

(No Model.)

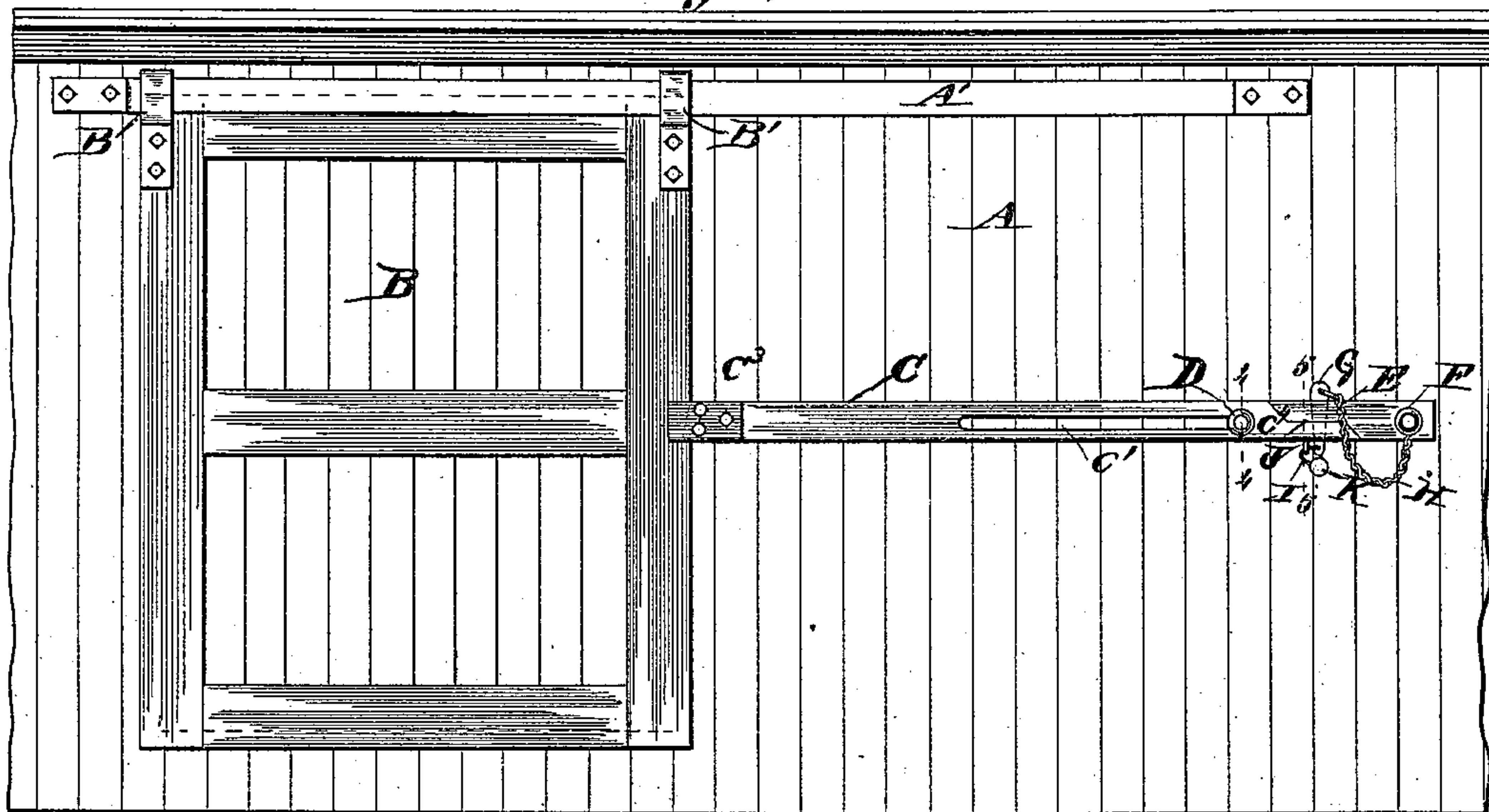
W. L. BENTON.

FREIGHT CAR DOOR FASTENER.

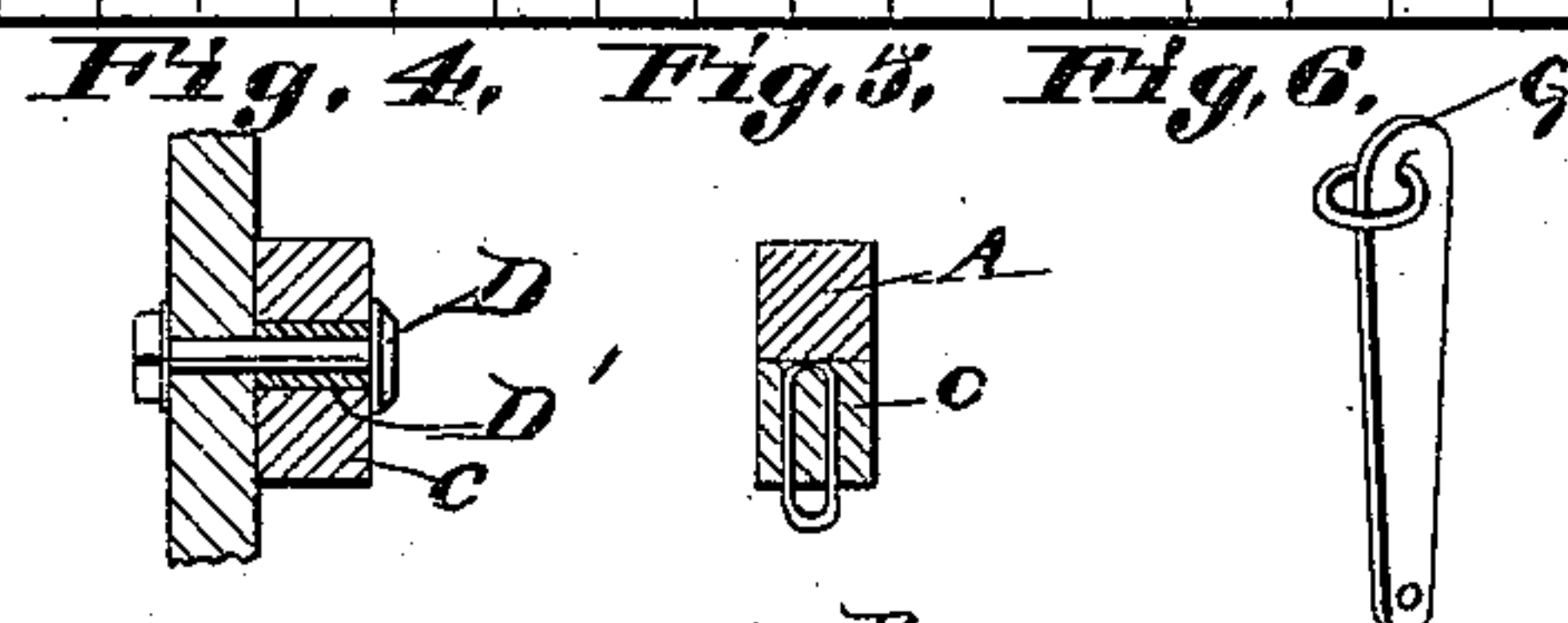
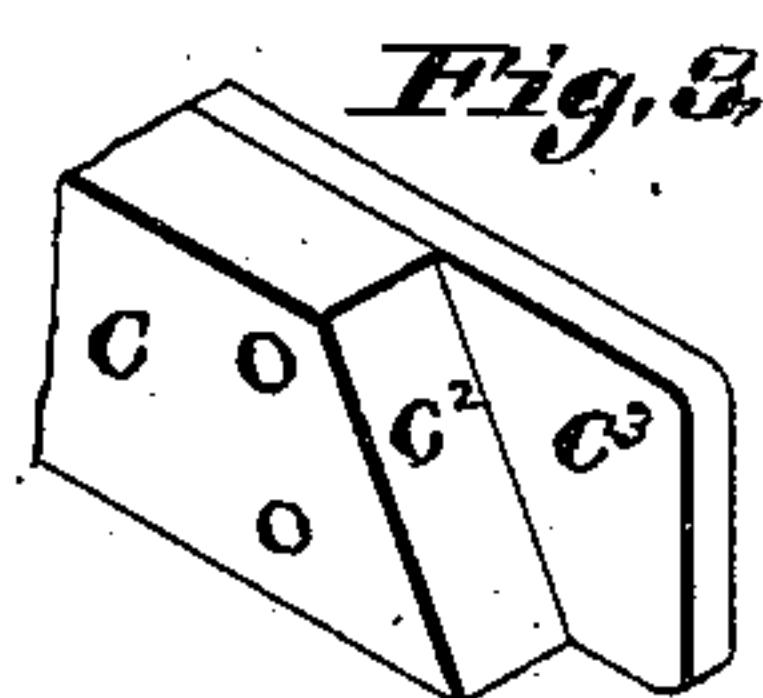
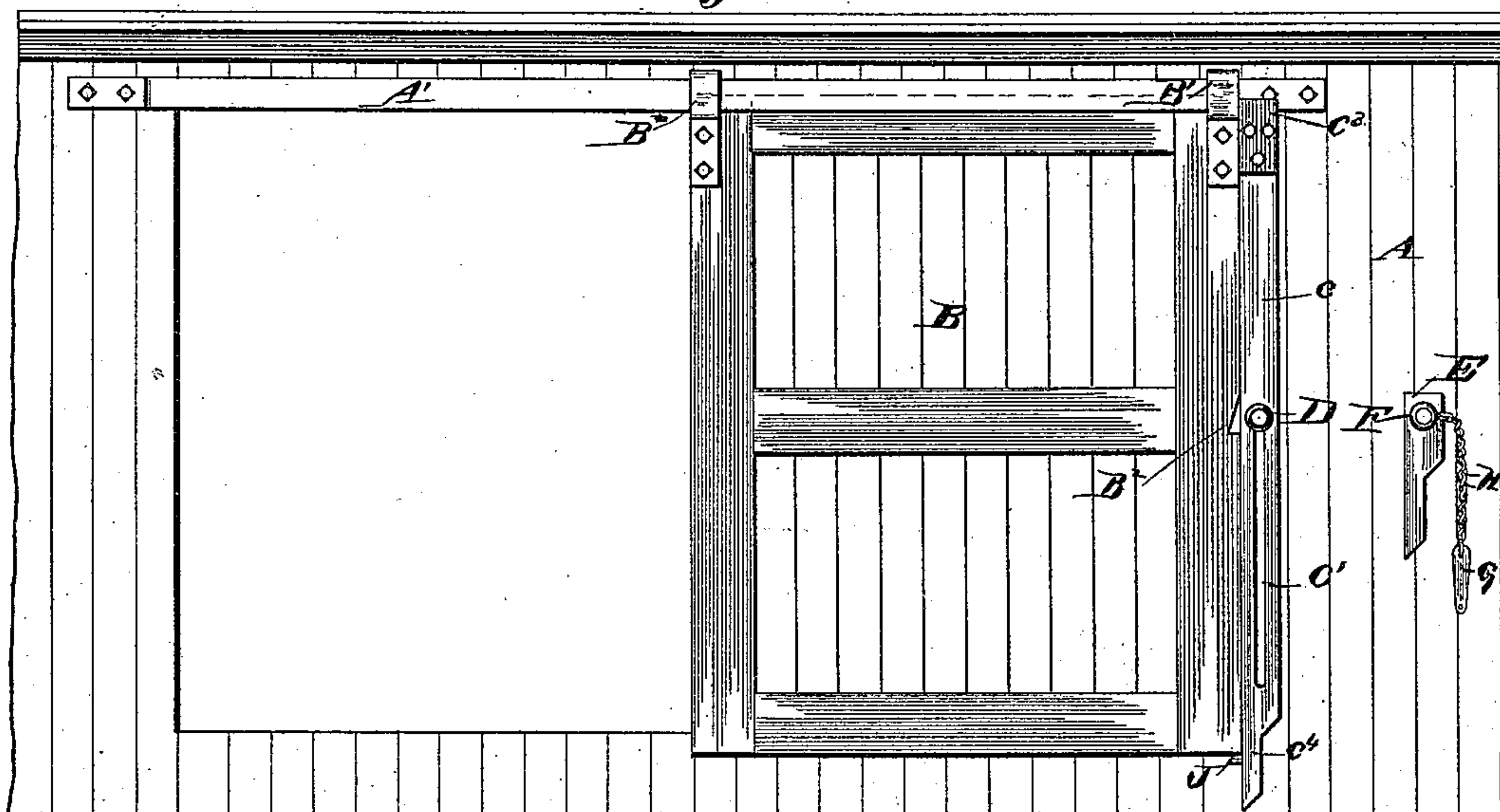
No. 355,963.

Patented Jan. 11, 1887.

*Fig. 1.*



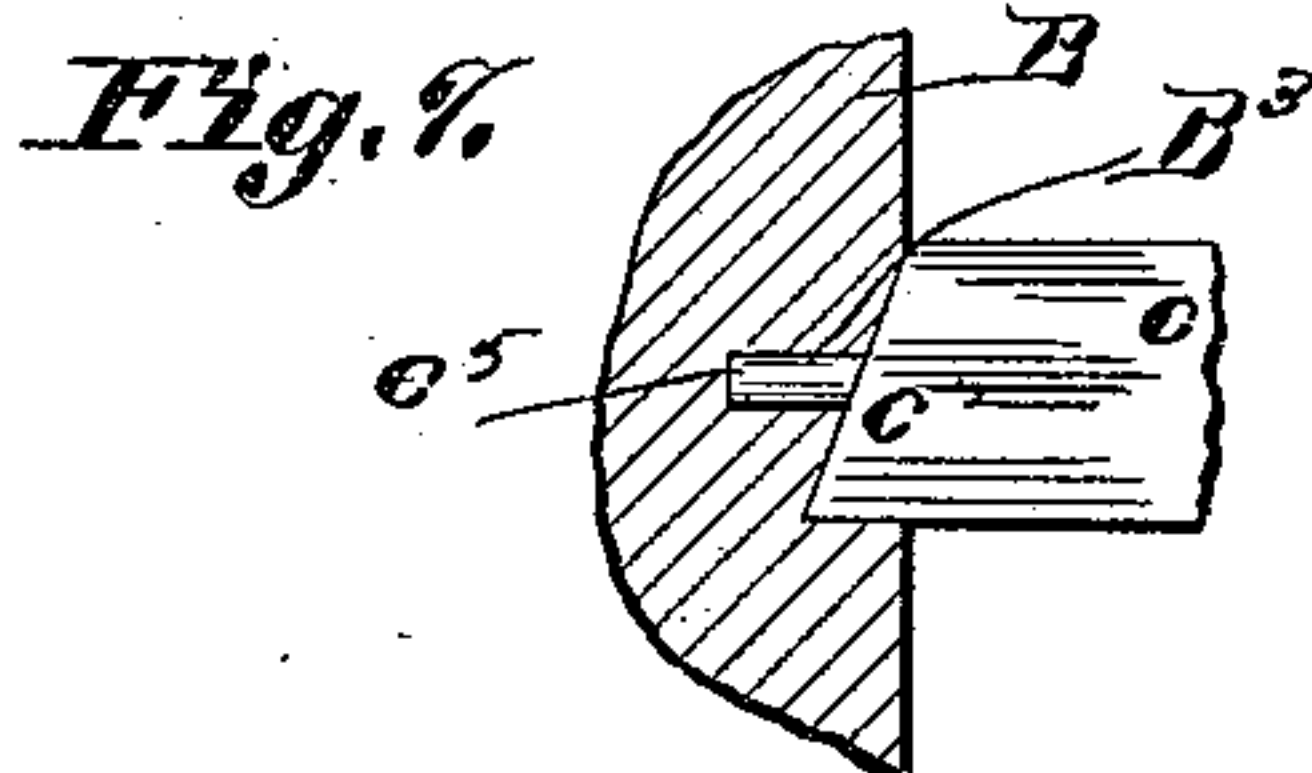
*Fig. 2.*



*Attest:*

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# UNITED STATES PATENT OFFICE.

WALTER LEMUEL BENTON, OF ST. LOUIS, MISSOURI.

## FREIGHT-CAR-DOOR FASTENER.

SPECIFICATION forming part of Letters Patent No. 355,963, dated January 11, 1887.

Application filed April 26, 1886. Serial No. 200,211. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER LEMUEL BENTON, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Freight-Car-Door Fasteners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a side elevation of part of a freight-car with my improvement applied thereto, showing the door closed and locked. Fig. 2 is a similar view showing the door open.

Fig. 3 is a detail perspective view showing the front bevel end of the bar with the metal plate thereon that clamps the door. Fig. 4 is a vertical section on line 4 4, Fig. 1, showing the attachment of the bar by the pivot-bolt and the anti-friction sleeve around said bolt. Fig.

Fig. 5 is a vertical section on line 5 5, Fig. 1, showing the link secured to the bar as a means of attachment for the detective-wire that connects with the seal and its locking device. Fig. 6 is an enlarged perspective view of the locking-pin; and Fig. 7 is a detail section of the forward point of the bar, showing a modification.

My invention relates to a pivoted adjustable lock-bar for cars that does not require to be detached from the car to unfasten the door; and the invention consists in features of novelty, hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar letters indicate like parts in all the figures, A represents a freight-car of any usual construction; and B the door of the same, hung by suspension-hooks B' B', that slide on a track-rail, A', secured just below the water-shed on the side of the car.

C represents my locking-bar, which is secured to the side of the car by a pivot-pin, D, which works in an elongated slot, C', in the said bar. The pin is provided with an anti-friction sleeve, D', around its stem within the slot, to reduce the friction and wear of the parts as the bar is operated. The front end of the locking-bar has a bevel end at C<sup>2</sup>, that (when the door is fastened) fits in a bevel-gain in the rear side of the door at B<sup>2</sup>, and a metal plate C<sup>3</sup>, bolted to that end of the bar and projecting beyond it, embraces the front of the door

and prevents its being swung out at bottom.

A moiety of the rear end of the bar is cut away for a certain length, with bevel ends at C' to engage with and fit the corresponding edges of the short latch-bar E, which works on a pivot-pin, F, that secures it to the side of the car.

A flat tapering pin, G, attached by a drop-chain, H, to the pivot-pin of the latch-bar, passes through the corresponding sections of the two bars, and when locked rigidly connects them, changing the two pivoted bars C and E into a united stiff bar that securely locks the car-door.

A detective-wire loop, I, passes from the seal-lock K through a hole in the lower end of the lock-pin and through a link, J, secured to the main bar, and from thence again to the seal-lock, or vice versa.

In Fig. 7 is shown a modification of my device, in which the overlap-plate on the front end of the main bar is dispensed with, and an iron pin, C<sup>5</sup>, inserted in the bevel end of said bar, engages in a socket-hole at B<sup>3</sup> in the door, having the same function as the superseded plate to clamp the door from being swung out at bottom.

My invention obviates the necessity of nailing on the usual vertical cleat to fasten the car-door when loaded, and the consequent detachment of said cleat preparatory to unloading the car. It is evident that not only is this inconvenience avoided, but also the side of the car is not injured by the operation of my bar, as it is when cleats are nailed on or withdrawn at each time the door is fastened or unfastened; also, car-breakers cannot easily remove the fastening, as is frequently done with the cleats, helping themselves to what they want, and then frequently tacking on the cleats again, so that there is no evidence that the car has been tampered with until it is opened for unloading.

It will be seen (as is more fully described in the operation of my device) not only is my locking-bar not easily removed by unauthorized parties, but also the breaking of the detective-wire (without which it cannot be opened) will in such case be a sure and very apparent evidence that the car has been tampered with.

The operation of my invention is as follows: The car having been loaded and door closed, the main bar with a rotary and endwise move-



ment is brought into its operative position, the elongated slot allowing the bar to slide forward until its bevel end engages in the bevel-gain on the door, and the facing-plate 5 C<sup>3</sup> clamps against the front of the door. The latch-bar E is then turned over and engages at its bevel end with the corresponding joints of the main bar. The lock-pin is next inserted, passing through both bars and making 10 them rigid, both in their connection with each other and in their operation as a stiff bolt or bar to the door. The detective-wire loop from the seal-lock is then passed through the locking-pin and through the link secured to the 15 bar from which it re-enters the seal-lock, or vice versa, and the loaded car is both locked and sealed. The attachment of the link through which the detective-wire passes is so hid and protected by the bar that it is safely protected 20 from danger of being tampered with.

It will be seen that not only does the bar whose bevel end is seated in the gain in the door prevent it from being slid open, but also the overlap-plate prevents the door from being 25 swung out at bottom, and so tampered with in that way.

I have shown the locking and latch bar attached about midway down the side of the car; but I do not confine myself to that position, for it may be placed at any other elevation, or even at an angle in either direction, without departing from the essential features 30 of my invention.

I claim as my invention—

1. In freight-car-door fasteners, the combination of the pivoted bar C, with its bevel end C<sup>2</sup>, that engages in the bevel-gain B<sup>2</sup> in the door, the pivot-pin D on which the bar rotates, the elongated slot C' that allows it to slide forward to its work, the latch-bar E, 35 lock-pin G, and seal-lock K, all arranged substantially as described, and for the purpose set forth. 40

2. In freight-car door fasteners, the combination of the pivoted sliding bar, its bevel end fitting in a gain in the door, the overlap-plate C<sup>3</sup>, the pivoted latch-bar engaging the lock-bar, the lock-pin passing through both bars, with seal-lock to secure it therein, and 15 detective-wire loop secured to the lock and passing through a link attached to the locking-bar, arranged to fasten the door and detect tampering therewith, all substantially as 50 described, and for the purpose set forth.

3. In freight-car-door fasteners, the combination of the pivoted sliding lock-bar with a 55 bevel end fitted to engage in a bevel-gain in the door, the bolt C<sup>5</sup>, extending from said bar and fitting in a socket-hole in the door, the pivoted latch-bar, lock-pin, and seal-lock 60 with detective-wire loop from lock passing through a staple attached to the locking-bar, all substantially as described, and for the purpose set forth.

WALTER LEMUEL BENTON.

In presence of—

JOS. WAHLE,

EDW. S. KNIGHT.