

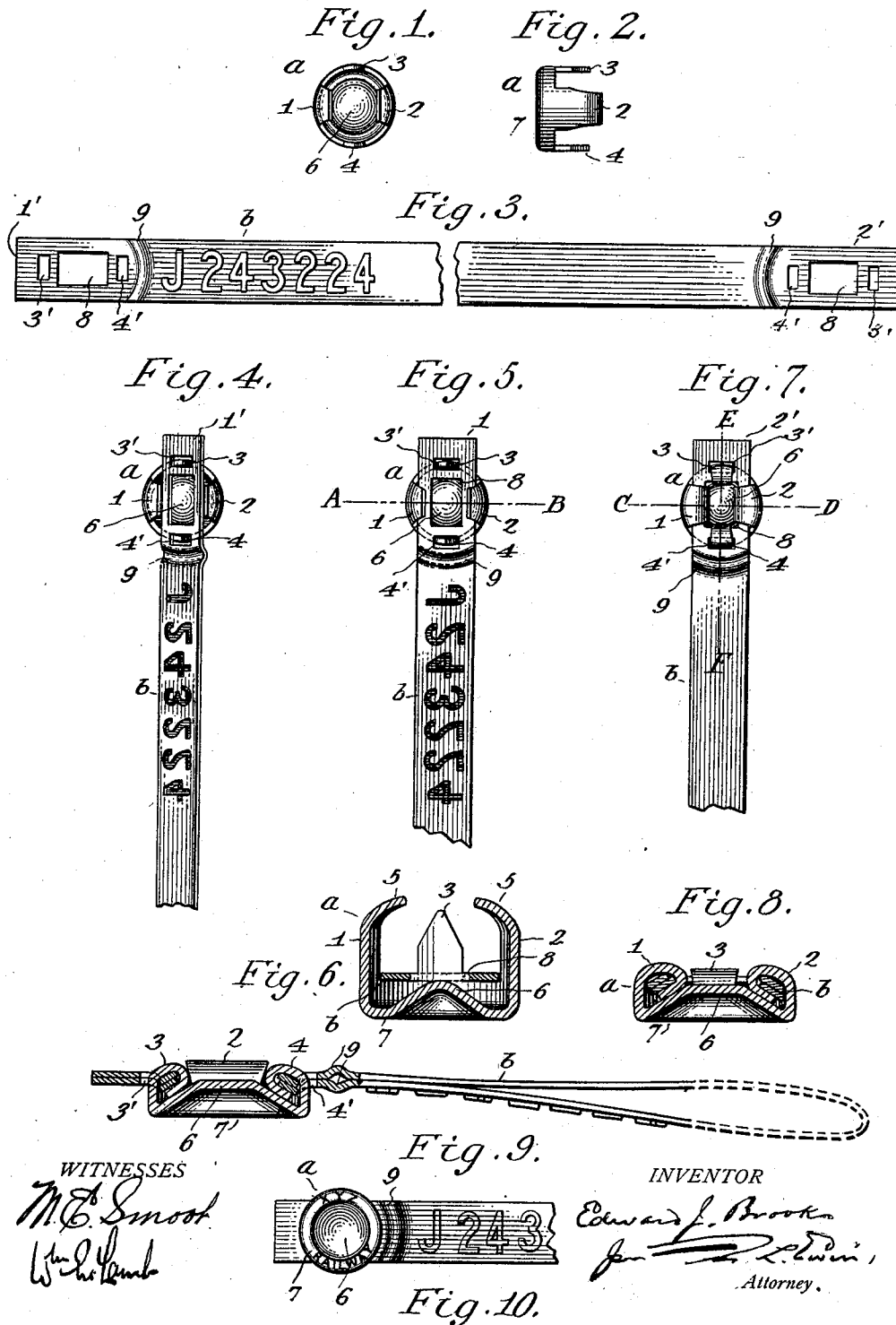
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SEAL.

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982,122.

Patented Jan. 17, 1911.



UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, a citizen of the United States of America, and a resident of East Orange, in the State of New Jersey, have invented a new and useful Improvement in Seals, of which the following is a specification.

In a previous specification forming part of United States Letters Patent No. 961,931, dated June 21, 1910, I have set forth an improvement in "cording seals" characterized by a seal part made of nearly rigid sheet metal and constructed with substantially parallel lips arranged at opposite sides of an open front, and a second pair of lips substantially at right angles to those first-named; the lips first named being adapted to be coiled around the respective ends of the cord by the action of a suitable seal press.

The present invention relates primarily to seal-press fastened or press-fastenable car seals having sheet metal shackles; and its leading objects are to render all such seal parts more secure against being tampered with, and to adapt such car seals having sheet-metal shackles to be constructed on the same principle in part as the cording seals set forth in said previous specification.

Other objects will be set forth in the general description which follows.

The present invention consists in a seal part for press-fastenable seals embodying a certain novel feature of construction hereinafter particularly described and claimed; and in the combination of such seal part with an interacting shackle member, and especially with a sheet-metal shackle constructed to interlock with both pairs of the seal-part lips, as hereinafter more particularly set forth.

Figures 1 and 2 are respectively face and side views of a seal part constructed to interact with said seal part; Fig. 3 is a face view of a sheet-metal shackle constructed to interact with said seal part; Fig. 4 is a face view of the seal part showing one end of the shackle superposed as in the act of assembling the parts of each seal at the factory; Fig. 5 represents a face view of the seal as it leaves the factory; Fig. 6 is a magnified section on the line A—B, Fig. 5; Fig. 7 represents a face view of the press-fastened seal; Figs. 8 and 9 are magnified sections on the lines C—D and E—F, Fig. 7, respectively; and Fig. 10 represents a view of the press-fastened seal showing its lettered side or "back."

Like reference characters refer to like parts in all the figures.

The improved seal part, *a*, is originally cup-shaped and stamped in one piece from suitable sheet-metal, and is constructed with substantially parallel prongs or lips, 1 and 2, at opposite sides of its open face, and with another pair of such prongs or lips, 3 and 4, substantially at right angles to the pair first named and separated by deep notches therefrom; the former, said lips 1 and 2, being constructed with inturned front extremities, 5, Fig. 6, and all said lips being adapted to be curled into the interior of the seal part at the press-fastening operation; substantially as set forth in said previous specification.

The improved seal part is characterized by a central lip guard, 6, in the form of a hollow protuberance or projection struck up from the back, 7, of the seal part at the stamping operation, by which it is originally produced.

Any required lettering may be arranged around the counterpart depression in the back of the seal part *a*, by the same or a subsequent stamping operation, as represented by "X. Y. Z. railway" in Fig. 10.

The sheet-metal shackle, *b*, is or may be of relatively thin tin (tin plate) or the like, and is constructed at each of its ends, 1' and 2', with a pair of small transverse slots, 3' and 4', arranged and proportioned for the protrusion therethrough of the secondary lips 3 and 4 of the seal part *a*, and with a large rectangular lip admitting hole, 8, between said slots. The shackle is also conveniently stamped with an end guard, 9, at each of its ends 1' and 2', to insure the detection of any attempt to restore the appearance of a violated seal by cutting the shackle and forming a new fastening end thereon. Also with any required marks or "lettering" such as a consecutive number, a station number or the like, as represented by "J243224," arranged to appear in proper juxtaposition with reference to the lettering on the back of the seal part *a*, as represented in Fig. 10.

To specially adapt the seal part *a* to interact or combine with a sheet-metal shackle *b* of above description, the secondary lips 3 and 4 are left straight at the stamping operation, and perpendicular to the back 7 of the seal part; and the inner ends of the notches which separate the two pairs of lips 1—2 and 3—4, are made square as shown in

Figs. 2, etc.; while the side lips 1 and 2 are preferably intumed at 5 more curvedly than heretofore. See Fig. 6.

In assembling the parts at the factory the lettered end 1' of a flat shackle *b* is preliminarily united with one of the seal parts *a* by tilting the shackle as represented in Fig. 4; inserting its lower edge beneath the intumed end 5 of one of the side lips 1 and 2, and engaging its slot 3' and 4' with the secondary lips 3 and 4 respectively; and then, by means of the fingers, pressing the shackle end 1' flatwise into position, as represented in Figs. 5 and 6. The parts fit each other tightly enough to prevent accidental separation when thus put together; and the juxtaposition of the lettering on the seal part and shackle is insured. After passing the free end 2' of the shackle *b* through a pair of car-door staples or their equivalent, it is inserted and temporarily held in place in the seal part *a* in the same manner. A suitable seal press is then applied, and the lips 1—2 and 3—4 are curled into the interior of the seal part at the sides of the lip guard 6, through the shackle holes 8, and pressed tight and into effective contact with the lip guard, as represented in Figs. 7, 8 and 9. In so pressing the seal part *a* the shape of the lip guard 6 may be modified, as indicated in Figs. 8 and 9, compared with Fig. 6; and it will be understood that the original and final shape of the lip guard may vary in seals of different makes.

The relation of the lip guard 6 to the lips 1—2 and 3—4 in the fastened seal, Figs. 7—10, is such that the edges of the lips are protected or rendered inaccessible, so as to prevent or obstruct the insertion of prying means behind the lips in attempts to unbending the lips to unfasten the shackle without so defacing the lips as to insure detection.

The round shape of the seal part in face view is preferred, but may obviously be departed from; and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention, and desire to patent under this specification:

1. An open-faced hollow seal part for a press-fastenable seal constructed with lips opposite each other adapted to be curled into the interior of the seal part by a seal press, and a central lip guard, integral with the back of the seal part, projecting between

said lips, and adapted to protect the same against being tampered with.

2. The combination, in a press-fastenable seal, of an open-faced hollow seal part of sheet-metal constructed with lips opposite each other adapted to be curled into the interior of the seal part by a seal press, and a central lip guard in the form of a hollow protuberance on the back of the seal part projecting between said lips, and a shackle member the ends of which are adapted to be interlocked with said seal part by said lips.

3. An improved press-fastenable seal having, in combination, a cup-shaped sheet-metal seal part constructed with lips opposite each other adapted to be curled into the interior of the seal part by a seal press and a central lip guard in the form of a hollow protuberance on the back of the seal part projecting between said lips, and a sheet-metal shackle having a hole in each end adapted to admit said lips at the press-fastening operation.

4. An improved press-fastenable seal having, in combination, a cup-shaped sheet-metal seal part constructed with a pair of side lips having intumed extremities and a pair of secondary lips substantially at right angles to said side lips and separated therefrom by notches having square inner ends, said lips being adapted to be curled into the interior of the seal part by a seal press, and a sheet-metal shackle having each end constructed with a pair of transverse slots fitted to said secondary lips and a hole adapted to admit all said lips at the press-fastening operation.

5. An improved press-fastenable seal having, in combination, a cup-shaped sheet-metal seal part constructed with a pair of side lips, a pair of secondary lips substantially at right angles to said side lips and a central lip guard in the form of a hollow protuberance on the back of the seal part projecting between said lips, said lips being adapted to be curled into the interior of the seal part by a seal press, and a sheet-metal shackle having each end constructed with a pair of transverse slots fitted to said secondary lips and a hole adapted to admit all said lips at the press-fastening operation, substantially as hereinbefore specified.

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Witnesses:

MONTGOMERY LINDSAY,
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