No. 762,981. PATENTED JUNE 21, 1904.

C. W. BOOTH.

CAR DOOR FASTENER.

APPLICATION FILED OCT. 12, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

FIG. 2.

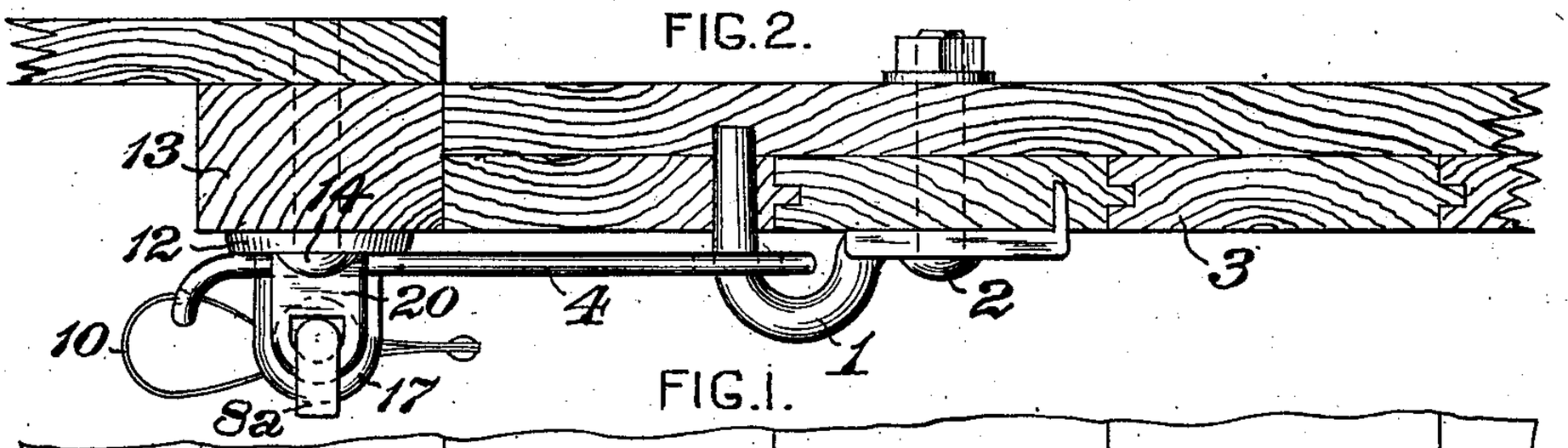


FIG. 1.

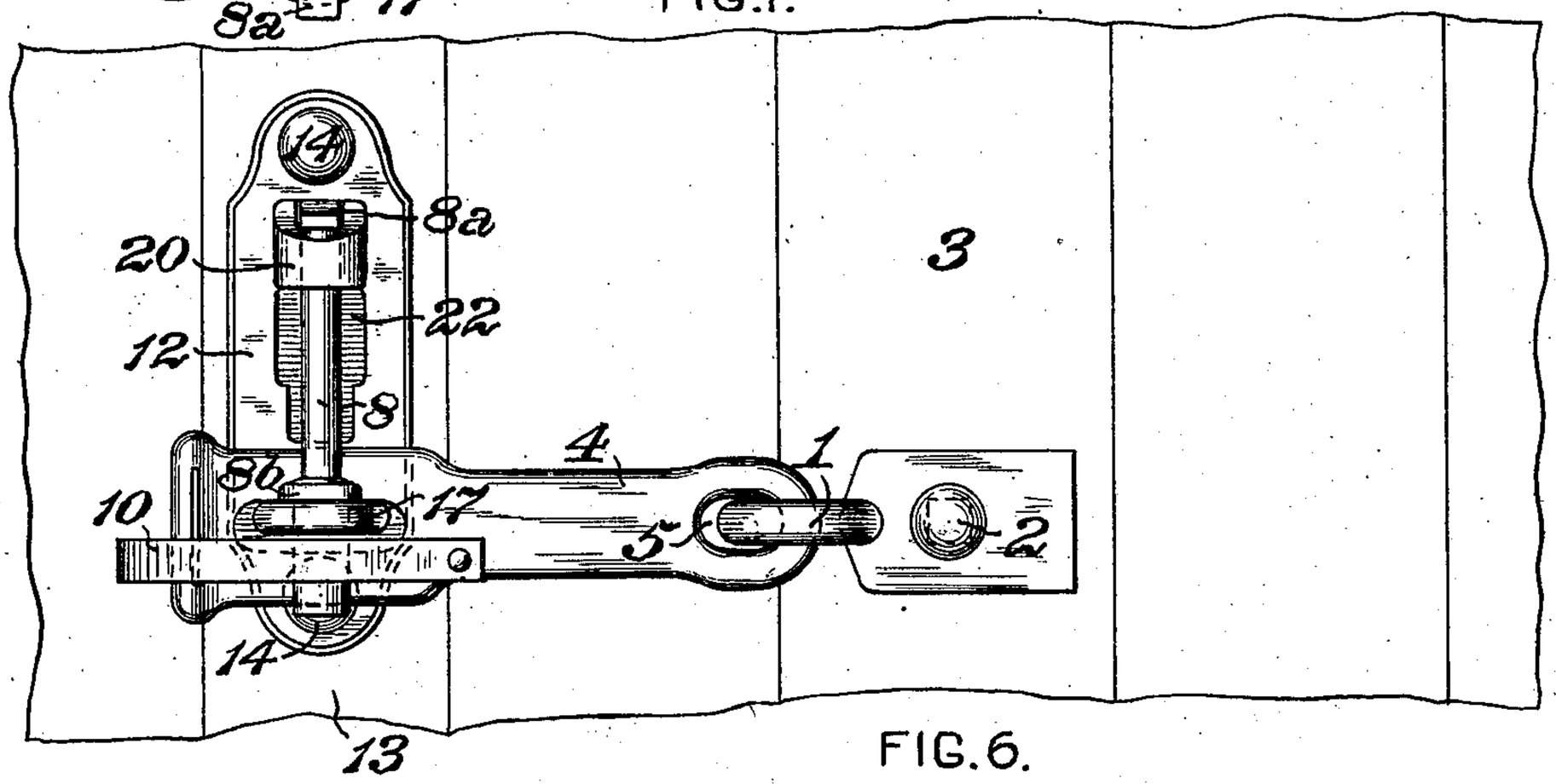


FIG. 6.

FIG. 5.

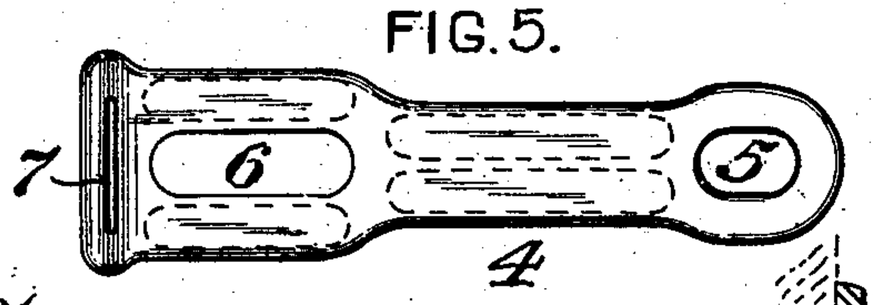


FIG. 4.

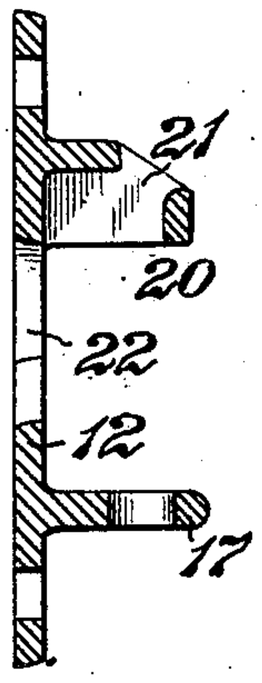


FIG. 3.

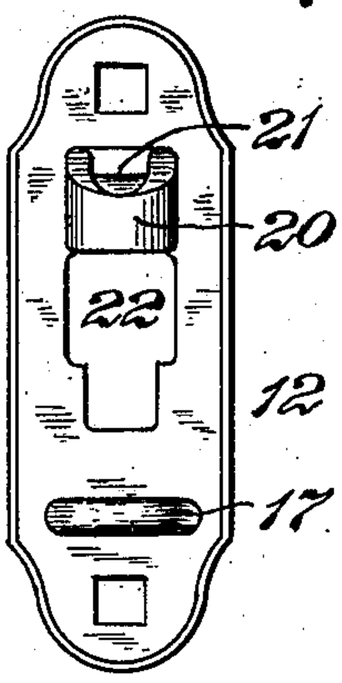


FIG. 7.

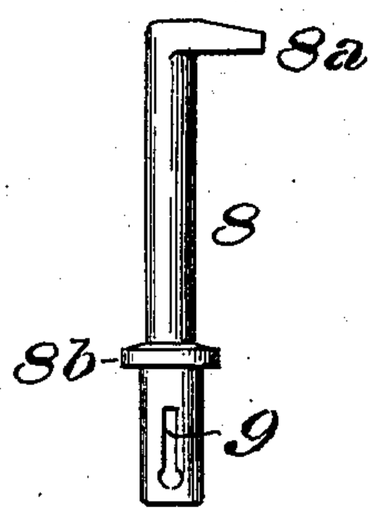
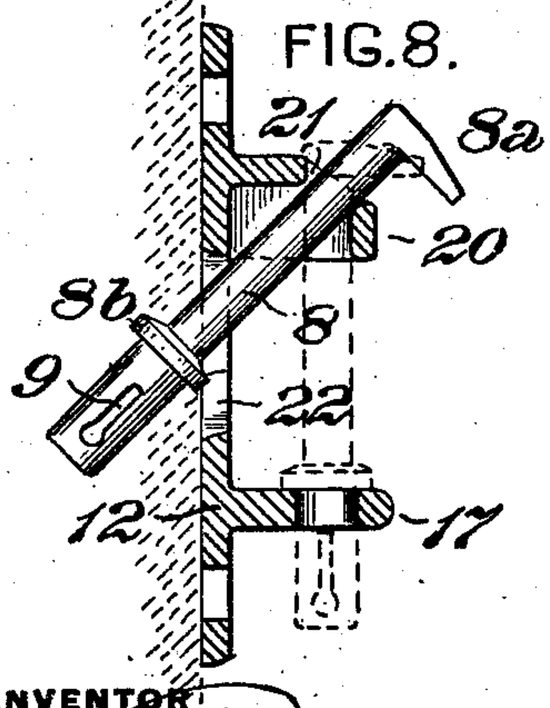


FIG. 8.



WITNESSES

James C. Herron.

S. R. Bell.

INVENTOR

Chas. W. Booth

by Howard & Bell.

Att'y.

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NO MODEL. 2 SHEETS—SHEET 2.

FIG. 10.

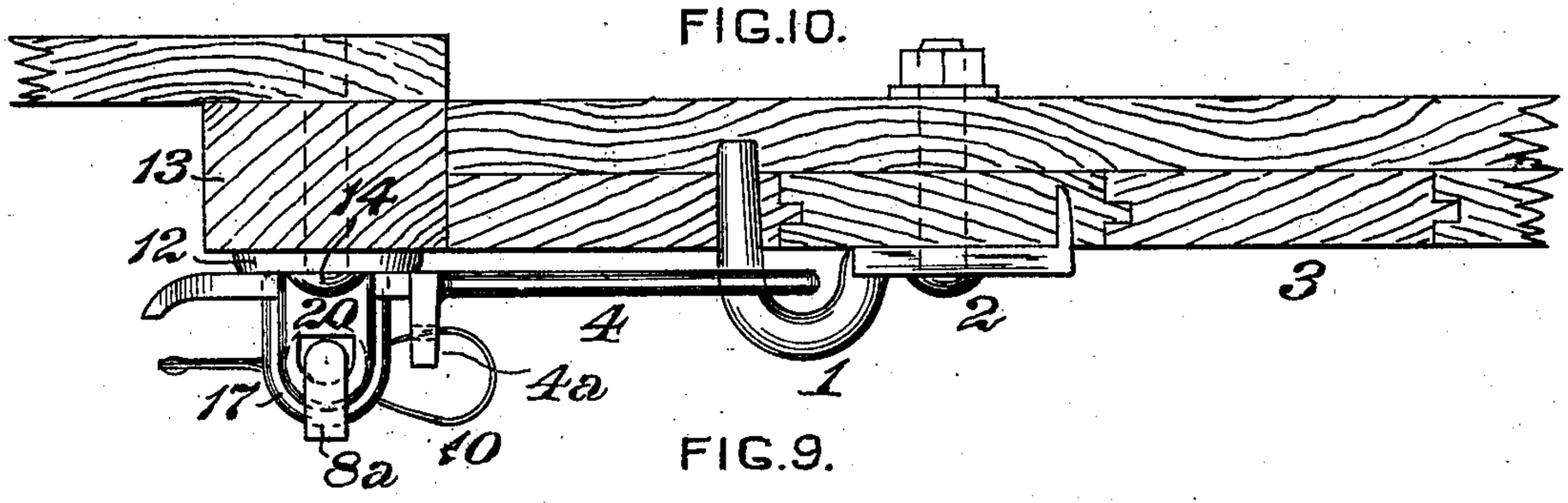


FIG. 9.

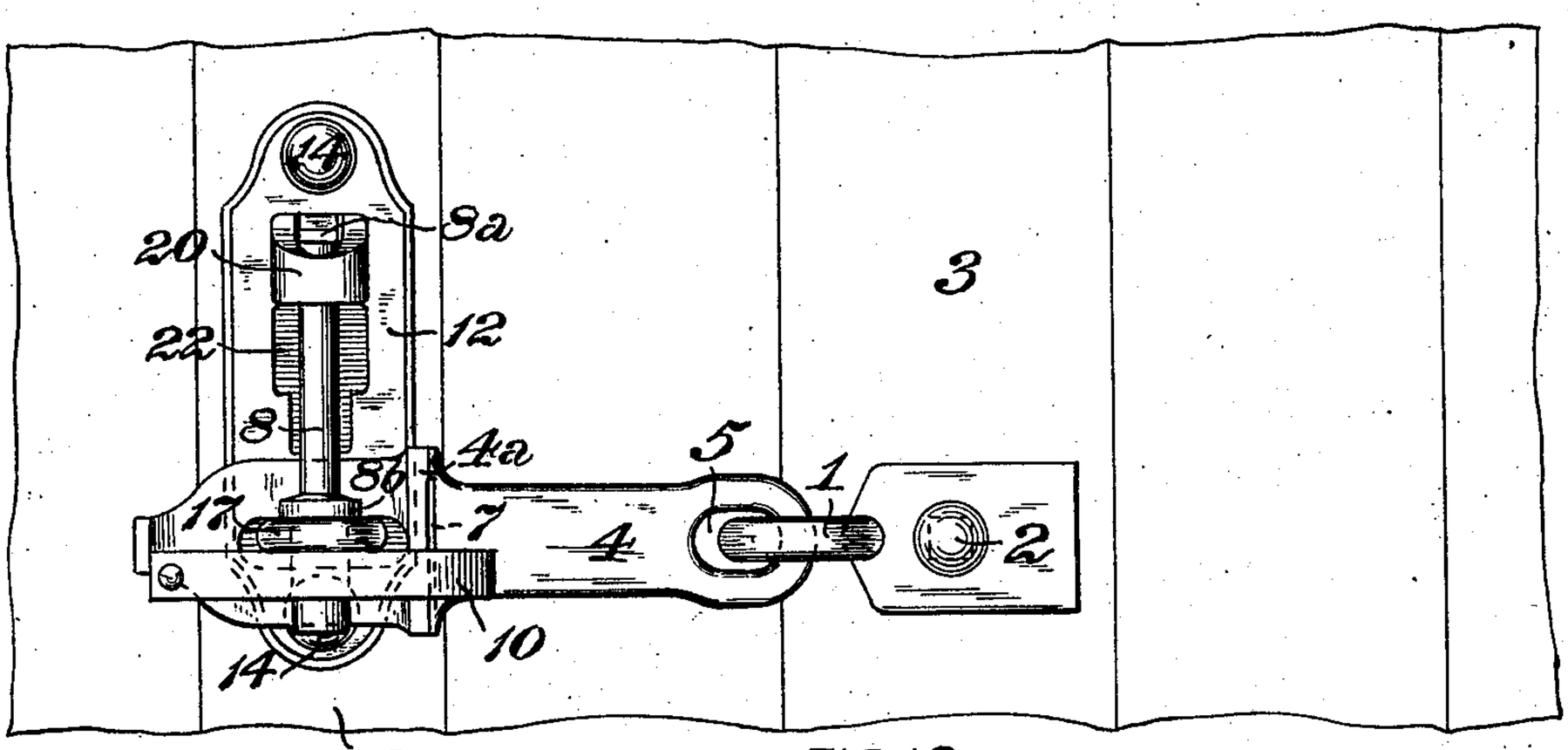


FIG. 12.

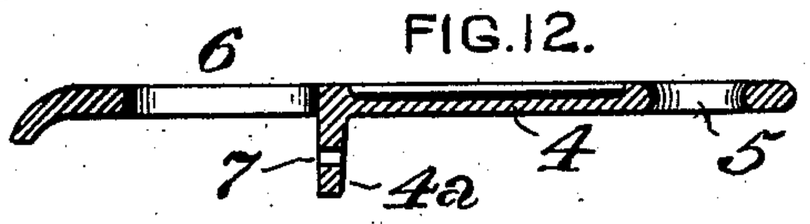
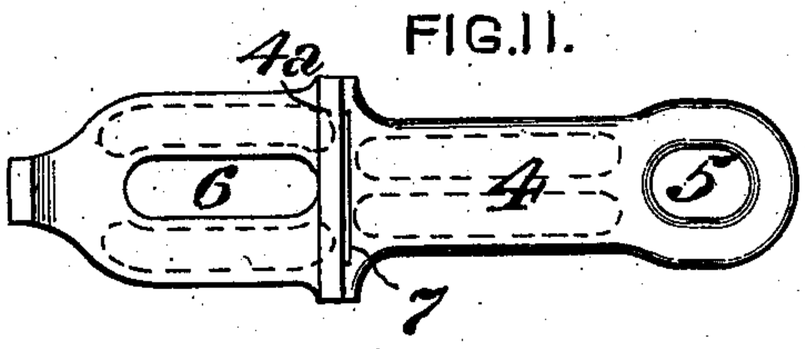


FIG. 11.



WITNESSES

James C. Herron.

S. R. Bell.

INVENTOR

Chas. W. Booth.

by J. Howden Bell. Att'y.

No. 762,981. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

CHARLES W. BOOTH, OF MILWAUKEE, WISCONSIN.

CAR-DOOR FASTENER.

SPECIFICATION forming part of Letters Patent No. 762,981, dated June 21, 1904.

Application filed October 12, 1903. Serial No. 176,624. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BOOTH, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a certain new and useful Improvement in Freight-Car-Door Fasteners, of which improvement the following is a specification.

The object of my invention is to provide a fastening appliance for the doors of freight-cars or other analogous applications which shall be of simple, strong, and inexpensive construction, ready applicability in standard practice for use with the ordinary wire or tin seals, and positive efficiency in preventing the opening of the door without severing the seal.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a view in elevation illustrating an embodiment of my invention applied to a freight-car; Fig. 2, a plan or top view of the same with the door and stile in horizontal section; Fig. 3, a front view of the door-stile plate; Fig. 4, a vertical central section through the same; Fig. 5, a side view in elevation of the hasp; Fig. 6, a horizontal central section through the same; Fig. 7, a view in elevation of the seal-pin; Fig. 8, a vertical central section through the door-stile, illustrating the manner of entering the seal-pin; Fig. 9, a view in elevation of a fastening applied to a freight-car door, illustrating a modification of structural detail; Fig. 10, a plan or top view of the same; Fig. 11, a side view in elevation of the hasp of Figs. 9 and 10, and Fig. 12 a horizontal section through the same.

My improved freight-car-door fastener comprises (in connection with the usual staple) three parts—a hasp, a seal-pin, and a door-stile plate—all of which are preferably made of malleable iron. It is applied in connection with a staple 1, which is of the ordinary form and is secured by a bolt 2 to the car-door 3. The staple provides a pivotal socket for the connection of a swinging hasp 4, which is an arm of plate form provided at one end with an elongated eye 5, through which the leg of the staple 1 passes and through which the hasp is connected to the car-door. An elongated eye or slot 6 is formed in the hasp near its opposite end, at which it is curved outwardly, and a vertical slot 7 for the passage of a seal is formed in the outwardly projecting portion.

The door-stile plate 12 is secured at its top and bottom to the door-stile 13 of the car and is provided near its top with an outwardly-projecting lug 20, in which is formed an opening 21 for the passage of the head 8^a of the seal-pin 8. A longitudinal slot 22 is formed in the body of the door-stile plate, the upper portion of the slot being sufficiently wide to admit of the passage of a collar 8^b on the seal-pin and the remainder of a width to admit the portion of the body of the pin below the collar. A lug 17 projects from the door-stile plate, and an opening is formed in the lug for the passage of the lower portion of the seal-pin.

The seal-pin 8 is of cylindrical form, with an outwardly-projecting head 8^a on its upper end and a vertical transverse slot 9 for the passage of a seal near its lower end. The lower portion of the pin in which the slot 9 is formed is of greater diameter than the remainder of the pin, and a collar 8^b is formed on the pin above the slot.

In adjusting the appliance in position for operation the seal-pin is entered into the door-stile plate before the latter is bolted to the door-stile by passing it through the slot 22 until its head 8^a and upper portion pass through the opening 21 of the upper lug 20 sufficiently far to permit the collar 8^b and lower portion of the pin to be moved outwardly through the slot 22. The door-stile plate is then bolted to the door-stile, and when so connected it will be seen that the seal-pin cannot be removed, as the collar 8^b prevents it from dropping through the lower lug, being pulled through the upper lug, or being detached in any other way. The hasp 4 is hooked on the staple 1, and the staple is bolted to the door. The hasp is then swung over the lower lug 17 of the door-stile plate between the body of the plate and the opening of the lug, the seal-pin is dropped through the opening of the lug standing in front of the hasp and prevent-

ing its retraction, and the sealing plate or wire 10 is passed through the slot 7 of the hasp and the slot 9 of the seal-pin and sealed in the usual manner. With the parts so connected it will be impossible to detach the hasp and open the door without breaking the seal.

Figs. 10 to 12, inclusive, illustrate a construction corresponding in all essential structural and operative particulars with that above described and differing therefrom only as to the location of the seal-slot 7 in the hasp, it being in this instance formed in a lug 4^a, which projects from the face of the hasp on the side of the eye 6 nearer to the eye 5 instead of in a projection at the free end of the hasp, as in the former instance. The sealing plate or wire is passed through the seal-pin slot and the slot 7 and secured as before, the parts being similarly connected without the capability of detachment, except by breaking the seal.

As will be apparent to railroad officials, an efficient and practically useful freight-car-door fastener should present at least all of the following features, viz.: It should constitute a positive lock which cannot be unfastened without breaking the seal, be strong, durable, and readily operative in all conditions of weather, be simple and compact in construction, easily applied and easily operated, be interchangeable—that is to say, its several parts should be applicable to a foreign car in place of corresponding parts that may be broken—without necessitating the application of a complete set, be adaptable to use with the tin or wire seals ordinarily used, and should be sufficiently low in cost to be sold in competition with inferior forms of locks now on the market.

It will be found that my improved fastener complies with the above requirements and affords an absolute safeguard against pilfering without breaking the seal.

I claim as my invention and desire to secure by Letters Patent—

1. In a car-door-fastening appliance, the combination of a staple, a hasp swinging thereon, a door-stile plate having a longitudinally-extended slot in its body and upper and lower perforated lugs, a seal-pin adapted to be inserted entirely through said extended slot and having one end provided with a head fitting and passing through the upper lug and the other end resting in the lower lug, a collar above the lower lug, and a seal-pin slot below the lower lug.

2. In a car-door-fastening appliance, the combination of a door-stile plate having upper and lower sockets or perforated lugs on its face for the reception of a seal-pin, and a longitudinally-extended slot in its body for the passing therethrough of the seal-pin and insertion into said sockets, a seal-pin having a head and collar which prevent its retraction from the door-stile plate when secured to a door-stile closing said extended slot, a seal-slot below the collar, and means, irremovable by access to the outside of the door-stile, for securing the door-stile plate thereto.

3. A door-stile plate for a car-door-fastening appliance, having end openings for bolts to connect it with a door-stile, a longitudinal and extended slot in its body for the passage therethrough of a seal-pin, and upper and lower sockets or perforated lugs for the reception of the seal-pin when in operative position, said upper socket or lug permitting the passage of a head on one end of the seal-pin.

CHARLES W. BOOTH.

Witnesses:
I. W. McPherson,
I. A. McIntyre.