

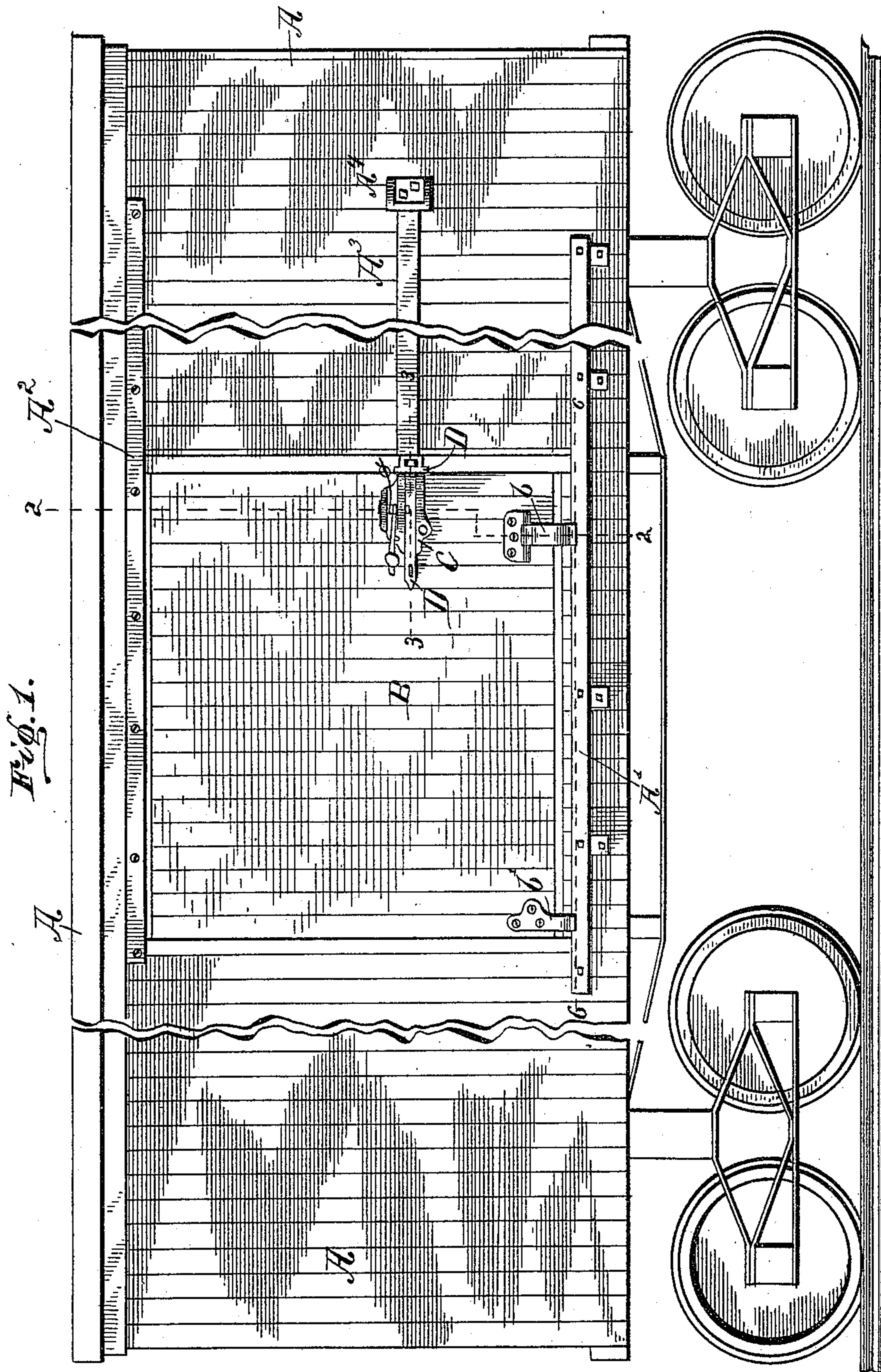
(No Model.)

2 Sheets—Sheet 1.

J. L. WAGNER & J. SEATH.
CAR DOOR.

No. 441,724.

Patented Dec. 2, 1890.



WITNESSES.

W. H. Brown,
J. H. Wood,

John L. Wagner, INVENTORS,
and James Seath,
per E. W. Bradford, ATTORNEYS.

(No Model.)

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Fig. 2.

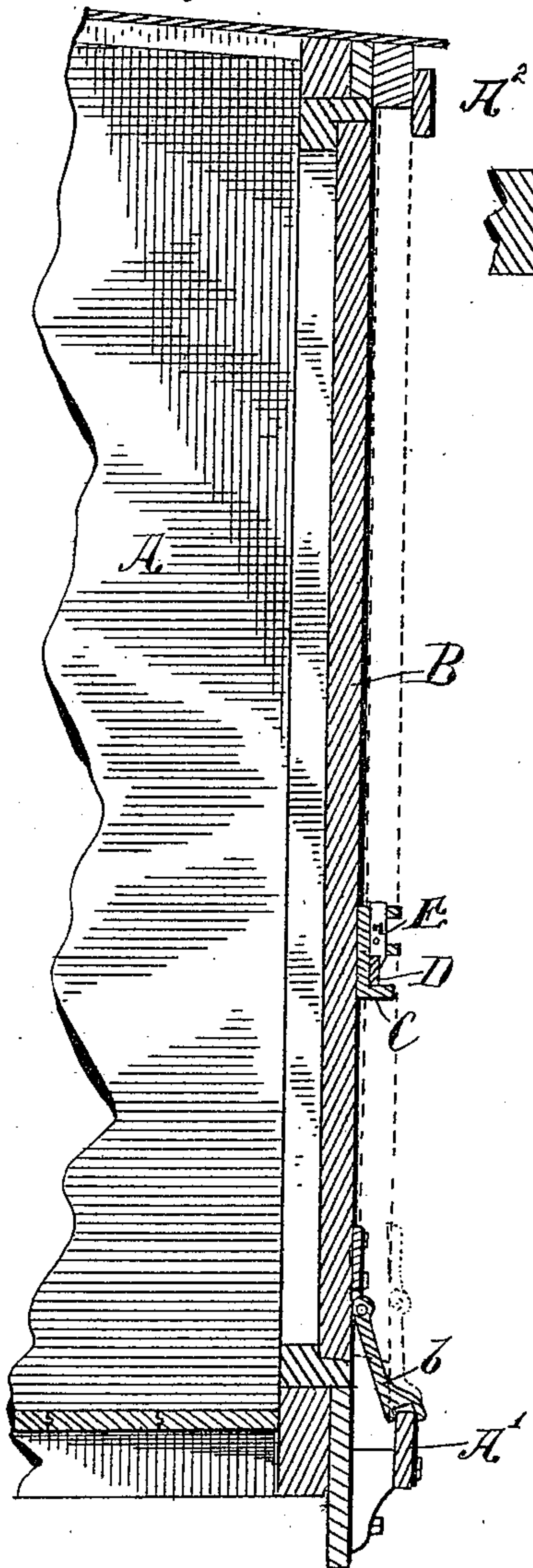


Fig. 3.

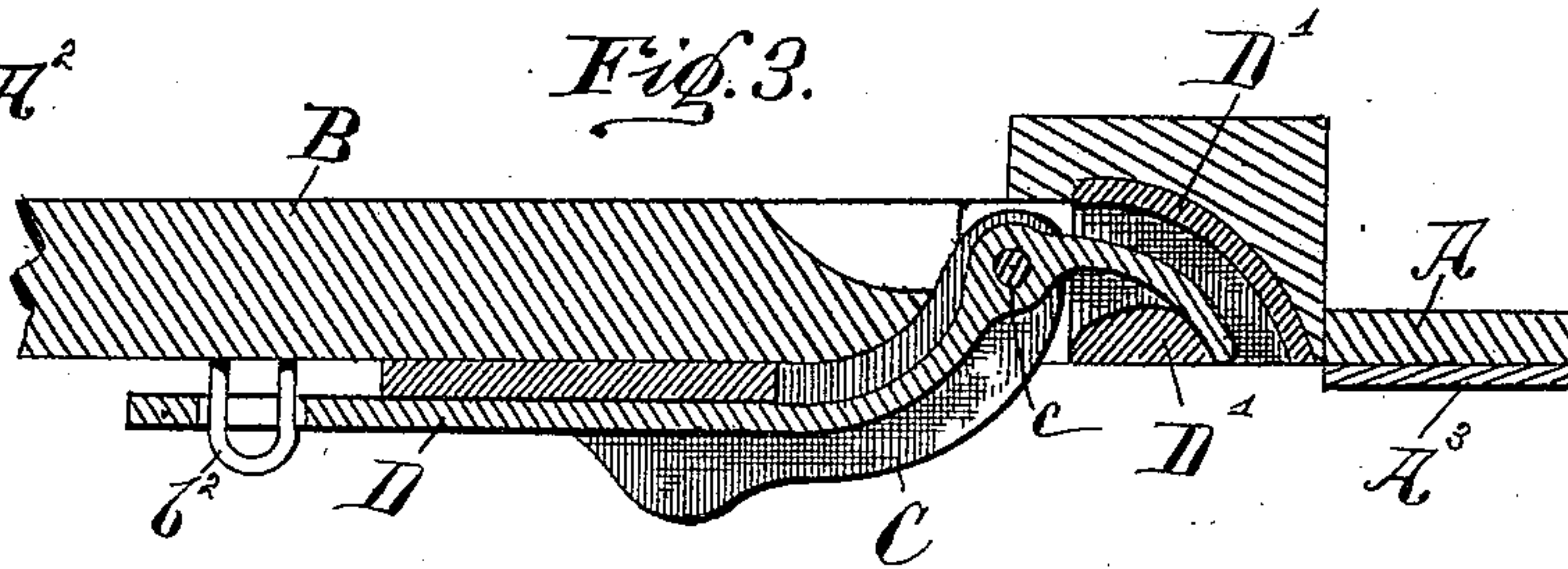


Fig. 4.

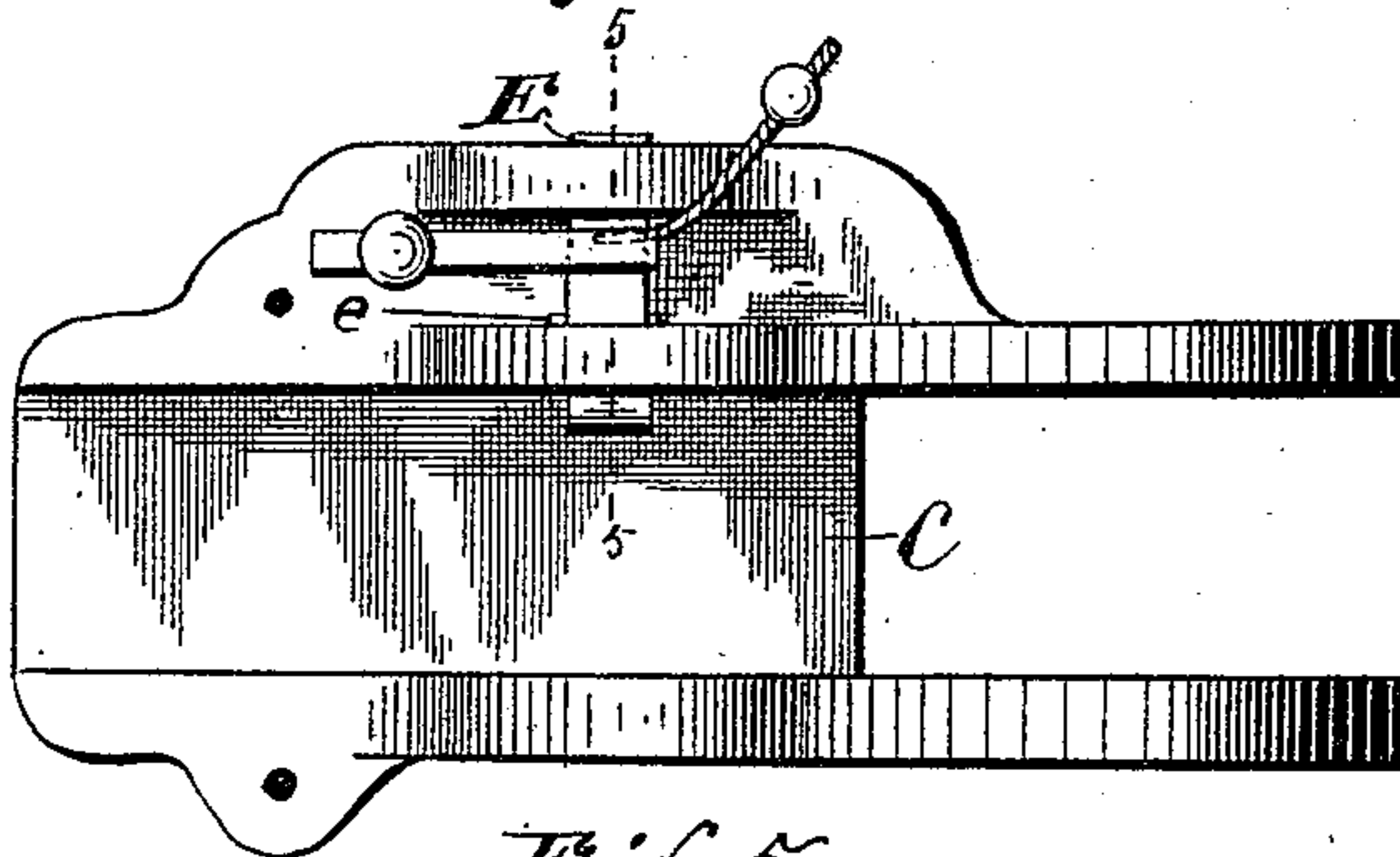


Fig. 5.

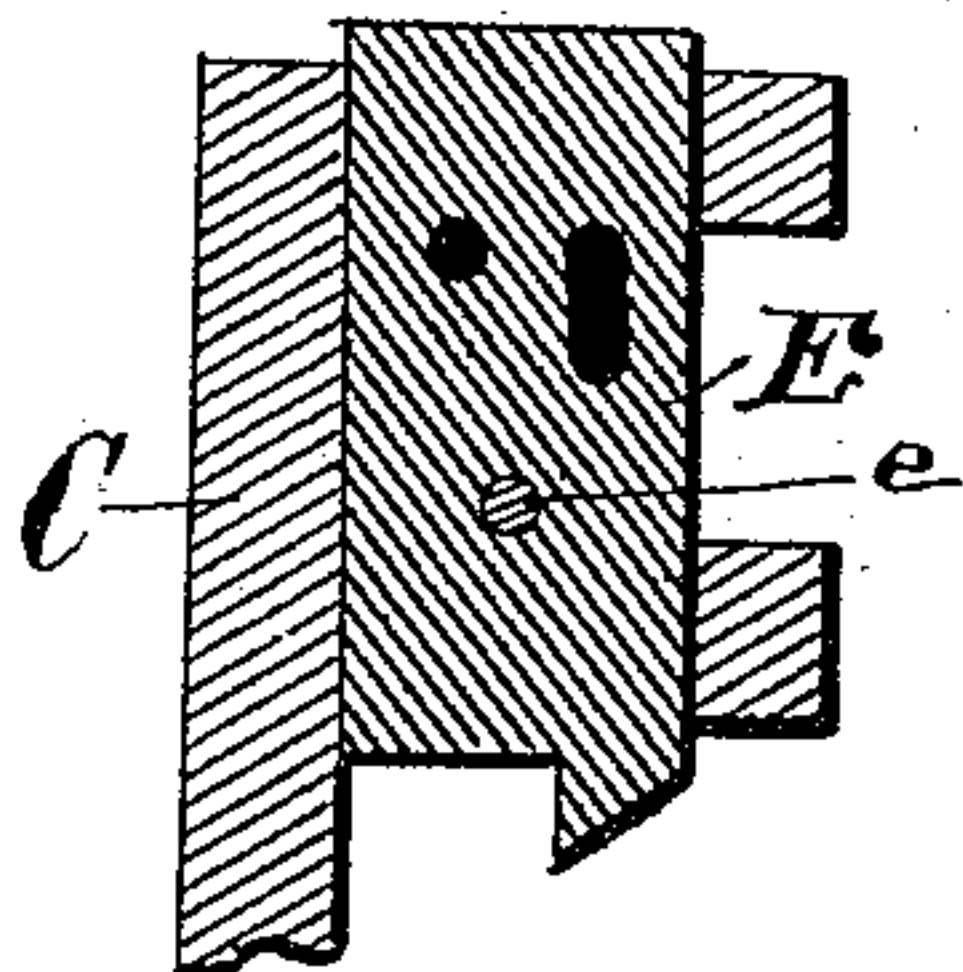
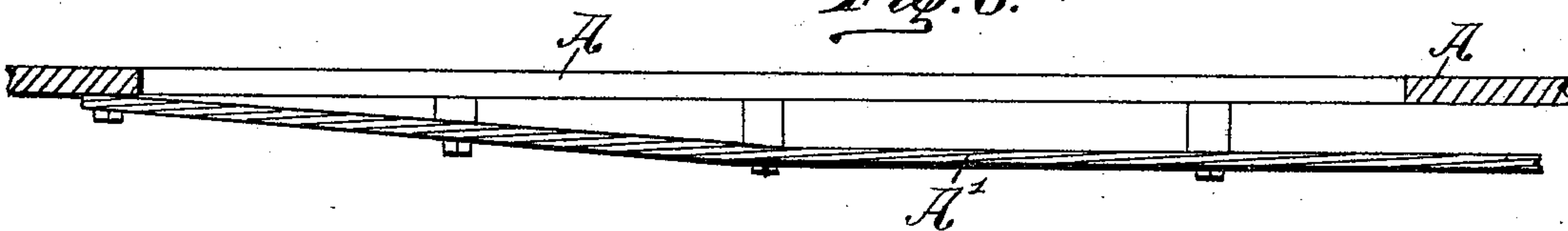


Fig. 6.



WITNESSES.

G. H. H. Brown,
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att. Edw. Bradford, ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN L. WAGNER AND JAMES SEATH, OF TERRE HAUTE, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO THE AMERICAN CAR DOOR COMPANY, OF INDIANAPOLIS, INDIANA.

CAR-DOOR.

SPECIFICATION forming part of Letters Patent No. 441,724, dated December 2, 1890.

Application filed August 24, 1888. Serial No. 283,662. (No model.)

To all whom it may concern:

Be it known that we, JOHN L. WAGNER and JAMES SEATH, citizens of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification.

Our present invention consists in an improved means for so operating the doors of freight-cars that when shut they will close tightly into their jambs. It further consists in certain details of construction relating to said means and to the "sealing" of the car when the door is closed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a box freight-car provided with a door embodying our said invention; Fig. 2, a transverse vertical sectional view, on an enlarged scale, through said door, looking toward the right from the dotted line 2 2 in Fig. 1; Fig. 3, a horizontal sectional view, on a still further enlarged scale, looking downwardly from the dotted line 3 3 in Fig. 1; Fig. 4, a front elevation of the housing in which the operating-lever and locking device are mounted; Fig. 5, a horizontal sectional view through the locking-bolt, looking toward the right from the dotted line 5 5 in Fig. 4; and Fig. 6, a horizontal sectional view, looking downwardly from the dotted line 6 6 in Fig. 1.

In said drawings the portions marked A represent the body of the car; B, the door; C, the housing in which the operating-lever is mounted; D, said operating-lever, and E the locking-bolt.

The body A of the car is of the ordinary and well-known construction and will not be described herein except incidentally in describing our invention. At or near its lower side below the door-opening is secured the guide or track A', (see particularly Fig. 6,) on which the door slides. As will be seen, this track at one side is secured a certain distance from the body A, so that when the door is opened it will swing clear of said body, while at the other side it is attached directly

to the body, so that when the door is closed it will fit closely into the opening provided for it. The change in the direction the track runs is preferably at the center of the door-opening, as shown, although it may of course be varied from this point. Above the door-opening is secured the guide A², which is of the same general form as the track A' just described, and which holds the door in position. A bearing-plate A³ is secured to the body of the car in a position for the operating-lever to rub against when the door is being opened or closed and thus protect the side of the car from being marred thereby, and at or near the outer end of this plate is a stop A⁴ to prevent the door from being run off the track.

The door B in itself is an ordinary car-door. Instead, however, of both bearings which rest upon the track being rigid therewith, as is common, it is provided with a hinged bearing *b* at one side, whereby it is enabled to be brought either into the position shown by the full lines in Fig. 2, as when the door is closed, or to the position shown by the dotted line in said figure, as when the door is ready to be opened, by moving the same along the track. The bearing *b'* at the other side of the door is the ordinary rigid or stiff bearing. The hinged bearing *b* is shown as consisting of two parts, one of which is secured to the door and the other of which is secured thereto by a horizontal pintle and extends to and rests upon the track. This is an extremely simple device and is very effective for the purpose. Consisting of two parts only, there are but few wearing-points and no pieces which are liable to become detached and lost. The horizontal pintle, which connects the swinging portion to the rigid portion, permits a direct movement of the door into and out of its jambs without any twisting strain on the bearings whatever, while the device otherwise has all the advantages of the ordinary old-fashioned rigid bearing, being, in effect, such a bearing divided, with the two parts hinged together.

The housing C carries the lever D and the lock-bolt E, the former of which is secured thereto by a pintle *c*. The latter rests in

openings in wings in said housing, as shown, and as will be presently more fully described.

The lever D is secured to the housing C by the pintle c or otherwise, and is adapted to engage in the bearing D', which is provided therefor in the jamb of the door, and is formed with a bearing-surface for said lever on both the front and rear side of its aperture, as presently described. As will be noticed, particularly by an examination of Fig. 3, the point of this lever is hook-pointed or so formed that when swung in one direction, so that the handle is brought alongside the door B, the point will engage behind the front portion of the double-surfaced bearing D' and throw the door tightly into its jamb. When, however, the lever is swung in the other direction, the point will bear against the back side of the double-surfaced bearing D' and throw the door out of its jamb into the position shown by the dotted line in Fig. 2, ready to be moved along the track-rail A' and thus opened. A staple b² is commonly provided extending out from the door B at the proper point, and a slot is formed in the handle end of the lever D, which passes over this staple, and the insertion of a pin or lock into said staple forms one means of fastening the door.

30 The locking-bolt E, which is commonly employed to lock the car, is mounted in suitable holes formed for that purpose in two projections or wings on the housing C. A pin e is commonly inserted in this locking-bolt as a
35 means of limiting its movement and holding it in position. This locking-bolt when free can be easily raised up, so as to permit the passage of the lever when it is desired to open the car-door. Its lower end is commonly
40 formed tapering, as shown in Fig. 5, so that the lever will itself force it upwardly when said lever is swung inwardly, and when it has passed the locking-bolt said bolt will drop down, holding said lever in position. This
45 locking-bolt is illustrated as provided with two seal-fastenings, one of wire and one of strip metal, one behind the other. These are a common and well-known device and do not need to be described herein. It is obvious
50 that when this locking-bolt is down with the lever behind it and these seal-fastenings have been applied the car-door cannot be opened without plainly indicating that it has been done.

Having thus fully described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a car having a door-opening, a track secured to the side of said car below said door-opening, a car-door, and a bearing formed in parts, which parts are secured together by a hinged joint, one of said parts being secured rigidly to the door and another extending down to and resting upon the top of said track, said bearing thus adapted to both support the door and to permit it to move transversely of the track into and out of the door-opening in the side of the car, substantially as set forth.

2. The combination of a car-door, its track, and a bearing formed of two parts connected by a horizontal pintle, one of which is secured rigidly to the door and the other of which extends to and rests upon the track.

3. The combination, in a car provided with a door-opening, of a track-rail, one end of which runs inwardly to the side of the car, whereby one edge of the door is guided into its jamb, said door, a hinged bearing supporting the same on the opposite edge thereof, and mechanism whereby said door may be moved transversely of said track on said hinged bearing and the edge to which said bearing is secured thus also moved into its jamb, substantially as set forth.

4. The combination, with a car-door adapted to move transversely across the track on which it is mounted, of a housing secured to said door, a curved lever mounted in said housing, and a bearing having two engaging-surfaces secured to the door-jamb, with which said lever is adapted to engage and move the door in either direction, substantially as set forth.

5. The combination of a car-door, a lever for operating the same, a locking-bolt for securing said lever, said locking-bolt being mounted in openings in properly-located wings in the housing, in which said lever is also mounted, substantially as set forth.

In witness whereof we have hereunto set our hands and seals, at Indianapolis, Indiana, this 18th day of August, A. D. 1888.

JOHN L. WAGNER. [L. S.]
JAMES SEATH. [L. S.]

Witnesses:

C. BRADFORD,
FRANK W. WOOD.