

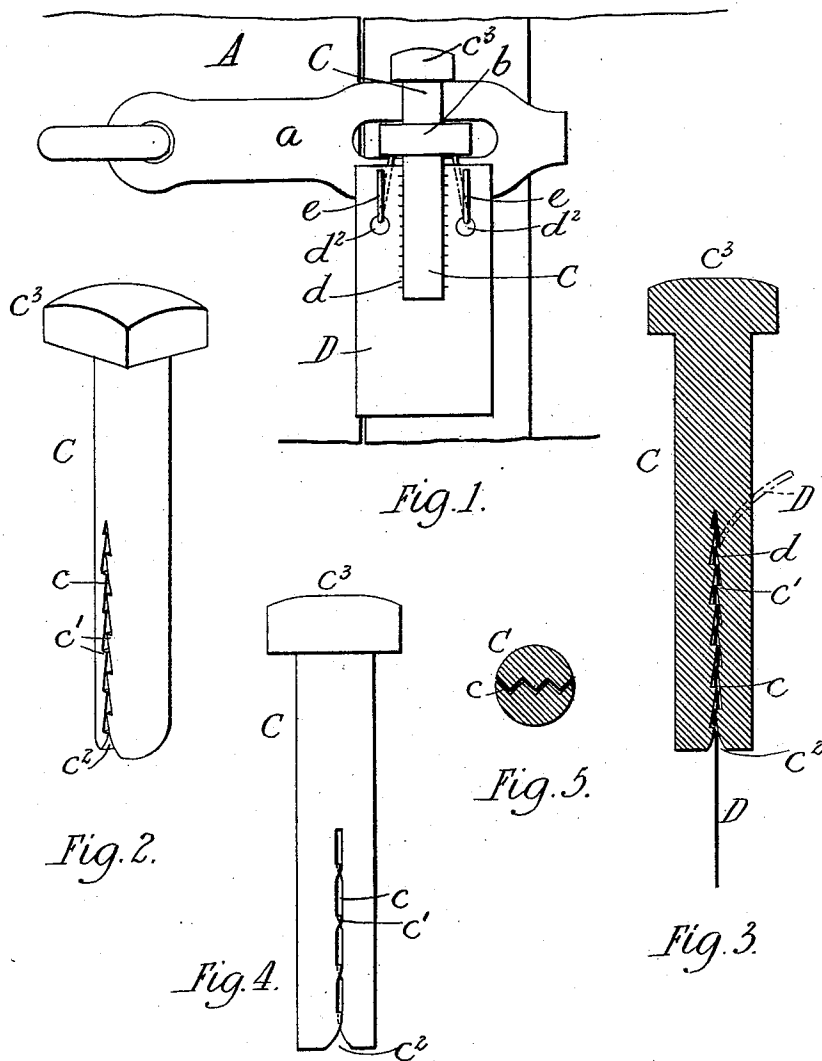
(No Model.)

2 Sheets—Sheet 1.

P. C. DOCKSTADER.
SEAL BOLT.

No. 601,770.

Patented Apr. 5, 1898.



Witnesses
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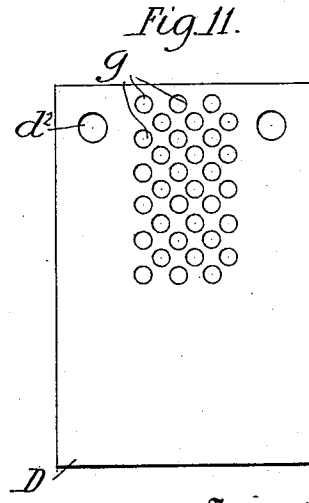
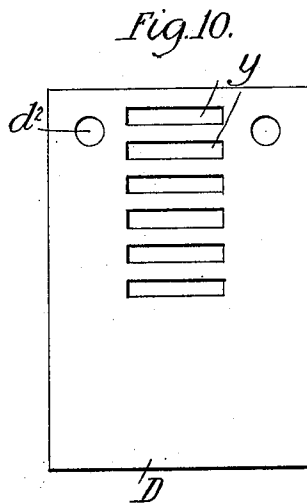
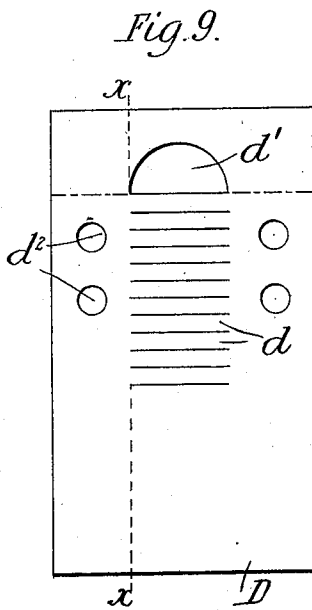
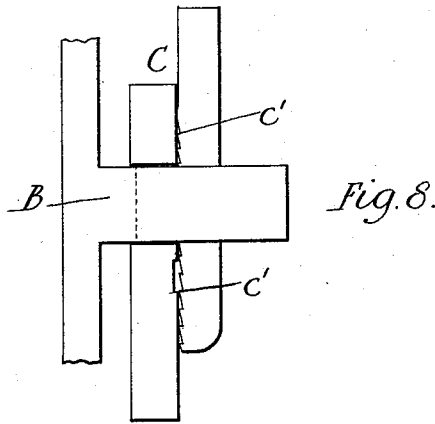
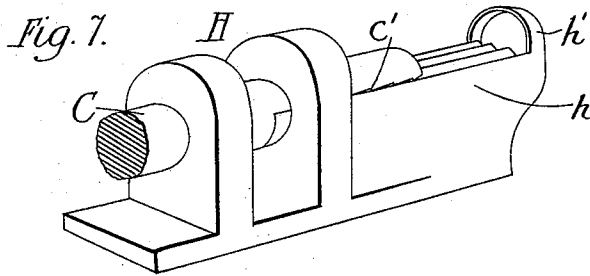
(No Model.)

2 Sheets—Sheet 2.

P. C. DOCKSTADER.
SEAL BOLT.

No. 601,770.

Patented Apr. 5, 1898.



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UNITED STATES PATENT OFFICE.

PRESTON C. DOCKSTADER, OF COLORADO SPRINGS, COLORADO.

SEAL-BOLT.

SPECIFICATION forming part of Letters Patent No. 601,770, dated April 5, 1898.

Application filed June 15, 1897. Serial No. 640,895. (No model.)

To all whom it may concern:

Be it known that I, PRESTON C. DOCKSTADER, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented certain new and useful Improvements in Seals; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for sealing closures, and is directed more particularly to improvements in sealing devices for the doors of railway-cars, the object being to preclude the opening of the door by unauthorized persons without detection.

The nature of my invention will be ascertained from the following detailed description, which is to be read in connection with the accompanying drawings, which form a part thereof, and in which—

Figure 1 is an elevation of a portion of a car-door with my invention applied. Fig. 2 is an enlarged perspective view of the preferred form of sealing device. Fig. 3 is a sectional view of the preferred construction, showing in dotted lines a modification of the application of the seal. Figs. 4 and 5 are respectively longitudinal and cross-sectional views of a modification of the construction of the sealing device. Fig. 6 is a further modification of the sealing device. Fig. 7 is a view of a further modification of the device. Fig. 8 is a view of a further modification of the device. Figs. 9, 10, and 11 are views of the seals employed in connection with the device.

Referring to the said drawings by letter, A denotes a car-door having thereon the loosely-pivoted hasp *a*, and *b* is a staple secured to the door-jamb and adapted for connection with the hasp through its slot, these parts being of the ordinary construction. The opening in the staple *b* admits of the insertion therethrough of a locking-pin C, the preferred construction of which is shown in Figs. 1, 2, and 3, and consists in a longitudinally-disposed slot *c*, extending from one end to about

midway of the length of the pin, the side walls of the slot being so formed as to provide ratchet-shaped teeth *c'* *c'*, having inclined approaches and substantially vertical shoulders, the teeth of one wall being alternated in relative position with the teeth of the other wall, whereby the edge of a tooth is midway between the edges of two opposite teeth, as shown. The entrance *c*² of the slot is flared for the convenient insertion of the seal D, which is a strip of thin sheet metal or other suitable material, provided in one of the forms shown with a plurality of parallel cuts or incisions forming flexible webs *d* *d*, which when the seal is inserted are caused to engage the shoulders of the teeth and thereby to preclude the withdrawal of the seal without mutilation. This engagement of the seal with the pin is effected when but one web shall have passed a tooth; but it is the purpose of my invention that the seal be inserted the full depth of the slot, when it will be found that each tooth of each slot-wall is engaged by a web, thus multiplying the locking effect.

In one construction of seal there is provided an opening *d'* in advance of the plurality of webs, and such opening is for the purpose of receiving one-half of the diameter of the pin, as shown in dotted lines in Fig. 3, the seal being necessarily bent to effect such insertion, and thereby the lock is rendered more positive in effect, although in the construction shown in full lines in such figure sufficiently effective results are attained. The pin at its opposite end is provided with a head *c*³, and when inserted the pin is prevented from withdrawal by the interposition of the staple between the head and the seal, the transverse disposition of the latter precluding the rising of the pin sufficient for its removal. To effect the unsealing and unlocking of the car-door, the seal is severed, preferably on a line indicated at *x*, and the remaining portion is then drawn to one side to disengage the webs from the teeth. The pin may then be withdrawn. As before stated, the seal is of thin flexible material and the webs yield readily in moving over the teeth, but resume their normal shape as soon as the point or edge of a tooth is passed,

finding lodgment against the tooth-shoulder. Any effort to withdraw the seal results in its mutilation, and detection follows.

As a further safeguard I prefer to employ, in connection with the seal and a member of the lock, a plurality of hooks, in number two, four, or more, if desired, which engage perforations in the seal when the latter is applied to the pin. These hooks are lettered *e e* and are secured to the staple, from which they extend downward and thence upward and engage perforation *d² d²* in the seal. These hooks may, however, be variously modified both as to their form and the manner of connection with the lock members, it being the purpose to provide further means for preventing the withdrawal of the pin and the unlocking of the door without detection. With the parts in the position shown in the figures referred to it is evident the hooks constitute a very effective aid to the sealing operation, as in order to disconnect the parts it is first essential that the seal be cut or torn on the line stated, next that the remaining portion of the seal be drawn sidewise from the pin and removed from the hooks. In addition to the function of the hooks referred to there is the additional function of providing a convenient method of applying the seal, as in practice it is merely necessary that the seal be hung on the hooks, and that the pin be passed through the staple and forced downward to receive the seal without the necessity of holding the latter by hand, and to cause the engagement of the teeth and webs in the manner previously set forth.

In Figs. 4 and 5 is shown a construction of pin involving in its construction the features hereinbefore described, with the difference that the slot in lieu of being formed in a straight line is zigzag and the teeth are of different shape, being substantially rectangular, necessitating the employment of a seal such as is shown in Fig. 10, in which spaces *y y* are provided between the webs, such spaces accommodating the teeth.

A further modification of the device is shown in Fig. 6. This construction is in some respects similar to the construction first described, in that the pin is provided with the longitudinally-disposed slot, the walls of which are so made as to provide ratchet-shaped teeth, the teeth of one wall alternating with the teeth of the other wall. This modification, however, involves the serration of each tooth to provide series of transverse teeth *ff*. In Fig. 11 I have shown a form of seal adapted for employment in connection with this construction of pin, said seal being provided with series of alternately-disposed perforations *g g*, each of which receive in practice one of the teeth *f*.

A further modification of the device is shown in Fig. 7. This construction involves the employment of a double staple *H*, which is provided with an extension *h*, the upper side of which is formed zigzag in cross-section

and is provided with rectangular teeth, and at the end is a cap-piece *h'*. The pin, the under side of one end of which is similarly formed, is in practice slid over the extension and against the cap-piece, the seal being previously interposed.

Still another modification is shown in Fig. 8. In this construction a single staple may be employed, and the pin is formed in two parts and in practice operates with a wedging action on the seal. The inner side of one of the parts is provided with ratchet-teeth, and the opposite side is provided with one or more rectangular recesses for engaging a web or webs of the seal.

The preferred form of seal and the modified forms incidental to the changes in the construction of the device are shown in Figs. 9, 10, and 11.

These seals are made from sheet material, preferably thin soft metal, and are of such a size as to provide a space for the reception of impressed matter, giving information both as to the place and time at which the sealing was made, and also the marks of the various parties through whom the responsibility rests. In sealing railway-cars, for instance, the usual stamp of the station-dater may be employed to cause the seal to receive in raised letters the name of the station and the time at which the sealing was made, and the usual punches of conductors may be employed to perforate the seal to show that the car was under their care. In this way more than ample safeguard is provided against the manipulation of the seal without detection, and any attempt to open the car can not only be ascertained, but easily traced to the offender.

While I have shown and described the pin as being separable from the hasp, I do not confine myself to such construction, as by my invention any one of the described forms of pin may be made integrally with or attached to the end of the hasp, in which event the latter is connected with its staple in a manner similar to effecting an engagement of the ordinary hook and staple or eye.

I claim as my invention—

1. In a seal-lock, the combination with a seal having a plurality of transversely-disposed webs, of a locking-pin provided with a longitudinally-disposed slot and teeth in the walls of the slot for engagement with the webs of the seal.

2. In a seal-lock, the combination of a locking-pin provided with a longitudinally-disposed toothed slot, a plurality of hooks projecting from a lock member, and a seal having transverse webs for engagement with the slot-teeth and perforations for engagement with the hooks.

3. In combination with a lock as described, of a pin provided with a longitudinally-disposed slot the walls of which are provided with alternately-disposed ratchet-shaped teeth, and a seal formed of thin flexible material provided with incisions forming a plu-

ality of webs for engagement with the teeth of the slot, substantially as described.

4. In a seal-lock of the character described, the combination with a lock member carrying
5 hooks, of a pin having a longitudinally-disposed toothed slot, and a seal of thin sheet material having perforations for engagement with the hooks, and webs for engagement with the slot-teeth, and having a space for the recep-

tion of impressions made in the manner and so for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PRESTON C. DOCKSTADER.

Witnesses:

THOS. J. FISHER,
J. W. MILLER.