

Nov. 17, 1925.

1,561,869

M. J. LINS

CAR SEAL

Filed Jan. 5, 1924

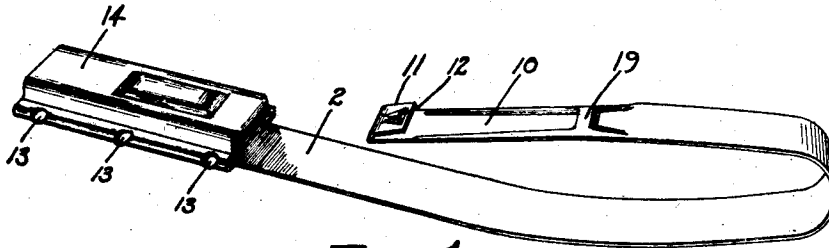


FIG. 1

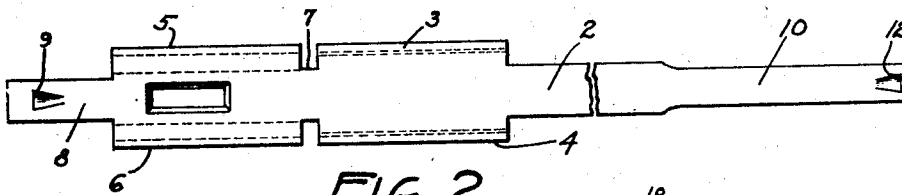


FIG. 2

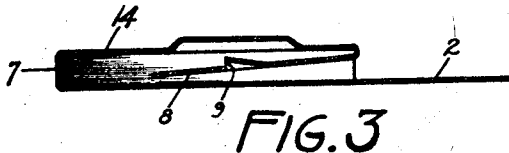


FIG. 3

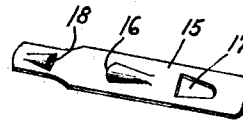


FIG. 4

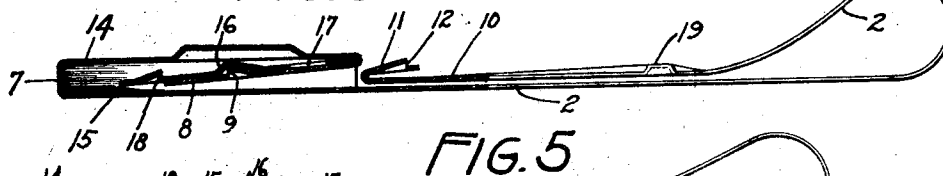


FIG. 5

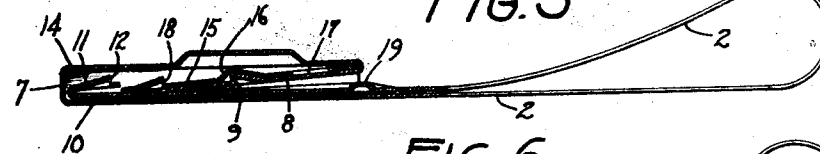


FIG. 6

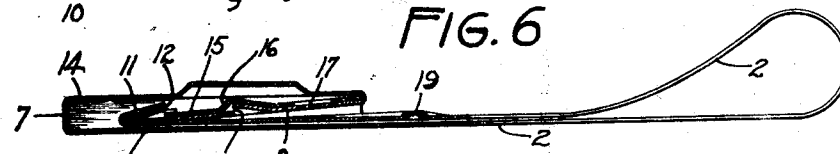


FIG. 7

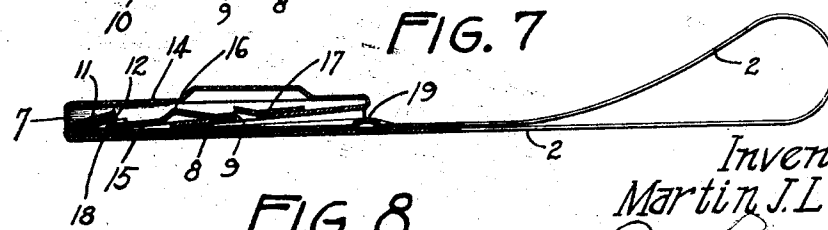


FIG. 8

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UNITED STATES PATENT OFFICE.

MARTIN J. LINS, OF ST. PAUL, MINNESOTA.

CAR SEAL.

Application filed January 5, 1924. Serial No. 684,587.

To all whom it may concern:

Be it known that I, MARTIN J. LINS, a citizen of the United States, resident of St. Paul, county of Ramsey, and State of Minnesota, have invented certain new and useful Improvements in Car Seals, of which the following is a specification.

The object of my invention is to provide a metallic car seal of such construction that it cannot be unlocked without marring or otherwise damaging the seal to the extent that detection would surely follow.

A further object is to provide a seal of very simple construction which can be stamped from sheet metal and easily and quickly assembled.

In the accompanying drawings forming part of this specification,

Figure 1 is a perspective view of a car seal embodying my invention;

Figure 2 is a plan view of the blank from which the seal is formed;

Figure 3 is a detail sectional view of the housing of the seal when folded;

Figure 4 is a perspective view of the locking plate that is inserted into the housing;

Figure 5 is a sectional view showing the locking plate in position and the tongue of the seal in position to be inserted into the housing;

Figure 6 is a similar view showing the tongue inserted into the housing to the limit of its inward movement;

Figure 7 illustrates the tongue withdrawn to engage the locking plate;

Figure 8 is a sectional view showing the tongue in its final position in the housing engaging the locking plate and held thereby against withdrawal.

In the drawing, 2 represents a sheet metal band having near one end longitudinal flanges 3 and 4, and 5 and 6 formed by making the band wider at this point. A section 7 of the band connects the flanged portions thereof and the end of the band is provided with a narrow extension 8 having a boss or shoulder 9 pressed therefrom. At the opposite end of the band, is the tongue 10 that is inserted into the housing and provided with a backwardly folded end 11 having a boss or projection 12 thereon.

In forming the seal, the part 7 is bent transversely so that the flanged portions of the band will be one above the other and then these flanged portions are bent along the dotted lines, as indicated in Figure 2, and

interlocked one with the other as shown in Figure 1; the metal being spot welded as indicated at 13 for locking the flanges in engagement with one another and forming the housing 14. One end of this housing is closed by the portion of the band 7 and the opposite end is open and adapted to receive the folded extension 8 which is bent downwardly and inwardly as shown in Figure 3; the shoulder 9 projecting upwardly from this extension in the upper portion of the housing. 15 represents a loose plate having a centrally arranged recess 16 therein that is adapted to receive the shoulder 9 on the extension 8 and an opening 17 is provided in said plate near its outer end and at the inner or opposite end of the plate a shoulder or boss 18 is provided. When the loose plate is placed in the housing, it will rest on the extension 8 substantially as shown in Figure 5 of the drawing; the inner end of the extension being spaced from the bottom of the housing as indicated. When the tongue is inserted it slides along the bottom of the housing until it contacts with the inner end of the housing, and the raised portion 19 is then within the open end of the housing partially closing it and preventing the insertion of a knife blade or tool by anyone attempting to open the seal. When the tongue has been pushed in to the limit of its inward movement, as shown in Figure 6, it is pulled backward to the point shown in Figure 7 and thereupon the raised portion or boss 18 of the loose plate 15 will enter the recess in the end 11 of the tongue formed by the raised part 12 and when the tongue is pushed in again to the extreme end of the housing, it will drag the loose plate along with it to the position in Figure 8 until the projection 9 is in position to register with the opening 17 in the plate and slip into said opening as shown in Figure 8, thereby preventing backward movement of the locking plate and also preventing a corresponding backward movement of the tongue of the seal. Thus, the tongue will be firmly and securely locked in the housing and cannot be withdrawn without destroying the housing or damaging it to such an extent that immediate detection will follow.

I claim as my invention:

1. A car seal comprising a band having a housing thereon and a tongue adapted to be inserted into said housing, a locking plate fitting within said housing and permitting

said tongue to be thrust into said housing to the limit of its initial inward movement, said tongue and plate having means for interlocking when said tongue is pulled backwardly a predetermined distance after its initial inward movement for moving said plate inwardly upon the second inward movement of said tongue, and said housing and said plate having means for interlocking to prevent backward movement of said plate and tongue at the completion of the second inward movement of said tongue.

2. A car seal comprising a band having a housing at one end and a tongue at its opposite end adapted to enter said housing, an extension of said band being folded to project into said housing and having a shoulder formed thereon, a locking plate adapted to fit loosely within said housing and rest upon said extension and permit said tongue to be thrust inwardly to the inner end of said housing beneath said extension, said tongue and plate having means for interlocking when said tongue is pulled backwardly upon reaching the limit of its inward movement, further inward movement of said tongue drawing said plate inwardly, and said plate having an opening to receive the shoulder on said extension for locking said plate and tongue against backward movement at the inner end of said housing.

3. A car seal comprising a band of sheet metal having sections thereof provided with longitudinal flanges, the portion of the band between said sections being folded to adjust one section over the other and the flanges of said sections being folded and interlocked to form a housing closed at one end and open at the other, the outer section of the band having a narrow extension thereon that is folded to fit within the open end of said housing and provided with a shoulder therein, a loose plate fitting said housing upon said extension, said band having a tongue thereon adapted to enter said housing and slide beneath said extension and loose plate to the inner end of said housing, said tongue having means for interlocking with the adjacent end of said loose plate when

said tongue is retracted after its initial inward movement, subsequent inward movement of said tongue drawing said loose plate inwardly over said extension, and said plate having means therein for interlocking with the shoulder on said extension when said plate is pulled inwardly to a predetermined point thereover for locking said plate and tongue against backward movement within said housing.

4. A car seal comprising a band having a housing and a tongue adapted to enter said housing, an extension of said band being formed to project into said housing and having a shoulder formed thereon, a locking plate adapted to fit within said housing and rest upon said extension and having a recess formed therein to receive the shoulder of said extension, said tongue upon its initial movement sliding beneath said plate without moving it to the inner end of said housing, said tongue and plate having means for interlocking when said tongue is retracted after its initial movement, subsequent inward movement of said tongue drawing said plate inwardly over said extension, and the outer end of said plate having an opening therein to receive the shoulder of said extension for locking said plate and tongue against backward movement at the completion of the inward travel of said plate.

5. A car seal comprising a band having a housing thereon and a tongue adapted to be inserted into said housing, a locking member fitting within said housing and permitting said tongue to be thrust into said housing to the limit of its initial inward movement, said tongue and member having means for interlocking when said tongue is pulled backwardly a predetermined distance after its initial inward movement for moving said member inwardly upon the second inward movement of said tongue, and means preventing backward movement of said member and tongue at the completion of such second inward movement.

In witness whereof, I have hereunto set my hand this 31st day of December, 1923.

MARTIN J. LINS.