against access, the material between the pockets being folded over within the hous-

ing to form a guide, the opening between the folds of which registers with the open end of the housing, and a spring latch mounted on and held open by the guide to be tripped by the insertion of the free end of the strap between the folded portions of the guide.

2. In a car seal, the combination with a strap, of a housing formed integrally therewith at one end, and comprising a pair of pockets arranged in tandem, and spaced apart from each other, the material between the pockets being bent or folded to register with the open ends of the pockets, means to secure the pockets together at the sides, the folded material being contained within the housing formed by the pockets, and constituting a guide, the strap terminating at one end in an extension projecting from the end pocket, said extension having lateral lugs to grip the strap in front of the remaining pocket to close one end of the housing, and a spring latch within the housing tripped by the insertion of the free end of the strap.

3. In a car seal, the combination with an apertured strap, of a housing secured to one end thereof, and inclosing guide arms integral with the housing and bent or folded over at their inner ends to form a throat, a latch supported on the guide arms, said arms having a registering slot at their folded end, and separate registering openings in advance thereof to coöperate with the latch, said housing having an opening into which the free end of the strap is inserted to trip the latch, and divergent lips projecting outwardly from the opening and integral with the housing, with which lips said strap contacts as it is entered in the housing.

4. In a seal of the character described, the combination with a flexible strap, of a housing formed integrally therewith near one end, and comprising a pair of pockets, the open ends of which are registered to form a chamber, the edges of the pockets being secured together at all sides but the rear, to prevent access to the chamber, a guide within the housing to accommodate the free end of the strap when inserted, said guide terminating at its outer end in lips projecting beyond the open rear end of the housing, and a latch mounted on the guide to lock the free end of the strap in the housing.

5. In a car seal, the combination with an apertured strap, of a housing formed integrally therewith at one end and comprising a pair of pockets arranged in tandem along the strap and spaced apart from each other, the material between the pockets being bent or folded backwardly upon itself to lie within the pockets the open ends of which are registered, to form the housing, the sides and one end of the pockets being closed against access, the folded material constituting a guide leading inwardly from

the open end of the housing, and being
apertured, and a spring latch supported on
the guide in the path of the free end of the
trip when inserted in the opening end of
5 the housing to be tripped by said free end
and lock it within the housing.

In witness whereof, I have signed my

name, in the presence of two subscribing
witnesses.

D. D. DAVIS

Witnesses:

RALPH E. O'BRIEN,

G. F. DOWNING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
