B. F. JACKSON.
Car-Door Fastening.

No. 207,605. **Patented Sept. 3, 1878.**

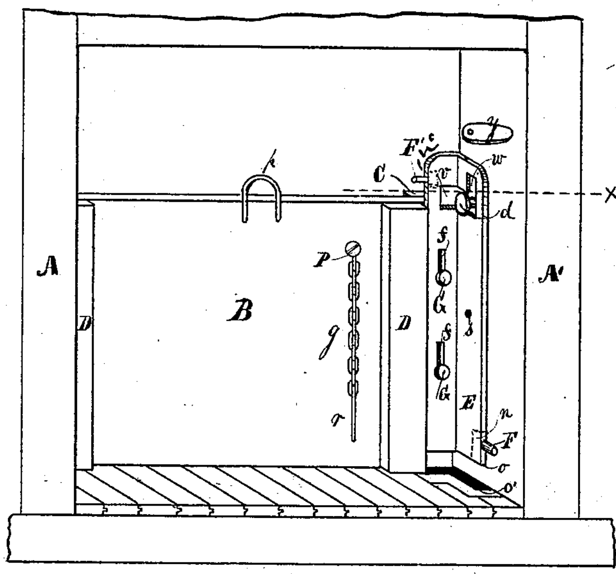

Fig 1

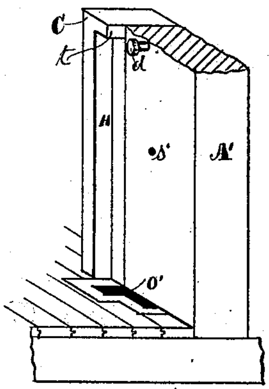

Fig 2

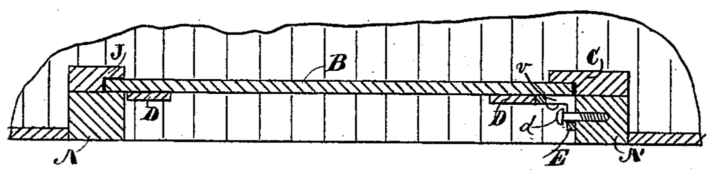

Fig 3

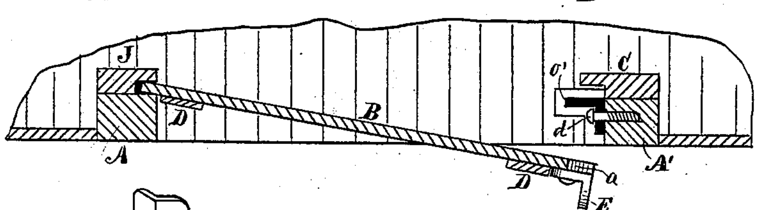

Fig 4

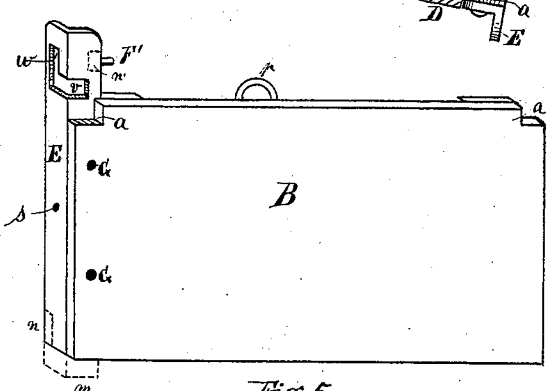

Fig 5.

Witnesses;
S. C. [signature]
H. A. Moore

Inventor.
Benjamin F. Jackson.
Per E. C. Frink
his attorney.

UNITED STATES PATENT OFFICE.

BENJAMIN F. JACKSON, OF INDIANAPOLIS, ASSIGNOR TO HIMSELF AND JOHN J. SHIELDS, OF MUNCIE, INDIANA, ONE-HALF TO EACH.

IMPROVEMENT IN CAR-DOOR FASTENINGS.

Specification forming part of Letters Patent No. **207,605**, dated September 3, 1878; application filed December 4, 1877.

To all whom it may concern:

Be it known that I, BENJAMIN F. JACKSON, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Inside Car-Doors and mode of fastening them, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 represents a perspective view of my improved door and fastening applied to a car. Fig. 2 is a perspective view of a portion of the door-frame and one rabbeted cleat. Fig. 3 is a sectional view of the door, the fastening, and the door-frame, taken at the line *x* of Fig. 1, showing the door closed. Fig. 4 is a sectional view of the same, except that the door is partly removed from the frame; and Fig. 5 is a reverse perspective view of the door and fastening from that shown in Fig. 1.

Heretofore inside car-doors have been secured by various devices, some of which are designed to admit of the door being readily secured and easily removed; but most of them are objectionable, owing to their complicated construction and the loss of time required in releasing the door, especially when goods are crowded and wedged against the inside thereof, which in many instances interfere with the removal of the fastenings.

The object of my invention is to furnish a device whereby inside doors of cars can be readily secured, admitting of the use of extra doors or boards above, and easily removed from the frame when so required; and my invention consists in the construction of the door, the bolt, and the arrangement and combination of devices, as will hereinafter be fully set forth and described.

In the drawing accompanying this specification like letters indicate like parts.

A A′ represent the frame of any ordinary freight-car door. On the inside of the side frames or posts, A A′ are, secured rabbeted cleats J and C, both of which have the rabbet H closed at the top, as shown at *t* in Fig. 2. These caps *t* are designed to prevent the door B, when inserted in the rabbets H, from rising up. The rabbeted cleat J is secured to the post A so that the rear side of the post and the rabbeted cleat shall form a groove to receive one end of the door B. The other rabbeted cleat, C, is secured to the post A′ so that the rabbet H shall form a jamb for the other end of the door to shut against, as shown in Figs. 2, 3, and 4. The door B may be of any ordinary kind, except that its upper corners, *a a*, are notched, as shown, so as to allow the top of the door to be flush with the tops of the caps *t* of the cleats J C. This construction and arrangement of the door and cleats will admit of the use of extra doors or boards above, that will form a tight joint with the top of the door B without the necessity of cutting notches in said upper doors or boards.

To one end of the door B is secured an upright sliding angular bolt, E, which is of peculiar construction, as follows: The said bolt has one or more slots, *f*, formed in one side thereof, through which the stud-bolts G pass, and are secured to the door in such a manner as to hold the bolt in position against the door, and at the same time allow the bolt to be operated up and down. The same side of the bolt E that is provided with the slots *f* is also provided with an opening, *v*, near its upper end, which cuts away the corner of the angle and extends to about an equal distance into the other side of the bolt, and then extends upward, forming the opening or slot *w*. This opening *v w*, when the bolt is elevated, as in Figs. 1 and 5, is designed to allow the stud *d*, which is secured to the post A′, to pass through the opening, so that the head of the bolt *d* shall be on the outside of the bolt E, and the shaft of bolt *d* shall be under the slot *w*, when the door is against the rabbet-cleat C, as shown. The door can then be firmly secured at the top and bottom by forcing the bolt E down so that its lower end shall enter the socket *o*, which is secured in the bottom of the car, and the bolt *d* enters the slot *w* above, thus fastening the door. The bolt E may be further secured, to prevent its working up, by inserting the pin *r* into the hole *s* of the bolt E and *s′* of the post A; or the button *y*, which is attached to the post A′ above the bolt E, may be turned down over the bolt. The bolt E may be provided with pins F′ above and F below, or notches may be formed therein, as indicated by the dotted lines *n′* above and *n* be-

low; or other similar means may be applied whereby the bolt can be forced up by the use of a pinch-bar or a board applied thereto, so that the door can be released.

It will be seen from the foregoing that when the door B is inserted in its proper place it can be readily secured or removed, and that the wedging of goods on the inside cannot interfere with the fastenings, and that extra doors or boards may be applied above the lower door without cutting notches in them to make a tight joint. The door may be attached to the car by any ordinary means to prevent the loss thereof.

What I claim as new, and desire to secure by Letters Patent, is—

1. The angular sliding bolt E, provided with one or more slots, *f*, the opening *v*, and slot *w*, in combination with the pin *d*, in the manner and for the purposes substantially as shown and described.

2. The angular sliding bolt E, provided with one or more slots, *f*, the opening *v*, and slot *w*, in combination with the car-door B, stud-bolt *d*, and socket *o*, in the manner substantially as shown and described.

3. The angular sliding bolt E, attached to a car-door, and adapted to be raised by a pinch-bar or board applied to the pins F or F′, or to notches *n n′*, in the manner substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENJAMIN F. JACKSON.

Witnesses:

E. O. FRINK,

S. C. FRINK.