(No Model.)

J. H. LEWIS & A. WEENINK.

SLIDING DOOR LOCK.

No. 509,130. Patented Nov. 21, 1893.

Fig. 2.

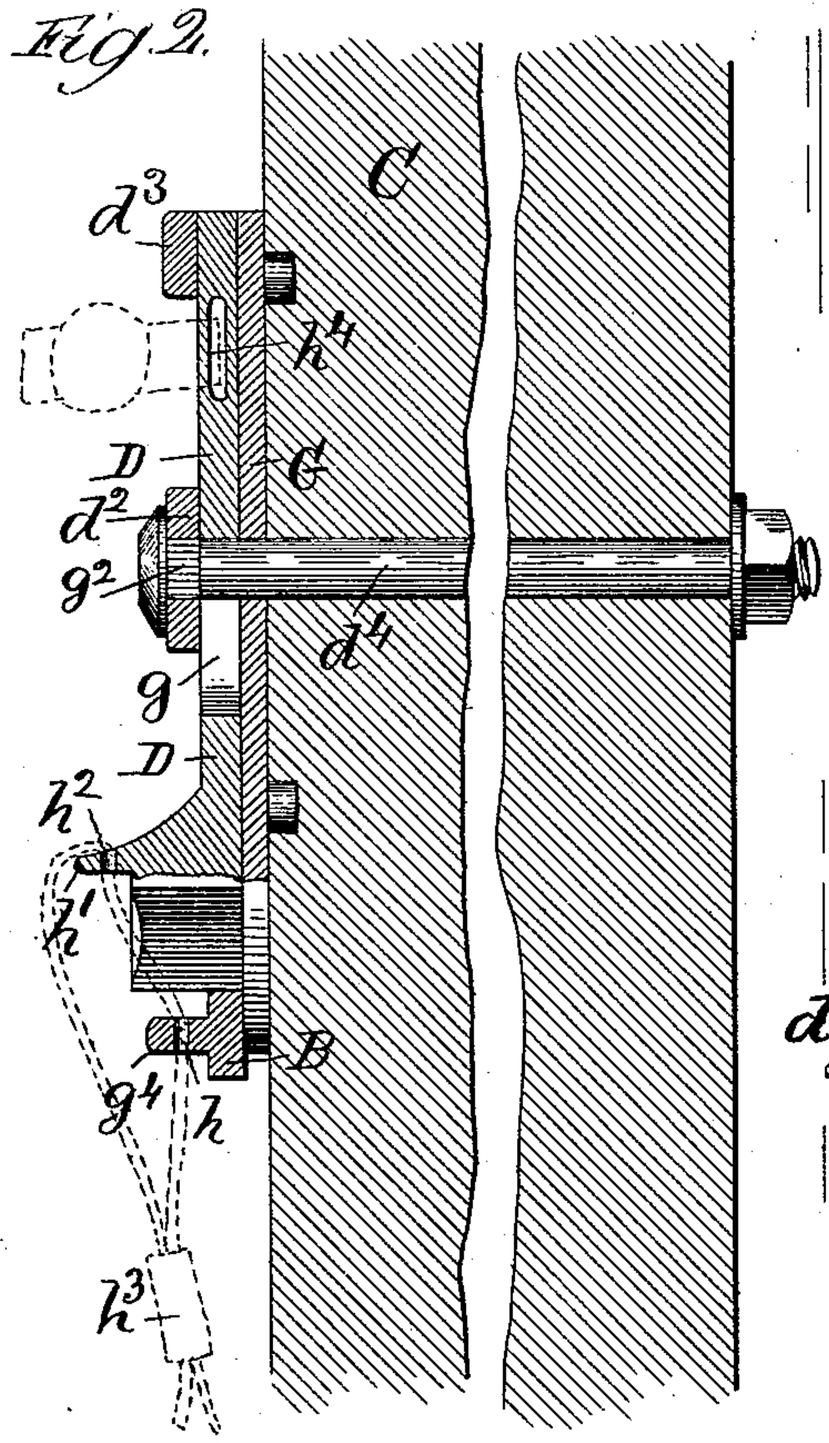


Fig. 1.

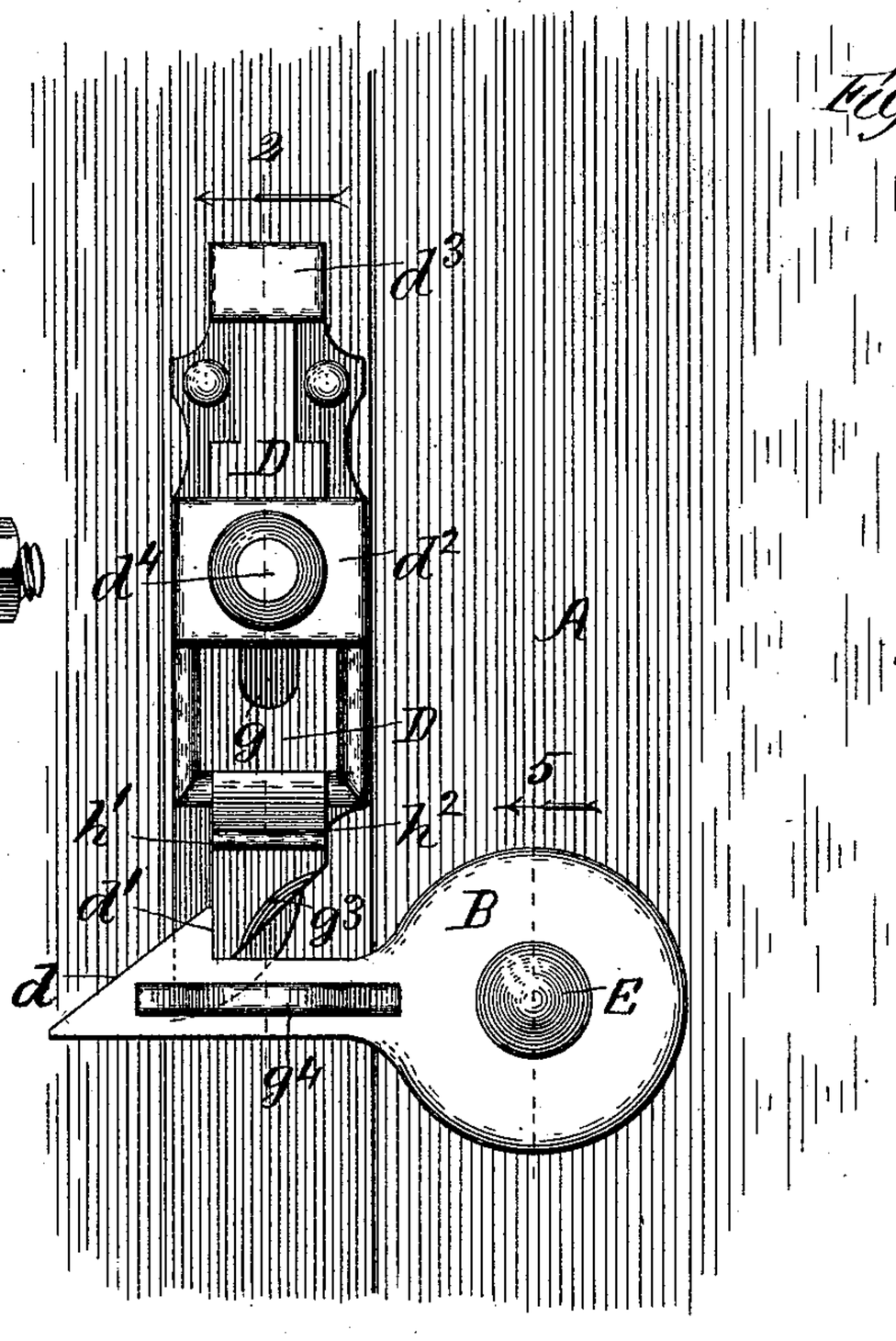


Fig. 3.

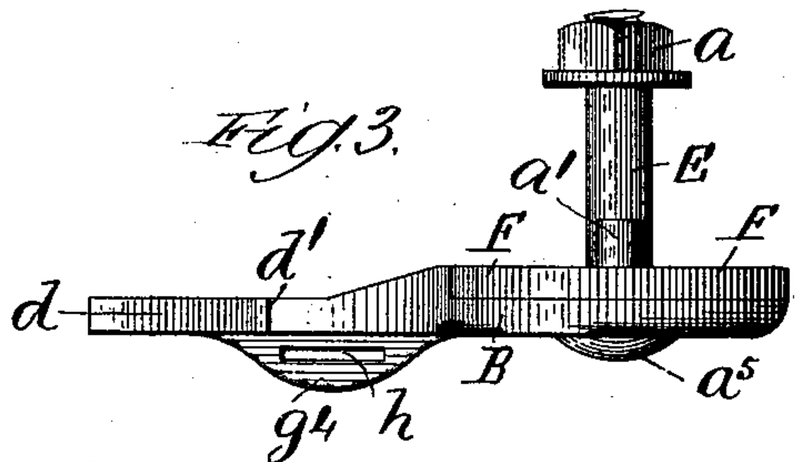


Fig. 4.

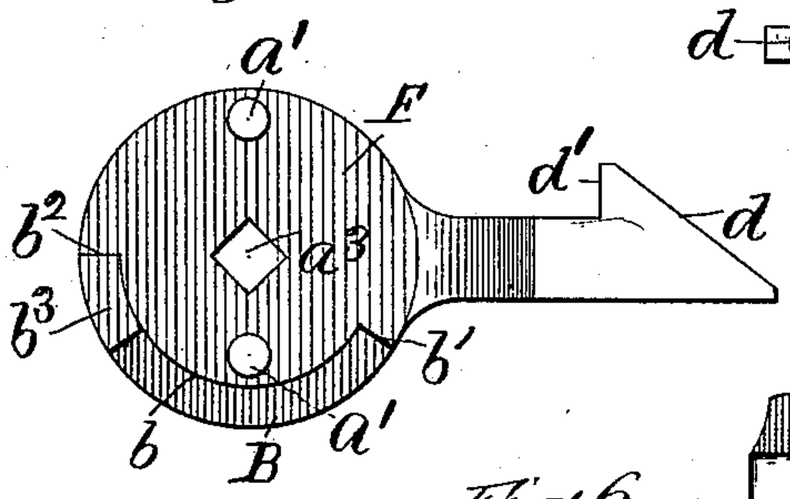


Fig. 6.

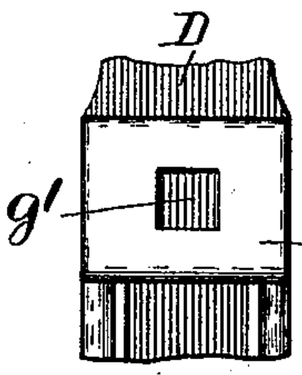
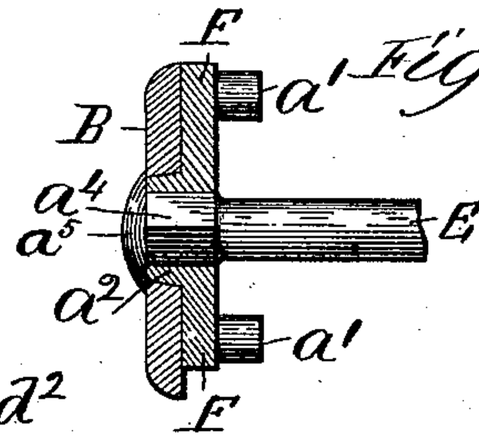


Fig. 5.



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JOHN H. LEWIS AND ALBERT WEENINK, OF CHICAGO, ILLINOIS.

SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 509,130, dated November 21, 1893.

Application filed December 5, 1892. Serial No. 454,111. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. LEWIS and ALBERT WEENINK, both citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Door Fasteners, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to an improved fastening-device or catch for sliding-doors, and is more especially intended for use on freight-car doors, as will be hereinafter set forth.

Figure 1 is a broken-away front elevation; Fig. 2, a vertical section on line 2, Fig. 1; Fig. 3, a plan of the catch part; Fig. 4, the inner or reverse side of the catch; Fig. 5, a section on line 5, Fig. 1; and Fig. 6, a broken-away detail.

Referring to the drawings, A may represent a sliding-door to which the catch B is attached, and C a door-post to which the locking-bolt D is attached.

The back end of the catch is preferably of the circular form shown and is pivotally attached to the door by bolt E inserted therethrough and secured on the inside by nut a. Between this end of the catch and the surface of the door is a disk-plate F (Figs. 3, 4 and 5), provided on opposite sides with holding-pins a' a' which are to be inserted in the door to prevent the plate from turning. This plate is provided with a socket-shoulder a^2 (Fig. 5), having a square aperture a^3 (Fig. 4), which fits into the bolt-aperture in the catch.

The bolt E is provided with square sides a^4 corresponding to the square aperture in the plate F and socket-shoulder thereof and also with the spherical head a^5, so that the same cannot be removed from the outside. The edge of the plate F is cut away at one side, as at b (Fig. 4), providing stop-shoulders b' b^2. This leaves the edge of the catch project over the cut-away edge of the plate F; the projecting edge being provided with the rigid stop-lug b^3. This arrangement provides for the turning of the catch from a horizontal to a vertical position and back again to a horizontal or locking position, as the stop-lug b^3 will come alternately in contact with shoulders b' b^2 and confine the movement of the catch within that limit. The object of this is to throw the catch up out of the way when the door is opened, as the catch will project beyond the edge and be in the way, especially on car-doors. When the arrangement is such that the catch would not be in the way, it can be secured rigidly to the door in a horizontal position, and the adjustable features just described be dispensed with in the construction.

The bar-end of the catch is beveled as at d and provided with the locking-shoulder d'.

The bolt-plate G is secured to the door-post or frame C, and the locking-bolt D movably attached thereto in a vertical position. This bolt-plate is provided with guide-straps d^2 d^3 which loosely retain the bolt in its relative position and permits of an endwise movement. The bolt d^4 passes through the strap d^2 and rigidly fastens the plate G in place. The locking-bolt is provided near its longitudinal center with the elongated slot g through which the bolt d^4 passes, and which limits the up and down or endwise movement of the locking-bolt. The strap d^2 is provided with the square aperture g' (Fig. 6), and the bolt d^4 with a corresponding square shoulder g^2 (Fig. 2), fitting the aperture g' so that the bolt d^4 cannot be turned from the outside.

The locking-bolt is normally in its down or locking position and has the lower end beveled, as at g^3, so that when the beveled surface d of the catch-bar comes in contact therewith in closing the door, the locking-bolt is forced upwardly until the line of the shoulder d' has passed beyond, when the locking-bolt automatically gravitates into the locked position shown in Fig. 1.

The catch is provided with the projection g^4 (Fig. 3), having an opening h therethrough. The lower end of the locking-bolt (Figs. 1 and 2), is also provided with a projection or nose-part h' also having an opening h^2 which provides for the attachment of a locking-seal h^3 indicated in dotted lines. The upper end of bolt D is also provided with an opening h^4 at which point another seal can be attached as indicated.

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

1. In a door fastener, the combination of a securing plate adapted for attachment to the door, said plate being provided with a central cylindrical hub having an angular bore, and being cut away at its edge on one side to provide stop shoulders, a catch plate loosely pivoted upon the hub and having a catch at its outer end and a stop lug projecting between the shoulders on the securing plate, and a bolt passing through the said two plates, said bolt having an angular neck portion to fit the bore of the hub and prevent the securing plate from turning, and a head to overlap the end of the hub and hold the securing plate to the door and the catch plate to the securing plate; substantially as described.

2. In a door fastener of the character described, the combination of a vertically arranged bolt-plate having guide straps, a locking bolt sliding in said straps, said bolt having a central longitudinal slot through which the bolt for fastening the plate to the door frame passes to guide and limit the movement of the sliding lock-bolt; substantially as described.

3. In a door fastener of the character described, the combination of a disk-plate adapted to be secured to the door, a bevel-ended catch pivoted upon a central hub of the plate, a vertically anchored bolt-plate adapted to be secured to the frame of the door, and a bevel-ended locking bolt sliding in guide straps on said plate, the catch and the locking bolt being provided with projections g^4, h', respectively, adapted for the attachment of a seal lock; substantially as described.

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