(Model.)

2 Sheets—Sheet 1.

E. J. BROOKS.

SEAL LOCK FOR CAR DOORS.

No. 285,219. Patented Sept. 18, 1883.

Fig. 1.

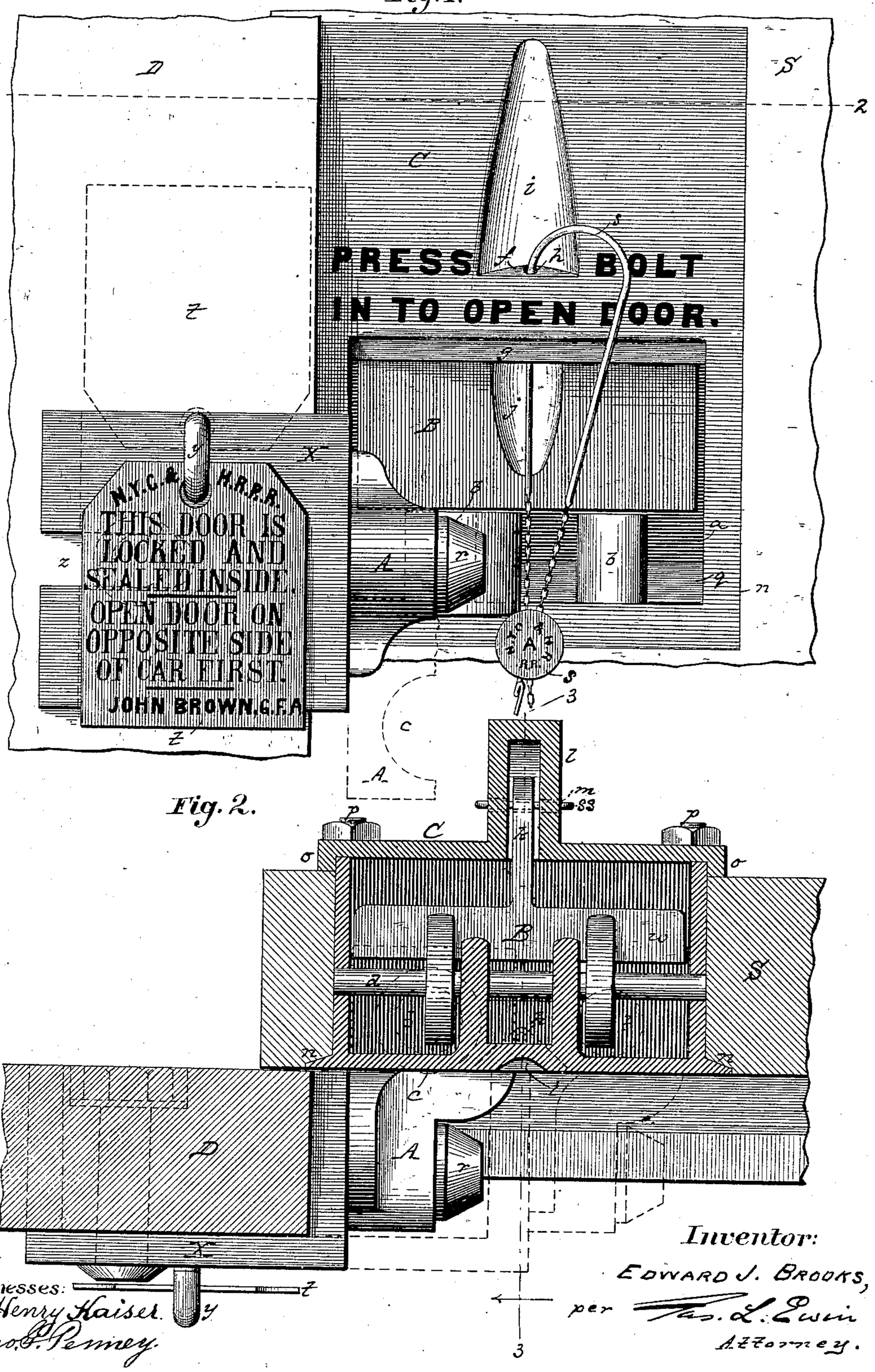

Fig. 2.

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(Model.) 2 Sheets—Sheet 2.

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Fig. 3.

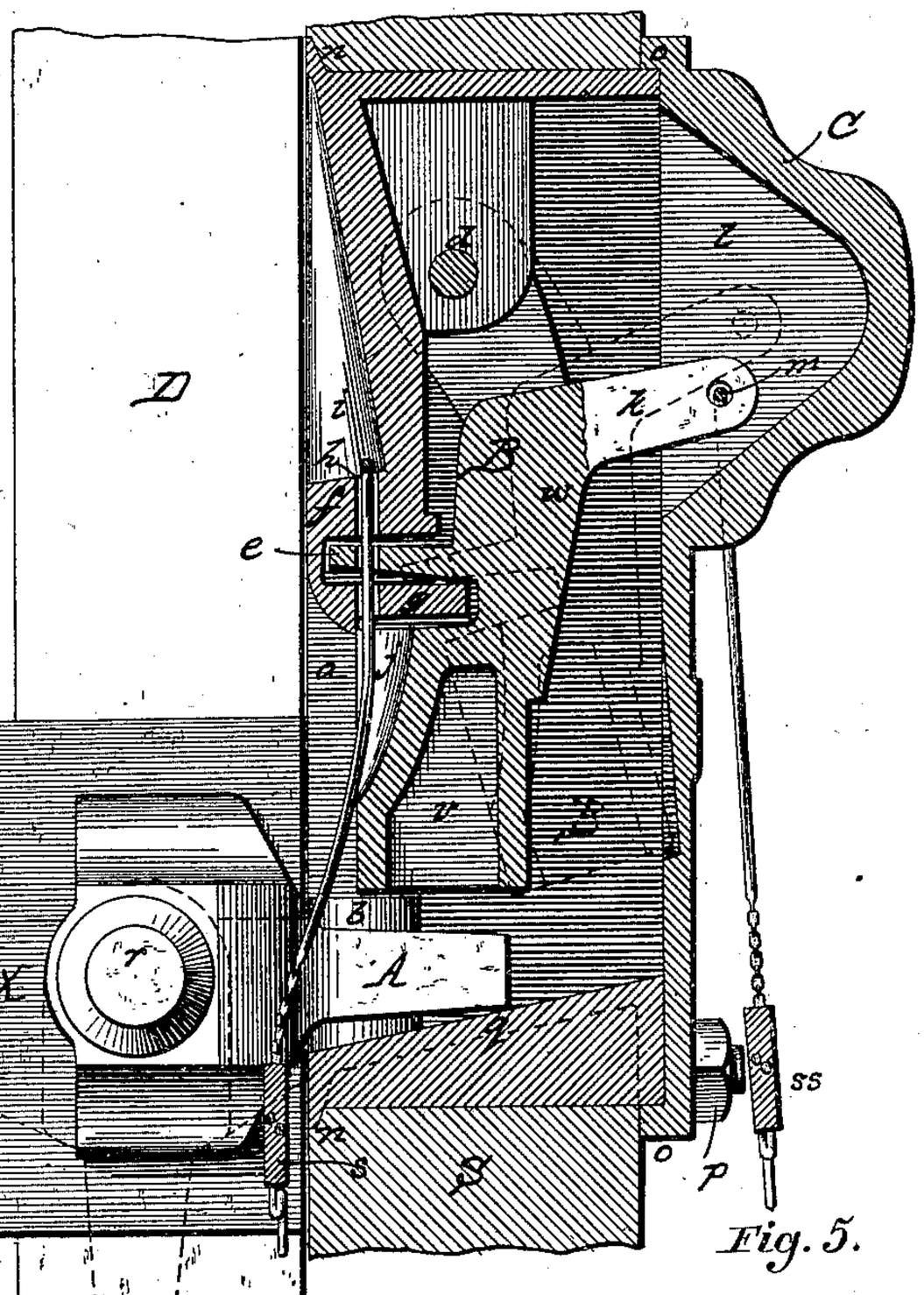
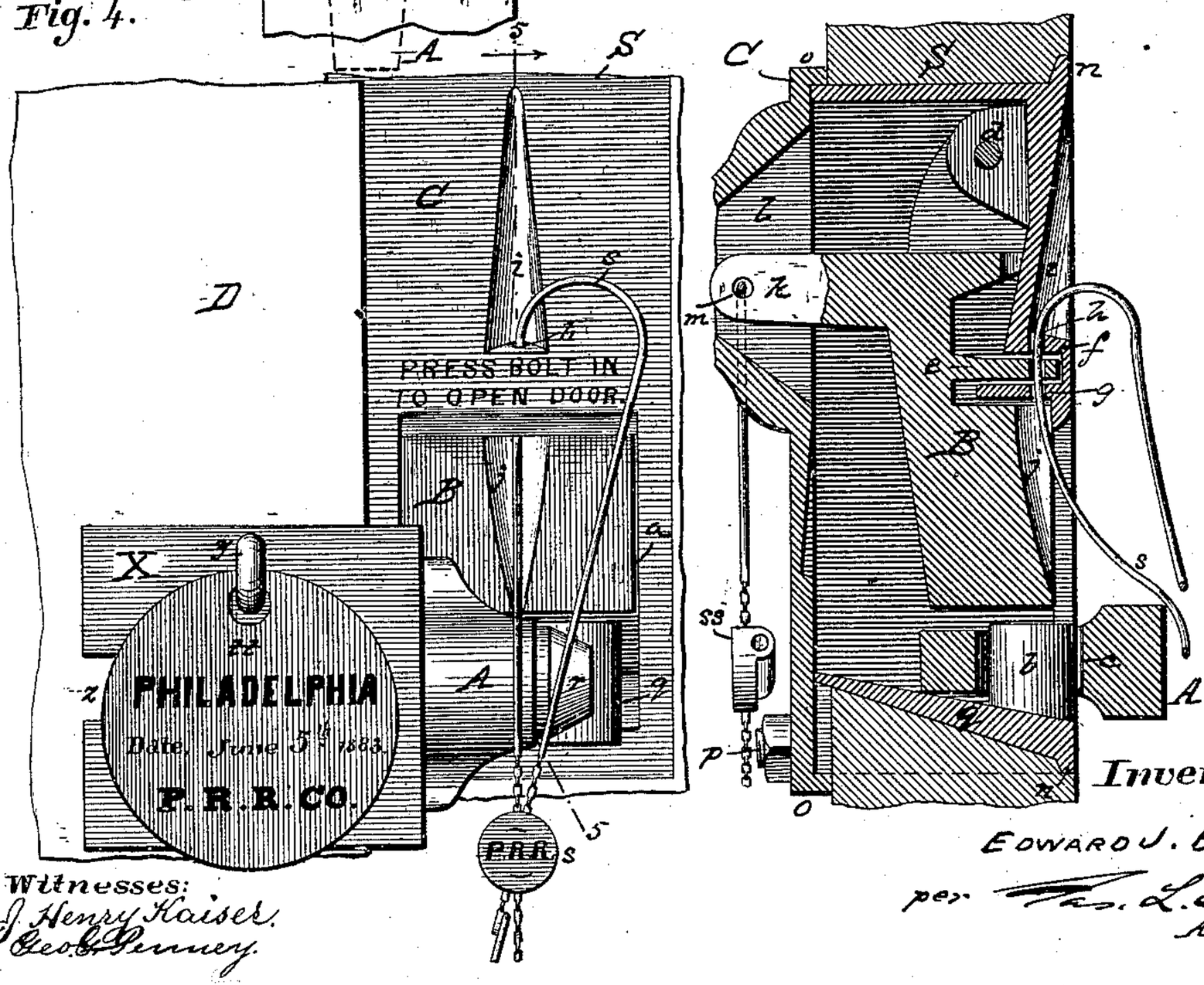


Fig. 5.

Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO E. J. BROOKS & CO., OF NEW YORK, N. Y.

SEAL-LOCK FOR CAR-DOORS.

SPECIFICATION forming part of Letters Patent No. 285,219, dated September 18, 1883.

Application filed June 25, 1883. (Model.)

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, a citizen of the United States, residing at East Orange, in the State of New Jersey, have invented a new and useful Improvement in Car-Door Fastenings, of which the following is a specification.

The present invention is additional to my improvements in car-door fastenings described and claimed in Letters Patent No. 256,791, dated April 18, 1882, and No. 270,874, dated January 16, 1883, having reference to improved means for temporarily fastening the doors of railway freight-cars, and for securing the same by lead and wire seals and padlocks, either or both, and for labeling such fastenings to show when and where they were sealed or locked, the contents and destination of cars, or like information. On some railways the depredations of thieves are confined, by the location of the car-yard tracks and sidings, to such entrances to the cars as can be effected from a single direction, or from the outer side of each car, and commonly one side of the car is more exposed than the other. For example, at one point on the New York Central and Hudson River railroad, where a long siding lies parallel to the river-bank, the thieves work on the river side of the trains as they stand here, readily transferring their booty to their boats below, and in these, by water, to places of concealment.

The principal object of the present invention is to provide for readily securing either door of a freight-car on the inside, as well as externally, or inside only, without using external seals or padlocks on this side of the car, so as to render the same more absolutely secure under such circumstances without the use of distinct internal fastenings, as well as without the marring and destruction of the wood-work of cars incident to nailing up the doors so exposed, which has heretofore been mainly relied on.

Another object of the present invention is to provide for readily attaching the main parts of car-door fastenings, or the "fasteners" proper, to the sides of freight-cars in such a way that the attaching bolts or screws are wholly relieved from those strains due to the motion of the door and their own gravity, and so that they may be applied at the rear edge of the door, at the same time effectively guarding against the injury of the works by water or their obstruction by ice or dust.

A third object of the present invention is to so attach a shackle adapted to coact with such fastenings, and by the same means to provide for attaching tags to indicate that the fastenings are sealed or locked inside, or for the purposes of ordinary or special "car-cards," said tags being so attached with ample security, and at the same time fully exposed to view.

Another object of the present invention is provision in such fasteners for securing the car-door partly open, if desired, for the purposes set forth in my specification forming part of said Letters Patent No. 256,791.

This invention consists in certain novel combinations of parts and features of construction, hereinafter described and claimed, whereby I have produced the results and accomplished the objects above stated.

Two sheets of drawings accompany this specification as part thereof.

Figure 1 of these drawings is a face view of my new car-door fastening as constructed for locking and sealing car-doors partly open as well as fully closed. Fig. 2 is a horizontal section on the line 2 2, Fig. 1. Fig. 3 is a vertical section on the line 3 3, Fig. 2. Fig. 4 is a face view of another car-door fastening of substantially the same construction apart from said adaptation of the first to lock the car-door partly open, and Fig. 5 is a vertical section on the line 5 5, Fig. 4, corresponding parts being indicated by like letters in all the figures.

Each of these fastenings comprises a pivoted shackle, A, a swinging bolt, B, and a casing, C, for said bolt. The two latter, with their appurtenances, constituting the fastener proper. This is a "flush fastener," or, in other words, does not protrude from the car-side S, to which it is attached, being so made in order to provide for applying it at the rear edge or behind a sliding car-door, D, to which said shackle A is attached, as in the example, but mainly to facilitate sealing or locking the

same inside the car as well as externally, or either externally or internally, and to relieve its attaching-bolts of strain, as aforesaid. The casing C is composed of a hollow main part or body and a back plate, the face of the former, which is the face of the casing, (seen in Figs. 1 and 4,) being flush with the outer surface of the car-side, while its back plate (seen at the top in Fig. 2, at the right in Fig. 3, and at the left in Fig. 5) projects only the thickness of the latter from and may be countersunk into the inner surface of the car-side. Said face of the casing is provided in its lower part with a large aperture, *a*, which admits the free end of the shackle A, and within said aperture, at its extreme front, strong stud-pins *b*, (two or more, or but one, as may be desired,) match a single hole, *c*, in said free end of the shackle. The bolt B swings from a horizontal pivot-rod, *d*, parallel to said front of the casing C, said pivot-rod being supported at each end and at mid-length within the upper part of the casing, as seen in Figs. 2, 3, and 5. The lower end of the bolt, in normal position, hangs immediately above said stud-pins *b*, and precludes the escape of the shackle A, when the latter is interlocked with either of said stud-pins, until the lower end of the bolt is "pressed in" or displaced inwardly. This is readily done by the shackle itself in fastening the car-door, and by the operator's finger in the unfastening operation, provided the bolt is not sealed nor locked, sufficient of the front of the bolt being exposed by said aperture *a* for this purpose. The bolt B is shown in dotted lines in Fig. 3 as so pressed in to release the shackle, and the latter, as it hangs when turned forward clear of the fastener, is likewise shown in dotted lines in Figs. 1 and 3.

To provide for locking and sealing the car-door from outside, the bolt B is provided with a lug, *e*, on its front at about mid-height, and the casing C with matching portions *f g*, between which said lug lies in the normal and effective position of the bolt, as best seen in Figs. 3 and 5, a threading-hole, *h*, extending through the three vertically, and terminating in depressions *i j*, formed, respectively, in the face of the casing C and that of the bolt B, as exposed by said aperture *a*, so that the shackle-wire of a lead-and-wire seal—*s*, for example—may be readily thrust downward through said lug *e*, and grasped again for passing it through the seal-disk, after which the seal is pressed in customary manner. This locks and seals the fastening at one operation, and I prefer to so use a simple lead-and-wire seal having a shackle-wire of the requisite strength—such, for example, as those invented by me, and made by E. J. Brooks & Co. under Letters Patent No. 278,866, dated June 5, 1883. Other forms of seal adapted to be applied in like manner may be used, however, and padlocks applied in like manner as illustrated in said Letters Patent No. 270,874 may be used alone, or in connection with such seals; or a glass-seal padlock may be used, in like manner, to lock and seal the fastening at one operation, which saves considerable time. For locking and sealing the fastening from inside the car, a like seal, *s s*, is used, unpressed, as a rule; but it may, in like manner, give way to known substitutes, or be supplemented by a padlock, as above set forth; or a simple locking pin or bolt may be effectively used. To receive the seal-shackle or its equivalent, an arm, *k*, projects from the back of the bolt into a recessed projection, *l*, on said back-plate of the casing C, as seen in Figs. 2, 3, and 5, a threading-hole, *m*, being drilled through them in the normal position of the bolt, so that it is continuous when the bolt is in effective position. When this is filled by the seal-shackle or its equivalent, pressing in the bolt B to release the fastened shackel A is prevented until the obstruction is withdrawn, which can only be accomplished inside the car.

The fastener proper is embraced on all sides by the wall of the mortise in the car-side S, through which it extends, as aforesaid, and is thus effectively supported in the directions of strain incident to the motion of the car-door D and the gravity of the parts B C. To secure it in said mortise, a marginal flange, *n*, at the face of the casing C and the overlapping edge *o* of its back plate are considered ample. They may be extended to any desired extent to increase their area and strength. Bolts and nuts *p*, (four in number in the example,) serving, primarily, to attach said back-plate, and with their bolt ends integral with the body of the casing, thus become effective and adequate as means for securing the fastener proper in place. So located and secured, the fastener proper is also effectively guarded against the entrance of water and dust into its interior, or its obstruction by ice or dust. For the escape of any water or dust that may beat into the aperture *a* in its face, the floor *q* of its main recess is inclined, as shown, so as to be lowest at the face of the fastener. The shackle A, being attached to a vertical surface, is likewise guarded against material obstruction by ice; and said surface, to which it is so attached by a horizontal pivotal rivet, *r*, is formed by a casting, X, of E-shape in horizontal section, one L of which forms said surface parallel with the rear edge of the car-door D, while its other L is bifurcated and its ends accommodated by tightly-fitting mortises parallel to said edge. Driven home, this part X is securely supported in the directions of ordinary strain, and may be held in place by a single bolt occupying its notch *z*, for example. The face of the casting X, provided with an upwardly-bent and recurved pin, forming a secure hook, *y*, supports in the most effective position a tag, *t*, Fig. 1, indicating that the fastening is locked and sealed inside the car, or an appropriate car-card tag, *t t*, Fig. 4, of any preferred size and shape, of the description set forth by me in my specification forming part of Letters Patent No. 278,214, dated

May 22, 1883, or any preferred description. As the tag must be turned upward into reversed position, as seen in dotted lines in Fig. 1, before it can be moved from the hook, the accidental escape of the tag is considered impossible.

To provide for the use of my said swinging bolt B in a large "flush fastener," as shown in Figs. 1, 2, and 3, with as little metal in the bolt as possible, it was given the requisite preponderance of weight behind the vertical plane of its pivot-rod *d* by a solid heavy projection, *w*, at its upper end, and a recess, *v*, in its necessarily large and prominent lower end, to render the latter light. Said large fastener, Figs. 1, 2, and 3, is adapted to secure car-doors partly open, as well as fully closed, as aforesaid, by means of two stud-pins, *b b*, within the casing C, in one and the same horizontal plane, to coact with the bolt B, which, in its normal position, precludes the escape of the shackle A from either stud-pin. Additional locking-points may be formed in like manner. The fastening may thus be very readily manufactured with or without said adaptation, while the latter, which is of great value on many roads, involves comparatively little additional cost.

The several parts of the fastening in either form may be made of malleable iron.

What I claim as new, and desire to patent under this specification, is—

1. In a car-door fastening, the combination of a pivoted shackle attached to the car-door, and a fastener proper, composed of an inwardly-yielding bolt and a casing therefor, held within a mortise in the side of the car, and provided at the back of the casing, inside of the car, with means for locking or sealing said bolt, substantially as herein specified, for the purpose set forth.

2. In a car-door fastening composed of a shackle, A, a bolt, B, and a casing, C, the former attached to the car-door at its rear edge, a suitably-recessed bolt-containing casing, held in a supporting-mortise in the car-side by a marginal flange on its body in front and a back plate having overlapping edges, with the fastenings of this back-plate, substantially as herein specified, for the purposes set forth.

3. In a car-door fastening comprising a pivoted shackle attached to a vertical edge of the car-door, a combined shackle-support and tag-holder composed of a casting, X, of E-shape in horizontal section, with one wing fitted to mortises in the door, and the respective exposed surfaces of the remainder provided with a pivotal rivet, *r*, and a hook, *y*, substantially as shown, for the purposes herein set forth.

4. The combination of the shackle A, having a single hole, *c*, in its free end, the swinging bolt B, and the casing C, Figs. 1, 2, and 3, said casing being constructed with two or more stud-pins, *b b*, in one and the same horizontal plane, to coact with said shackle, while said bolt in normal position precludes the escape of said shackle from either of said stud-pins, substantially as herein specified, for the purpose set forth.

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Witnesses:
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